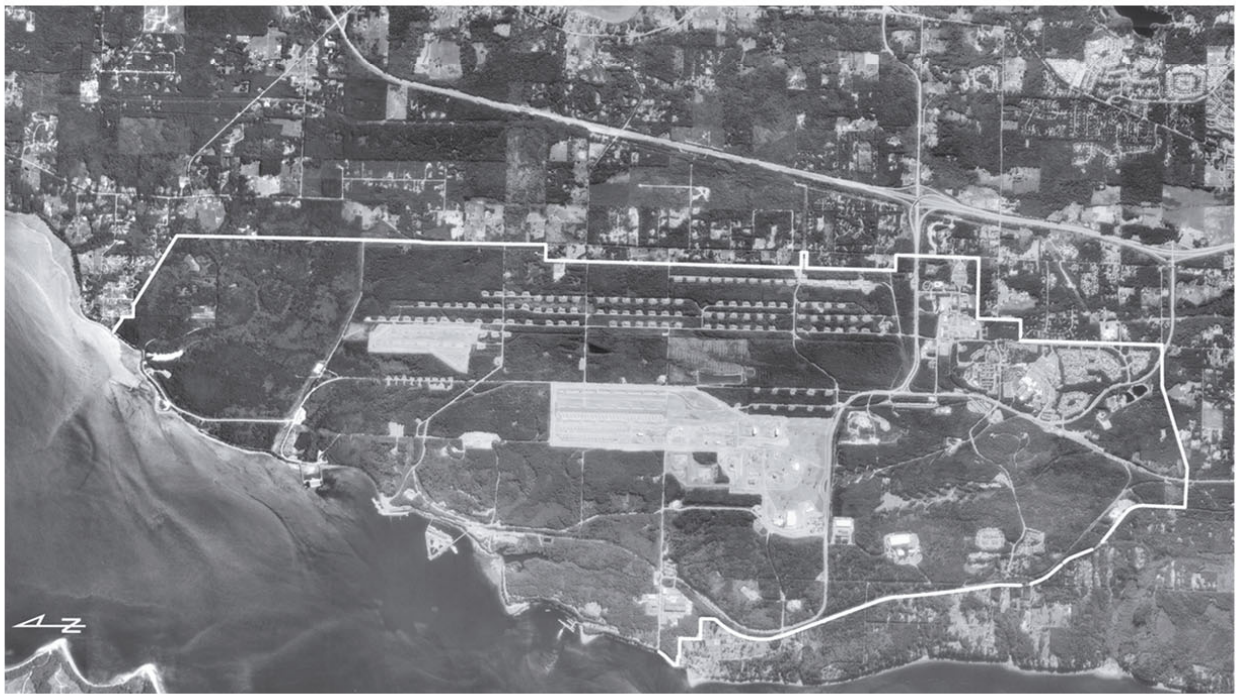
FINAL
August 2020

Fifth Five-Year Review

Naval Base Kitsap Bangor
Bangor, Washington

Department of the Navy
Naval Facilities Engineering Command Northwest
1101 Tautog Circle
Silverdale, WA 98315



EXECUTIVE SUMMARY

The fifth five-year review (FYR) of the remedial actions at Operable Units (OUs) 1, 2, 3, 6, 7 and 8 at Naval Base Kitsap (NBK) Bangor, Washington has been completed pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Oil and Hazardous Substances Pollution Contingency Plan (40 Code of Federal Regulations Part 300). No further action was recommended for OUs 4 and 5 (U.S. Navy, USEPA, and Ecology, 1993 and 1994a); therefore, these OUs are not included in the FYR.

The purpose of this FYR is to ensure that the remedial actions selected in the Record of Decisions (RODs) for OUs 1, 2, 3, 6, 7, and 8 at NBK Bangor remain protective of human health and the environment. A FYR is required because the selected remedial actions or remedies allow contaminants to remain in place at concentrations that do not allow for unlimited use and unrestricted exposure.

This FYR report was prepared as part of the CERCLA FYR process using U.S. Navy and U.S. Environmental Protection Agency (USEPA) guidance (U.S. Navy, 2004, 2011a, 2013a, 2014a; USEPA, 2001, 2012, and 2016) and documents the results of the review, issues identified, and recommended actions. This FYR report is also organized in accordance with recommendations from USEPA's 2016 recommended template (USEPA, 2016).

Based on the technical assessment, the remedies at OUs 1, 2, 3, 6, 7, and 8 at NBK Bangor are functioning as intended by the RODs; exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of ROD execution are still valid, and no other information has come to light that could call into question the protectiveness of the remedy at this time. The groundwater remedies at OUs 1, 2, and 8 are not meeting RAOs as quickly as originally intended by the RODs. As a result of this FYR process, issues (and subsequent recommendations) that do not affect protectiveness have been identified for OUs 1, 2, and 8.

Remedy construction was completed at OUs 1 through 8 in 2001. The Navy has completed implementation of 12 of the 14 recommendations that affected protectiveness from the fourth FYR and is continuing to work toward completion of the remaining two recommendations regarding optimization of the remedies at OU 1 Site A and OU 2 Site F. The current status of the OUs and the protectiveness statements are included in Table ES-1.

Table ES-1. Functionality and Protectiveness Summary

Operable Unit	Question A: Is the remedy functioning as intended by the decision document?	Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the decision document still valid?	Question C: Has any other information come to light that could call into question the protectiveness of the remedy?	Protectiveness Determination
OU 1, Site A	Yes	Yes	No	Protective
OU 2, Site F	Yes	Yes	No	Protective
OU 3, Site 16/24	Yes	Yes	No	Protective
OU 3, Site 25	Yes	Yes	No	Protective
OU 6, Site D	Yes	Yes	No	Protective
OU 7, Site B	Yes	Yes	No	Protective
OU 7, Site E/11	Yes	Yes	No	Protective
OU 7, Site 10	Yes	Yes	No	Protective
OU 8, Sites 27, 28, and 29	Yes	Yes	No	Protective

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name (from WasteLAN): Naval Base Kitsap Bangor		
EPA ID (from WasteLAN): 110000771219		
Region: 10	**State:** WA	**City/County:** Kitsap
SITE STATUS		
NPL Status: Operable Units (OUs) 1 through 8		
Multiple OUs? Yes, at all OUs (1 through 8)	**Has the site achieved construction completion?** Yes, remedy construction is complete for all OUs at NBK Bangor (1 through 8) and has been complete since 2001.	
REVIEW STATUS		
Lead agency: U.S. Navy		
Author name (Federal or State Project Manager): Malcolm Gander		
Author affiliation: Naval Facilities Engineering Command Northwest		
Review period: May 2014 through July 2019		
Date of site inspection: June 19, 2019		
Type of review: Statutory		
Review number: 5		
Triggering action date: September 11, 2015		
Due date: September 11, 2020		
Issues/Recommendations		
OU(s) without Issues/Recommendations Affecting Protectiveness Identified in the Five-Year Review:		
OUs 1, 2, 3, 6, 7, and 8		
Protectiveness Statement(s)		
Operable Unit: 1	**Protectiveness Determination:** Protective	**Addendum Due Date:** Not applicable
Protectiveness Statement: The remedy at OU 1 Site A protects human health and the environment because land use controls (LUCs) prevent exposure to groundwater with concentrations of contaminants of concern (COCs) exceeding remediation goals (RGs), the groundwater plume is stable, pumping and treatment of groundwater containing COCs is ongoing, and groundwater monitoring is performed to assess the extent of the plume.		

Operable Unit: 2	**Protectiveness Determination:** Protective	**Addendum Due Date:** Not applicable

Protectiveness Statement:
The remedy at OU 2 Site F protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the pump and treat system contains the plume, and groundwater monitoring is performed to assess the extent of the plume.

Operable Unit: 3	**Protectiveness Determination:** Protective	**Addendum Due Date:** Not applicable

Protectiveness Statement:
The remedy at OU 3 is protective of human health and the environment. The remedy for Site 16/24 soil consisted of a residential land use restriction. The remedy for Site 25 groundwater consisted of groundwater monitoring, which met the requirements of the OU 3 ROD in 1997 and was discontinued at that time. Inspections of the LUCs at Site 16/24 have been conducted regularly, and the current land use remains in accordance with the restrictions defined in the OU 8 ROD (which established the basewide LUCs). Therefore, the selected remedy for OU 3 is functioning as intended by the ROD. No RAO was established in the OU 3 ROD (U.S. Navy, USEPA, and Ecology, 1994b).

Operable Unit: 6	**Protectiveness Determination:** Protective	**Addendum Due Date:** Not applicable

Protectiveness Statement:
The remedy at OU 6 is protective of human health and the environment. The remedy for Site D included excavating soil from the burn trench, screening and composting the excavated soils at an on-base treatment facility, backfilling the treated soils into the excavation area, grading and revegetation, and surface water and groundwater sampling. The remedy components for soil removal and treatment, surface water monitoring, and groundwater monitoring at OU 6 functioned as intended by the ROD, and no institutional control (IC) was required for OU 6. These actions effectively meet the RAOs established in the OU 6 ROD.

Operable Unit: 7	**Protectiveness Determination:** Protective	**Addendum Due Date:** Not applicable

Protectiveness Statement:
The remedy at OU 7 is protective of human health and the environment. The remedy for Site B (Floral Point) included covering areas of contaminated soil, installing shoreline protection and stormwater drainage systems to control erosion, monitoring sediment and clam tissue, and installing signs notifying visitors that the site is to be used for recreational purposes only and approval is required for digging or mowing. The remedy for soil at Site E/11 included disposal of stockpiled soil and metal debris, grading the site, and backfilling with clean topsoil. The remedy for Site 10 included ongoing long-term maintenance of the asphalt pavement cover, groundwater monitoring, groundwater use restrictions, and expansion of the area of asphalt cover to include soils contaminated with arsenic, cadmium, lead, and polychlorinated biphenyls (PCBs). These remedy components functioned as intended by the ROD. LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs at Sites E/11 and 10, LUCs and engineering controls prevent exposure to contaminated soil at Sites B and 10, and groundwater monitoring is performed to assess the extent of contaminated groundwater at Site E/11 (as part of OU 2 Site F groundwater monitoring). The LUCs and groundwater monitoring components of the remedy are functioning as intended by the ROD. These actions effectively meet the RAOs established in the OU 7 ROD.

Operable Unit: 8	**Protectiveness Determination:** Protective	**Addendum Due Date:** Not applicable

Protectiveness Statement:
The remedy at OU 8 protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the extent of the groundwater plume is decreasing, and groundwater monitoring is performed to assess the extent of the plume.

Sitewide Protectiveness Statement (if applicable)

Protectiveness Determination:	**Addendum Due Date:**
Protective	Not applicable

Protectiveness Statement:
The remedies at NBK Bangor protect human health and the environment because LUCs and/or ECs prevent exposure to contaminated media, groundwater plumes are stable and/or contained by pump and treat systems, and groundwater monitoring is performed to assess the extent of groundwater plumes.

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SIGNATURE PAGE

Signature sheet for the Naval Base Kitsap Bangor Fifth Five-Year Review report.

17 Sept. 2020

R. G. Rhinehart
Captain, U.S. Navy
Commanding Officer, Naval Base Kitsap

Date

Acting CO
CDR Denham

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ACRONYMS AND ABBREVIATIONS

AFFF	aqueous film forming foam
ARAR	applicable or relevant and appropriate requirement
AWQC	ambient water quality criteria
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	chemical of concern
CLARC	Cleanup Levels and Risk Calculation
CRP	community relations plan
CSM	conceptual site model
DCA	dichloroethane
DCE	dichloroethene
DCP	dichloropropane
DDT	dichlorodiphenyltrichloroethane
DNB	1,3-dinitrobenzene
DNT	dinitrotoluene
DOC	dissolved organic carbon
EC	engineering control
Ecology	Washington State Department of Ecology
EDB	dibromomethane
ESD	explanation of significant difference
EVO	emulsified vegetable oil
FFS	focused feasibility study
FS	feasibility study
FYR	five-year review
GAC	granular activated carbon
gpm	gallon per minute
HH	human health
IC	institutional control
ICMP	Institutional Controls Management Plan
IRIS	Integrated Risk Information System
LNAPL	light non-aqueous phase liquid
LOD	limit of detection
LOQ	limit of quantitation

LTM	long-term monitoring
LUC	land use controls
MCL	maximum contaminant level
MEC	munitions and explosives of concern
MMRP	Military Munitions Response Program
MNA	monitored natural attenuation
MSL	mean sea level
MTCA	Model Toxics Control Act
NAVFAC NW	Naval Facilities Engineering Command Northwest
Navy	U.S. Navy
NBK	Naval Base Kitsap
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NESDI	Navy Environmental Sustainability Development to Integration
NPL	National Priorities List
NRL	Naval Research Laboratory
NSZD	natural source zone depletion
NTR	National Toxics Rule
O&M	operation and maintenance
OM&M	operation, maintenance, and monitoring
OU	operable unit
PA	preliminary assessment
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PFAS	per- and polyfluoroalkyl substances
PGDN	propylene glycol dinitrate
PLC	programmable logic controller
ppm	part per million
PQL	practical quantitation limit
PWIA	Public Works Industrial Area
RAB	Restoration Advisory Board
RACR	remedial action completion report
RAO	remedial action objective
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RfD	reference dose
RG	remediation goal
RI	remedial investigation
ROD	Record of Decision
RPM	remedial project manager
RSL	regional screening level
SAP	Sampling and Analysis Plan

SVOC	semivolatile organic compound
TCA	trichloroethane
TCRA	time-critical removal action
TNT	trinitrotoluene
TPH	total petroleum hydrocarbons
UCONN	University of Connecticut
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
UU/UE	unlimited use and unrestricted exposure
VOC	volatile organic compound
WAC	Washington Administrative Code
WET	whole effluent toxicity

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1.0 INTRODUCTION

This report presents the results of the fifth five-year review (FYR) performed for the Naval Base Kitsap (NBK) Bangor National Priorities List (NPL) site, more commonly known simply as NBK Bangor. NBK Bangor is located on the Kitsap peninsula in Kitsap County, Washington, at a location on Hood Canal approximately 10 miles north of Bremerton (Figure 1-1).

The purpose of a FYR is to determine whether the remedies selected for implementation in the Records of Decision (RODs) for a site remain protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. This report was prepared as part of the CERCLA FYR process using U.S. Navy and USEPA guidance (U.S. Navy, 2004, 2011a, 2013a, 2014a; USEPA, 2001, 2012, and 2016) and documents the results of the review, issues identified, and recommended actions.

This FYR was prepared pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP; 40 Code of Federal Regulations [CFR] Part 300.430(f)(4)(ii)). CERCLA Section 121 states the following:

> If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

This FYR was initiated in May 2019 and is based on analytical data generated between May 2014 and July 2019 and published in reports reviewed by regulatory agencies. The triggering action for this review was the fourth FYR (U.S. Navy, 2015a), which was finalized in September 2015. Previous FYRs were completed in 2000, 2005, and 2010 (U.S. Navy, 2000a, 2005a, and 2010a). The FYR has been prepared because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE). As a result, a statutory review is required under CERCLA. CERCLA requires FYR upon completion of the remedial action, when hazardous substances, pollutants, or contaminants will remain on site.

There are eight operable units (OUs) at NBK Bangor (Figure 1-2). The Bangor Ordnance Disposal Site (OU 1 Site A) was added to the NPL in July 1987, and Bangor Naval Submarine Base Site (OUs 2, 3, 4, 5, 6, 7, and 8) was added to the NPL in August 1990. Because no further action was recommended for OUs 4 and 5 (U.S. Navy, USEPA, and Ecology, 1993 and 1994a), these OUs are not included in the FYR. This report covers the remedies selected in the signed RODs for OUs 1, 2, 3, 6, 7, and 8 (U.S. Navy, USEPA, and Ecology, 1991a, 1994b, 1994c,

1994d, 1996, and 2000a). Munitions Response Program site EO300's ROD remedy (U.S. Navy, USEPA, and Ecology, 2014) has been completed and the site has met the requirements for UU/UE. The remedial action completion report (RACR) was completed in 2017 (U.S. Navy, 2017m). The Pogy Road Detonation Site has also been completed and the site has met the requirements for UU/UE (U.S. Navy, 2005b; Ecology, 2005). Therefore, EO 300 and Pogy Road Detonation Site are not included in the FYR beyond descriptive information in this section. Site-wide CERCLA investigations under the Military Munitions Response Program (MMRP) began during this FYR period, and a preliminary assessment (PA) was conducted in 2017. This PA was submitted for regulatory review in early 2020, after the data review period for this FYR. Following regulatory review of the PA the Navy will continue with the MMRP CERCLA process and the status of the process will be presented in the next FYR.

This FYR is organized in accordance with recommendations from USEPA's 2016 recommended template (USEPA, 2016) and has been streamlined to minimize information that has been presented in the previous four FYRs. The intent is to focus on the actions, monitoring, and issues over the last 5 years and recommendations and protectiveness for the next 5 years. To facilitate this effort, references are provided in the appropriate sections of this document that will lead the reader to the background and supporting information pertaining to that section.

The sites that make up OUs 1, 2, 3, 6, 7, 8, Pogy Road Detonation Site, and EO 300 are listed in Table 1-1 and shown on Figures 1-3 through 1-10. Figure 1-11 depicts the chronology of events at each OU and site wide. Table 1-2 summarizes the physical characteristics of these sites, including land and resource use, history of contamination, initial responses, and the basis for taking action at each of the sites. A more in-depth description of each OU is available in Section 3 of the fourth FYR (U.S. Navy, 2015a).

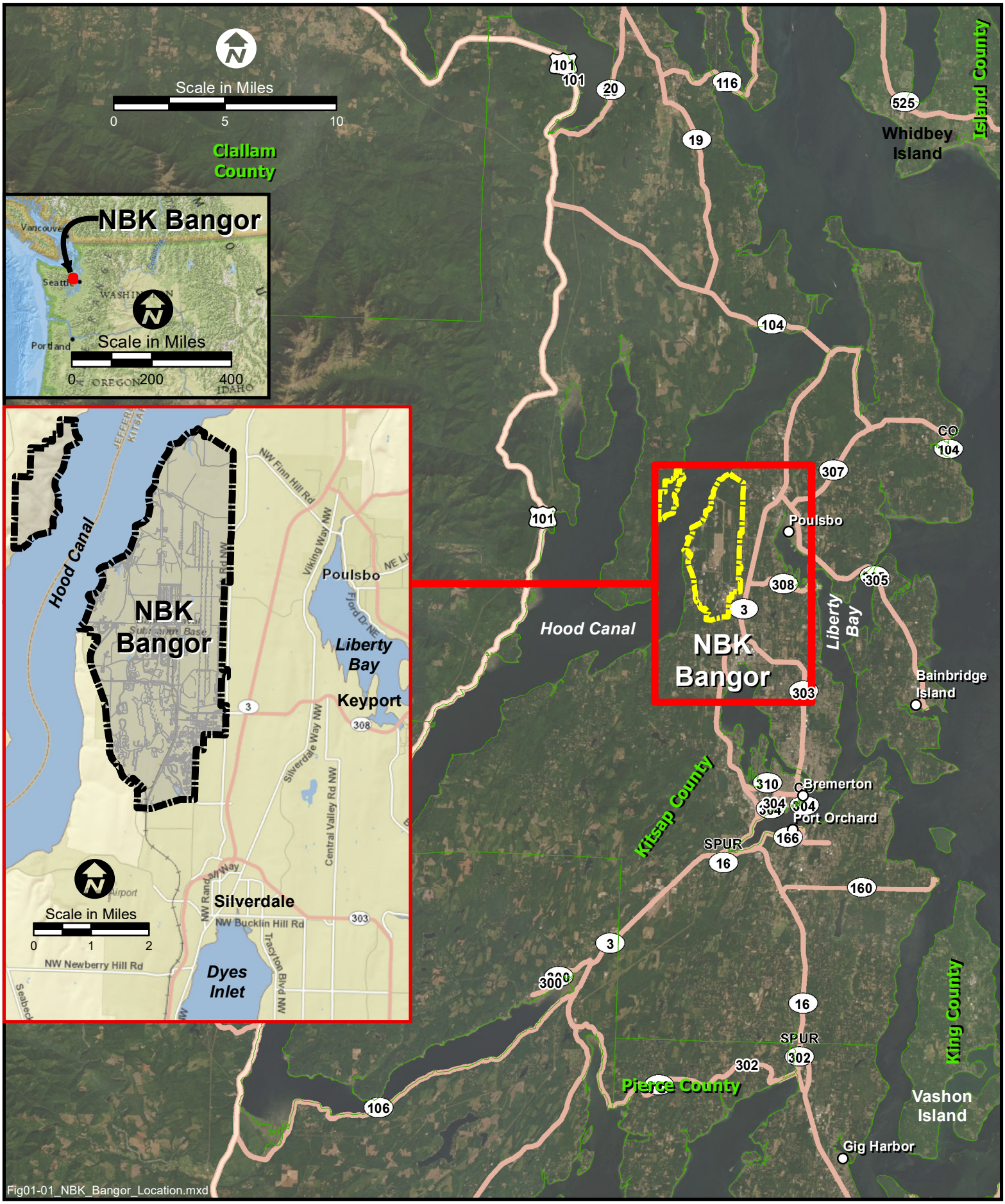
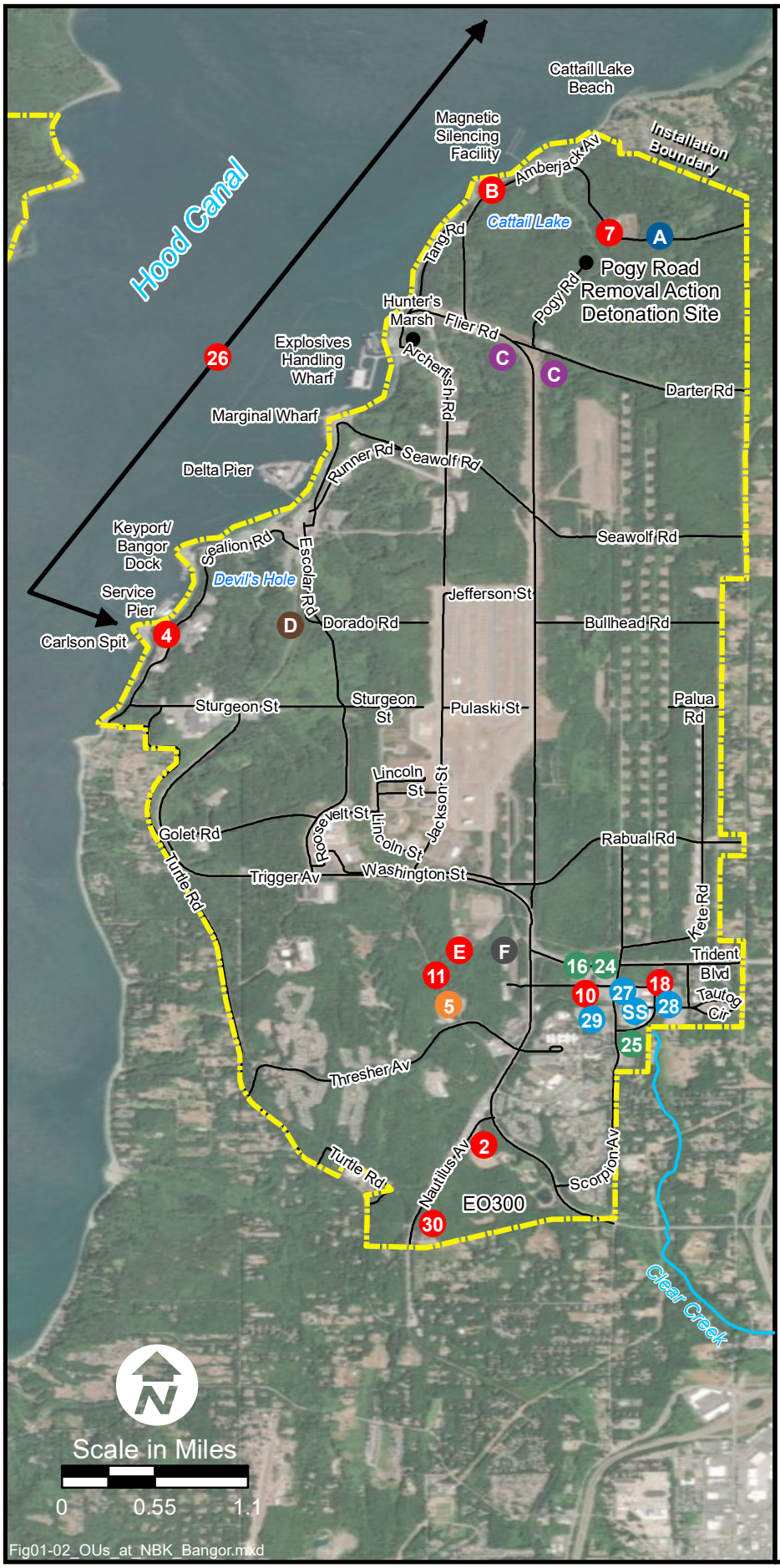


Fig01-01_NBK_Bangor_Location.mxd

U.S. NAVY	Figure 1-1 Location Map for NBK Bangor	NBK Bangor FIFTH 5-YEAR REVIEW



OPERABLE UNIT 1 (OU 1)
Site A Bangor Ordnance Disposal Site

OPERABLE UNIT 2 (OU 2)
Site F Former Wastewater Location

OPERABLE UNIT 3 (OU 3)
Site 16 Drum Storage Area
Site 24 Former Incinerator Site
Site 25 Former Treatment Plant Outfall

OPERABLE UNIT 4 (OU 4 – No Further Action)
Site C-West Bldg 7700 Fill Area
Site C-East Ordnance Wastewater Disposal Area

OPERABLE UNIT 5 (OU 5 – No Further Action)
Site 5 Former Metallurgy Lab Rubble

OPERABLE UNIT 6 (OU 6)
Site D Munitions Burn Area

OPERABLE UNIT 7 (OU 7)
Site B Floral Point
Site E Acid Disposal Pit
Site 2 Classification Yard/Fleet Deployment Parking
Site 4 Carlson Spit
Site 7 Old Paint Can Disposal Site
Site 10 Pesticide Storage Quonset Huts
Site 11 Pesticide/Herbicide Drum Disposal Area
Site 18 PCB Spill Site
Site 26 Hood Canal Sediments
Site 30 Railroad Tracks

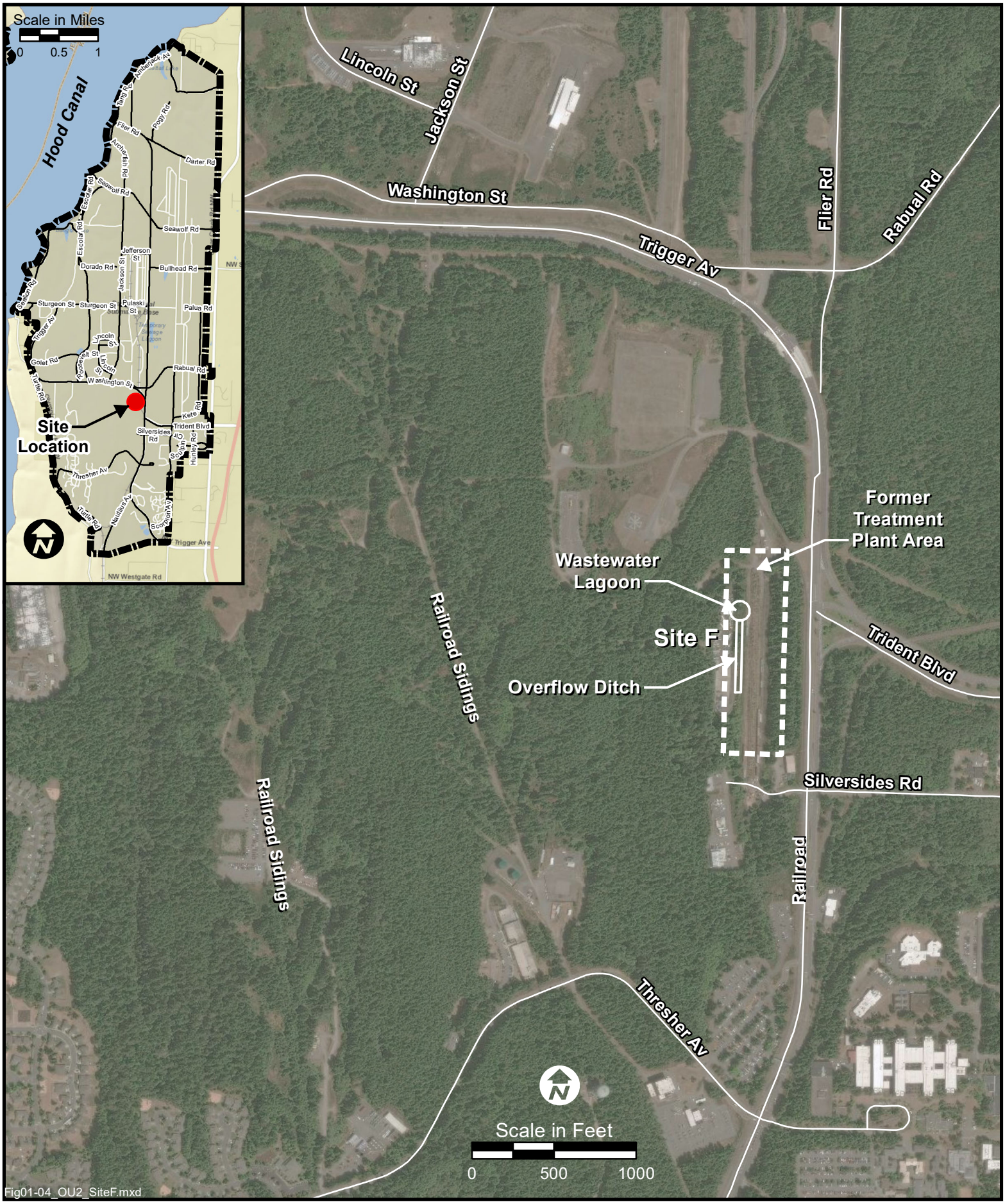
OPERABLE UNIT 8 (OU 8)
Site 27 Steam Cleaning Pit
Site 28 Paint Shop Drainage Ditch
Site 29 Public Works Maintenance Garage
SS Public Works Industrial Area Service Station

EO300 Small Arms Ranges
Pogy Road Removal Action Detonation Site

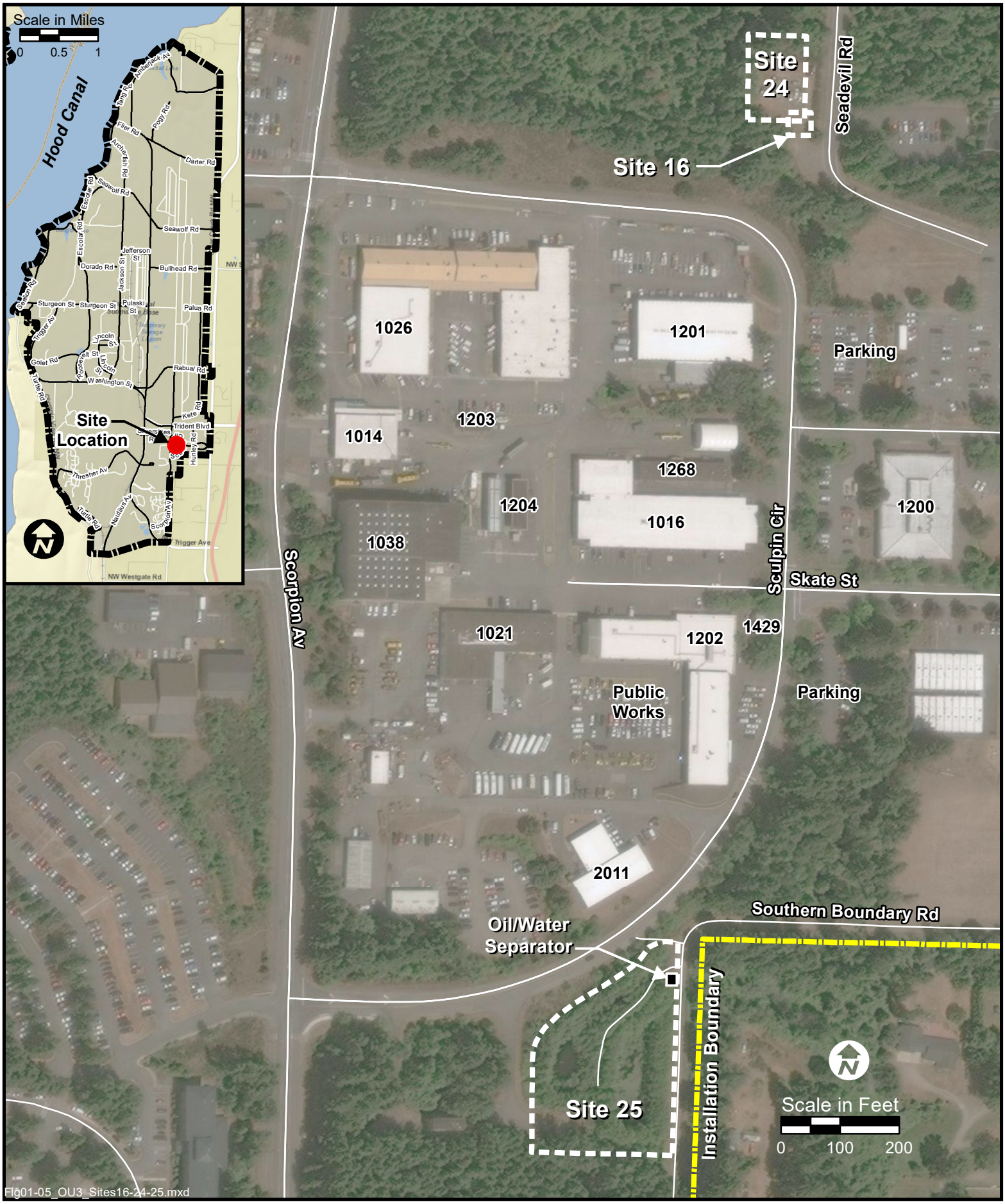
U.S. NAVY	**Figure 1-2** **Operable Units at NBK Bangor**	NBK Bangor FIFTH 5-YEAR REVIEW



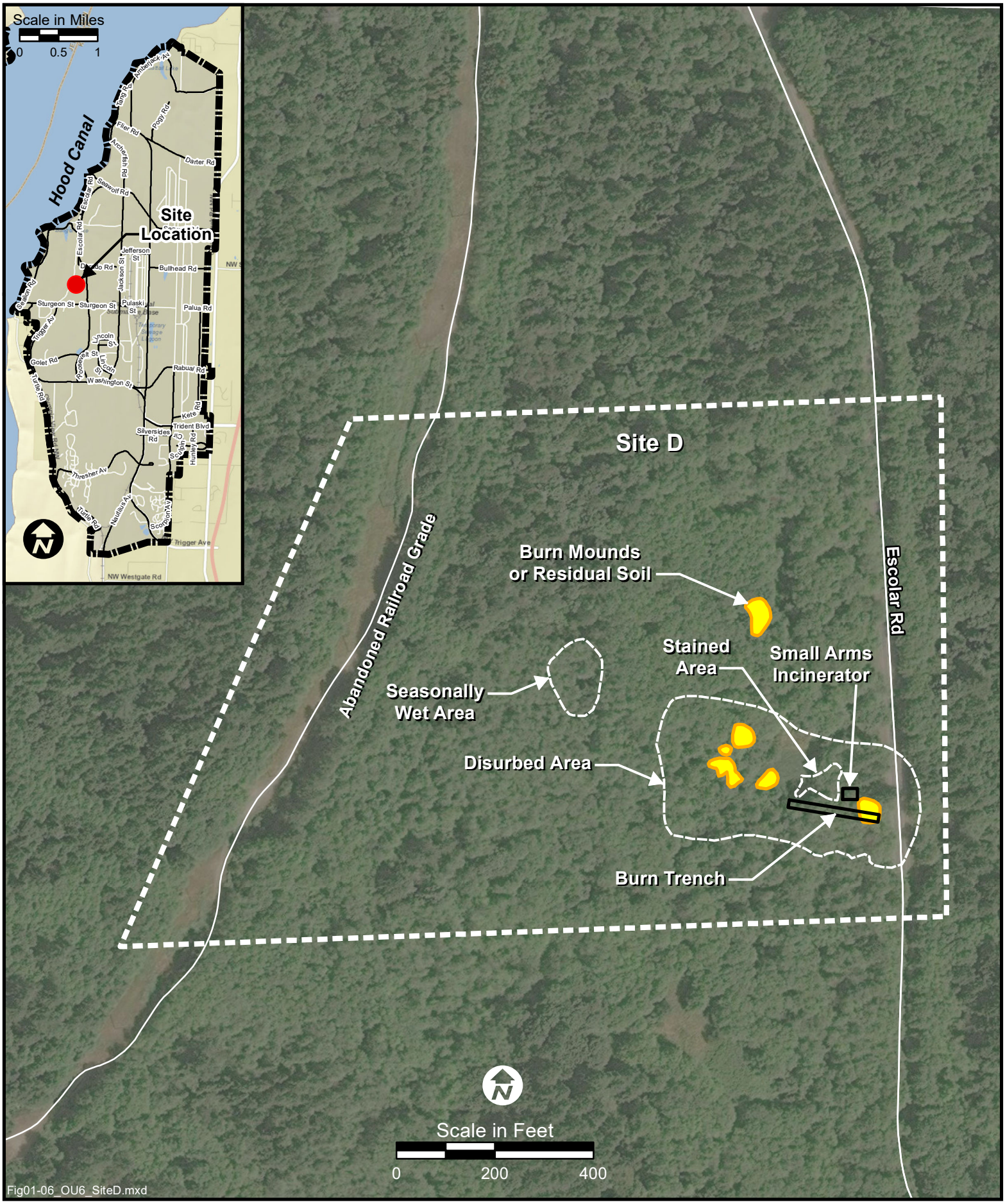
U.S. NAVY	Figure 1-3 OU 1, Site A Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



U.S. NAVY	Figure 1-4 OU 2, Site F Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



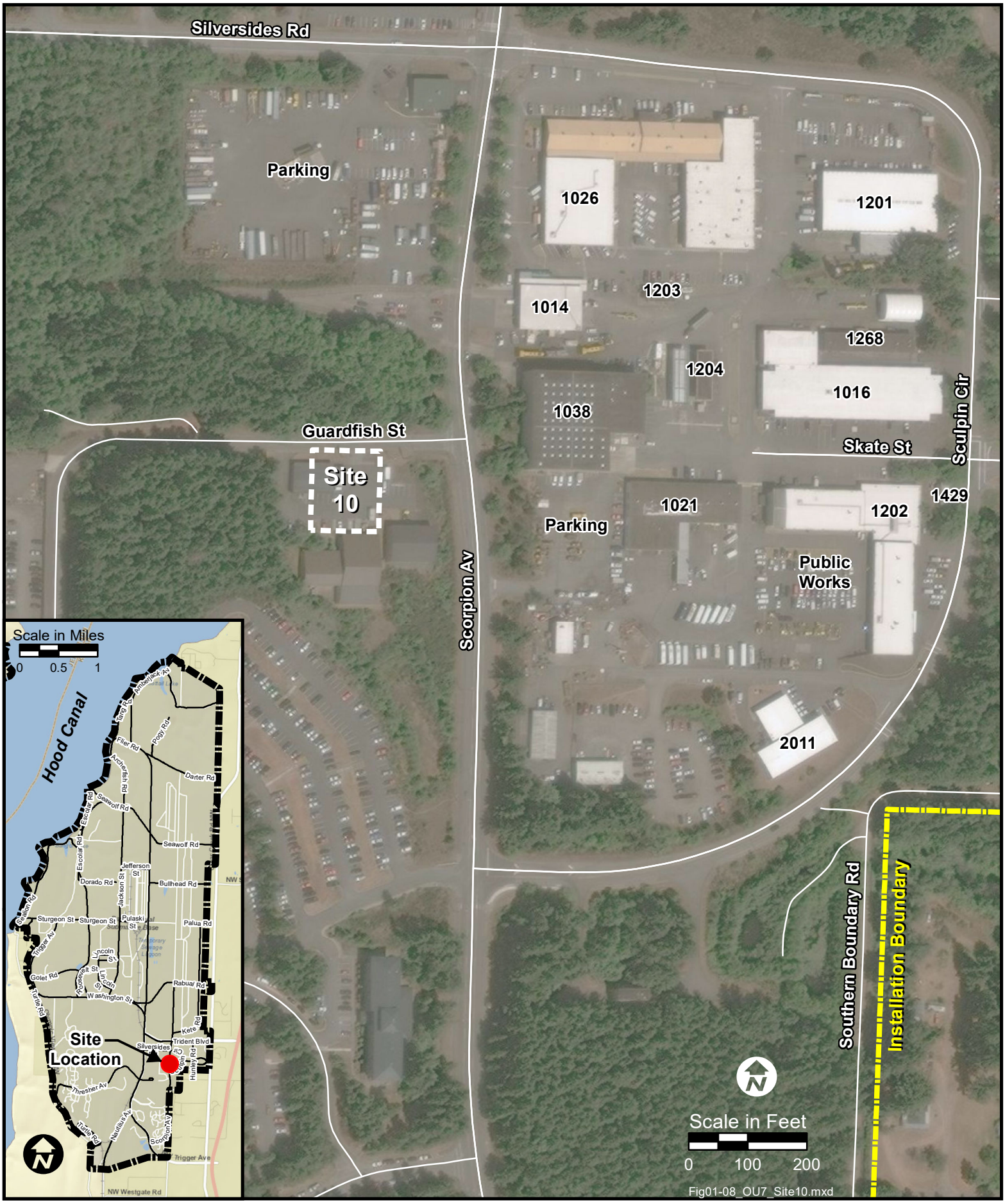
U.S. NAVY	Figure 1-5 OU 3, Sites 16/24 and 25 Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



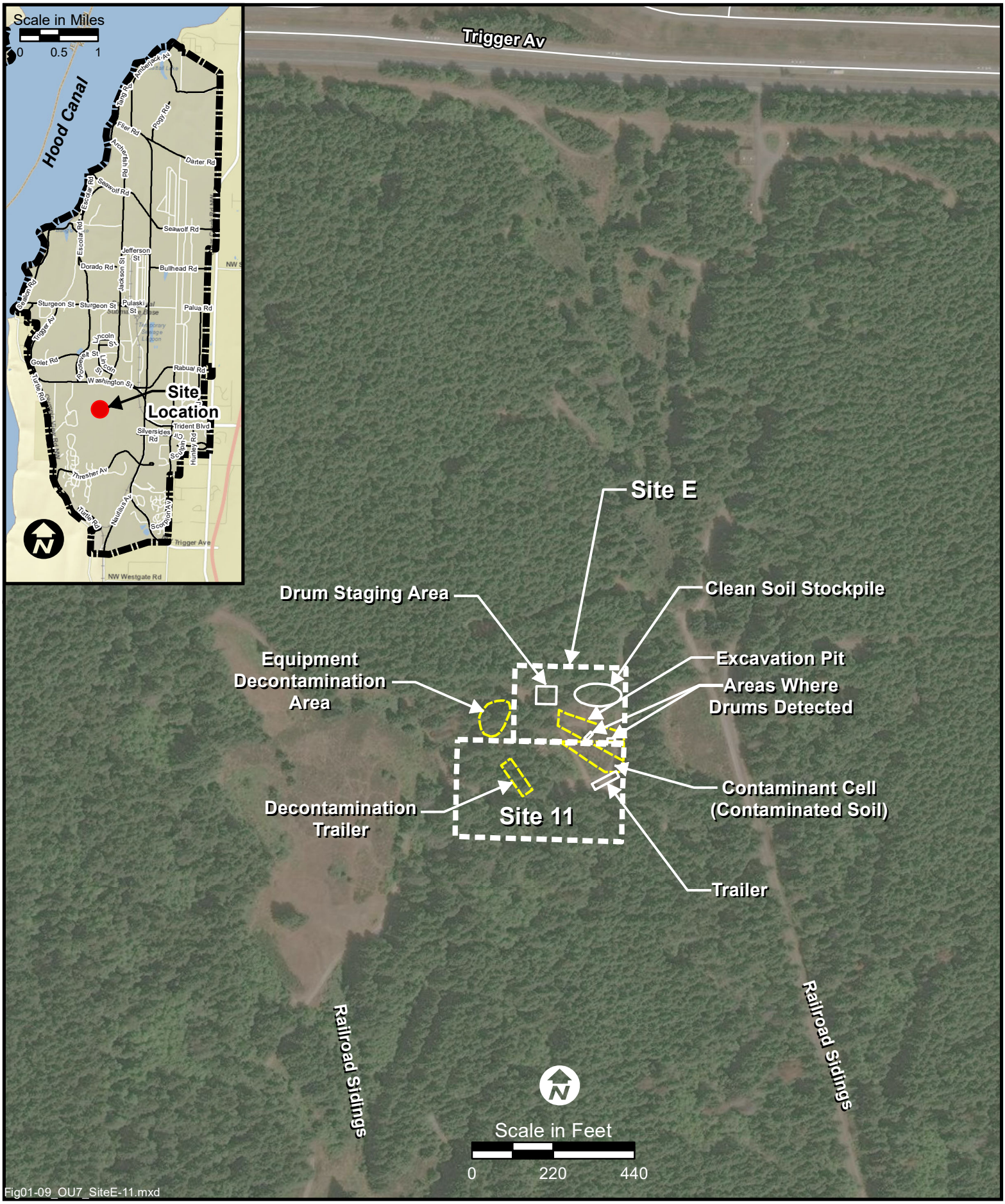
U.S. NAVY	Figure 1-6 OU 6, Site D Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



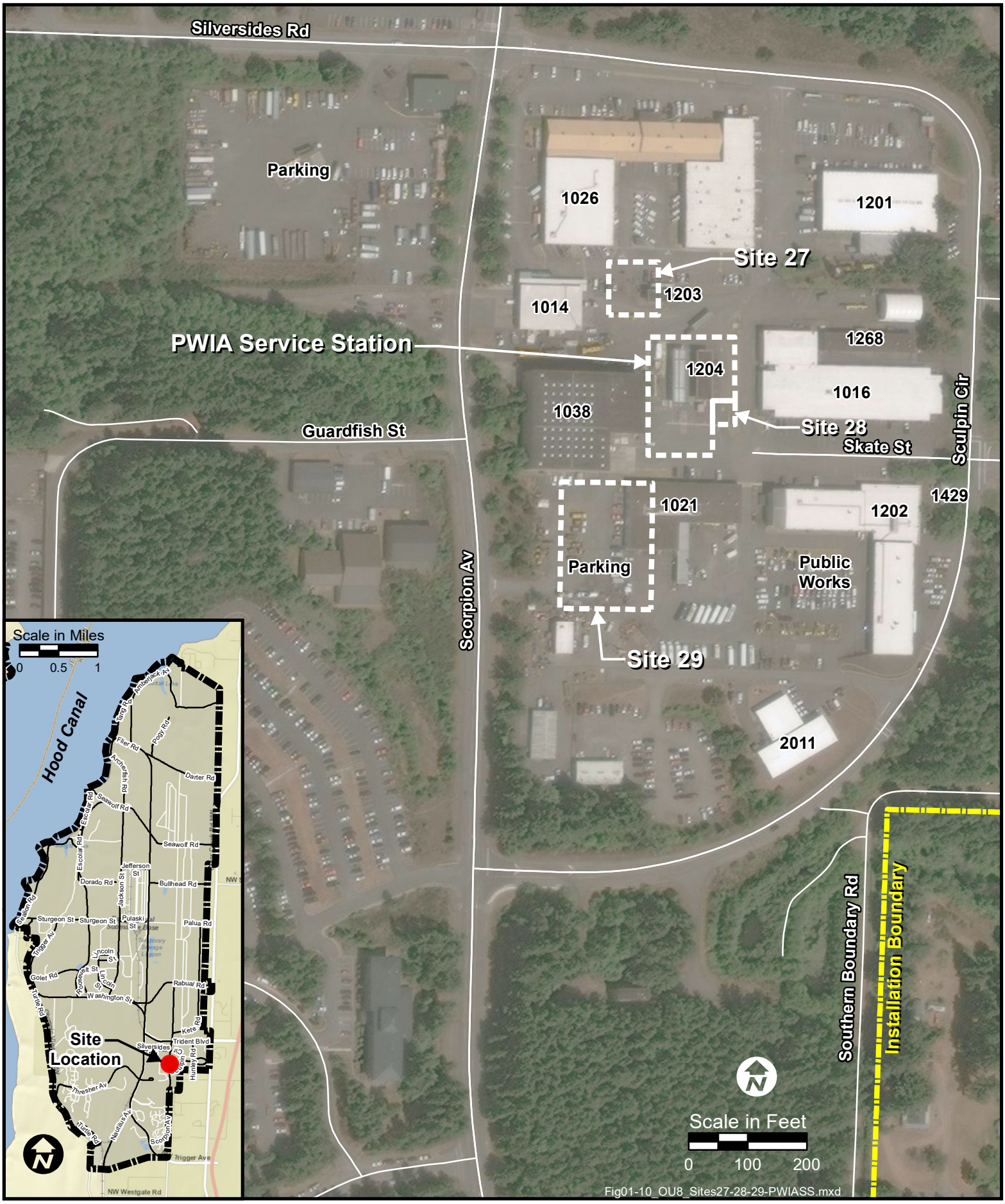
U.S. NAVY	Figure 1-7 OU 7, Site B Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



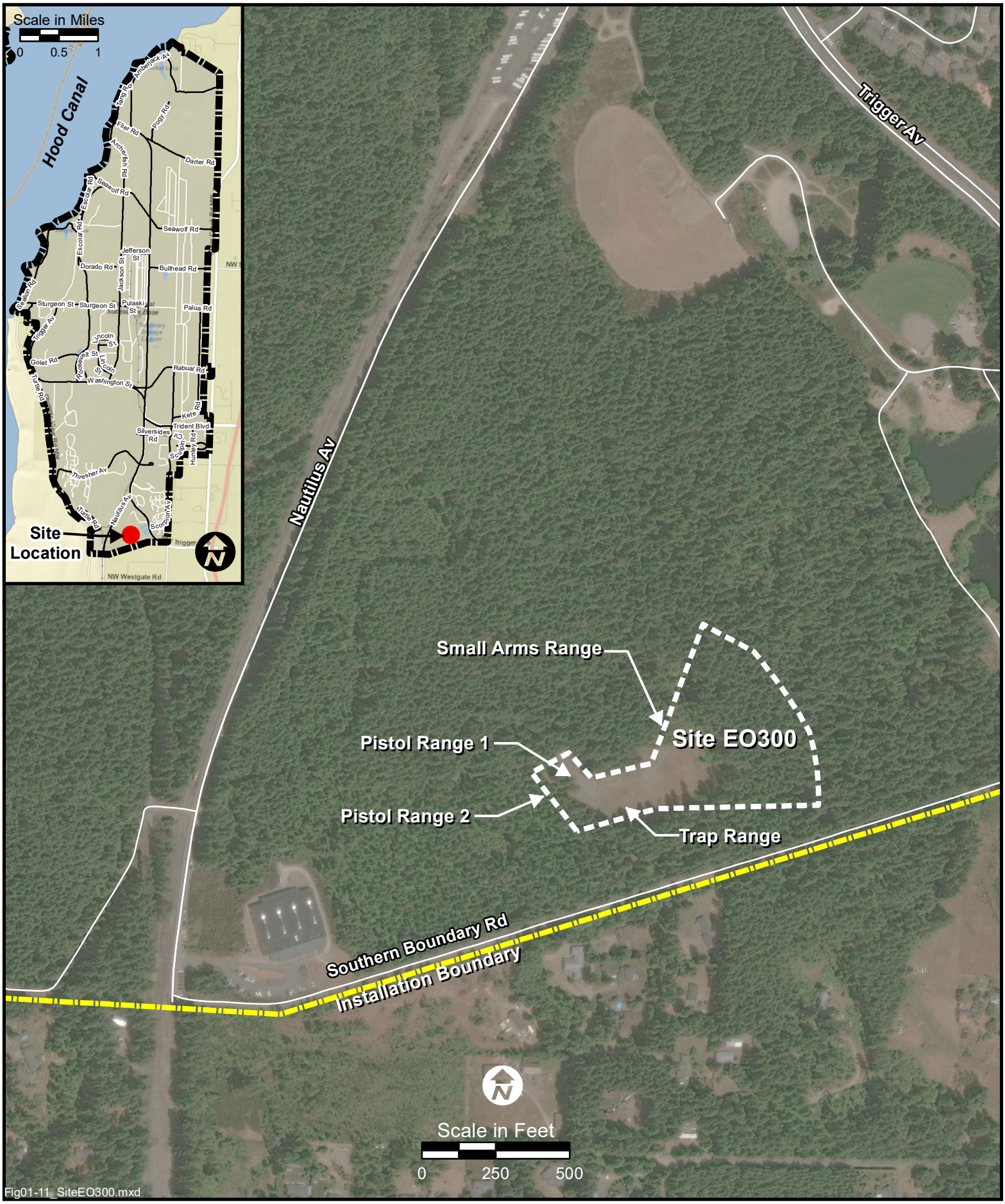
U.S. NAVY	Figure 1-8 OU 7, Site 10 Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



U.S. NAVY	Figure 1-9 OU 7, Site E/11 Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



U.S. NAVY	Figure 1-10 OU 8, Sites 27, 28, 29, and PWIA Service Station Location Map	NBK Bangor FIFTH 5-YEAR REVIEW



U.S. NAVY	Figure 1-11 Site EO300 Location Map	NBK Bangor FIFTH 5-YEAR REVIEW

Table 1-1. Operable Units and Areas at NBK Bangor

Operable Unit	Area
Operable Unit 1 (Figure 1-3)	Site A, Bangor Ordnance Disposal Site
Operable Unit 2 (Figure 1-4)	Site F, Wastewater Lagoon and Overflow Ditch
Operable Unit 3 (Figure 1-5)	Site 16/24, Former Solid- and Liquid-Waste Incinerators and Drum Storage Area
	Site 25, Former Sewage Treatment Plant Outfall from the Public Works Industrial Area (PWIA)
Operable Unit 6 (Figure 1-6)	Site D, Former Ordnance Disposal Area
Operable Unit 7 (Figures 1-7 through 1-9)	Site B, Floral Point
	Site 10, Pesticide Storage Quonset Huts
	Site E/11, Acid Disposal Pit (Site E) and Pesticide/Herbicide Drum Disposal Area (Site 11)
Operable Unit 8 (Figure 1-10)	Site 27, Steam Cleaning Pit
	Site 28, Paint Shop Drainage Ditch
	Site 29, Public Works Maintenance Garage
Other Sites[1]	Pogy Road Detonation Site, Emergency Ordnance Treatment Site
	EO300, Pistol Ranges and Trap Range

[1]Sites EO300 and Pogy Road Detonation Site have met the requirements for unrestricted use and unrestricted exposure. These sites are therefore not included in this FYR beyond the descriptive information in Section 1.

Table 1-2. Background Information Summary for NBK Bangor

Site	History of Contamination	Physical Characteristics	Primary Threat	Land and Resource Use	Removal Actions Performed
Operable Unit 1					
Site A - Bangor Ordnance Disposal Site	• From 1962 to 1975, the Navy used Site A to detonate and incinerate various ordnance materials, and soil, surface water, and shallow groundwater were contaminated as a result of these activities. • The site included burn mounds, facilities for personnel, fire-suppression vehicles and equipment, an incinerator for ammunition, and a blast pit for ordnance detonation. • The groundwater plume in the shallow aquifer, at the time of the ROD, extended approximately 250 feet west from the leach basin.	• Located in the northern portion of NBK Bangor. • Divided into three areas: (1) burn area, (2) debris areas 1 and 2, and (3) stormwater discharge area. • Ground elevations range from 150 to 180 ft above mean sea level (MSL). • Surface water flows northerly and westerly and eventually discharges to Hood Canal. • Groundwater at the site consists of a perched zone at depths from 10 to 20 ft below ground surface (bgs) and a shallow unconfined aquifer at depths from 70 to 90 ft bgs. The perched zone is in a localized deposit of recessional outwash. A lower permeability glacial till separates the perched zone from the unconfined aquifer which consists of stratified sand/silt deposits. • Groundwater flows west-northwest, discharging into the Cattail Lake drainage.	Burn area: • Potential unacceptable risks to site workers from exposure to soil and groundwater contaminated with ordnance compounds. • Potential unacceptable risks to hypothetical future residents from exposure to soil contaminated with ordnance compounds and polychlorinated biphenyls (PCBs) and groundwater contaminated with ordnance compounds. • Potential unacceptable risk to terrestrial wildlife from exposure to soil contaminated with ordnance compounds. Debris area 2: • Potential unacceptable risks to site workers from exposure to soil contaminated with ordnance compounds and PCBs. • Potential unacceptable risk to terrestrial wildlife from exposure to soil contaminated with lead. Debris area 1 and stormwater discharge area: • No unacceptable risk was identified for debris area 1 or the stormwater discharge area.	• The site is currently not being used and is fenced to prevent unauthorized access. • Undeveloped forest land is located immediately adjacent to the site. • Residential development (Vinland) is located approximately 2,000 feet to the north.	Although not performed as a removal action under CERCLA, the following activities were performed: • Buildings at the site were demolished and burned on site in 1977. • A stormwater diversion structure was constructed in 1983 to convey surface water discharges from the burn area to Hood Canal to minimize the potential migration of contamination to Vinland.
Operable Unit 2					
Site F - Wastewater Lagoon and Overflow Ditch	• From approximately 1960 to 1972, the Navy used the former wastewater lagoon and overflow ditch for the disposal of wastewater produced during the demilitarization of ordnance items in the adjacent segregation facility building. • Much of the wastewater, which contained high concentrations of ordnance compounds, apparently infiltrated through the unlined bottom of the lagoon and overflow ditch. As a result, both soil and shallow groundwater were contaminated with ordnance compounds. • The groundwater plume in the shallow aquifer, at the time of the ROD, extended 4,900 feet northwest from the former lagoon. • The sea level aquifer has not been impacted by ordnance compounds.	• Located in the south-central portion of NBK, approximately 1.5 miles from Hood Canal. • Ground elevation ranges from 300 to 400 ft above MSL. • Groundwater in the shallow aquifer is present approximately 50 ft bgs and is between 60 and 100 ft thick. • Groundwater flows northwest, discharging via seeps into an unnamed creek that flows toward Hood Canal. • A deep aquifer is encountered between 80 and 100 ft below the bottom of the shallow aquifer.	• Potential unacceptable risks to hypothetical future residents from exposure to soil and groundwater contaminated with ordnance compounds. • Potential ecological risks to sensitive aquatic species if ordnance contamination in the shallow aquifer were to reach the aquifer discharge area (seeps near the western base boundary).	• The paved portion of the former lagoon area is currently used by the recycling facility and for vehicle parking and container storage. • Undeveloped forest land is located immediately adjacent to the site.	Although not performed as a removal action under CERCLA, the following activities were performed: • While the lagoon was in active service, it was periodically allowed to drain, and waste materials at the surface were “burned off” in place or transported to Site A for burning and disposal. • In February 1972, 500 cubic feet of soil were excavated from the top several feet of the former lagoon and taken to Site A for burning. • In 1980, the former lagoon area was backfilled and covered with asphalt.
Operable Unit 3					
Site 16/24 - Former Solid- and Liquid-Waste	• Between 1973 and 1983, the Navy used the liquid-waste incinerator for burning demilitarization	• Located in the southeastern portion of NBK in the vicinity of the PWIA. • Ground elevation is approximately 325 ft	• Concentrations of metals in soil at Site 16/24 exceeded Model Toxics Control Act (MTCA) cleanup levels.	• The site is fenced and generally used	• Although not performed as a removal action under

Table 1-2 (continued). Background Information Summary for NBK Bangor

Site	History of Contamination	Physical Characteristics	Primary Threat	Land and Resource Use	Removal Actions Performed
Incinerators and Drum Storage Area	wastewater from Site F, Otto fuel wastewater, and waste solvents. The solid-waste unit burned solid waste, including rags, sawdust, and protective clothing and carbon filters contaminated with Otto fuel. • Surface soil at Site 16/24 was contaminated as a result of these activities.	above MSL with surface sloping gently down to the north and steeply to the south. • A small drainage swale extends along the western side of the site and drains to the south. • The shallow aquifer generally flows south.		for vehicle parking and construction-related storage. • Undeveloped forest land is located immediately to the north, south, and west of the site. • The PWIA is located approximately 150 feet to the southwest.	CERCLA, both incinerators at Site 16/24 were deactivated in 1983 and removed from the site in 1987.
Site 25, Former Sewage Treatment Plant Outfall from the PWIA	• From 1942 to 1977, the Navy discharged treated sewage from the industrial and barracks areas of NBK Bangor to the central branch of Clear Creek via an outfall at Site 25. • Groundwater at Site 25 was contaminated as a result of this activity.	• The site is downgradient of Site 16/24. • Ground elevation is approximately 275 ft above MSL. • Provides treatment of stormwater prior to its discharge into the central branch of Clear Creek, an ephemeral stream located off base to the southeast of the site. • Clear Creek ultimately discharges to Dyes Inlet of Puget Sound. • Stormwater treatment includes two earthen stormwater detention/retention ponds (covering ~ 1.2 acres) and an oil/water separator. • The shallow aquifer generally flows south.	• Concentrations of metals in groundwater at Site 25 exceeded MTCA cleanup levels. • Potential unacceptable ecological risks to aquatic biota from exposure to surface water and sediment in the headwaters of Clear Creek's central branch (adjacent to Site 25), where some chemical concentrations exceeded state water and/or sediment quality criteria.	• The site is currently being used for stormwater detention and consists of two earthen stormwater detention/retention ponds and an oil/water separator. • The PWIA is located just to the north of the site, a solid waste transfer station is located southwest of the site, and a residential area outside the base boundary is located to the southeast.	• Although not performed as a removal action under CERCLA Site 25 was regraded during construction of the stormwater detention ponds currently located at the site.
Operable Unit 6					
Site D - Former Ordnance Disposal Area	• From 1946 until 1963, Site D served as the principal area for burning, detonating, and possibly burying ordnance at NBK Bangor. Soil, sediment, surface water, and shallow groundwater were contaminated as a result of these activities. • The site included a small arms incinerator, burn trench, and smaller burn areas or mounds.	• Located in the west-central portion of NBK, approximately 0.5 mile east of Hood Canal. • Ground elevation ranges from ~100 to 180 ft above MSL and the land surface slopes from the vicinity of Escolar Road down to the abandoned railroad grade. • Surface water enters the site from two ephemeral drainages and one perennial stream and leaves via an ephemeral drainage to Devil's Hole Lake to the northwest. • A perched water zone sits on lower permeability glacial till at or near the ground surface. • The shallow groundwater aquifer under the	• Concentrations of volatile organic compounds (VOCs) in groundwater exceeded MTCA cleanup levels. • Concentrations of metals in surface water exceeded MTCA cleanup levels. • Potential unacceptable risks to hypothetical future residents from exposure to soil contaminated with ordnance compounds. • Potential unacceptable risk to terrestrial wildlife from exposure to soil contaminated with ordnance compounds and possibly metals.	• The site is currently undeveloped. • Undeveloped forest land is located immediately adjacent to the site.	• None

Table 1-2 (continued). Background Information Summary for NBK Bangor

Site	History of Contamination	Physical Characteristics	Primary Threat	Land and Resource Use	Removal Actions Performed
		perched water zone flows toward the west-northwest.			
			Operable Unit 7		
Site B - Floral Point	• In the 1950s and 1960s, pyrotechnic testing and black powder burning was reportedly performed at Floral Point. • From approximately 1950 to 1968, the Navy used Floral Point for station dumping, including pit disposal, landfilling, and trash burning. • In 1966 to 1967, the site was reportedly used for open burning of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) and trinitrotoluene (TNT) residuals from Site F. • Soil and groundwater were contaminated as a result of these activities.	• Located at the northern end of NBK Bangor and covers ~5 acres. • The average elevation is 14 ft above MSL, with the surface sloping gently up from the shoreline to the center of the site at 25 ft above MSL. • There are no surface water drainages due to high permeability of soil at the site. • Groundwater is saline because of tidal mixing and is non-potable.	• Potential unacceptable risks to hypothetical future residents from exposure to soil contaminated with polycyclic aromatic hydrocarbons (PAHs), PCBs, and metals. • Potential unacceptable risk to plants, soil invertebrates, and mammals from exposure to soil contaminated with metals.	• The site is currently used as a recreational area (boat ramp) by base personnel. • The beach south of Floral Point is used by base personnel for shellfish harvesting every 3 to 5 years, on a rotational basis with other base beaches. • The beach at and to the north of Floral Point is not used for shellfish harvesting because of the lack of suitable sediment substrate. • Undeveloped forest land is located immediately to the east of the site.	• None
Site E/11 - Acid Disposal Pit (Site E) and Pesticide/Herbicide Drum Disposal Area (Site 11)	• From 1960 to 1973, the Navy reportedly disposed of electroplating wastes and Otto fuel in an unlined pit at Site E (acid disposal site). • In 1968 or 1969, the Navy used Site 11 as a pesticide/herbicide disposal area, where empty, rinsed pesticide containers were buried between two barricaded railroad siding areas. • Soil and groundwater were contaminated as a result of these activities.	• Located in the south-central portion of NBK Bangor. • Elevation is ~325 ft above MSL, and the site slopes gradually down toward the northeast. • The site is located in the upper reaches of the Clear Creek drainage area, but does not drain directly into the creek. • The shallow aquifer appears to flow toward the northeast; there is no perched groundwater at the site.	• Potential unacceptable risks to site workers and hypothetical residents from exposure to stockpiled soil contaminated with pesticides. • Potential unacceptable risks to hypothetical future residents from exposure to groundwater contaminated with petroleum hydrocarbons (Otto fuel). • Potential unacceptable risk to mammals from exposure to stockpiled soil contaminated with pesticides.	• The site is currently not being used and is fenced to prevent unauthorized access. • Undeveloped forest land is located immediately adjacent to the site.	• In 1992, a time-critical removal action (TCRA) was initiated at Site 11, during which 85 containers were removed together with approximately 400 cubic yards of soil containing pesticides. • Excavated soil was stockpiled on site.
Site 10 - Pesticide Storage Quonset Huts	• Prior to 1979, the two former wooden floor Quonset huts were used to store pesticides and herbicides. • Groundwater was found to be contaminated. However, the source of contamination was most likely the PWIA. • In 2008 during a construction project at Site 10, soil in an unpaved area of the site was found to contain chemicals at concentrations above the	• Located west of the PWIA in the southeastern portion of the NBK Bangor. • Elevation is ~300 ft above MSL. • The shallow groundwater appears to flow toward the southeast under a gentile gradient trending roughly parallel to the area topographic gradient; there is no perched groundwater at the site.	• Potential unacceptable risks to hypothetical future residents from exposure to groundwater contaminated with petroleum hydrocarbons. • Concentrations of metals and PCBs in soil exceeded the MTCA Method A soil cleanup level for unrestricted land use.	• The site is currently a paved parking lot for Buildings 2011 and 2012. • Undeveloped forest land is located immediately north, east, and west of the site.	• Although not performed as a removal action under CERCLA, the Quonset huts were demolished in 1983 and reportedly disposed of in the former barricaded railroad siding area.

Table 1-2 (continued). Background Information Summary for NBK Bangor

Site	History of Contamination	Physical Characteristics	Primary Threat	Land and Resource Use	Removal Actions Performed
	MTCA Method A soil cleanup level for unrestricted land use.			• The PWIA is located approximately 200 feet east of the site, and one of the site buildings and a parking area are located south of the site.	
Operable Unit 8					
Site 27 - Steam Cleaning Pit; Site 28 – Paint Shop Drainage Ditch; Site 29 – Public Works Maintenance Garage	• Site 27 is the location of a former steam cleaning pit that consisted of an excavated sump filled with gravel used to collect and dispose of steam cleaning condensate generated from locomotive maintenance in Building 1014 and may have been used for the disposal of spent solvents, waste oils, and pesticides. • Site 28 is the location of a former paint shop (located in the vicinity of existing Building 1204) that was used by public works personnel to mix and apply paint and where waste materials from the paint shop were reportedly disposed of in a ditch adjacent to the building and/or dumped behind the building. • Site 28 is also the current location of the PWIA service station, where a gasoline release from an underground storage tank (UST) was discovered in 1986. • Site 29 is the location of an area historically used to rinse neutralized pesticide containers on the west side of Building 1021 and perform routine service on trucks and other vehicles. • Soil and groundwater were contaminated as a result of site activities. • Light nonaqueous phase liquid (LNAPL) was present beneath the PWIA service station, and the groundwater plume extended approximately 2,000 feet southeast from the gas station into the Mountain View residential neighborhood at the time of the ROD.	• Located in the southeastern corner of NBK Bangor and consist of ~150 acres of land. • Elevations range from ~275 to 300 ft above MSL, and the site slopes gradually down toward the southeast. • The PWIA, which is part of the site, is near the headwaters of the central branch of Clear Creek, which flows to Dyes Inlet. • The central branch is an ephemeral stream that is confined to stormwater culverts beneath the paved surfaces of the PWIA. • The shallow aquifer is ~120 ft thick throughout most of the site and the depth to groundwater is ~5 to 65 ft bgs. • The general direction of groundwater flow is to the southeast.	• Potential unacceptable risks to off-base residents and to hypothetical future on-base residents from exposure to groundwater contaminated with VOCs (drinking water pathway and crop irrigation only, no vapor intrusion risks).	• The site currently includes the PWIA, and land use is industrial. • Residential development (Mountain View neighborhood) is located approximately 100 feet to the southeast of the PWIA.	Although not performed as a removal action under CERCLA, the following activities were performed: • When the steam cleaning pit at Site 27 was full, the grease and residue were hauled away to an unknown location for disposal. • From 1986 to 1998, LNAPL was recovered from the vicinity of the PWIA service station using a free-product recovery system that consisted of three product-recovery wells equipped with pneumatic pumps, an oil/water separator, and an aboveground holding tank. • From 1992 to 1996, several USTs were removed or abandoned in place to prevent further releases to the subsurface, based on the results of tightness tests performed on USTs in the PWIA. • From 1994 to 2000, a combined soil vapor extraction and bioventing system were used in the vicinity of the gasoline release at the PWIA service station to remediate petroleum-contaminated soil. The following two removal actions were performed under CERCLA: • In 1995, the Navy connected the Mountain View

Table 1-2 (continued). Background Information Summary for NBK Bangor

Site	History of Contamination	Physical Characteristics	Primary Threat	Land and Resource Use	Removal Actions Performed
					neighborhood, southeast of the base boundary, to a municipal water supply. • From 1996 to 1999, the Navy installed and operated a groundwater containment system to minimize off-base plume migration into the Mountain View residential neighborhood.
Other Sites					
Pogy Road Detonation Site - Emergency Ordnance Treatment Site	• On January 10, 2001, the site was used for emergency treatment of selected ordnance items recovered during a TCRA involving the clearance of munitions and explosives of concern (MEC) at Jackson Park Housing Complex. • Soil was contaminated with ordnance compounds as a result of the emergency detonation of MEC.	• Located in the northern portion of NBK Bangor at the northern terminus of Pogy Road.	• Ordnance compounds.	• Undeveloped forest land surrounds the site.	• An independent cleanup action in 2005 was completed to remove soil under the MTCA regulations. • The closure report concluded based on confirmation results that no residual contamination exists at or near risk-based cleanup levels identified for the cleanup action.
EO300 - Pistol Ranges and Trap Range	• EO300 is a 7-acre site comprising two former pistol ranges and a trap range. Both pistol ranges contained a 15-ft tall earthen backstop berm. • The ranges were used for both training and recreational purposes from the late 1940s until the late 1970s. • Small arms (primarily .38- and .45-caliber) and shotguns (12-, 16-, and 20-gauge) were used at the range. • A tar pitch was used at the site to make clay pigeon targets, creosote-treated wood was used for the timber footings of demolished storage sheds at the pistol ranges, and bullets and slugs fired at the ranges were determined to be the main sources of contamination at the site.	• Located in the southern portion of NBK Bangor, west-southwest of the Trident Lakes. • The site is relatively flat, with elevations of approximately 300 ft above MSL. • Vegetation consists of low-lying mixed grasses on the range floor surrounded by upland forest. • Surface runoff is very limited with most surface water being infiltrated into the permeable surface soils.	• Unacceptable human health risks were estimated for hypothetical future residential exposure to surface soil at Site EO 300 due to carcinogenic PAHs, lead, and dioxins/furans • Unacceptable risk to terrestrial invertebrates, plants, and birds were estimated due to lead.	• The site will continue to be used for recreational purposes for the foreseeable future.	The following removal actions were performed during the 2009 TCRA: • Removal of soils at the pistol ranges (from berms and the range) with high lead concentrations (>250 mg/kg). • Removal of a concrete pad, soil underneath the pad, two storage sheds, and a canopy over a firing point.

Remedial actions performed after the RODs were signed are presented in Section 2.0 of this FYR.

2.0 RESPONSE ACTION SUMMARY

The RODs for NBK Bangor required remedial actions for six OUs (1, 2, 3, 6, 7, and 8). This section summarizes the ROD-specific remedial action objectives (RAOs), ROD-specified remedies, remedy components and implementation, and current, ongoing operation, maintenance, and monitoring (OM&M) requirements for each of these OUs. A more detailed narrative description of the response actions at NBK Bangor is available in Section 4 of the fourth FYR (U.S. Navy, 2015a).

Three Explanations of Significant Differences (ESDs) (U.S. Navy, USEPA, and Ecology, 1994e, 1998, and 2000b) were completed for the OU 1 (Site A) ROD. The first ESD made changes/clarifications to the Site A soil and groundwater remediation requirements described in the OU 1 (Site A) ROD (U.S. Navy, USEPA, and Ecology 1994e). The second ESD made additional changes to the original remedy by changing the passive leaching system to bioremediation (composting) and changing ultraviolet/ oxidation groundwater treatment to granular activated carbon (GAC) treatment (U.S. Navy, USEPA, and Ecology, 1998). Finally, the third ESD addressed the discharges of untreated leachate exceeding cleanup levels from the leach basin to surface water (U.S. Navy, USEPA, and Ecology, 2000). One ESD was also prepared for OU 2 (Site F) (U.S. Navy, USEPA, and Ecology, 1994f), which documented changes to the OU 2 Site F interim remedial action selected remedy.

The operation and maintenance (O&M) costs for each OU are summarized for this FYR period in Table 2-1. Table 2-2 provides a remedial action summary by OU and site. The table shows contaminants of concern (COCs), relevant media, cleanup levels, RAOs, remedy components, construction status, and site closeout strategy by area.

The response actions and OM&M conducted from 2014 to 2019 are described below.

2.1 Operable Unit 1 (Site A)

This section focuses on the remedy implementation; action subsequent to remedy implementation; and OM&M for OU 1 (Site A) (Figure 2-1).

2.1.1 OU 1 Site A Remedy Implementation

The remedy for Site A soil was implemented from October 1992 through September 1997. During this time implementation of the soil remedy included the following components:

- Fourteen monitoring wells abandoned by pressure grouting.
- Ordnance-contaminated surface soils excavated and stockpiled.
- A lined soil-washing basin constructed in the resulting excavation.
- Stockpiled soils amended with sand and calcium chloride to improve permeability and placed in soil-washing basin.

- Passive soil leaching conducted.
- Leachate collected and treated with GAC.
- Upon closure, untreated basin leachate diverted into the storm water diversion system.

Groundwater remediation began in May 1997 and is ongoing. Implementation of the groundwater remedy includes the following components:

- Extracted groundwater is pumped to the soil leachate treatment system for treatment.
- Treated groundwater is discharged to the stormwater diversion system.

Further information on remedy implementation can be obtained by reviewing Section 4.1 of the third FYR (U.S. Navy, 2010a).

2.1.2 Actions Subsequent to OU 1 Site A Remedy Implementation

Additional investigation actions at OU 1 Site A were recommended in the fourth FYR. Investigation activities conducted during this FYR period in response to those recommendations are described in the subsections below. The status of each of the recommendations from the fourth FYR is described in Section 3.

Additional actions in progress at the time of this FYR (and therefore not discussed in the subsections below) include:

- An estimation of RDX mass balance by the U.S. Army Corps of Engineers (USACE).
- Proteomics analysis of groundwater samples by Battelle.
- Final reports of the results of on-going studies by USACE, the Naval Research Laboratory (NRL), and Navy Environmental Sustainability Development to Integration (NESDI).

2.1.2.1 Biostimulation Pilot Testing

The USACE performed a number of site and laboratory activities during this FYR period to support optimization of the Site A remedy (USACE, 2017a). USACE in situ push-pull tests, involving injection and recovery of dissolved ordnance, can identify and quantify degradation. Coupled with dilution tests by USACE involving bromide as a conservative tracer, RDX injections yielded both distribution coefficient (Kd) values and degradation rates. USACE also installed an infiltration trench in October 2017 for testing in 2018 to evaluate the feasibility of injecting substrate into the perched zone to stimulate bioremediation of explosives. In December 2017, seven wells were installed in the perched zone in support of the USACE biostimulation pilot test in the vicinity of the infiltration trench, along with a shallow-aquifer well (A-MW71) paired next to A-MW46 to support the NESDI ^{15}N isotopic-labeled RDX study (described in Section 2.1.2.2). This testing was also used to observe subsurface conditions and improve the conceptual site model (CSM) of the perched zone in the northwest corner of Site A (USACE, 2017b, 2018). The draft results of the pilot studies were then used in conjunction with additional

site characterization data (Section 2.1.2.3) to perform an assessment of monitored natural attenuation (MNA) in accordance with standard protocols for MNA assessment.

2.1.2.2 RDX Isotope Tracer Testing

NESDI sponsored an isotopically-labeled RDX study conducted by the NRL with assistance from the University of Connecticut (UCONN) that used dual labeling of ^{13}C and ^{15}N isotopic-labeled RDX (NESDI, 2018; NRL, 2019a, 2019b; subsequently referred to as the "NRL pilot study"). Annual long-term monitoring (LTM) sampling in April 2019 served as the baseline followed by labeled RDX injections into perched-zone wells A-MW22, A-MW36, A-MW60R, and shallow aquifer wells A-MW32, A-MW37, A-MW62, and approximately 10 monitoring rounds. Evaluations of these data, which is currently underway, will further the assessment of degradation processes by providing a means for precise quantification of the original compound and its breakdown products.

2.1.2.3 Additional Site Characterization Data

The collection and analysis of additional site characterization data in 2017 and 2018 included logging of soil excavations and soil borings, sampling of temporary and permanent wells, and aquifer tests (U.S. Navy, 2018a). Two new monitoring wells (A-MW62 and A-MW63) were installed, and additional site characterization was performed (U.S. Navy, 2018a). Data collection determined the vertical extent of contamination, identified the base of the shallow aquifer, and filled other gaps in site characterization. A more detailed study of perched zone saturation was conducted in support of CSM refinement. This study was conducted using datalogger-equipped pressure transducers in nine perched zone wells from December 2013 to March 2017. These site-specific field data will support evaluations of MNA and anaerobic biostimulation technologies for ordnance cleanup in the focused feasibility study (FFS).

The pump and treat system was shut down from July 31 to December 1, 2017, then again from January 12, 2018 to September 2018, in support of the USACE and ^{15}N studies (Section 2.1.2.2). Sealaska conducted a site-wide aquifer recovery test to improve aquifer parameter estimation in the January to November 2018 time period.

Results of additional site characterization are reported in the final implementation report (U.S. Navy, 2018a).

2.1.3 OU 1 Site A Operations, Maintenance, and Monitoring

The OM&M program for OU 1 Site A, specified by the OU 1 Site A ROD, consists of OM&M of the groundwater treatment system, monitoring groundwater, and managing and maintaining land use controls (LUCs) implemented for the site. LUC management and maintenance are described in Section 2.7 for all of the sites where LUCs apply. As part of annual LUC inspections, the leach basin liner in the southeast corner has been inspected annually and is intact. The depression observed in soils within the leach basin during the fourth FYR was partially backfilled with leach basin material resulting from drilling and trench excavation and additional backfilling is planned (U.S. Navy, 2019a).

2.1.3.1 Groundwater Treatment System OM&M

Operation of the Site A groundwater treatment system began in December 1994. The objective of the groundwater remediation system at Site A is aquifer restoration and groundwater containment. The process involves pumping groundwater from extraction wells, removing RDX in the aboveground treatment system, and returning the treated water to the shallow aquifer via a reintroduction well or directly to surface water via a stormwater drainage ditch.

OM&M requirements for the groundwater treatment system have been established in the 2014 O&M manual, which was updated using replacement pages in 2015, 2017, 2018, and 2019 during this review period (U.S. Navy, 2014k). OM&M included the following:

- Routine inspection and maintenance of equipment.
- Weekly, quarterly, semiannual, and annual equipment and instrument preventive maintenance.
- Corrective maintenance of equipment as needed.
- Monthly treatment system building inspections.
- Compliance and performance monitoring and sampling, including recording operating parameters, sampling water at various stages within the treatment process, and water level monitoring in wells.

In addition to these OM&M activities, extraction well maintenance was performed during this FYR period in accordance with the 2018 well redevelopment work plan (U.S. Navy, 2018r). Extraction wells A-EW6 and A-EW7 had pumps removed and cleaned, the screens were redeveloped with a surge block and wire brush, and sediment was removed through bailing. A-EW8 was determined to have a broken well screen and was retrofitted with a 2-inch diameter casing inside the 4-inch diameter casing (U.S. Navy, 2019b). Redevelopment of wells was needed to address sediment accumulation in several wells.

An evaluation of the pump and treat system maintenance needs was completed in 2018 and repairs were completed in 2019 regarding a GAC tank level meter; the plant compressor; influent and effluent lines and filters; and extraction well pumps. Additionally, abandonment of the inactive belowground vaults adjacent to the treatment system building was completed. These vaults were formerly used as part of the soil washing remediation system that has been inactive for approximately twenty years (U.S. Navy, 2019a).

Since the fourth FYR, the extraction and treatment system has generally performed as designed, with periodic maintenance and repair completed as necessary.

There were 64.5 days of unscheduled shutdowns of the pump and treatment system due to equipment failures and power outages during this FYR period including:

- 2014: 4 days
- 2015: 34 days
- 2016: 11 days

- 2017: 0 days
- 2018: 1 day
- 2019 (through June): 14.5 days (U.S. Navy, 2019a).

Additional planned shutdowns occurred in order to repair equipment and aquifer testing, including 1 day in 2014, 139 days in 2017, 294 days in 2018, and 4 days in 2019 through June (U.S. Navy, 2019a). Most of the planned shutdowns were due to aquifer tests which occurred from July to December 2017 and January through September 2018. The results of the groundwater treatment system OM&M are documented in the annual LTM and O&M data reports and discussed in Section 4.

2.1.3.2 Groundwater Monitoring

Monitoring of groundwater at Site A is conducted to assess contaminant distribution, compliance with remediation goals (RGs), performance of the groundwater extraction and treatment system, and performance of natural attenuation. Monitoring requirements have been established in the sampling and analysis plans (SAPs) completed during this review period (U.S. Navy, 2014b, 2015b, 2016b, 2017b, 2019i, and 2019g). Performance and compliance monitoring wells include shallow aquifer extraction wells, perched zone monitoring wells, and shallow aquifer monitoring wells, which are shown on Figure 2-1 (U.S. Navy, 2019a). The groundwater was analyzed for ordnance compounds (EPA Method 8330) and natural attenuation parameters (methane, nitrate/nitrite, alkalinity, dissolved organic carbon [DOC], chloride/sulfate, and manganese) and tested for field parameters.

Since the fourth FYR, the monitoring frequency for the perched zone and the shallow aquifer monitoring wells varied depending on the well. The extraction well monitoring frequency (annual) remained the same during this review period. There were no deviations from the sampling plan over this FYR period.

2.2 Operable Unit 2 (Site F)

This section focuses on the remedy implementation; action subsequent to remedy implementation; and OM&M for OU 2 (Site F) (Figure 2-2).

2.2.1 OU 2 Site F Remedy Implementation

The remedy for Site F soil was implemented from summer 1996 through August 1997. During this time implementation of the soil remedy included the following components:

- Contaminated soil was excavated and hauled to the on-base treatment facility for screening and composting.
- Composted soils were used as backfill at Sites F and D.
- The Site F excavation was backfilled with a variety of oversized material from the screening and available broken asphalt.

- An infiltration barrier capped with a concrete pad was placed over the fill.
- A recycling facility was constructed at the site on the concrete pad.

Groundwater restoration began in December 1994 and is ongoing. Implementation of the groundwater remedy included the following components:

- Extracted groundwater is pumped to an on-site treatment system for treatment.
- Treated groundwater is reinjected into the shallow aquifer.

Further information on remedy implementation can be obtained by reviewing Section 4.2 of the third FYR (U.S. Navy, 2010a).

2.2.2 Actions Subsequent to OU 2 Site F Remedy Implementation

Additional investigation actions at OU 2 Site F were recommended in the fourth FYR. Investigation activities conducted during this FYR period in response to those recommendations are described in the subsections below. The status of each of the recommendations from the fourth FYR is described in Section 3.

2.2.2.1 Groundwater Modeling

The Site F groundwater flow and contaminant fate and transport models were updated in 2015 to support remedy optimization at Site F (U.S. Navy, 2015k). Recommendations from the model report were adopted to focus extraction pumping on wells F-EW1, F-EW3, and F-EW7 in the lower wellfield, and wells F-EW5 and F-EW10 in the upper wellfield.

The Navy performed another update to the Site F model in 2019 to assess the use of existing infiltration wells (adjusting locations and rates for infiltration wells; moving the infiltration wells to the west into reactivated wells F-IW3 to F-IW6 and F-IW2A) as a potential improvement to pump and treat operations (U.S. Navy, 2019m). Annual LTM results, along with the modeling runs, indicated that additional monitoring points are not necessary.

2.2.2.2 USACE Treatability Studies

The USACE completed additional fieldwork in 2016 to expand on its initial 2014 treatability study (USACE, undated). Monitoring wells F-DW02, F-DW03, and F-DW04 (Figure 2-2) were installed to support this work (USACE, 2017c). Push-pull tests, which used fructose amendments to evaluate ordnance degradation during summer 2016 were performed at F-DW03, F-MW35, F-MW38, F-MW39, F-MW53, and F-MW59 (Figure 2-2). The tests demonstrated two results:

- Anaerobic RDX degradation following biostimulation can be effective for reducing RDX concentrations in groundwater at Bangor Site F to meet the cleanup objective of 0.8 µg/L.
- Nitroso-RDX derivatives form at low concentrations and are transient under anaerobic test conditions.

A sodium bromide tracer test to determine local groundwater seepage velocities and hydraulic gradient was also conducted at F-MW48 with observations at F-DW01 and F-DW02 (Figure 2-2).

From May to November 2018 USACE conducted a forced-gradient, field-scale cell transport test with introduced anaerobic bacteria into F-DW03 and demonstrated transport of cells over 10 meters and increase in population over a period of months. Accelerated microbial breakdown was also indicated, and biodegradation rates were estimated (Michalsen et al., 2019). During this timeframe a dual-labeled isotope (^{13}C and ^{15}N) study was also conducted at F-DW03, F-MW35, F-MW38, F-MW39, F-MW53, and F-MW59 and reported along with the preliminary results of the USACE biodegradation study (USACE, undated). The final report covering these studies is pending.

2.2.2.3 USACE Bioremediation Project

In 2019, USACE installed four monitoring wells near F-MW48 (southwest of extraction well F-EW5) in preparation of a pilot biodegradation test planned for April 2020 (U.S. Navy, 2019q).

2.2.2.4 Plume Assessment

The Navy performed evaluations in 2018 to assess whether the hotspot (in the vicinity of wells F-MW44 and F-MW48 where RDX concentrations have at times in recent years exceeded 1,000 µg/L) is the result of a surficial release of ordnance in the vicinity of F-MW44 and F-MW48 or if the hotspot is the result of the migration of a contaminant plume that emanated from the original intentional release of ordnance rinse water (U.S. Navy, 2019n).

2.2.3 OU 2 Site F Operations, Maintenance, and Monitoring

The OM&M program for Site F, specified by the OU 2 Site F ROD, consists of OM&M of the groundwater treatment system, monitoring groundwater, and managing and maintaining LUCs implemented for the site. LUC management and maintenance are described for the sites where LUCs apply in Section 2.7.

2.2.3.1 Groundwater Treatment System OM&M

Operation of the Site F groundwater treatment system began in December 1994. The objective of the groundwater remediation system at Site F is aquifer restoration and groundwater containment. The process involves pumping groundwater from extraction wells, removing ordnance compounds in the aboveground treatment system, and returning the treated water to the shallow aquifer via reintroduction wells.

OM&M requirements for the groundwater treatment system have been established in the annual O&M manuals during this review period (U.S. Navy, 2014d, 2018i, and 2019r). The results of the groundwater treatment system OM&M are documented in the annual LTM and O&M data reports and described in Section 4. OM&M included the following:

- Routine inspection and maintenance of equipment.

- Daily, quarterly, semiannual, and annual equipment and instrument preventive maintenance.
- Corrective maintenance of equipment as needed.
- Monthly treatment system building inspections.
- Compliance and performance monitoring and sampling, including recording operating parameters and sampling water at various stages within the treatment process.
- A new programmable logic controller (PLC) was installed in 2015 to improve functionality and data availability. The state-of-the-art PLC can control all functions inside the treatment plant and at the equalization tank. It replaced the original PLC from 1994.
- The pumps and motors of extraction wells F-EW3 and F-EW7 were replaced in 2016 due to mechanical failures or diminished output.
- Also in 2016, the flow totalizers were replaced in extraction wells F-EW5 and F-EW10.
- Well redevelopment was performed at extraction well F-EW1 and infiltration wells F-IW1, F-IW7, F-IW8, F-IW9, and F-IW11 in accordance with the 2016 and 2017 well maintenance work plans (U.S. Navy, 2016m and 2019v). Well maintenance included removing and cleaning pumps, replacing selected pumps, and redeveloping the wells.
- The treatment plant was shut down in late September 2016 and early October through early November 2016 to resolve a system malfunction concerning the GAC tanks.
- The treatment plant was shut down for 5 days in late September and early October 2017 to perform a carbon changeout. Depth to water measurements were collected during this period to record aquifer recovery and static elevations. The measurements support portrayal of the static shallow aquifer potentiometric surface and calculations of specific capacities in extraction and infiltration wells.
- Extraction well F-EW3 was taken offline from March to August 2018 to support a USACE OU 2 Site F Bioaugmentation Pilot Test.

Since the last FYR, the groundwater treatment system has operated dependably since the fall 2013 repairs and upgrades, and with greater stability since installation of the new PLC in March 2015.

Since the fourth FYR, the extraction and treatment system has generally performed as designed, with periodic maintenance and repair completed as necessary. There were no unscheduled shutdowns of the system between September 2015 and June 2019. During May and October 2014 and August 2015, there were 13 days of unscheduled shutdowns from pipe break, RDX detected in effluent, and power outages (U.S. Navy, 2019e). Additional planned shutdowns occurred in order to repair equipment and aquifer testing, including 82 days in 2014, 25 days in 2015, 40 days in 2016, 12 days in 2017, 11 days in 2018, and 3 days in 2019 through June (U.S. Navy, 2019e). Most of the planned shutdowns in 2014 were due to USACE tests which occurred

from January to March 2014. Most of the planned shutdowns after 2014 were for carbon changeout and routine system and well maintenance. An evaluation of the pump and treat system maintenance needs was completed in 2018. The results of the groundwater treatment system OM&M are documented in the annual LTM and O&M data reports and described in Section 4.

2.2.3.2 Groundwater Monitoring

Monitoring of groundwater at Site F is conducted to assess contaminant distribution, compliance with RGs, and performance of the groundwater extraction and treatment system. Because OU 7 Site E/11 lies within the Site F RDX plume, monitoring of Site E/11 is conducted as part of the monitoring at Site F. Monitoring requirements have been established in the SAPs completed during this review period (U.S. Navy, 2014b, 2015c, 2016c, 2017c, 2019h, and 2019j). Performance and compliance monitoring wells are shown on Figure 2-2. The groundwater was analyzed for ordnance compounds (EPA Method 8330) and nitrate/nitrite (EPA Method 353.2) and tested for field parameters. In addition, samples collected from two wells at Site E/11 were also analyzed for propylene glycol dinitrate (the primary constituent of Otto fuel) using the laboratory's standard operating procedure (SOC-OTTO).

Changes that were made to the monitoring frequency over this FYR period are as follows:

- Monitoring frequency was changed from quarterly to semiannually for wells F-MW63, F-MW64, F-MW67, F-MW68, F-MW70 and F-MW71 in 2015 because sufficient monitoring data exist to identify trends, and the downgradient extent of the RDX plume above the cleanup level has been documented to occur between paired wells F-MW67/F-MW68 and F-MW70/F-MW71, and in decreasing concentrations. Well F-MW67 was then changed to annually in 2018.
- Monitoring frequency was changed from biennial to annual in 2019.
- The following wells which are either water level only or elective were sampled in 2019: F-MW21, F-MW25, F-MW26, F-MW28, F-MW34, F-MW43S, F-MW44S, and F-MW55S to support ordnance plume vertical profiling.
- Monitoring frequency was changed from every 5 years to water level only for wells EMW-21U and EMW-23U in 2019, because concentrations of Otto fuel were consistently below the RG. Although Otto fuel monitoring has shown no trend at concentrations at or around the ROD cleanup level of 0.2 µg/L, Otto fuel monitoring will be re-established for every five years to ensure that a clear trend is established in anticipation of a future date when it is necessary to demonstrate compliance at the time of site closure.

The deviations from the sampling plans are as follows:

- In 2016, the USACE planned an additional pilot study at Site F. Current groundwater quality data are important to support the pilot study. Annual groundwater monitoring at Site F occurred in late January and early February 2016. However, the following four wells are on a biennial sampling frequency and were not scheduled for the winter

2016 event: F-MW35, F-MW48, F-MW55, and F-MW59. At the request of NAVFAC Northwest and the USACE, Sealaska collected groundwater samples from the aforementioned wells and analyzed them for ordnance and nitrate/nitrite. The addition also increased the total ordnance environmental samples above 40 (42 total), so an additional field duplicate and matrix spike/matrix spike duplicates were collected for laboratory analysis.

- The pump in extraction well F-EW3 had been inoperable from March 2015 until September 2016 and the well could not be sampled with the pump assembly installed. The well pump was replaced in July 2016 but was not restarted until September 2016 because a USACE treatability test was in progress at the time. Due to the pump assembly, F-EW3, which is typically sampled on an annual basis, could not be sampled in winter 2016.
- Discrepancies in the well-marked F-MW33 for diameter and depth to bottom led to the discovery that well markings for wells F-MW21 and F-MW33 appeared to be switched. Both wells were sampled during the February 2016 event to ensure the correct sample was collected. Subsequently, it was revealed that recent well remarking in August 2015 had inadvertently switched the two labels; labeling was corrected upon discovery on February 3, 2016. In discussion with the Remedial Project Manager (RPM), both samples (F-MW21 and F-MW33) were analyzed and reported.
- In 2018, NAVFAC Northwest and the NRL were conducting a carbon isotope study to help estimate biodegradation rates that are inferred to be occurring at Sites F (NRL, 2018a). The NRL deployed carbon dioxide traps in the following seven Site F monitoring wells from December 6, 2017, to January 22, 2018, to develop data for the study:
  - F-MW43S
  - F-MW42S
  - F-MW41S
  - F-MW24
  - F-MW30
  - F-MW26
  - F-MW22U

  The carbon traps were left undisturbed in each well to obtain relevant data. Therefore, Sealaska was not able to access the wells for sampling or water level measurements during the deployment period (December 6, 2017 to January 22, 2018). As a result, a change to the Site F 2018 annual monitoring was required. Per the SAP (U.S. Navy, 2017c and 2019h), groundwater elevations were collected in January 2017 and April 2019 to support the annual monitoring events. Measurements of water levels are also required quarterly, with additional measurements provided monthly in support of

O&M. At the request of NAVFAC Northwest, Sealaska removed the carbon traps in January 2018 and stored them for later pickup by NRL.

The NRL deployed carbon dioxide traps in the following 12 Site F monitoring wells beginning in May 2018, to develop data for the study:

- F-MW24
- F-MW29
- F-MW30
- F-MW35
- F-MW38
- F-MW39
- F-MW53
- F-MW59
- F-MW41S
- F-MW42S
- F-MW43S
- EMW-22U

At the request of NAVFAC Northwest, Sealaska removed the carbon traps from F-MW24, F-MW41S, F-MW42S, and F-MW43S between October 2018 and January 2019, and stored them for later pickup by NRL. Carbon dioxide traps in the other eight wells were removed in April 2019.

Comparison of the planned to actual groundwater sampling conducted indicates that the groundwater monitoring program has been successfully implemented during this FYR period at Site F.

2.3 Operable Unit 3 (Sites 16/24 and 25)

This section focuses on the remedy implementation and OM&M for OU 3.

2.3.1 OU 3 Remedy Implementation

The remedy for Site 16/24 soil, which consisted of a residential land use restriction, was implemented in 1993 prior to the completion of the ROD by the Commanding Officer of the Naval Submarine Base, Bangor (see Attachment 2 of the ROD [U.S. Navy, USEPA, and Ecology, 1994b]). The Navy prepared an Institutional Controls Management Plan (ICMP) for all of NBK Bangor in 2001 (U.S. Navy, 2001). The 2001 ICMP formalized the LUCs for Site 16/24. The ICMP was revised in 2018 (U.S. Navy, 2018d).

The remedy for Site 25 groundwater, which consisted of groundwater monitoring, was performed from March 1994 through September 1997. At that time, the Navy and Ecology

agreed that the groundwater monitoring for Site 25 met the requirements of the OU 3 ROD and no additional monitoring was required (U.S. Navy, 2000a).

Further information on remedy implementation can be obtained by reviewing Section 4.3 of the third FYR (U.S. Navy, 2010a).

2.3.2 OU 3 Operations, Maintenance, and Monitoring

The OM&M program for Sites 16/24 and 25, specified by the OU 3 ROD, consists of fulfilling ROD-mandated monitoring requirements and managing and maintaining LUCs implemented for the site. LUC management and maintenance are described for the sites where LUCs apply in Section 2.7.

No monitoring activities are currently being conducted at Sites 16/24 and 25 (see Section 2.3.1).

2.4 Operable Unit 6 (Site D)

This section focuses on the remedy implementation and OM&M for OU 6.

2.4.1 OU 6 Remedy Implementation

The remedy for Site D was implemented from December 1995 through June 2000. During this time, implementation of the remedy included the following components:

- Pre-excavation sampling was performed in the three areas of Site D identified in the remedial investigation/feasibility study (RI/FS) as requiring remediation: Grid G-1, Grid M-12, and the former burn trench.
- Sampling results indicated that soils in Grids G-1 and M-12 met soil cleanup levels and, therefore, did not require remediation (following site reconnaissance and extensive discussions, Ecology declared these grid areas as requiring no further action).
- An unexploded ordnance survey was completed for the trench and none was found.
- Contaminated soil from the burn trench was excavated and hauled to the on-base treatment facility for screening and composting.
- Verification soil samples were collected from the excavation for analyses.
- Composted soils were used to backfill the excavation at Site D.
- The site was graded to match the existing contours to the extent possible and revegetated with native plants.
- Surface water samples were collected from nine locations at Site D in December 1997 and analyzed for target analyte list metals and ordnance compounds.
- Two rounds of groundwater samples were collected for VOC and semivolatile organic compound (SVOC) analysis, one round prior to soil excavation and the second after soil treatment and backfilling were completed.

- Nine groundwater monitoring wells present at the site were decommissioned.

Ordnance compounds were not detected in the nine surface water samples. In addition, no elevated metals concentration was detected in surface water. The second round of groundwater sampling data showed no detection above the groundwater cleanup levels.

Further information on remedy implementation can be obtained by reviewing Section 4.4 of the third FYR (U.S. Navy, 2010a).

2.4.2 OU 6 Operations, Maintenance, and Monitoring

No ongoing OM&M activities are required by the OU 6 ROD. While no formal IC requirement is in place for this site, the site has restrictions in place under wetland regulations, which were determined to provide sufficient protection in the ROD. LUC management and maintenance for these informal institutional controls (ICs) are described in Section 2.7.

2.5 Operable Unit 7 (Sites B, E/11, and 10)

This section focuses on the remedy implementation and OM&M for OU 7.

2.5.1 OU 7 Remedy Implementation

2.5.1.1 Site B Remedy Implementation

The remedy for Site B was implemented from June through November 1997. During this time, implementation of the remedy included the following components:

- Surficial metal debris was removed from the wetland area.
- Areas of known contaminated soil were covered by 1 foot of clean soil overlain by a mulch layer, then revegetated with native plants.
- A shoreline protection system, consisting of a sand and gravel blend (beach mix) similar to the native beach materials was constructed along the site perimeter to reduce site erosion.
- Control points were established at the top of the shoreline protection berm to monitor future beach movement.
- A stormwater drainage system was installed to control erosion.
- A concrete turnaround was constructed at the top of the boat ramp to prevent erosion from vehicles using the ramp.
- Nine groundwater monitoring wells present at the site were decommissioned.
- Signs were placed at the site notifying visitors that the site is to be used for recreational purposes only and that approval is required for digging or mowing.

Ecology reviewed the final remedial action report and determined that the Site B remedial action had been completed in accordance with the OU 7 ROD (U.S. Navy, USEPA, and Ecology,

1996). Further information on remedy implementation can be obtained by reviewing Section 4.5.1 of the third FYR (U.S. Navy, 2010a).

2.5.1.2 Site E/11 Remedy Implementation

The remedy for soil at Site E/11 was implemented from July 1997 through May 1998. During this time implementation of the soil remedy included the following components:

- Approximately 830 cubic yards of stockpiled soil were sampled for characterization, transported, and disposed of at a permitted landfill.
- A stockpile of metal debris was also disposed of at an off-site facility.
- Two rounds of conformation soil samples were collected from the location beneath the former soil stockpile.
- The site was graded and backfilled with 6 inches of clean topsoil.

The groundwater use restriction component of the remedy was formally satisfied in 2000, with adoption of the basewide ICMP required by the OU 8 ROD. Further information on remedy implementation can be obtained by reviewing Section 4.5.2 of the third FYR (U.S. Navy, 2010a).

2.5.1.3 Site 10 Remedy Implementation

The remedy for Site 10 was implemented after the signing of the ROD in 1996. This included the following components:

- Ongoing long-term maintenance of the asphalt pavement cover.
- Groundwater monitoring.
- Groundwater use restrictions.
- Expansion of the asphalt cover to include soils contaminated with arsenic, cadmium, lead, and PCBs (U.S. Navy, 2008a).

The first FYR (U.S. Navy, 2000a) found that the original remedy components for Site 10 (first three bullets above) had not been completed and listed this as a deficiency. In response to that finding, the Navy conducted two groundwater sampling events, on November 6, 2000, and July 17, 2001 (U.S. Navy, 2002). These sampling events satisfied the groundwater component of the remedy for Site 10 as established in the OU 7 ROD, and no further groundwater sampling has been conducted at Site 10. Ecology concurred with the decision to discontinue groundwater monitoring at Site 10.

The OU 8 ROD amended the Site 10 remedy by stating that it was not necessary for the pavement to remain in place. This amendment was based on a finding that the cancer and non-cancer risk for future residents from chemicals in soil at Site 10 were acceptable, based on USEPA criteria, and that the concentrations of these chemicals in soil passed the applicable MTCA criteria. The Site 10 remedy was again amended in 2008, through a memorandum to the administrative file (U.S. Navy, 2008a). This memorandum established asphalt capping as a component of the remedy for an area of Site 10 soil that was found to contain arsenic, lead,

cadmium, and PCBs at concentrations above the MTCA Method A soil cleanup level for unrestricted land use. These contaminants in soil at Site 10 were identified during a construction project to add a new warehouse and parking lot to a previously unpaved portion of Site 10. The expanded asphalt capping component of the remedy was constructed between September 22 and November 7, 2008 (U.S. Navy, 2009a). The expansion of the footprint of Site 10, subject to Ics and the inclusion of the asphalt cap maintenance requirement, is part of the 2010 update to the ICMP.

Further information on remedy implementation can be obtained by reviewing Section 4.5.4 of the third FYR (U.S. Navy, 2010a).

2.5.2 OU 7 Operations, Maintenance, and Monitoring

2.5.2.1 Site B Operations, Maintenance, and Monitoring

The OM&M program for Site B, specified by the OU 7 ROD, consists of fulfilling ROD-mandated monitoring requirements and managing and maintaining LUCs implemented for the site. LUC management and maintenance are described for the sites where LUCs apply in Section 2.8.

Sediment and clam tissue monitoring was conducted in the area of Floral Point for 14 years (1991 through 2004). Concentration trends in the analytical data were analyzed as the data accumulated. The data trends showed that groundwater discharge from Floral Point into Hood Canal is not adversely affecting sediments or clam tissue. This monitoring component of the Site B remedy has functioned as intended by the ROD and is complete (Ecology, 2005). The ROD did not require LTM after it was demonstrated that groundwater discharge was not adversely affecting sediments or clam tissue (U.S. Navy, USEPA, and Ecology, 1996).

2.5.2.2 Site E/11 Operations, Maintenance, and Monitoring

The OM&M program for Site E/11, specified by the OU 7 ROD, consists of fulfilling ROD-mandated monitoring requirements and managing and maintaining LUCs implemented for the site. LUC management and maintenance are described for the sites where LUCs apply in Section 2.7. Site E/11 groundwater has been monitored in conjunction with Site F monitoring (see Section 2.2.3). As discussed in Section 4.2.3, Otto fuel monitoring has shown no trend at concentrations at or around the ROD cleanup level of 0.2 µg/L. Otto fuel monitoring will continue every five years to ensure that a clear trend is established in anticipation of a future date when it is necessary to demonstrate compliance at the time of site closure.

2.5.2.3 Site 10 Operations, Maintenance, and Monitoring

The OM&M program for Site 10, specified by the OU 7 ROD, consists of fulfilling ROD-mandated monitoring requirements and managing and maintaining LUCs implemented for the site. LUC management and maintenance are described for the sites where LUCs apply in Section 2.7. Monitoring activities are not currently being conducted at Site 10 (see Section 2.5.1.3).

2.6 Operable Unit 8

This section focuses on the remedy implementation; action subsequent to remedy implementation; and OM&M for OU 8 (Figure 2-1).

2.6.1 OU 8 Remedy Implementation

The remedy for OU 8 was initiated in October 2000 and is ongoing. This included the following components:

- MNA of COCs in groundwater is ongoing.
- A passive LNAPL skimming pilot test was conducted over a 16-day period.
- Passive LNAPL recovery of free product was implemented.
- Free-product recovery was monitored.
- Long-term groundwater monitoring is ongoing.
- Oxidation reduction potential (redox) manipulation in groundwater was deployed as a phased contingent action.
- Groundwater use restrictions were implemented both on and off base.

Further information on remedy implementation can be obtained by reviewing Section 4.6 of the third FYR (U.S. Navy, 2010a).

2.6.2 Actions Subsequent to OU 8 Remedy Implementation

Additional investigation actions at OU 8 were recommended in the fourth FYR. Investigation activities conducted during this FYR period in response to those recommendations are described in the subsections below. The status of each of the recommendations from the fourth FYR is described in Section 3.

2.6.2.1 Biotreatment Barrier Maintenance 2017

Biotreatment barrier maintenance was conducted in 2017 and included aquifer testing, injection well redevelopment, and emulsified vegetable oil (EVO) injection. Additional EVO was injected to maintain the augmented 1,2-dichloroethane (DCA) degradation previously established. Pilot study wells were sampled in April 2014, October 2015, April 2016, April 2017, and April 2018 to assess the longevity of the biobarrier. Analysis included VOCs, geochemical parameters, and DOC at select locations.

2.6.2.2 Data Gaps Investigation and Pilot Test 2018

The Navy completed a pilot test and report (U.S. Navy, 2018q) that evaluated air sparge/soil vapor extraction technologies for potential use at OU 8. The pilot test included the installation of five new wells. The results of the test indicated that air sparge/soil vapor extraction could be an efficient means to contribute to the overall remediation of the site, if used with other remediation technologies (U.S. Navy, 2018q). The Navy also conducted an internal evaluation of low-

temperature thermal treatment, and active source remediation technologies. Based on the results of this internal evaluation, an active source remediation technique referred to as high-vacuum dual phase extraction (HVDPE) would be tested during the next FYR period in those wells that continue to show residual free product. A draft letter report provided recommendations for prioritization of wells for free product recovery by HVDPE (U.S. Navy, 2019y).

The Navy plans to test HVDPE and attempt to recover remaining product in 2021 along with using electrical resistivity geophysical characterization before, during, and after the HVDPE field activity to assess the effectiveness of the technology at OU 8.

2.6.2.3 DCA Pilot Study Update 2018

To address the slower-than-anticipated remediation progress of the selected remedy, the increasing benzene concentrations observed during the third FYR period, and the return of free product in monitoring wells, the Navy implemented pilot testing to evaluate potential additional contingent remedial actions at OU 8. These pilot studies, conducted during the fourth FYR period, consisted of the following:

- A Phase I field study to augment the MNA remedy for the 1,2-DCA plume in shallow groundwater using biostimulation and bioaugmentation in a treatment barrier to reduce concentrations of chlorinated VOCs migrating in groundwater from source areas in the PWIA.
- A laboratory study to evaluate the potential for bioremediation of benzene in the presence of 1,2-DCA under aerobic and anaerobic conditions using soil and groundwater collected from NBK Bangor (NRL, 2018b), with samples collected from 16 wells to support an NRL ^{14}C depletion study.
- A Phase II field study to gather additional data to further assess the outcome of the Phase I field study, address uncertainties for full-scale implementation of a treatment barrier, and gather contaminant and physical data to address data gaps identified within the source area.
- A bioaugmentation longevity field study to provide an updated evaluation of the effectiveness of the treatment barrier for enhancing the biodegradation of 1,2-DCA and other chlorinated VOCs 21 months after completion of Phase II.

2.6.2.4 Vapor Intrusion Studies

Concentrations of a number of volatile chemicals in groundwater exceed health-protective screening levels for the vapor intrusion pathway within the PWIA area of OU 8 at NBK Bangor.

Although remediation activities have removed contamination from the top 15 feet of the vadose zone, some residual soil contamination may still be present between 15 feet and the water table (30 feet bgs). Residual free product is also present at some locations. Residual deep soil contamination and free product are both serving as sources of vapors to soil gas, in addition to the dissolved constituents in groundwater within the PWIA. Because groundwater is sufficiently shallow and the vadose zone is permeable and contains possible preferential pathways (buried

utility corridors), the vapor intrusion pathway was considered potentially complete for the PWIA buildings. As a result, a vapor intrusion assessment, which included the development of a CSM for vapor intrusion, was performed for the PWIA (U.S. Navy, 2012a). The report for this initial assessment identified Buildings 1021 and 1202 as the buildings with the greatest potential for vapor intrusion concerns within the PWIA based on their locations over maximum groundwater concentrations and residual free product, as well as their size and occupancy rates. The vapor intrusion assessment report recommended additional sampling to fill data gaps and verify assumptions made in the modeling and analysis.

Based on the recommendation from the first phase of vapor intrusion assessment, a second phase was performed. During this second phase, additional sampling was performed, including subslab vapor and indoor air samples, and the CSM was updated based on these results and the most recent groundwater monitoring results available at the time. Results of both phases of the vapor intrusion assessment were presented in the fourth FYR (U.S. Navy, 2015a).

Results of the investigation indicated that the vapor intrusion pathway is potentially complete for workers in the PWIA. Additional rounds of vapor intrusion monitoring were recommended due to the uncertainties associated with residual free product providing a continual source of contaminants to groundwater, which could potentially increase sub-slab soil gas concentrations.

The data collected during two rounds of sub-slab soil gas and indoor air sampling will be used to further refine the CSM for OU 8. Results for the two rounds performed in summer 2019 and winter 2020 will be compared to results from the previous investigation and applicable screening levels (U.S. Navy, 2019u). The results and updated CSM will be presented in the sixth FYR, however preliminary findings are summarized in Section 4.2.4.

2.6.3 OU 8 Operations, Maintenance, and Monitoring

The OM&M program for OU 8, specified by the OU 8 ROD, consists of fulfilling ROD-mandated monitoring requirements, recovering free product, and managing and maintaining LUCs implemented for the site. LUC management and maintenance are described for the sites where LUCs apply in Section 2.7.

2.6.3.1 Groundwater Monitoring

Monitoring of groundwater at OU 8 is conducted to assess contaminant distribution, including free product, compliance with RGs, and performance of natural attenuation. Monitoring requirements have been established in the SAPs completed during this FYR period (U.S. Navy, 2014b, 2015d, 2016d, 2017d, 2018c, and 2019k). Performance and compliance monitoring wells are shown on Figure 2-3 (U.S. Navy, 2019t). The groundwater was analyzed for VOCs (EPA Method 8260C) and natural attenuation parameters (hydrogen sulfide, ferrous iron, ethane/ethene, methane, nitrate/nitrite, alkalinity, DOC, chloride/sulfate, and manganese) and tested for field parameters. Wells 8MW54 through 8MW57 were installed in October 2015 as part of a benzene pilot study and have been added to the list of wells monitored for free product (U.S. Navy, 2018q).

Groundwater monitoring for evaluating natural attenuation performance was initially conducted quarterly, with the frequency decreased to semiannually after November 2001. Current monitoring at OU 8 is conducted as follows:

- Performance and compliance monitoring for MNA and VOCs is conducted semiannually at five locations and was reduced to annually in 2019 in two wells.
- Performance and compliance monitoring for MNA and VOCs is conducted annually at one location.
- Performance and compliance monitoring for VOCs is conducted semiannually at 11 locations and was reduced to annually in 2019 in nine wells, to biennial in one well, and to every five years in one well.
- Compliance monitoring for VOCs is conducted annually in two wells and was reduced to every five years in one well.
- Field parameters are monitored annually at 19 locations.
- Free-product thickness is measured monthly at nine locations.

Twenty-one additional monitoring wells at OU 8 were elective wells during this FYR period. Six wells were sampled one time, one well was sampled twice, two wells were sampled three times, and one well was sampled four times, and 11 wells were sampled annually during this FYR period.

Several deviations were noted during this FYR period including:

- Samples were sent to different analytical laboratories for Rounds 36 and 37 sampling events due to loss of accreditation at the analytical laboratory listed in the SAP. Three wells had to be resampled during Round 37 for DOC due to holding time issues.
- Five wells had to be resampled during Round 40 for EPA Method 300.0 due to possible quality control issues with the original samples.

The fourth FYR made several recommendations that do not affect the protectiveness of the remedy including:

- Reduce monitoring frequency to annually at off-base locations.
- Review the ROD RG for 1,1-dichloroethene for potential applicability of the current federal/state maximum contaminant level of 7 µg/L (which is two orders of magnitude higher than the ROD RG), and amend the ROD if changes to the RG could result in discontinuation of monitoring at the site (for example, if no other chemical at the site exceeds its RG).
- The concentration trend plots presented in the LTM reports should include a note explaining that the undetected values are all shown at an arbitrary value of 0.1 µg/L, regardless of the actual reporting limit, and that the actual reporting limit may be higher than the RG. In addition, all assumptions should be noted on the figure.

- Include historical analytical data for all wells monitored at OU 8 in Appendix D of the MNA monitoring reports.

The following changes have been implemented to address these recommendations:

- The 2015 LTM SAP (U.S. Navy, 2015d) indicates that monitoring frequencies for Mountain View Road wells 8MW13, 8MW19, and 8MW37 are changed from semiannual to annual as provided for in the ROD when off-base wells have met the cleanup levels (CULs) for more than a year.
- The 2015 SAP (U.S. Navy, 2015d) indicates that performance monitoring is managed to CULs rather than maximum contaminant levels (MCLs) per the Final Data Management, Analysis, and Evaluation Plan (TEC, 2001). The language in the SAP has been changed to use CULs rather than MCLs where applicable.
- No changes are evident in the trend plots presented in the LTM reports. This recommendation should be carried forward.
- Data from 2000 to 2019 are presented in Appendix E of the most recent LTM report (U.S. Navy, 2019t).

Intermediate depth zone well 8MW07 (collocated with 8MW06) was sampled during Round 37 at the request of Ecology to further delineate the current vertical distribution of contaminants. Results demonstrated that petroleum contaminants are not bypassing 8MW06 at a lower depth interval within the aquifer.

2.6.3.2 Free-Product Recovery

Free-product recovery at OU 8 was terminated in 2004, because product recovery rates were below the ROD-specified practical recovery endpoint of 0.5 gallon per month for the last 2.5 years of operation. However, during the Round 15 sampling event in October 2006, free product was observed in well 8MW47. As a result, free-product recovery was restarted in August 2009 and has occurred through June 2019, except in June 2010, July 2010, January 2011, February 2011, October 2011 through March 2012, and May 2018. Initially, product recovery was only performed in well 8MW47, but product recovery activities were later expanded to include 39 wells located within the PWIA. It should be noted that free product was not recovered from all 39 wells. As of June 2019, 27 wells are being monitored for free product on a monthly basis.

LNAPL mobility tests were conducted as part of the data gaps and pilot test (U.S. Navy, 2018q) to evaluate whether additional effort to reduce free product underlying the PWIA is warranted. As part of the pilot test study, air sparging and soil vapor extraction technology was tested and results showed that the technology, along with other technologies applied together, would be effective to reduce the overall remediation timeframe.

In accordance with the OU 8 SAPs (U.S. Navy, 2014b, 2015d, 2016d, 2017d, 2018c, and 2019k), recovery of free product was conducted for any well where more than 0.10 foot of floating product was detected. For wells where product is detected above this threshold, product was recovered once a week until the thickness remained below 0.10 foot. Product was recovered either by bailer, wicking sock, or peristaltic pump with tubing. Note that dedicated pumps in

wells containing free product were not removed in order to avoid contaminating the pump. A summary of the free-product recovery activities conducted at OU 8 is included in Section 4.

2.7 Land Use Control Management and Maintenance

In addition to the remedy components for OU 8, the OU 8 ROD formally established ICs for other sites at NBK Bangor to comply with EPA guidance regarding ICs. The formalization of ICs for other sites was incorporated into the OU 8 ROD in lieu of preparing ESDs for each of the previously signed RODs.

LUCs, which include ICs and engineering controls (ECs), are part of the remedies for Sites A, F, 16/24, B, E/11, and 10 and OU 8. While no formal IC requirement is in place for Site D, this site has restrictions in place under wetland regulations, which were determined to provide sufficient protection by the OU 6 ROD. Media, ICs, and ECs are summarized in Table 2-3 for each site and medium where they apply. ICs and ECs are currently managed under the ICMP for NBK Bangor that was mostly recently updated in 2018 (U.S. Navy, 2018d). The functions of the ICMP are as follows:

- Describes the LUC requirements for each site.
- Notifies planners and other Navy personnel about the environmental conditions of the property that is encumbered by LUCs.
- Limits land use to industrial and outdoor recreational uses in designated areas.
- Provides a process for inspection and maintenance of ICs and ECs.
- Provides tracking information to regulators that the land use remains consistent with restrictions placed upon a site by the RODs.

The boundaries of each IC area, as well as the location of ECs, are shown on figures in the ICMP. The ICMP established procedures for primary and contingency inspections. The ICMP also provides a mechanism for updating the ICs as necessary over time, with the concurrence of Ecology and EPA.

The purpose of the annual (primary) inspection is to document site conditions, ensure that the ICs and ECs are functioning as intended, and identify potential problems at an early stage, prior to the need for significant repairs. The annual inspection includes visual inspections, review of the excavation permits, and beach profile measurements at Site B. The visual inspection is documented using a checklist provided in the ICMP, field notes, and photographs. The excavation permit review is performed by the NBK Bangor RPM throughout the year and documented in the annual inspection report. The beach profile measurements are performed using methods and procedures specified in the ICMP. Following the primary inspection, any deficiency is noted and corrected through the NBK Bangor work-order process.

Contingency inspections are required in the event that an IC or EC might have been compromised either as documented during the annual inspection or as suspected based on the occurrence of a specific event, such as a construction project, natural disaster, or severe weather

event. Contingency inspections will occur as recommended in the annual inspection report and will typically occur after required maintenance or repair, or after a construction project, natural disaster, or storm event.

Changes in the 2018 ICMP include:

- Reorganized ICMP into separate sections for each site to present together: site descriptions, applicable ICs, and inspection requirements.
- Updated regulatory standards for groundwater at Sites A and F and soil at Site D as indicated in the fourth FYR (U.S. Navy, 2015a).
- Updated maximum groundwater concentrations for OU 8 for analytical results through April 2018.
- Revised Site A and Site D maps to more accurately present features to scale.
- Tailored field forms to each site (IC inspection checklists, maintenance forms, shoreline measurement forms, and the monthly erosion checklist) for easier inspection and reporting.
- Updated Site B beach transect profiles to include the design surface, the 2011 post-replenishment surface, and the results of the annual IC inspection surveys conducted from 2015 through 2017.

Two recommendations from the fourth FYR have not been incorporated into the ICMP including:

- Update the ICMP to correctly reflect the limits of the Site F infiltration barrier and locations of items requiring inspection. Add additional structures to the site map in the ICMP to better assist field personnel when locating the barrier boundaries during site inspections.
- Modify the excavation permit to include a section or an attachment that indicates that NAVFAC NW reviewed the chemicals of concern with the contractor or submitted the historical information, including the chemicals of concern tables for the site from Section 2 of the ICMP.

Annual inspections were performed in accordance with the ICMP during September/October 2014 and 2015, September 2016 and 2017, October 2018, and August/September 2019 and reported in annual IC inspection letter reports (U.S. Navy, 2015f, 2016f, 2017g, 2018f, 2018g and 2019l). Based on the results of the annual inspection, maintenance of ECs is conducted on an as-needed basis. Site inspection results are provided in Section 4.

Well ID

A-XWXX	Water Level Only
A-XWXX [X]	Compliance
A-XWXX [1]	Annual
A-XWXX [2]	Biennial (2020, 2022, etc.)
A-XWXX [3]	5 Years (2019, 2024, etc.)
A-XWXX [4]	One-Time (2019)
A-XWXX [X]	Performance
A-XWXX [1]	Annual

Explanation

- Major Topo Contour (ft MLLW)
- Minor Topo Contour (ft MLLW)
- April 2019 RDX Conc. Contour for Shallow Aquifer (µg/L)
- Monitoring Well (Shallow Aquifer)
- Monitoring Well (Perched Zone)
- Monitoring Well (Perched Zone Completed in Till)
- Extraction Well (Shallow)
- Infiltration Well (Intermediate Zone)
- Well Cluster
- Installation Boundary
- Institutional Control (IC) Boundary
- Groundwater Use Prohibited
- Land Use Restriction

Aquifer Elevation Range

Perched	Approx. 150 to 170 ft MLLW
Shallow	Approx. 30 to 100 ft MLLW
MLLW	Mean Lower Low Water

- Perched Zone Flow
- Shallow Aquifer Flow

Hood Canal

Tinosa Rd

A-MW31

OU1, Site A IC Boundary

A-MW28

A-MW52 [2]

A-MW57 [1]

A-MW51 [1]

A-MW50 [2]

A-MW44 [3]

A-MW56 [1]

Treatment Plant

Tanks

OU 1, Debris Area 2 IC Boundary

A-MW54 [1]

A-MW55 [1]

A-MW49 [1]

A-EW4 [1]

A-EW6 [1]

A-EW7 [1]

A-MW53 [2]

A-EW8 [1]

A-MW35 [3]

A-MW34 [2]

A-MW32 [1]

A-IW3 [4]

A-MW22 [1]

Discharge Point

Pintado Rd

A-EW5 [1]

A-MW61 [2]

A-MW62 [4]

A-MW37 [1]

A-MW36 [1]

A-MW71 [4]

A-MW63 [4]

A-MW70 [4]

A-MW38 [1]

A-MW60R [1]

A-MW64 [4]

A-MW65 [4]

A-MW68 [4]

A-MW67 [4]

A-MW69 [4]

A-MW66 [4]

A-MW46 [1]

A-MW47 [1]

A-MW59 [4]

A-MW33 [3]

Stormwater Diversion Structure

Vinland Creek

A-MW21

A-MW58

Site A

Leach Basin

A-MW30

Northern Boundary Rd

Installation Boundary

Vinland

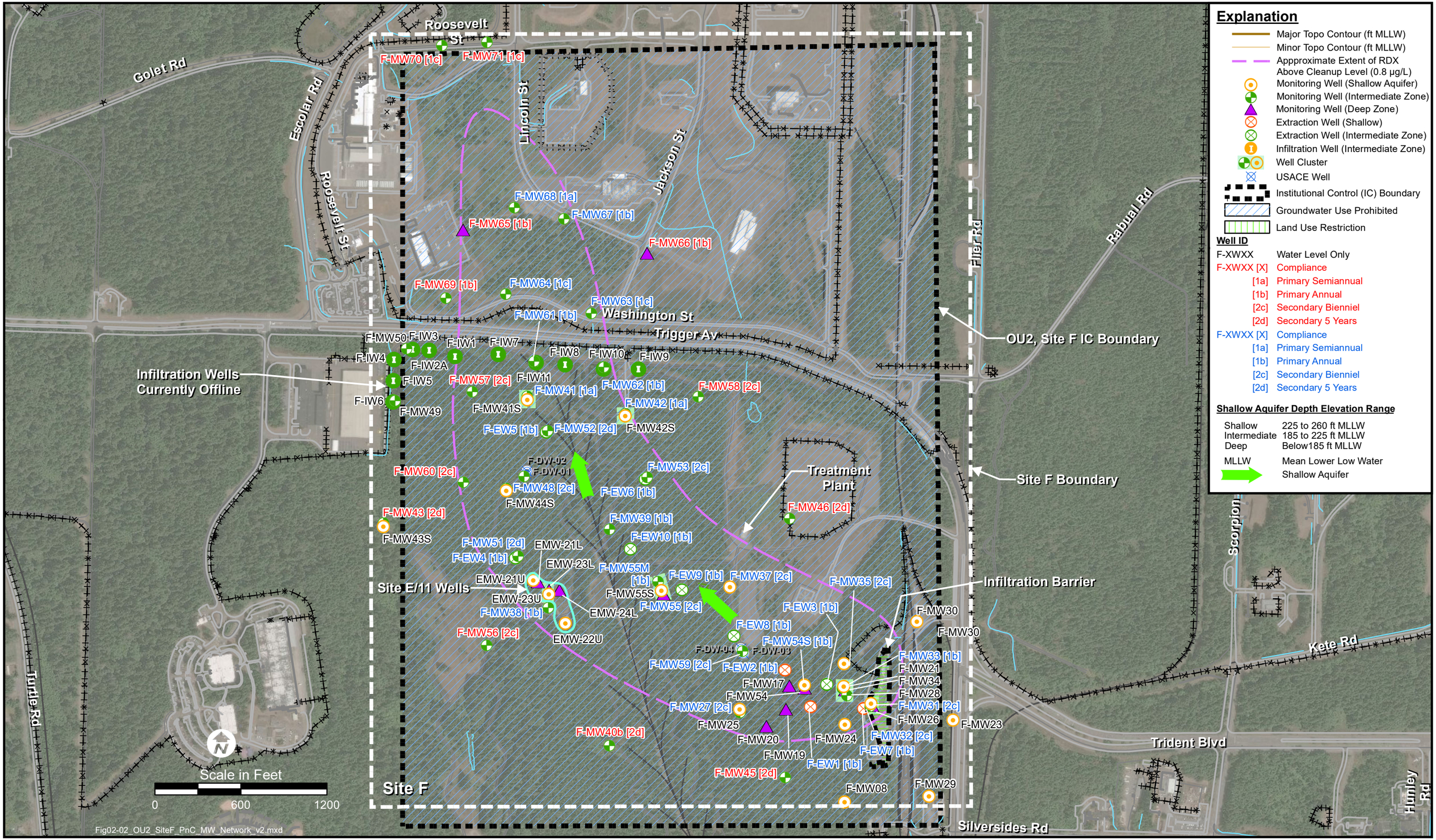
Tinosa Rd

Scale in Feet

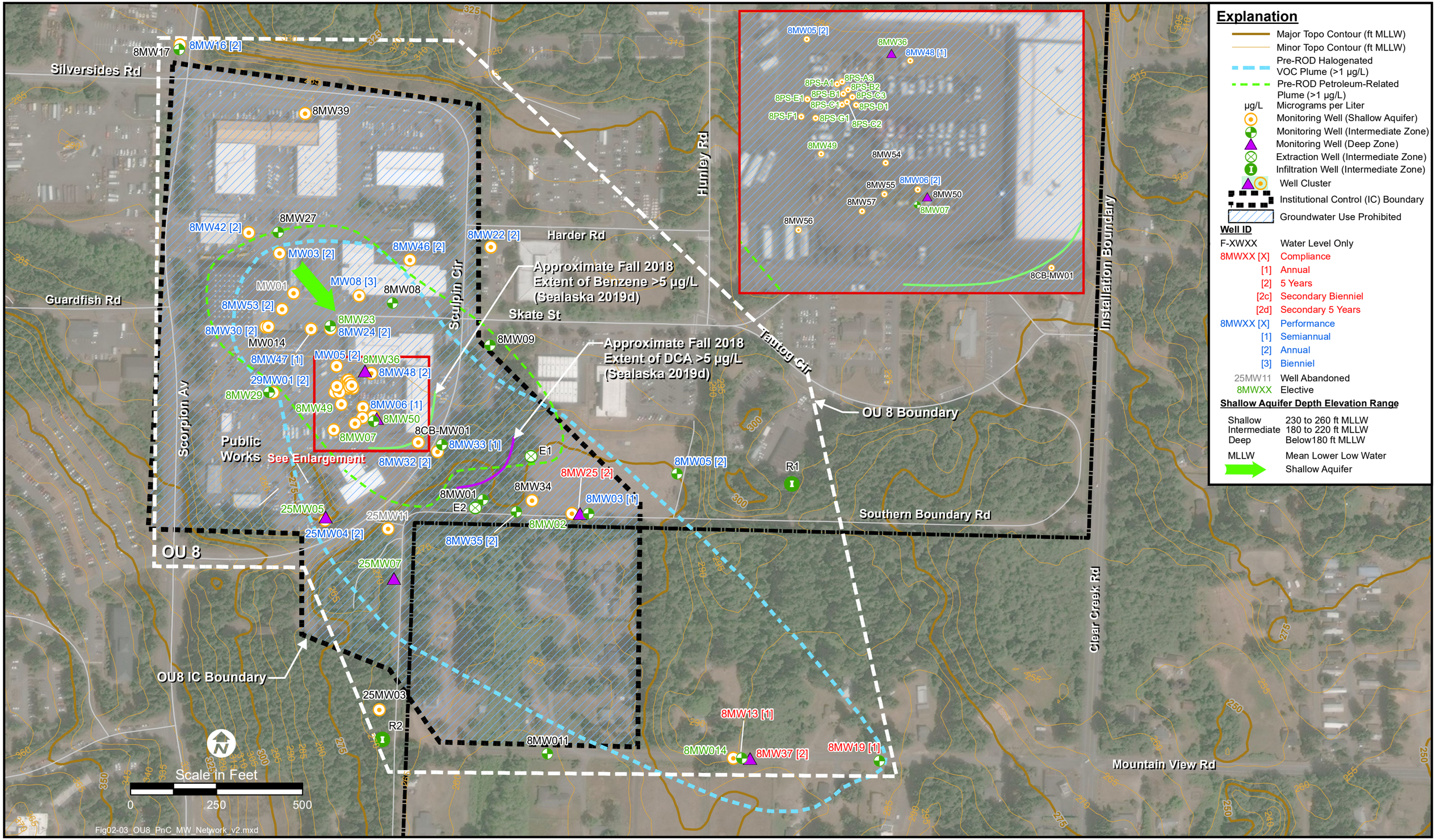
0 150 300

Fig02-01_OU1_SiteA_PnC_MW_Network_v2.mxd

U.S. NAVY	**Figure 2-1** **OU 1, Site A Performance and Compliance Monitoring Well Network**	NBK Bangor FIFTH 5-YEAR REVIEW



U.S. NAVY	**Figure 2-2** **OU 2, Site F Performance and Compliance Monitoring Well Network**	NBK Bangor FIFTH 5-YEAR REVIEW



U.S. NAVY	**Figure 2-3** **OU 8 Performance and Compliance Monitoring Well Network**	NBK Bangor FIFTH 5-YEAR REVIEW

Table 2-1. Summary of Annual LTM and O&M Costs for OUs 1, 2, 3, 6, 7, and 8

Year	OU 1 Site A	OU 2/OU 7[c] Sites F/B/E/11	OU 3[a] Sites 16/24 and 25	OU 6[b] Site D	OU 8 Sites 27, 28, and 29
2015	$167,000	$515,000	$0	$0	$212,000
2016	$173,000	$522,000	$0	$0	$216,000
2017	$179,000	$530,000	$0	$0	$220,000
2018	$184,000	$540,000	$0	$0	$224,000
2019	$190,000	$547,000	$0	$0	$230,000
Average Annual O&M Cost 2015–2019	$178,600	$530,800	$0	$0	$220,400
Estimated Annual O&M Cost in ROD	NS	$160,000	NS	$16,500	$196,300

[a]The remedy for Site 16/24 consists of residential land use restrictions. The remedy for Site 25 consists of groundwater monitoring for a five-year period, which was completed in 1997. Costs associated with the annual IC inspections for this site are included in the costs for OUs 1, 2, 7, and 8.

[b]The remedy for Site D consists of composting of contaminated soil and placement of the remediated material back on the site, followed by short-term monitoring in the shallow aquifer. The remedy was completed in 2000. While no formal IC requirement is in place for this site, restrictions are in place under wetland regulations, and annual IC inspections are conducted at this site. Costs associated with the annual IC inspections for this site are included in the costs for OUs 1, 2, 7, and 8.

[c]O&M costs (LTM) for Sites B (Floral Point) and E/11 are included in the costs for OU 2.

Notes:
NS – not specified in ROD

Table 2-2. Summary of Remedial Actions at NBK Bangor

OU	Site	Reasonably Anticipated Land Use	Medium	Chemical of Concern	Remediation Goals	Remedial Action Objectives	Remedy Components[t]	Remedy Construction/ Implementation Complete	Ongoing Operation, Maintenance, and Monitoring
1	A	Outdoor recreational	Soil	TNT Total DNT RDX Lead Total phthalates[a] Total PCBs	33 mg/kg 1.5 mg/kg 9.1 mg/kg 250 mg/kg 140 mg/kg 4.3 mg/kg	Reduce the concentrations of contaminants in soil to be protective of human health for an unrestricted site use.	• Excavate soil from the burn area and debris area 2 that exceeds MTCA direct contact cleanup levels for the COCs. • Place soil in a soil washing basin constructed at the Site A burn area. • Place soils exceeding the RG for lead in a separate cell. • Conduct verification monitoring during and/or following the excavation to ensure that all soils exceeding the cleanup levels have been excavated. • Perform soil washing on soils placed in the treatment basin.[b,f] • Treat the leachate with ultraviolet oxidation.[c] • Debris area 2 soils that contain lead concentrations above the RG after treatment will be excavated and disposed of at a permitted off-site solid waste facility.[d] • Recycle the treated water back to the leach basin.[e,g] • Abandon the soil washing basin, liner, and soil contents in place by placing a 1-foot soil cover over the treated material, and revegetate to prevent erosion. • Grade site to allow for surface water drainage, including drainage from the abandoned leach basin. • Implement LUCs as specified in the OU 8 ROD.	Yes	• Maintain signs. • Maintain blackberries along the upper portion of the steep ravine containing debris area 2 to restrict access to the ravine. • Maintain excavation permit requirements. • Conduct annual LUC monitoring.
1	A	Outdoor recreational	GW	TNT Total DNT RDX Lead[s] Total phthalates[a] Total PCBs[s]	2.9 µg/L 0.1 µg/L 0.8 µg/L 15 µg/L 4 µg/L 0.1 µg/L	• Reduce concentrations of contaminants in the shallow aquifer groundwater to levels below MTCA groundwater cleanup levels. • The point of compliance will be throughout the shallow aquifer.	• Immediately abandon all older monitoring wells that may not have competent surface seals. • Concurrent with the soil washing, conduct additional groundwater monitoring and pilot-level treatability studies to support the final design of the groundwater remediation system. • Achieve the groundwater RG for RDX in the most cost-effective manner within a 10-year period of operation.[h] • Treat extracted groundwater using ultraviolet oxidation to reduce RDX and reinject into the subsurface to facilitate maximum flushing of the aquifer.[i] • Install an effective effluent polishing process to achieve RGs if the groundwater treatment system proves ineffective. • Monitor and evaluate system effectiveness as a component of O&M. • Cease system operation when it can be demonstrated that either the cleanup standards have been met, or continued operation is no longer practicable. • Implement LUCs as specified in the OU 8 ROD.	Yes	• Perform regular operation, maintenance, and monitoring of the Site A groundwater treatment system. • Conduct performance and compliance monitoring of groundwater. • Conduct annual LUC monitoring.

Table 2-2 (continued). Summary of Remedial Actions at NBK Bangor

OU	Site	Reasonably Anticipated Land Use	Medium	Chemical of Concern	Remediation Goals	Remedial Action Objectives	Remedy Components	Remedy Construction/ Implementation Complete	Ongoing Operation, Maintenance, and Monitoring
1	A	Outdoor recreational	SW	TNT Total DNT RDX Lead[s] Total phthalates[a] Total PCBs[s]	31 µg/L 0.6 µg/L 30 µg/L 1 µg/L 3 µg/L <0.01 µg/L	The OU 1 Site A ROD anticipated that the remedy would sufficiently reduce ordnance compound concentrations in site soils such that the surface water cleanup levels would be achieved. Based on this conclusion, the OU 1 Site A ROD did not establish an RAO or remedy specific to surface water, but did establish COCs in surface water and RGs for those COCs.	None	NA	None
2	F	• Industrial • Outdoor recreational	Soil	*Direct Contact:* RDX TNT DNT TNB DNB Nitrate Nitrite Manganese *Groundwater Protection:* RDX TNT DNT TNB DNB Nitrate Nitrite Manganese	 9.1 mg/kg 33 mg/kg 1.5 mg/kg 4 mg/kg[p] 8 mg/kg[p] 29,000 mg/kg 8,000 mg/kg 940 mg/kg 1 mg/kg 0.3 mg/kg 0.5 mg/kg 0.25 mg/kg 0.25 mg/kg 1,000 mg/kg 100 mg/kg 940 mg/kg	Eliminate the risk associated with potential direct contact with contaminated soils.	• Excavate contaminated soils to a depth of 15 feet with concentrations above direct contact RGs. • Conduct verification soil sampling during and/or following the excavation to ensure that all soils exceeding the direct contact RGs to a depth of 15 feet have been excavated. • Mix the excavated soils with organic amendment, and place the soil/amendment mixture into a structure designed specifically to house the biological treatment process. • Use the treated soil/amendment mixture to fill and regrade the Site F excavation and overflow ditch to provide a generally flat surface over which to place the infiltration barrier. • Install an infiltration barrier over all soils with concentrations above groundwater protection RGs. • Cover the infiltration barrier with uncontaminated soil both to allow revegetation and provide greater protection against physical and chemical degradation. • Implement LUCs as specified in the OU 8 ROD.	Yes	• Conduct periodic inspection of the infiltration barrier, as needed, to ensure its long-term integrity. • Conduct annual LUC monitoring.
2	F	• Industrial • Outdoor recreational	GW	RDX TNT DNT TNB DNB Nitrate Nitrite Manganese	0.8 µg/L 2.9 µg/L 0.13 µg/L 0.8 µg/L 1.6 µg/L 10,000 µg/L 1,000 µg/L[q] 50 µg/L	Cleanup groundwater contamination in the shallow aquifer to achieve the most cost-effective reduction in overall site risk.	• Abandon groundwater monitoring wells that are no longer of use. • Enhance the Site F interim remedial action groundwater extraction, treatment, and reintroduction system to provide efficient removal of contaminant mass and handle the higher system flow rate. • Treat extracted groundwater by GAC (and ion exchange, if needed for nitrate removal) to meet RGs, and return the treated water to the shallow aquifer via reintroduction wells. • Monitor and evaluate system effectiveness as a component of operation and maintenance. • Initiate formal review of the groundwater system operations after one of the following performance evaluation criteria is met: - Groundwater RGs are achieved for all COCs in the Site F shallow aquifer. - No statistically significant change in constituent concentrations is observed in monitoring wells with concentrations above RGs after reasonable system modifications have been implemented.	Yes	• Perform regular operation, maintenance, and monitoring of the Site F groundwater treatment system. • Conduct performance and compliance monitoring of groundwater. • Conduct annual LUC monitoring.

Table 2-2 (continued). Summary of Remedial Actions at NBK Bangor

OU	Site	Reasonably Anticipated Land Use	Medium	Chemical of Concern	Remediation Goals	Remedial Action Objectives	Remedy Components	Remedy Construction/ Implementation Complete	Ongoing Operation, Maintenance, and Monitoring
2	F	• Industrial • Outdoor recreational	GW				- The rates of concentration declining in the Site F shallow aquifer indicate that the cost of continued system operation is substantial and disproportionate relative to the incremental degree of environmental protection being achieved. • Implement LUCs as specified in the OU 8 ROD.		
2	F	• Industrial • Outdoor recreational	SW	RDX TNT DNT TNB DNB Nitrate Nitrite Manganese	260 µg/L 40 µg/L 300 µg/L 80 µg/L NA[r] 10,000 µg/L NA NA[r]	The OU 2 Site F ROD stated that no impacts to surface water have occurred, but nevertheless established COCs and RGs for surface water based both on protection of aquatic life and use of seep water as drinking water.	None	NA	None
3	16/24	Industrial	Soil	Antimony Arsenic Beryllium	32 mg/kg 20 mg/kg 0.23 mg/kg	None established[o]	• Implement Ics to prevent residential use. • Attach deed restrictions to any future property transfer.	Yes	Conduct annual LUC monitoring.
	25	Industrial	GW	Cadmium Manganese	8 µg/L 50 µg/L	None established[o]	Perform 5 years of semiannual groundwater monitoring to verify that concentrations of chemicals in the shallow aquifer are consistent with naturally occurring background concentrations.	Yes	None
6	D	Outdoor recreational	Soil	*MTCA Method B:* TNT DNT *MTCA Method C:* DNT	 33.3 mg/kg 1.47 mg/kg[j] 58.8 mg/kg[k]	Prevent unacceptable current and potential future risks to human health and the environment posed by ingestion and dermal contact with TNT and DNT in Site D soil.	• Excavate and stockpile all soils at Site D containing TNT concentrations above the MTCA Method B residential soil cleanup level. • Outside of the wetland boundary, excavate and stockpile soils containing DNT concentrations above the MTCA Method B residential soil cleanup level. • Within the wetland boundary, excavate and stockpile soils containing DNT concentrations above the MTCA Method C soil cleanup level. • Treat the excavated soils by composting to achieve MTCA Method B residential soil cleanup levels for nine designated ordnance compounds. • Backfill the excavations with the treated soils, covering them with clean soils and revegetating the affected areas with native vegetation. • Return the treatment area and any access roads to natural contours, and revegetate them with native vegetation. • Conduct a review of the soil remediation data to evaluate the effectiveness of the remedy within 5 years of remedy commencement.	Yes	None
6	D	Outdoor recreational	SW	Arsenic Copper Mercury Thallium Zinc	0.0842 µg/L 6.1 µg/L[m] 0.012 µg/L (total) 1.56 µg/L (total) 57 µg/L	Prevent migration of metals from Site D surface water at concentrations that may adversely affect ecological receptors in downstream surface water.	• Conduct surface water sampling to confirm that RGs are not exceeded in downgradient surface water due to transport of contaminants from Site D following soil remediation. • Consider response actions, including active remediation, if monitoring identifies exceedances of RGs in downgradient surface water.	Yes	None

Table 2-2 (continued). Summary of Remedial Actions at NBK Bangor

OU	Site	Reasonably Anticipated Land Use	Medium	Chemical of Concern	Remediation Goals	Remedial Action Objectives	Remedy Components	Remedy Construction/ Implementation Complete	Ongoing Operation, Maintenance, and Monitoring
6	D	Outdoor recreational	GW	Acetone Chlorobenzene DBCM Methylene chloride Tetrachloroethene Toluene Xylenes	800 µg/L 100 µg/L 100 µg/L 5.83 µg/L 0.858 µg/L 1,000 µg/L 10,000 µg/L	Prevent potential future human health risks that may be caused by ingestion or inhalation of contaminants in shallow aquifer groundwater.	• Conduct short-term groundwater monitoring for VOCs in the shallow aquifer to verify exceedances of health-based criteria. • Perform further characterization of the shallow aquifer to determine the nature and extent of contamination, if confirmed by the short-term monitoring. • Consider active remediation of the shallow groundwater if exceedances of RGs are confirmed by monitoring. • Conduct a review of the short-term monitoring data to evaluate the effectiveness of the remedy within 5 years of remedy commencement.	Yes	None
7	B	Outdoor recreational	Soil	PAHs PCBs Arsenic	1 ppm (1.0 mg/kg) 1 ppm (1.0 mg/kg) 20 ppm (20 mg/kg)	Prevent dermal contact and ingestion of shallow and subsurface soil containing PAH and PCB concentrations above the state cleanup level of 1 ppm for soil to 15 feet bgs and arsenic concentrations above 20 ppm.	• Cover the site with a soil cover. • Vegetate the soil cover. • Construct swales to control or reduce infiltration of rainwater. • Maintain the soil cover to prevent future contact with the contaminated soil. • Install signs informing visitors of restricted site use. • Implement LUCs as specified in the OU 8 ROD.	Yes	• Maintain soil cover and shoreline stabilization measures as needed. • Conduct annual LUC monitoring.
		Outdoor recreational	GW	None established	None established	Confirm through monitoring of Hood Canal sediments and clam tissue that groundwater discharge from Floral Point into Hood Canal is not negatively affecting the sediments or clam tissues.	Conduct a 5-year monitoring program of marine sediments and clam tissue to be included under Site 26 monitoring.	Yes	None
7	E/11	Outdoor recreational	Soil	DDT	2.94 ppm (2.94 mg/kg)	Prevent direct contact with and ingestion of stockpiled soil and underlying soil down to 15 feet bgs that contains DDT in concentrations above the state cleanup level of 2.94 ppm.	Transport and dispose of approximately 400 cubic yards of contaminated stockpiled soil to a Resource Conservation and Recovery Act-approved landfill.	Yes	None
7	E/11	Outdoor recreational	GW	PGDN	0.0002 ppm (0.2 µg/L)	Prevent ingestion of groundwater containing Otto fuel concentrations above 0.0002 ppm.[l] PGDN is one of several chemical compounds in Otto fuel and is used as the indicator chemical.	• Groundwater at Site E/11 is currently being treated under OU 2 Site F. • Monitor groundwater for ordnance compounds and Otto fuel. • Conduct a 5-year evaluation of the effectiveness of the OU 2 Site F remediation system in removing Otto fuel. • Implement groundwater use restrictions.	Yes	• Groundwater monitoring as part of OU 2 (Site F) monitoring was discontinued during this FYR period, but will be re-established on a 5-year frequency as part of this FYR. • Conduct annual LUC monitoring.
7	10	Industrial	GW	TPH	1 ppm (1,000 µg/L)	Prevent ingestion of groundwater containing TPH concentrations above the state cleanup level of 1 ppm throughout the aquifer.	• Perform long-term groundwater monitoring • Implement groundwater use restrictions	Yes	• None
7	10	Industrial	Soil	Arsenic Cadmium Lead PCBs	20 mg/kg 2 mg/kg 250 mg/kg 1 mg/kg	None established.	• Maintain the existing asphalt pavement to protect human health and the environment. • Establish asphalt capping as an extended remedy for an area of site soil found to contain arsenic, lead, cadmium, and PCBs at concentrations above the stated RGs.[n]	Yes	• Maintain asphalt soil cover. • Conduct annual LUC monitoring.

Table 2-2 (continued). Summary of Remedial Actions at NBK Bangor

OU	Site	Reasonably Anticipated Land Use	Medium	Chemical of Concern	Remediation Goals	Remedial Action Objectives	Remedy Components	Remedy Construction/ Implementation Complete	Ongoing Operation, Maintenance, and Monitoring
8	27, 28 and 29	• Industrial on base • Residential off base	GW	Benzene 1,2-DCA 1,1-DCE 1,2-EDB Toluene	5 µg/L 5 µg/L 0.0729 µg/L 0.000515 µg/L 1,000 µg/L	• Minimize the migration of VOCs from LNAPL beneath the PWIA into groundwater at concentrations that would cause adverse non-cancer health effects or unacceptable cancer risks. • Minimize human exposure to COCs in sitewide groundwater that would result in adverse non-cancer health effects or unacceptable cancer risks.	• Monitor for natural attenuation of COCs in groundwater. • Consider phased contingent actions if MNA is shown to be insufficient, including the possible use of oxidation reduction potential manipulation, pumping and treating groundwater using the existing system, or new technologies. • Remove LNAPL using a free-product recovery system until the recovery rate reaches the practicable endpoint of an average of 0.5 gallon per month for a 1-year period. • Establish institutional controls for OU 8, both on and off base, to prevent the use and consumption of untreated groundwater.	Yes	• Conduct performance and compliance monitoring of groundwater. • Free-product recovery • Conduct annual LUC monitoring.

[a]The cleanup level for total phthalates is based on bis(2-ethylhexyl)phthalate, which is the most toxic of the phthalates detected at OU 1 (Site A). Although phthalates were identified as COCs in the ROD, they were not a risk driver for the site and have not been included in the long-term monitoring at the site.
[b]To improve permeability of the soil in the soil washing basin, ESD No. 1 prescribed the addition of a sand amendment in a 1:1 volume ratio to the soil and calcium chloride up to 40 mg/L to the wash water.
[c]Because of improved permeability of the soil in the soil washing basin, ESD No. 1 prescribed a change from ultraviolet oxidation to GAC for the treatment of soil washing leachate to reduce operational costs.
[d]ESD No. 1 prescribed that the limited volume of debris area 2 soil containing lead concentrations above RG after treatment can be left in place, because excavating the soil poses a greater risk to human health and the environment.
[e]To ensure that leachate releases from the treatment basin after basin closure will be protective of human health and the environment, ESD No. 1 prescribed the development and implementation of a leachate management plan for the closed leach basin.
[f]ESD No. 2 prescribed the use of composting to complete remediation of the leach basin soils.
[g]ESD No. 3 prescribed that the leachate from the closed soil washing basin was acceptable for discharge to surface water without treatment.
[h]ESD No. 1 prescribed that treating groundwater begin by July 1, 1996, rather than 1 year after soil treatment is complete.
[i]ESD No. 2 prescribed a change from ultraviolet oxidation to GAC for the treatment of extracted groundwater to reduce operational costs.
[j]DNT cleanup level applied to soils located outside the wetland boundary.
[k]DNT cleanup level applied to soils located inside the wetland boundary.
[l]There is no cleanup value for Otto fuel. The calculated preliminary remediation cleanup goal is 0.000038 part per million (ppm). However, the method detection limit for Otto fuel is 0.0002 ppm and in accordance with state regulations is used as the cleanup goal.
[m]Based on an average hardness of 55 mg/kg calcium carbonate.
[n]The Site 10 remedy was amended in 2008 through a memorandum to the administrative file, which established asphalt capping as a component of the remedy for an area of Site 10 soil that was found to contain arsenic, lead, cadmium, and PCBs at concentrations above the MTCA Method A soil cleanup level for unrestricted land use.
[o]The baseline risk assessment showed that risks at Sites 16/24 and 25 were within USEPA's acceptable risk range and that no remedial action was necessary. However, the OU 3 ROD states that to address Ecology's concern regarding the exceedances of MTCA cleanup levels in surface soil at Sites 16/24 and groundwater at Site 25, LUCs have been implemented at Sites 16/24 and groundwater monitoring was performed at Site 25.
[p]The ROD presented inconsistent RGs for TNB and DNB. The values presented in this table are from Table 15 of the ROD. A value of 1.1 mg/kg was presented in the text on page 15 of the ROD for TNB and a value of 2.1 mg/kg for DNB.
[q]The ROD presented inconsistent RGs for nitrite. The value presented in this table is from Table 15 of the ROD. A value of 490 µg/L was presented in the text on page 16 of the ROD.
[r]The ROD presented inconsistent RGs for DNB and manganese. The values in this table are from Table 15 of the ROD. A value of 10 µg/L was presented in the text on page 16 of the ROD for DNB and a value of 1,500 µg/L for manganese.
[s]Lead and PCBs were included on the summary of COCs in the ROD. However, they were not risk drivers at the site, and monitoring for these chemicals has not been included in the LTM at Site A.
[t]In addition to the remedy components for OU 8, the OU 8 ROD formally established ICs for other sites at NBK Bangor to comply with EPA guidance regarding ICs. The formalization of ICs for other sites was incorporated into the OU 8 ROD in lieu of preparing ESDs for each of the previously signed RODs

Table 2-2. Summary of Institutional and Engineering Controls by Operable Unit

Site Name (Associated OU)	Media	Institutional Control	Engineering Control
Site A Burn Area (OU 1)	Groundwater	• Groundwater use prohibition (shallow and perched aquifers) • Changes in land use or activity at the site require review • Excavation permits and construction project review required	• Soil cover to maintain leach basin liner • Treatment system protection • Fence to prevent access to leach basin liner
Site A Debris Area 2 (OU 1)	Soil	• Allowable land use is outdoor recreational • Excavation permits and construction project review required • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of and that workers are protected during any such disturbance or excavation	• Access control signs • Blackberries and similar thorny vegetation barrier
Site F (OU 2)	Groundwater and soil beneath infiltration barrier	• Groundwater use prohibition • Land use not restricted except for items covered by engineering controls • Excavation permits and construction project review required • Notify Ecology and EPA prior to any development or redevelopment of the site to ensure the integrity of the remedy	• Infiltration barrier liner • Treatment system protection
Site 16/24 (OU 3)	Soil	• Land use restriction (industrial only) • Excavation permits and construction project review required • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of and that workers are protected during any such disturbance or excavation	None

Table 2-3 (continued). Summary of Institutional and Engineering Controls by Operable Unit

Site Name (Associated OU)	Media	Institutional Control	Engineering Control
Site D (OU 6)[a]	Soil/sediment within wetland area	• Excavation permits and construction project review required • Ensure that land use remains a wetland within the currently designated wetland area • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of and that workers are protected during any such disturbance or excavation • Notify Ecology, USEPA, and the USACE prior to any development or redevelopment of the site to ensure wetland regulations are followed	None
Site B (OU 7)	Soil	• Land use restriction (outdoor recreational use only) • Excavation permits and construction project review required • Notify Ecology and USEPA prior to any development or redevelopment of the site to ensure the integrity of the remedy	• Vegetative soil cover • Soft bank erosion protection • Signs • Stormwater drainage system
Site E/11 (OU 7)	Groundwater	Covered as part of Site F	Covered as part of Site F
Site 10 (OU 7)	Groundwater and soil	• Groundwater use prohibition • Land use restriction (industrial only) • Excavation permits and construction project review required	• Infiltration barrier • Slope erosion control system

Table 2-3 (continued). Summary of Institutional and Engineering Controls by Operable Unit

Site Name (Associated OU)	Media	Institutional Control	Engineering Control
Public Works Industrial Area (OU 8 on base)	Groundwater and soil	• Groundwater use prohibition • Land use restrictions (land uses must be consistent with remedy and land use restrictions below 15 feet to water table to prevent exposure to petroleum-contaminated soil) • Excavation permits and construction project review required	None
Mountain View neighborhood (OU 8 off base)	Groundwater	Groundwater use prohibition	None

[a]No formal IC for this OU. However, wetland laws are used to restrict activities within the wetland area, and annual inspections are performed.

3.0 PROGRESS SINCE LAST FYR

This section includes the protectiveness determinations and statements as well as the recommendations from the fourth FYR for NBK Bangor (U.S. Navy, 2015a) and the current status of those recommendations.

Per USEPA FYR Guidance (USEPA, 2016), Table 3-1 details the protectiveness statement and determination from the fourth FYR for NBK Bangor (U.S. Navy, 2015a).

Fourteen recommendations that affected protectiveness were presented in the fourth FYR for NBK Bangor (U.S. Navy, 2015a) to ensure the protectiveness of the remedies at OUs 1, 2, 3, 6, 7, and 8. Per USEPA FYR Guidance (USEPA, 2016), Table 3-2 summarizes these recommendations (U.S. Navy, 2015a) as well as the current status of these recommendations.

Table 3-1. Protectiveness Determinations from the Fourth Five-Year Review

OU	Site	Protectiveness Determination	Protectiveness Statement
Sitewide		Short-term protective	The remedies at NBK Bangor currently protect human health and the environment because LUCs and/or ECs prevent exposure to contaminated media, groundwater plumes are stable and/or contained by pump and treat systems, and groundwater monitoring is performed to assess the extent of groundwater plumes. However, in order for the remedies to be protective in the long term, the actions listed in Table 8-1 of the fourth FYR and summarized below for OUs 1, 2, and 8 need to be taken to ensure protectiveness.
1	A	Short-term protective	The remedy at OU 1 currently protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the groundwater plume is stable, and groundwater monitoring is performed to assess the extent of the plume. However, in order for the remedy to be protective in the long term, the following actions need to be taken to ensure protectiveness: • Prepare a FFS for OU 1 in accordance with USEPA's MNA guidance and the technical impracticability guidance, including an evaluation of remediation timeframes using a mass balance assessment or other technique, a treatability study of MNA, field verification of aquifer properties, and a reevaluation of the human health risk pathways. • Perform a comprehensive evaluation of the pump and treat system maintenance needs and proactively repair and replace equipment if continued long-term operation of the pump and treat system is planned. • Investigate the depression in the southeast corner of the burn area to assess impacts to the leach basin liner and, at a minimum, backfill the hole with clean sand.
2	F	Short-term protective	The remedy at OU 2 Site F currently protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the pump and treat system contains the plume, and groundwater monitoring is performed to assess the extent of the plume. However, in order for the remedy to be protective in the long term, the following actions need to be taken to ensure protectiveness: • Continue remedy optimization by performing aerobic and anaerobic biodegradation treatability tests and further modeling. • Continue to evaluate the pump and treat system maintenance needs and proactively repair and replace equipment to minimize future system shutdowns and the potential loss of plume containment. • Tabulate and report data in the body of the LTM report for 1,3,5-trinitrobenzene and 1,3-dinitrobenzene, because concentrations of these chemicals exceeded the RGs during this FYR period. • Following completion of the modeling activities planned for 2015, reevaluate the need for additional groundwater monitoring points to better characterize the potentiometric surface proximate to active infiltration wells and extraction wells in support of RDX plume containment objectives and the ongoing USACE bioaugmentation pilot study. • Remove vegetation observed growing in the asphalt seams and drainage swale of the Site F infiltration barrier, and repair cracks in the asphalt cap, as needed.

Table 3-1 (continued). Protectiveness Determinations from the Fourth Five-Year Review

OU	Site	Protectiveness Determination	Protectiveness Statement
3	16/24 and 25	Protective	The remedy at OU 3 is protective of human health and the environment. The remedy for Site 16/24 soil consisted of a residential land use restriction. The remedy for Site 25 groundwater consisted of groundwater monitoring, which met the requirements of the OU 3 ROD in 1997 and was discontinued at that time. Inspections of the LUCs at Site 16/24 have been conducted regularly, and the current land use remains in accordance with the restrictions defined in the OU 8 ROD (which established the basewide LUCs). Therefore, the selected remedy for OU 3 is functioning as intended by the ROD. No RAO was established in the OU 3 ROD (U.S. Navy, USEPA, and Ecology, 1994b).
6	D	Protective	The remedy at OU 6 is protective of human health and the environment. The remedy for Site D included excavating soil from the burn trench, screening and composting the excavated soils at an on-base treatment facility, backfilling the treated soils into the excavation area, grading and revegetation, and surface water and groundwater sampling. The remedy components for soil removal and treatment, surface water monitoring, and groundwater monitoring at OU 6 functioned as intended by the ROD, and no IC was required for OU 6. These actions effectively meet the RAOs established in the OU 6 ROD.
7	B, E/11, 10	Protective	The remedy at OU 7 is protective of human health and the environment. The remedy for Site B (Floral Point) included covering areas of contaminated soil, installing shoreline protection and stormwater drainage systems to control erosion, monitoring sediment and clam tissue, and installing signs notifying visitors that the site is to be used for recreational purposes only and approval is required for digging or mowing. The remedy for soil at Site E/11 included disposal of stockpiled soil and metal debris, grading the site, and backfilling with clean topsoil. The remedy for Site 10 included ongoing long-term maintenance of the asphalt pavement cover, groundwater monitoring, groundwater use restrictions, and expansion of the area of asphalt cover to include soils contaminated with arsenic, cadmium, lead, and PCBs. These remedy components functioned as intended by the ROD. LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs at Sites E/11 and 10, LUCs and ECs prevent exposure to contaminated soil at Sites B and 10, and groundwater monitoring is performed to assess the extent of contaminated groundwater at Site E/11 (as part of OU 2 Site F groundwater monitoring). The LUCs and groundwater monitoring components of the remedy are functioning as intended by the ROD. These actions effectively meet the RAOs established in the OU 7 ROD.
8	27, 28, and 29	Short-term protective	The remedy at OU 8 currently protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the extent of the groundwater plume is decreasing, and groundwater monitoring is performed to assess the extent of the plume. However, in order for the remedy to be protective in the long term, the following actions need to be taken to ensure protectiveness: • Continue remedy optimization activities specified in recommendations (see Table 8-1 of the fourth FYR). • Perform an additional round of vapor intrusion monitoring following completion of the benzene pilot study. • Review the toluene RG prior to discontinuation of monitoring at the site to assess protectiveness.

Table 3-2. Actions Taken Since Previous Five-Year Review

Recommendations/ Follow-up Actions	Milestone Date/	Completion Date	Notes Regarding Completion	Reference
General				
Evaluate State and Federal human health surface water quality criteria revisions in the next FYR.	October 31, 2020	January 2020	As recommended, this evaluation is part of this fifth FYR.	Fifth FYR
Evaluate exposure factor changes in next FYR.	October 31, 2020	January 2020	As recommended, this evaluation is part of this fifth FYR.	Fifth FYR
Ensure deficiencies that impact protectiveness are repaired within the same year if funding is available or programmed for the next year if funding is not available in the same year.	October 31, 2016	2016 to 2019	• The cracks in the asphaltic cover over the Site F source area were repaired in 2016 and are monitored annually. Additional vegetation removal and drain cleaning is planned for 2020. • Vegetation control has been conducted annually in the Site A Leach Basin, and additional mowing/vegetation control was conducted in Fall 2019. Willow, blackberry, and scotch broom removal is planned for 2020. • The Site B (Floral Pt.) distressed vegetative cover identified in 2017 was restored in 2018 and remains intact. Beach replenishment is planned for late summer 2020.	U.S. Navy, 2019l
OU 1 Site A				
Prepare an FFS for OU 1 in accordance with USEPA's MNA guidance and the technical impracticability guidance. The existing pump and treat system, MNA, and possibly other treatment technologies would be evaluated in the FFS. The other treatment technologies to be included in the FFS would be selected using a collaborative process with the stakeholders. The FFS will also include an evaluation of remediation timeframes using a mass balance assessment or other technique, a treatability study of MNA, field verification of aquifer properties, and a reevaluation of the human health risk pathways. An MNA treatability study work plan will be developed in conjunction with	July 31, 2019	On-going	• These studies have required more time to complete than anticipated in the fourth FYR because of funding and schedule limitations, and the complexity of the analysis. • MNA treatability testing and pilot studies are underway, as is the FFS. An internal draft of the FFS is planned for submittal to the Navy for initial review in spring 2020. • A draft mass balance assessment will be completed in the first quarter 2020. • Field verification of aquifer properties was	USACE, 2017a,b; 2018; 2019a,b; Tobias, 2019; U.S. Navy, 2018a; 2019c

Table 3-2 (continued). Actions Taken Since Previous Five-Year Review

Recommendations/ Follow-up Actions	Milestone Date/	Completion Date	Notes Regarding Completion	Reference
the USEPA and Ecology which would include temporarily deactivating the pump and treat system and implementing an MNA treatability test using USEPA protocols.			completed in 2017-2018. • Human health risk pathways will be evaluated in the FFS.	
If continued long-term operation of the pump and treat system is planned, perform a comprehensive evaluation of the pump and treat system maintenance needs and proactively repair or replace equipment. Address corrosion observed on floor braces supporting effluent piping, and replace extraction well vaults with traffic-rated vaults.	October 31, 2020	2018-2019	• An evaluation of the pump and treat system maintenance needs was completed in 2018 and repairs are in progress regarding a GAC tank level meter; the plant compressor; influent and effluent lines and filters; floor braces; and extraction well pumps. • The extraction well vaults were replaced in August-September 2019.	U.S. Navy, 2019a
Investigate the depression in the southeast corner of the burn area to assess impacts to the leach basin liner. At a minimum, backfill the hole with clean sand.	December 31, 2017	Annual inspection	• The leach basin liner in the southeast corner has been inspected annually and is intact. • The hole was partially backfilled with leach basin material resulting from drilling and trench excavation; additional backfilling is planned.	U.S. Navy, 2019a
OU 2 Site F				
Perform aerobic and anaerobic biodegradation treatability tests and further modeling to support Site F remedy optimization.	October 31, 2016	On-going	Biodegradation treatability testing and pilot studies are underway. These studies have required more time to complete than anticipated in the fourth FYR because of funding and schedule limitations, as well as the complexity of the analysis.	USACE, Undated and 2017c, U.S. Navy, 2019q
Continue to evaluate the pump and treat system maintenance needs, proactively repair and replace equipment to minimize future system shutdowns and the potential loss of plume containment, and repair the minor water leaks observed during the site inspection.	October 31, 2020	2018-2019	An evaluation of the pump and treat system maintenance needs was completed in 2018.	U.S. Navy, 2019q

Table 3-2 (continued). Actions Taken Since Previous Five-Year Review

Recommendations/ Follow-up Actions	Milestone Date/	Completion Date	Notes Regarding Completion	Reference
Tabulate and report data in the body of the LTM report for 1,3,5-trinitrobenzene and 1,3-dinitrobenzene, COCs for Site F groundwater, because concentrations of these chemicals exceeded the RGs during this FYR period.	October 31, 2016	October 2018	The Final Site F Annual Report October 25, 2018 presents this data.	U.S. Navy, 2018h
Following completion of the modeling activities planned for 2015, reevaluate the need for additional groundwater monitoring points to better characterize the potentiometric surface proximate to active infiltration and extraction wells in support of RDX plume containment objectives and the ongoing USACE bioaugmentation pilot study	October 31, 2016	2015 and 2019	The results of 2015 and 2019 modeling runs indicate that there may be a benefit to moving infiltration to IW2A, 3, 4, 5 and 6, while continuing to operate EW1, 3, 5, 7 and 10. Annual LTM results along with modeling runs indicates that additional monitoring points are not necessary.	USACE, 2014; U.S. Navy, 2015k; U.S. Navy, 2019l
Remove vegetation observed growing in the asphalt seams and drainage swale of the site infiltration barrier, and repair the cracks in the asphalt cap, as needed.	October 31, 2016	2016	This work was completed in 2016. Additional vegetation removal and drain cleaning is planned for 2020.	U.S. Navy, 2018f
OU 8				
Perform additional studies to further define the nature and extent of dissolved-phase COCs and LNAPL (including LNAPL mobility tests) to support remedy optimization, perform the benzene pilot test to evaluate air sparge/soil vapor extraction technology, evaluate whether low-temperature thermal treatment could enhance MNA, evaluate active source remediation technologies, reestablish the 1,2-DCA biobarrier after the benzene pilot study has been completed, and monitor 1,2-DCA and indicator parameters in pilot study wells, in addition to the ongoing MNA program.	December 31, 2017	2017-2019	• These planned studies were completed during this FYR period, but have led to additional studies which are underway. • The Navy completed a pilot test and report that evaluated the air sparge/soil vapor extraction technologies at OU 8. The results of the test indicated that air sparge/soil vapor extraction could be an efficient means to contribute to the overall remediation of the site, if used with other remediation technologies. • The Navy conducted an internal evaluation of low-temperature thermal treatment, and active source remediation technologies. The results of this internal evaluation concluded that an active source remediation technique referred to as high-vacuum dual phase extraction (HVDPE) would be tested during the next five year review period in those wells that continue to show residual free product,	U.S. Navy, 2018q, 2018o, and 2019y

Table 3-2 (continued). Actions Taken Since Previous Five-Year Review

Recommendations/ Follow-up Actions	Milestone Date/	Completion Date	Notes Regarding Completion	Reference
			particularly in the summer months when water levels drop and product levels modestly increase in some wells. Prior to, during, and after the HVDPE event, electrical resistivity (ER) will be conducted to identify anomalous areas that may indicate the presence of free product, as was conducted with limited success at this site in 2012. Electrical resistivity will also show changes in the subsurface brought about by the implementation of the HVDPE, and this effort will aid in the final characterization of the site with regard to the residual product. Following the electrical resistivity and HVDPE, a microbial assessment will be conducted during this five year review period to review and optimize the current groundwater bioremediation by biostimulation (using vegetable oil) that is reducing the 1,2-DCA chlorinated solvent contaminant mass.	
Perform an additional round of vapor intrusion monitoring following completion of the benzene pilot study.	October 31, 2020	2019	Vapor intrusion monitoring was initiated in two phases with the first phase completed in July 2019 and the next phase performed in December 2019.	U.S. Navy, 2019u
Review the toluene RG prior to discontinuation of monitoring at the site to assess protectiveness.	October 31, 2020	Completed for this FYR period	There are no plans to discontinue or substantively change the monitoring program.	Fifth FYR

4.0 FIVE-YEAR REVIEW PROCESS

4.1 Community Notification, Involvement, and Interviews

There are specific requirements pursuant to CERCLA Section 117(a), as amended, for certain reports to be released to the public and for the public to be notified of proposed cleanup plans and remedial actions. The Navy's public or community notification and involvement activities related to NBK Bangor are described in the following subsections.

All team members had the opportunity to provide input to this report. Comments received from USEPA and Ecology together with the Navy's responses are included in Appendix A.

The Navy placed a notice of intent in the *Kitsap Sun* on September 22, 2019 informing the public that the site is currently undergoing a FYR. This notice also provided information as to when, where, and how the public could receive information and how to provide comments on the protectiveness of the remedy. There has been no public response resulting from the notice.

4.1.1 History of Community Involvement

Community involvement activities have established communication between the citizens living near NBK Bangor, other interested organizations and agencies, the U.S. Navy, USEPA, and Ecology. The actions taken to satisfy the statutory community involvement requirements have also provided a forum for citizen involvement and input on remedial action activities.

Community involvement activities included the following:

- Periodic meetings of the Restoration Advisory Board (RAB; which began in 1995 and was disbanded in 2005).
- Development of a community relations plan (CRP).
- Website posted publications/information.
- Local newspaper and website notifications.

A RAB for NBK Bangor was established in 1995 to provide community input to remediation activities at NBK Bangor. The RAB members included representatives of the Navy, regulatory agencies, civic groups, private citizens, tribal governments, local governments, and environmental activist groups. The NBK Bangor RAB was active from 1995 to 2005. It was disbanded in May 2005 since there was no longer sufficient, sustained community interest, and the RAB had achieved the installation's desired end goal.

The Navy has a written CRP, last updated in 2009, that is available for public review (U.S. Navy, 2009b).

4.1.2 Community Involvement during the FYR Period

Interviews were conducted with persons familiar with the CERCLA actions at NBK Bangor. Interviewees were selected from the Navy, Ecology, USEPA, Kitsap County Health District, and community. Interview instructions and questions were sent to potential interviewees via e-mail or regular mail, and responses to questions were returned by e-mail. Not all of those invited to comment chose to do so. Two interview responses were received (one from a regulatory agency and one from a Navy contractor) and are documented in Appendix B. Highlights of the interview responses are summarized below.

The respondent from Ecology mentioned that the respondent was mostly familiar with OUs 1, 2, and 8 and has been providing oversight since November 2016. The respondent felt that the remedy is protective in the short term and needed further actions to make the remedy long-term protective. The interviewee suggested holding regular meetings to inform regulators early about upcoming document reviews. The respondent was aware of the per- and polyfluoroalkyl substance (PFAS) compound use at NBK Bangor in the past. Ecology was not aware of any major deficiencies involving breach of any ICs.

The Navy contractor respondent felt that all remedies were protective and he was not aware of any current effects of the on-going remedy to the off-base community. He felt that the Navy has been proactive over the last decade in maintaining current remedies and pursuing potential remedy augmentation to accelerate the cleanup timeframe.

4.2 Data Review

This section summarizes trends in chemical data collected through the various monitoring programs at NBK Bangor. The monitoring programs are described in Section 2, and the implications of the data regarding the functionality and protectiveness of the cleanup actions are discussed in Sections 5 and 7, respectively. Site inspections are described separately in Section 4.3. The long-term and recent data trends will be presented by OU in the subsections that follow.

Data provided in this section are from the following categories of reports, covering the period April 2014 through April 2019:

- LTM reports for Site A, Site F, and OU 8.
- Quarterly progress reports covering the groundwater treatment systems at Sites A and F.
- Reports documenting additional investigations, treatability and pilot studies at Site A.
- Reports documenting groundwater modeling, treatability and pilot studies at Site F.
- Reports documenting additional investigations at OU 8.
- LUC inspection reports.

4.2.1 OU 1 Site A

This section presents a summary and review of data collected over this FYR period for OU 1 (Site A). These data include periodic groundwater monitoring data, groundwater treatment system progress data, and additional investigation data.

The OU 1 Site A ROD (U.S. Navy, USEPA, and Ecology, 1991a) specified that the concentrations of COCs (RDX, TNT, and 2,4- and 2,6-dinitrotoluene [DNT]) in the compliance wells located in the seasonal perched groundwater zone and throughout the shallow aquifer of the burn area shall comply with the RGs within a 10-year period of treatment system operation. In addition, treatment system performance is to be monitored by sampling performance wells. The main objective at Site A is to restore shallow aquifer waters to support possible future drinking water use (U.S. Navy, USEPA, and Ecology, 1991a).

Periodic monitoring of COCs in Site A groundwater has been performed since 1994 for the purpose of documenting progress towards the RAOs and performance of the groundwater pump and treat system. Site A monitoring also includes recording of monthly groundwater elevations, used to help verify that the groundwater pump and treat system continues to prevent further migration of groundwater in the shallow aquifer exhibiting COC concentrations exceeding the cleanup levels. During this FYR period, monitoring of COC concentrations in groundwater was performed in up to 21 compliance monitoring wells and up to nine performance wells, including seven extraction wells, as detailed in Table 2-3. The Navy sampled four additional wells in 2017 and 2019 on an elective basis in support of treatability studies at the site.

During this FYR period, a more detailed study of perched zone saturation was conducted in support of CSM refinement. This study was conducted using datalogger-equipped pressure transducers in nine perched zone wells from December 2013 to March 2017.

Two additional monitoring wells (A-MW62 and A-MW63) were installed and sampled in 2017 as part of the data gap investigation supporting the upcoming FFS (U.S. Navy, 2018a). Seven additional wells were installed in the perched zone in support of the USACE infiltration trench, along with a shallow-aquifer well paired next to A-MW46 to support the NESDI 15N isotopic-labeled RDX study (U.S. Navy, 2018a). These wells were not added to the periodic groundwater monitoring program.

4.2.1.1 OU 1 (Site A) COC Concentrations in Groundwater

Analytical results for ordnance compounds (RDX, 2,4,6-TNT, 2,4-DNT, and 2,6-DNT) in groundwater samples collected at the site as part of periodic monitoring since 1994 are summarized in Appendix C. Key results during this FYR period are shown graphically on Figures 4-1 through 4-3, and RDX isoconcentration contours based on the April 2019 sample data are shown on Figure 4-2. Field parameters and natural attenuation analytical results from 2009 to 2019 are summarized in Appendix C. These data are reproduced from the most recent annual monitoring report for Site A (U.S. Navy, 2019a), which includes results through the April 2019 sampling event.

The report covering the most recent (Spring 2019) monitoring event noted some unusual results compared to the historical record, such as the result for well A-EW6, which contained RDX at 21 µg/L, substantially higher than the typical result of 1 µg/L or less. The report hypothesized that flow changes associated with adjustments to system operation and the on-going pilot testing might account for these unusual results (U.S. Navy, 2019a).

Shallow Aquifer Compliance Well COC Data. COCs were less than their respective cleanup levels in all shallow aquifer compliance monitoring wells during this FYR period except for RDX in A-MW32 (Figure 4-4) between April 2014 and January 2018 and A-MW49 throughout this FYR period. The RDX concentration in well A-MW32 dropped below the cleanup level in the most recent sampling event. No other ordnance compounds exceeded cleanup levels in the shallow aquifer.

Extraction Well COC Data. During this FYR period all extraction wells exhibited RDX values exceeding the cleanup level of 0.8 µg/L (Figure 4-2) during all or a portion of the review period, with concentrations ranging from 0.13 J µg/L (A-EW6 result in March 2016) to 170 µg/L (A-EW8 in March 2016).

Perched Aquifer and Till Interbed Compliance Well COC Data. RDX concentrations consistently exceeded the cleanup level during this FYR period in compliance wells installed within the perched zone and Vashon Till interbeds, with RDX concentrations as high as 180 µg/L (A-MW60R in March 2015). The cleanup levels for TNT or 2,6-DNT were also exceeded during one or more sampling events during this FYR period in wells A-MW36, A-MW38, and A-MW47.

Elective Well COC Data. The three wells sampled in 2017 on an elective basis (A-MW59, A-MW60R, and A-MW61) were subsequently incorporated into the compliance monitoring program, and the 2017 results are therefore captured in the summaries above. In 2019 three wells were sampled on an elective basis in support of pilot tests at the site. Elective well A-MW62 in the shallow aquifer exhibited RDX above the cleanup level at 17 µg/L. Elective wells A-MW66 and A-MW67 in the perched aquifer exhibited RDX at 0.10 U and 4.5 µg/L, respectively (see table 3-3 of the 2019 monitoring report [U.S. Navy, 2019a]).

4.2.1.2 OU 1 (Site A) COC Concentration Trends in Groundwater

Annual monitoring reports for the site consistently include updated analyses of contaminant concentration trends using summary statistics and statistical analysis for parametric and non-parametric datasets. The trend analyses follow the recommendations of the USEPA unified guidance for statistical analysis of groundwater data (USEPA, 2009) and include both linear regression and Mann-Kendall analysis, as appropriate for the datasets. For wells with a dataset that supports simple linear forecasting, forecasts are made regarding the estimated future year in which cleanup levels are expected to be reached. A summary of the most trend evaluations is provided in Table 4-1, reproduced from the draft 2019 annual data report for Site A (U.S. Navy, 2019a), which also includes a detailed discussion of these trend evaluations. These trend evaluations were also used in the MNA report (U.S. Navy, 2019c) and are the subject of on-

going comment/response between the Navy and Ecology regarding details of the statistical approach.

Trends in Downgradient Shallow Aquifer Wells. Concentrations of RDX in wells delimiting the downgradient extent of the RDX plume in the shallow aquifer, including A-MW50, A-MW51, A-MW52, A-MW-53, A-MW54, A-MW55, A-MW56, and A-MW57 (Figure 4-4), were consistently below the RDX cleanup level or laboratory reporting limit during this FYR period. The dataset for one of these wells, A-MW54 allowed calculation of a trend using linear regression in 2019, and the trend was decreasing but not statistically significant. The well delimits the downgradient extent of the smaller southern lobe of the RDX plume west of the extraction wells and has exhibited decreasing RDX concentrations since February 2006. RDX concentrations in this well have remained below the RDX cleanup level of 0.8 µg/L since August 2009.

Trends within the Shallow Aquifer Plume. A-MW49 is located within the plume between the extraction wells and the downgradient wells (Figure 4-4). RDX concentrations in this well exhibit a decreasing trend (though not statistically significant), with concentrations currently an order of magnitude lower than at the inception of monitoring in 2002. Over the shorter term, RDX concentrations in A-MW49 have been variable (Figure 4-2). The 2019 LTM report hypothesized that this variability relates both to its position near the leading edge of the plume and to complex migration characteristics within a low-permeability saturated zone that exhibits little lateral continuity and high lateral variability in concentrations over short distances (such as demonstrated by RDX concentration differences in adjacent extraction wells A-EW6 and A-EW7).

Trends in Extraction Wells. Evaluation of extraction well linear regression trends using the most recent 10 years of data provide a simple linear forecast that shows decreasing RDX concentration trends in six of the extraction wells, with an increasing trend only in A-EW6 (though not statistically significant). Forecast dates for reaching the cleanup level could be calculated for four of the extraction wells and ranged between 2021 and 2031 (Table 4-1).

During this FYR period well A-MW32, which is located north and cross-gradient to extraction well A-EW8 (Figure 4-4), continued to exhibit an increasing RDX trend that began in 2008. However, the 2019 results from this well show a concentration reduction of two orders of magnitude, to below the cleanup level, attributed to 2018 pilot testing. The RDX concentration in well A-IW3, located approximately 56 feet north of A-MW32 (Figure 4-4) and sampled in 2019 on an elective basis, was an estimated 0.088 µg/L, an order of magnitude lower than the concentration at A-MW32 and well below the cleanup level. RDX concentrations below the cleanup level or laboratory reporting limits in samples from A-MW32 and A-MW53 delimit the plume extent in downgradient (west and north) of well A-MW32 (Figure 4-4).

Trends in Perched Zone Wells and Vashon Till Interbed Wells. The perched zone at Site A has typically been interpreted to be a residual source of COCs migrating to the shallow aquifer below. Figure 4-3 illustrates that RDX values have decreased over this FYR period in perched-zone wells A-MW22 and A-MW48, and Vashon Till interbed well A-MW60R. The 2019 LTM report hypothesized that this decline is the result of biostimulation pilot tests conducted in 2018.

RDX and TNT trends in perched zone and Vashon Till interbed wells are decreasing (in wells where trends can be calculated, Table 4-1), except for TNT in A-MW47. However, only the decreasing RDX trend in well A-MW48 is statistically significant. In addition, the RDX concentrations in the deeper Vashon Till interbed wells A-MW60R and A-MW38, compared to the results in the shallower perched-zone wells, document that the potential remains for RDX to migrate downward and contribute to the shallow aquifer concentrations. Evaluation of linear regression trends in 2019 provided a simple linear forecast showing RDX concentrations reaching the cleanup level at A-MW48 in 2022 (Table 4-1).

4.2.1.3 OU 1 (Site A) Pump and Treat System Data Review

OM&M and performance of the Site A pump and treat system are documented in the annual LTM and O&M reports (U.S. Navy, 2019a, 2018e, 2017e, 2016e, 2015e).

Plant Operations. Overall, during this FYR period the system operated dependably and was monitored and maintained in accordance with the O&M manual, as periodically updated. The system was not operating between July 31, 2017 and December 1, 2017, and between January 12 to November 2, 2018, during planned shutdowns to support pilot studies. During this FYR period the following substantive operational issues were encountered and addressed:

- The extraction pumps in leach basin wells A-MW37 and A-MW46 failed in April 2015. New pumps were installed at these two wells and well A-EW8 in November 2017, resulting in all seven extraction wells being active at system restart on December 1, 2017.
- During the scheduled system shutdown a new compressor pump was installed.
- In December 2018, it was concluded that the well casing at A-EW8 was broken, and the well was retrofitted with a 2-inch diameter casing.
- Wells A-EW6 and A-EW7 were redeveloped in December 2018.
- In 2019 small quantities of fine sediment were noted in the flow from most extraction wells. In addition, biomass material has been emanating from A-EW7, and possibly some other wells. This biomass material has been causing system operational challenges. New filters are being added to the plant influent line in an effort to lessen the impact of biomass and sediment coming from extraction wells.

The extraction well flow network achieved an overall nominal recovery rate of approximately 2 to 3 gallons per minute (gpm) during this FYR period, based on the overall system process rate. The annual ordnance mass removal of the pump and treat system ranged from approximately 1.5 pounds to less than one pound per year during this FYR period. Groundwater recovery rates and mass removal rates are strongly constrained by the low permeability of the shallow aquifer.

Plume Containment. Assessment of plume containment at Site A is part of each annual LTM and O&M report and is based primarily on evaluation of monthly groundwater elevation data and laboratory analytical results of groundwater samples. During this FYR period the annual reports have consistently concluded that contouring of the groundwater elevation data demonstrates that groundwater extraction does alter the potentiometric heads close to the point of

groundwater withdrawal but cannot accomplish sufficient drawdown in the low-permeability aquifer to achieve complete containment. Based on the presence of degradation indicator compounds MNX, DNX, and TNX, natural degradation of ordnance compounds appears to contribute to mass reduction within the plume at OU 1 Site A.

COC concentrations and trend analysis showed a relatively consistent RDX plume footprint during this FYR period, with RDX in groundwater present downgradient of the line of extraction wells to the vicinity of well A-MW49, but not extending to downgradient monitoring wells A-MW56, A-MW57, and A-MW51 (Figure 4-4).

Natural degradation of ordnance compounds apparently contributes to at least some mass reduction within the plume at Site A, and the degradation indicator compounds hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine (MNX), hexahydro-1,3-dinitroso-5-nitro-1,3,5-triazine (DNX), and hexahydro-1,3,5-trinitroso-1,3,5-triazine (TNX) were included in the monitoring program during this FYR period along with natural attenuation parameters including methane, DOC, dissolved manganese, and oxidation-reduction potential (Appendix C). The 2019 LTM report concluded that detection of RDX degradation compounds provides a strong indication that degradation is active at Site A. These data provide a good baseline for RDX degradation conditions at Site A and will be used to support the evaluation of MNA as part of the upcoming FFS.

4.2.1.4 OU 1 (Site A) Additional Site Characterization and Pilot Study Data Review

Data from this FYR period are available from additional site characterization work by the Navy's LTM contractor in support of the upcoming FFS. The Navy's LTM contractor also provided support during performance of pilot tests and studies conducted during this FYR period by USACE and Dr. Craig Tobias of the University of Connecticut which were focused on assessing biodegradation of ordnance compounds in Site A groundwater, including the performance of biostimulation of naturally occurring bacteria in the perched aquifer (see Section 2.1.2 for a summary of actions performed during this FYR period). Data from the additional investigations performed by the Navy's LTM contractor are provided in implementation and well installation reports covering work performed in 2017 and 2018 (U.S. Navy, 2018a and 2018b). Data from the pilot studies are available in draft reports (USACE, 2019a, 2019b, and Tobias [2019]). The results from the additional investigation and the pilot studies were used as part of an evaluation of the remedial potential for MNA at Site A (U.S. Navy, 2019c and 2019d) in accordance with established protocols (USEPA, 1999; Pennington et al., 1999).

Data and conclusions from the pilot studies and additional site characterization will be incorporated into the evaluation of potential remedy optimization measures in the upcoming FFS. Because these studies are still in progress and because the results will be incorporated into the FFS, the data are not exhaustively reviewed within this FYR. The next FYR will assess the effects on protectiveness of any revision to the existing remedy that results from the on-going studies and the FFS. The published data available to date from the on-going studies are summarized in the remainder of this section.

Biostimulation Pilot Testing. These pilot tests included biostimulation in the perched zone using an infiltration trench (Figure 4-4), borehole dilution testing, retardation factor testing, and "push-pull" tests. Data tables from this pilot test are not reproduced or discussed in this FYR because the reports are not yet finalized (USACE, 2019a and 2019b).

RDX Isotope Tracer Testing. This study relied on two injections of ^{15}N-labeled RDX in shallow aquifer wells AMW46 and AMW37 (Figure 4-4) in 2018. The results of these injections were then monitored over time in the injection wells and a downgradient well to quantify the amount of ^{15}N isotope tracer that was converted from the added RDX into the nitrogen-containing mineralization products nitrate and nitrite (collectively referred to as NO_3-), dissolved nitrous oxide (N_2O), and dissolved N_2 gas. Data tables from this pilot test are not discussed or reproduced in this FYR because the report is not yet finalized.

Additional Site Characterization Data. The collection and analysis of additional site characterization data in 2017 and 2018 included logging of excavation soil and soil borings, sampling of temporary and permanent wells, and aquifer tests (U.S. Navy, 2018a). One goal of the additional data collection was to characterize the following aquifer properties:

- Hydraulic conductivity
- Grain size distribution and porosity
- Organic carbon content
- Thickness of shallow aquifer
- Hydrostratigraphy refinement
- RDX Kd

The additional data collection was also intended to:

- Establish current ordnance concentrations in source area soil.
- Delimit the vertical extent of ordnance compounds in groundwater.
- Assess the occurrence and rates of natural degradation of ordnance compounds.

The data collection activities performed to meet these objectives are summarized in Table 4-2 and key data tables are reproduced in Appendix D. The additional site characterization activities allowed refinement of the CSM, specifically with regard to the stratigraphy, hydrogeology and extent of contamination. Key findings are summarized in the subsections below.

Stratigraphy. Logs of well bores for new deep monitoring wells A-MW62 and A-MW63 were combined with the log of historical boring A-MW58 (located as shown on Figure 4-4) to generate a stratigraphic cross section running north to south through the site. Logs of new well bores A-MW64 through A-MW67 and A-MW70 and A-MW71 (located as shown on Figure 4-4), as well as descriptions of the soil found during excavation for the infiltration trench installed for the USACE pilot study, were used to refine the descriptions of soil types. Fill above the leach basin liner was found to be 3 to 5 feet thick. Beneath the liner, the Vashon Recessional Outwash (Qvr) was found to consist of interbedded silty sand, silt, clay, and gravel, and to range

in thickness from 5 to 11 feet. Beneath the Qvr, the Vashon Till (Qvt) was found to be a very dense, poorly sorted, very silty fine-grained sand with gravel and clay, and was observed to depths of 24 to 40 feet bgs in well bores drilled during this investigation. Underlying the Qvt, the Vashon Glaciolacustrine Deposits (Qvgl) were observed to be composed of interbedded fine sands, fine sandy silts, silts, and clayey silts. The Qvgl thickness observed in the well bore for A-MW62 was 123.5 feet, occurring from 27.5 feet bgs to 151 feet bgs. In this well bore a basal massive silt unit was observed and presumed to extend at least another 10 feet to beyond the end of the borehole at 160.8 feet bgs (correlated to 20 feet silt in A-MW58). The thickness of Qvgl in the well bore for A-MW63 was 125 feet, occurring from 25 to 150 feet bgs, with the same basal massive silt unit logged at the bottom of the well bore (U.S. Navy, 2018a). Correlation of the silt observed at the bottom of the well bores for wells A-MW58, A-MW62, and A-MW63 led to the conclusion that at least 20 feet of this massive silt underlies Site A (U.S. Navy, 2018a).

Perched Zone Hydrogeology. Slug test and laboratory test data showed a range of horizontal hydraulic conductivity values for the perched aquifer of 1.0×10^{-5} cm/sec to 1.5×10^{-4} cm/sec and a horizontal to vertical hydraulic conductivity anisotropy ranging from 10:1 to 100:1. Review of the hydrogeologic data also led to the conclusion that well A-MW60R is not screened within the perched zone but rather in a sandy interbed of the Qvt formation. Monitoring reports now identify this well as a "till interbed well." Well A-MW38 is also considered a till interbed well. Although these wells are installed within sandy interbeds of the Qvt formation and produce water, in general the Qvt formation acts as an aquitard at Site A, forming a low-permeability unit that results in the perched zone above the Qvt (U.S. Navy, 2018a). Pressure transducer data from nine perched zone monitoring wells collected between December 2013 and March 2017 refined the timing of wetting and drying of the perched zone, allowing for grouping perched zone wells based on the timing of the well response to the onset of the wet season.

Shallow Aquifer Hydrogeology. The additional investigation concluded the following regarding the shallow aquifer hydrostratigraphy:

> The shallow aquifer occurs within the fine-grained Qvgl, whose interbedded fine sands, fine sandy silts, silts, and clayey silts form a low permeability unit. The water table lies 30 to 50 feet below the Qvt/Qvgl contact, meaning that a portion of the Qvgl forms a vadose zone and the underlying saturated portion forms an unconfined aquifer. Locally, semiconfined conditions can exist such as those caused by the massive silt interval observed at A-MW62. Qvgl forms a very poor aquifer matrix and is classified in Kahle (1998) as part of the upper confining unit… (U.S. Navy, 2018a).

The slug tests performed in the shallow aquifer indicated a geometric mean for horizontal hydraulic conductivity values of 1.0×10^{-4} cm/sec, which is consistent with past studies at the site (U.S. Navy, 2018a). Monitoring of the aquifer recovery following shutdown of the pump and treat system indicated a hydraulic conductivity value of 2.8×10^{-4} cm/sec, and was concluded to provide the best average horizontal hydraulic conductivity value for the shallow aquifer because it relies on the most robust dataset generated to date (U.S. Navy, 2018a). The additional investigation report also interpreted the recovery test data to indicate that the pump and treat system draws down the shallow aquifer by at least 10 feet when pumping.

Extent of Ordnance in Soil. The additional investigation refined the understanding of the distribution of ordnance compounds beneath and near the leach basin. None of the soil samples collected exhibited ordnance concentrations above the soil cleanup levels.

Extent of Ordnance in Groundwater. Groundwater samples collected in 2018 from the new perched zone wells installed near the pilot test infiltration trench (A-MW64 through A-MW67, Figure 4-4) exhibited RDX concentrations ranging from 15 µg/L to 230 µg/L, above the groundwater cleanup level. TNT was also detected in wells A-MW64 and A-MW66 at concentrations of 5.4 µg/L and 6.9 µg/L, respectively, above the cleanup level. In the shallow aquifer, the vertical profile of groundwater samples provided by the temporary and permanent wells installed at A-MW62 and A-MW63 demonstrated that ordnance concentrations above the groundwater cleanup level are limited to the top portion of the shallow aquifer. The investigation report concluded that this finding showed that the existing depths of monitoring wells is appropriate, and that two-dimensional representations of the RDX plume distribution is also appropriate.

2019 MNA Evaluation. The MNA evaluation prepared during this FYR period did not generate new data, but rather presented the framework for evaluation of MNA at ordnance sites, and summarized the available and pending data relevant to MNA evaluations at Site A. The evaluation was not able to conclude based on the existing data whether MNA could achieve the Site A RAOs. However, the evaluation pointed to the on-going studies that will provide additional conclusions regarding the natural attenuation processes active at the site, which will be important to the evaluation of MNA in the upcoming FFS (U.S. Navy, 2019c).

4.2.2 OU 2 Site F

This section summarizes the results of work performed at OU 2 Site F during this FYR period. This includes a review of the LTM results and treatment system O&M data, and a summary of the additional post-ROD investigations and studies conducted for OU 2 Site F.

The OU 2 Site F ROD (U.S. Navy, USEPA, and Ecology, 1991b) specified that the concentrations of COCs (RDX, 2,4,6-TNT, 2,4-DNT, 2,6-DNT, 1,3,5-TNB, 1,3-DNB, nitrate, nitrite, and manganese) in the compliance wells located throughout the shallow aquifer shall comply with the MTCA groundwater cleanup levels, which was expected to occur within 5 to 10 years of the start of treatment. In addition, treatment system performance is to be monitored by sampling performance wells. The main objective at Site F is to restore shallow aquifer waters to support possible future drinking water use (U.S. Navy, USEPA, and Ecology, 1994d). To meet ROD requirements, LTM of groundwater has occurred at Site F since 1994.

The intent of the performance and compliance monitoring is to determine if ordnance concentrations meet cleanup levels, whether plume containment and mass removal are effective, and if data evaluation identifies possible means of improving the operational efficiency of the remediation system. Performance monitoring includes the evaluation of the remedy's processes and effectiveness, as well as compliance with cleanup levels to determine attainment of the chemical-specific cleanup levels identified in the ROD. Monitoring may also support the

evaluation of natural attenuation of RDX that could be applied to modifying the remedial system operation.

Site F LTM data, as well as treatment system OM&M data, over this review period are documented in the LTM and O&M data reports (U.S. Navy, 2014g, 2014h, 2015g, 2015h, 2015i, 2015j, 2015l, 2015m, 2015n, 2015o, 2015p, 2016a, 2016g, 2016h, 2016i, 2016j, 2017a, 2017f, 2017h, 2017i, 2017j, 2018g, 2018h, 2018k, 2018l, 2018m, 2019e, 2019f, 2019o, 2019p, 2019q). Analytical results for ordnance compounds (RDX, 2,4,6-TNT, total DNT) in groundwater samples collected at the site since 1994 are tabulated in Appendix C.

Over the last five-year period, LTM was performed in up to 15 compliance monitoring wells and up to 34 performance monitoring wells, including up to 10 extraction wells. Two additional compliance monitoring wells, F-MW70 and F-MW71, were installed in February 2011 and have been sampled quarterly since then to help define the downgradient extent of RDX in groundwater above the RG of 0.8 µg/L (U.S. Navy, 2015g, 2015h, 2015i, 2015j, 2016a, 2017a, 2017f, 2018g, 2018h, 2019e, 2019f).

4.2.2.1 OU 2 (Site F) COC Concentrations in Groundwater

Analytical results for ordnance compounds (RDX, TNT, DNT, TNB, DNB, MNX, DNX, and TNX) in groundwater samples collected at the site as part of periodic monitoring since 1994 are summarized in Appendix C. Key results during this FYR period are shown graphically on Figures 4-5 through 4-7, and RDX isoconcentration contours based on the April 2019 sample data are shown on Figure 4-8. These data are reproduced from the most recent annual monitoring report for Site F (U.S. Navy, 2019e), which includes results through the March-April 2019 sampling event.

Performance Well Summary. Performance well monitoring includes monitoring wells located within the ordnance plume and extraction wells. The overall concentration ranges at the Site F performance monitoring wells during this five-year period can be summarized as follows:

- RDX concentrations in the performance monitoring wells during the five-year period ranged from 0.046 µg/L in well F-MW44S (Mar/April 2019) to 1,500 µg/L in well F-MW44 (Jan/Feb 2016), compared to a cleanup level of 0.8 µg/L.
- RDX in all 10 of the extraction wells during the five-year period ranged from 2.8 µg/L in well F-EW6 (Mar/April 2019) to 53 µg/L in well F-EW5 (Jan/Feb 2016).
- 2,4,6-TNT at performance monitoring wells during the five-year period ranged from 0.12 µg/L in well F-MW54S (Jan/Feb 2016) to 2,500 µg/L in well F-MW31(Mar/April 2019), compared to a cleanup level of 2.9 µg/L.
- 2,4,6-TNT at extraction wells ranged from 0.38 µg/L in well F-EW2 (Mar/Apr 2019) to 39 µg/L in well F-EW-7(Jan/Feb 2016).
- Total DNT at performance monitoring wells ranged from 0.37 µg/L in well F-MW35(Jan/Feb 2016) to 37 µg/L in well F-MW31(Mar/April 2019), compared to a cleanup level of 0.13 µg/L.

- Total DNT at extraction wells ranged from 0.092 µg/L in well F-EW2 (Jan 2018) to 1.78 µg/L in well F-EW7(Jan/Feb 2016).
- TNB at performance wells ranged from 0.043 µg/L in well F-MW61(Mar/April 2019) to 620 µg/L in well F-MW31(Mar/Apr 2019), compared to a cleanup level of 0.8 µg/L.
- TNB at extraction wells ranged from 0.04 µg/L in well F-EW8 (Jan 2018) to 230 µg/L in well F-EW1(Mar/April 2019).
- DNB at performance wells ranged from 0.19 µg/L in well F-MW21(Mar/April 2019) to 24 µg/L in well F-MW31(Jan 2017), compared to a cleanup level of 1.6 µg/L.
- DNB at extraction wells ranged from 0.087 µg/L in well F-EW3(Jan 2018) to 0.28 µg/L in well F-EW7(Jan/Feb 2016).
- MNX at performance wells ranged from 0.099 µg/L in well F-MW28 (Mar/April 2019) to 9.7 µg/L in well F-MW39 (Jan 2018), with no cleanup level established for this analyte.
- MNX at extraction wells ranged from 0.057 µg/L in well F-EW10 (Jan 2018) to 0.29 µg/L in well F-EW3 (Jan 2018).
- DNX at performance wells ranged from 0.06 µg/L in well F-MW44 (Mar/April 2017) to 6 µg/L in well F-MW59 (Jan/Feb 2015), with no cleanup level established for this analyte.
- DNX was detected at one extraction well F-EW1 (0.45 µg/L- Jan/Feb 2015).
- TNX at performance wells ranged from 0.17 µg/L in well F-MW44 (Mar/April 2019) to 95 µg/L in well F-MW39 (Jan 2017), with no cleanup level established for this analyte.
- TNX at extraction wells ranged from 0.21 µg/L in well F-EW7(Jan 2017) to 0.57 µg/L in well F-EW1 (Jan 2017).

Compliance Well LTM Summary. Compliance well monitoring locations include F-MW41 and F-MW42, located at the sides of the plume south of the infiltration wells, and northern plume edge wells (F-MW63, F-MW64, F-MW65, F-MW66, F-MW67, F-MW68, F-MW69, F-MW70, F-MW71). Concentrations of RDX in F-MW41 and F-MW42 have remained below the cleanup level since 2009, demonstrating that RDX is not being forced outward due to gradient reversal. RDX concentrations at well F-MW68, located at the northern plume edge, are decreasing but remain above the cleanup level, whereas RDX concentrations for well F-MW67 have decreased to below the cleanup level for the last five sampling events. Other northern plume edge wells are below the RDX cleanup level in March 2019. The downgradient extent of the RDX plume is delimited by wells F-MW70 and F-MW71, with COCs in samples from these wells consistently below the laboratory reporting limits except for slight detection in F-MW70 in January 2018.

The overall concentration ranges at the Site F compliance wells during this five-year period can be summarized as follows:

- RDX concentrations in the compliance monitoring wells during the five-year period ranged from 0.054 µg/L in well F-MW70 (Jan 2018) to 0.9 µg/L in well F-MW64 (Mar/April 2019), compared to a cleanup level of 0.8 µg/L.
- 2,4,6-TNT, total DNT, TNB, DNB, MNX, DNX, TNX were not detected at compliance wells during this five-year period, with reporting limits below the cleanup levels.

Ordnance Constituent Vertical Distribution in Groundwater at OU 2 Site F. The Navy elected to conduct a one-time sampling of eight additional wells from different depths to assess the vertical profile of the plume in 2019. Well clusters included annually monitored source area paired wells F-MW31 (shallow interval) and FMW32 (intermediate interval), upper wellfield paired wells F-MW55M (intermediate interval) and F-MW55 (deep interval), and eight additional wells added one time for 2019 (Figure 4-8).

- F-MW21, F-MW33, F-MW28, F-MW34 (Cluster A): RDX, TNT, DNT, and TNB were detected above the cleanup levels in the shallow and intermediate intervals of these source area wells –F-MW21, F-MW33 and F-MW28 (MW-28 had detections above cleanup levels only for RDX). DNB, MNX, DNX and TNX were detected below their cleanup levels in the intermediate and shallow intervals, respectively. Ordnance was not detected in the deep interval of this well cluster (F-MW34).
- F-MW25, F-MW-27 (Cluster B): RDX was detected above the cleanup level in the shallow and intermediate intervals of these centrally located wells.
- F- MW31, F-MW32 and F-MW-26 (Cluster C): RDX, TNT, DNT, TNB, and DNB were detected above the cleanup levels in the shallow interval of these source area wells; TNT was also detected above the cleanup level and RDX below the cleanup level in the intermediate interval (F- MW32) at this cluster. Ordnance was not detected in the deep interval of this well cluster (F-MW26).
- F-MW55S, F-MW55M, F-MW55 (Cluster I): RDX was detected above the cleanup level in the shallow, intermediate, and deep intervals of these central plume area wells. Concentrations increased with depth at this cluster. In addition, degradation products MNX, DNX, and TNX were detected in the intermediate interval (F-MW55M).
- F-MW44S, F-MW44 (Cluster G): RDX was detected considerably above the cleanup level at 350 µg/L in the intermediate interval (F-MW44) and a trace estimated concentration below the cleanup level in the shallow interval (F-MW44).
- F-MW43S, F-MW43(Cluster F): Ordnance was not detected at this peripheral well cluster.

4.2.2.2 OU 2 (Site F) COC Concentration Trends in Groundwater

Annual monitoring reports for the site consistently include updated analyses of contaminant concentration trends using summary statistics and statistical analysis for parametric and non-parametric datasets. As recommended by the fourth FYR, the methodology for assessing trends has been updated in consultation with EPA and Ecology. The trend analyses follow the

recommendations of the USEPA unified guidance for statistical analysis of groundwater data (USEPA, 2009) and include both linear regression and Mann-Kendall analysis, as appropriate for the datasets. For wells with a dataset that supports simple linear forecasting, forecasts are made regarding the estimated future year in which cleanup levels are expected to be reached. A summary of the most trend evaluations is provided in Table 4-3, reproduced from the final 2019 annual data report for Site F (U.S. Navy, 2019e), which also includes a detailed discussion of these trend evaluations. The trend evaluations from this most recent report are summarized in the remainder of this section.

Overall, RDX concentrations continue to decrease at most monitoring locations, with the only increases observed in the wells exhibiting the highest COC concentrations, where the plume core has moved downgradient to the area of F-MW44. F-MW54S is showing an increasing trend, although not statistically significant. While the RDX plume core has moved downgradient, there has been no lateral expansion of the plume noted beyond existing boundaries. RDX is widely distributed in Site F groundwater (Figure 4-8), with the highest concentrations in the vicinity of F-MW44 ,F-MW48 and F-MW35 observed far from the known point of release (immediately east of F-EW7 and F-MW31).

While a maximum of five wells operate at any given time, RDX concentrations are decreasing in all 10 extraction wells (Table 4-3). TNT concentrations appear stable to decreasing in most locations, and the plume is not migrating. RDX degradation intermediates MNX, DNX, and TNX were rarely observed before 2015, but are currently reported for monitoring wells and nearby extraction wells associated with the USACE treatability study. Ratios of MNX to RDX are generally low, at 5 percent or less. Two exceptions are at F-MW55M (39 percent) and F-MW39 (44 percent), both attributable to significant increases in MNX in January 2018 and March and April 2019.

Figure 4-5 displays RDX trends since 1994 for the five wells with the highest RDX values: F-MW-38, F-MW39, F-MW44, F-MW48, and F-MW55M. All five that individually peaked above 1,000 µg/L between 1996 and 2014 have visually decreasing trends and current RDX concentrations that are one to two orders of magnitude below their high values. In December 1994, F-MW44 and F-MW48 had RDX values of 1.0 µg/L and 22 µg/L, respectively. Concentrations peaked in 2009 for F-MW48 (2,900 µg/L) and in 2014 for F-MW44 (1,600 µg/L). Well F-MW44 has dropped to less than half of this peak value by January 2018, while F-MW48 declined sharply in winter 2017, which may relate, in part, to adjacent carbon substrate injection for the USACE push-pull tests (Figure 4-5). Figure 4-8 shows the LTM data from the March sampling event. Both F-MW44 and F-MW48 show substantial concentration declines again in March 2019, possibly pointing to the effectiveness of eliminating the former flow stagnation through adjustment to the extraction scheme in November 2015. Overall during this five-year period, the five wells have shown a decreasing trend but remained above the RDX cleanup level of 0.8 µg/L.

Figures 4-6 and 4-7 plot monitoring records for detected RDX concentrations in the northern portion of Site F for more than 20 years, spanning October 1996 through April 2019. These two figures plot the intermediate depth interval (Figure 4-6) and the deep depth interval (Figure 4-7) for the shallow aquifer. RDX concentrations in monitoring wells such as F-MW61, F-MW62,

and F-MW63 have decreased approximately a hundredfold since fall 1998 (Figure 4-6). During this FYR period, only F-MW61, F-MW70, and F-MW71 have consistently exhibited concentrations below the RDX cleanup level of 0.8 µg/L. Downgradient well F-MW64 exhibited an initial tenfold decrease through 1999 before reaching stable concentrations around 1.0 µg/L. RDX concentrations in this well were below the cleanup level of 0.8 µg/L until 2017, but rose slightly above the cleanup level at 0.81 µg/L in 2018 and 0.9 µg/L in 2019 (Figure 4-7). During this FYR period RDX concentrations in deep zone wells F-MW65 and F-MW66 have remained below the cleanup level.

Wells F-MW41 and F-MW42, located between extraction well F-EW5 and the infiltration wells, have consistently shown very low levels of RDX below the cleanup level since October 2009, with March 2019 values at 0.55 µg/L in F-MW41 and 0.23 µg/L in F-MW42 (Figure 4-8).

Linear Regression Trend Analysis Results. Based on linear regression analysis, no statistically significant increasing trends were found during the 2019 trend analysis (Table 4-3). Statistically significant decreasing trends were found for 32 of the datasets tested. Additionally, there were non-statistically significant decreasing trends at wells F-EW1 (2,6-DNT), F-EW3 (2,4-DNT), F-MW31 (RDX), F-MW35 (TNB, RDX), and F-MW48 (RDX). Non-statistically significant increasing trends were found at wells F-MW31 (TNB, DNB) and F-MW54S (RDX). Non-statistically significant trends were further examined using Mann-Kendall trend analysis. Evaluation of linear regression trends in 2019 allows a simple linear forecast for some wells showing RDX concentrations reaching the cleanup level between 2019 and 2037 (Table 4-3). As shown in Table 4-3, this forecast method sometimes predicts that an individual well will reach cleanup levels in a year that has already past, and these wells may or may not have actually reached cleanup levels. This discrepancy illustrates the substantial uncertainty in this method of forecasting.

Mann-Kendall Trend Analysis Results. A total of 22 datasets were examined using Mann-Kendall trend analysis. Of these sets, nine were parametric, nine were non-parametric, and the remaining four had too few data points for normality testing or linear analysis. Table 4-3 provides a summary of the Mann-Kendall analyses based on data through 2019. Results of Mann-Kendall analysis on the nine linear datasets include:

- No trends were found for F-MW31 (TNB, DNB).
- Statistically significant decreasing trends were found for F-EW3 (2,4-DNT) and F-MW48 (RDX).
- No trends were found for F-EW1 (2,6-DNT), F-MW31 (RDX), F-MW35 (RDX and TNB), and F-MW54S (RDX).

Mann-Kendall trend analysis results for the nine non-parametric datasets include:

- A statistically significant increasing trend was found for F-MW44 (RDX).
- No trends were found at F-EW1 and F-EW3 (TNB) and F-MW33 (2,6-DNT).
- Statistically significant decreasing trends were found for F-EW1 (RDX), F-MW31 (2,4-DNT), F-MW38 (RDX), F-MW39 (RDX), and F-MW59 (RDX).

The remaining datasets had too few points to test for normal distribution. Results for these datasets are as follows:

- Statistically significant decreasing trends were found for F-MW27 and F-MW37 (RDX).
- No trends were found for F-MW32 (TNB) and F-MW53 (RDX).

Contaminant Transport. In the half century of contaminant transport in the shallow aquifer of Site F, RDX has migrated thousands of feet downgradient due to low retardation values, while all other ordnance COCs have migrated only a few hundred feet due to high retardation values in the aquifer (U.S. Navy, 2019e). Distribution differences attributed to differences in mobility in groundwater for each compound were recognized at the start of the groundwater remedy. This differentiation in contaminant transport, wherein RDX has a much greater mobility in groundwater compared to the other ordnance COCs, was summarized in various historical reports by USACE and others, and has regularly been supported in the annual LTM reports (U.S. Navy, 2019e).

Plume Containment. The 2019 LTM report documents effective plume containment based on assessment of the potentiometric surface observed during pumping and reinjection in combination with the analytical chemistry data from groundwater samples that show decreasing trends in monitoring wells downgradient of the infiltration wells (U.S. Navy, 2019e). Wells that typically exhibit detectable RDX and are located downgradient of the infiltration points are found to have statistically significant decreasing RDX concentrations (wells F-MW63, F-MW64, F-MW67, and F-MW68). These decreasing trends (Table 4-3) suggest the system is accomplishing complete or near-complete containment and thereby preventing RDX migration to these downgradient wells. Consistent with past assessments, the RDX concentrations above or near the 0.8 µg/L RDX cleanup level at wells F-MW63 and F-MW68 located downgradient of the infiltration points may indicate incomplete containment, but could also be the result of the slow decrease of a higher-concentration slug whose migration precedes complete containment.

4.2.2.3 OU 2 Site F Treatment System Performance

OM&M and performance of the Site F pump and treat system are documented in the annual LTM and O&M reports and the quarterly technical progress reports (U.S. Navy, 2014c, 2014e, 2014f, 2014g, 2014h, 2015g, 2015h, 2015i, 2015j, 2015l, 2015m, 2015n, 2015o, 2015p, 2016a, 2016g, 2016h, 2016i, 2016j, 2017a, 2017f, 2017h, 2017i, 2017j, 2018g, 2018h, 2018j, 2018k, 2018l, 2018m, 2019e, 2019f, 2019o, 2019p, 2019q).

Plant Operations. Overall, during this FYR period the system operated dependably and was monitored and maintained in accordance with the O&M manual, as periodically updated. The plant was shut down in late September 2016 and early October through early November 2016 to resolve treatment system monitoring results. During this FYR period the following substantive operational issues were encountered and addressed:

- Carbon vessel changeouts were completed in October 2014, June 2015, February 2016, August 2016, May 2017, October 2017, June 2018, and March 2019.

- System shutdown in late March through early April 2015 for treatment plant upgrades.
- In 2015, three additional bioremediation demonstration wells (F-DW02, F-DW03 and F-DW04) were installed. The USACE has conducted push-pull tests that added carbon sources to stimulate degradation in 2015 and/or 2016 for the following monitoring wells: F-DW01, F-MW33, F-MW35, F-MW39, and F-MW59. The addition of these carbon sources resulted in aquifer chemistry changes that created localized anaerobic zones.
- In March 2015 the PLC, associated flowmeters, pressure and differential pressure gauges, and tank level indicators were upgraded to improve overall treatment system operations.
- In November 2015, recommendations from modeling results were adopted to give preference for the operation of five extraction wells: F-EW1, F-EW3, and F-EW7 in the lower wellfield and F-EW5 and F-EW10 in the upper wellfield.
- Well maintenance occurred in July 2016 and included the replacement of pumps and motors in wells F-EW3 and F-EW7 due to mechanical failures or diminished output. Additionally, flow totalizers were replaced in some extraction wells. Well maintenance also included redevelopment of extraction wells and infiltration wells.
- In 2017, the Site F treatment plant influent and effluent transfer pumps and motors were replaced to prevent unplanned shutdowns due to internal corrosion and degradation of the pumps and motors.

Treatment System Mass Removal. Mass removal by the pump and treat system is tracked by concentrations in individual extraction wells and calculated based on the volume each produces. The mass of ordnance compounds removed for the recently completed operational year are listed on Table 4-4 along with the cumulative total for 1996 through 2018 (U.S. Navy, 2015g, 2015h, 2015i, 2015j, 2016a, 2017a, 2017f, 2018g, 2018h, 2019e, 2019f).

4.2.2.4 OU 2 (Site F) Additional Site Characterizations

Groundwater Modeling. In 2014, the USACE developed a numerical groundwater flow model and contaminant transport model (collectively "model") for Site F remedy optimization (USACE, 2014). The Navy updated the Site F groundwater flow and contaminant fate and transport models to support remedy optimization in 2015 (U.S. Navy, 2015k). Recommendations from the modeling effort were adopted to focus extraction pumping on wells F-EW1, F-EW3, and F-EW7 in the lower well field, and wells F-EW5 and F-EW10 in the upper well field. This change eliminated a stagnant area of groundwater flow in the vicinity of monitoring wells F-MW44 and F-MW48 created by concurrent pumping of both F-EW4 and F-EW5. Monitoring wells F-DW02, F-DW03, and F-DW04 were installed at Site F to support work planned by the USACE.

In 2019, the Navy performed an update to the Site F model to assess the use of existing infiltration wells (adjusting locations and rates for infiltration wells; moving the infiltration wells

to the west into reactivated wells F-IW3 to F-IW6 and F-IW2A) as a potential improvement to pump and treat operations (U.S. Navy, 2019m). The results of this simulation (Simulation 1) were compared to simulation results from the 2015 modeling effort (referred to as "focused pumping" for 20 years where the transport model was run on the focused pumping scheme for 20 years followed by no pumping scheme for 80 years). The results of Simulation 1 showed greater drawdown of the water table as a result of moving infiltration further from extraction well F-EW5. The particle track results illustrated that Simulation 1 pulled back less treated water from pump and treat system infiltration than focused pumping, making F-EW-5 operation more efficient.

USACE Treatability Study. In 2013, a bioremediation demonstration well was installed in conjunction with a bioremediation study conducted by the USACE. USACE completed additional fieldwork in 2016 to expand on its initial 2014 treatability study (USACE, undated). Push-pull tests used fructose amendments to evaluate ordnance degradation during summer 2016 at F-MW33, F-MW35, F-MW39, and F-MW59. Results of the tests demonstrated that anaerobic RDX degradation following biostimulation can be effective for reducing RDX concentrations in groundwater at Bangor Site F to meet the cleanup objective of 0.8 µg/L. It also showed that nitroso-RDX derivatives form at low concentrations and are transient under anaerobic test conditions. A sodium bromide tracer test to determine local groundwater seepage velocities and hydraulic gradient was also conducted at FMW48 with observations at F-DW01 and F-DW02 (USACE, undated).

USACE Bioremediation Project. In 2019, USACE installed four monitoring wells near F-MW48 (southwest of extraction well F-EW5) in preparation of a pilot biodegradation test planned for April 2020 (U.S. Navy, 2019q).

Plume Assessment. The Navy performed evaluations in 2018 to assess whether the hotspot (in the vicinity of wells F-MW44 and F-MW48 where RDX concentrations have at times in recent years exceeded 1,000 µg/L) is the result of a surficial release of ordnance in the vicinity of F-MW44 and F-MW48 or if the hotspot is the result of the migration of a contaminant plume that emanated from the original intentional release of ordnance rinse water (U.S. Navy, 2019n). Based on the evaluation in 2018, the clear conclusion is that high RDX concentrations at F-MW44 and F-MW48 are the result of migration by advection in groundwater rather than the result of a secondary release in their vicinity. For RDX concentrations at F-MW44 and F-MW48 to result from a secondary release, RDX would have constituted the only ordnance COC in such a secondary release and there is no known activity at Site F that involved only the one compound (U.S. Navy, 2019n).

4.2.3 OU 7 Site E/11

Monitoring at Site E/11, previously completed in January 2014, was again conducted in 2019 in support of this FYR. The ROD for OU 7 (U.S. Navy, USEPA, and Ecology, 1996) calls for monitoring of Site E/11 to be conducted and reported under Site F activities. Located within the area of Site F containment (Figure 1-9), the frequency of Site E/11 monitoring has been every 5 years. Site E/11 lies within the Site F RDX plume, such that regular water level determinations and annual evaluations for the Site F plume containment also apply to Site E/11.

Monitoring of two Site E/11 wells was completed in March 2019 and results for Otto fuel slightly exceeded the ROD-specified cleanup level of 0.2 µg/L (U.S. Navy, 2019e). Results in the two wells were 0.31 µg/L in EMW-21U and 0.35 J µg/L in E-MW23U and are consistent with prior monitoring.

The fourth FYR for NBK Bangor (U.S. Navy, 2015a) completed in September 2015 noted that a higher cleanup level of 0.6 µg/L for Otto fuel would be established based on a 2015 calculation under the MTCA Method B using toxicity criteria assumptions in the current USEPA regional screening tables. However, the USEPA tap water regional screening level (RSL) supporting this value has been withdrawn and the ROD RG remains the appropriate comparison value for LTM.

Mann-Kendall trend analysis for both wells over six rounds since 2008 shows no trend at 90 percent confidence. Data over this period show Otto fuel in the two wells ranging in a tight pattern just above or below the cleanup level from 0.087 to 0.42 µg/L. Continued monitoring for this compound is not expected to yield different results (U.S. Navy, 2019e).

Otto fuel monitoring has shown no trend in concentrations at or around the ROD cleanup level of 0.2 µg/L. Otto fuel monitoring will continue every five years to ensure that a clear trend is established in anticipation of a future date when it is necessary to demonstrate compliance at the time of site closure.

4.2.4 OU 8

This section presents a summary and review of data collected over this FYR period at OU 8. This includes a review of the LTM results, LNAPL recovery data, and summary of the additional post-ROD investigations and studies conducted for OU 8.

4.2.4.1 OU 8 LTM

The OU 8 ROD (U.S. Navy, USEPA, and Ecology, 2000a) specified that the concentrations of COCs (benzene, 1,2-DCA, 1,1-dichloroethene [DCE], 1,2-dibromomethane [EDB], and toluene) in the off-base compliance monitoring wells shall comply with the RGs within a 10-year period of time and the source of groundwater contamination (LNAPL) will be removed until the recovery rate reaches the practicable recovery endpoint. Although the ROD did not specify a timeframe for meeting RGs at on-base locations, it did specify that RGs would be met in the on-base compliance monitoring wells. The ROD also specified that MNA performance is to be monitored by sampling performance monitoring wells for MNA parameters.

The main objectives of the remedial action at OU 8 are to minimize the migration of VOCs from LNAPL beneath the PWIA into groundwater at concentrations that would cause unacceptable risks and minimize human exposure to COCs in sitewide groundwater that would result in unacceptable risks (U.S. Navy, USEPA, and Ecology, 2000a). To meet ROD requirements, LTM has occurred at OU 8 since 1998. OU 8 groundwater monitoring and LNAPL recovery data over this review period are summarized below and documented in the MNA monitoring reports (U.S.

Navy, 2014i, 2015q, 2015r, 2016k, 2016l, 2017k, 2017l, 2018n, 2018p, 2019s, 2019t, and 2019aa).

During this FYR period, the Navy periodically monitored conditions in groundwater at 40 monitoring wells for VOCs and six monitoring wells for MNA parameters between one time and 10 times (semiannual), as detailed in Table 2-5. Three additional wells (8MW22, 8MW46, and 8MW05), not listed in Table 2-5, had only field parameters and/or product thickness measured during this FYR period. An additional 27 wells were also monitored for the presence of LNAPL on a monthly basis. Two additional wells were sampled in the fall of 2019 at the request of Ecology in order to assess BTEX at a base boundary (8MW02) and off-base (8MW14) well, and the Navy elected to sample three intermediate (8MW07, 8MW23, and 8MW29) and four deep (8MW36, 8MW50, 25MW05, and 25MW07) wells to further delineate the current vertical distribution of contaminants. The performance and compliance monitoring activities conducted are further detailed below.

Performance monitoring for MNA parameters and VOCs was conducted at nine locations:

- Well 8MW16 (sampled 2015, 2018 and 2019) positioned approximately 600 feet upgradient from the source area.
- Wells MW03 (sampled 2015), 8MW53 (sampled 2015), 8MW30 (sampled 2015), 8MW24 (which replaced 28MW01 in fall 2009) (sampled 2015, 2016, 2017, 2018 and 2019), 8MW48 (sampled 2014, 2015, 2017, 2018 and 2019), MW05 (sampled annually from 2014 to 2018 and twice in 2019), and MW08 (semiannually from 2014 to 2018 and changed to biennial in 2019) positioned within the source area.
- Well 8MW32 (sampled 2014, 2015, 2017, 2018 and 2019) positioned within the known contaminant plume downgradient from the source area.

Performance and compliance monitoring for MNA and VOCs was conducted semiannually (unless otherwise noted below) at six locations:

- Well 8MW42 (changed to annual in 2019) positioned approximately at the upgradient edge of the source area.
- Wells 8MW47 and 8MW06 positioned within the source area.
- Well 8MW33 positioned within the known contaminant plume downgradient from the source area.
- Wells 8MW03 and 8MW35 (changed to annual in 2019) positioned at the downgradient NBK Bangor installation boundary.

Compliance monitoring for VOCs was conducted semiannually (unless otherwise noted below) at one location and confirmation monitoring for VOCs at three locations:

- Well 8MW25 (sampled semiannually 2014 through 2018 and once in 2019) positioned at the downgradient NBK Bangor installation boundary.
- Wells 8MW13 (sampled semiannually 2014 through 2015, then annually in 2016, 2017, 2018, and 2019), 8MW19 (sampled semiannually 2014 through 2015, then

annually in 2016, 2017, 2018, and 2019), and 8MW37 (sampled semiannually 2014 through 2015, then annually in 2016, 2017, and 2018; changed to every 5 years in 2019) positioned approximately 800 feet off site and downgradient of the installation boundary.

Analytical results for VOCs, including all COCs, and MNA parameters for sampling events conducted during this FYR period are reproduced from the monitoring reports and included in Appendix C (U.S. Navy, 2014i, 2015q, 2015r, 2016k, 2016l, 2017k, 2017l, 2018n, 2018p, 2019s, and 2019t).

1,2-DCA was detected at concentrations greater than its RG during this FYR period, as summarized below:

- 21 of the 46 wells sampled during this FYR period had at least one 1,2-DCA concentration greater than its RG.
- 20 of the 21 wells were in the PWIA and one well (8MW03) was in the Southern Base Boundary area.
- Eight of the 46 wells had at least one detection of 1,2-DCA during this FYR period; however, all detections were less than its RG.
- 1,2-DCA was not detected in two wells (8MW54 and 8PS-A1); however, the reporting limits in one or more samples were above the RG. Fifteen wells (25MW04, 25MW05, 8MW02, 8MW14, 8MW16, 8MW23, 8MW25, 8MW29, 8MW36, 8MW37, 8MW50, 8MW53, 8MW56, 8MW57 and MW03) were non-detect for 1,2-DCA during this FYR period and the reporting limits were all below the RG.

Similarly, benzene was detected at concentrations greater than its RG during this FYR period, as summarized below:

- 24 of the 46 wells sampled during this FYR period had at least one benzene concentration greater than its RG.
- All 24 wells were located in the PWIA.
- Six of the 46 wells had at least one detection of benzene during this FYR period; however, all detections were less than its RG.

Benzene was not detected in 16 wells during this FYR period and the reporting limits were all below the RG. VOCs continue to be below the RGs in the off-base wells.

Wells 8MW02 and 8MW14 were sampled in Round 41 per Ecology's request. Round 41 and historical results indicate that COCs are not present in the shallow zone at the Southern Base Boundary and Mountain View Road.

Samples were collected from seven intermediate and deep wells in the source area and analyzed for VOCs in Round 41 to address vertical distribution. These wells include 8MW07, 8MW50, 25MW07, 25MW05, 8MW23, 8MW36, and 8MW29. The following conclusions were developed based on historical analytical results through Round 41:

- Halogenated VOCs are not bypassing 8MW24 at a lower interval within the aquifer.
- Results for collocated wells 8MW06 (shallow zone), 8MW07 (intermediate zone), and 8MW50 (deep zone) indicate DCA concentrations above the CUL in the shallow zone, and below the CUL in the intermediate zone.
- Round 40 (spring 2019) results for downgradient well 8CB-MW01 detected DCA at 12.4 µg/L but no other COCs, indicating the transition of the dissolved plume from shallow intervals in the PWIA to intermediate depth at 8MW33.
- Results for paired wells 8MW32 (shallow zone) and 8MW33 (intermediate zone) confirm long-standing observations that indicate DCA concentrations below the CUL in the shallow zone and above the CUL in the intermediate zone. Similarly, DCE is not detected in the shallow zone but present above the CUL in the intermediate zone. These results reflect the transition of the halogenated VOC plume to the intermediate zone between 8MW06 and 8MW33 and that halogenated VOCs are not bypassing this location at a higher interval within the aquifer.
- Rounds 29, 31, and 33 results for shallow zone well 25MW04 and Round 41 results for deep zone well 25MW05, confirm that petroleum compounds do not extend south from the area of detections in the PWIA source area at either shallow or deep zones.
- Base boundary deep zone well 25MW07 was sampled for Round 41 to address vertical distribution south of the PWIA and at the base boundary. The only detection was DCA above the CUL at 13.9 µg/L. Previous sampling at 25MW07 occurred from 1991 to 1996 (no detections) and in October 2014 (only DCA detected at 0.99 µg/L).
- Collocated base boundary wells 8MW02 (shallow zone) and 8MW03 (intermediate zone) were sampled in Round 41. Results indicate no halogenated VOCs in the shallow zone and DCA below the CUL and DCE slightly above the CUL in the intermediate zone.
- Results for Round 41 sampling at collocated Mountain View Road wells 8MW14 (shallow zone) and 8MW13 (intermediate zone) show no detections of halogenated VOCs. Historical data shows that halogenated VOCs have never been detected at collocated deep zone well 8MW37. The only observation of halogenated VOCs at Mountain View Road was seen at 8MW19 where DCA was detected below the CUL at 0.20 µg/L.

OU 8 LTM Statistical Trend Analysis Summary

Annual monitoring reports for OU 8 consistently include updated analyses of contaminant concentration trends using summary statistics and statistical analysis for parametric and non-parametric datasets. The trend analyses follow the recommendations of the USEPA unified guidance for statistical analysis of groundwater data (USEPA, 2009) and include both linear regression and Mann-Kendall analysis, as appropriate for the datasets. Because of the presence of a residual free product source at OU 8, forecasts are not made regarding the estimated future year in which cleanup levels are expected to be reached. A summary of the most recent trend evaluations is provided in Table 4-5, reproduced from the final 2018 annual data report for OU 8

(U.S. Navy, 2019s). This final 2018 report is the most recent available for this FYR period that includes trend analysis, and the report includes a detailed discussion of the trend evaluations.

Data from the wells were first reviewed to identify wells with benzene, ethylbenzene, toluene, 1,1,2-TCA, 1,2-DCA, 1,1-DCE, 1,2-EDB, 1,2-dichloropropane (DCP), and vinyl chloride results above detection limits in at least 80 percent of the historical results. Wells with datasets containing greater than 20 percent non-detection values were eliminated from the analysis because of insufficient data.

Data sets for the following monitoring wells were determined to be suitable for statistical analysis in groundwater:

- Petroleum COCs in source area wells 8MW06, 8MW24, 8MW47, 8MW48, MW05, and MW08.
- Chlorinated VOCs in source area wells 8MW06 and MW05.
- Chlorinated VOCs in on-site downgradient wells 8MW03, 8MW33, and 8MW35.
- Chlorinated VOCs in off-site downgradient well 8MW19.

The linear regression and Mann-Kendall evaluations are described in the following sections for the performance and compliance monitoring wells.

OU 8 LTM Linear Regression Trend Analysis Summary

Linear regression analysis was performed on normally and log-normally distributed datasets. A 5% (0.05) significance level was used to calculate the p value that the linear regression slope line was not zero. Therefore, the statistical significance that a trend is increasing or decreasing is stated with 95% confidence.

Statistically significant decreasing trends were found for the majority of the linear regression analysis, as shown in Table 4-5. The exceptions, with increasing trends, are the following:

- Ethylbenzene was found to be increasing at MW05.
- Toluene was found to be increasing at 8MW06.

Several trends were found to not have statistical significance at 95% confidence level, or the datasets were found to be non-parametric and, therefore, were analyzed by the Mann-Kendall test. These include: DCA at MW05 and 8MW33 show a decreasing trend and toluene at MW05 shows an increasing trend that is not statistically significant.

OU 8 LTM Mann-Kendall Trend Analysis Summary

Mann-Kendall trend analysis was performed on analytes for datasets (including all monitoring events) that were found to be non-parametric, or for those data where the linear regression trends were not statistically significant at 95% confidence level. For these datasets, the trends were found to be statistically decreasing at 95% confidence level except for the following:

- Benzene was increasing at well 8MW06, and had no trend at well MW05.
- Ethylbenzene had no trend at well 8MW24.
- Toluene had no trend at wells MW05 and 8MW48.
- DCE had a decreasing trend at well 8MW33.
- DCA had a decreasing trend at wells 8MW33 and 8MW19.

A second Mann-Kendall test was performed over the recent last 10 events to evaluate the statistically significant increasing trends and also when no trend had been determined by the other trend analyses. At the 80% and 90% confidence levels, the following recent trends were found:

- Benzene is decreasing at wells MW05 and 8MW06 over this timeframe, and for both the fall and spring trends from 2009-2018 at well 8MW06.
- Ethylbenzene is decreasing at well MW05.
- Toluene is decreasing at wells MW05 and 8MW48.

The recent trend Mann-Kendall test was also performed for the fall and spring seasonal data, from 2009-2018 for well 8MW06, with the following trends found:

- Benzene is decreasing at the 90% confidence level for both spring and fall data.
- Ethylbenzene is increasing at the 80% confidence level for the fall data; however, no trend is found over the same timeframe for spring data.
- Toluene is decreasing at the 90% confidence level for both spring and fall data.

Current Distribution of Chlorinated VOCs in Groundwater

The lateral distribution of chlorinated VOCs in groundwater has been typically based on the reported results for 1,2-DCA, and this approach is used in this FYR as well. Review of the data for chlorinated VOCs, other than 1,2-DCA, indicates that this approach continues to provide a representative estimate of the distribution of all chlorinated VOCs in groundwater at OU 8. The 2015 and 2018/2019 distributions of 1,2-DCA in groundwater at concentrations greater than the established RG of 5 µg/L are shown on Figure 4-9. For this discussion, the 5 µg/L RG represents the contaminant plume boundary. These results indicate that the area of the 1,2-DCA plume continued to shrink during this FYR period as shown on Figure 4-9.

Current Distribution of Petroleum-Related Chemicals in Groundwater

The current lateral distribution of petroleum-related chemicals in groundwater has typically been based on the reported results for benzene, and this approach is used in this FYR as well.

Review of the data for petroleum-related chemicals other than benzene indicates that this approach continues to provide a representative estimate of the distribution of all petroleum-related chemicals in groundwater at OU 8. Figure 4-10 shows the estimated extent of benzene in groundwater at concentrations greater than the established RG of 5 µg/L at the beginning of this

FYR period (2014). For this discussion, the 5 µg/L RG represents the contaminant plume boundary. Because of changes in the distribution of wells sampled over this FYR period, there are insufficient data to determine the benzene extent in 2019. The current results do indicate decreasing concentration trends in most monitoring wells at the site, and no expansion of the plume downgradient since 2014.

LNAPL Recovery

LNAPL was observed in 23 monitoring wells at OU 8 during this FYR period. The extent of observed LNAPL based on these observations is shown on Figure 4-11. Where product is observed at a thickness greater than 0.10 foot in a well, product recovery is initiated and repeated weekly until the product thickness drops below 0.10 foot. Gauging for the potential presence of LNAPL was focused on wells in the general vicinity of the PWIA service station. Gauging frequency varied based on the past observations at each well and was adjusted during the year based on new findings (U.S. Navy, 2019t).

Table 4-6 shows the eight locations where LNAPL recovery occurred at OU 8 during this FYR period and presents a summary of the quantity recovered. Detailed product recovery information is included in Appendix C, which is reproduced from Table E-1 of the Round 40 MNA report (U.S. Navy, 2019t). The Round 40 report noted that through 2018, free product has been observed as far downgradient as well 8MW55, but not south of this location in wells 8MW56, 8MW57, and 8CB-MW02. On this basis, the report concluded that well 8MW55 delimits the southern extent of LNAPL in the PWIA (U.S. Navy, 2019t).

Because free product continues to be detected at the site, regular free-product measurements for wells screened across the water table in the PWIA will continue. As recommended by the fourth FYR, LNAPL mobility tests were conducted in 2015 to evaluate whether additional effort to reduce free product underlying the PWIA is warranted (U.S. Navy, 2018q). The mobility test results were incorporated into the 2018 pilot test analysis discussed in the subsection below (U.S. Navy, 2018q).

4.2.4.2 OU 8 Additional Site Characterization and Pilot Study Data Review

Data from this FYR period are available from additional site characterization work by the Navy's LTM contractor in support of the upcoming remediation activities. The Navy's LTM contractor also provided support during performance of pilot tests and studies conducted during this FYR, including the biotreatment barrier and maintenance. Data from the additional investigations performed by the Navy's LTM contractor are provided in reports covering work performed in 2018 and 2019 (U.S. Navy, 2018q, 2018o, and 2019y). Data from the pilot studies are available (U.S. Navy, 2018q).

Data from the pilot studies (U.S. Navy, 2018q) and additional site characterization have been incorporated into the evaluation of potential remedy optimization measures. Additional remediation measures will be taken over the next few years and the next FYR will assess the effects on protectiveness of any revision to the existing remedy that results from the on-going

studies. The data available to date from the investigations and studies are summarized in the remainder of this section.

Biotreatment Barrier Maintenance 2017

The DCA pilot study was conducted in two phases from 2011 through 2013 which is discussed in the fourth FYR (U.S. Navy, 2015a). The pilot study demonstrated that EVO injections to establish a biobarrier can be an effective augmentation to the MNA remedy component to control chlorinated VOCs in the source area groundwater. Monitoring was also conducted in 2015 to assess the long-term performance of the biobarrier. In September 2017, EVO was injected to maintain the augmented DCA degradation previously established.

Injections were intended to mix EVO product with groundwater to create overlapping radii for injection wells located about 20 feet apart along the DCA plume centerline, such as wells 8IW-1, 8IW-2, 8IW-6, and 8IW-7. The intent of the EVO injections was to achieve an injection radius of roughly 12 feet at each location.

Aquifer testing was conducted on the existing injection wells to determine the hydraulic conductivity and effective porosity. This information was then used to select the best wells to perform EVO injections. Well redevelopment was also conducted in 2017 to improve the communication with the aquifer.

The 2017 EVO injections accomplished the target quantities for the four wells. The rate of injection flows in 8IW-1 and 8IW-3 (26 gpm) met the target rate of 25 gpm, whereas 8IW-6 and 8IW-7 (14 and 11 gpm, respectively) only accommodated injection at approximately half the target rate. The injections were successful and satisfied the Navy's commitment in the fourth FYR (U.S. Navy, 2015a) to inject EVO by December 2017 to maintain the biobarrier. The report documenting the 2017 work made a series of recommendations for improving the effectiveness of any future injection events (U.S. Navy, 2018o). The report also recommended periodic reinjection of EVO and microbes to maintain the biobarrier to treat DCA that is expected to diffuse from the aquifer matrix over time. Because redox manipulation by the LNAPL pilot study may raise the aerobic level in the subsurface and interact with the DCA pilot study area, reinjection of EVO and microbes to maintain the DCA biobarrier will be closely coordinated with the LNAPL pilot study. This FYR recommends EVO and microbe reinjections to maintain the biobarrier approximately every 3 years but with consideration of the impacts of the LNAPL pilot study.

Data Gaps Investigation and Pilot Test 2018

The Data Gap Investigation and Pilot Test Results Report (U.S. Navy, 2018q) presents a LNAPL CSM, provides a discussion of potential remedy optimization options for the site, describes field data collection efforts to support development of the CSM, and presents the results of an air sparging, biosparging, and soil vapor extraction pilot test at OU 8.

The main purpose of this study was to collect data to better understand the current nature of LNAPL beneath OU 8 and to perform a limited pilot study to evaluate the effectiveness of air sparging, biosparging, and soil vapor extraction technologies at the site.

While OU 8 is currently in compliance with the ROD, the Navy is interested in evaluating possible remedy enhancements to reduce the volume of source material beneath the site, and as a result, reduce the overall timeframe for remedy implementation. In order to understand the costs and benefits of any remedy enhancement, an updated CSM is needed. In addition, the Navy performed a limited pilot study to evaluate the potential effectiveness of air sparging, biosparging, and soil vapor extraction in the southern portion of the PWIA (U.S. Navy, 2018q).

Ecology, the lead regulatory agency overseeing the OU 8 cleanup, has raised concerns about the possibility of an ongoing gasoline source or that the extent of source material has not been fully defined (U.S. Navy, 2018q).

The objectives for this study included:

- Collect new measurements of groundwater and product levels across the site and measure LNAPL mobility and transmissivity to provide inputs to analyze LNAPL in the subsurface and to support development of the CSM.
- Collect subsurface geology information to better understand its impacts on site hydrogeology, contaminant mobility, and potential remedy enhancements.
- Determine the zone of influence and remedial effectiveness for air sparging, biosparging, and soil vapor extraction.
- Collect groundwater and soil vapor concentrations of VOCs before, during, and after the pilot test to assess the level of contaminant reduction.

The main purpose of this study was to collect data to better understand the current nature of LNAPL beneath OU 8 and to perform a limited pilot study to evaluate the effectiveness of air sparging, biosparging, and soil vapor extraction technologies at the site.

The report noted the site has been extensively studied over the past 20 years and a large volume of data exists (U.S. Navy, 2018q). In addition, a CSM update was recently completed (U.S. Navy, 2013a). This study provided additional data to bound the plume to the south/southwest and assumed that LNAPL is likely at or near saturation. The study concluded that the plume appears to be controlled and reducing in mass, volume, and footprint. There is evidence of natural source zone depletion (NSZD) at OU 8 and MNA is the current remedy in place at the site (U.S. Navy, 2018q). While the cleanup timeframe may be long, the study concluded that there is currently no risk, the site is in compliance with the ROD, and the remedy is currently protective. Therefore, there is no risk-based need to employ additional cleanup technologies (U.S. Navy, 2018q).

The study concluded that active remediation could be implemented at OU 8 to remove benzene and remediate the plume more quickly. The pilot test concluded that air sparging with soil vapor extraction would be the preferred technology (U.S. Navy, 2018q), however biosparging could be considered a feasible alternative following additional pilot testing. Biosparging could also be

implemented in targeted areas as a complementary technology to air sparging and soil vapor extraction (U.S. Navy, 2018q).

DCA Pilot Study Update 2018

A Phase II DCA pilot study began in spring 2012 and was completed in winter 2013, with an assessment of the bioaugmentation longevity performed in April 2014. The Navy elected to sample 8MW48, 8MW49, 11 DCA pilot study wells, and four benzene pilot study wells within the OU 8 source area in April 2017, along with MNA monitoring for Round 36 to further assess the longevity of previous bioaugmentation.

The same 11 DCA pilot study wells sampled in April 2017 were sampled in April 2018 for Round 38, along with 8MW48, 8MW49 and one benzene pilot study well. Analysis included VOCs, geochemical parameters, and DOC at select locations. The data clearly identify ongoing degradation of DCA in the biobarrier, while site conditions are still adjusting to the relatively new September 2017 injection of EVO as discussed in the Round 38 Monitoring Report (U.S. Navy, 2018q).

2019 Vapor Intrusion Study

As discussed in Section 2.6.2.1, additional rounds of vapor intrusion monitoring were recommended by the fourth FYR and were performed in 2019. Validated data from the 2019 investigation had just been received at the time of writing of this FYR, and final conclusions had not been published. However, preliminary conclusions are summarized in this section.

Five co-located indoor air and subslab samples were collected in Buildings 1021 and 1202, along with an additional ambient air sample location outside of the buildings. Sub-slab and ambient air results were consistent between the 2013 and 2019 sampling events with the exception of naphthalene in a large office in Building 1021 (1021-9). In the first round of the first event, the sample result for naphthalene was 21 ug/m^3. Naphthalene concentrations at this location in 3 samples were below the laboratory reporting limit or below the screening level. Indoor air samples from the 2019 sampling events exhibited exceedances for naphthalene, benzene and ethylbenzene. Most of these exceedances are consistent with the earlier sampling events. During the 2019 event, an indoor air sample from the western portion of Building 1021 exceeded the screening level for ethylbenzene, which did not have any prior exceedances. The collocated sub-slab sample had a J flagged result well below the screening level. There were two large trucks used for snow removal and sanding that were parked in this area during this event. All exceedances from the 2019 sampling events were in indoor air samples and not sub-slab samples, indicating indoor contaminant sources and not vapor intrusion into the buildings (U.S. Navy, 2019z).

The final evaluation of the vapor intrusion data is expected to conclude that there is no vapor intrusion risk from subsurface COCs at OU 8. However, if the final conclusions differ from this preliminary conclusion, the Navy will take appropriate action to protect worker health and will reassess remedy protectiveness in the sixth FYR.

2019 OU 8 Historical Free Product Occurrences

A letter report was prepared in 2019 that compiles and summarizes LNAPL occurrence data for OU 8, focusing on the service station located in the PWIA. The following conclusions were drawn from the evaluation:

- With a total 21.7 gallons product recovered over the past decade, the rate of recovery by passive means is very slow.
- Well 8IW-7 accounts for 11.2 gallons of the total, or 52 percent, the majority of which was recovered in the first 18 months after its installation in the southern PWIA.
- Product observations and recovery volumes were boosted after several wells were installed in the southern PWIA in 2010, 2012, and 2015.
- Free product observations are more prevalent during falling head periods of approximately May through October.
- Product observations and recovery decreased over the decade for several reasons:
    - Passive recovery has diminishing returns over time as available product near the well is removed.
    - Water levels rose significantly, making product less available to flow into wells.
    - Water levels rose above the base of the till and above the top of the well screen.

The Navy is considering the application of HVDPE at OU 8 to test its ability to recover product. Prioritization of wells recommended for HVDPE testing based on the following considerations:

- The southern PWIA has free product wicked into the till and trapped beneath its basal contact, resulting in the highest dissolved benzene concentrations, such that product recovery may be most beneficial in this area.
- Higher ratings were given to wells with the greatest and most consistent product detections; the greatest recovery; and higher dissolved benzene concentrations.
- Medium ratings were given to wells that offer some potential for product recovery but lack the apparent potential for more voluminous recovery from higher-rated wells; and wells near other wells with high ratings with the presumption they might be addressed concurrently by multiple HVDPE connections. Examples include 8IW-6 next to 8IW-7; and 8MW06, 8CB-MW02, and 8MW54 near 8MW55.
- Low ratings were given to wells with a low potential for significant product recovery.

Furthermore, a pilot study application of HVDPE would have the greatest chance for success in September or October. The Historical Free Product Occurrences report (U.S. Navy, 2019y) contains a list of well prioritization.

4.3 Results of Site Inspections

The site inspection checklist is included as Appendix E. This section contains a summary of the site inspection findings. The site visit occurred on June 19, 2019 and was conducted by the following personnel:

- Ray Kobeski, NAVFAC NW
- Michael Meyer, Battelle
- Pamela Rodgers, Battelle

The site visit consisted of inspecting all portions of the site covered by ICs or requiring ongoing remedy maintenance in OU 1 (Site A burn area, Debris area), OU 2 (Site F), OU 3 (Site 16/24), OU 6 (Site D), OU 7 (Site B, Site 10, Site E/11) and OU 8 (PWIA, Mountain View Neighborhood). The site walk verified that the remedial action components are being regularly maintained. More details from the site visit are included in the site inspection checklist in Appendix E. All inspection activities since the last FYR were performed in accordance with the ICMP dated September 16, 2010 (U.S. Navy, 2010b) and the revised ICMP (U.S. Navy, 2018d). Figure 4-12 shows the locations of sites subject to ICs.

The ICs at NBK Bangor were found to maintain conditions that are protective to human health and the environment based on the visual inspections conducted during the five-year period. No sites had inspection items that require contingency inspections, nor did any of the site ICs require immediate maintenance during this FYR.

Five annual LUC audits were conducted at the Bangor sites during this FYR period:

- 2014 LUC audit took place on September 22 and 26 and October 2, 2014 (U.S. Navy, 2015f).
- 2015 LUC audit took place on September 25, September 28, and October 6, 2015 (U.S. Navy, 2016f).
- 2016 LUC audit took place on September 12, September 26, and September 30, 2016 (U.S. Navy, 2017f).
- 2017 LUC audit took place on September 5, September 7, and September 14, 2017 (U.S. Navy, 2018f).
- 2018 LUC audit took place on October 4 and 9, 2018 in accordance with the Draft ICMP dated September 27, 2018 (U.S. Navy, 2019l).

Table 4-7 shows the findings from annual inspections during this FYR.

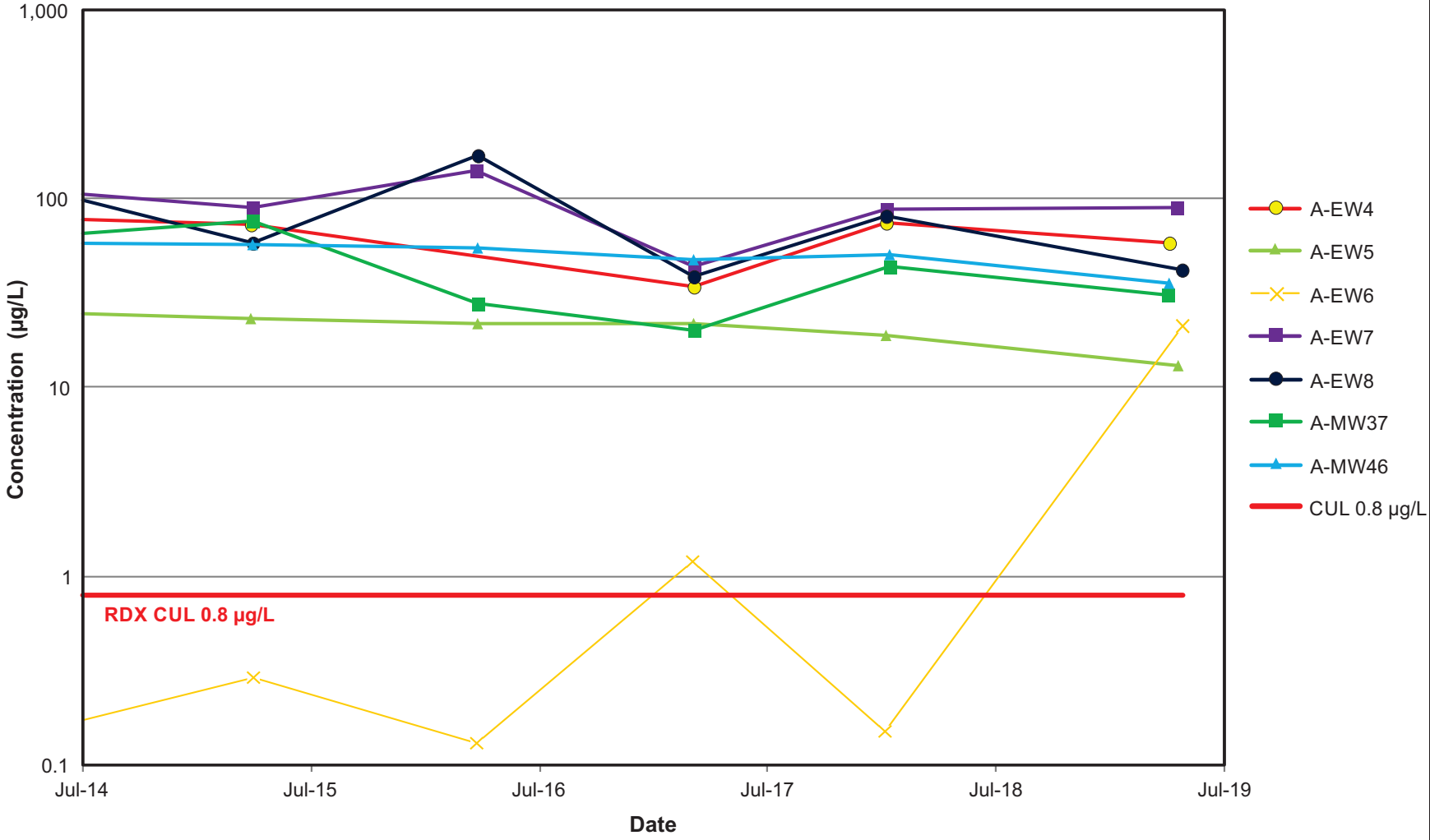
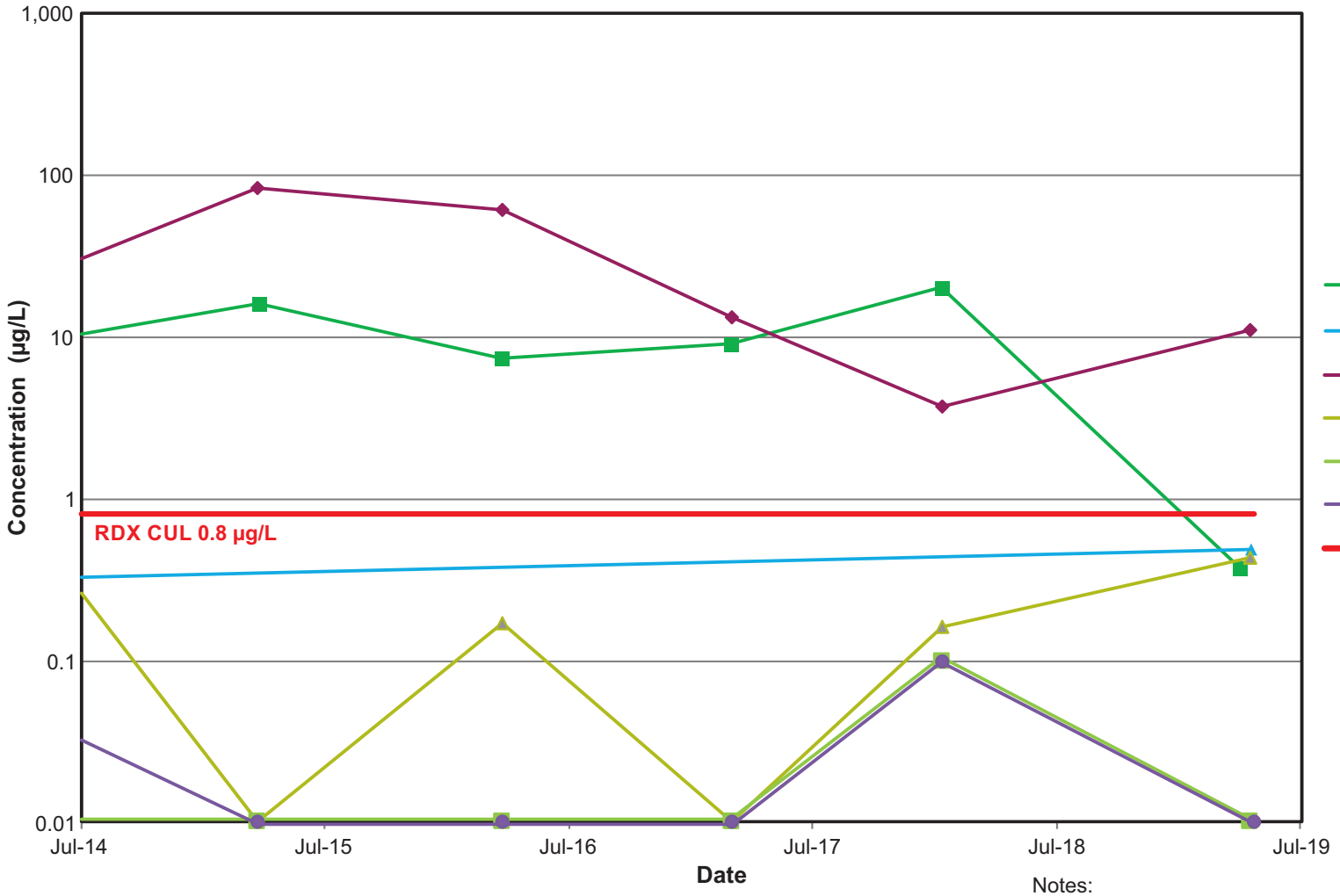


FIGURE 4-1_RDX EWS.CDR

U.S. NAVY	**Figure 4-1** **Site A RDX Trends in Extraction Wells**	NBK BANGOR FIFTH FIVE-YEAR REVIEW



Notes:
Non detects plotted arbitrarily as 0.01 (µg/L).
Trend line for A-MW33 based on earlier data not shown on this graph.

FIGURE 4-2_RDX SHALLOW.CDR

U.S. NAVY	**Figure 4-2** **Site A RDX Trends in** **Shallow Aquifer Monitoring Wells**	NBK BANGOR FIFTH FIVE-YEAR REVIEW

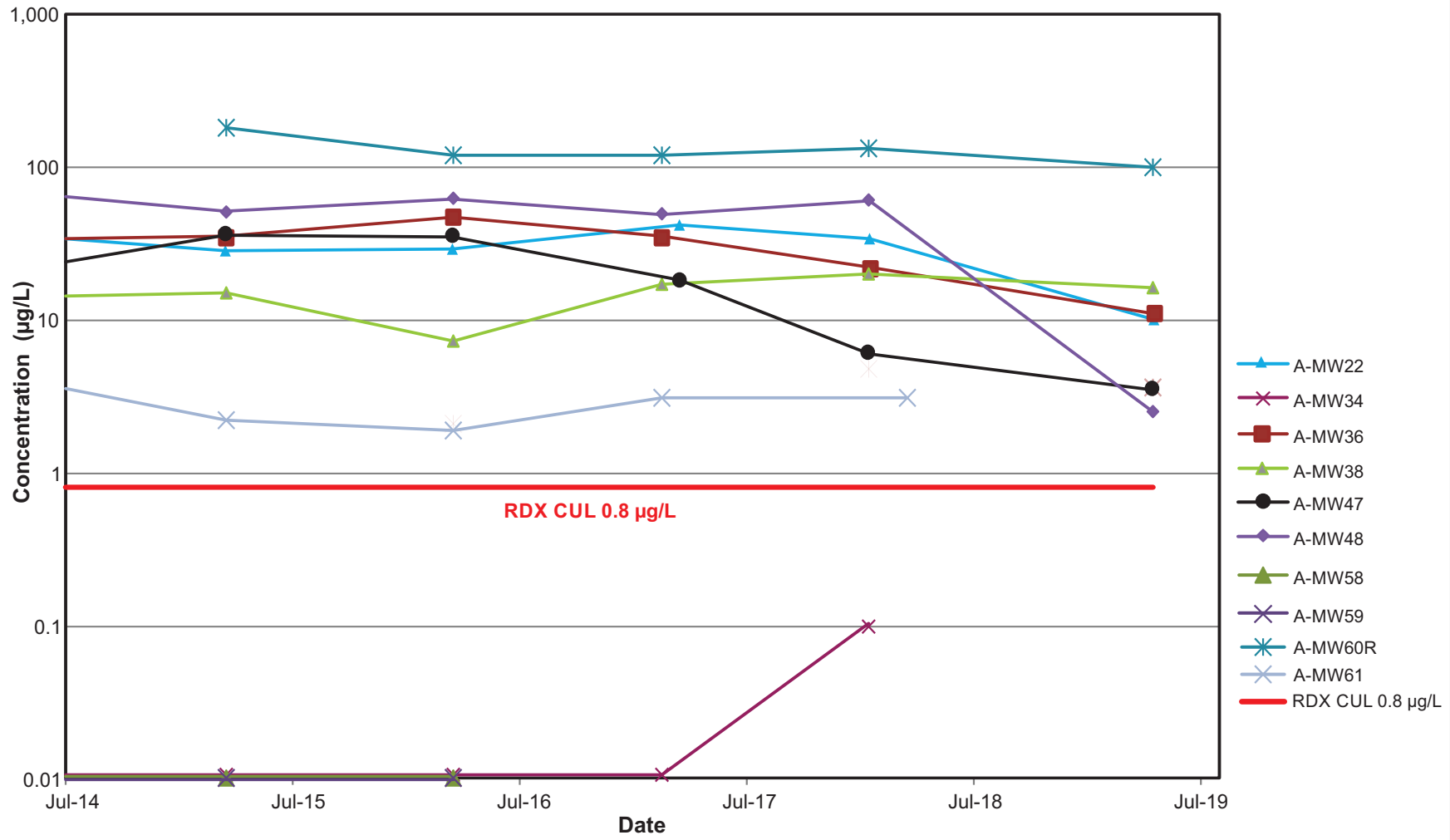


FIGURE 4-3_RDX PERCHED02.CDR

Note: Non detects plotted arbitrarily as 0.01 (µg/L)

U.S. NAVY	**Figure 4-3** **Site A RDX Trends in Perched Zone Monitoring Wells**	NBK BANGOR FIFTH FIVE-YEAR REVIEW

OU 1,
Debris Area 2
IC Boundary

Tinosa Rd

A-MW52 [2]

A-MW57 [1]
0.10 U

A-MW51 [1]
0.099 U

A-MW50 [2]

A-MW44 [3]
0.10 U

A-MW56 [1]
0.099 U

A-MW54 [1]
0.43

A-MW55 [1]
0.12 J

A-MW49 [1]
11 D

Treatment Plant

Tanks

A-MW53 [2]

A-MW35 [3]
0.10 U M

A-MW34 [2]

A-EW4 [1]
58 D

A-EW5 [1]
13 D

A-EW6 [1]
21 D

A-EW7 [1]
89 D

A-EW8 [1]
42 D

A-IW3 [4]
0.088 J M

Pintado Rd

A-MW32 [1]
0.37

A-MW22 [1]
10 D

A-MW61 [2]

A-MW48 [2]
2.5 J M

A-MW62 [4]
17 D Q

A-MW70 [4]

TP-2

A-MW60R [1]
99 D

TP-3

A-MW36 [1]
11 J D M Q

A-MW37 [1]
31 D

A-MW38 [1]
16 D Q

A-MW63 [4]

A-MW64 [4]

A-MW65 [4]

A-MW68 [4]

TP-4

A-MW67 [4]
4.5 M

A-MW71 [4]

A-MW46 [1]
36 D

A-MW47 [1]
3.5

A-MW66 [4]
0.10 U M

TP-1

TP-5

A-MW69 [4]

Stormwater Diversion Structure

OU1, Site A IC Boundary

A-MW59 [4]

A-MW33 [3]
0.48

A-MW21

A-MW58

Tinosa Rd

Leach Basin

Fence

Scale in Feet
0 100 200

Fig04-04_OU1_SiteA_RDX Concentration in Shallow Aquifer and Perched Zone_v3.mxd

Explanation

- Major Topo Contour (ft MLLW)
- Minor Topo Contour (ft MLLW)
- 10 — April 2019 RDX Concentration Contour for Shallow Aquifer (µg/L)
- 100 — 2009 RDX 100 µg/L Concentration Contour for Shallow Aquifer (µg/L)
- Monitoring Well (Shallow Aquifer)
- Monitoring Well (Perched Zone)
- Monitoring Well (Perched Zone Completed in Till)
- Extraction Well (Shallow)
- Infiltration Well (Intermediate Zone)
- Well Cluster
- Institutional Control (IC) Boundary
- Groundwater Use Prohibited
- Land Use Restriction

Well ID

A-XWXX	Water Level Only
A-XWXX [X]	Compliance
A-XWXX [1]	Annual
A-XWXX [2]	Biennial (2020, 2022, etc.)
A-XWXX [3]	5 Years (2019, 2024, etc.)
A-XWXX [4]	One-Time (2019)
A-XWXX [X]	Performance
A-XWXX [1]	Annual

Aquifer Elevation Range

Perched	Approx. 150 to 170 ft MLLW
Shallow	Approx. 30 to 100 ft MLLW
MLLW	Mean Lower Low Water

- Perched Zone Flow
- Shallow Aquifer Flow

µg/L — Micrograms per Liter

USACE Excavations

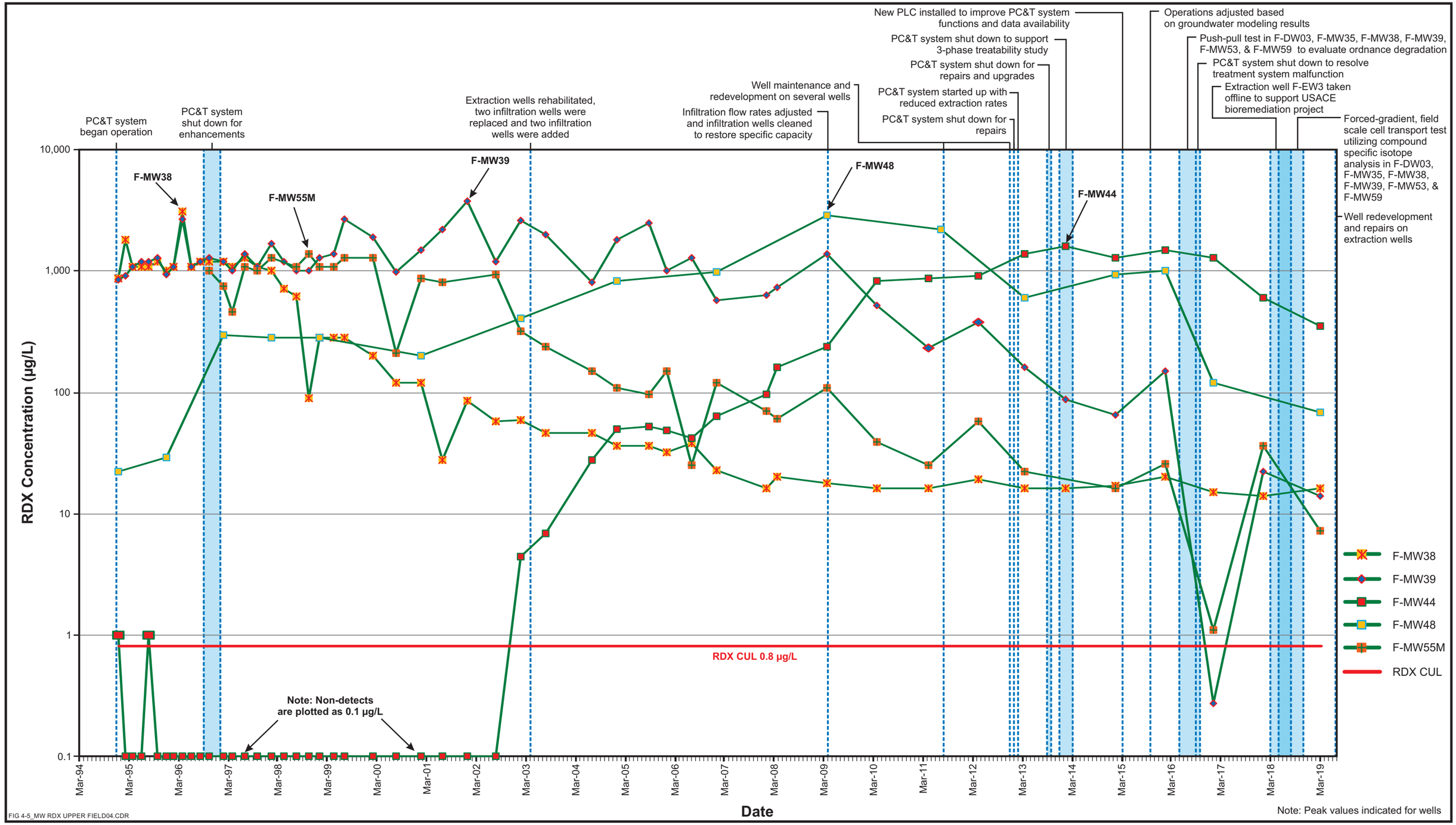
- Test Pit
- Pilot Test Infiltration Trench

Notes:
D – The result is reported from a dilution
J – The result is an estimated concentration
M – A manual integration was performed on the chromatographic peak
Q – One or more quality control criteria was not met
U – The compound was not detected at or above the limit of detection

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Figure 4-4
RDX Concentration in Shallow Aquifer and Perched Zone
OU1, Site A, April 2019

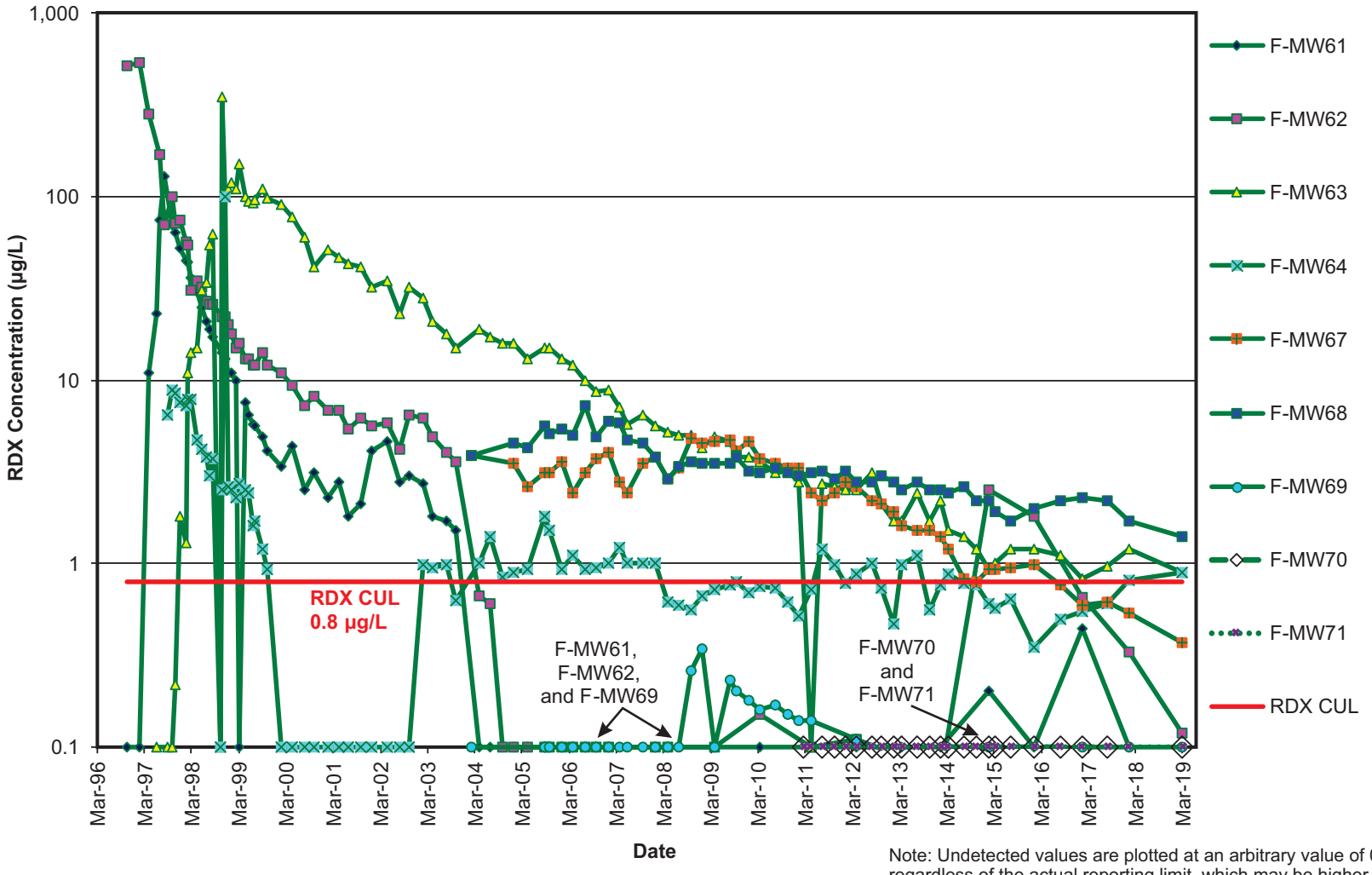
NBK Bangor
FIFTH
5-YEAR REVIEW



U.S. NAVY

Figure 4-5
Site F Upper Wellfield RDX Trend - Intermediate Zone Wells

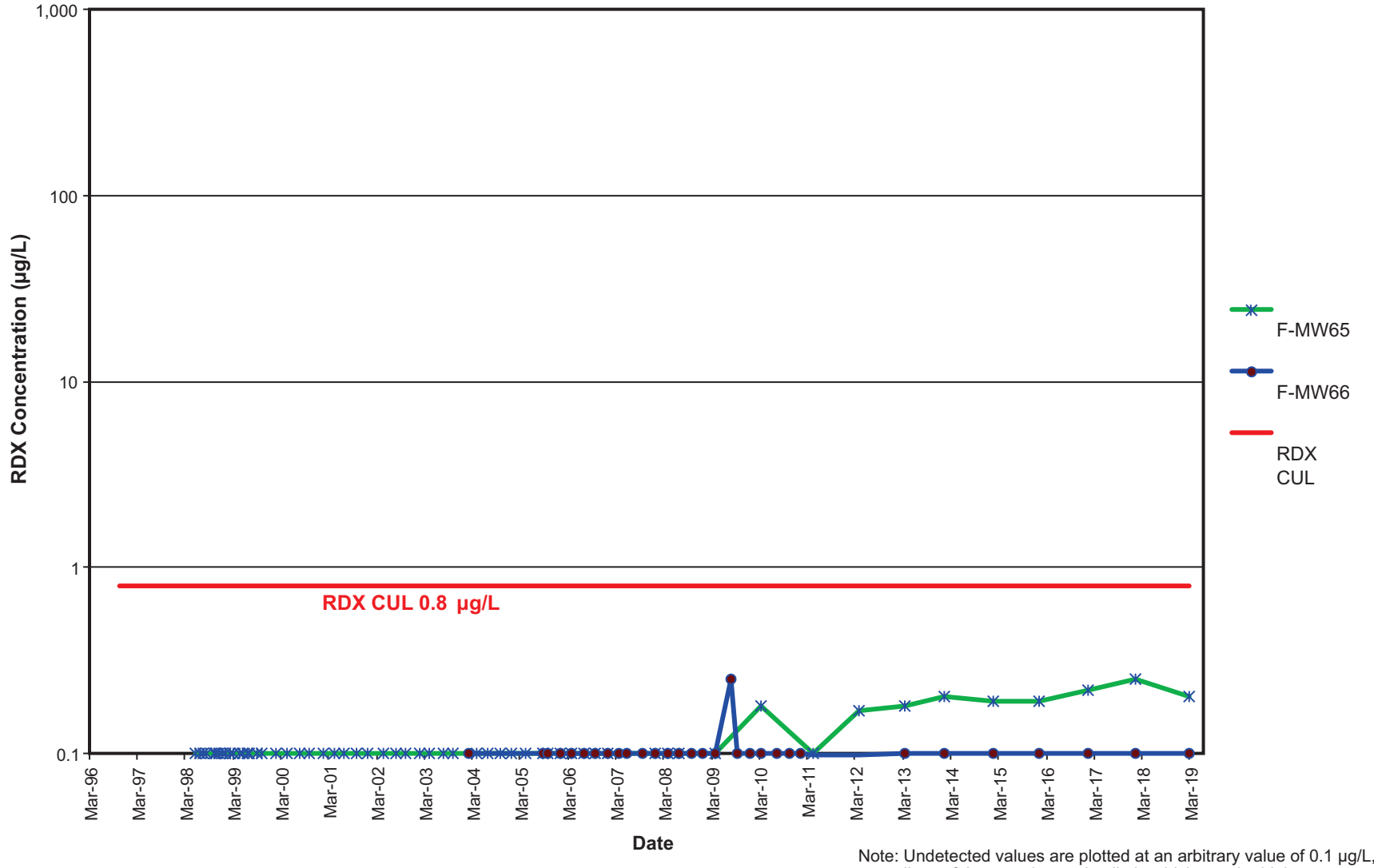
NBK BANGOR
FIFTH
FIVE-YEAR REVIEW



Note: Undetected values are plotted at an arbitrary value of 0.1 µg/L, regardless of the actual reporting limit, which may be higher.

Figure 4-8_RDX Chart_Intermed.CDR

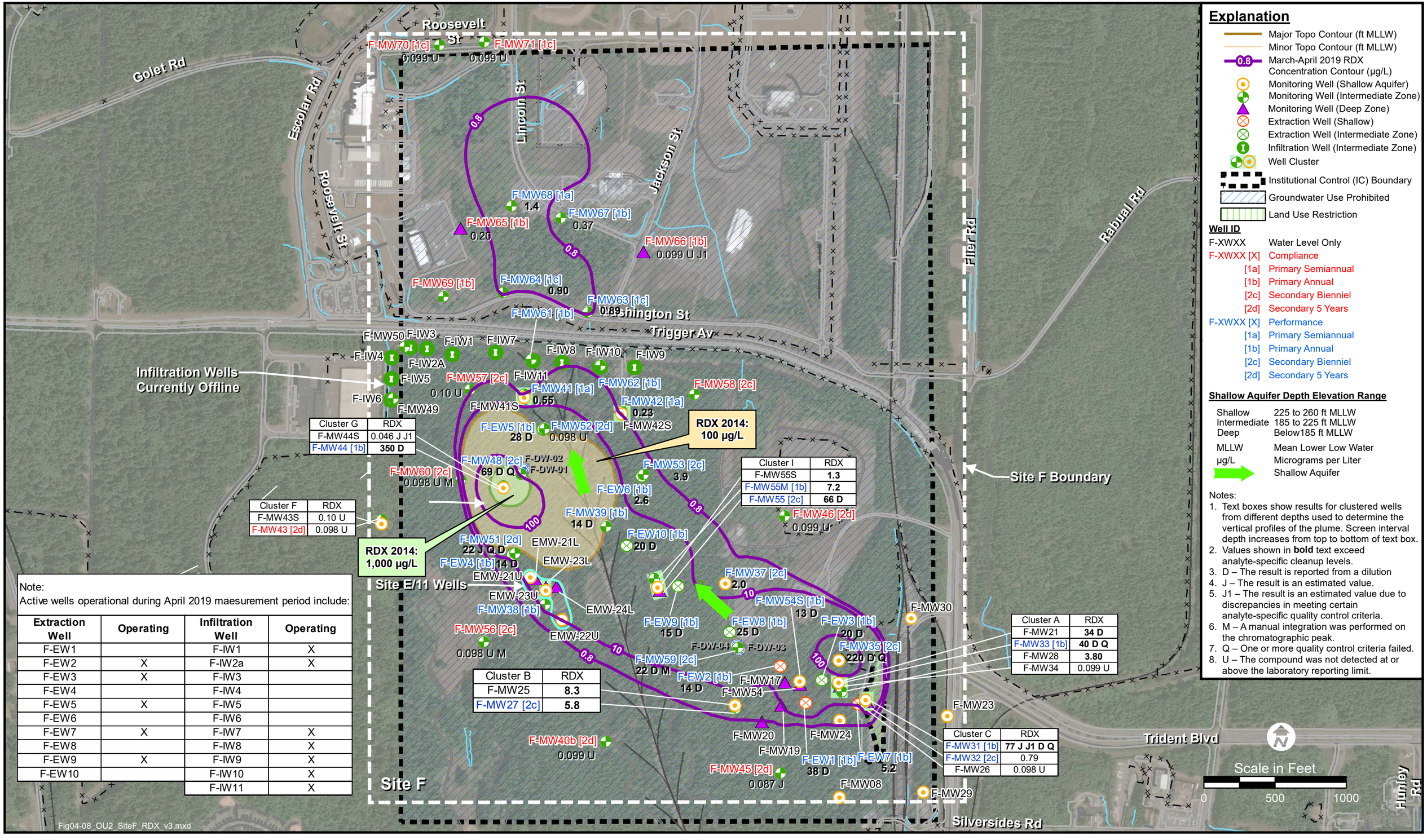
U.S. NAVY	**Figure 4-6** **Site F Northern RDX Trend -** **Intermediate Zone Wells**	NBK BANGOR FIFTH FIVE-YEAR REVIEW



Note: Undetected values are plotted at an arbitrary value of 0.1 µg/L, regardless of the actual reporting limit, which may be higher.

Figure 4-9_RDX Chart_Deep.CDR

U.S. NAVY	**Figure 4-7** **Site F Northern RDX Trend -** **Deep Zone Wells**	NBK BANGOR FIFTH FIVE-YEAR REVIEW



Explanation

- Major Topo Contour (ft MLLW)
- Minor Topo Contour (ft MLLW)
- 0.8 March-April 2019 RDX Concentration Contour (µg/L)
- Monitoring Well (Shallow Aquifer)
- Monitoring Well (Intermediate Zone)
- Monitoring Well (Deep Zone)
- Extraction Well (Shallow)
- Extraction Well (Intermediate Zone)
- Infiltration Well (Intermediate Zone)
- Well Cluster
- Institutional Control (IC) Boundary
- Groundwater Use Prohibited
- Land Use Restriction

Well ID

F-XWXX	Water Level Only
F-XWXX [X]	Compliance
[1a]	Primary Semiannual
[1b]	Primary Annual
[2c]	Secondary Bienniel
[2d]	Secondary 5 Years
F-XWXX [X]	Performance
[1a]	Primary Semiannual
[1b]	Primary Annual
[2c]	Secondary Bienniel
[2d]	Secondary 5 Years

Shallow Aquifer Depth Elevation Range

Shallow	225 to 260 ft MLLW
Intermediate	185 to 225 ft MLLW
Deep	Below185 ft MLLW
MLLW	Mean Lower Low Water
µg/L	Micrograms per Liter
	Shallow Aquifer

Notes:

1. Text boxes show results for clustered wells from different depths used to determine the vertical profiles of the plume. Screen interval depth increases from top to bottom of text box.
2. Values shown in **bold** text exceed analyte-specific cleanup levels.
3. D – The result is reported from a dilution
4. J – The result is an estimated value.
5. J1 – The result is an estimated value due to discrepancies in meeting certain analyte-specific quality control criteria.
6. M – A manual integration was performed on the chromatographic peak.
7. Q – One or more quality control criteria failed.
8. U – The compound was not detected at or above the laboratory reporting limit.

Note:
Active wells operational during April 2019 maesurement period include:

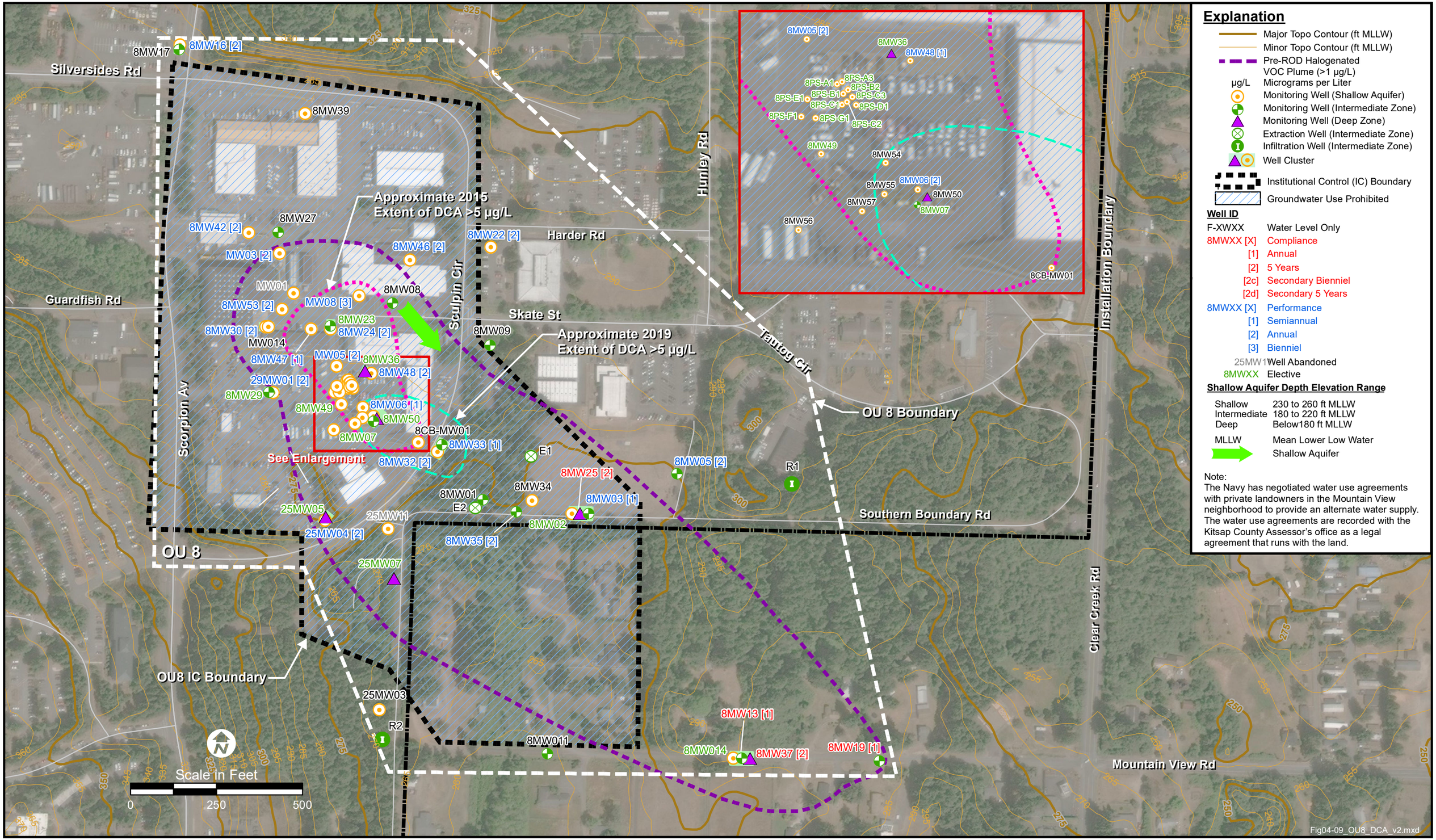
Extraction Well	Operating	Infiltration Well	Operating
F-EW1		F-IW1	X
F-EW2	X	F-IW2a	X
F-EW3	X	F-IW3	
F-EW4		F-IW4	
F-EW5	X	F-IW5	
F-EW6		F-IW6	
F-EW7	X	F-IW7	X
F-EW8		F-IW8	X
F-EW9	X	F-IW9	X
F-EW10		F-IW10	X
		F-IW11	X

Fig04-08_OU2_SiteF_RDX_v3.mxd

U.S. NAVY

Figure 4-8
OU 2, Site F March-April 2019 RDX Concentration Map

NBK Bangor
FIFTH
5-YEAR REVIEW



Explanation

- Major Topo Contour (ft MLLW)
- Minor Topo Contour (ft MLLW)
- Pre-ROD Halogenated VOC Plume (>1 µg/L)
- µg/L Micrograms per Liter
- Monitoring Well (Shallow Aquifer)
- Monitoring Well (Intermediate Zone)
- Monitoring Well (Deep Zone)
- Extraction Well (Intermediate Zone)
- Infiltration Well (Intermediate Zone)
- Well Cluster
- Institutional Control (IC) Boundary
- Groundwater Use Prohibited

Well ID

F-XWXX	Water Level Only
8MWXX [X]	Compliance
[1]	Annual
[2]	5 Years
[2c]	Secondary Bienniel
[2d]	Secondary 5 Years
8MWXX [X]	Performance
[1]	Semiannual
[2]	Annual
[3]	Bienniel
25MW1	Well Abandoned
8MWXX	Elective

Shallow Aquifer Depth Elevation Range

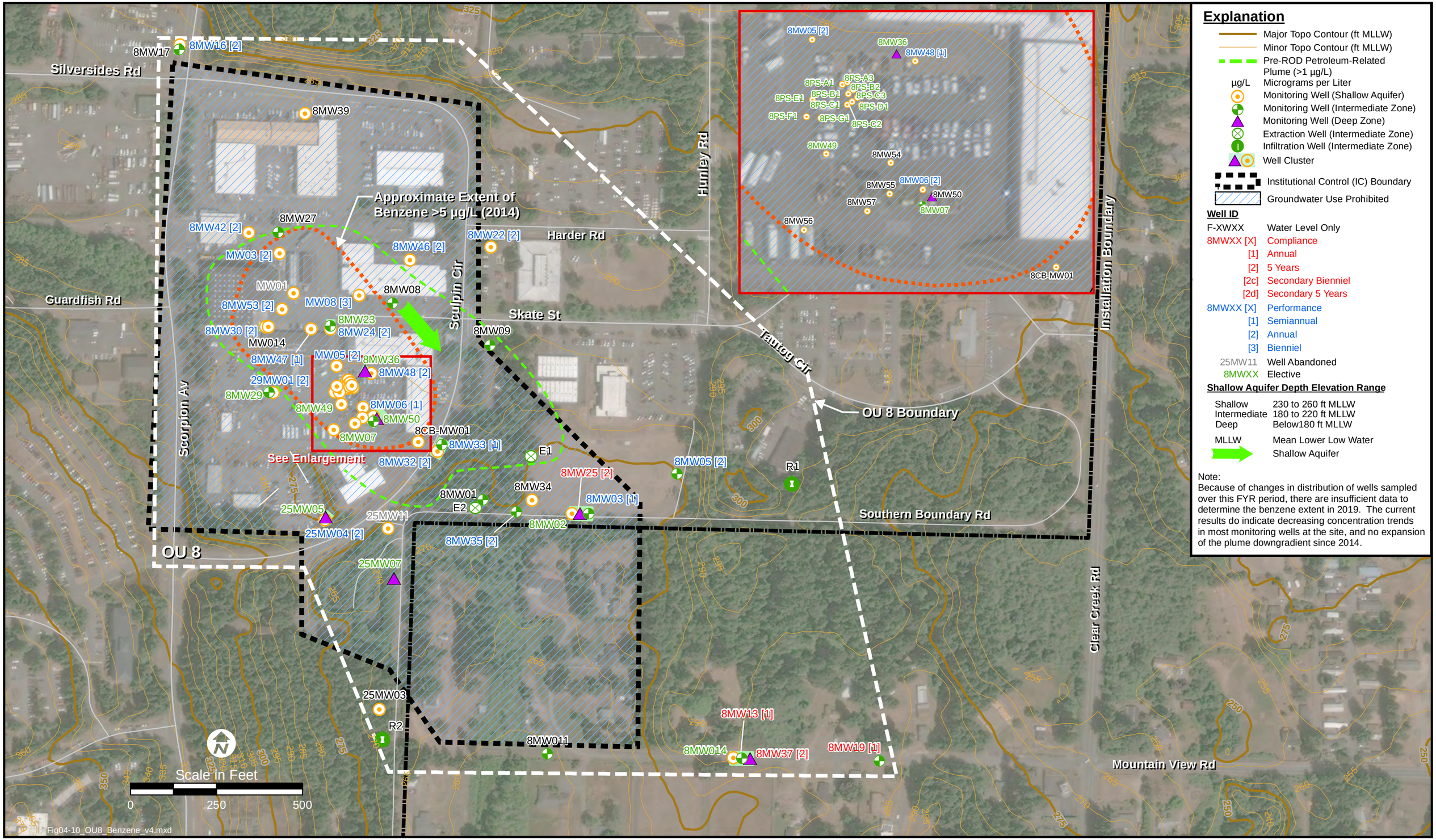
Shallow	230 to 260 ft MLLW
Intermediate	180 to 220 ft MLLW
Deep	Below180 ft MLLW
MLLW	Mean Lower Low Water
	Shallow Aquifer

Note:
The Navy has negotiated water use agreements with private landowners in the Mountain View neighborhood to provide an alternate water supply. The water use agreements are recorded with the Kitsap County Assessor's office as a legal agreement that runs with the land.

U.S. NAVY

Figure 4-9
Extent of 1,2-DCA in OU 8 Groundwater During This 5-Year Review Period

NBK Bangor
FIFTH
5-YEAR REVIEW



Explanation

- Major Topo Contour (ft MLLW)
- Minor Topo Contour (ft MLLW)
- Pre-ROD Petroleum-Related Plume (>1 µg/L)
- µg/L — Micrograms per Liter
- Monitoring Well (Shallow Aquifer)
- Monitoring Well (Intermediate Zone)
- Monitoring Well (Deep Zone)
- Extraction Well (Intermediate Zone)
- Infiltration Well (Intermediate Zone)
- Well Cluster
- Institutional Control (IC) Boundary
- Groundwater Use Prohibited

Well ID

F-XWXX	Water Level Only
8MWXX [X]	Compliance
[1]	Annual
[2]	5 Years
[2c]	Secondary Bienniel
[2d]	Secondary 5 Years
8MWXX [X]	Performance
[1]	Semiannual
[2]	Annual
[3]	Bienniel
25MW11	Well Abandoned
8MWXX	Elective

Shallow Aquifer Depth Elevation Range

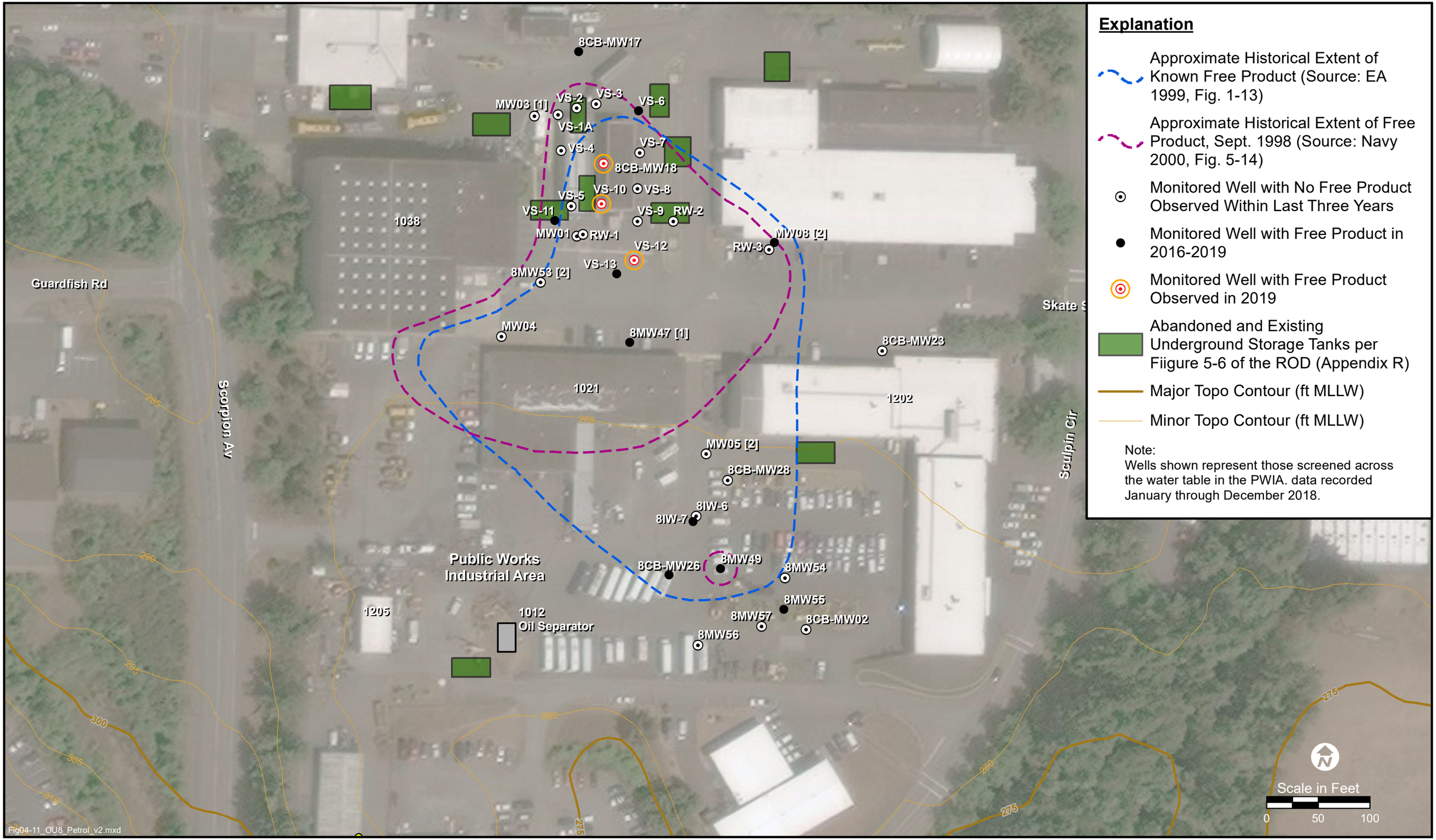
Shallow	230 to 260 ft MLLW
Intermediate	180 to 220 ft MLLW
Deep	Below180 ft MLLW
MLLW	Mean Lower Low Water
	Shallow Aquifer

Note:
Because of changes in distribution of wells sampled over this FYR period, there are insufficient data to determine the benzene extent in 2019. The current results do indicate decreasing concentration trends in most monitoring wells at the site, and no expansion of the plume downgradient since 2014.

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Figure 4-10
Extent of Benzene in OU 8 Groundwater During This 5-Year Review Period

NBK Bangor
FIFTH
5-YEAR REVIEW



Explanation

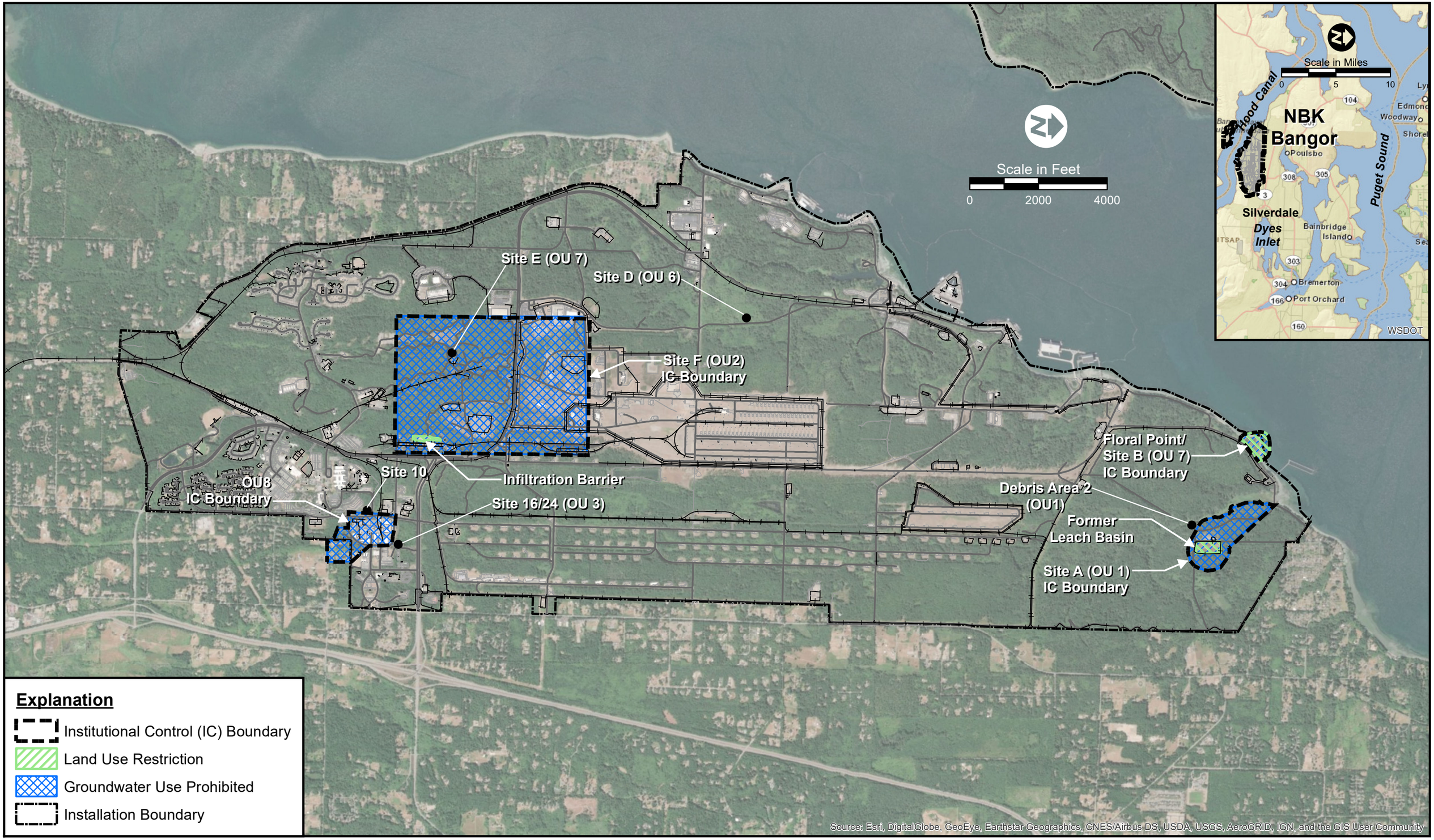
- Approximate Historical Extent of Known Free Product (Source: EA 1999, Fig. 1-13)
- Approximate Historical Extent of Free Product, Sept. 1998 (Source: Navy 2000, Fig. 5-14)
- Monitored Well with No Free Product Observed Within Last Three Years
- Monitored Well with Free Product in 2016-2019
- Monitored Well with Free Product Observed in 2019
- Abandoned and Existing Underground Storage Tanks per Fiigure 5-6 of the ROD (Appendix R)
- Major Topo Contour (ft MLLW)
- Minor Topo Contour (ft MLLW)

Note:
Wells shown represent those screened across the water table in the PWIA. data recorded January through December 2018.

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Figure 4-11
Distribution of OU 8 Wells With Observed Free Product January Through June 2019

NBK Bangor
FIFTH
5-YEAR REVIEW



U.S. NAVY	**Figure 4-12** **Location of Sites Subject to Institutional Controls**	NBK Bangor FIFTH 5-YEAR REVIEW

Table 4-1. Summary of Distribution, Linear Regression, Simple Linear Forecast, and Mann-Kendall Trend Analysis Results 2009-2019 at Site A

Well	Analyte	Data Are Normally Distributed[1]	Linear Regression Trend[2]	Forecasted Year CUL Met[3]	Mann-Kendall Trend[4]	Notes[5]
Perched Zone Wells						
A-MW22	RDX	Yes	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
A-MW36	RDX	< 8 events	NA	NA	No Trend	USEPA guidance does not recommend performing a linear regression on less than 8 data points. Mann Kendall trend not statistically significant.
	TNT	< 8 events	NA	NA	No Trend	USEPA guidance does not recommend performing a linear regression on less than 8 data points. Mann Kendall trend not statistically significant.
	2,6-DNT	< 8 events	NA	NA	No Trend	USEPA guidance does not recommend performing a linear regression on less than 8 data points. Mann Kendall trend not statistically significant.
A-MW47	RDX	Yes	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
	TNT	Yes	Increasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant. TNT concentrations currently below cleanup level.
	2,6-DNT	Yes	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
A-MW48	RDX	Yes	**Decreasing**	2022	NA	
Vashon Till Interbed Wells						
A-MW38	RDX	Yes[6/]	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
	TNT	Yes[6/]	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant. TNT concentrations currently below cleanup level.
A-MW60R	RDX	< 8 events	NA	NA	No Trend	USEPA guidance does not recommend performing a linear regression on less than 8 data points. Mann Kendall trend not statistically significant.
Shallow Aquifer Wells:						
A-MW32	RDX	Yes	Increasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant. RDX concentration currently below cleanup level
A-MW49	RDX	Yes[6/]	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
A-MW54	RDX	Yes	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant. RDX concentration currently below cleanup level
Extraction Wells:						
A-EW4	RDX	Yes	**Decreasing**	2031	NA	

Table 4-1 (continued). Summary of Distribution, Linear Regression, Simple Linear Forecast, and Mann-Kendall Trend Analysis Results 2009-2019

Well	Analyte	Data Are Normally Distributed[1]	Linear Regression Trend[2]	Forecasted Year CUL Met[3]	Mann-Kendall Trend[4]	Notes[5]
A-EW5	RDX	Yes	Decreasing	NA	**Decreasing**	
A-EW6	RDX	Yes[6/]	Increasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
A-EW7	RDX	Yes	**Decreasing**	2021	NA	
A-EW8	RDX	Yes	Decreasing	NA	No Trend	Linear regression and Mann-Kendall trends not statistically significant.
Well	Analyte	Data Are Normally Distributed1/	Linear Regression Trend2/	Forecasted Year CUL Met3/	Mann-Kendall Trend4/	Notes5/
Extraction Wells:						
A-MW37	RDX	Yes	**Decreasing**	2021	NA	
	TNT	< 8 events	NA	NA	No Trend	USEPA guidance does not recommend performing a linear regression on less than 8 data points. Mann Kendall trend not statistically significant.
A-MW46	RDX	Yes	**Decreasing**	2026	NA	

Notes
[1] As determined by Shapiro-Wilks normality test using Analyse-It statistical analysis software.
[2] Linear regression trend, **bolded if statistically significant**.
[3] Evaluated datasets with a statistically significant decreasing linear regression trend to provide a simple linear forecast for the year concentrations will reach cleanup levels.
[4] Mann-Kendall trend, **bolded if statistically significant**.
[5] Possible trends are indicated when statistical significance at the 95% confidence level was not achieved. Results from the sign (±) of the slope for linear regression, or the total number of discordant or concordant pairs is positive (increasing trend) or negative (decreasing trend) from the Mann-Kendall analysis.
[6] Log-transformed data used for normality testing
The datasets used for these analyses include up to 20% non-detect data only, and non-detect data are replaced with the reporting limit.
Wells and analytes not listed for the following reasons: no detections; more than 20% non-detects, thereby not meeting minimum requirements for statistical analysis; or fewer than four events and therefore could not be analyzed.

Table 4-2. Summary of Additional Site Characterization Investigations at Site A

Data Type	Investigation Performed
Aquifer Parameters	
Hydraulic Conductivity	Performed slug tests in 17 wells screened in both the perched zone and the shallow aquifer. Installed pressure transducers with dataloggers in six wells and collected manual measurements of depth to groundwater in an additional 13 wells to document shallow aquifer response to pump and treat system shutdown on January 12, 2018
Grain Size Distribution and Porosity	Sampling from two well bores, A-MW62 and A-MW63, located in the vicinity of highest COC concentrations in groundwater and near the center of the source area. Analysis included 39 samples for total organic carbon, 28 samples for grain size distribution, 20 samples for porosity, and 14 samples for effective porosity and vertical hydraulic conductivity.
Organic Carbon Content	
Thickness of Shallow Aquifer	Logging of continuous soil cores from two well bores, A-MW62 and A-MW63, located in the vicinity of highest ordnance concentrations in groundwater and near the center of the source area.
Contaminant Distribution	
Residual Ordnance Concentrations in Source Area Soils	43 soil samples collected during drilling of the well bores for wells A-MW62 and A-MW63 were analyzed for ordnance. 42 soil samples collected during drilling of the well bores for wells A-MW64 through A-MW67 and A-MW70 and A-MW71 were analyzed for ordnance. These wells were installed in support of the USACE pilot test that utilized an infiltration trench in the perched zone (see Section 4.2.1.4).
Vertical Extent of Ordnance in Groundwater	Groundwater samples were collected from five temporary wells (one sample each) and two permanent monitoring wells (two samples each) installed in the well bores for A-MW62 and A-MW63.
Biodegradation Occurrence and Rate	
RDX Sorption Coefficient (K_d)	USACE borehole dilution tests and push-pull tests; USACE infiltration trench tests; NAVFAC EXWC ^{15}N-labeled RDX tests
Evidence of Biodegradation and Rate	
Potential for Biostimulation to Increase Degradation	

Table 4-3. Summary of Normality, Linear Regression, and Mann-Kendall Trend Analysis Results Through April 2019 at Site F

Well	Analyte	Data Are Normally Distributed (Parametric)[1]	Linear Regression Trend[2]	Forecasted Year Cleanup Level Met	Cleanup Level Met in March-April 2019?	Mann-Kendall Trend[3]	Comments[4]
F-EW1	TNB	No		NA	No	No Trend	Statistical significance not met, no trend by Mann-Kendall analysis.
	TNT	Yes	**Decreasing**	NA	No		
	2,6-DNT	Yes[5]	Decreasing	NA	No	No Trend	Statistical significance not met, possible decreasing trend indicated by linear regression, no trend by Mann-Kendall analysis.
	RDX	No		NA	No	**Decreasing**	
F-EW2	TNB	Yes	**Decreasing**	NA	No		
	TNT	Yes[5]	**Decreasing**	NA	Yes		
	RDX	Yes	**Decreasing**	2023	No		
F-EW3	TNB	No		NA	No	No Trend	Statistical significance not met, no trend by Mann-Kendall analysis.
	TNT	Yes	**Decreasing**	NA	No		
	2,4-DNT	Yes[5]	Decreasing	NA	No	**Decreasing**	
	RDX	Yes[5]	**Decreasing**	2033	No		
F-EW4	RDX	Yes	**Decreasing**	2019	No		
F-EW5	RDX	Yes	**Decreasing**	2037	No		
F-EW6	RDX	Yes[5]	**Decreasing**	2019	No		
F-EW7	TNB	Yes	**Decreasing**	NA	No		
	TNT	Yes[5]	**Decreasing**	NA	No		
	2,4-DNT	Yes	**Decreasing**	NA	No		
	RDX	Yes[5]	**Decreasing**	2028	No		
F-EW8	RDX	Yes	**Decreasing**	2025	No		
F-EW9	RDX	Yes	**Decreasing**	2028	No		
F-EW10	RDX	Yes[5]	**Decreasing**	2019	No		
F-MW27	RDX	Too few data for Shapiro-Wilk normality test			No	**Decreasing**	
F-MW31	TNB	Yes	Increasing	NA	No	No Trend	Statistical significance not met, possible increasing trend indicated by linear regression, no trend by Mann-Kendall analysis.
	DNB	Yes	Increasing	NA	No	No Trend	Statistical significance not met, possible increasing trend indicated by linear regression, no trend by Mann-Kendall analysis.
	TNT	Yes	**Decreasing**	NA	No		
	2,4-DNT	No		NA	No	**Decreasing**	
	RDX	Yes	Decreasing	NA	No	No Trend	Statistical significance not met, possible decreasing trend indicated by linear regression, no trend by Mann-Kendall analysis.

Table 4-3 (continued). Summary of Normality, Linear Regression, and Mann-Kendall Trend Analysis Results

Well	Analyte	Data Are Normally Distributed (Parametric)[1]	Linear Regression Trend[2]	Forecasted Year Cleanup Level Met	Cleanup Level Met in March-April 2019?	Mann-Kendall Trend[3]	Comments[4]
F-MW32	TNB	Too few data for Shapiro-Wilk normality test		NA	Yes	No Trend	Statistical significance not met, possible decreasing trend, no trend by Mann-Kendall analysis.
F-MW33	TNB	Yes	**Decreasing**	NA	No		
	DNB	Yes	**Decreasing**	NA	Yes		
	TNT	Yes	**Decreasing**	NA	No		
	2,4-DNT	Yes	**Decreasing**	NA	No		
	2,6-DNT	No		NA	No	No Trend	Statistical significance not met, no trend by Mann-Kendall analysis.
	RDX	Yes	**Decreasing**	2021	No		
F-MW35	TNB	Yes	Decreasing	NA	No	No Trend	Statistical significance not met, possible decreasing trend indicated by linear regression, no trend by Mann-Kendall analysis.
	TNT	Yes	**Decreasing**	NA	Yes		
	RDX	Yes[5]	Decreasing	NA	No	No Trend	Statistical significance not met, possible decreasing trend indicated by linear regression, no trend by Mann-Kendall analysis.
F-MW37	RDX	Too few data for Shapiro-Wilk normality test		NA	No	**Decreasing**	
F-MW38	RDX	No		NA	No	**Decreasing**	
F-MW39	RDX	No		NA	No	**Decreasing**	
F-MW41	RDX	Yes[5]	**Decreasing**	2012	Yes		
F-MW42	RDX	Yes[5]	**Decreasing**	2008	Yes		
F-MW44	RDX	No		NA	No	**Increasing**	
F-MW48	RDX	Yes	Decreasing	NA	No	**Decreasing**	
F-MW53	RDX	Too few data for Shapiro-Wilk normality test		NA	No	No Trend	Statistical significance not met, possible decreasing trend.
F-MW54S	TNB	Yes	**Decreasing**	NA	No		
	RDX	Yes[5]	Increasing	NA	No	No Trend	Statistical significance not met, possible increasing trend indicated by linear regression; however, no trend indicated by Mann-Kendall analysis.
F-MW55	RDX	Yes[5]	**Decreasing**	2019	No		
F-MW55M	RDX	Yes	**Decreasing**	2019	No		
F-MW59	RDX	No		NA	No	**Decreasing**	
F-MW63	RDX	Yes[5]	**Decreasing**	2015	No		
F-MW64	RDX	Yes[5]	**Decreasing**	2011	No		
F-MW67	RDX	Yes	**Decreasing**	2017	Yes		
F-MW68	RDX	Yes[5]	**Decreasing**	2019	No		

Table 4-3 (continued). Summary of Normality, Linear Regression, and Mann-Kendall Trend Analysis Results

Notes:
[1] The normal distribution tested by Shapiro-Wilk; the test may be performed on the concentrations or on transformed data, such as the natural logarithm of the dataset.
[2] Linear regression trend, **bolded if statistically significant.**
[3] Mann-Kendall trend, **bolded if statistically significant.**
[4] Possible trends are indicated when statistical significance at the 95% confidence level was not achieved. Results from the sign (+/-) of the slope for linear regression, or the total number of discordant or concordant pairs is positive (increasing trend) or negative (decreasing trend) from the Mann-Kendall analysis.
[5] Log-transformed data for normality testing used.
The datasets used for these analyses include up to 20% non-detect data only, and non-detect data are replaced with the reporting limit.
Data spanned the years 2005 to 2019.
Wells and analytes not listed for the following reasons: no detections; more than 20% non-detects, thereby not meeting minimum requirements for statistical analysis; or fewer than four events and therefore could not be analyzed.
NA- not measured

Table 4-4. Site F Ordnance Removed by Extraction Wells

Well	January Through December 2018										Total Since August 1996			
	Volume Removed	March 2019 Concentration					Mass Removed				Volume Removed	Mass Removed		
		RDX		TNT		DNT		RDX	TNT	DNT		RDX	TNT	DNT
	(Gallons)	(µg/L)		(µg/L)		(µg/L)		(lbs)	(lbs)	(lbs)	(Gallons)	(lbs)	(lbs)	(lbs)
Lower Well Field														
F-EW1	800	38	D	6.4		0.75		0.00	0.00	0.00	395,640,209	175.09	119.91	4.80
F-EW2	23,407,100	14	D	0.38		0.098	U	2.73	0.07	0.02	301,997,310	173.07	9.25	0.80
F-EW3	12,570,200	20	D	20	D	1.38		2.10	2.10	0.14	307,185,090	158.09	128.12	6.24
F-EW7	29,940,800	5.2		31	D	1.18		1.30	7.75	0.29	324,585,049	34.85	201.40	9.04
F-EW8	282,000	25	D	0.098	U	0.098	U	0.06	0.00	0.00	300,786,161	291.64	1.08	0.92
Upper Well Field														
F-EW4	198,600	14	D	0.099	U	0.099	U	0.02	0.00	0.00	408,143,819	424.18	1.58	1.40
F-EW5	88,356,199	28	D	0.099	U	0.099	U	20.65	0.07	0.07	1,778,053,174	848.60	5.57	5.13
F-EW6	221,300	2.8		0.1	U	0.1	U	0.01	0.00	0.00	484,349,020	150.68	1.55	1.39
F-EW9	55,308,299	15	D	0.099	U	0.099	U	6.92	0.05	0.05	421,149,297	397.73	1.29	1.14
F-EW10	437,900	20	D	0.099	U	0.099	U	0.07	0.00	0.00	580,712,129	622.06	1.51	1.31
SYSTEM TOTAL[1]	**210,723,198**							**34**	**10.0**	**0.58**	**5,302,601,258**	**3,276**	**471**	**32**

Notes:
[1] Total removed volume based on gauges at wellhead, which are not calibrated or normalized to a total plant effluent.
NS – not sampled
NA – not available
D – Result is reported from a diluted analysis.
U – Analyte not detected at specified reporting limit.

Table 4-5. Summary of Distribution, Linear Regression, Simple Linear Forecast, and Mann-Kendall Trend Analysis Results through October 2018 at OU 8

Well	Analyte	Data Are Normally Distributed[1]	Linear Regression Trend[2]	Mann-Kendall Trend[3]	Recent Mann-Kendall Trend[4]	Notes[5]
MW08	Benzene	Yes[6]	**Decreasing**	--	--	Statistically significant decreasing trends
	Ethylbenzene	Yes	**Decreasing**	--	--	
	Toluene	Yes	**Decreasing**	--	--	
8MW47	Benzene	Yes	**Decreasing**	--	--	Statistically significant decreasing trends
	Ethylbenzene	Yes	**Decreasing**	--	--	
	Toluene	No	--	**Decreasing**	--	
8MW24	Benzene	Yes[6/]	**Decreasing**	No Trend	No Trend	Statistically significant decreasing trend
	Ethylbenzene	Yes	**Decreasing**	See Notes	NA	No statistically significant trend
	Toluene	Yes	**Decreasing**	--	--	Statistically significant decreasing trend
MW05	Benzene	Yes	Increasing	No Trend	**Decreasing**	Decreasing over the recent timeframe at 90% confidence level
	Ethylbenzene	Yes	**Increasing**	--	**Decreasing**	Statistically significant increasing trend over the whole timeframe, decreasing at 90% confidence level over recent timeframe
	Toluene	Yes[6]	Increasing	No Trend	**Decreasing**	Recent trend at 90% confidence level only
	DCA	Yes	Decreasing	**Decreasing**	**--**	Statistically significant decreasing trend
8MW48	Benzene	Yes	**Decreasing**	--	--	Statistically significant decreasing trend
	Ethylbenzene	Yes	**Decreasing**	--	--	
	Toluene	Yes	**Decreasing**	No Trend	**Decreasing**	Decreasing over the recent timeframe at 90% confidence level
8MW06	Benzene	No	--	**Increasing**	**Decreasing, Fall and Spring**	Statistically significant increasing trend; however, decreasing at 90% confidence level for recent data (2014-2018)
	Ethylbenzene	Yes	**Decreasing**	--	Increasing (Fall), No Trend (Spring)	Statistically significant trends which vary by timeframe, confidence level, and season
	Toluene	Yes[6/]	**Increasing**	--	**Decreasing, Fall & Spring**	Statistically significant decreasing trend
	DCA	Yes	**Decreasing**	--	--	
8MW33	TCA	Yes[6]	**Decreasing**	--	--	Statistically significant decreasing trend
	DCE	No	--	**Decreasing**	--	

Table 4-5 (continued). Summary of Distribution, Linear Regression, Simple Linear Forecast, and Mann-Kendall Trend Analysis Results through October 2018 at OU 8

Well	Analyte	Data Are Normally Distributed[1]	Linear Regression Trend[2]	Mann-Kendall Trend[3]	Recent Mann-Kendall Trend[4]	Notes[5]
	DCA	Yes[6]	Decreasing	**Decreasing**	--	
	DCA (2007-2018)	Yes	**Decreasing**	--	--	
	DCP	Yes[6/]	**Decreasing**	--	--	
8MW35	TCA	Yes	**Decreasing**	--	--	Statistically significant decreasing trend
	DCA	Yes[6/]	**Decreasing**	--	--	
8MW03	TCA	No	--	Decreasing	--	Statistically significant decreasing trend
	DCE	Yes[6]	**Decreasing**	--	--	
	DCA	Yes[6]	**Decreasing**	--	--	
8MW19	DCA	No	--	**Decreasing**	--	Statistically significant decreasing trend

[1]As determined by Shapiro-Wilks normality test
[2]Linear regression trend, **bolded if statistically significant** (95% confidence level)
[3]Mann-Kendall trend, **bolded if statistically significant** (95% confidence level)
[4]Mann-Kendall trend performed over the last ten recent events, **bolded if statistically significant** (80% or 90% confidence level)
[5]Possible trends are indicated when statistical significance at the 95% confidence level was not achieved
[6]Log-transformed data for normality testing used
Wells and analytes not listed either had no detections, had fewer than four events, or had more than 20% non-detect data and therefore the datasets did not meet minimum requirements for statistical analysis, and could not be analyzed.
Gray shaded text indicates a change from the previous year's analyses.
-- – Not applicable

Table 4-6. Summary of 2014 to 2019 Free-Product Recovery Activities for OU 8

Well ID	Product Recovery					
	2014	2015	2016	2017	2018	2019
VS-3	X					
VS-10			X	X	X	X
VS-12			X	X		
8CB-MW17	X					
8CB-MW18	X		X			
8CB-MW26	X		X			
8IW-7	X	X	X	X		
8MW55			X			
Quantity Recovered (gallon)	**0.85**	**2.20**	**2.20**	**0.29**	**0.46**	**0.33**
Total Quantity Recovered for the Period (gallons)				**6.34**		

Table 4-7. Site Inspection Summary

Site	Inspection Site	2014	2015	2016	2017	2018	Current Status
Site A	Burn Area (OU 1)	• No deficiencies found. One missing manhole cover for the stormwater system should be replaced	• No deficiencies found. Manhole cover for the stormwater system has been replaced	• No deficiencies found. however, the leach basin has alder trees growing that if left unchecked may puncture or damage the liner.	• Minor deficiencies found; the leach basin currently has willow trees growing that if left unchecked may puncture or damage the liner.	• Minor deficiency found. The leach basin currently contains willow trees that, if left unchecked, may puncture or damage the liner	• Willow, blackberry, and scotch broom removal planned for 2020
Site A	Debris Area 2 (OU 1)	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found	• In compliance
Site F	OU 2	• No deficiencies found for the infiltration barrier area. Minor cracks were observed in the asphaltic pavement work surface, as noted in previous years	• No deficiencies found	• No deficiencies found. The asphalt cover and drainage system would benefit from cleaning	• Minor deficiencies found. Some maintenance is warranted. The asphalt cover and drainage system would benefit from cleaning	• Minor deficiencies found. Overall, 2018 inspections indicate that the asphalt cover and drainage system would benefit from vegetation removal and drain cleaning	• Vegetation removal and drain cleaning planned for 2020
Site E/11	OU 7	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found; however, the northwest section of fencing is damaged from fallen trees.	• No deficiencies found; however, the northwest section of fencing is damaged from fallen trees	• In compliance
Site 16/24	OU 3	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found	• In compliance
Site D	OU 6	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found	• No deficiencies found	• In compliance
Site B	OU 7	• No deficiencies found. Overall, the changes to the beach profiles are within expectations of a natural beach front, and the ICs in place continue to be protective	• No deficiencies found. Two signs previously with faded text have been replaced since the 2014 inspection	• No deficiencies found	• Minor deficiencies found. Installation of an antenna occurred in 2017 over the area of vegetated soil cover. Ground was not broken for the installation but cleared vegetation will need to be restored after installation is complete.	• Minor deficiencies found. While the ICs in place continue to be protective, some beach replenishment should be considered in the future. An encroaching roadside ditch has undermined loose gravel that forms the footing to the upland side of Hub 10. Reinforcement of this area is necessary to maintain the Hub 10 survey marker.	• Beach replenishment is planned for late Summer 2020
Site 10	OU 7	• Minor pavement deficiencies in the older portion of the paved area include some alligator cracking, although the cap remains protective	• Minor pavement deficiencies in the older portion of the paved area include some alligator cracking in two areas; one southwest in the parking lot and the other in the machinery parking area, although the cap remains protective.	• Minor pavement deficiencies in the older portion of the paved area include some alligator cracking in two areas; one southwest in the parking lot and the other in the machinery parking area, though the asphalt cover remains protective.	• Minor pavement deficiencies in the older portion of the paved area include some alligator cracking in two areas—one southwest in the parking lot and the other in the machinery parking area—though the asphalt cover remains protective.	• Minor pavement deficiencies in the older portion of the paved area include some pavement cracks. However, the asphalt cover remains protective.	• In compliance
OU 8	PWIA and Mountain View Neighborhood	• No deficiencies found	• No deficiencies found	• No deficiencies found. Construction activities are occurring in 2016 to update facilities for the government fueling station in the PWIA.	• No deficiencies found	• Minor deficiencies found. Observed subsiding and cracking asphalt patches at wells VS-6 and VS-13.	• In compliance

5.0 TECHNICAL ASSESSMENT

In accordance with the Comprehensive Five-Year Review Guidance (USEPA, 2001), the technical assessment for OUs 1, 2, 3, 6, 7, and 8 at NBK Bangor answers the following three questions:

- Question A: Is the remedy functioning as intended by the decision documents?
- Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid?
- Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

Table 5-1 summarizes the responses to Questions A, B, and C based on the technical assessment discussion provided in the following subsections for each OU.

Table 5-1. Responses Based on Technical Assessment

OU	Site	**Question A:** Is the remedy functioning as intended by the decision documents?	**Question B:** Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid?	**Question C:** Has any other information come to light that could call into question the protectiveness of the remedy?
1	A	Yes	Yes	No
2	F	Yes	Yes	No
3	16/24	Yes	Yes	No
3	25	Yes	Yes	No
6	D	Yes	Yes	No
7	B	Yes	Yes	No
7	E/11	Yes	Yes	No
7	10	Yes	Yes	No
8	27, 28, and 29	Yes	Yes	No

5.1 Answers to Questions A, B, and C for OU 1 (Site A)

Question A: Is the remedy functioning as intended by the decision documents? Yes. The remedy for Site A is functioning as intended by the ROD and three ESDs, as described below. However, the remedy for Site A groundwater is taking longer than expected to meet the RAOs.

The RAOs established in the OU 1 Site A ROD are the following:

- Reduce the concentrations of contaminants in soil to be protective of human health for an unrestricted site use.
- Reduce concentrations of contaminants in the shallow aquifer groundwater to levels below MTCA groundwater cleanup, and the point of compliance will be throughout the shallow aquifer.

The remedy for Site A soil continues to function as intended by the ROD and the three ESDs. The IC inspection process is generally functioning as intended by the OU 8 ROD (wherein IC inspections were required for all OUs). The remedy for Site A soil was implemented from October 1992 through September 1997 and included excavating and stockpiling soil, constructing a soil-washing basin in the resulting excavation, treating the excavated soils using soil washing and composting, treating leachate from the soil washing and composting operations, and abandoning the soil-washing basin, liner, and soil contents in place by placing a 1-foot soil cover over the treated material and revegetating to prevent erosion. Inspections are performed annually to ensure that required LUCs are maintained. The status of any LUC deficiencies observed during this FYR period is documented in Table 4-7.

The groundwater extraction and treatment portion of the remedy for Site A is functioning as intended by the ROD, but is taking longer than expected to meet the RAOs for groundwater. All of the remedy components listed in Table 2-2 have been implemented, and monitoring and groundwater treatment system optimization have been performed as envisioned (Section 11.1 of the ROD). Improvements to the functionality of the Site A groundwater remedy were recommended in the fourth FYR (U.S. Navy, 2015a), and significant progress was made during this FYR period towards optimizing the remedy.

Groundwater remediation began in May 1997 and is ongoing. Implementation of the groundwater remedy includes pumping and treating extracted groundwater and discharging the treated groundwater to the stormwater diversion system. The groundwater treatment system has been operating for more than 20 years and has therefore not met the timeframe established in the ROD, which specified that RGs would be met within 10 years. Although it has not met the cleanup timeframe, the remedy remains protective of human health and the environment because there is no exposure to groundwater with concentrations of COCs exceeding RGs.

The extent of groundwater exceeding cleanup levels has remained relatively constant since groundwater treatment was initiated. However, the area of highest concentration (that is, concentrations of RDX greater than 100 µg/L) has decreased significantly since the time of the ROD (Figures 4-1 through 4-3). Concentration trends analyzed in the latest OU 1 Site A annual LTM report (U.S. Navy, 2019a), indicate stable or decreasing concentration trends in the majority of the performance and compliance monitoring wells. Increasing trends were identified in extraction well A-EW-6 and compliance monitoring well A-MW47 located adjacent to Pintado Road on the north side of the burn area. These increasing trends may be attributable to changes in the pumping regime (e.g., shut off of extraction well A-EW8 and a new pump installed in A-EW6), or side effects of biostimulation pilot test injections (U.S. Navy, 2019a).

Progress towards remedy optimization made over this FYR period (based on the recommendation in the fourth FYR) was focused on obtaining the data to perform the recommended FFS, including:

- Field verification of aquifer properties and the thickness of the shallow aquifer (completed in 2017-2018 [U.S Navy, 2018a and 2018b]).
- Establishing current ordnance concentrations in source area soil (completed in 2017-2018 [U.S Navy, 2018a and 2018b]).

- Delimiting the vertical extent of ordnance compounds in groundwater (completed in 2017-2018 [U.S Navy, 2018a and 2018b]).
- Biodegradation treatability testing and pilot studies (in progress).
- Mass balance assessment (in progress).
- Developing working draft alternatives for evaluation in the FFS in collaboration with USEPA and Ecology (in progress).

The FFS recommended in the fourth FYR was in progress at the time of preparation of this fifth FYR.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid? For Site A, the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy are still valid; therefore, the answer to Question B is "yes." Changes to the applicable or relevant and appropriate requirements (ARARs) used to establish cleanup levels in the ROD are evaluated in Section 5.7.1 and summarized in Tables 5-2 through 5-4. The changes to the toxicity risk assumptions are described in Section 5.7.2. At this point in time, there are no changes to the exposure risk assessment assumptions that impact the remedy protectiveness. However, the human health risk pathways and the RAOs will be reevaluated in the FFS and remediation levels may be adjusted to ones based on protection of human and ecological receptors in downgradient water bodies.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? For Site A, no other information reviewed during this FYR, specifically contaminants of emerging concern and climate change issues, affects the protectiveness of the remedy at this time; therefore, the answer to Question C is "no" (see Section 5.8).

5.2 Answers to Questions A, B, and C for OU 2 (Site F)

Question A: Is the remedy functioning as intended by the decision documents? Yes. The remedy for Site F is functioning as intended by the ROD and ESD, however the remedy for Site F groundwater is taking longer than expected to meet the RAOs.

The RAOs established in the OU 2 Site F ROD are the following:

- Eliminate the risk associated with potential direct contact with contaminated soils.
- Clean up groundwater contamination in the shallow aquifer to achieve the most cost-effective reduction in overall site risk.

The remedy for Site F soil is functioning as intended by the ROD and ESD (as was also found in the first, second, third and fourth FYRs [U.S. Navy, 2000a, 2005a, 2010a, 2015a]). The IC inspection process for soil, as well as groundwater, is generally functioning as intended by the OU 8 ROD (wherein IC inspections were required for all OUs). The remedy for Site F soil was implemented from summer 1996 through August 1997 and included excavating contaminated

soil, composting the soil in an on-base treatment facility, backfilling the excavation area with a variety of oversized material from excavated soil screening and available broken asphalt, and capping the excavation area with an infiltration barrier and concrete pad. Inspections are performed annually to ensure that required LUCs are maintained. As noted in Table 4-7, some maintenance is warranted based on recent inspections.

The remedy for Site F groundwater is functioning as intended by the ROD, but taking longer than expected to meet RAOs for groundwater. Improvements to the functionality of the Site F groundwater remedy were recommended in the fourth FYR (U.S. Navy, 2015a), and significant progress was made during this FYR period towards optimizing the remedy. Groundwater remediation began in December 1994 and is ongoing. Implementation of the groundwater remedy includes pumping and reinjecting treated groundwater into the shallow aquifer. The groundwater treatment system has been operating for approximately 25 years, which is substantially longer than the 5- to 10-year timeframe expected at the time of the ROD. Although it has not met the cleanup timeframe, the remedy remains protective of human health and the environment because there is no exposure to groundwater with concentrations of COCs exceeding RGs.

Based on the monitoring results, the extent of groundwater exceeding cleanup levels has remained relatively constant since groundwater treatment was initiated. However, the area of highest concentration (see Figure 4-8, denoted by concentrations of RDX greater than 100 and 1,000 µg/L) has decreased significantly since the last FYR. Concentration trends analyzed in the latest OU 2 Site F annual LTM report (U.S. Navy, 2019e), indicate that, overall, RDX concentrations continue to decrease at most monitoring locations. Increasing concentration trends are observed only at wells F-MW31, F-MW54S, and F-MW44. These concentration increases may be attributable to movement of the plume core as a result of changes to the pumping regime. While the RDX plume core has moved downgradient, there has been no lateral expansion of the plume noted beyond existing boundaries.

The 2019 LTM report documents effective plume containment based on assessment of the potentiometric surface observed during pumping and reinjection in combination with the analytical chemistry data from groundwater samples that show decreasing trends in monitoring wells downgradient of the infiltration wells (U.S. Navy, 2019e).

Progress towards remedy optimization made over this FYR period (based on the recommendation in the fourth FYR) included:

- Biodegradation treatability testing and pilot studies, which remain in progress.
- Development and calibration of a numerical groundwater flow model in 2015 and 2019 (completed in 2019 [U.S. Navy, 2019m]).

Follow-up work to these studies is in progress at the time of this FYR to support Site F remedy optimization.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid? For Site F, the exposure assumptions, toxicity data, cleanup

levels, and RAOs used at the time of the remedy are still valid; therefore, the answer to Question B is "yes." Changes to the ARARs used to establish cleanup levels in the ROD are evaluated in Section 5.7.1 and summarized in Tables 5-5 and 5-6. The changes to the toxicity risk assumptions are described in Section 5.7.2. At this point in time, there are no changes to the exposure risk assessment assumptions that impact the remedy protectiveness.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? For Site F, no other information reviewed during this FYR, specifically contaminants of emerging concern and climate change issues, affects the protectiveness of the remedy at this time; therefore, the answer to Question C is "no" (see Section 5.8).

5.3 Answers to Questions A, B, and C for OU 3 (Sites 16/24 and 25)

Question A: Is the remedy functioning as intended by the decision documents? Yes. No RAO was established in the OU 3 ROD (U.S. Navy, USEPA, and Ecology, 1994b). The remedy for Site 16/24 soil, which consisted of a residential land use restriction, was implemented in 1993 prior to the completion of the ROD and formalized in 2001 upon completion of the ICMP for all of NBK Bangor (U.S. Navy, 2001). The remedy for Site 25 groundwater, which consisted of groundwater monitoring, was performed from March 1994 through September 1997. At that time, the Navy and Ecology agreed that the groundwater monitoring for Site 25 met the requirements of the OU 3 ROD and that no additional monitoring was required (U.S. Navy, 2000a).

The selected remedy for OU 3 continues to function as intended by the ROD. Inspections of the LUCs at Site 16/24 have been conducted regularly, and the current land use remains in accordance with the restrictions defined in the OU 8 ROD (which established the basewide LUCs).

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid? For OU 3, the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy are still valid; therefore, the answer to Question B is "yes." Changes to the ARARs used to establish cleanup levels in the ROD are evaluated in Section 5.7.1 and summarized in Tables 5-7 and 5-8. The changes to the toxicity risk assumptions are described in Section 5.7.2. At this point in time, there are no changes to the exposure risk assessment assumptions that impact the remedy protectiveness.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? For Sites 16/24 and 25, no other information reviewed during this FYR, specifically contaminants of emerging concern and climate change issues, affects the protectiveness of the remedy at this time; therefore, the answer to Question C is "no" (see Section 5.8).

5.4 Answers to Questions A, B, and C for OU 6 (Site D)

Question A: Is the remedy functioning as intended by the decision documents? Yes. The RAOs established in the OU 6 ROD are the following:

- Prevent unacceptable current and potential future risks to human health and the environment posed by ingestion and dermal contact with TNT and DNT in Site D soil.
- Prevent migration of metals from Site D surface waters at concentrations that may adversely affect ecological receptors in downstream surface waters.
- Prevent potential future human health risks that may be caused by ingestion or inhalation of contaminants in shallow aquifer groundwater.

The remedy for Site D was implemented from December 1995 through June 2000 and included excavating soil from the burn trench, screening and composting the excavated soils at an on-base treatment facility, backfilling the treated soils into the excavation area, grading and revegetation, and surface water and groundwater sampling.

As found during the previous FYRs, the remedy components for soil removal and treatment, surface water monitoring, and groundwater monitoring at OU 6 functioned as intended by the ROD. No ongoing monitoring was required following the first FYR, and there is no apparent change in the functionality of the remedy since that time. Monitoring for perchlorate as a new potential contaminant in groundwater did not reveal any contamination. No IC was required for OU 6.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid? For Site D, the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy are still valid; therefore, the answer to Question B is "yes." Changes to the ARARs used to establish cleanup levels in the ROD are evaluated in Section 5.7.1 and summarized in Table 5-9. The changes to the toxicity risk assumptions are described in Section 5.7.2. At this point in time, there are no changes to the exposure risk assessment assumptions that impact the remedy protectiveness.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? For Site D, no other information reviewed during this FYR, specifically contaminants of emerging concern and climate change issues, affects the protectiveness of the remedy at this time; therefore, the answer to Question C is "no" (see Section 5.7).

5.5 Answers to Questions A, B, and C for OU 7 (Sites B, E/11, and 10)

Question A: Is the remedy functioning as intended by the decision documents? Yes.

Functionality of Remedy for Site B (Floral Point)

The RAOs established for Site B in the OU 7 ROD are the following:

- Prevent dermal contact and ingestion of shallow and subsurface soil containing PAH and PCB concentrations above the state cleanup level of 1 ppm for soil to 15 feet bgs and arsenic concentrations above 20 ppm.
- Confirm through monitoring of Hood Canal sediments and clam tissue that groundwater discharge from Floral Point into Hood Canal is not negatively affecting the sediments or clam tissues.

The remedy for Site B (Floral Point) was implemented from June through November 1997 and included covering areas of contaminated soil, installing a shoreline protection system and a stormwater drainage system to control erosion, monitoring sediment and clam tissue, and installing signs notifying visitors that the site is to be used for recreational purposes only and approval is required for digging or mowing.

The remedy for Site B (Floral Point) is functioning as intended by the OU 7 ROD. The vegetated soil cover, shoreline protection system, stormwater management structures, and signs are being maintained. LUCs are in place, enforced, and inspected annually. Faded signs noted in the fourth FYR were replaced during this FYR period. IC inspections identified an issue with erosion along the shoreline, as confirmed during the site inspection for this fifth FYR. Beach replenishment to protect the landfill cap was recommended by the draft 2019 inspection report (U.S. Navy, 2019w), and will be implemented during the next FYR period. Vegetation cleared for placement of the current antenna structure has regrown naturally.

This monitoring component of the Site B remedy has functioned as intended by the ROD and is complete. Therefore, the monitoring requirement has been terminated.

Functionality of Remedy for Site E/11

The RAOs established for Site E/11 in the OU 7 ROD are the following:

- Prevent direct contact with and ingestion of stockpiled soil and underlying soil down to 15 feet bgs that contains dichlorodiphenyltrichloroethane (DDT) in concentrations above the state cleanup level of 2.94 ppm.
- Prevent ingestion of groundwater containing Otto fuel concentrations above 0.0002 ppm. Propylene glycol dinitrate (PGDN) is one of several chemical compounds in Otto fuel and is used as the indicator chemical.

The remedy for soil at Site E/11 was implemented from July 1997 through May 1998 and included disposal of stockpiled soil and metal debris, grading the site, and backfilling with clean topsoil. The groundwater use restriction component of the remedy was formally satisfied in 2000, with adoption of the basewide ICMP required by the OU 8 ROD.

As found during the previous FYRs, the remedy component for soil removal and disposal at Site E/11 functioned as intended by the ROD. The groundwater use restriction remains in place as part of the basewide ICMP, and this restriction is functioning as intended.

Recovery of groundwater beneath Site E/11 containing Otto fuel continued during this review period as part of the Site F pump and treat system. Monitoring for Otto fuel in Site E/11 wells is conducted concurrently with Site F monitoring. Although groundwater extraction by the Site F system is ongoing, there is no apparent decreasing trend in Otto fuel concentration beneath Site E/11. Based on the stable trend of Otto fuel concentrations in Site E/11 wells, it appears that the remedy is functioning to contain, but not substantially remove, Otto fuel from beneath the site. Containment of groundwater containing Otto fuel, in combination with the groundwater use restriction, functions to meet the RAO of preventing ingestion of groundwater containing Otto fuel at concentrations above the RG.

Otto fuel monitoring has shown no trend at concentrations at or around the ROD cleanup level of 0.2 µg/L. Otto fuel monitoring will continue every five years to ensure that a clear trend is established in anticipation of a future date when it is necessary to demonstrate compliance at the time of site closure.

Functionality of Remedy for Site 10

The RAO established for Site 10 in the OU 7 ROD is the following: Prevent ingestion of groundwater containing TPH concentrations above the state cleanup level of 1 ppm throughout the aquifer.

The remedy for Site 10 was implemented after the signing of the ROD in 1996 and included ongoing long-term maintenance of the asphalt pavement cover, groundwater monitoring, groundwater use restrictions, and expansion of the area of asphalt cover to include soils contaminated with arsenic, cadmium, lead, and PCBs (U.S. Navy, 2008a). The remedy for Site 10 is functioning as intended by the ROD. The confirmation groundwater sampling was completed during the second FYR period and resulted in a finding that further sampling is not necessary. Groundwater use restrictions are included in the ICMP as part of the restrictions on OU 8 and are being monitored and enforced. Maintenance of the asphalt pavement is also included in the ICMP.

Annual IC inspections identified alligator cracking in older portions of the asphalt cap during this FYR period, but consistently found the asphalt cover to remain protective.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid? For OU 7, the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy are still valid; therefore, the answer to Question B is "yes." Changes to the ARARs used to establish cleanup levels in the ROD are evaluated in Section 5.7.1 and summarized in Tables 5-10 and 5-11. The changes to the toxicity risk assumptions are described in Section 5.7.2. At this point in time, there are no changes to the exposure risk assessment assumptions that impact the remedy protectiveness.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? For OU 7, no other information reviewed during this FYR, specifically contaminants of emerging concern and climate change issues, affects the protectiveness of the remedy at this time; therefore, the answer to Question C is "no" (see Section 5.8).

5.6 Answers to Questions A, B, and C for OU 8 (Sites 27, 28, and 29)

Question A: Is the remedy functioning as intended by the decision documents? Yes. The RAOs established for OU 8 in the ROD are the following:

- Minimize the migration of VOCs from LNAPL beneath the PWIA into groundwater at concentrations that would cause adverse non-cancer health effects or unacceptable cancer risks.
- Minimize human exposure to COCs in sitewide groundwater that would result in adverse non-cancer health effects or unacceptable cancer risks.

The remedy for OU 8 was initiated in October 2000 and is ongoing. It included MNA of COCs (performance monitoring), groundwater compliance monitoring, LNAPL recovery, and groundwater use restrictions both on and off base. In addition, the ROD specified that redox manipulation could be deployed in groundwater as a phased contingent action, if needed. MNA, compliance groundwater monitoring, and LNAPL monitoring and recovery are ongoing, and inspections are performed annually to ensure that required LUCs are maintained. The groundwater plume does not currently extend beyond the base boundary (see Figures 4-9 and 4-10).

The extent of the 1,2-DCA plume has decreased substantially relative to pre-ROD conditions (Figure 4-9). The most recent groundwater monitoring results indicate that concentrations of 1,2-DCA continue to meet the RG of 5 µg/L at the NBK Bangor installation boundary. Concentration trends analyzed in the Round 39 LTM report (U.S. Navy, 2019s), using all groundwater monitoring data collected since 2000, indicate stable or decreasing concentration trends in every monitoring well. Based on the monitoring results and the trend analysis, the plume size is decreasing and the concentrations appear to be declining.

The extent of the benzene plume has also decreased during this FYR period (Figure 4-10). Concentration trends presented based on a Mann-Kendall analysis in the Round 39 LTM report (U.S. Navy, 2019s), using all groundwater monitoring data collected since 2000, indicate increasing concentration trends in on-site area monitoring well 8MW06. However, benzene has decreased from 19,000 µg/L in April 2012, to 3,890 µg/L in spring 2019.

A total 21.8 gallons of product have been passively recovered for the period of 2009 through 2019, or 2 gallons per year on average. Free product is more often observed during falling head periods that coincide generally with the months of May through October. Most product occurrence and thickness is greater at lower water elevations compared to higher elevations, which may be influenced or accentuated by the water table moving above the base of the till (U.S. Navy, 2019aa). Past studies have concluded that the rise and fall of the groundwater level

against the base of the till has a controlling influence on the spread of free product. These studies also concluded that free product sorbs into the till at higher groundwater levels, and this sorbed free product in the till then acts as a long-term residual source of dissolved petroleum compounds to groundwater (U.S. Navy, 2013b). The presence of this residual source sorbed into till is one possible explanation for the increasing benzene concentration trends in some wells at the site.

The continued presence of free product in three on-site wells in 2019 demonstrates that a residual source of petroleum compounds is still present at the site. The footprint of this residual source has not increased since the time of the ROD (Figure 4-11), and the contribution of the residual source to dissolved benzene in groundwater has not resulted in an increase in the lateral extent of the dissolved benzene plume. These results indicate that the remedy is functioning to meet the RAOs listed above.

Regarding restoration timeframe, the ROD only specified a timeframe for meeting the remediation goals in the off-base portion of the plume, and this timeframe has been met. The ROD does not include a specific timeframe for the source area in the PWIA to meet RAOs. However, the ROD stated, "If it is determined that natural attenuation does not make satisfactory progress in achieving protection of human health and the environment in a time frame comparable to that offered by other more active cleanup technologies, the contingency plan will be implemented." The project team has agreed that the MNA restoration timeframe is not comparable to that offered by other more active cleanup technologies, and therefore the contingent redox manipulation remedy is being implemented. The project team has agreed that an on-site groundwater restoration timeframe cannot be calculated because of the presence of a residual source.

To address the long restoration timeframe and as recommended in the last FYR, additional studies, including pilot tests, were implemented during this FYR period to gain a better understanding of site conditions and evaluate technologies that may shorten the time necessary to achieve the RGs for benzene and 1,2-DCA in groundwater throughout the site.

The studies completed by the Navy included biobarrier monitoring to assess the long-term performance, biobarrier maintenance (U.S. Navy, 2018o), LNAPL data gap investigation (U.S. Navy, 2018q), and pilot tests for benzene remedy optimization options (U.S. Navy, 2018q). Monitoring through May 2019 (almost nine years following the original Phase I injection) shows just how successful and long lived the pilot study was for reducing DCA. Several wells originally with high DCA concentrations have been reduced by over 97 percent. This redox manipulation approach, allowed under the ROD as a contingent remedy, will continue. Out of the technologies tested, the benzene pilot study recommended air sparging with soil vapor extraction as the preferred technology for optimizing the current remedy at OU 8. Following review of the pilot study results, Ecology and EPA concluded that air sparging would not be effective in the long term, and more aggressive source control is necessary.

As recommended in the fourth FYR, a follow-up to the 2014 vapor intrusion study (U.S. Navy, 2014n) was performed during this FYR period to verify that subslab soil gas concentrations are not increasing to levels that represent a vapor intrusion concern. Sampling was completed in

2019, and preliminary data evaluation indicates that there is no risk to worker health from vapor intrusion.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy still valid? For OU 8, the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy are still valid; therefore, the answer to Question B is "yes." Changes to the ARARs used to establish cleanup levels in the ROD are evaluated in Section 5.7.1 and summarized in Table 5-12. The changes to the toxicity risk assumptions are described in Section 5.7.2. At this point in time, there are no changes to the exposure risk assessment assumptions that impact the remedy protectiveness.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy? For OU 8, no other information reviewed during this FYR, specifically contaminants of emerging concern and climate change issues, affects the protectiveness of the remedy at this time; therefore, the answer to Question C is "no" (see Section 5.8).

5.7 Continued Validity of ROD Assumptions

This section reviews any changes to ARARs used to establish cleanup levels in the RODs and reviews any changes to risk assessment assumptions (exposure and toxicity) to evaluate the protectiveness of the remedy. Based on this FYR, any changes in the exposure and toxicity assumptions of ARARs that have occurred since the RODs do not affect the protectiveness of the remedies at OUs 1 through 8 at NBK Bangor. Therefore, the answer to Question B is "yes," the exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of remedy selection are still valid for OUs 1 through 8.

COC concentrations in groundwater remain above the cleanup levels at some locations in OUs 1, 2, 3, 6, 7, and 8, resulting in the need for continued LUCs to prevent exposure and the need for ongoing monitoring. Although some of the cleanup levels might be lower if calculated using current ARARs, the remedy components continue to protect against exposures, as they did at the time the RODs were signed. LUCs preventing exposure and ongoing monitoring will need to continue until COC concentrations in groundwater are below the cleanup levels.

5.7.1 Changes in Applicable or Relevant and Appropriate Regulations and To Be Considered Standards

In the preamble to the NCP, USEPA states that ARARs are generally "frozen" at the time of ROD signature, unless new or modified requirements call into question the protectiveness of the selected remedy. FYR guidance (USEPA, 2001) indicates that the question of interest in developing the FYR is not whether a standard identified as an ARAR in the ROD has changed in the intervening period, but whether such a change to a regulation calls into question the protectiveness of the remedy. If the change in the standard would be more stringent, the next stage is to evaluate and compare the old and new standards and their associated risk. This comparison is done to assess whether the currently calculated risk associated with the standard identified in the ROD is still within USEPA's acceptable excess cancer risk range of 10^{-4} to 10^{-6}, or below a hazard index of 1 for non-cancer effects. If the old standard is not considered

protective, a new cleanup standard may need to be adopted after the FYR through CERCLA's processes for modifying a remedy.

For this fifth FYR, all ARARs identified in the RODs were again reviewed for changes that could affect the assessment of whether the remedy is protective. ARARs that were used in the determination of cleanup levels that have been amended since publication of one or more of the RODs include the following:

- Washington State MTCA regulations and associated Cleanup Levels and Risk Calculation (CLARC) tables that were updated in May 2019 to align with EPA's RSL toxicity.
- USEPA's National Recommended Water Quality Criteria (304[a]) – aquatic life and human health criteria.
- USEPA's 2016 "Revision of Certain Federal Water Quality Criteria Applicable to Washington" (40 CFR 131.45; formerly the Washington criteria were in 40 CFR 131.36, referred to as the National Toxics Rule [NTR]).
- Water Quality Standards for Surface Waters of the State of Washington (as provided in 173-201A Washington Administrative Code [WAC], Table 240 Toxics Substances Criteria, last updated January 23, 2019) – development of ambient water quality for the protection of human health criteria in addition to aquatic life values.

For some of the COCs in groundwater, the RG was based on the laboratory practical quantitation limit (PQL). For the other COCs, the RG was based on MTCA regulatory levels. MTCA allows for use of the PQL when the MTCA cleanup level is below the PQL. However, as analytical techniques improve over time, laboratories may be able to achieve lower PQLs for some of these COCs. As part of the ARAR evaluation, current analytical limits of quantitation (LOQs) are compared to PQLs listed in the ROD. The LOQ is synonymous with the PQL, as defined in WAC 173-340.

The result of the amendments to the regulations is sometimes the lowering of a numeric ARAR. In these instances, the revised ARAR must be evaluated to determine whether there is a negative effect on the protectiveness of the remedy. In other instances, the ARAR remains unchanged or has been raised. In these instances, no further discussion is provided, because the protectiveness of the remedy is not affected.

Changes to the ARARs used to establish cleanup levels in each of the OU RODs are evaluated below and summarized in Tables 5-2 through 5-12. The changes to toxicity and risk assessment exposure assumptions are described in Section 5.7.2.

OU 1 Site A

COCs for soil, surface water, and groundwater at Site A included 2,4,6-TNT, 2,4/2,6-DNT, and RDX.

Soil. The ROD selected 2,4,6-TNT, 2,4/2,6-DNT, RDX, and lead as COCs in soil at Site A (Table 5-2). Soils have been remediated/removed from the burn area such that remaining COCs in soil are at or below the MTCA Method B values for unrestricted land use that were selected as the ROD RGs. However, lead remains above the ROD RG of 250 mg/kg at Debris Area 2. The remedy has provided for restricted access (deterrent plantings throughout the area), signage warning against exposure, and ICs. As current MTCA Method A and B values for soil are the same as or higher than the MTCA values in the ROD and LUCs are in place, the soil remedy at Site A remains protective.

Groundwater. As described in the ROD, the risk assessment (based on workers drinking shallow aquifer groundwater) identified three ordnance compounds (2,4,6-TNT, 2,4/2,6-DNT, and RDX) in burn area wells as COCs, with RDX being the risk driver and the most persistent chemical. Lead was included as a COC in the ROD because it was identified in soil above the MTCA Method A soil cleanup level. However, no concentration of lead has ever exceeded the MTCA A level for drinking water. Table 5-3 compares the groundwater ARARs (MTCA Method B cleanup levels) presented in the OU 1 Site A ROD with the current MTCA Method B cleanup values (with the exception of lead, which has a Method A value). Current MTCA Method B groundwater cleanup levels for 2,4/2,6-DNT and RDX are higher. No other change to cleanup levels was noted. As described in Section 4.2.1, concentrations of the groundwater COCs continue to be above ROD RGs; however, LUCs are in place to prohibit the use of shallow and perched groundwater. Therefore, the remedy remains protective.

Surface Water. Table 5-4 compares surface water RGs with current cleanup values (where available). MTCA Method B surface water RGs for 2,4,6-TNT and RDX identified in the ROD are no longer available from federal or state sources. As reported by USEPA (2017a, 2017b) both of these COCs have low bioconcentration potential in aquatic organisms due to their low octanol-water partition coefficients (K_{OW}) and low experimental bioconcentration factors; therefore, these COCs are not expected to bioconcentrate to high levels in the tissues of exposed aquatic organisms. The MTCA Method B surface water value for 2,4/2,6-DNT increased from 0.6 to 5.5 µg/L. The lead surface water RG was established as 1 µg/L in the ROD; however, the basis is not known. The current federal marine aquatic life ambient water quality criteria (AWQC) for lead is higher at 8.1 µg/L.

At the time of the ROD, surface water concerns focused primarily on burn area stormwater and leachate discharge to Hood Canal and the impact this has on aquatic life. ESD No. 3 (U.S. Navy, USEPA, and Ecology, 2000b) states that untreated leachate from the basin may be discharged directly to surface water, even though it exceeds the surface water quality standards identified in the ROD. This is because whole effluent toxicity (WET) testing on freshwater and saltwater organisms in six tests using the untreated leachate resulted in no acute or chronic toxicity to aquatic life (U.S. Navy, 1999). Therefore, based on the results of the WET test, the remedy is protective of the aquatic life in Hood Canal.

Since the ROD was signed and since the fourth FYR was completed there have been revisions to USEPA and State of Washington AWQC (173-201A-240 WAC) for protection of human health (HH) for 2,4-DNT. The revised values are listed in Table 5-4. The Federal human health AWQC is higher than the ROD RG, whereas the State AWQC is less than the ROD RG as a result of the

higher consumption rate (175 g/day) that the state uses to calculate the AWQC. Historical 2,4/2,6-DNT leachate concentrations were reported in the WET test result report (U.S. Navy, 1999) as not detected (1.3 U, 0.96 U, 0.64 U µg/L) but the limits of detection are higher than the state AWQC (0.18 µg/L) so it cannot be definitively concluded that the AWQC was not exceeded. Currently, basin leachate and stormwater are discharged by gravity flow to the stormwater discharge area, with the water moving as soil interflow and overland flow (with likely degradation and dilution) prior to the point of entry to Hood Canal. Leachate is not directly discharged to Hood Canal.

The Site A ROD, Section 6.2 (U.S. Navy, USEPA, and Ecology, 1991a) reported that water discharging from seeps at the base of the stormwater discharge area contained 2,4/2,6-DNT at an average concentration of less than 0.1 µg/L, with 2,4/2,6-DNT in Cattail Lake at an average concentration of 0.03 µg/L. These reported concentrations in surface water in the late 1980s are lower than the modern state AWQC, and substantial remediation of the site has taken place since that time.

If it is assumed that current groundwater concentrations in the perched zone are roughly equivalent to leachate concentrations (though leachate concentrations from above the leach basin liner could easily be higher), then groundwater concentrations can be compared to the state AWQC. The groundwater laboratory analytical results for Site A from the 2019 annual sampling event (U.S. Navy, 2019a), show that 2,4-DNT and 2,6-DNT were not detected above the state AWQC in perched groundwater samples collected from eight perched-zone wells, with reporting limits that were below the AWQC (ranging from 0.098 µg/L to 0.13 µg/L).

Overall, the data available for ordnance compounds in seep, surface water, and leachate from the time of the ROD, the time of ESD No. 3, and current perched aquifer groundwater implies that current 2,4/2,6-DNT concentrations in surface water are likely to be below the AWQC.

In December 2016 a report prepared on behalf of the Port Gamble S'Klallam Tribe (the Tribe) documented qualified detections of ordnance compounds in fish tissue near Site A (Ridolfi, 2016). The study was undertaken in support of the Tribe's interest in sampling near Vinland. None of the qualified ordnance compound detections in fish tissue were for OU 1 Site A COCs. In the Navy's opinion, this mismatch between the detected ordnance compounds and OU 1 Site A COCs, and the historical surface water sampling results indicate that the qualified detections in fish tissue are unlikely to be the result of releases from OU 1 Site A.

However, in light of the results of the Tribe's study, EPA and Ecology have asked the Navy to conduct surface water sampling at Site A based on the following rationale:

1. The decisions made in ESD #3 were based on ecological risk, not human health risk. The intent of the Tribe to begin fishing combined with the detection of ordnance compounds in fish tissue indicates a potentially complete human health exposure pathway not identified at the time of the ROD or ESD #3.
2. There are no recent surface water sampling data for use in decision making regarding this potential new human health pathway.

3. The fish tissue analysis used by the Tribe was the same as the Navy's Jackson Park Housing Complex analysis (in 2002 and 2009).
4. PFAS may be present in surface water and, if so, would represent a cumulative risk. If PFAS is present in leach basin soils, then it will be present in leachate and stormwater.

OU 2 Site F

Soil. As reported in the OU 2 Site F ROD, the risk assessment identified 2,4,6-TNT, 2,4/2,6-DNT, and RDX as COCs in soil (Table 5-5) for the residential land use scenario. Based on risks in groundwater, an additional six compounds were included on the soil COC list in the OU 2 Site F ROD (manganese, nitrate, nitrite, 2,6-DNT, 1,3,5-TNB, and 1,3-DNB). Soil exceeding the ROD RGs for the nine COCs was removed down to 15 feet bgs. The ROD RGs are presented in Table 5-5 together with the values that would be selected today for residential land use. Current cleanup levels are either the same or higher. Therefore, the remedy remains protective.

Groundwater. As reported in the OU 2 Site F ROD, the baseline risk assessment identified nine COCs based on residents drinking the shallow groundwater, including RDX, manganese, nitrate, nitrite, 2,4,6-TNT, 2,4-DNT, 2,6-DNT, 1,3,5-TNB, and 1,3-DNB (Table 5-6). The ROD developed RGs for all nine COCs. However, the document also indicated that 2,4,6-TNT, 2,4-DNT, RDX, and nitrate were the chemicals of greatest concern, based on toxicity (2,4,6-TNT and 2,4-DNT) and extent of area above RGs (RDX and nitrate). Table 5-6 lists the ROD RGs for the COCs and the current cleanup levels. Either there is no change, or the current cleanup level calculated today would be higher than the level established in the ROD. As discussed in Section 4.2.2, concentrations of TNT, RDX, 2,4/2,6-DNT, TNB, DNB, and nitrate/nitrite continue to exceed ROD RGs in some of the monitoring wells. However, LUCs preventing groundwater use are maintained; therefore, the remedy remains protective.

Surface Water. The OU 2 Site F ROD also provided RGs protective of surface water (Table 5-6) for several of the groundwater COCs in the event that the groundwater plume should ever impact surface water. The groundwater plume has not impacted surface water. Therefore, potential changes to surface water RGs if established today were not evaluated as part of this FYR. When the removal of groundwater restrictions is proposed, groundwater concentrations for the COCs will be compared to current drinking water and, in the event that groundwater is near a surface water discharge point, current surface water standards at the time of restriction removals, including surface water standards for human and aquatic receptors promulgated in 173-201A-240 WAC.

OU 3

Soil. The OU 3 ROD (U.S. Navy, USEPA, and Ecology, 1994b) selected a no action alternative that required establishment of ICs for Site 16/24, because antimony and beryllium concentrations in soil exceeded MTCA Method B levels, and arsenic in soil exceeded the MTCA Method A value for unrestricted land use. Assuming a future residential (unrestricted) land use, the risk assessment did not find unacceptable risks from exposures to soil as reported in the OU 3 ROD. A comparison of the ROD RG values with current standards is provided in Table 5-7. The

comparison of current ARARs is the same as it was in the fourth FYR. The beryllium cleanup level has increased, and the antimony and arsenic cleanup levels have remained the same. As explained in the fourth FYR, beryllium toxicity has changed since the ROD and is now considered less toxic, resulting in a higher ARAR value. Inspections of the LUCs at Site 16/24 have been conducted regularly, and the current land use remains in accordance with the restrictions defined in the OU 3 ROD. Therefore, the selected remedy for OU 3 remains protective.

Groundwater. Groundwater monitoring was implemented at Site 25 for cadmium and manganese based on exceedances of MTCA Method B groundwater cleanup levels. Although groundwater monitoring has been discontinued because all cleanup levels were met, an ARARs comparison was still conducted. Table 5-8 compares the ROD RGs with current Method B and state maximum contaminant level (MCL) values. The ARAR values have not changed since the fourth FYR and have remained the same since the ROD was signed. Therefore, the remedy remains protective.

OU 6

Soil. Human (residential land use) and ecological risks were identified for Site D soils and nine chemicals were selected as COCs as reported in the OU 6 ROD. Table 5-9 compares OU 6 ROD (U.S. Navy, USEPA, and Ecology, 1994c) soil ARARs (MTCA Methods B and C values) with current MTCA standards for the COCs. MTCA values for 2019 are the same as MTCA values compared in the fourth FYR. As stated in the fourth FYR, the cleanup levels have increased for 2,4-DNT, nitrobenzene, and 1,3,5-TNB. Therefore, the remedy remains protective for these COCs. The MTCA Method B soil cleanup levels for 2,6-DNT, nitrotoluene (all isomers), 1,2-DNB, and 1,4-DNB have decreased, however, as discussed in the fourth FYR, the remedy remains protective because 2,6-DNT and nitrotoluene were not detected in the bioremediated soil during confirmation sampling as reported in the Final Closeout Report (U.S. Navy, 1998). Detection limits of 2,6-DNT and nitrotoluene used during confirmation sampling were less than the current Method B levels that are shown in Table 5-9. In addition, the other COCs (1,2-DNB, and 1,4-DNB) were not detected in soil at Site D during the RI (U.S. Navy, USEPA, and Ecology 1994c).

Groundwater and Surface Water. As reported in the OU 6 ROD, the baseline risk assessment did not identify any risks from chemicals in surface water or groundwater and no water RG was established in the OU 6 ROD. Short-term groundwater monitoring took place at OU 6 in May 1996 and June 1997. The monitoring wells were decommissioned in June 2000, because no chemical exceeded any ARAR. Surface water monitoring was also conducted post-ROD, and no chemical exceeded AWQC concentrations. Therefore, an ARAR review of the cleanup levels used to evaluate the post-ROD water data was not conducted as part of this FYR.

OU 7

Soil. As reported in the OU 7 ROD, the baseline risk assessment, assuming residential land use, identified COCs for Sites B, E/11, and 10 as listed in Tables 5-10 and 5-11 for soil and groundwater, respectively. Table 5-10 compares soil RGs from the OU 7 ROD (U.S. Navy,

USEPA, and Ecology 1996) with current ARARs. Specifically, the ROD identified MTCA Method A soil values for unrestricted land use for Sites B (Floral Point) and Method B soil values protective of direct contact for unrestricted land use for Site E/11. At Site 10, arsenic, cadmium, lead, and Aroclor 1254 were identified post-ROD (U.S. Navy, 2009a) and are also included in Table 5-10. Current ARAR values shown in Table 5-10 from this FYR are the same as the current ARAR values provided in the fourth FYR.

As identified in the fourth FYR, the only soil ARAR that would be lower today is for carcinogenic PAHs, a soil COC at Site B. The rest of the ARARs remain unchanged. Because the remedy at OU 7 Site B consists of maintaining clean cover or a cap, the remedy will remain protective. Note that if the cover at Site B were to be removed, the estimated health risk of the ROD RG (1 mg/kg) is 1×10^{-5}, which is equal to the health goal and thus remains protective.

Groundwater. Two chemicals were selected as COCs in groundwater at OU 7 based on the results of the risk assessment as reported in the OU 6 ROD and assuming groundwater was used for drinking: TPH at Site 10 and Otto fuel at Site E/11. The MTCA Method A value for TPH of 1,000 µg/L was identified in the OU 7 ROD as the RG for Site 10 (see Table 5-11). As explained in the third and fourth FYRs, MTCA does not have a generic TPH value, but provides values for various carbon-chain-length ranges of petroleum fuels (e.g., gasoline, diesel). All of the MTCA Method A total petroleum hydrocarbon (TPH) levels are currently lower than 1,000 µg/L. The risk assessment in the RI (U.S. Navy, 1994) assumed that the single TPH sample used to assess health risks was marine diesel. Therefore, the MTCA Method A value of 500 µg/L would currently be applicable. This lower ARAR results in a calculated hazard of 2 for the ROD RG value, which exceeds the ROD hazard goal of 1. However, diesel and residual-range petroleum compounds were not detected during the last groundwater sampling at Site 10 (in 2000 and 2001) and there are groundwater use restrictions at Site 10; therefore, the remedy is still protective at Site 10.

The RG for Otto fuel in groundwater at Site E/11 was the PQL of 0.2 µg/L, because the risk-based value protective of the drinking water pathway of 0.038 µg/L could not be achieved using analytical techniques at the time. The risk-based RG in the ROD was derived for PGDN, the major component of Otto fuel. Since the last FYR, laboratory detection limits for PGDN have been lowered. The LOQ documented in the 2019 annual LTM (U.S. Navy, 2019e) is 0.06 µg/L, while the limit of detection (LOD) is 0.028 µg/L. Based on groundwater sampling results for this FYR period, concentrations of PGDN are still detected above 0.2 µg/L, and there are groundwater use restrictions on Site E/11; therefore, the remedy is still protective.

Since 2012, USEPA categorizes PGDN as a semivolatile rather than a volatile compound. Therefore, the tap water RSL of 0.6 µg/L that was used to evaluate results in the fourth FYR and in current LTM reports is no longer available in the current USEPA RSL tables (USEPA, 2019). The RSL value of 0.6 µg/L will be removed as a comparison value from future LTM reports. Additional information regarding the toxicity of PGDN assumed in the original RI risk assessment versus current toxicity is provided in Section 5.7.2.

OU 8

Soil. No soil RG was established at OU 8.

Groundwater. As reported in the OU 8 ROD, nine chemicals were selected as COCs in groundwater, based on the results of the risk assessment, and the ROD developed RGs for five of these chemicals, assuming future use as drinking water. Table 5-12 compares groundwater RGs from the OU 8 ROD (U.S. Navy, USEPA, and Ecology, 2000a) with current ARAR values. MCLs were chosen as cleanup levels for benzene, 1,2-DCA, and toluene, rather than MTCA Method B values. Ecology's Toxics Cleanup Program allows the use of MCLs if the MCL is less than or equal to the 10^{-5} risk level or has a hazard quotient of 1 (Ecology, 1993). Currently the MCL is protective for benzene and 1,2-DCA. However, for toluene the MCL results in a calculated as a hazard quotient of 2, which exceeds the ROD hazard goal of 1. MTCA Method B values were chosen for the two remaining COCs (1,1-DCE and 1,2-EDB). However, the ROD indicated that the MTCA Method B values for these two compounds were below PQL concentrations. Therefore, the ROD stated that PQLs would be used as RGs but did not provide numeric PQL values. The PQL values that have been used in the LTM reports as cleanup values are 0.8 µg/L for 1,2-EDB and 0.5 µg/L for 1,1-DCE.

Current ARAR values presented in Table 5-12 for this fifth FYR have not changed since the fourth FYR. Therefore, changes in toxicity that result in disparity observed between the ROD RG and the current ARAR values were provided in the fourth FYR and are not repeated here. Because of the changes to the toxicity criteria, 1,1-DCE and 1,2-EDB are now considered less toxic (i.e., today's current cleanup levels are higher) than at the time of the ROD. As stated in the fourth FYR, for benzene and 1,2-DCA with the RG basis as the MCL, the cancer risks associated with the MCL are below the risk goal of 1×10^{-5}, so the risk goal is being met and the remedy remains protective. For toluene, the MCL is also used as the RG. The hazard associated with this RG is 2, which is above the ROD hazard goal of 1. Based on laboratory analytical results from spring 2019, concentrations of benzene, ethylbenzene, and toluene continue to exceed the ROD RGs. However, ICs are in place that prohibit groundwater use. Therefore, the remedy is still protective. The Navy will continue to review changes in ARARs during each FYR, and prior to any changes to the monitoring program to ensure that the latest numeric standards are used in decision making regarding protectiveness and monitoring requirements.

5.7.2 Review of Human Health Risk Assessment Assumptions

Risk assessment assumptions were also reviewed as part of the requirement to assess protectiveness of the remedy. For human health, there are potentially three areas where changes could have occurred since the signing of the RODs: 1) COC toxicity or contaminant characteristics; 2) risk assessment methodology, including exposure assumptions; and 3) changes in exposure pathways, new contaminants, or contaminant sources. The following subsection describes how these changes affect the protectiveness of the remedy.

5.7.2.1 Changes in Toxicity and Other Contaminant Characteristics

The fourth FYR identified changes in toxicity for many of the COCs to explain the noticeable differences between the ROD-selected MTCA Method B cleanup levels to current MTCA

Method B values. These toxicological changes that have occurred since the ROD were discussed in detail in the fourth FYR and will not be presented here. Rather, changes in toxicological values since the fourth FYR will be presented here so that changes in MTCA B values between the fourth and fifth FYR are explained. The protectiveness of the remedies with regard to these toxicological changes are addressed in Section 5.7.1. Changes identified to the toxicity values since the fourth FYR are as follows:

- 2,4/2,6-DNT: MTCA previously used a slope factor of 0.45 $(mg/kg\text{-}day)^{-1}$; currently uses a slope factor of 0.68 $(mg/kg\text{-}day)^{-1}$ which results in lower cleanup level since the last FYR.
- Manganese: MTCA Method B previously used an oral reference dose (RfD) of 0.14 mg/kg-day; currently uses RfD of 0.0467 mg/kg-day which results in a lower cleanup level. The oral RfD of 0.14 mg/kg-day includes manganese from all sources, including diet. The use of a modifying factor of 3 was applied to the oral RfD for non-diet related exposures as recommended in Integrated Risk Information System (IRIS; i.e., the RfD was divided by 3). This generates a modified oral RfD of 0.0467 mg/kg-day to be applied to non-food sources such as soil and water. Because the manganese RG is not based on MTCA Method B, but on background or the MCL, which are both lower than the Method B values. Thus, this change does not affect the protectiveness.
- Propylene glycol dinitrate (PGDN) and Otto fuel (based on toxicity of [PGDN]): The toxicity value used in the OU 7 RI for PGDN was based on an inhalation RfD adjusted by a factor of 10 to derive an oral RfD of 4.0E-6 mg/kg-day. As stated in the toxicological profile provided in OU 7 RI, the majority of toxicological studies and other sources of information for PGDN are for the inhalation route of exposure. The only data available for the oral route of exposure are based on acute studies which are very unreliable for establishing chronic toxicity. Extrapolating an oral RfD from an inhalation RfD is discouraged by USEPA because they are different routes of exposure. USEPA and other federal and state agencies do not have an oral toxicity value derived for PGDN. Because LUCs are in place to prevent groundwater use, exposure to contaminants in groundwater is prevented and the remedy remains protective. However, the Navy will review the latest toxicity values for PGDN during each FYR.

  In the fourth FYR, a USEPA tap water RSL for PGDN of 0.6 µg/L was provided as a current cleanup level assuming that if a MTCA Method B level were to be calculated using the same current toxicity criteria assumptions as the USEPA RSL tables, the MTCA Method B level would be the same as the USEPA value when rounded to one significant figure (i.e., also 0.6 µg/L). Information obtained from the current USEPA RSL website states that PGDN has been categorized as a SVOC, rather than a VOC and therefore does not provide a tap water RSL for PGDN. Therefore, there is no current USEPA risk-based value to compare to the ROD RG or to use for LTM.
- RDX: MTCA previously used a slope factor of 0.11 $(mg/kg\text{-}day)^{-1}$; currently uses a slope factor of 0.08 $(mg/kg\text{-}day)^{-1}$ which results in slightly higher cleanup level since the last FYR.

5.7.2.2 Changes in Risk Assessment Methods

As indicated in Section 5.7.1, amendments have been made to Washington State surface water regulations (WAC 173-201A-240) for development of the human health criteria for consumption of organisms. The human health criteria were calculated using a fish consumption rate of 175 grams per day (g/day) to better depict the consumption rate for a tribal exposure scenario. MTCA Cleanup Regulations (WAC 173-340-730) are still based on the lower consumption rate of 54 g/day. The difference in consumption rates is reflected in the difference between the current MTCA Method B surface water quality criteria and the State HH AWQC (see Table 5-4). For OU 1 Site A where ROD RGs for leachate were based on AWQC the discussion provided in Section 5.7.1 demonstrated that the remedy remains protective based on a comparison of current groundwater concentrations to the state AWQC.

Since the RODs were signed and since the fourth FYR was completed, USEPA issued supplemental guidance updating standard default exposure parameters for use on Superfund sites (USEPA, 2014). Standard default updates specifically impacting the risk calculations include the following:

Definition (units)	Previous Value	2014 Value
Resident skin surface area for soil - child (cm^2):	2,800	2,690
Resident skin surface area for soil - adult (cm^2):	5,700	6,032
Worker skin surface area for soil - adult (cm^2):	3,300	3,470
Resident soil adherence factor - child (mg/cm^2):	0.2	0.2
Resident soil adherence factor - adult (mg/cm^2):	0.07	0.07
Worker soil adherence factor - adult (mg/cm^2):	0.2	0.12
Adult Body Weight - adult (kg):	70	80
Resident Exposure Duration (yr):	30	26
Resident Exposure Duration - adult (yr):	24	20
Resident Child Drinking Water Ingestion Rate (L/day)	1	0.78
Resident Adult Drinking Water Ingestion Rate (L/day)	2	2.5

Use of these updated default exposure parameters in place of the original values used in the baseline risk assessments for each of the OUs primarily results in lowering the cancer risks and non-cancer hazard estimates for the adult receptors. Calculation of risk and hazard is linear in nature, therefore, based on the differences between the previous exposure parameter values and the 2014 exposure parameter values shown above, the decrease in cancer risk and non-cancer hazard estimates would not be significantly different than the values estimated in the original risk assessments. ROD RGs based on MTCA Method A and B values are based on default exposure parameters set forth in MTCA and, therefore, USEPA changes to default exposure parameters do not affect the RGs at any of the OUs.

The fourth FYR (U.S. Navy, 2015a) included a commitment by the Navy to conduct a follow-up vapor intrusion investigation at Building 1021 and Building 1202, located in OU 8, because

groundwater contamination located in OU 8 could complete an exposure pathway via VOCs migrating to indoor air that could affect the protectiveness remedy in place at OU 8. The initial vapor intrusion investigation was completed at OU 8 in 2014 (U.S. Navy, 2014j). During the 2014 vapor intrusion investigation, calculated sub-slab soil gas to indoor air attenuation factors, and the presence of alternative sources of VOCs in ambient air, strongly indicated that aboveground sources were responsible for any indoor air concentrations (U.S. Navy, 2014j). It was therefore concluded that vapor intrusion is highly unlikely to be responsible for the low, but detected, concentrations of chemicals of potential concern in indoor air.

The follow-up vapor intrusion investigation was conducted in the summer of 2019 and included two rounds of sub-slab soil gas and indoor air sampling. Results of the sub-slab soil gas and indoor air samples are to be compared to screening levels protective of industrial indoor air exposures. The analytical results are not available for reporting in this FYR; however, the risk-based reference limits selected for comparison to laboratory detection limits and for assessing potential health risk provided in Worksheet #15 of the SAP (U.S. Navy, 2019x) were reviewed and found to be consistent with USEPA's industrial air RSLs (USEPA, 2019) and Ecology's MTCA Method C indoor air cleanup levels and sub-slab soil gas screening levels (Ecology, 2019a).

5.7.2.3 Changes in Exposure Pathways

Land use is consistent with that at the time of the RODs and LUCs are in place to restrict land use.

5.7.2.4 Review of Ecological Risk Assessment Assumptions

Changes since the ROD with regard to toxicity and other exposure assumptions are captured in changes made to the state and federal AWQC. There have been no changes to AWQC for protection of aquatic receptors since the fourth FYR.

5.8 Question C Has Any Other Information Come to Light that Could Call into Question the Protectiveness of the Remedy?

5.8.1 Chemicals of Emerging Concern

PFAS are manufactured chemicals that have been used since the 1950s in many household and industrial products because of their stain- and water-repellant properties. PFAS are now widespread globally because of the large amounts that have been manufactured and used and are persistent in the environment once released. These substances may be present in the soil and/or groundwater at Navy sites as a result of historical firefighting activities using aqueous film forming foam (AFFF) as part of their fire suppression system.

In May 2016, the USEPA published a lifetime health advisory level in drinking water for two PFAS; specifically, 70 parts per trillion for the combined concentrations of perfluorooctanoic acid and perfluorooctanesulfonic acid. Because of the lifetime health advisory and historical U.S. Navy use of AFFF, the Navy is assessing its installations for areas where AFFF releases occurred or are suspected to have occurred. As part of the effort, the U.S. Navy is performing a PA at

NBK Bangor under CERCLA. So far, several locations at NBK Bangor have been identified where historical use of AFFF associated with fire suppression and chrome plating wastewater disposal is suspected or confirmed based on historical records. A sampling program for these areas has been designed and is underway.

The Navy established a proactive policy to ensure the communities near naval installations are not exposed to drinking water with PFAS above the EPA's lifetime health advisory as a result of past known or likely Navy release of products containing PFAS. Following this policy, the Navy identified potential PFAS release areas on NBK Bangor that may present an exposure to nearby residents using wells for their drinking water. This drinking water well investigation has allowed the Navy to identify and address any current exposure to PFAS above EPA's lifetime health advisory.

As of this FYR, samples from more than 300 drinking water wells located within a mile of the base boundary have been analyzed for PFAS. Preliminary results from two wells located south of the base were found to contain PFAS at concentrations above the lifetime health advisory and those homes were provided bottled water in response. Because analytical results from locations on NBK Bangor are not yet available, the presence or absence of PFAS on base has not been established, and a link to the off-base detections has not been made. Because of the preliminary and incomplete nature of the PFAS data generated during this FYR period, the protectiveness determination for this FYR is not affected. Protectiveness will again be evaluated when PFAS data, regulatory standards, and risk assessments are available (U.S. Navy, 2020).

Any future detection of PFAS in groundwater will not affect the protectiveness of the remedies unless identified through the CERCLA investigation process at concentrations posing an unacceptable risk. Because there are no sample results documenting the presence of PFAS at NBK Bangor and on-site ICs prevent exposure to groundwater, the remedies remain protective while forthcoming PFAS investigations and evaluations are conducted through the CERCLA process. These forthcoming investigations and evaluations will assess whether PFAS exists on site, refine the PFAS CSM and identify potential exposure risks. Findings from these PFAS investigations and evaluations will be addressed in the next FYR to determine if the current remedies at NBK Bangor will continue to be protective with respect to PFAS in the future.

5.8.2 Climate Change

Research indicates that the shoreline remedy at NBK Bangor, OU 7 may be vulnerable to climate change impacts not apparent during remedy selection. The shoreline remedy at Site B (Floral Point), OU 7, relies on a vegetated landfill cap with a documented history of shoreline erosion. As documented in Ecology's publication, Adaptation Strategies for Resilient Cleanup Remedies (Ecology, 2017), this type of remedy is considered at a high long-term risk from sea level rise and weather pattern changes. These aspects of climate change increase the possibility of flooding/inundation of the shoreline area and can increase the energy and therefore, erosive force of storm events. Surface erosion of the cap can increase with increased precipitation and storm events that overwhelm the existing storm drainage system. Increased saturation of the landfill interior can affect leachate production and seeps, change waste decomposition characteristics, and change the geochemistry of the landfill.

Based on the elevations of the survey hubs used to monitor beach erosion (U.S. Navy, 2018d), continuous inundation of the landfill at mean sea level would begin to occur with a sea level rise of 9 feet. Current modeling (http://wacoastalnetwork.com/chrn/research/sea-level-rise/) indicates that a sea level rise of 9 feet could occur in the Floral Point area as soon as the year 2140. Prior to this time of continuous inundation, progressively higher sea levels are expected to result in slowly increasing impacts from interior landfill saturation, and worsening erosion during more severe storm surges.

Because the erosion inspections performed during this FYR period demonstrate that the beach monitoring procedures are currently functioning to maintain the landfill cap, climate change does not call into question the protectiveness of the remedy. However, climate change science continues to improve with additional study, and predictions of sea level rise are updated as new information and model results become available.

Table 5-2. Soil ARARs for Operable Unit 1 (Site A)

Chemical	ROD Remediation Goal (mg/kg)	Basis of Remediation Goal	Current MTCA Method B[a] (mg/kg)	Change in Cleanup Level If Established Today?
2,4,6-TNT	33	MTCA B Direct Contact	33	No
2,4- and 2,6-DNT	1.5	MTCA B Direct Contact	1.5	No
RDX	9.1	MTCA B Direct Contact	13	Yes, higher
Lead	250	MTCA A	250 (MTCA A)	No

[a]MTCA B value unless otherwise specified; Values obtained from Department of Ecology's May 2019 Cleanup Levels and Risk Calculation (CLARC) Table (Ecology, 2019a).

Table 5-3. Groundwater ARARs for Operable Unit 1 (Site A)

Chemical	Drinking Water Protection					
	ROD Drinking Water Remediation Goal (µg/L)	Basis of Remediation Goal	Current MTCA Method B[a] (µg/L)	Current Federal MCL (µg/L)	Current State MCL (µg/L)	Change in Cleanup Level If Established Today?
2,4,6-TNT	2.9	MTCA B	2.9	None	None	No
2,4- and 2,6-DNT	0.1	MTCA B	0.13	None	None	Yes, higher
RDX	0.8	MTCA B	1.1	None	None	Yes, higher
Lead	15	MTCA A	15 (MTCA A)	15	15	No

[a]MTCA B value unless otherwise specified; Values obtained from Department of Ecology's May 2019 Cleanup Levels and Risk Calculation (CLARC) Table.

Table 5-4. Surface Water ARARs for Operable Unit 1 (Site A)

Chemical	ROD SW Remediation Goal (µg/L)	Basis of Remediation Goal	Current MTCA SW Method B[1] (µg/L)	Current Federal AWQC Marine CWA §304 (µg/L)	Current State AWQC Marine 173-201A WAC (µg/L)	Change in Cleanup Level If Established Today?
2,4,6-TNT	31	MTCA B SW	None	None	None	No
2,4- and 2,6-DNT	0.6	MTCA B SW	5.5[a]	1.7 (HH)[2,a]	0.18 (HH)[3, a]	Yes, lower if the HH State AWQC selected
RDX	30	MTCA B SW	None	None	None	No
Lead	1	Not listed	None	8.1 (CC)	8.1 (CC)	Yes, higher

[1]Values obtained from Department of Ecology's May 2019 Cleanup Levels and Risk Calculation (CLARC) Table (Ecology, 2019a).
[2] Federal AWQC is based on human consumption of organism, assuming a 22 g/day consumption rate.
[3]State AWQC for HH promulgated at 173-201A WAC in 2016. Based on human consumption of organism, assuming a 174 g/day consumption rate.
[a]Based on 2,4-DNT, cancer endpoint; no cancer endpoint listed for the 2,4/2,6-DNT mixture.
CC - chronic marine aquatic life criteria
SW- surface water

Table 5-5. Soil ARARs for Operable Unit 2 (Site F)

Chemical	ROD Remediation Goal (mg/kg)	Basis of Remediation Goal	Current MTCA Method B[1] (mg/kg)	Change in Cleanup Level If Established Today?
2,4,6,-TNT	33	MTCA B	33	No
RDX	9.1	MTCA B	13	Yes, higher
2,4- and 2,6-DNT	1.5	MTCA B	1.5	No
1,3,5-TNB	4.0	MTCA B	2,400	Yes, higher
1,3-DNB	8.0	MTCA B	8.0	No
Nitrate-N	29,000	MTCA B	130,000	Yes, higher
Nitrite-N	8,000	MTCA B	8,000	No
Manganese	940	Background	3,700	Yes, higher

[1]Values obtained from Department of Ecology's May 2019 Cleanup Levels and Risk Calculation (CLARC) Table (Ecology, 2019a).

Table 5-6. Groundwater and Surface Water ARARs for Operable Unit 2 (Site F)

Chemical	Groundwater and Surface Water Drinking Water Protection					Surface Water for Protection of Aquatic Life		
	ROD Drinking Water RG (µg/L)	Basis of RG	Current MTCA Method B[1] (µg/L)	Current Federal MCL (µg/L)	Change in Cleanup Level if Established Today?	ROD Surface Water Cleanup Level (µg/L)	Basis of Cleanup Level	Current Surface Water Criteria (µg/L)
2,4,6,-TNT	2.9	MTCA B	2.9	None	No	40	Ryon, 1987	Not researched – groundwater plume not reaching surface water
RDX	0.8	MTCA B	1.1	None	Yes, higher	260	See note a	
2,4 and 2,6-DNT	0.13	MTCA B	0.13	None	No	300	See note b	
1,3,5-TNB	0.8	MTCA B	480	None	Yes, higher	80	See note c	
1,3-DNB	1.6	MTCA B	1.6	None	No	None		
Nitrate-N	10,000	Federal MCL	26,000	10,000	No	10,000	MCL	
Nitrite-N	100	Federal MCL	1,600	1,000	Yes, higher	None	-	
Manganese	50	State MCL[d]	50 (State MCL)[d] 750 (MTCA B)[e]	50[d]	No	None	See note d	

[1] As obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).

[a]Extrapolated using acute chronic ratio (Stephen et al. 1985 reference not included in remedial investigation/feasibility study reference list [U.S. Navy, 1993]).
[b]Extrapolated using acute chronic ratio (Etnier, 1987).
[c]No observable effect concentration (Layton et al., 1987).
[d]The source of the manganese remediation goal is a secondary MCL.
[e] Based on the criteria for non-diet manganese.
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Table 5-7. Soil ARARs for Operable Unit 3 (Sites 16/24)

Chemical	ROD Remediation Goal (mg/kg)	Basis of Remediation Goal	Current MTCA Method A/B[1] (mg/kg)	Change in Cleanup Level If Established Today?
Antimony	32	MTCA B	32	No
Arsenic	20	MTCA A	20	No
Beryllium	0.23	MTCA B	160	Yes, higher

[1] Obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).

Table 5-8. Groundwater ARARs for Operable Unit 3 (Site 25)

Chemical	Drinking Water Protection				
	ROD Drinking Water Remediation Goal (µg/L)	Basis of Remediation Goal	Current MTCA Method B[1] (µg/L)	Current State MCL (µg/L)	Change in Cleanup Level If Established Today?
Cadmium	8	MTCA B	8	5	No
Manganese	50	State MCL[a]	750	50	No

[1]Obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).

[a]The source of the manganese remediation goal is not specified in the OU 3 ROD. However, it is presumed to have been the State secondary MCL based on other OUs at Bangor.

Table 5-9. Soil ARARs for Operable Unit 6 (Site D)

Chemical	ROD Remediation Goal (mg/kg)	Basis of Remediation Goal	Current MTCA Method B[1] (mg/kg)	Change in Cleanup Level If Established Today?
2,4,6-TNT	33.3	MTCA B	33	No
2,4-DNT (outside wetland)	1.5	MTCA B	3.2	Yes, higher
2,4-DNT (inside wetland)	58.8	MTCA C[a]	420[a]	Yes, higher
2,6-DNT	1.5	MTCA B	0.67	Yes, lower
Nitrotoluene (all isomers)	800	MTCA B	4.5[b]	Yes, lower
1,2-DNB (ortho-)	32	MTCA B	8	Yes, lower
1,3-DNB (meta-)	8	MTCA B	8	No
1,4-DNB (para-)	32	MTCA B	8	Yes, lower
1,3,5-TNB	4	MTCA B	2,400	Yes, higher
Nitrobenzene	40	MTCA B	160	Yes, higher

[1]Obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).
[a]MTCA Method C cleanup level is used according to the Operable Unit 6 ROD to prevent significant damage to wetlands ecosystem.
[b]The lowest of the three isomers was selected as current MTCA Method B value.

Table 5-10. Soil ARARs for Operable Unit 7 (Site B)

Chemical	ROD Remediation Goal (mg/kg)	Basis of Remediation Goal	Current MTCA Method A (mg/kg)	Current MTCA Method B[1] (mg/kg)	Change in Cleanup Level If Established Today?
Arsenic (Sites B and 10[a])	20	MTCA A	20	0.67	No
Total Carcinogenic PAHs (Site B)	1	MTCA A	2 (industrial)[bc] 0.1 (unrestricted)[bc]	0.19 [bc]	Yes, lower
Total PCBs (Sites B and 10[a])	1	MTCA A	10 (industrial) 1 (unrestricted)	0.5	No
DDT (Site E/11)	2.94	MTCA B	4 (industrial) 3 (unrestricted)	2.9	No
Cadmium (Site 10[a])	None	NA	2 (industrial) 2 (unrestricted)	80	No
Lead (Site 10[a])	None	NA	1000 (industrial) 250 (unrestricted)	None	No

[1]As obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).

[a]Four chemicals at Site 10 were identified post-ROD during a parking lot expansion. RGs were not established. However, the chemicals are listed here for completeness.
[b]Updated default MTCA cleanup levels for carcinogenic PAH mixtures and benzo(a)pyrene as obtained from Table 1 of Ecology, 2019b.
[c] Benzo[a]pyrene is the reference chemical used to calculate carcinogenic PAH cleanup levels. MTCA methods to evaluate human health toxicity of carcinogenic PAH mixtures using toxicity equivalency factors are described in the MTCA regulation (WAC 173-340-708(8)(e)) and in more detail in Toxics Cleanup Program's Implementation Memorandum 10, Evaluating the Human Health Toxicity of Carcinogenic PAHs Using Toxicity Equivalency Factors, Ecology publication no. 15-09-049.

Source: ROD Table 19 (U.S. Navy, USEPA, and Ecology 1996)

Table 5-11. Groundwater ARARs for Operable Unit 7 (Sites 10 and E/11)

Chemical	ROD Remediation Goal (µg/L)	Basis of Remediation Goal	Current MTCA Method A (µg/L)	Current MTCA Method B[1] (µg/L)	Change in Cleanup Level If Established Today?
TPH (Site 10)	1,000	MTCA A	500	None	Yes, lower[a]
Otto fuel (Site E/11)	0.2	PQL	None[b]	None[b]	No

[1]As obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).

[a]No longer a MTCA Method B for TPH. Method A for diesel-range organics, heavy oils, and mineral oil is 500 µg/L. For gasoline-range organics, if no detectable benzene, Method A is 1,000 µg/L and if benzene is present, Method A is 800 µg/L. Groundwater samples were collected from well 10MW01 and analyzed for diesel- and oil-range during two groundwater sampling events, on November 6, 2000, and July 17, 2001 (U.S. Navy, 2002).

[b]A risk-based MTCA Method B level for the major component of Otto fuel (propylene glycol dinitrate) is not currently available in Ecology's CLARC database (Ecology, 2019a).

Table 5-12. Groundwater ARARs for Operable Unit 8 (Sites 27, 28, and 29)

Chemical	Drinking Water Protection				
	ROD Drinking Water Remediation Goal (µg/L)	Basis of Remediation Goal	Current MTCA Method B[1] (µg/L)	Current MCL (µg/L)	Change in Cleanup Level If Established Today?
Benzene	5	MCL	0.8	5	No
1,2-DCA	5	MCL	0.48	5	No
1,1-DCE	0.0729[a]	MTCA B	400	7	Yes, higher
1,2-EDB	0.000515[a]	MTCA B	0.02	0.05	Yes, higher
Toluene	1,000	MCL	640	1,000	No

[1]As obtained from the Cleanup Levels and Risk Calculation (CLARC) tables (Ecology, 2019a).

[a]The ROD indicated that these MTCA B levels were below the PQL. Therefore, the PQL would be used as a remediation goal, but specific PQL concentrations were not listed in the ROD. The current achievable PQLs are 0.5 µg/L for 1,1-DCE and 0.8 µg/L for 1,2-EDB.

Source: ROD Tables 8-1 and D-1 (U.S. Navy, USEPA, and Ecology 2000a)

6.0 ISSUES/RECOMMENDATIONS

This section presents the issues and recommendations identified as a result of this FYR process. No issues were identified that affect current or future protectiveness of the remedies. Table 6-1 summarizes other findings that do not affect protectiveness of the remedy but should be addressed for remedy optimization or maintenance.

Table 6-1. Findings of the FYR

Issues/Recommendations that Do Not Affect Protectiveness	
OU 1, Site A	**Issue**: The Site A groundwater treatment system has not met the cleanup timeframe established in the ROD.
	Recommendation: Complete the in-progress FFS, incorporating the additional site investigation and pilot test data generated during this FYR period, and make progress towards a ROD amendment or ESD that optimizes the remedy to reduce the restoration timeframe. Complete the FFS by 12/31/2023.
OU 2, Site F	**Issue**: The Site F groundwater treatment system has not met the cleanup timeframe established in the ROD.
	Recommendation: Complete the biodegradation treatability studies currently underway and incorporate those results and the results of groundwater modeling completed in 2019 into an FFS for remedy optimization to reduce the restoration timeframe. Complete the FFS by 12/31/2023.
	Issue: IC inspections of the infiltration barrier area would be more effective if the inspectors on site could clearly identify the areal extent of the barrier based on existing landmarks.
	Recommendation: Update the ICMP to correctly reflect the limits of the Site F infiltration barrier and locations of items requiring inspection. Add additional structures to the site map in the ICMP to better assist field personnel when locating the barrier boundaries during site inspections.
OU 7	**Issue**: The tap water RSL value of 0.6 µg/L for Otto fuel used for monitoring at Site E/11 is no longer available in the current EPA RSL tables.
	Recommendation: The RSL value of 0.6 µg/L for Otto fuel will be removed as a comparison value from future LTM reports and toxicity of PGDN will be reviewed during each FYR. Otto fuel monitoring has shown no trend at concentrations at or around the ROD cleanup level of 0.2 µg/L. Otto fuel monitoring will continue every five years to ensure that a clear trend is established in anticipation of a future date when it is necessary to demonstrate compliance at the time of site closure.
	Issue: At Site B, Floral Point, beach erosion of 1 to 3 feet has occurred relative to the 2011 survey in some portions of the beach.
	Recommendation: The Navy will replenish the eroded portions of the beach to protect against erosion of the landfill cap.
OU 8	**Issue**: The OU 8 remedy is taking longer to meet the remedial action objectives than estimated in the ROD, benzene concentrations are increasing in selected wells, and LNAPL continues to be detected at the site.
	Recommendation: In response to this issue, the Navy plans to deploy the HVDPE technology as a pilot test with the goal of removing free product to the maximum extent possible in late summer 2021. Before, during and after the HVDPE, electrical resistivity geophysics will be performed based on the success of the electrical resistivity investigation in 2012 in identifying areas of free product (as evidenced by subsequent well installations at geophysical anomalies). Based on the amount of free product recovered and the quality of the electrical resistivity data, subsequent well installation may be completed to attempt to access zones of recoverable free product if the data warrants this action, as was done in 2012. Additionally, it was shown in the analysis of the 2012 electrical resistivity data that areas of increased microbial activity were indicated. These data along with the forthcoming 2021 electrical resistivity data, will add to the microbial characterization project planned to begin in 2022, which will be conducted regardless of the nature of the results of the HVDPE test. One of the objectives of the microbial characterization project will be to evaluate the use of vegetable oil in promoting microbial breakdown of 1,2-DCA. LTM will then provide data to assess the degree to which free product removal allows the selected remedy (MNA), as supplemented by the implemented contingent remedy (the biobarrier for remediation of the solvent plume), to shorten the restoration timeframe.

Table 6-1 (continued). Findings of the FYR

Issues/Recommendations that Do Not Affect Protectiveness	
OU 8 (continued)	**Issue:** The concentration trend plots are not entirely clear regarding how undetected values are plotted, and what assumptions are used to create the plots.
	Recommendation: The concentration trend plots presented in the LTM reports should include a note explaining that the undetected values are all shown at an arbitrary value of 0.1 µg/L, regardless of the actual reporting limit, and that the actual reporting limit may be higher than the RG. In addition, all assumptions should be noted on the figure.
	Issue: Because of changes in the distribution of wells sampled over this FYR period, there are insufficient data to determine the benzene extent in 2019.
	Recommendation: At least once during the next five-year review period, sample a sufficient number of and spatial distribution of wells to allow verification of the extent of the benzene plume.
Sitewide ICs and LTM	**Issue**: The current excavation permit does not clearly document that NAVFAC NW has communicated the COCs present in an area proposed for excavation, as required by Section 1.3.1.3 of the ICMP.
	Recommendation: Modify the excavation permit to include a section or an attachment that indicates that NAVFAC NW reviewed the COCs with the contractor or submitted the historical information, including the chemicals of concern tables for the site from Section 2 of the ICMP.
	Issue: Some deficiencies identified in the annual inspection reports were not immediately repaired.
	Recommendation: Outstanding maintenance items noted by the LUC inspections (Table 4-7) should be addressed in a timely manner.

7.0 PROTECTIVENESS STATEMENT

This section presents the protectiveness determinations resulting from this FYR for NBK Bangor. Table 7-1 provides an overall protectiveness statement for NBK Bangor (because all OUs have reached "construction complete"), as well as individual protectiveness statements for each OU.

Table 7-1. Protectiveness Statements

Protectiveness Statement(s)	
Operable Unit: Sitewide	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedies at NBK Bangor protect human health and the environment because LUCs and/or ECs prevent exposure to contaminated media, groundwater plumes are stable and/or contained by pump and treat systems, and groundwater monitoring is performed to assess the extent of groundwater plumes.	
Operable Unit: 1, Site A	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedy at OU 1 Site A protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the groundwater plume i stable, pumping and treatment of groundwater containing COCs is ongoing, and groundwater monitoring is performed to assess the extent of the plume.	
Operable Unit: 2, Site F	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedy at OU 2 Site F protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the pump and treat system contains the plume, and groundwater monitoring is performed to assess the extent of the plume.	
Operable Unit: 3	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedy at OU 3 is protective of human health and the environment. The remedy for Site 16/24 soil consisted of a residential land use restriction. The remedy for Site 25 groundwater consisted of groundwater monitoring, which met the requirements of the OU 3 ROD in 1997 and was discontinued at that time. Inspections of the LUCs at Site 16/24 have been conducted regularly, and the current land use remains in accordance with the restrictions defined in the OU 8 ROD (which established the basewide LUCs). Therefore, the selected remedy for OU 3 is functioning as intended by the ROD. No RAO was established in the OU 3 ROD (U.S. Navy, USEPA, and Ecology, 1994b).	
Operable Unit: 6	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedy at OU 6 is protective of human health and the environment. The remedy for Site D included excavating soil from the burn trench, screening and composting the excavated soils at an on-base treatment facility, backfilling the treated soils into the excavation area, grading and revegetation, and surface water and groundwater sampling. The remedy components for soil removal and treatment, surface water monitoring, and groundwater monitoring at OU 6 functioned as intended by the ROD, and no IC was required for OU 6. These actions effectively meet the RAOs established in the OU 6 ROD.	

Table 7-1 (continued). Protectiveness Statements

Protectiveness Statement(s)	
Operable Unit: 7	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedy at OU 7 is currently protective of human health and the environment. The remedy for Site B (Floral Point) included covering areas of contaminated soil, installing shoreline protection and stormwater drainage systems to control erosion, monitoring sediment and clam tissue, and installing signs notifying visitors that the site is to be used for recreational purposes only and approval is required for digging or mowing. The remedy for soil at Site E/11 included disposal of stockpiled soil and metal debris, grading site, and backfilling with clean topsoil. The remedy for Site 10 included ongoing long-term maintenance of the asphalt pavement cover, groundwater monitoring, groundwater use restrictions, and expansion of the area of asphalt cover to include soils contaminated with arsenic, cadmium, lead, and PCBs. These remedy components functioned as intended by the ROD. LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs at Sites E/11 and 10, LUCs and engineering controls prevent exposure to contaminated soil at Sites B and 10, and groundwater monitoring is performed to assess the extent of contaminated groundwater at Site E/11 (as part of OU 2 Site F groundwater monitoring). The LUCs and groundwater monitoring components of the remedy are functioning as intended by the ROD. These actions effectively meet the RAOs established in the OU 7 ROD.	
Operable Unit: 8	**Protectiveness Determination:** Protective
Protectiveness Statement: The remedy at OU 8 protects human health and the environment because LUCs prevent exposure to groundwater with concentrations of COCs exceeding RGs, the extent of the groundwater plume is decreasing, and groundwater monitoring is performed to assess the extent of the plume.	

8.0 NEXT REVIEW

The next FYR is scheduled for 2025.

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APPENDIX A
RESPONSES TO COMMENTS ON DRAFT REPORT

EPA Review Comments

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1	General	Overall the draft Five Year Review addresses primarily the progress on remediation for three groundwater systems at OU-1 (Site A), OU-2 (Site F), and OU-8. Two of these OUs, OU-1 and OU-2 have overall groundwater restoration timeframes that have exceeded the ROD estimated remediation timeframes by more than 10 years, and OU-8 has no groundwater restoration timeframe estimated for an MNA remedy.	Comment noted. The Navy concurs that the focus of the FYR is the three sites for which the restoration timeframe has been longer than anticipated by the RODs. The Navy has on-going programs of extensive additional site investigation, pilot testing, modeling, and analysis at each of these sites focused on remedy optimization. While these additional studies are underway exposures to COCs are controlled through institutional controls with demonstrated effectiveness in preventing exposure.
2	General	It appears that determinations regarding long term protectiveness are based primarily on longer than expected groundwater restoration timeframes for each of these OUs. There is no definition as to what constitutes the differences between short term vs. long term protectiveness. What is missing in this analysis is what are the current estimated overall remediation timeframes to achieve groundwater cleanup levels based on the currently operating systems.	The issue of the longer-than-expected restoration timeframes OU 1 (Site A), OU 2 (Site F), and OU 8 will be moved to "Other Findings" as issues that do not affect protectiveness. The remedies for all OUs will be identified as being protective. As demonstrated through the extensive additional site investigation, pilot testing, modeling, and analysis performed by the Navy over the last decade, establishing a rigorous, realistic, and reliable estimate of the restoration timeframe for these three sites using the remedies in place is a complex scientific and engineering challenge. The Navy has expended, and continues to expend, considerable resources to address this question and the follow-up question as to whether additional measures are warranted to reduce the restoration timeframe. The results of the on-going studies are needed in order to resolve the question of restoration timeframe and this FYR therefore summarizes the data and results to date from these studies. The assessment of restoration timeframe will be part of the conclusions of the on-going work at the site.
3	General	The original ROD restoration timeframe estimates for OU-1 and OU-2 were based on FS-level modeling, rather than the current full-scale operating systems that have been in place for 20+ years. Actual system operations would likely yield more accurate results of estimated overall remediation timeframes but have not been evaluated in the Five Year Review.	Please see the response to General Comment 2. Additionally, for both OU 1 and OU 2, the planned upcoming work at these sites will include evaluation of actual system operations data over the last twenty years to inform remedy modifications at each site.
4	General	As indicated for OU-8, there is no estimated overall groundwater remediation timeframe, but due to the presence of LNAPL remaining at the site, it is likely that it is an extended period of time or if ever it would meet the groundwater remediation criteria for BTEX compounds. For OU-8 the BTEX groundwater contamination has existed since the mid-1980s. For an MNA remedy, the lack of	Additional information, including a timeline, for free product recovery pilot testing using high vacuum dual phase extraction, and additional studies including electrical resistivity and microbial characterization to refine the understanding of the distribution of free product in the subsurface will be added to Section 6. The Navy continues to take action to reduce the free product source. Although the free product at the site remains a residual source for dissolved petroleum constituents in

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		comprehensive source control for LNAPL remains a limiting factor for achieving timely groundwater restoration to ROD cleanup criteria for OU-8. EPA recommends additional source control for LNAPL be conducted for OU-8.	groundwater, the free product itself is controlled, i.e., the extent of free product is not expanding. There is no uncontrolled human health or ecological exposure to free product or dissolved COCs at OU 8.
5	General	One of the limiting factors for potential changes in remedies for OU-1, OU-2, and possibly OU-8 is the potential co-contamination at these sites from PFAS. The presence of PFAS at these sites would change the overall restoration approach at these sites. The proposed FFSs for OU-1 and OU-2 cannot proceed until the questions regarding the potential presence of PFAS at the OUs has been determined. EPA strongly recommends that the Navy's PFAS investigations for on-site potential sources be conducted as promptly as possible in 2020 and 2021 prior to submission of the draft FFSs for OU-1 and OU-2.	The Navy concurs that FFSs for OU 1 and OU 2 should consider PFAS and is moving as rapidly as is feasible with PFAS testing. The Navy will add to Question C an acknowledgement that a PA is in progress, using language from the public fact sheet regarding PFAS. The report will also note that drinking water well data were collected after the data review period for this FYR (May 2014 through July 2019), but are not yet validated. The overall results of this drinking water well sampling will be included, to the effect of "More than 300 drinking water wells located within a mile of the base boundary were analyzed for PFAS. Preliminary results from two wells located south of the base were found to contain PFAS at concentrations above the lifetime health advisory and those homes were provided bottled water in response. Because analytical results from locations on NBK Bangor are not yet available, the presence or absence of PFAS on base has not been established, and a link to the off-base detections has not been made. Because of the preliminary and incomplete nature of the PFAS data generated during this FYR period, the protectiveness determination for this FYR is not affected. Protectiveness will again be evaluated when PFAS data, regulatory standards, and risk assessments are available."
Specific Comments			
1	Page iii, Table ES-1	See General Comment No. 2.	Please see the response to General Comment 2.
2	Page iv, Five Year Review Summary Form	See General Comments No. 1, 2, 3, and 5.	Please see the response to General Comments 1, 2, 3, and 5.
3	Page vii, OU-8	What is the timeframe for conducting the pilot scale HVDPE test?	The Navy plans to begin the HVDPE pilot test in late Summer 2021. This information will be added to Section 6.
4	Page 4-6, Plume Containment	"This natural degradation may account for the long term stability of the plume despite the capture limitations of the pump and treat system" – What data supports this conclusion that natural degradation contains the plume? Nitrosamines are a very small percentage (~ 2% to 3%) of	This sentence will be removed from the report. Forthcoming information from the as-yet not completed Site A mass balance analysis indicates that biodegradation is not a significant contributor to contaminant concentration reduction at this site. The draft mass balance report is due for release to the agencies later in 2020 (schedule

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		the RDX concentrations, so do not support the conclusion that significant degradation contains the plume. A more comprehensive analysis of plume containment in the EPA (2008) guidance should be used for a more objective capture zone analysis of the existing pump and treat system.	modified due to the COVID situation). A capture zone analysis will be included as part of the FFS for OU 1 Site A.
5	Page 4-17, Plume Containment	EPA also recommends a more systematic capture zone analysis for Site F based on the EPA (2008) guidance.	The existing numeric groundwater model meets the substantive requirements of the EPA 2008 guidance, although this particular guidance isn't cited by the groundwater modeling report. All six steps of this guidance were implemented as part of numerical modeling performed during this FYR period and summarized in Sections 2.2.2 and 4.2.2.4 of the FYR: Step 1: Review site data, site conceptual model, and remedy objectives Step 2: Define site-specific Target Capture Zone(s) Step 3: Interpret water levels (*presented with each LTM report*) Step 4: Perform calculations (*the numeric model itself*) Step 5: Evaluate concentration trends (*presented with each LTM report*) Step 6: Interpret actual capture based on Steps 1-5, compare to Target Capture Zone(s), assess uncertainties and data gaps. (*particle tracking analysis from numeric model*) The Navy intends no changes to the document based on this comment.
6	Page 4-20, Section 4.2.3	"Because the Otto fuel monitoring has shown no trend at concentrations at or around the ROD cleanup level of 0.2 µg/L, Otto fuel monitoring will be discontinued until it is necessary to demonstrate compliance at the time of site closure." EPA does not concur with this recommendation. Based on EPA's groundwater remedial action completion guidance (EPA 2014), a minimum of 8 rounds of validated sampling results must clearly demonstrate that the concentration of the COC is statistically below the ROD cleanup criteria. PGDN monitoring needs to be continued until it meets the	The Navy can agree to continue sampling for Otto fuel at Site E/11 at least every five years, provided that a laboratory can be identified to perform the analysis. The FYR text will be revised to reflect this change.

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		ROD RAO for each well based on the EPA Remedial Action completion guidance.	
7	Page 5-1, 5.0 Technical Assessment, Question C	See General Comment No. 5.	Please see response to General Comment 5.
8	Page 5-14, Ordnance Compounds Detections in Shellfish Tissues	"None of the qualified ordnance compound detections in fish tissue were for OU 1 Site A COCs. This mismatch between the detected ordnance compounds and OU 1 Site A COCs, and the historical surface water sampling results indicate that the qualified detections in fish tissue are unlikely to be the result of releases from OU 1 Site A." EPA fundamentally disagrees with this conclusion, this is the same scenario that occurred at the Jackson Park Complex Navy NPL site where less common munitions compounds were found in marine tissues in 2014 in Ostrich Bay which were "not COCs". The same laboratory (ALS - Kelso, WA) and same analytical methods were used by the Navy at the JPHC in 2014 and the Port Gamble Tribe for marine tissue samples at Vinland. EPA Method 8330B target analytes are all directly related to military munition compounds, and the only known source of munitions compounds in the Vineland intertidal area would be Bangor Site A, where stormwater from Site A discharges into Hood Canal.	The analytical method that was used by ALS Laboratory to analyze for ordnance compounds for the Port Gamble Tribe was EPA Method 8330B. During the 2009 sampling event at Jackson Park Housing Complex (JPHC), ALS used this same method, with the result being several apparent detections (qualified) of ordnance compounds in crab and clam tissue. These detections were believed to be most likely the result of interference with other organic compounds in the tissue. EPA expressed dissatisfaction with the use of this method in 2009. During the 2014 monitoring event at JPHC, a proprietary method specifically developed by ALS using LCP-LCMS4 was used. During that monitoring event, ordnance compounds that could be analyzed using this method were not detected. Only one detected compound (tentatively identified), 2-nitrotoluene, had to be analyzed using the 8330B method. Ordnance compounds were also detected in the JPHC reference area samples during the 2009 and 2002 sampling events using EPA Method 8330B. 4-Amino-2,6-dinitrotoluene was detected in one clam tissue reference area sample in 2002 and tetryl was detected in one crab reference area sample in 2009 suggesting that the use of the standard EPA Method 8330B in clam and crab tissue results in false positives. Another sampling round was completed in 2019 at JPHC. Unfortunately, ALS no longer supports the proprietary method, because there is no commercial market for that method and the laboratory is using the equipment for PFAS analysis. As a result, EPA's Manchester Laboratory has performed analysis of the 2019 samples using the 8330B method, using a modified preparation procedure (dry-ice grinding), with the hope of better performance compared to the standard 8330B method. Because of the substantial uncertainty around the Port Gamble Tribe sampling results, the Navy cannot conclude that these results provide any meaningful evidence of an on-going release of ordnance compounds from Site A. However, for the FYR, the Navy will add a summary of EPA and Ecology's position on this issue, along the lines of, "EPA and Ecology have asked the Navy to conduct surface water sampling at Site A based on the following rationale: 1. The decisions made in ESD #3 were based on ecological risk, not human

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			health risk. The intent of the Tribe to begin fishing combined with the detection of ordnance compounds in fish tissue indicates a potentially complete human health exposure pathway not identified at the time of the ROD or ESD #3 2. There is no recent surface water sampling data for use in decision making regarding this potential new human health pathway 3. The fish tissue analysis used by the Tribe was the same as the Navy's JPHC analysis (in 2002 and 2009) 4. PFAS may be present in surface water and, if so, would represent a cumulative risk. If PFAS is present in leach basin soils, then it will be present in leachate and stormwater."
9	Page 5-21, Section 5.8.1 – Chemicals of Emerging Concern, 3rd paragraph	"There are no known occurrences of or exposures to, PFAS in groundwater at existing OUs or at new sites. Any future detection of PFAS in groundwater will not affect the protectiveness of the remedies unless identified through the CERCLA investigation process at concentrations posing an unacceptable risk. Because there is no documented presence of PFAS at NBK Bangor and on-site ICs prevent exposure to groundwater, the remedies remain protective while forthcoming PFAS investigations and evaluations are conducted through the CERCLA process. These forthcoming investigations and evaluations will assess whether PFAS exists on site, refine the PFAS CSM and identify potential exposure risks. Findings from these PFAS investigations and evaluations will be addressed in the next FYR to determine if the current remedies at NBK Bangor will continue to be protective with respect to PFAS in the future." This statement is fundamentally false and the paragraph shall be removed in its entirety. The Navy shall discuss 1) the Preliminary Assessment that identifies approximately 20 on-site PFAS source areas, 2) the off-site sampling plan of > 200 groundwater wells within a one mile radius of potential	The Navy will add to Question C an acknowledgement that a PA is in progress, using language from the public fact sheet regarding PFAS. The report will also note that drinking water well data were collected after the data review period for this FYR (May 2014 through July 2019), but are not yet validated. The overall results of this drinking water well sampling will be included, to the effect of "More than 300 drinking water wells located within a mile of the base boundary were analyzed for PFAS. Preliminary results from two wells located south of the base were found to contain PFAS at concentrations above the lifetime health advisory and those homes were provided bottled water in response. Because analytical results from locations on NBK Bangor are not yet available, the presence or absence of PFAS on base has not been established, and a link to the off-base detections has not been made. Because of the preliminary and incomplete nature of the PFAS data generated during this FYR period, the protectiveness determination for this FYR is not affected. Protectiveness will again be evaluated when PFAS data, regulatory standards, and risk assessments are available."

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		on-site Bangor PFAS source areas, 3) the number of off-site wells exceeding the LHA of 70 ppt for PFOS/PFOA whose residents where placed on bottled water, and 4) and planned future on-site sampling, particularly those source areas that overlap existing groundwater OUs such as OU-1, OU-2 and potentially OU-8. See also General Comment No. 5.	
10	Page 7-1, 7.0 Protectiveness Statement	See General Comments No. 1, 2, and 5.	Please see the responses to General Comments No. 1, 2, and 5.

End of Comments

References

1. U.S. EPA. 2008. A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/003, 2008. https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRMRL&dirEntryId=187788

2. U.S. EPA. 2014. Recommended Approach for Evaluating Completion of Groundwater Restoration Remedial Actions at a Groundwater Monitoring Well, OSWER Directive 9283.1-44, August 2014, https://www.epa.gov/superfund/completing-groundwater-response

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			NAVY RESPONSE (AS REVISED)	*ECOLOGY COMMENT ON RESPONSE*
1	General; PFAS use and answer to Question C	Question C: Has any other information come to light that could call into question the protectiveness of the remedy? Given the confirmed use of PFAS in the Subase and specifically in couple of OUs subject to this Five Year Review (FYR), the answer to this question should be "yes". However, this may not change the overall protectiveness determination given that PFAS investigations are on the way. The Navy needs to look at the PFAS Preliminary Assessment (PA) document and put "yes" on the sites that are put forward for Site Inspection (SI). The Navy has confirmed that the recent drinking water sampling for PFAS has resulted in the exceedances of EPA lifetime health advisory level in some of the domestic water supply wells. The Navy needs to discuss the recent results in the technical assessment section of this FYR.	The Navy will add to Question C an acknowledgement that a PA is in progress, using language from the public fact sheet regarding PFAS. The report will also note that drinking water well data were collected after the data review period for this FYR (May 2014 through July 2019), but are not yet validated. The overall results of this drinking water well sampling will be included, to the effect of "More than 300 drinking water wells located within a mile of the base boundary were analyzed for PFAS. Preliminary results from two wells located south of the base were found to contain PFAS at concentrations above the lifetime health advisory and those homes were provided bottled water in response. Because analytical results from locations on NBK Bangor are not yet available, the presence or absence of PFAS on base has not been established, and a link to the off-base detections has not been made. Because of the preliminary and incomplete nature of the PFAS data generated during this FYR period, the protectiveness determination for this FYR is not affected. Protectiveness will again be evaluated with PFAS data, regulatory standards, and risk assessments are available."	We discussed the details of this response in the last team meeting. As Ecology understood, the Navy will add PFAS investigations (published fact sheet) and summary of results from drinking water sampling in this FYR. Revise the response to reflect the discussion.
2	General; Status of recommendation from last FYR	The Navy needs to provide the status of recommendations with milestone dates that were put forward in the last FYR. If a recommendation missed a milestone date or ongoing, there should be a discussion for the possible explanations. If a recommendation is complete, describe the outcome. This can be best put in a tabular format for quick view in Section 3	The milestone dates from the fourth FYR will be added in a new column in Table 3-2. Notes regarding the milestone dates in the fourth FYR compared to the completion dates will be added to Table 3-2.	Okay. Ecology would like to review the redline draft.
3	General; Recommendation for OU 8	The recommendation for OU 8 is to conduct a free product recovery pilot test using high vacuum dual phase extraction (HVDPE) in wells with residual product with a milestone date of December 2020. Is this correct? While Ecology is supportive of this pilot test, we are unclear about the next step. Is there a plan to deploy full scale if pilot test results are encouraging? What if the pilot test results are not responsive, what would be the next step? There should be some future path forward.	The Navy will update the milestone date for this recommendation based on the latest funding and schedule projections. At this time, the Navy's intent is to deploy the HVDPE technology as a pilot test with the goal of removing free product to the maximum extent possible in late Summer 2021. Before, during and after the HVDPE, electrical resistivity (ER) will be performed because a previous ER investigation in 2012 yielded some success in identifying areas of free product (as evidenced by subsequent well installations at geophysical anomalies). Based on the amount of free product recovered and the quality of the ER data, subsequent well installation may be completed to attempt to access zones of recoverable free product if the data warrants this action, as was done in 2012. Additionally, it was shown in the analysis of the 2012 ER data that areas of increased microbial activity were indicated. This data along with the forthcoming 2021 ER data will add to the microbial characterization project planned to begin in FY22, which will be conducted regardless of the nature of the results of the HVDPE test. One of the objectives of the microbial characterization project will be to evaluate the use and of vegetable oil in promoting microbial breakdown of 1,2-DCA. Long- term monitoring will then provide data to assess the degree to which free product removal allows the selected remedy (MNA), as supplemented by the implemented contingent remedy (the biobarrier for remediation of the solvent plume), to shorten the restoration timeframe. The information in this response will be added to Section 6 of the FYR.	Okay. Is this write-up provided in the draft FYR? If not, this should be added as a project road map. However, Ecology believes the "issue of benzene not meeting restoration timeframe anytime soon" is a bigger problem than 1,2 DCA which is showing better promise of achieving CUL in the near future. Therefore, more efforts should be geared towards free product recovery and/or source area treatment for benzene (LNAPL) than EVO treatment of 1,2 DCA. While there are some literature about anaerobic benzene biodegradation, it is limited and slow. Aerobic degradation is more prevalent and faster and should be preferred.
4	General; IC Inspection and follow up	Provide a Table for LUC inspection recommendations and follow up activity. If a recommendation is not followed through, there should be explanation. There needs to be a process for follow up of IC inspection in a timely manner.	Table 4-7 documents the LUC inspection recommendations. The annual IC Inspection Letter Report provides information on inspection recommendations and follow up activity. The Navy will revise the text to include status of recommended actions, when they were performed, and when they are planned to be performed. For example, the storm drain on the perimeter of the capped Site F lagoon will be cleaned out in 2020, and Site B Floral Point will receive Beach Replenishment in 2020.	Okay, thanks. Ecology understands the annual IC inspection report will provide that information, however, the FYR should contain the summarized version of inspection recommendations and their follow up.
Specific Comments				

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			NAVY RESPONSE (AS REVISED)	*ECOLOGY COMMENT ON RESPONSE*
1	Page vi, Operable Unit 7	Section 7 showed OU 7 as short term protective. Typo?	"Short-Term Protective" on Table 7-1 is a typo which will be fixed. OU 7 is Protective.	Okay
2	Page 2-2, Section 2.1.2, line 54-65	It would be helpful to describe which recommendations were complete, which are ongoing, and which were not complete with any available explanation.	Lines 52 through 68 will be replaced with, "Additional investigation actions at OU 1 Site A were recommended in the fourth FYR. Investigation activities conducted during this FYR period in response to those recommendations are described in the subsections below. The status of each of the recommendations from the fourth FYR is described in Section 3."	Okay
3	Page 2-3, Section 2.1.2, line 114-116	2019 MNA evaluation report used only historical results. It did not appear to use any pilot test results especially the NESDI and NRL study. Agencies are yet to see any draft results from those studies.	Section 2.1.2 will be rewritten to match the organization of Section 4, and will summarize the studies in progress. Data not previously provided to the regulators for review, or still in preliminary/draft form will not be discussed in the FYR (in either Section 2 or Section 4).	Ecology still believes the text provided in the FYR is misleading. Yes, there is section 5.2 discussing USCAE pilot study results and 5.3 just discussing the NESDI study for which no results have go through regulators. Most of the calculations, statistical analysis involves historical and LTM data (section 4 & 5). The report has minor influence from these studies.
4	Page 2-5, Section 2.1.3.1, line 158-161	Needs a rewrite to make it clear.	We will revise this section to read, "There were 64.5 days of unscheduled shutdowns of the pump and treatment system due to equipment failures and power outages during this FYR period including: • 2014: 4 days • 2015: 34 days • 2016: 11 days • 2017: 0 days • 2018: 1 day • 2019 (through June): 14.5 days (U.S. Navy, 2019a)."	Okay.
5	Page 2-6, Section 2.2.2, line 205-220	It would be helpful to describe which recommendations were complete, which are ongoing, and which were not complete with any available explanation.	Lines 203 through 222 will be replaced with, "Additional investigation actions at OU 2 Site F were recommended in the fourth FYR. Investigation activities conducted during this FYR period in response to those recommendations are described in the subsections below. The status of each of the recommendations from the fourth FYR is described in Section 3."	Okay.
6	Page 2-7, Section 2.2.2, line 228-229	Provide reference to Modeling optimization report.	U.S. Navy, 2015k the *Final Groundwater Model Report Site F Groundwater Flow and Fate and Transport Models* will be added to the paragraph. To help clarify the various studies performed, Sections 2.1.2, 2.2.2, and 2.6.2 will be reorganized to match the data discussion in Section 4, rather than discussing the work performed by date range.	Okay.
7	Page 2-7, Section 2.2.2, line 233-234	Why the word collaboration is used? It seems like NAVFAC NW is helping to produce a research study. Wasn't this part of the last FYR recommendation?	The Navy considers this project a collaboration between federal agencies, with NAVFAC NW providing funding to USACE both for USACE research purposes and to further the goals at Site F. Specifically, as noted in the comment, the study being discussed in this paragraph supports resolution of Recommendation 2 from the Fourth FYR – the first bullet item of this recommendation, "Continue remedy optimization by performing aerobic and anaerobic biodegradation treatability tests and further modeling." The Navy plans no change to the FYR based on this comment.	Okay.
8	Page 2-7, Section 2.2.2, line 237	What is meant by undated? Was there a report published?	There is no date on the report that was provided to the Navy by USACE. Based on the electronic filename, this report was published in September 2018. Section 2.2.2 will be rewritten to match the organization of Section 4 and will summarize the studies in progress. Data not previously provided to the regulators for review, or still in preliminary/draft form will not be discussed in the FYR (in either Section 2 or Section 4).	Is this report going to be part of other reports by USACE? If not, how regulators will be informed of the results?
9	Page 2-7,	Provide a reference to the report.	We will add a reference to "USACE, 2017c" to the paragraph.	Okay.

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			NAVY RESPONSE (AS REVISED)	*ECOLOGY COMMENT ON RESPONSE*
	Section 2.2.2, line 240-244			
10	Page 2-7, Section 2.2.2, line 245-246	Which aquifer properties? Be specific. Where are those results presented in the FYR?	The specifics of the reports are presented in Section 4.2.2.4 Additional Site Characterizations under USACE Treatability Study. Additional information on the aquifer properties will be added in this section.	Okay.
11	Page 2-8, Section 2.2.2, line 272-274	Which study? NRL? Provide reference where these rates were calculated.	Section 2.1.2 will be rewritten to match the organization of Section 4 and will summarize the studies in progress. Data not previously provided to the regulators for review, or still in preliminary/draft form will not be discussed in the FYR (in either Section 2 or Section 4).	Okay but why are you including information from studies that were not provided/reviewed by agencies?
12	Page 2-8, Section 2.2.2, line 283-286	Was this 2019 study provided to regulators? Ecology does not seem to have seen this study.	The results of this study have not yet been reported.	See 11.
13	Page 2-11, Section 2.2.3.2, line 414-415	Is it for the same study? Were the data reported to regulators for the previous deployment?	Yes, the carbon traps deployed in May 2018 were part of the same study as those deployed between December 6, 2017 and January 22, 2018. The results of this study have not yet been reported.	See 11.
14	Page 2-17, Section 2.6.2, line 615-626	It would be helpful to describe which recommendations were complete, which are ongoing, and which were not complete with any available explanation.	Lines 614 through 628 will be replaced with, "Additional investigation actions at OU 8 were recommended in the fourth FYR. Investigation activities conducted during this FYR period in response to those recommendations are described in the subsections below. The status of each of the recommendations from the fourth FYR is described in Section 3."	Okay.
15	Page 2-17, Section 2.6.2, line 629-630	Provide a reference to the report.	We will add a reference to "U.S. Navy, 2018q" to the paragraph.	Okay.
16	Page 2-18, Section 2.6.2, line 662-663	Were the regulators provided a copy of the report for review and approval?	The results of this study have not yet been reported.	See 11.
17	Page 4-8, Section 4.2.1.4, line 287-288	While these draft information are withheld here, other results from the study were presented elsewhere. Why is that? When the results will be provided to regulators?	The approach taken in the FYR with regard to in-progress work that has not yet been published in a report for review by the regulators is to summarize the preliminary results in a narrative, but not present the in-progress figures and tables. The reason for this approach is that the presentation of results may change following Navy review of draft reports, which could introduce apparent conflicts between data tables/figures presented in the FYR and those presented in a subsequent draft reports provided for regulatory review. As discussed in the comment resolution meetings held June 2 and June 9, 2020, data not previously provided to the regulators for review, or still in preliminary/draft form will not be discussed in the FYR.	Okay. That's why there should not be much writing about unpublished NRL, NESDI studies for which preliminary data was not shared with regualtors.
18	Page 4-9, Section 4.2.1.4, line 339-342	Suggest writing these conclusions as "preliminary" as the report has not been reviewed by regulators and the report is not finalized.	Data not previously provided to the regulators for review, or still in preliminary/draft form will not be discussed in the FYR (in either Section 2 or Section 4).	Okay.
19	Figure 4-3	The plot is very busy and difficult to interpret. It would be easier to separate TNT and RDX in two plots.	This plot is equivalent to the one provided in the annual LTM reports, except focused on data only from the last five years. TNT data are provided only for wells A-MW38 and A-MW47, which are the only two wells in which TNT has been detected above the CUL. Because the recent TNT concentration trends in these two wells do not impact the FYR analysis, the TNT data will be removed from Figure 4-3.	Okay.
20	Figure 4-4	Are these contour lines for shallow or perched aquifer? Note the title of the plot.	The Explanation box indicates that the purple contour is "April 2019 RDX Conc. Contour for Shallow Aquifer (ug/L)". "Shallow Aquifer" will also be added to the Explanation box for the pink contour line.	Okay.

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21	Figure 4-5	It would be helpful to show time lines of major events occurred pertaining to remediation, e.g., P&T stopped for a significant period of time, pilot tests done on specific wells, etc.	Major events will be added to the figure.	Okay.
22	Figure 4-10	2019 approximate extent of benzene seems not correct and misleading as free products are observed in upstream wells beyond the boundary. Ref. Fig. 4-11.	We will adjust the 2014 benzene contour to match the contour in Figure 6-16 of the Fourth FYR. After looking at the 2019 data and monitoring report, there are insufficient data to determine the benzene extent in 2019. Therefore, no 2019 benzene contour will be added to Figure 4-10 and a note will be added to the figure to explain. This information will be also added to the text.	Okay.
23	Page 5-1, Section 5.0, line 8-9	Given the confirmed use of PFAS in couple of OUs, the answer to this question should be yes. The Navy needs to look at the PFAS PA and put "yes" on the sites that are put forward for SI.	The Navy will add to Question C an acknowledgement that a PA is in progress. The report will also note that drinking water well data were collected, after the data review period for this FYR (May 2014 through July 2019). Because no analytical results from locations on NBK Bangor are available, the presence or absence of PFAS has not been established, and protectiveness is not affected.	See General comment #1.
24	Page 5-2, Section 5.1, line 35-36	Mention if any deficiencies are noted in the LUC inspection. This should be a global comment for all OUs.	We will note any LUC inspection deficiencies or will reference the section that discusses LUC deficiencies.	Okay.
25	Page 5-2, Section 5.1, line 55-57	Is there anywhere in the document where it is discussed why increasing trends are observed in some wells? This should be a global comment for all OUs.	Previous hypotheses for these increasing trends put forth in LTM reports, as well as any new hypotheses, will be added to the FYR along with a discussion of how the on-going studies are expected to test the various hypotheses.	Discuss. Why disregard speculation? Hypotheses are formed from speculation. No need to cite numerous factors. Brainstorm and present major hypothesis. At OU 8, it may not be new release but presence of undiscovered sources, e.g., new NAPL areas started draining to the monitoring well. At OU 2, it may be plume migration due to change in active pumping.
26	Page 5-2, Section 5.1, line 58-60	It would be helpful to clearly state which activities/tasks are complete and which are ongoing. Many of the items in the bulleted list seems incomplete or ongoing. An activity is complete when it has been reviewed by the Agencies. This should be a global comment for all OUs.	For each of the items in the bullet list, we will add a parenthetical statement as to whether it is complete or on-going and cite the document(s) in which data for completed items can be found. We will make similar changes for OU 2 Site F and OU 8.	Okay.
27	Page 5-2, Section 5-1, line 63	What do you mean by this?	This means identifying through sampling the maximum depth within the Shallow Aquifer that site COCs are found in groundwater at concentrations above the CUL. We will add a parenthetical statement stating that this item is complete and will cite the document in which data can be found.	Okay.
28	Page 5-3, Section 5.1, line 68-69	What was the milestone date in the 4th FYR? There should be a discussion if milestone date is not met. This should be a global comment for all OUs.	Notes regarding the milestone dates in the fourth FYR compared to the completion dates will be added to Table 3-2.	Okay.
29	Page 5-3, Section 5.1, line 80-84	Again, Ecology believes this should be checked "yes" because of PFAS use.	Because no analytical results from locations on NBK Bangor are available, the presence or absence of PFAS has not been established, and protectiveness is not affected.	General comment 1.
30	Page 5-3, Section 5.2, line 97-99	Typo, OU 8.	The use of “OU 8” is correct on line 99. ICs were established for all OUs as part of the OU 8 ROD.	Okay.
31	Page 5-4, Section 5.2, line 121-122	Why increasing trends are observed in some wells? It should be discussed in the light of restoration timeframe.	Previous hypotheses for these increasing trends put forth in LTM reports, as well as any new hypotheses, will be added to the FYR along with a discussion of how the on-going studies are expected to test the various hypotheses.	See 25.
32	Page 5-4, Section 5.2, line	Discuss previous FYR recommendation and milestone date. If milestone date is not met, discuss the reasons.	Notes regarding the milestone dates in the fourth FYR compared to the completion	Okay.

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	134-135		dates will be added to Table 3-2.	
33	Page 5-8, Section 5.5, line 255-257	What is the regulatory basis for this decision?	The Navy can agree to continue sampling for Otto fuel at Site E/11 at least every five years, provided that a laboratory can be identified to perform the analysis. The FYR text will be revised to reflect this change.	Okay.
34	Page 5-9, Section 5.5, line 308	This is misleading and may not be true. Check the comment posed in the Figure 4-10.	See response to Comment #22.	Okay.
35	Page 5-9, Section 5.5, line 318-319	This is misleading and may not be true. Check the comment posed in the Figure 4-10.	See response to Comment #22.	Okay.
36	Page 5-10, Section 5.6, line 343-346	Ecology believes this technology would not be effective in the long term and more aggressive source control is necessary.	The Navy will discuss any long-term remedies with the Project Team prior to implementation. The text will be revised to make clear that the FYR is reporting the recommendations from the pilot study. In addition, Ecology and EPA's previous comments regarding the pilot study results will be added for context.	Okay but the report can cite regulatory concerns from comments provided in the document review. Otherwise what is the purpose of regulatory review?
37	Page 5-12, Section 5.7.1, line 431-434	This seems contradictory. Phthalates and PCBs were included as COCs for soil, ground water and surface water but have not been included in the LTM program. Why? May be it needs a review whether assumptions made at the time of ROD are still valid.	Further review of the ROD shows that phthalates and PCBs were detected but through the risk assessment process were found to be below risk and hazard thresholds. The correct term for all chemicals included at the beginning of the risk assessment process, including phthalates and PCBs, is chemicals of potential concern (COPCs). If the risk assessment finds unacceptable risk associated with a COPC, it becomes a chemical of concern (COC) subject to cleanup. The text from the ROD states: "The screening procedure identified 25 constituents which may be of concern at Site A. These indicator chemicals include: eight metals and inorganics (pH, barium, cadmium, chromium, copper, lead, nickel, and zinc); eleven ordnance chemicals (predominantly TNT, DNT, RDX, and associated compounds or by-products), four phthalate esters (e.g., bis[2-ethylhexyl]phthalate); and two PCBs (Aroclor 1254 and 1260)." The Navy will delete all sentences in this paragraph except the first one starting on line 430.	Okay.
38	Page 5-13, Section 5.7.1, line 480-484	There has been ongoing request to sample surface water for all explosive analytes. Should also include "lead".	The Navy has no plans to conduct stormwater sampling at Site A at this time, for the reasons articulated in the Navy's email to EPA dated September 23, 2019. For the FYR, the Navy will add a summary of EPA and Ecology's position on this issue, along the lines of, "EPA and Ecology have asked the Navy to conduct surface water sampling at Site A based on the following rationale: 1. The decisions made in ESD #3 were based on ecological risk, not human health risk. The intent of the Tribe to begin fishing combined with the detection of ordnance compounds in fish tissue indicates a potentially complete human health exposure pathway not identified at the time of the ROD or ESD #3 2. There is no recent surface water sampling data for use in decision making regarding this potential new human health pathway 3. The fish tissue analysis used by the Tribe was the same as the Navy's JPHC analysis (in 2002 and 2009)	Discussed previous meeting. Revise response based on meeting discussion.

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			NAVY RESPONSE (AS REVISED)	*ECOLOGY COMMENT ON RESPONSE*
			4. PFAS may be present in surface water and, if so, would represent a cumulative risk. If PFAS is present in leach basin soils, then it will be present in leachate and stormwater."	
39	Page 5-13, Section 5.7.1, line 490-491	How was this low level determined?	Page 110 of the Site A RI/FS states, "Because current water quality and toxicological criteria for many of these compounds (e.g. 2,4-DNT and 2,6-DNT) are similar to or below the detection levels afforded by HPLC and GC/MS, analysis by the more sensitive GC/ECD method was adopted." The RI/FS text implies that a specialized analytical method was developed in August of 1990 to achieve lower reporting limits for ordnance compounds in water. It may also be the case that the historical data is reported to the method detection limit (MDL), rather than the limit of quantitation (LOQ) or limit of detection (LOD). The Navy intends no changes to the document based on this comment.	Okay.
40	Page 5-14, Section 5.7.1, line 510-513	Were any of the ordnance compounds detected in Tribe's fish tissue study also detected at Site A during RI? What would be a probable explanation of detecting ordnance compounds in the fish tissue?	Yes, at least some of the ordnance compounds detected in the fish tissue samples analyzed during the study for the Tribe were also detected at Site A during the RI but were not found to be COCs. The analytical method that was used by ALS Laboratory to analyze for ordnance compounds for the Port Gamble Tribe was EPA Method 8330B. During the 2009 sampling event at Jackson Park Housing Complex (JPHC), ALS used this same method, with the result being several apparent detections (qualified) of ordnance compounds in crab and clam tissue. These detections were believed to be most likely the result of interference with other organic compounds in the tissue. EPA expressed dissatisfaction with the use of this method in 2009. During the 2014 monitoring event at JPHC, a proprietary method specifically developed by ALS using LCP-LCMS4 was used. During that monitoring event, ordnance compounds that could be analyzed using this method were not detected. Only one detected compound (tentatively identified), 2-nitrotoluene, had to be analyzed using the 8330B method. Ordnance compounds were also detected in the JPHC reference area samples during the 2009 and 2002 sampling events using EPA Method 8330B. 4-Amino-2,6-dinitrotoluene was detected in one clam tissue reference area sample in 2002 and tetryl was detected in one crab reference area sample in 2009 suggesting that the use of the standard EPA Method 8330B in clam and crab tissue results in false positives. Another sampling round was completed in 2019 at JPHC. Unfortunately, ALS no longer supports the proprietary method, because there is no commercial market for that method and the laboratory is using the equipment for PFAS analysis. As a result, EPA's Manchester Laboratory has performed analysis of the 2019 samples using the 8330B method, using a modified preparation procedure (dry-ice grinding), with the hope of better performance compared to the standard 8330B method. Because of the substantial uncertainty around the Port Gamble Tribe sampling results, the Navy cannot conclude that these results provide any meaningful evidence of an on-going release of ordnance compounds from Site A. However, as discussed in the response to Comment 38, the Navy will add a summary of EPA and Ecology's position on this issue.	Discussed previous meeting. Revise response based on meeting discussion.
41	Page 5-21, Section 5.8.1, line 788-790	Has the Navy used PFAS chemicals in uses other than AFFF? If so, list those.	At this time, AFFF and the chrome plating wastewater disposal within the Site F plume at Site E/11 are the only confirmed uses of PFAS compounds at NBK-Bangor. The Navy will also investigate whether there is any documentation or anecdotal information regarding basewide composting or application of biosolids.	Ok.
42	Page 5-21, Section 5.8.1,	This sentence needs revising. Based on draft PA, several OUs have confirmed use of AFFF.	The Navy will add to Question C an acknowledgement that a PA is in progress, using language from the public fact sheet regarding PFAS. The report will also note that	See General comment 1.

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	line 797-798	A section should be added to present the results of the PA.	drinking water well data were collected after the data review period for this FYR (May 2014 through July 2019), but are not yet validated. The overall results of this drinking water well sampling will be included, to the effect of "More than 200 drinking water wells located within a mile of the base boundary were analyzed for PFAS. Preliminary results from two wells located south of the base were found to contain PFAS at concentrations above the lifetime health advisory and those homes were provided bottled water in response. Because analytical results from locations on NBK Bangor are not yet available, the presence or absence of PFAS on base has not been established, and a link to the off-base detections has not been made. Because of the preliminary and incomplete nature of the PFAS data generated during this FYR period, the protectiveness determination for this FYR is not affected. Protectiveness will again be evaluated when PFAS data, regulatory standards, and risk assessments are available."	
43	Page 5-21, Section 5.8.1, line 800-802	Sentence needs revising based on argument provided in the previous comment.	Please see response to Comment 42.	See General comment 1.
44	Page 5-21, Section 5.8.2, line 816-818	Model predictions of sea level rise are already available for Puget Sound Areas. The predicted rise and its impact should be reported here. Ecology uses the following website for SLR prediction. http://wacoastalnetwork.com/chrn/research/sea-level-rise/ Also, see Ecology guidance for adaptation. https://fortress.wa.gov/ecy/publications/documents/1709052.pdf	Thank you for providing these additional climate change resources. Section 5.8.2 will be revised to incorporate these references as follows: "Research indicates that the shoreline remedy at NBK Bangor, OU 7 may be vulnerable to climate change impacts not apparent during remedy selection. The shoreline remedy at Site B (Floral Point), OU 7, relies on a vegetated landfill cap with a documented history of shoreline erosion. As documented in Ecology's publication, *Adaptation Strategies for Resilient Cleanup Remedies* (Ecology, 2017) this type of remedy is considered at a high long-term risk from sea level rise and weather pattern changes. These aspects of climate change increase the possibility of flooding/inundation of the shoreline area and can increase the energy and therefore, erosive force of storm events. Surface erosion of the cap can increase with increased precipitation and storm events that overwhelm the existing storm drainage system. Increased saturation of the landfill interior can affect leachate production and seeps, change waste decomposition characteristics, and change the geochemistry of the landfill. Based on the elevations of the survey hubs used to monitor beach erosion (U.S. Navy, 2018d), continuous inundation of the landfill at mean sea level would begin to occur with a sea level rise of 9 feet. Current modeling (http://wacoastalnetwork.com/chrn/research/sea-level-rise/) indicates that a sea level rise of 9 feet could occur in the Floral Point area as soon as the year 2140. Prior to this time of continuous inundation, progressively higher sea levels are expected to result in slowly increasing impacts from interior landfill saturation, and worsening erosion during more severe storm surges. Because the erosion inspections performed during this FYR period demonstrate that the beach monitoring procedures are currently functioning to maintain the landfill cap, climate change does not call into question the protectiveness of the remedy.	Okay. Need to see the redline draft.
45	Page 6-1, Section 6.0	Table 6-1 needs reformatting in the pdf document. Issues are overlapping. Same for Table 7-1.	The format in the pdf document will be fixed.	Okay.
46	Page 6-2, Section 6.0	These should be put forward into the Table.	In general, issues that do not affect protectiveness do not have to be tracked by the EPA; therefore, the FYR does not include them in the Issues Table (Table 6-1). These issues are included so that the Navy can easily track them.	Okay.

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47	Page 6-2, Section 6.0	What is the rationale behind this recommendation that it does not affect future protectiveness. Leaving unchecked could expose landfill material.	The requirement of the remedy is to inspect and maintain the landfill cap, and the FYR documents that inspection and maintenance have been occurring as required during this FYR period. On this basis, the remedy is functioning as intended and protectiveness is not called into question. This item captures the "to-do" item of maintenance needed at the time of this review, with the Navy's commitment to perform the maintenance. The Navy will be performing beach replenishment in Summer 2020.	Discuss. If you don't do beach nourishment/maintenance what will happen?

End of Comments

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General Comments			
1	Answer to Question A: Is the remedy functioning as intended by the decision document?	Ecology is not in agreement with changing “no” to “yes” from draft version of the five-year review (FYR) document. While we discussed to change “short-term protective” to “protective” in the protectiveness determination, we didn’t agree to change the answer to Question A. Answering “yes” to Question # A whether the remedy is functioning as intended by ROD seems wrong to Ecology. If the remedy is functioning as intended by ROD and it is also protective then there is no need to do any further work that are currently ongoing at OU 1, 2, and 8 and prepare Focus Feasibility Study (FFS) reports. For example, The decision document (ROD) for Site A predicted groundwater cleanup level (CUL) would be achieved in 10 years after remedy construction is complete but compliance with CUL has not happened in 25 years. Therefore, the remedy is not functioning as intended by the ROD, even though the remedy may be technically protective. Ecology believes the answer needs to go back to the Draft version document as “No” for OUs 1, 2, and 8. There should also be statement/discussion what part of the remedy is not functioning as intended by the ROD. As a side note, Ecology believes answering “yes” will hurt the process of obtaining future Navy funding at these OUs where restoration timeframe is too long and the remedy is not functioning intended by the decision document.	It would be unusual in the five-year review process to conclude that a remedy is protective and yet not functioning as intended by the ROD. The logic discussed during our two comment resolution meetings was that the remedies are protective and functioning as intended, however the longer than expected restoration timeframe indicates that remedy optimization is warranted.
2	Answer to Question C: Has any other information come to light that could call into question the protectiveness of the remedy?	This is a repeat comment from previous draft document since it was not addressed in the draft final document. Given the confirmed use of PFAS in the Subase and specifically the OUs that are recommended for SI, the answer to this question should be “yes”. The Navy needs to look at the PFAS Preliminary Assessment (PA) document and put "yes" on the sites that are put forward for Site Inspection (SI). The Navy has confirmed that the recent drinking water sampling for PFAS has resulted in the exceedances of EPA lifetime health advisory level in some of the domestic water supply wells. As discussed in the RTC meeting, emergence of PFAS in private water wells definitely calls into question the protectiveness of the remedy. There is no hiding behind it and the Navy needs to discuss the recent results in the technical assessment section of this FYR.	The Navy responded to this comment on the draft document. Because no analytical results from locations on NBK Bangor are available, the presence or absence of PFAS has not been established, and protectiveness of the remedy selected in the ROD for established COCs is not affected. The CERCLA process now underway for PFAS will result in a determination of acceptable or unacceptable risks for PFAS, and the Navy will take any appropriate remedial actions per a future ROD. Regarding the Navy’s proactive actions for the unregulated PFAS compounds, extensive sampling of drinking water revealed a few instances of exceedance of the lifetime health advisory criteria and bottled water has been supplied to those homes. Therefore at this time there remains no known on-going exposure, and therefore no unacceptable health risk.

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3	Five-year review summary form and protectiveness statement	Protectiveness statements for Site A, F, and OU 8 needs to acknowledge the issue of restoration timeframes. For Site A, it may be appropriate to "defer" the protectiveness determination since several issues are pending including a tentative new human health pathway (seafood consumption) for ordnance compounds, stormwater sampling for ordnance and PFAS compounds that have put into question the protectiveness of remedy at Site A. Any high level manager who is only reading the executive summary and five-year review summary forms will find that all Bangor sites are fully protective and there are no pending issues. However, this is not the situation. Protective statements needs to be reflective of site conditions including discussion of restoration timeframes and other issues such as PFAS presence from PA document.	The logic discussed during our two comment resolution meetings was that the remedies are protective and functioning as intended, however the longer than expected restoration timeframe indicates that remedy optimization is warranted. As discussed during the comment resolution meetings, the result of this approach is a finding of "protective" for the remedies at these three sites.
4	Plume nature and extent	While this is obvious that the nature and extent of all plumes should be defined and presented in maps, it appears there are some data gaps in this area. For example, see specific comment #1. There needs to be a general recommendation in this FYR to delineate the nature and extent (horizontal and vertical) of all plumes where there is insufficient data to draw such plume maps. There should be an effort in every five-year to do this.	We will add another issue and recommendation under "Other Findings" to collect data to update the extent of the benzene plume at OU 8. The plumes at OUs 1 and 2 are currently well delimited with recent data.
Specific Comments			
1	Page 4-25, Line 1119-1120	"Because of changes in distribution of wells sampled over this FYR period, there are insufficient data to determine the benzene extent in 2019." – The extent of plume was last mapped in 2014. There needs to be a recommendation in this FYR to delineate the extent of benzene plume above cleanup level.	We will add another issue and recommendation under "Other Findings" to collect data to update the extent of the benzene plume at OU 8.
2	Page 5-1, Line 17	"However, the remedy for Site A groundwater is taking longer than expected to meet the RAOs." - This means the remedy for groundwater is not functioning as intended by the ROD. The deleted text in the discussion should be re-inserted. The same comment applies to Site F and OU 8 (section 5.2 & 5.6).	The logic discussed during our two comment resolution meetings was that the remedies are protective and functioning as intended, however the longer than expected restoration timeframe indicates that remedy optimization is warranted.
3	Page 5-12, Line 496	What is the rationale for deleting the text?	The rationale for this deletion was provided in the Navy's response to Ecology's comment number 37 on the draft version of the five-year review. Further review of the ROD showed that phthalates and PCBs were detected but through the risk assessment process were found to be below risk and hazard thresholds.
4	Page 5-14, Line 589-603	"However, in the light of the results of the Tribe's ……..stormwater." - There needs to be a recommendation in this	As discussed during the comment resolution meetings, the Navy does not concur that sampling is warranted, but agreed to include Ecology and EPA's

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		FYR to conduct sampling.	opinions in the documents, as we have done.
5	Page 5-22, Line 906-909	"Because of the preliminary and incomplete nature of the PFAS data ……..available." Ecology's take is that protection should be deferred for OUs where the PA has recommended for SI.	The presence or absence of a new, unregulated contaminant such as PFAS does not impact the protectiveness of the remedy selected in the ROD for established COCs. The CERCLA process now underway for PFAS will result in a determination of acceptable or unacceptable risks for PFAS, and the Navy will take any appropriate remedial actions per a future ROD.
6	Figure 4-2	If any of these wells were used in USACE PPT/TPT, it would helpful to identify those and put a timeline in the plot.	None of the well shown on Figure 4-2 were used in the USACE pilot testing. Wells used in that testing are identified in Section 4.2.1.4 of the five-year review.
7	Figure 4-5	First, this is a very helpful graph. Thank you. To improve, put the following: 1. "USACE push-pull test to evaluate ordnance degradation" - Identify the well # used in the PPT. 2. "Forced-gradient, field scale cell transport test and pilot test utilizing compound specific isotope analysis" - Again, depicting test well # will be helpful. Especially, if any of the wells shown in the figure were used in the pilot test.	The wells included in these studies will be listed in Section 2.2.2.2 of the five-year review report and added to Figure 4-5.

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ITEM NO.	*Pg #, Section, Line*	*COMMENTS*	*REVIEW ACTION* (Provide explanation & location of changes as necessary) / *NAVY RESPONSE*
1		The Navy changed the protectiveness determination from "short term protective" in the draft document to "protective" in the draft final for Site A, F, and OU 8. However, based on the EPA guidance document (EPA, 2012) [attached in this email], this change is not supported. Specifically, when "Monitoring data indicates that remedy will not achieve goals in the anticipated time frame" – this falls into the category of short term protective. I have highlighted portions of the guidance document for reference.	This change in the protectiveness statements for these three sites was discussed during our comment resolution meetings on June 2 and June 9, 2020. During those meetings the EPA representative expressed that if a contaminant plume is not migrating and a site is moving towards restoration with functioning land use controls, then it should be considered protective. The restoration timeframe issue is separate. Protectiveness for a site like this will still be reviewed every five years. Because this EPA position comports with the opinion of the Navy subject matter experts for five-year reviews, the Navy agreed to make the change in the protectiveness statements.
2		In addition, I have also highlighted example for protectiveness "deferred" in the same EPA guidance. These examples are cases for protectiveness "deferred". a. "A new exposure pathway (e.g., vapor intrusion) has been identified and additional data are required to determine if an unacceptable risk is occurring;" - New possible human health exposure pathway (seafood consumption) for ordnance compounds (plus PFAS co-contaminant) at Site A makes a case for protectiveness "deferred" until we have additional data to assess protectiveness. b. "An emerging contaminant is present and the current risk has not been evaluated;" - Confirmed use/disposal of PFAS compounds in the Subase and detection of these compounds in base boundary private wells makes the case of protectiveness "deferred" at sites where PFAS PA has recommended for SI. We will have additional data to assess protectiveness at these sites in the next FYR.	The Navy does not concur that the equivocal marine tissue analytical data are sufficient to change the conclusions of the ROD that there is no complete human exposure pathway for ordnance compounds via the seafood ingestion route. The presence or absence of a new, unregulated contaminant such as PFAS does not impact the protectiveness of the remedy selected in the ROD for established COCs. The CERCLA process now underway for PFAS will result in a determination of acceptable or unacceptable risks for PFAS, and the Navy will take any appropriate remedial actions per a future ROD. Regarding the Navy's proactive actions for the unregulated PFAS compounds, extensive sampling of drinking water revealed a few instances of exceedance of the lifetime health advisory criteria and bottled water has been supplied to those homes. Therefore at this time there remains no known on-going exposure, and therefore no unacceptable health risk.

End of Comments

APPENDIX B
INTERVIEWS

INTERVIEW RECORD FOR FIVE-YEAR REVIEW
May 2014 through April 2019
Type 3 Interview – Community Member
Naval Base Kitsap Bangor
Kitsap, WA

Individual Contacted:	*Thomas Goodlin*
Title:	*Project Manager/Hydrogeologist*
Organization:	*Sealaska Environmental Services*
Contact made by:	**Deepti Nair, Battelle**
Method of interview:	*Email*
Date:	*11/11/2019*

Summary of Communication

You are not obligated to answer every question. If you are not familiar with the topic of a particular question, or have no information or opinion to offer, please indicate "none" after "response."

1. Please describe your degree of familiarity with Naval Base Kitsap (NBK) Bangor, the Records of Decision (RODs) for Operable Units (OUs) 1, 2, 3, 6, 7, and 8, the implementation of the remedies at these OUs, and the monitoring and maintenance that has taken place since implementation of the remedies. Please also describe your involvement since May 2014.

   Response: *Extremely familiar with RODS, remedies, monitoring, and maintenance. Have worked managing projects for Sealaska in support of the Navy under successive LTM/O contracts on Bangor projects for the stated OUs since 2005, including steadily since May 2014.*

2. What is your overall impression of the on-going protectiveness of the remedies at NBK Bangor?

   Response: *All remedies are protective.*

3. Do you feel well informed about the remediation activities and progress at NBK Bangor? Please elaborate.

   Response: *Yes. As stated in Response #1, I continue to manage projects that implement and monitor remedies at NBK Bangor.*

4. What effects on the community have you observed as a result of on-going remedy implementation?

   Response: *I am not aware of any current effects to the off-base community related to remedy implementation.*

5. Are you aware of any community concerns regarding implementation of the remedies? If so, please give details.

Response: ***I am not aware of any current concerns by the off-base community related to remedy implementation***

6. How do you think the studies on biodegradation rates and remedy optimization or revision at Site A, Site F, and OU 8 are progressing?

Response: *The Navy has made good progress at the three sites. All remain protective, and augmentation and/or alternatives to the remedies promise to help meet RAOs on a shorter timeframe and less overall cost.*

7. Do you have any other comments, concerns, or suggestions regarding the effectiveness of the cleanup measures implemented so far in protecting human health and the environment at NBK Bangor?

Response: ***The Navy has been very proactive over the last decade in maintaining current remedies and pursuing potential remedy augmentation and/or alternatives to accelerate the cleanup timeframe.***

INTERVIEW RECORD FOR FIVE-YEAR REVIEW
May 2014 through April 2019
Type 2 Interview – Regulatory Agency
Naval Base Kitsap Bangor
Kitsap, WA

Individual Contacted:	*Mahbub Alam*
Title:	*Cleanup Project Manager*
Organization:	*WA State Department of Ecology*
Contact made by:	*Click here to enter text*
Method of interview:	Choose an item.
Date:	*Click here to enter a date*

Summary of Communication

You are not obligated to answer every question. If you are not familiar with the topic of a particular question, or have no information or opinion to offer, please indicate "none" after "response."

1. Please describe your degree of familiarity with Naval Base Kitsap (NBK) Bangor, the Records of Decision (RODs) for Operable Units (OUs) 1, 2, 3, 6, 7, and 8, the implementation of the remedies at these OUs, and the monitoring and maintenance that has taken place since implementation of the remedies. Please also describe your involvement since May 2014.

   Response: *I am familaiar with all the stated Operable Units, however, to be precise I am mostly familiar with OU 1, 2, and 8 because of the ongoing work/investigations at these OUs. I have been providing Ecology's regulatory oversight since November 2016.*

2. What is your overall impression of the on-going protectiveness of the remedies at NBK Bangor?

   Response: *For OU 1,2, and 8 the remedy is protective in the short term. There needs to be further actions to make the remedy long term protective.*

3. Do you feel well informed about the remediation activities and progress at NBK Bangor? Please elaborate.

   Response: *I feel that a lot of activities are happening at the sites including pilot and treatability studies at site A, F & OU 8. However, regulators were not always well informed about all these activities. No project planning spreadsheets e.g., Gantt charts are provided to understand all the components of a bigger project plan. No regularly scheduled project team occurs to inform the ongoing activities. Project team meetings occur at adhoc basis when there is a need for regulator buy-in. Ecology suggests to hold regular project meetings, provide*

schedules for a particular project, inform regualtors early about upcoming document-reviews (an ongoing document review matrix would be particularly helpful), ask regulators if a comment resolution meeting is necessary to discuss regulator comments and Navy's responses. All these specifics should be built in the project schedule. The Navy needs to work with its contractors to implement these basic project management needs. Ecology appreciates recent uptick in communication on USACE Site F optimization activities.

4. To the best of your knowledge, since May 2014, have there been any new scientific findings that relate to potential site risks that might call into question the protectiveness of the remedies?

   Response: *Ecology has been made aware of PFAS compounds use at the Base in the past. This could be a protectiveness issue that needs further evaluation.*

5. What is your overall impression of the on-going effectiveness of the institutional controls components of the remedies?

   Response: *Instituional controls are required for all operatble units. Ecology is not aware of any major deficiencies involving breach of any institutional controls. However,many minor deficiencies can be found as noted in the IC inspection reports.*

6. In your opinion, have the evaluations and analysis performed since May 2014 (e.g., CSM Model Update) at OU 1 (Site A) been effective tools for making progress towards an FFS and revised remedy?

   Response: *There are several studies and investigations ongoing at Site A by different entities including USACE, NESDI, NRL, and Sealaska. It is difficult to say how much progress has been made and how effective these are at this time. Progress has been made by requiring proper project SAP/QAPP but questions remain on some prior results with data qualtity issues and ultimate usability of the data in the FFS. Some studies did not produce any results yet or the Navy has not informed the regulators with interim results. There have been little effort to inform the regulators about connectivity of these separate studies and how they will inform the FFS. As such, Ecology is not sure how all these will culminate into a robust FFS and effective revised remedy.*

7. In your opinion, have the assessments performed (e.g., Optimization Study) at OU 2 (Site F) since May 2014 been effective tools for making progress towards remedy optimization?

   Response: *Same answer to question no. 6. In addition, Ecology believes site F will need to have its own FFS and revised remedy which might lead to ROD amendment. The current optimization study could lead to a revised remedy necessary for long term protectiveness.*

8. In your opinion, have the assessments performed since May 2014 (e.g., additional assessments and pilot studies) at OU 8 been effective tools for making progress towards implementing contingent remedial actions?

   Response: *See answers for question no. 6 &7. In addition, little progress has been made to perform active source control for NAPL contamianted area before a MNA remedy could be in place.*

9. How do you think the studies on biodegradation rates are progressing?

   Response: *See answers to question 6. The regualtors are not well aware of interconnections of all these studies and a game plan.*

10. Since May 2014, have there been any complaints, violations, or other incidents related to NBK Bangor installation restoration issues that required a response by your office? If so, please provide details of the events and results of the responses.

    Response: *I am not aware of any such incidents.*

11. To the best of your knowledge, has the on-going program of environmental monitoring at NBK Bangor been sufficiently thorough and frequent to meet the goals of the RODs?

Response: *The long term monitoring program has been thorough and frequent although the program needed some changes to verify, most specifically, the vertical extent of the plume. The Navy has been cooperative in making those changes.*

12. Are you aware of any community concerns regarding implementation of the remedies at NBK Bangor? If so, please give details.

Response: *I am aware of Tribal concerns for detection of ordinance compounds in the tissue samples collected from floral point area in Hood canal. EPA has been made the Navy aware of the study and Tribal concerns.*

13. Do you have any other comments, concerns, or suggestions regarding the effectiveness of the cleanup measures implemented so far in protecting human health and the environment at NBK Bangor?

Response: *At Site A and F, the Navy needs to continue the ongoing pilot studies to see if in-situ bioremediation will work alone or in conjunction with other technologies. At OU 8, the Navy needs to take actions on source control at the earliest and do MNA evaluation to verify whetehr MNA would be an effective remedy or there needs to be other technogoies to advance MNA.*

APPENDIX C
MONITORING DATA

Monitoring Data Taken from 2019 Annual LTM and O&M Data Report for Site A LTM/Operations Report (U.S. Navy, 2019a)

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
Perched Zone Monitoring Wells									
A-MW22	May-94	130	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-95	140	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	150	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-97	140	1.2 U	2.9 U	1.7 U		NA	NA	NA
	Jan-12	31 Q	0.10 U	0.099 U	0.099 U		2.2	0.93	3.5
	Apr-13	44 D	0.15 U	0.13 U	0.13 U		2.9 J	1.5	4.6 J
	Apr-13 (DUP)	49 D	0.15 U	0.13 U	0.13 U		3.3 J	1.7	5.2 J
	Apr-14	36 D	0.15 U	0.13 U	0.13 U		2.6	1.4 M	2.3
	Mar-15	28 D	0.15 U	0.13 U	0.13 U		2.2	1	1.9 M
	Mar-16	29 D	0.15 U	0.13 U	0.13 U		1.9	2.8 J	1.3 M
	Mar-17	42 D	0.15 U	0.13 U	0.13 U		1.9	2.6 J	1.2 M
	Jan-18	34 D	0.15 U	0.13 U	0.13 U	16 D	2.4	1.2	1.9
	Apr-19	10 D	0.098 U	0.098 U	0.098 U	8.7	0.098 U M	2.1 J J1	0.81 M
A-MW34	Feb-95	0.36	0.05 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-97	0.58 U	0.65 U	1.5 U	0.86 U		NA	NA	NA
	Feb-98	1.1 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	May-98	0.94 U	0.94 U	0.94 U	0.94 U		NA	NA	NA
	Feb-99	0.92 U	0.92 U	0.92 U	0.92 U		NA	NA	NA
	Nov-09	0.26 U	0.15 U	0.15 U	0.15 U		1.9 U	1.9 U	1.9 U
	Jan-12	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	0.50 U	0.50 U
	Apr-13	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U Q
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Feb-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
A-MW36	Apr-12	30 Q	0.92	0.31	0.13 U		2.0 U	0.50 U	0.50 U
	Apr-13	32	0.56 J	0.13 U	0.13 U		1.0 J	0.51 U	0.10 J
	Mar-15	35 D	0.49 J	0.22 J	0.13 U		0.9 J	0.51 U	0.51 U
	Mar-16	47 D	0.35 J	0.26 J	0.13 U, M		1.3 J	3.9 J	0.50 U, M
	Feb-17	35 D	0.69 J	0.31 J	1.3 U		0.84 J, M	3.3 J	0.081 J
	Jan-18	22 D	1.9 J	0.30 J	0.13 U	13 D	0.47 J M	0.50 U	0.50 U
	Apr-19	11 J D M Q	3.6 J Q	0.17 J J1 M Q	0.099 U Q	6.0 J Q	0.099 U M Q	0.099 U Q	0.20 U Q
A-MW47	Aug-95	160	18	0.97 J	1.2 J		NA	NA	NA
	Feb-96	120	15	1.6	1.6		NA	NA	NA
	Aug-96	74	12	2.2 U	0.6 U		NA	NA	NA
	Feb-97	100	14	2.3 U	1.3 U		NA	NA	NA
	Aug-97	34	15	0.86 J	0.5 J		NA	NA	NA
	Feb-99	37	13	1.1 U	1.1 U		NA	NA	NA
	Feb-00	22	27	0.83 U	0.83 U		NA	NA	NA
	Feb-01	8.9	10	0.51 U	0.51 U		NA	NA	NA
	May-02	32	19	1 U	1 U		NA	NA	NA
	Feb-03	22	10	0.44 U	0.44 U		NA	NA	NA
	Feb-04	58	6.9	0.88	0.49 U		NA	NA	NA
	Feb-05	9.2	6.1	0.48 U	0.48 U		NA	NA	NA
	Feb-06	36	7.3	0.6	0.49 U		NA	NA	NA
	Feb-07	74 D	5.5	1	0.17 J		NA	NA	NA
	Aug-11	14 J	2.2 J	0.37 J	0.087 J		0.59 J	2.0 U	2.0 U
	Jan-12	6.2	2.3	0.17	0.075 J		2 U	0.50 U	0.50 U
	Apr-13	43 D	0.76 M,J	0.55 J	0.13 U		1.5 J	0.50 U	0.29 J
	Mar-14	20	1.4	0.38	0.088 J		0.72	1.2 J	0.51 U
	Mar-15	36 D	1.1 J	0.62 J	0.13 J		1.3 J	0.2 J M	0.50 U
	Mar-16	35 D	1.3 J	0.13 UJ	0.13 UJ		1.1 J	3.2 J	0.21 J, M
	Mar-17	18 D	1.6 J, M	0.36 J	0.13 U		0.60 J, M	0.51 U	0.51 U
	Mar-17 (DUP)	22 D	1.4 J	0.38 J, M	0.13 U		0.65 J, M	0.51 U	0.51 U
	Jan-18	6.0 J	2.4 J	0.16 J	0.072 J	4.0 J	0.27 J	0.51 U	0.51 U
	Jan-18 Dup	5.9 J M	2.5 J	0.16 J	0.072 J	4.0 J M	0.25 J M	0.50 U	0.50 U
	Apr-19	3.5	2.1	0.11 J	0.10 U	2.9	0.15 J	0.25 J J1	0.20 U M
A-MW48	Feb-95	1000	0.65 U	0.05 U	0.05 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Feb-96	540	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-97	680	0.74 U	1.7 U	0.98 U		NA	NA	NA
	Dec-97	290 J	0.94 UJ	2.2 UJ	1.2 UJ		NA	NA	NA
	Feb-99	200	0.38 U	0.38 U	0.38 U		NA	NA	NA
	Feb-00	170	0.35 U	0.35 U	0.35 U		NA	NA	NA
	Feb-04	120	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	120	0.57 U	0.57 U	0.57 U		NA	NA	NA
	Feb-06	110	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-07	120 D	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Nov-09	99 D	0.15 U	0.15 U	0.15 U		1.9 U	0.34 J	0.37 J
	Jan-12	84	0.10 U	0.10 U	0.10 U		4.7	0.50 U	1.4
	Apr-13	83 D	0.15 U	0.13 U	0.13 U		3.8 J	0.50 U	2.7 J
	Mar-14	69 D	0.15 U	0.13 U	0.13 U		3.7	0.5 U	0.56
	Mar-15	51 D	0.15 U	0.13 U	0.13 U		3.5	0.42 J	0.52 M
	Mar-16	62 D	0.15 U	0.13 U	0.13 U		3.4	4.3 J	0.40 J
	Feb-17	49 D	0.15 U	0.13 U	0.13 U		2.8	0.67 J, D	0.59
	Jan-18	60 D	0.15 U	0.13 U	0.13 U	43 D	3.4	0.50 U	0.72 M
	Apr-19	2.5 J M	0.098 U M	0.098 U	0.098 U M	27 D	0.098 U M	5.3 J M	0.73 J
A-MW58	Mar-14	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
A-MW59	Mar-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
A-MW61	Mar-14	4.3 M	0.15 U	0.13 U	0.094 J		0.32 J	0.49 J	0.45 J
	Mar-15	2.2	0.15 U	0.13 U	0.11 J		0.16 J	0.51 U	0.51 U
	Mar-16	1.9 J	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U, M
	Feb-17	3.1	0.15 U	0.13 U	0.094 J, M		0.17 J	0.50 U	0.50 U
	Mar-18	3.1	0.15 U M	0.13 U M	0.099 J M	2.4	0.17 J	0.50 U M	0.50 U M
Vashon Till Interbed Monitoring Wells									
A-MW38	Aug-97	48	0.4 U	0.92 U	0.53 U		NA	NA	NA
	Aug-11	18	1.5	0.2	0.099 U		2.0 U	2.0 U	2.0 U
	Jan-12	49 Q	3.4 J	0.2 J	0.099 U		2.0 U	0.50 U	0.091 J
	Apr-13	13	4.0	0.12 J	0.13 U		0.29 J	0.51 U	0.51 U Q
	Mar-15	15 D	9.0 J	0.18 J	0.13 U		0.38 J	0.50 U	0.50 U
	Mar-16	7.2	2.1	0.13 U	0.13 U, M		0.25 J	0.61 J	0.51 U
	Feb-17	17 D	1.5	0.13 U, M	0.13 U		0.73	1.8	0.51 U, M
	Jan-18	20 D	4.8 J	0.18 J	0.13 UJ	14 D	0.47 J	0.50 UJ	0.50 UJ
	Apr-19	16 D Q	1.5	0.18	0.099 U	12 D Q	0.53 J	0.099 U	0.2 U M
A-MW60R	Mar-15	180 D	0.15 U	0.13 U	0.13 U		8.9	1.30	2.0
	Mar-16	120 D	0.15 U	0.13 U	0.13 U		6.3	9.9 J	1.8
	Feb-17	120 D	0.15 U	0.13 U	0.13 U		5.6	1.6 J, D	1.6
	Jan-18	130 D	0.15 U	0.13 U	0.13 U	110 D	5.9	0.50 U	1.6 M
	Apr-19	99 D	0.099 U	0.099 U	0.099 U	89 D	5.6	9 J J1	2.9 M
Shallow Aquifer Monitoring Wells									
A-MW21	May-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-97	1.2 U	1.3 U	3.1 U	1.8 U		NA	NA	NA
	Dec-97	0.62 UJ	0.7 U	1.6 U	0.9 U		NA	NA	NA
A-MW28	May-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-97	0.77 U	0.86 U	2 U	1.2 U		NA	NA	NA
	Dec-97	0.46 UJ	0.52 U	1.2 U	0.7 U		NA	NA	NA
	Feb-99	1.5 U	1.5 U	1.5 U	1.5 U		NA	NA	NA
	Feb-00	1.1 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Feb-01	0.46 U	0.46 U	0.46 U	0.46 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	May-02	1.1 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Feb-03	0.44 U	0.44 U	0.44 U	0.44 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-07	0.52 U	0.52 U	0.52 U	0.52 U		NA	NA	NA
A-MW30	May-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-97	0.82 U	0.92 U	2.1 U	1.2 U		NA	NA	NA
	Dec-97	0.58 UJ	0.65 U	1.5 U	0.9 U		NA	NA	NA
	Feb-99	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-00	0.99 U	0.99 U	0.99 U	0.99 U		NA	NA	NA
	Feb-01	0.46 U	0.46 U	0.46 U	0.46 U		NA	NA	NA
	May-02	0.81 U	0.81 U	0.81 U	0.81 U		NA	NA	NA
	Feb-03	1.4 U	1.4 U	1.4 U	1.4 U		NA	NA	NA
	Feb-06	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-05	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-07	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
A-MW32	May-94	0.92	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	1.1	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.58	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-95	0.84	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	1.2	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	1.0	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-96	0.67 U	0.76 U	1.8 U	1.0 U		NA	NA	NA
	Feb-97	1.2	0.94 U	2.2 U	1.2 U		NA	NA	NA
	Aug-97	0.7	0.31 U	0.71 U	0.41 U		NA	NA	NA
	Dec-97	5.6 J	2.9 U	6.7 U	3.8 U		NA	NA	NA
	Aug-98	3.2	0.68 U	1.6 U	0.91 U		NA	NA	NA
	Feb-99	1.6	0.69 U	0.69 U	0.69 U		NA	NA	NA
	Aug-99	3.9	0.57 U	0.57 U	0.57 U		NA	NA	NA
	Feb-00	5.9	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Aug-00	3.8	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Feb-01	5.6	0.35 U	0.35 U	0.35 U		NA	NA	NA
	Jul-01	23	0.44 U	0.44 U	0.44 U		NA	NA	NA
	May-02	5.4	0.64 U	0.64 U	0.64 U		NA	NA	NA
	Aug-02	5.8	0.60 U	0.60 U	0.6 U		NA	NA	NA
	Feb-03	2.3	1.5 U	1.5 U	1.5 U		NA	NA	NA
	Sep-03	4.3	0.18 U	0.18 U	0.18 U		NA	NA	NA
	Feb-04	9.3	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	7.5	0.50 U	0.5 U	0.5 U		NA	NA	NA
	Feb-05	6.9	0.50 U	0.5 U	0.5 U		NA	NA	NA
	Aug-05	4.1	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-06	10	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	4.4	0.50 U	0.5 U	0.50 U		NA	NA	NA
	Feb-07	6.3	0.50 U	0.5 U	0.50 U		NA	NA	NA
	Aug-07	6	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	6.7	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-08	5.1	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	5.3	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Aug-10	6.3	0.096 U	0.096 U	0.096 U		1.9 U	1.9 U	1.9 U
	Aug-11	6.9	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-12	7.9	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Jul-13	5.9	0.15 U	0.13 U	0.13 U		0.11 J	0.51 U	0.51 U
	Apr-14	9.1	0.15 U	0.13 U	0.13 U		0.16 J	0.52 U	0.52 U
	Mar-15	16 D	0.15 U	0.13 U	0.13 U		0.27 J	0.50 U	0.50 U
	Mar-16	7.3	0.15 U	0.13 U	0.13 U		0.14 J	0.51 U, M	0.51 U
	Mar-17	9.0	0.15 U	0.13 U	0.13 U		0.15 J	0.51 U	0.51 U

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Jan-18	20 D	0.15 U	0.13 U	0.13 U	0.31	0.37 J	0.073 J M	0.062 J M
	Apr-19	0.37	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.08 J M	0.20 U
A-IW3	Apr-19	0.088 J M	0.10 U	0.10 U	0.10 U	0.10 U M	0.10 U	0.10 U	0.20 U
A-MW33	May-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	0.23	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.26	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-96	0.72 U	0.81 U	1.9 U	1.1 U		NA	NA	NA
	Feb-97	3.6	0.79 U	1.8 U	1.1 U		NA	NA	NA
	Aug-97	3.6	0.63 U	1.5 U	0.84 U		NA	NA	NA
	Dec-97	3.5 J	0.43 U	1 U	0.58 U		NA	NA	NA
	Aug-98	1.6	0.45 U	1.1 U	0.6 U		NA	NA	NA
	Feb-99	0.96	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-99	1.4	0.4 U	0.4 U	0.4 U		NA	NA	NA
	Feb-00	1.5 U	1.5 U	1.5 U	1.5 U		NA	NA	NA
	Aug-00	1.3	0.61 U	0.61 U	0.61 U		NA	NA	NA
	Feb-01	1.5	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Jul-01	0.36 U	0.36 U	0.36 U	0.36 U		NA	NA	NA
	May-02	0.94 U	0.94 U	0.94 U	0.94 U		NA	NA	NA
	Aug-02	0.17 U	0.17 U	0.17 U	0.17 U		NA	NA	NA
	Feb-03	0.96 U	0.96 U	0.96 U	0.96 U		NA	NA	NA
	Sep-03	0.66 U	0.66 U	0.66 U	0.66 U		NA	NA	NA
	Feb-04	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-04	0.53 U	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Feb-05	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-05	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-06	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-07	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-07	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	0.25 U	0.15 U	0.15 U	0.15 U		2 U	2 U	2 U
	Apr-14	0.32	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Apr-19	0.48	0.10 U M	0.10 U M	0.10 U M	0.20	0.10 U M	0.10 U M	0.20 U M
A-MW35	May-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-96	0.74 U	0.83 U	1.9 U	1.1 U		NA	NA	NA
	Feb-97	0.85 U	0.95 U	2.2 U	1.3 U		NA	NA	NA
	Aug-97	0.62 U	0.7 U	1.6 U	0.9 U		NA	NA	NA
	Dec-97	0.35 UJ	0.4 UJ	0.9 UJ	0.5 UJ		NA	NA	NA
	Aug-98	1 U	1.2 U	2.7 U	1.6 U		NA	NA	NA
	Feb-99	0.91 U	0.91 U	0.91 U	0.91 U		NA	NA	NA
	Aug-99	0.92 U	0.92 U	0.92 U	0.92 U		NA	NA	NA
	Feb-00	1.4 U	1.4 U	1.4 U	1.4 U		NA	NA	NA
	Aug-00	1.5 U	1.5 U	1.5 U	1.5 U		NA	NA	NA
	Feb-01	1.1 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Jul-01	0.42 U	0.42 U	0.42 U	0.42 U		NA	NA	NA
	May-02	1.6 U	1.6 U	1.6 U	1.6 U		NA	NA	NA
	Aug-02	0.31 U	0.31 U	0.31 U	0.31 U		NA	NA	NA
	Feb-03	1 U	1 U	1 U	1 U		NA	NA	NA
	Sep-03	1.4 U	1.4 U	1.4 U	1.4 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	0.50 U	0.50 U	0.50 U	0.50 U		NA	NA	NA
	Feb-05	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	0.50 U	0.50 U	0.50 U	0.50 U		NA	NA	NA
	Feb-06	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Feb-07	0.53 U	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Aug-07	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-09	0.24 U	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-19	0.10 U M	0.099 U	0.099 U M	0.099 U M	0.099 U M	0.099 U M	0.099 U M	0.20 U
A-MW44	May-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	0.19 U	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-96	0.27 J	0.23 UJ	0.55 UJ	0.31 UJ		NA	NA	NA
	Feb-97	0.74 U	0.83 U	1.9 U	1.1 U		NA	NA	NA
	Aug-97	0.58 U	0.65 U	1.5 U	0.86 U		NA	NA	NA
	Dec-97	0.83 UJ	0.94 U	2.2 U	1.2 U		NA	NA	NA
	Aug-98	1.1 U	1.2 U	2.9 U	1.7 U		NA	NA	NA
	Feb-99	0.81 U	0.81 U	0.81 U	0.81 U		NA	NA	NA
	Aug-99	0.57 U	0.57 U	0.57 U	0.57 U		NA	NA	NA
	Feb-00	0.29 U	0.29 U	0.29 U	0.29 U		NA	NA	NA
	Aug-00	0.79 U	0.79 U	0.79 U	0.79 U		NA	NA	NA
	Feb-01	0.66 U	0.66 U	0.66 U	0.66 U		NA	NA	NA
	Jul-01	0.3 U	0.3 U	0.3 U	0.3 U		NA	NA	NA
	Aug-02	0.34 U	0.34 U	0.34 U	0.34 U		NA	NA	NA
	Feb-03	1 U	1 U	1 U	1 U		NA	NA	NA
	Sep-03	0.53 U	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-05	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-06	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-06	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-07	0.52 U	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-09	0.25 U	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-19	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U
A-MW49	May-02	380	0.7 U	0.7 U	0.7 U		NA	NA	NA
	Aug-02	550	0.4 U	0.4 U	0.4 U		NA	NA	NA
	Feb-03	300	1 U	1 U	1 U		NA	NA	NA
	Sep-03	350	0.69 U	0.69 U	0.69 U		NA	NA	NA
	Feb-04	440	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	360	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	180	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-05	360	0.73	0.49 U	0.49 U		NA	NA	NA
	Feb-06	280	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	300	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Feb-07	270 D	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Aug-07	190 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	170 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-08	67 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	39 D	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Aug-10	240	0.097 U	0.097 U	0.097 U		1.33 J	0.068 J	1.9 U
	Oct-10	210	0.1 U	0.1 U	0.1 U		2 U	2 U	2 U
	Jan-11	110	0.1 U	0.1 U	0.1 U		2 U	0.06 J	0.15 J
	Apr-11	150	0.1 U	0.1 U	0.1 U		1.9 U	1.9 U	1.9 U
	Aug-11	3.5	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Oct-11	1	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Jan-12	3.7	0.10 U	0.10 U	0.10 U		2.0 U	0.51 U	0.51 U
	Apr-12	6	0.15 U	0.13 U	0.13 U		2.0 U	0.49 U	0.49 U
	Aug-12	8.6	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-13	34	0.15 U	0.13 U	0.13 U		0.17 J	0.51 U	0.51 U Q
	Jul-13	26	0.15 U	0.13 U	0.13 U		0.23 J	0.51 U	0.51 U
	Apr-14	22 D	0.15 U	0.13 U	0.13 U		0.19 J	0.51 U	0.51 U

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Mar-15	83 J D	0.15 U	0.13 U	0.13 U		0.39 J	0.51 U	0.51 U
	Mar-16	61 D	0.15 U	0.13 U	0.13 U		0.29 J	0.51 U, M	0.51 U
	Mar-17	13 D	0.15 U	0.13 U	0.13 U		0.11 J	0.51 U	0.51 U
	Jan-18	3.7	0.15 U	0.13 U	0.13 U	0.040 J	0.055 J	0.50 U	0.50 U
	Apr-19	11 D	0.10 U	0.10 U	0.10 U	1.2	0.24 J	0.10 U	0.20 U
A-MW50	May-02	1.2 U	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Aug-02	0.62 U	0.62 U	0.62 U	0.62 U		NA	NA	NA
	Feb-03	1.1 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Sep-03	1.9 U	1.9 U	1.9 U	1.9 U		NA	NA	NA
	Feb-04	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-04	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-05	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-06	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-06	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-07	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-07	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-09	0.24 U	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Aug-12	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
A-MW51	May-02	0.77 U	0.77 U	0.77 U	0.77 U		NA	NA	NA
	Aug-02	0.4 U	0.4 U	0.4 U	0.4 U		NA	NA	NA
	Feb-03	0.26 U	0.26 U	0.26 U	0.26 U		NA	NA	NA
	Sep-03	0.4 U	0.4 U	0.4 U	0.4 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-06	5 UJ	5 UJ	5 UJ	5 UJ		NA	NA	NA
	Aug-06	0.56 U	0.56 U	0.56 U	0.56 U		NA	NA	NA
	Feb-07	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-07	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-08	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-08	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	0.24 U	0.15 U	0.15 U	0.15 U		1.9 U	1.9 U	1.9 U
	Aug-10	0.096 U	0.096 U	0.096 U	0.096 U		1.9 U	1.9 U	1.9 U
	Oct-10	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Jan-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Apr-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Oct-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Jan-12	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	0.50 U	0.50 U
	Apr-12	0.15 U	0.15 U	0.13 U	0.13 U		2.0 U	0.50 U	0.50 U
	Jul-12	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Apr-13	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U Q
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.50 U	0.50 U	0.50 U
	Apr-19	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.099 U	0.20 U
A-MW52	May-02	1.10 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Aug-02	0.21 U	0.21 U	0.21 U	0.21 U		NA	NA	NA
	Feb-03	0.99 U	0.99 U	0.99 U	0.99 U		NA	NA	NA
	Sep-03	1.5 U	1.4 U	1.4 U	1.4 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-05	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-05	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Feb-06	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-06	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-07	0.53 U	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Aug-07	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-08	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	0.24 U	0.15 U	0.15 U	0.15 U		1.9 U	1.9 U	1.9 U
	Aug-10	0.096 U	0.096 U	0.096 U	0.096 U		1.9 U	1.9 U	1.9 U
	Aug-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Jul-12	0.15 U	0.15 U	0.13 U	0.13 U		0.52 U	0.52 U	0.52 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
A-MW53	May-02	0.87 U	0.87 U	0.87 U	0.87 U		NA	NA	NA
	Aug-02	0.27 U	0.27 U	0.27 U	0.27 U		NA	NA	NA
	Feb-03	0.71 U	0.71 U	0.71 U	0.71 U		NA	NA	NA
	Sep-03	0.83 U	0.83 U	0.83 U	0.83 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-05	0.51 U	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-06	0.54 U	0.54 U	0.54 U	0.54 U		NA	NA	NA
	Aug-06	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-07	0.52 U	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-08	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-08	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-09	0.25 U	0.15 U	0.15 U	0.15 U		1.9 U	1.9 U	1.9 U
	Aug-10	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-12	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.50 U	0.50 U	0.50 U
A-MW54	May-02	2.5	1 U	1 U	1 U		NA	NA	NA
	Aug-02	1.8	0.2 U	0.2 U	0.2 U		NA	NA	NA
	Feb-03	1.9	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Sep-03	2	1 U	1 U	1 U		NA	NA	NA
	Feb-04	1.7	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-04	1.5	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-05	2	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	2.3	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	2.4	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	2.3	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-07	1.7	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	1.4	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	1.1	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-08	1.1	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-09	0.65	0.15 U	0.15 U	0.15 U		2 U	2 U	2 U
	Aug-10	0.44	0.10 U	0.10 U	0.10 U		1.9 U	1.9 U	1.9 U
	Aug-11	0.38	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-12	0.31	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-14	0.73 J	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-16	0.17	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.16	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
	Apr-19	0.43	0.099 U M	0.099 U	0.099 U M	0.099 U	0.099 U M	0.099 U	0.20 U
A-MW55	May-02	0.88 U	0.88 U	0.88 U	0.88 U		NA	NA	NA
	Aug-02	0.3 U	0.3 U	0.3 U	0.3 U		NA	NA	NA
	Feb-03	0.88 U	0.88 U	0.88 U	0.88 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Sep-03	0.95 U	0.95 U	0.95 U	0.95 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-05	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-06	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-06	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-07	0.52 U	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	0.5 U	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-08	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-08	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	0.24 U	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Aug-10	0.097 U	0.10 U	0.10 U	0.10 U		1.9 U	1.9 U	1.9 U
	Aug-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-12	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.048 J	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.060 J	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
	Apr-19	0.12 J	0.10 U	0.10 U	0.10 U	0.10 U M	0.10 U	0.10 U	0.20 U
A-MW56	Nov-09	0.14 J	0.15 U	0.15 U	0.15 U		1.9 U	1.9 U	1.9 U
	Aug-10	0.10	0.098 U	0.098 U	0.098 U		2.0 U	2.0 U	2.0 U
	Oct-10	0.10 U	0.10 U	0.10 U	0.10 U		1.9 U	1.9 U	1.9 U
	Jan-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Apr-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-11	0.077 J	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Oct-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Jan-12	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	0.50 U	0.50 U
	Apr-12	0.15 U	0.15 U	0.13 U	0.13 U		2.0 U	0.50 U	0.50 U
	Aug-12	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-13	0.13 J	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U Q
	Jul-13	0.060 J	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.50 U	0.50 U	0.50 U
	Apr-19	0.099 U	0.099 U M	0.099 U	0.099 U	0.099 U M	0.099 U	0.099 U	0.20 U M
A-MW57	Nov-09	0.079 J	0.15 U	0.15 U	0.15 U		1.9 U	1.9 U	1.9 U
	Aug-10	0.097 U	0.097 U	0.097 U	0.097 U		1.9 U	1.9 U	1.9 U
	Oct-10	0.097 U	0.097 U	0.097 U	0.097 U		1.9 U	1.9 U	1.9 U
	Jan-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Apr-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Aug-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Oct-11	0.10 U	0.10 U	0.10 U	0.10 U		2.0 U	2.0 U	2.0 U
	Jan-12	0.099 U	0.099 U	0.099 U	0.099 U		2.0 U	0.50 U	0.50 U
	Apr-12	0.15 U	0.15 U	0.13 U	0.13 U		2.0 U	0.50 U	0.50 U
	Jul-12	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Apr-13	0.04 J	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U Q
	Apr-14	0.05 J	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-15	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-16	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Mar-17	0.15 U	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
	Apr-19	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U
Extraction Wells (Shallow Aquifer)									
A-EW4	Dec-97	83 J	2.2 U	5 U	2.9 U		NA	NA	NA
	Feb-98	87 J	1.9 UJ	4.4 UJ	2.5 UJ		NA	NA	NA
	Apr-98	67 J	1.7 U	3.9 U	2.3 U		NA	NA	NA
	Aug-98	30	1.8 U	4.1 U	2.4 U		NA	NA	NA
	May-99	48	1.1 U	1.1 U	1.1 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Aug-99	79	0.78 U	0.78 U	0.78 U		NA	NA	NA
	Feb-00	75	0.91 U	0.91 U	0.91 U		NA	NA	NA
	Aug-00	71	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Feb-01	67	0.58 U	0.58 U	0.58 U		NA	NA	NA
	Aug-01	52	0.39 U	0.39 U	0.39 U		NA	NA	NA
	May-02	110	0.91 U	0.91 U	0.91 U		NA	NA	NA
	Aug-02	110	0.6 U	0.6 U	0.6 U		NA	NA	NA
	Feb-03	74	0.82 U	0.82 U	0.82 U		NA	NA	NA
	Sep-03	84	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Feb-04	64	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-04	68	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	60	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	60	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	100	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Aug-06	120	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Feb-07	140 D	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	110 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-08	97 D	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-08	89 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	94 D	0.15 U	0.15 U	0.15 U		2.1	0.16 J	0.13 J
	Aug-10	90	0.1 U	0.1 U	0.1 U		1.9 U	0.16 J	1.9 U
	Sep-11	100	0.10 U	0.10 U	0.10 U		3.2	0.30 J	0.26 J
	Aug-12	110 Q	0.15 U	0.13 U	0.13 U		0.5 U	0.19 J	0.16 J
	Jul-13	130 D	0.15 U	0.13 U	0.13 U		3.7	0.34 J	0.15 J M
	Mar-14	80 D	0.15 U	0.13 U	0.13 U		2.0	0.16 J	0.083 J M
	Mar-15	73 D	0.15 U	0.13 U	0.13 U		2.1	0.19 J	0.510 U
	Mar-16	94 D	0.15 U	0.13 U	0.13 U		2.0	0.21 J, M	0.51 U
	Mar-17	34 D	0.15 U	0.13 U	0.13 U		1.6	0.28 J	0.072 J
	Jan-18	74 D	0.15 U	0.13 U	0.13 U	3.5	2.0	0.21 J	0.50 U
	Apr-19	58 D	0.099 U M	0.099 U	0.099 U	3.6	1.8	0.21 J M	0.20 U M
	Apr-19 DUP	57 D	0.099 U	0.099 U	0.099 U M	3.6	1.7	0.23 J M	0.20 U M
A-EW5	Dec-97	6.1 J	0.47 U	1.1 U	0.62 U		NA	NA	NA
	Feb-98	6.2 J	1.6 UJ	3.8 UJ	2.2 UJ		NA	NA	NA
	Apr-98	5.2 J	0.56 U	1.3 U	0.74 U		NA	NA	NA
	Aug-98	23	1.1 U	2.5 U	1.4 U		NA	NA	NA
	May-99	14	0.87 U	0.87 U	0.87 U		NA	NA	NA
	Aug-99	13	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Feb-00	16	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Aug-00	17	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-01	16	0.78 U	0.78 U	0.78 U		NA	NA	NA
	Aug-01	6.5	0.49 U	0.49 U	0.49 U		NA	NA	NA
	May-02	18	0.3 U	0.3 U	0.3 U		NA	NA	NA
	Aug-02	12	0.13 U	0.13 U	0.13 U		NA	NA	NA
	Feb-03	2	0.7 U	0.7 U	0.7 U		NA	NA	NA
	Sep-03	8.6	0.42 U	0.42 U	0.42 U		NA	NA	NA
	Feb-04	0.5 U	0.5 U	0.50 U	0.5 U		NA	NA	NA
	Aug-04	17	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	28	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	31	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-06	57	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	41	0.5 U	0.50 U	0.5 U		NA	NA	NA
	Feb-07	130 D	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-07	90 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	34	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-08	49 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	29 D	0.15 U	0.15 U	0.15 U		0.59 J	2.0 U	2.0 U
	Aug-10	34 Q	0.1 U	0.10 U	R		0.77 J	0.066 J	1.9 U
	Sep-11	18	0.10 U	0.10 U	0.10 U		0.59 J	2.0 U	2.0 U
	Aug-12	31 Q	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Jul-13	0.97	0.15 U	0.13 U	0.13 U		0.06 J	0.50 U	0.50 U
	Mar-14	25 D	0.15 U	0.13 U	0.13 U		0.59	0.51 U	0.51 U

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Mar-15	23 D	0.15 U	0.13 U	0.13 U		0.56	0.50 U	0.50 U
	Mar-15 (DUP)	21 D	0.15 U	0.13 U	0.13 U		0.54	0.50 U	0.50 U
	Mar-16	22 D	0.15 U	0.13 U	0.13 U		0.50 J	0.51 U, M	0.51 U
	Mar-16 (DUP)	23 D	0.15 U	0.13 U	0.13 U		0.52	0.51 U	0.51 U
	Mar-17	22 D	0.15 U	0.13 U	0.13 U		0.42 J	0.51 U	0.51 U
	Jan-18	19 D	0.15 U	0.13 U	0.13 U	0.20	0.47 J	0.50 U	0.50 U
	Apr-19	13 D	0.10 U	0.10 U	0.10 U	0.25	0.37 J	0.10 U	0.20 U
A-EW6	Dec-97	0.98 UJ	1.1 U	2.6 U	1.5 U		NA	NA	NA
	Feb-98	1.2 UJ	1.4 UJ	3.2 UJ	1.8 UJ		NA	NA	NA
	Apr-98	1.1 UJ	1.3 U	2.9 U	1.7 U		NA	NA	NA
	Aug-98	0.5 J	0.47 U	1.1 U	0.62 U		NA	NA	NA
	May-99	0.99 U	0.99 U	0.99 U	0.99 U		NA	NA	NA
	Aug-99	0.56 U	0.56 U	0.56 U	0.56 U		NA	NA	NA
	Feb-00	1.2 U	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Aug-00	0.99	0.46 U	0.46 U	0.46 U		NA	NA	NA
	Feb-01	0.53	0.44 U	0.44 U	0.44 U		NA	NA	NA
	Aug-01	0.95	0.57 U	0.57 U	0.57 U		NA	NA	NA
	May-02	0.42 U	0.42 U	0.42 U	0.42 U		NA	NA	NA
	Aug-02	0.4 U	0.4 U	0.4 U	0.4 U		NA	NA	NA
	Feb-03	1.3 U	1.3 U	1.3 U	1.3 U		NA	NA	NA
	Sep-03	1.1 U	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Feb-04	0.49 U	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-05	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	0.48 U	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-06	0.79	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-07	16	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	1.3	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-08	48	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-08	48 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	1 PG	0.15 U	0.15 U	0.15 U		2.0 U	2.0 U	2.0 U
	Aug-10	1.4 PG	0.098 U	0.098 U	0.098 U		2.0 U	2.0 U	2.0 U
	Sep-11	0.11	0.099 U	0.099 U	0.099 U		2.0 U	2.0 U	2.0 U
	Aug-12	1.3 PG	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Jul-13	0.71 J	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Apr-14	0.15 U	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-15	0.29	0.15 U	0.13 U	0.13 U		0.50 U	0.50 U	0.50 U
	Mar-16	0.13 J	0.15 U	0.13 U	0.13 U		0.52 U	0.52 U	0.52 U
	Mar-17	1.2	0.15 U	0.13 U	0.13 U		0.51 U	0.51 U	0.51 U
	Jan-18	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.51 U	0.51 U	0.51 U
	Apr-19	21 D	0.10 U	0.10 U M	0.10 U	4.8	0.52	0.10 U	0.20 U M
A-EW7	Dec-97	450 J	1.5 U	3.4 U	1.9 U		NA	NA	NA
	Feb-98	470 J	1.1 UJ	2.6 UJ	1.5 UJ		NA	NA	NA
	Apr-98	660 J	1.3 U	2.9 U	1.7 U		NA	NA	NA
	Aug-98	320	0.4 U	0.92 U	0.53 U		NA	NA	NA
	May-99	500	3.3 U	3.3 U	3.3 U		NA	NA	NA
	Aug-99	380	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Feb-00	300	1.6 U	1.6 U	1.6 U		NA	NA	NA
	Aug-00	290	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Feb-01	260	0.47 U	0.47 U	0.47 U		NA	NA	NA
	Aug-01	120	0.55 U	0.55 U	0.55 U		NA	NA	NA
	May-02	710	0.92 U	0.92 U	0.92 U		NA	NA	NA
	Aug-02	630	0.47 U	0.47 U	0.47 U		NA	NA	NA
	Feb-03	310	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Sep-03	480	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-04	360	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	240	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-05	210	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-05	240	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	190	0.49 U	0.49 U	0.49 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Aug-06	240	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-07	240 D	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-07	140 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	260 D	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-08	200 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-09	180 D	0.15 U	0.15 U	0.15 U		3.5	0.29 J	0.21 J
	Aug-10	300	0.098 U	0.098 U	0.098 U		5.0	0.47	2.0 U
	Sep-11	300	0.10 U	0.10 U	0.10 U		6.90	0.56 J	0.40 J
	Aug-12	170	0.15 U	0.13 U	0.13 U		0.49 U	0.32 J	0.28 J
	Aug-13	200 D	0.16 U	0.13 U	0.13 U		4.40	0.52 U	0.25 J
	Apr-14	110 D	0.15 U	0.13 U	0.13 U		2.40	0.51 U	0.19 J
	Mar-15	90 D	0.15 U	0.13 U	0.13 U		2.10	0.17 J	0.50 U
	Mar-16	140 D	0.15 U	0.13 U	0.13 U		2.7	1.2 J	0.51 U
	Mar-17	44 D	0.15 U	0.13 U	0.13 U		1.6	0.73 J	0.070 J, M
	Jan-18	88 D	0.15 U	0.13 U	0.13 U	19 D	1.8	0.50 U	0.50 U
	Apr-19	89 D	0.099 U	0.099 U	0.099 U	18 D	8.6	4.6	4.1
A-EW8	Dec-97	110 J	0.59 U	1.4 U	0.79 U		NA	NA	NA
	Feb-98	240 J	1.6 UJ	3.8 UJ	2.2 UJ		NA	NA	NA
	Apr-98	110 J	1.2 U	2.8 U	1.6 U		NA	NA	NA
	Aug-98	270	0.86 U	2 U	1.2 U		NA	NA	NA
	Aug-99	160	1.7 U	1.7 U	1.7 U		NA	NA	NA
	Feb-00	120	1.1 U	1.1 U	1.1 U		NA	NA	NA
	Aug-00	160	0.73 U	0.73 U	0.73 U		NA	NA	NA
	Feb-01	68	0.34 U	0.34 U	0.34 U		NA	NA	NA
	Aug-01	110	0.53 U	0.53 U	0.53 U		NA	NA	NA
	May-02	120	1.3 U	1.3 U	1.3 U		NA	NA	NA
	Aug-02	150	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Feb-03	75	1 U	1 U	1 U		NA	NA	NA
	Sep-03	120	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Feb-04	320	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	170	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	110	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-05	160	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	120	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-06	250	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-07	240 D	0.52 U	0.52 U	0.52 U		NA	NA	NA
	Aug-07	140 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-08	240 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-08	230 D	0.17 J	0.49 U	0.49 U		NA	NA	NA
	Aug-09	81 D	0.15 U	0.15 U	0.15 U		1.6 J	0.12 J	0.073 J
	Aug-10	120	0.097	0.097	0.097		2.7	0.22 J	1.9 U
	Sep-11	220	0.10 U	0.10 U	0.10 U		5.3	0.44 J	0.33 J
	Aug-12	91 Q	0.15 U	0.13 U	0.13 U		0.50 U	0.14 J	0.10 J
	Jul-13	66 D	0.15 U	0.13 U	0.13 U		1.4	0.5 U	0.50 U
	Mar-14	120 D	0.15 U	0.13 U	0.13 U		2.7	0.73 J	0.10 J
	Mar-15	58 D	0.15 U	0.13 U	0.13 U		1.3	0.1 J	0.08 J M
	Mar-16	170 D	0.15 U	0.13 U	0.13 U		4.9	5.6 J	0.52 U, M
	Mar-17	39 D	0.15 U	0.13 U	0.13 U		1.4	0.47 J	0.061 J, M
	Mar-17 (Dup)	39 D	0.15 U	0.13 U	0.13 U		1.4	0.47 J	0.060 J, M
	Jan-18	81 D	0.15 U	0.13 U	0.13 U	2.8	1.5	0.10 J M	0.50 U
	Jan-18 (Dup)	81 D	0.15 U	0.13 U	0.13 U	5.7	1.5	0.10 J M	0.50 U
	Apr-19	42 D	0.10 U M	0.10 U M	0.10 U	7.4	0.75	0.10 U	0.20 U M
A-MW37	Apr-94	140	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	190	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	180	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-95	190	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	220	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	210	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-96	99 J	0.34 UJ	0.8 UJ	0.46 UJ		NA	NA	NA
	Feb-97	120	1.4 U	3.3 U	1.9 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Aug-97	120	1.1 U	2.6 U	1.5 U		NA	NA	NA
	Dec-97	160 J	2.2 U	5 U	2.9 U		NA	NA	NA
	Feb-98	130 J	1.7 UJ	3.9 UJ	2.3 UJ		NA	NA	NA
	Apr-98	220 J	0.81 U	1.9 U	1.1 U		NA	NA	NA
	Aug-98	200	1.7 U	3.9 U	2.2 U		NA	NA	NA
	May-99	130	1.4 U	1.4 U	1.4 U		NA	NA	NA
	Aug-99	180	0.64 U	0.64 U	0.64 U		NA	NA	NA
	Feb-00	170	1.2 U	1.2 U	1.2 U		NA	NA	NA
	Aug-00	130	0.92 U	0.92 U	0.92 U		NA	NA	NA
	Feb-01	120	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Jul-01	150	0.79 U	0.79 U	0.79 U		NA	NA	NA
	May-02	150	1.3 U	1.3 U	1.3 U		NA	NA	NA
	Aug-02	180	0.25 U	0.25 U	0.25 U		NA	NA	NA
	Feb-03	120	2.2	1.3 U	1.3 U		NA	NA	NA
	Sep-03	160	1.9 U	1.9 U	1.9 U		NA	NA	NA
	Feb-04	130	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-04	140	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-05	140	0.81	0.49 U	0.49 U		NA	NA	NA
	Aug-05	160	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	120	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	140	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-07	160 D	0.53 U	0.53 U	0.53 U		NA	NA	NA
	Aug-07	120 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-08	120 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Aug-08	130 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-09	130 D	0.15 U	0.15 U	0.15 U		0.17 J	0.1 J	0.094 J
	Aug-10	84	0.1 U	0.1 U	0.1 U		1.2 J	0.11 J	2.0 U
	Sep-11	71	0.1 U	0.1 U	0.1 U		1 J	0.74 J	2.0 U
	Aug-12	64	0.15 U	0.13 U	0.13 U		0.99	0.50 U	0.12 J PG
	Jul-13	110 D	0.12 J	0.13 U	0.13 U		2.1	0.42 J M	0.31 J
	Mar-14	62 D	0.19	0.13 U	0.13 U		1.1	1.00 J	0.52 U
	Mar-15	76 D	0.92	0.13 U	0.13 U		1.5	0.49 U	0.49 U
	Mar-15 (DUP)	72 D	0.88	0.13 U	0.13 U		1.5	0.13 J	0.51 U
	Mar-16	28 D	1.0 J	0.13 UJ, M	1.3 U		1.4 J	0.51 UJ	0.51 UJ
	Mar-16 (DUP)	27 D	0.96 J	0.13 UJ, M	0.66 U		0.95 J, M	0.51 UJ	0.51 UJ
	Mar-17	20 D	0.61 J	0.13 U	0.13 U		0.75 J, M	0.51 U	0.51 U
	Jan-18	44 D	0.23	0.13 U	0.13 U	25 D	0.82	0.51 U	0.51 U
	Apr-19	31 D	0.099 U	0.099 U	0.099 U	23 D	0.099 U	0.94 J	0.20 U
A-MW46	Apr-94	120	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-94	170	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Nov-94	160	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-95	170	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-95	170	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Feb-96	200	0.65 U	0.05 U	0.05 U		NA	NA	NA
	Aug-96	180	0.56 U	1.3 U	0.74 U		NA	NA	NA
	Feb-97	180	1.3 U	3 U	1.7 U		NA	NA	NA
	Apr-97	190	1.3 U	3.1 U	1.8 U		NA	NA	NA
	May-97	180	1.3 U	3.1 U	1.8 U		NA	NA	NA
	May-97	140	0.74 U	1.7 U	0.98 U		NA	NA	NA
	May-97	150	0.92 U	2.1 U	1.2 U		NA	NA	NA
	Jun-97	150	1.1 U	2.6 U	1.5 U		NA	NA	NA
	Jul-97	140	0.74 U	1.7 U	0.98 U		NA	NA	NA
	Jul-97	140	0.77 U	1.8 U	1 U		NA	NA	NA
	Aug-97	120	0.94 U	2.2 U	1.2 U		NA	NA	NA
	Aug-97	120	0.83 U	2.1 U	1.2 U		NA	NA	NA
	Dec-97	140 J	2.5 U	5.9 U	3.4 U		NA	NA	NA
	Feb-98	120 J	1.9 UJ	4.4 UJ	2.5 UJ		NA	NA	NA
	Apr-98	200 J	1.3 U	3.1 U	1.8 U		NA	NA	NA
	Aug-98	170	0.52 U	1.2 U	0.7 U		NA	NA	NA
	Feb-00	130	1 U	1 U	1 U		NA	NA	NA

Table C1-1. Summary of Groundwater Quality Data for Site A Through April 2019

Well No.	Sample Date	RDX (µg/L)	TNT (µg/L)	2,6-DNT (µg/L)	2,4-DNT (µg/L)	HMX (µg/L)	MNX (µg/L)	DNX (µg/L)	TNX (µg/L)
Groundwater Cleanup Levels		**0.8**	**2.9**	**0.13**	**0.13**	**NS**	**NS**	**NS**	**NS**
	Aug-00	160	0.7 U	0.7 U	0.7 U		NA	NA	NA
	Feb-01	150	0.75 U	0.75 U	0.75 U		NA	NA	NA
	Apr-01	160	2.5 U	2.5 U	2.5 U		NA	NA	NA
	Jul-01	140	0.6 U	0.6 U	0.6 U		NA	NA	NA
	May-02	160	0.4 U	0.4 U	0.4 U		NA	NA	NA
	May-02	180	0.81 U	0.81 U	0.81 U		NA	NA	NA
	Aug-02	170	0.27 U	0.27 U	0.27 U		NA	NA	NA
	Feb-03	160	0.27 U	0.27 U	0.27 U		NA	NA	NA
	Sep-03	130	1.3 U	1.3 U	1.3 U		NA	NA	NA
	Feb-04	160	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-04	110	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Feb-05	130	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-05	150	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Feb-06	110	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-06	120	0.49 U	0.4 J	0.49 U		NA	NA	NA
	Feb-07	120 D	0.51 U	0.51 U	0.51 U		NA	NA	NA
	Aug-07	95 D	0.5 U	0.5 U	0.5 U		NA	NA	NA
	Feb-08	96 D	0.49 U	0.49 U	0.49 U		NA	NA	NA
	Aug-08	79 D	0.48 U	0.48 U	0.48 U		NA	NA	NA
	Aug-09	80 D	0.15 U	0.15 U	0.15 U		1.1 J	0.072 J	0.097 J
	Aug-10	100	0.10 U	0.097 U	0.097 U		1.4 J	0.12 J	0.11 J
	Sep-11	75	0.10 U	0.10 U	0.10 U		1.3 J	0.12 J	0.073 J PG
	Aug-12	73	0.15 U	0.13 U	0.13 U		1.4	0.17 J	0.21 J PG
	Jul-13	73 D	0.15 U	0.13 U	0.13 U		1.4	0.50 U	0.16 J
	Mar-14	59 D	0.15 U	0.13 U	0.13 U		0.9	0.57 J	0.09 J M
	Mar-15	57 D	0.15 U	0.13 U	0.13 U		1.3	0.13 J	0.12 J M
	Mar-16	55 D	0.15 U	0.082 J	0.13 U		0.92	0.97 J	0.11 J, M
	Mar-17	48 D	0.15 U	0.085 J	0.13 U		0.82 M	0.51 U	0.11 J, M
	Jan-18	51 D	0.15 U	0.13 U	0.13 U	20 D	0.77	0.50 U	0.087 J M
	Apr-19	36 D	0.099 U	0.099 U	0.099 U	16 D	0.62	0.59 J J1	0.20 U

Notes:

Shallow aquifer monitoring wells A-MW37 and A-MW46 are currently used as extraction wells, however pumps failed April 2015 and were removed from the wells.

µg/L - micrograms per liter
D – Sample was diluted and reanalyzed.
DUP – Duplicate sample
DNT – dinitrotoluene
DNX - hexahydro-1,3-dinitroso-5-nitro-1,3,5-triazine
E – The reporting value is estimated because of the interference. The serial dilution was not within control limits.
HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
J – estimated value
M – A manual integration was performed on the chromatographic peak.
MNX – hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
NA – Not Analyzed
NS – no cleanup standard available
PG – The percent difference between the original and confirmation analyses was greater than 40 percent.
R - The result was rejected
RDX – hexahydro-1,3,5-trinitro-1,3,5-triazine
TNT – 2,4,6-trinitrotoluene
TNX – hexahydro-1,3,5-trinitroso-1,3,5-triazine
Q – The quantitative limit is elevated due to high analyte values.
U – The compound is not detected at or above the quantitation limit.
UJ – The compound is not detected at or above the estimated quantitation limit.
Highlighted data are for current reporting period .

Aug-06 Extraction well data highlighted in blue for August 2006 through August 2008 are not applied to trend analysis due to improper isolation of wells for sampling.

Table C1-2. Summary of Field Parameters and Natural Attenuation Parameters by Well

Well ID	Well Type/Aquifer Depth Interval		Sample ID	Sample Date	Field Parameters						Natural Attenuation Parameters [3/]								
					pH	Dissolved Oxygen - Meter (mg/L) [1/]	Dissolved Oxygen - Test Kit (mg/L) [2/]	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (µg/L)	Ethane (µg/L)	Ethene (µg/L)	Nitrate-Nitrite (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DOC (mg/L)	Dissolved Manganese (µg/L)
A-MW46	Extraction		SITE-A-09-306	8/5/2009	7.04	4.55	NA	243	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-300	8/11/2010	7.11	10.24 [4/]	NA	263	0.00	0.00	0.32 J	0.60 U	1.0 U	0.81 J	91.2	2.59	6.06	0.54	5.0 U
			SITE-A-11-300	8/3/2011	6.10	12.55 [4/]	NA	291	0.32 [5/]	0.10 [5/]	1.3 U	NA	NA	0.881	104	2.49	4.5	1.06	7.6 UJ
			SITE-A-12-300	8/7/2012	6.67	6.12	NA	145	0.00	0.01	1.3 U	NA	NA	0.69 J	107	2.06	4.40	0.60	5.0 UJ
			SITE-A-13-300	7/24/2013	7.61	13.89 [3/]	NA	176	0.00	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-200	3/26/2014	7.48	6.27	NA	281	0.00	0.00	1.3 U	NA	NA	0.50	99	2.69	5.77	0.56	0.50 J
			SITE-A-15-201	3/26/2015	6.72	11.78	NA	126	0.00	0.02	1.3 U	NA	NA	0.75	96	2 J	4.07	1.02	0.30 J
			SITE-A-16-200	3/23/2016	5.74	5.70	NA	266	0.07	0.12	1.2 J	NA	NA	0.71	79	2.15	3.84	1.89	1.2
			SITE-A-17-200	3/2/2017	6.96	3.84	NA	120	0.02	0.01	0.42 J	NA	NA	0.82	82	1.97	3.52 J	1.71	0.9 J
			SITE-A-18-200	1/10/2018	7.51	5.04	NA	139	0.00	0.00	6.0 U	NA	NA	0.66	84.3	3.5 J	6.4	2.5 J	0.0027 J
			SITE-A-19-200	4/4/2019	6.57	4.31	NA	134	0.0	0.0	2.0 U	NA	NA	0.60	84	2.7	5.6	0.85 J	0.005 U
A-MW47	Mon-Perched		SITE-A-11-301	8/3/2011	5.23	7.4	NA	169	0.03 [5/]	0.00 [5/]	1.50	NA	NA	0.781	40.4	2.49	4.85	1.11	5.0 UJ
			SITE-A-12-100	1/26/2012	7.27	6.57	NA	167	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-204	4/10/2013	5.78	1.49	NA	386	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-201	3/26/2014	5.86	5.05	NA	315	0.00	0.00	1.3 U	NA	NA	0.81	64	2.57	5.06	0.79	1.60
			SITE-A-15-202	3/26/2015	5.89	2.84	NA	164	0.00	0.03	0.36 J	NA	NA	1.6 D	57	1.81 J	3.82	1.38	0.90 J
			SITE-A-16-202	3/21/2016	5.73	2.14	NA	128	0.03	0.03	0.86 J	NA	NA	1.6 D	46	2.26	4.38	3.39	4.1
			SITE-A-17-201	3/2/2017	6.01	5.05	NA	243	0.01	0.00	0.71 J	NA	NA	0.89	46	2.33	4.16 J	1.26	1.7
		DUP	SITE-A-17-202	3/2/2017	6.01	5.05	NA	243	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-201	1/16/2018	5.73	8.30	NA	285	0.00	0.01	6.0 U	NA	NA	0.70	44.3	3.1	5.1	0.94 J	0.010 U
		DUP	SITE-A-18-202	1/16/2018	5.73	8.30	NA	285	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-201	4/23/2019	6.29	7.58	NA	149.9	NA	NA	2 UJ	NA	NA	0.66	45	2.6	4.2	0.83 J	0.005 U
A-MW34	Mon-Perched		SITE-A-09-406	11/30/2009	5.48	7.28	NA	236	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-101	1/27/2012	6.95	7.01	NA	257	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-201	4/9/2013	6.62	7.12	NA	404	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-203	4/3/2014	5.52	8.37	NA	367	0.00	0.00	NA	NA	NA	4.6 D	29 UJ	0.66	0.69	0.49 J	0.80 J
			SITE-A-15-203	3/24/2015	5.78	7.63	NA	289	0.09	0.01	1.3 U	NA	NA	12 D	23 UJ	0.63 J	0.42	0.6 UJ	0.90 J
			SITE-A-16-203	3/21/2016	5.75	7.67	NA	257	0.00	0.01	1.3 U	NA	NA	9.8 D	21 U	0.73	0.61	0.75	1.0
			SITE-A-17-203	2/27/2017	5.88	9.57	NA	285	0.02	0.01	1.3 U	NA	NA	3.5 D	24 UJ	0.67	0.78	0.53	0.6 J
			SITE-A-18-203	1/5/2018	5.33	9.14	NA	297	0.01	0.02	6.0 U	NA	NA	1.6	27.9	1.7 J	2.5 J	0.71 J	0.010 U
A-MW35	Mon-Shallow		SITE-A-09-310	8/4/2009	7.28	2.69	NA	7	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-202	4/3/2014	7.50	11.39	NA	60	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-202	4/17/2019	7.40	0.00	0.728	116	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW36 [9/]	Mon-Perched		SITE-A-12-205	4/10/2012	6.39	5.66	NA	177	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-202	4/10/2013	5.85	2.92	NA	408	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-204	3/25/2015	5.82	5.98	NA	185	0.01	0.00	0.44 J	NA	NA	1.1	88	1.7 J	3.77	2.65	0.3 J
			SITE-A-16-204	3/22/2016	5.97	2.41	NA	196	0.00	0.00	1.3 U	NA	NA	1.3 D	88	2.11	3.97	4.52	0.3 J
			SITE-A-17-204	2/27/2017	6.02	3.44	NA	195	0.01	0.00	1.3 U	NA	NA	0.66	71	2.27	4.40	1.26	0.08 J
			SITE-A-18-204	1/16/2018	5.58	5.91	NA	240	0.04	0.00	6 U	NA	NA	0.59	59.9	2.8	3.9 J	1.6	0.010 U
			SITE-A-19-203-1	4/3/2019	7.32	10.11	NA	880	0.00	0.01	2.0 U	NA	NA	0.95	54	1.8	1.9	0.82 J	0.005 U
A-MW37	Extraction		SITE-A-09-305	8/6/2009	7.45	2.41	NA	276	0.08	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-301	8/11/2010	7.17	16.6 [4/]	NA	269	0.00	0.00	0.42 J	0.60 U	1.0 U	0.72 J	112	2.80	5.23	1.90	5.0 U
			SITE-A-11-303	8/3/2011	6.01	7.73	NA	223	0.00	0.00	1.3 U	NA	NA	0.65	140	2.69	5.45	0.62 UJ	5.0 UJ
			SITE-A-12-301	8/6/2012	6.19	9.32 [4/]	NA	154	0.00	0.01	1.3 U	NA	NA	0.57 J	124	2.32	5.37	0.35 J	8.0
			SITE-A-13-301	7/24/2013	7.40	12.16 [3/]	NA	184	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-205	3/26/2014	6.42	15.40	NA	386	0.00	0.01	1.3 U	NA	NA	0.57	151	2.59	5.45	0.56	0.30 J
			SITE-A-15-205	3/26/2015	7.88	13.87	NA	125	0.00	0.01	1.3 U	NA	NA	1	137	1.74 J	4.37	1.17	0.50 J
		Dup	SITE-A-15-206	3/26/2015	7.88	13.87	NA	125	0.00	0.01	NA	NA	NA	1	137	2.12	4.78	1.19	1.10
			SITE-A-16-205	3/23/2016	6.03	4.11	NA	202	0.15	0.07	1.3 U	NA	NA	0.15	22 U	0.11 J	2.01	4.27	14.6
			SITE-A-17-205	3/2/2017	5.66	0.93	1.055	154	0.16	0.02	0.63 J	NA	NA	0.11	22 UJ	0.44	1.00 J	3.29	16.7
			SITE-A-18-205	1/10/2018	6.59	4.20	NA	155	0.00	0.00	6 U	NA	NA	1.1	109	3.9 J	6.7	1.2	0.015
			SITE-A-19-204-1	4/2/2019	6.94	4.98	NA	110	0.02	0.01	2.0 U	NA	NA	0.51	110	2.7	5	0.79 J	0.0084 J
A-MW38	Vashon Till Interbed		SITE-A-11-319	8/3/2011	5.10	3.13	NA	317	0.615/	0.455/	1.3 U	NA	NA	1.02	40	2.32	3.10	0.73	5.0 UJ
			SITE-A-12-103	1/26/2012	6.85	4.04	NA	228	0.148/	0.138/	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-203	4/10/2013	5.63	1.86	NA	430	0.14	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-207	3/25/2015	5.78	2.06	NA	272	0.31	0.14	1.3 U	NA	NA	0.94	56	1.39 J	2.43	1.21	18.8
			SITE-A-16-207	3/22/2016	5.88	1.6	NA	137	0.21	0.08	0.43 J	NA	NA	1.1	58	1.77	3.48	1.80	7.2
			SITE-A-17-206	2/27/2017	5.90	2.2	NA	162	0.07	0.02	1.3 U	NA	NA	1.4	66	1.95	3.26	0.87	5.2
			SITE-A-18-206	1/16/2018	5.48	4.0	NA	145	0.28	0.12	6 U	NA	NA	1.6	38.4	2.4	4.2 J	1.4	0.013
			SITE-A-19-206	4/19/2019	5.70	2.4	NA	168.9	0.22	0.8	NA	NA	NA	0.26	40	2.3	4.9	2.3	0.2

Table C1-2. Summary of Field Parameters and Natural Attenuation Parameters by Well

					Field Parameters					Natural Attenuation Parameters [3/]								
Well ID	Well Type/Aquifer Depth Interval		Sample ID	Sample Date	pH	Dissolved Oxygen - Meter (mg/L) [1/]	Dissolved Oxygen - Test Kit (mg/L) [2/]	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (µg/L)	Ethane (µg/L)	Ethene (µg/L)	Nitrate-Nitrite (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DOC (mg/L)	Dissolved Manganese (µg/L)
A-EW4	Extraction		SITE-A-09-300	8/5/2009	6.92	4.84	NA	276	0.03	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-302	8/10/2010	7.39	8.1 [4/]	NA	182	0.01	0.01	0.30 J	0.60 U	1.0 U	0.75 J	161	2.63	5.38	0.66	3.3 J
			SITE-A-11-304	8/2/2011	5.93	8.01 [4/]	NA	325	0.00	0.01	1.3 U	NA	NA	0.655	131	2.62	5.69	0.62 UJ	5.0 U
			SITE-A-11-304b [6/]	9/22/2011	6.51	7.62	NA	174	0.00	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-302	8/3/2012	6.06	5.97	NA	166	0.00	0.00	1.3 U	NA	NA	0.52 J	147	2.06	5.75	0.97	4.2 J
			SITE-A-13-302	7/24/2013	6.57	5.66	NA	242	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-207	3/19/2014	6.20	8.56	NA	355	0.00	0.01	1.3 U	NA	NA	0.56	183	2.48	7.54	0.39 J	23.1
		Dup	SITE-A-14-208	3/19/2014	6.20	8.56	NA	355	0.00	0.01	1.3 U	NA	NA	0.58	189	2.43	7.40	0.43 J	14.7
			SITE-A-15-208	3/26/2015	7.43	6.84	NA	143	0.00	0.00	1.3 U	NA	NA	0.67	167	2.42	6.69	0.61	14.6
			SITE-A-16-208	3/23/2016	7.04	6.42	NA	235	0.00	0.00	1.3 U	NA	NA	0.64	168	2.38	7.35	0.96	5.8
			SITE-A-17-207	3/3/2017	7.11	9.58	NA	188	0.00	0.02	1.3 U	NA	NA	0.55	168	2.27	7.61 J	1.02	0.4 J
			SITE-A-18-207	1/14/2018	7.45	8.75	NA	176	0.00	0.04	6 U	NA	NA	0.67	170	3.8	8.2	1.2	0.0050 J
			SITE-A-18-208	4/4/2019	7.69	14.50	NA	120	0.0	0.01	2.0 U	NA	NA	0.61	180	2.2	7.5	1.0	0.0056 J
		Dup	SITE-A-19-209	4/4/2019	7.69	14.50	NA	120	0.00	0.01	2.0 U	NA	NA	0.61	180	2.2	7.6	1.1	0.0056 J
A-EW5	Extraction		SITE-A-09-301	8/5/2009	6.69	5.62	NA	242	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-303	8/10/2010	7.27	4.8	NA	131	0.00	0.04	0.31 J	0.60 U	1.0 U	0.078 J	174	2.61	13.20	0.65	40.4
			SITE-A-11-305	8/2/2011	6.33	7.08	NA	320	0.00	0.01	0.34 J	NA	NA	0.671	121	2.68	5.57	1.09	5.0 U
			SITE-A-11-305b [6/]	9/22/2011	5.82	4.06	NA	158	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-303	8/3/2012	6.34	7.27	NA	182	0.00	0.01	1.3 U	NA	NA	0.066 J	189	2.39	8.80	0.63	17.5
			SITE-A-13-303	7/24/2013	6.90	4.64	NA	219	0.00	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-209	3/19/2014	7.42	9.67	NA	255	0.00	0.00	1.3 U	NA	NA	0.085	199	2.62	9.23	0.33 J	31.0
			SITE-A-15-209	3/26/2015	7.39	8.63	NA	103	0.00	0.01	1.3 U	NA	NA	0.072	189	2.75	8.84	0.54	2.5
		Dup	SITE-A-15-210	3/26/2015	7.39	8.63	NA	103	0.00	0.01	1.3 U	NA	NA	0.069	193	2.73	9.04	0.57	3.8
			SITE-A-16-209	3/22/2016	7.33	8.11	NA	159	0.00	0.01	1.3 U	NA	NA	0.039 J	182	2.66	8.37	2.21	15.5
		Dup	SITE-A-16-210	3/22/2016	7.33	8.11	NA	159	0.00	0.01	1.3 U	NA	NA	0.042 J	149	2.66	8.35	0.89	15.6
			SITE-A-17-208	3/3/2017	7.43	5.33	NA	116	0.03	0.01	1.3 U	NA	NA	0.041 J	180	2.47	7.86 J	0.68	7.2
			SITE-A-18-208	1/4/2018	7.66	11.30	NA	137	0.08	0.01	6 U	NA	NA	0.044 J	184	4.2	8.9	0.84 J	0.018
			SITE-A-19-210	4/19/2019	7.39	20.08	NA	75.9	0.00	0.07	NA	NA	NA	0.024 J	190	2.8	8.4	1.0	0.0036 J
A-EW6	Extraction		SITE-A-09-302	8/5/2009	7.21	3.79	NA	245	0.04	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-304	8/10/2010	7.71	3.4	NA	224	0.00	0.01	1.3 U	0.60 U	1.0 U	0.05 UJ	152	2.49	11.90	0.63	54.3
			SITE-A-11-306	8/2/2011	6.38	9.01 [4/]	NA	323	0.00	0.00	1.3 U	NA	NA	0.731	130	2.64	5.68	1.18	113
			SITE-A-11-306b [6/]	9/22/2011	6.92	1.94	NA	96	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-304	8/3/2012	6.78	0.5	0.895	175	0.00	0.00	1.3 U	NA	NA	0.050 UJ	149	2.05	9.78	0.32 J	114
		(Dup)	SITE-A-12-305	8/3/2012	6.78	0.5	0.895	175	0.00	0.00	1.3 U	NA	NA	0.0073 J	171	2.05	9.72	0.33 J	112
			SITE-A-13-304	7/24/2013	6.98	4.24	NA	220	0.00	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-210	4/17/2014	6.61	6.61	NA	201	0.17	0.00	1.3 U	NA	NA	0.071 UJ	132	1.84	11.6	0.73	1.40
			SITE-A-15-211	3/30/2015	6.41	12.65	NA	173	0.16	0.00	1.3 U	NA	NA	0.1	155	1.97	10.9	0.88	0.80 J
			SITE-A-16-211	3/22/2016	7.32	2.94	NA	80	0.07	0.19	1.3 U	NA	NA	0.042 J	126	1.81	6.55	0.93	1.8
			SITE-A-17-209	3/3/2017	7.87	10.02	NA	156	0.00	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-209	1/4/2018	7.25	12.25	NA	191	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-211	4/24/2019	7.31	4.40	NA	63.8	0.05	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-EW7	Extraction		SITE-A-09-303	8/4/2009	7.62	5.88	NA	290	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-305	8/11/2010	6.74	8.8 [4/]	NA	321	0.00	0.04	1.3 U	0.60 U	1.0 U	0.27 J	156	2.29	7.47	0.97	5.0 UJ
			SITE-A-11-307	8/2/2011	6.51	12.21 [4/]	NA	310	0.00	0.02	0.56 J	NA	NA	0.407	157	2.52	8.3	0.65 UJ	5.1 UJ
			SITE-A-11-307b [6/]	9/22/2011	6.26	7.47	NA	172	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-306	8/1/2012	7.42	6.08	NA	175	0.00	0.01	1.3 U	NA	NA	0.069 J	148	1.60	7.95	0.27 J	1.1 J
			SITE-A-13-305	8/27/2013	6.81	7.58	NA	302	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-211	4/17/2014	6.66	7.40	NA	251	0.01	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-213	3/30/2015	6.84	10.10	NA	181	0.01	0.00	1.3 U	NA	NA	0.18	156	2.19	8.55	0.55	19.5
			SITE-A-16-213	3/21/2016	6.94	9.46	NA	221	0.03	0.00	1.3 U	NA	NA	0.28	149	2.13	8.04	0.83	3.6
			SITE-A-17-211	3/3/2017	7.23	4.30	NA	204	0.00	0.01	1.3 U	NA	NA	0.28	153	2.00	7.92 J	0.58	14.6
			SITE-A-18-211	1/8/2018	7.13	6.94	NA	197	0.12	0.00	6 U	NA	NA	0.17	149	3.7	9.0	0.79 J	0.010 U
			SITE-A-19-212	4/16/2019	6.80	0.16	0.478	-77.8	0.91	0.41	3.5 J	NA	NA	0.011 J	260	2.2	7.2	6.9	1.3

Table C1-2. Summary of Field Parameters and Natural Attenuation Parameters by Well

				Field Parameters						Natural Attenuation Parameters [3/]								
Well ID	Well Type/Aquifer Depth Interval		Sample ID	Sample Date	pH	Dissolved Oxygen - Meter (mg/L) [1/]	Dissolved Oxygen - Test Kit (mg/L) [2/]	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (µg/L)	Ethane (µg/L)	Ethene (µg/L)	Nitrate-Nitrite (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DOC (mg/L)	Dissolved Manganese (µg/L)
A-EW8	Extraction		SITE-A-09-304	8/4/2009	7.77	5.39	NA	261	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-306	8/10/2010	7.61	3.7	NA	204	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-308	8/2/2011	6.44	7.21	NA	290	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-308b [6/]	9/22/2011	6.33	6.96	NA	178	0.00	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-307	8/1/2012	7.57	4.04	NA	172	0.00	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-307	7/24/2013	7.19	4.22	NA	201	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-212	3/19/2014	7.89	5.00	NA	309	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-215	3/30/2015	7.07	12.19	NA	180	0.04	0.00	1.3 U	NA	NA	0.66	128	2.56	8.67	1.01	16.3
			SITE-A-16-215	3/22/2016	7.06	3.86	NA	101	0.03	0.02	0.36 J	NA	NA	0.36	118	2.35	6.31	1.06	2.2
			SITE-A-17-213	3/3/2017	7.57	2.33	NA	203	0.00	0.02	1.3 U	NA	NA	0.70	134	2.30	8.03 J	0.55	3.7
		Dup	SITE-A-17-214	3/3/2017	7.57	2.33	NA	203	0.00	0.02	1.3 U	NA	NA	0.70	132	2.33	8.04 J	0.48 J	3.7
			SITE-A-18-213	1/4/2018	7.73	5.17	NA	161	0.00	0.06	6 U	NA	NA	0.69	146	3.5	9.6	0.96 J	0.0059 J
		Dup	SITE-A-18-214	1/4/2018	7.73	5.17	NA	161	0.00	0.06	6 U	NA	NA	0.67	146	3.3	9.8	0.57 J	0.0062 J
			SITE-A-19-214	4/24/2019	7.27	1.05	NA	29	0.00	0.00	2.0 U	NA	NA	1.2	110	2.7	5.7	0.90 U	0.005 U
A-MW33	Mon-Shallow		SITE-A-09-308	8/4/2009	7.68	4.77	NA	320	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-213	4/8/2014	7.4	7.82	NA	324	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-205	4/17/2019	7.65	6.63	NA	196	0.32	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW48	Mon-Perched		SITE-A-09-403	11/30/2009	5.97	7.61	NA	358	0	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-104	1/26/2012	6.65	7.31	NA	230	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-205	4/9/2013	6.24	7.85	NA	388	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-214	3/24/2014	5.67	8.29	NA	410	0.13	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-217	3/24/2015	6.24	8.73	NA	220	0.09	0.06	1.3 U	NA	NA	1.2	36	2 J	1.67	0.72	2
			SITE-A-16-217	3/23/2016	5.80	5.20	NA	251	0.00	0.01	1.3 U	NA	NA	0.70	30 U	1.86	1.97	1.05	0.6 J
			SITE-A-17-215	2/27/2017	6.06	11.48	NA	287	0.05	0.06	1.3 U	NA	NA	0.23	31	2.15	1.75	0.75	0.3 J
			SITE-A-18-215	1/11/2018	6.33	8.80	NA	217	0.00	0.04	6 U	NA	NA	0.56	29.9	3.3	3.7 J	0.77 J	0.010 U
			SITE-A-19-215	4/3/2019	7.25	3.54	NA	27	3.30	0.08	3.8 J	NA	NA	0.004 J	300	11 M	0.25 J	247	12
A-MW54	Mon-Shallow		SITE-A-09-317	8/3/2009	7.45	5.77	NA	299	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-307	8/9/2010	7.27	6.7	NA	242	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-309	8/1/2011	7.11	6.63	NA	306	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-308	8/6/2012	7.20	3.74	NA	172	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-215	4/17/2014	7.55	4.83	NA	311	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-218	3/23/2015	7.43	4.28	NA	143	0.01	0.02	NA	NA	NA	1.1	198	3.17 J	2.91	0.84	1 U
			SITE-A-16-218	3/21/2016	6.65	3.65	NA	112	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-216	3/1/2017	7.35	3.79	NA	172	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-216	1/10/2018	6.84	6.68	NA	133	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-216	4/17/2019	7.43	3.48	NA	224	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW55	Mon-Shallow		SITE-A-09-318	8/3/2009	8.04	3.62	NA	284	0.06	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-308	8/9/2010	7.00	6.3	NA	213	0.02	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-310	8/1/2011	7.49	6.9	NA	298	0.00	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-309	8/6/2012	7.45	3.27	NA	158	0.20	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-216	4/17/2014	8.26	5.07	NA	273	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-219	3/23/2015	7.99	4.67	NA	163	0.03	0.00	NA	NA	NA	0.98	174	1.57 J	2.77	1.64	1 U
			SITE-A-16-219	3/21/2016	6.86	3.90	NA	114	0.00	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-217	3/1/2017	7.82	3.96	NA	152	0.00	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-217	1/9/2018	7.70	5.09	NA	199	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-217	4/17/2019	7.84	4.63	NA	212	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW49	Mon-Shallow		SITE-A-09-312	8/3/2009	7.63	4.46	NA	286	0.03	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-309	8/9/2010	6.97	4.5	NA	126	0.00	0.00	1.3 U	0.60 U	1.0 U	3.0 J	102	2.06	2.33	0.40 J	5.0 U
		(Dup)	SITE-A-10-310	8/9/2010	6.97	4.5	NA	126	0.00	0.00	1.3 UJ	0.60 U	1.0 U	2.9 J	103	2.05	2.35	0.47 J	5.0 U
			SITE-A-10-400	10/27/2010	7.45	4.26	NA	329	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
		(Dup)	SITE-A-10-401	10/27/2010	7.45	4.26	NA	329	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-104	1/19/2011	7.34	3.58	NA	218	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-203	4/25/2011	7.39	3.52	NA	187	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
		(Dup)	SITE-A-11-204	4/25/2011	7.39	3.52	NA	187	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-311	8/3/2011	7.00	7.42	NA	189	0.04	0.01	1.3 U	NA	NA	1.54	112	2.48	2.93	0.56	5.0 U
		(Dup)	SITE-A-11-312	8/3/2011	7.00	7.42	NA	189	0.04	0.01	1.3 U	NA	NA	1.54	122	2.45	2.94	0.41 J	5.0 U
			SITE-A-11-400	10/27/2011	7.13	7.07	NA	188	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-401	10/27/2011	7.13	7.07	NA	188	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-106	1/30/2010	7.10	6.57	NA	182	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-200	4/10/2012	7.02	7.22	NA	261	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-310	8/1/2012	6.79	7.33	NA	168	0.00	0.02	1.3 U	NA	NA	0.93 J	138	1.71	3.75	0.32 J	5.0 U
			SITE-A-13-308	7/24/2013	7.67	7.61	NA	180	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-306	7/24/2013	7.67	7.61	NA	180	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-217	4/8/2014	7.95	7.09	NA	301	0.00	0.00	1.3 U	NA	NA	0.85	141	2.05	4.38	0.46 J	1.00 U
			SITE-A-15-220	3/24/2015	7.62	6.32	NA	157	0.00	0.00	1.3 U	NA	NA	1.2 D	144	1.67 J	3.74	0.5 UJ	0.70 J
			SITE-A-16-220	3/21/2016	6.66	5.59	NA	161	0.00	0.00	0.40 J	NA	NA	1.0 D	143	2.03	4.23	0.77	1.0 U
			SITE-A-17-218	3/1/2017	7.58	5.72	NA	169	0.02	0.00	1.3 U	NA	NA	0.73	140	1.87	3.32 J	0.64	1.1 U
			SITE-A-18-218	1/11/2018	7.15	4.16	NA	196	0.00	0.00	6 U	NA	NA	0.67	139	3.5	5.4	1.0 U	0.010 U

Table C1-2. Summary of Field Parameters and Natural Attenuation Parameters by Well

				Field Parameters						Natural Attenuation Parameters [3/]								
Well ID	Well Type/Aquifer Depth Interval		Sample ID	Sample Date	pH	Dissolved Oxygen - Meter (mg/L) [1/]	Dissolved Oxygen - Test Kit (mg/L) [2/]	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (µg/L)	Ethane (µg/L)	Ethene (µg/L)	Nitrate-Nitrite (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DOC (mg/L)	Dissolved Manganese (µg/L)
			SITE-A-19-218	4/16/2019	7.46	6.59	NA	75.4	0.00	0.02	2.0 UJ	NA	NA	0.65	150	2.0	4.1	0.94 J	0.005 U
A-MW56	Mon-Shallow		SITE-A-09-400	11/30/2009	8.07	1.72	NA	209	0.00	0.06	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-311	8/10/2010	7.10	3.7	NA	272	0.00	0.00	1.3 U	0.60 U	1.0 U	0.17 J	118	1.44	14.40	0.50 J	5.0 U
			SITE-A-10-402	10/27/2010	7.50	1.91	NA	330	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-100	1/19/2011	6.92	3.92	NA	332	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
		(Dup)	SITE-A-11-101	1/19/2011	6.92	3.92	NA	332	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-200	4/25/2011	7.19	3.09	NA	225	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-314	8/3/2011	7.41	4.54	NA	155	0.00	0.00	0.32 J	NA	NA	0.142	132	1.31	13.9	1.22	5.0 UJ
			SITE-A-11-403	10/27/2011	7.35	3.74	NA	132	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-108	1/30/2012	6.95	3.33	NA	165	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-202	4/10/2012	7.40	4.68	NA	271	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-314	8/1/2012	7.65	0	1.1 [4/]	180	0.13	0.00	1.3 U	NA	NA	0.16 J	132	1.41	15.0	0.26 J	5.0 U
			SITE-A-13-209	4/9/2013	7.78	2.85	NA	323	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-310	7/24/2013	7.90	2.94	NA	191	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-221	4/8/2014	7.79	2.36	NA	309	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-223	3/24/2015	7.59	6.05	NA	172	0.00	0.01	NA	NA	NA	0.2	150	1.46 J	16.6	0.66 UJ	1.0 U
			SITE-A-16-225	3/21/2016	6.72	4.94	NA	185	0.07	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-221	3/1/2017	7.70	2.24	NA	165	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-223	1/9/2018	7.58	3.11	NA	193	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-222	4/17/2019	7.61	1.92	NA	224	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW22	Mon-Perched		SITE-A-12-107	1/27/2012	6.27	7.09	NA	252	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			UW	7/31/2012	6.50	5.72	NA	253	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-200	4/10/2013	5.98	5.79	NA	444	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Dup	SITE-A-13-206	4/10/2013	5.98	5.79	NA	444	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-218	4/7/2014	5.43	8.13	NA	389	0.00	0.00	1.3 U	NA	NA	2.3	42	1.88	3.43	0.69	0.30 J
			SITE-A-15-221	3/24/2015	6.23	6.79	NA	272	0.01	0.00	1.3 U	NA	NA	2.3 D	45	2.13 J	2.83	0.64 UJ	0.50 J
			SITE-A-16-221	3/22/2016	6.16	5.08	NA	241	0.00	0.01	1.3 U	NA	NA	2.1 D	39	2.93	3.36	1.55	0.5 J
			SITE-A-17-219	3/2/2017	6.15	6.98	NA	247	0.02	0.01	1.3 U	NA	NA	1.9	39	2.28	3.06 J	0.90	1.1 U
			SITE-A-18-219	1/11/2018	5.81	8.88	NA	254	0.00	0.00	6 U	NA	NA	1.5	36.6	3.0	5.5	0.70 J	0.010 U
			SITE-A-19-219-1	4/3/2019	6.98	7.0	NA	162	0.0	0.0	2 U	NA	NA	1.4	21	1.9	3.3	1	0.62
A-MW32	Mon-Shallow		SITE-A-09-307	8/4/2009	8.24	0.81	0.590	250	0.07	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-315	8/10/2010	8.00	0.98	1.010	239	0.00	0.00	1.3 U	0.60 U	1.0 U	0.066 J	98.3	3.78	14.90	0.71	9.2
			SITE-A-11-313	8/3/2011	7.62	1.3	NA	98	0.00	0.00	1.3 U	NA	NA	0.038 J	101	3.52	14.20	0.62 UJ	8.0 UJ
			SITE-A-12-311	8/3/2012	7.69	0	1.1 [7/]	173	0.00	0.01	1.3 U	NA	NA	0.069 J	100	3.09	13.6	0.70	6.9
			SITE-A-13-309	7/24/2013	8.24	0.00	0.58	172	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-219	4/3/2014	8.47	0.46	1.1 [7/]	128	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Dup	SITE-A-14-220	4/3/2014	8.47	0.46	1.1 [7/]	128	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-222	3/23/2015	8.04	3.95	NA	167	0.00	0.00	NA	NA	NA	0.065	113	2.3 J	11	0.57 UJ	6.6
			SITE-A-16-222	3/21/2016	8.18	2.31	NA	154	0.09	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-220	3/1/2017	8.24	0.89	1.1 [7/]	150	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-220	1/10/2018	7.77	2.30	2.3	85	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-220-1	4/2/2019	6.76	4.58	NA	-41	2.78	0.06	480	NA	NA	NA	NA	2.8	4.5	NA	NA
A-IW3	Mon-Shallow		SITE-A-19-221	4/24/2019	5.76	1.27	NA	152.5	0.05	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW53	Mon-Shallow		SITE-A-09-316	8/3/2009	8.13	3.68	NA	257	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-324	8/12/2010	7.76	0.78	0.986	-61	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-312	8/6/2012	7.96	0	0.944	-64	0.14	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-227	4/7/2014	8.49	0.24	1.1 [7/]	18	0.02	0.00	NA	NA	NA	0.05 UJ	98	2.94	10.7	0.57	6.00
			SITE-A-16-223	3/21/2016	7.20	1.6	NA	-117	0.01	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-221	1/9/2018	7.90	3.29	NA	13	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW50	Mon-Shallow		SITE-A-09-313	8/3/2009	8.01	1.71	NA	266	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-313	8/1/2012	7.74	0	0.836	180	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-226	4/17/2014	7.17	2.47	NA	92	0.00	0.00	NA	NA	NA	0.05 UJ	90	2.06	10.1	0.34 J	0.6 J
			SITE-A-16-224	3/22/2016	6.86	2.85	NA	182	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-222	1/10/2018	7.82	2.21	NA	159	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW51	Mon-Shallow		SITE-A-09-314	8/3/2009	7.78	1.38	NA	257	0.08	0.08	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-312	8/9/2010	7.67	3.6	NA	240	0.04	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-403	10/27/2010	7.63	7.48	NA	370	0.03	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-102	1/19/2011	7.67	3.22	NA	216	0.00	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-201	4/25/2011	7.40	2.88	NA	204	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-315	8/1/2011	7.41	4.87	NA	332	0.01	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
			Site-A-11-402	10/27/2011	7.17	4.61	NA	233	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-109	1/26/2012	7.11	4.14	NA	182	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-203	4/10/2012	7.67	2.49	NA	231	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-315	7/31/2012	7.80	0	1.1 [7/]	188	0.04	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-13-208	4/9/2013	7.69	0	NA	327	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-222	4/17/2014	8.14	3.11	NA	276	0.55	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-224	3/24/2015	7.81	7.14	NA	150	0.20	0.09	NA	NA	NA	0.05 UJ	114	1.39 J	9.37	0.65 UJ	1.4
			SITE-A-16-226	3/22/2016	8.02	3.47	NA	180	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-222	3/2/2017	7.96	3.63	NA	172	0.06	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-224	1/9/2018	7.38	5.69	NA	235	0.10	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-223	4/23/2019	7.72	4.62	NA	101.3	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table C1-2. Summary of Field Parameters and Natural Attenuation Parameters by Well

Well ID	Well Type/Aquifer Depth Interval		Sample ID	Sample Date	Field Parameters						Natural Attenuation Parameters [3/]								
					pH	Dissolved Oxygen - Meter (mg/L) [1/]	Dissolved Oxygen - Test Kit (mg/L) [2/]	ORP (mV)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Methane (µg/L)	Ethane (µg/L)	Ethene (µg/L)	Nitrate-Nitrite (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DOC (mg/L)	Dissolved Manganese (µg/L)
A-MW57	Mon-Shallow		SITE-A-09-401	11/30/2009	7.97	8.79	NA	217	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
		Dup	SITE-A-09-402	11/30/2009	7.97	8.79	NA	217	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-313	8/9/2010	7.65	7.5	NA	245	0.845/	0.495/	1.3 U	0.60 U	1.0 U	0.30 J	84	1.52	9.22	0.55	5.0 UJ
			SITE-A-10-404	10/27/2010	7.12	7.63	NA	357	0.03	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-103	1/19/2011	7.31	5.67	NA	227	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-202	4/25/2011	7.15	5.87	NA	177	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-11-316	8/1/2011	7.01	8.94 [4/]	NA	363	0.00	0.00	1.3 U	NA	NA	1.87	85.3	1.46	4.93	0.69	5.0 U
			SITE-A-11-404	10/27/2011	7.09	8.31	NA	285	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-110	1/26/2012	6.87	7.51	NA	199	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-204	4/11/2012	7.57	7.79	NA	260	0.22 [10/]	0.15 [10/]	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-12-317	7/31/2012	7.33	9.12 [4/]	NA	198	0.28	0.03	0.31 J	NA	NA	0.011 BJ	103	1.23	7.33	0.13 J	2.3 J
			SITE-A-13-210	4/9/2013	6.79	7.63	NA	374	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-223	4/17/2014	8.19	7.79	NA	278	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-225	3/23/2015	7.86	7.55	NA	205	0.05	0.06	NA	NA	NA	0.28	87	1.21 J	3.41	1.09	1 U
			SITE-A-16-227	3/22/2016	7.45	7.50	NA	234	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-223	3/2/2017	7.79	6.85	NA	193	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-225	1/8/2018	7.58	7.44	NA	209	0.00	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-224	4/23/2019	7.60	8.70	NA	124.9	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW52	Mon-Shallow		SITE-A-09-315	8/3/2009	7.22	0.62	1.1 [7/]	262	0.08	0.08	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-10-314	8/9/2010	6.98	2.4	NA	274	0.00	0.01	1.3 UJ	0.60 U	1.0 U	0.76 J	92.9	10.4	15.30	0.61	5.0 U
			SITE-A-11-317	8/1/2011	6.81	4.45	NA	340	0.00	0.00	1.3 U	NA	NA	0.266	90.4	14.5	21.00	1.06	5.0 U
			SITE-A-12-316	7/31/2012	6.68	0.58	1.1 [7/]	192	0.00	0.01	1.3 U	NA	NA	0.6 J	89.4	8.2	14.20	0.33 J	5.0 U
			SITE-A-14-224	4/3/2014	7.46	3.31	NA	301	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-15-226	3/23/2015	7.50	4.16	NA	200	0.00	0.00	NA	NA	NA	0.28	98	6.47 J	12.70	0.81	1.0 U
			SITE-A-16-228	3/22/2016	6.88	3.14	NA	212	0.03	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-224	3/2/2017	7.65	3.4	NA	177	0.01	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-18-226	1/8/2018	7.25	5.41	NA	254	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW44	Mon-Shallow		SITE-A-09-311	8/4/2009	7.69	0.94	1.1 [7/]	270	0.07	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-14-225	4/8/2014	7.49	0.00	918	330	0.08	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-19-225	4/23/2019	7.23	0.97	0.812	51.7	0.04	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW58	Mon-Perched		SITE-A-14-228	3/26/2014	5.86	8.96	NA	428	0.00	0.03	1.3 U	NA	NA	0.061	37	2.75	4.60	0.79	31.1
			SITE-A-15-200	3/23/2015	5.88	5.97	NA	233	0.06	0.06	1.3 U	NA	NA	0.05 UJ	29 UJ	1.6 J	4.38	0.97	6.7
			SITE-A-16-200	3/23/2016	5.74	5.70	NA	266	0.07	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW59	Mon-Perched		SITE-A-14-229	3/24/2014	5.63	9.73	NA	414	0.04	0.14	1.3 U	NA	NA	0.25	24 UJ	1.73	3.02	0.62	5.10
			SITE-A-15-216	3/25/2015	5.99	6.98	NA	270	0.63	0.42	1.3 U	NA	NA	0.23	22 UJ	1.21 J	1.64	0.61 UJ	1.30
			SITE-A-16-216	3/22/2016	6.67	6.63	NA	226	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
A-MW60R	Vashon Till Interbed		SITE-A-15-214	3/25/2015	6.45	6.84	NA	165	0.08	0.06	1.3 U	NA	NA	1.2	81	1.96 J	4.26	0.99	13.7
			SITE-A-16-214	3/22/2016	6.48	6.38	NA	238	0.04	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-212	2/27/2017	6.57	10.45	NA	232	0.01	0.02	0.31 J	NA	NA	1.3	65	1.90	6.31	0.76	1.9
			SITE-A-18-212	1/16/2018	6.43	9.95	NA	214	0.05	0	6 U	NA	NA	1.0	66.3	2.5	7.3	1.4	0.010 U
			SITE-A-19-213	4/4/2019	6.44	9.24	NA	135	0.03	0.02	2.0 U J1	NA	NA	0.6	160	3.3	3.6	2.3	0.0056 J
A-MW61	Mon-Perched		SITE-A-14-231	3/24/2014	6.48	5.87	NA	275	0	0.04	1.3 U	NA	NA	0.40	115	2.15	9.87	0.73	101
			SITE-A-15-212	3/24/2015	6.65	1.49	NA	197	0	0	1.3 U	NA	NA	0.15	105	1.73 J	5.07	1.19	1.5
			SITE-A-16-212	3/21/2016	6.53	3.70	NA	211	0.05	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
			SITE-A-17-210	2/27/2017	6.51	6.71	NA	224	0.03	0.01	1.3 U	NA	NA	0.086	106	1.92	3.72	0.91	0.2 J
			SITE-A-18-210	3/26/2018	5.87	7.27	NA	235	0.02	0.01	6 U	NA	NA	0.37	98.6	3.2	4.9 J	0.98 J	0.010 U

Notes:

[1/] DO measured in the field using the Horiba; extraction pumps can entrain air resulting in elevated oxygen valu

[2/] DO measured in the field using the Hach DR-890 colorimeter method when the Horiba reading was < 1mg/L.

[3/] Natural attenuation parameters only collected during Annual sampling events beginning in August 2010 per the TO 23, and TO 38 Sampling and Analysis Plans.

[4/] DO values above 8 mg/L are considered out of range for typical well conditions and may indicate a problem with the probe or the introduction of air by extraction well pumps.

[5/] Test kit samples did not change to their indicator colors and therefore the high turbidity of the sample likley led to elevated readir

[6/] Results for the August 2011 samples from A-EW4 through A-EW8 indicated improper well isolation (results reported in gray); wells were resampled in September 2011 to confirm values (results reported in bla

[7/] Value exceeded the test kit measurable limit of 1.1 mg/L.

[8/] Water in well A-MW38 was slightly cloudy during the January 2012 sampling event which may have affected the ferrous iron and hydrogen sulfide test kit results.

[9/] Only one set of groundwater parameters was collected from well A-MW36 in April 2012. This was done in order to ensure enough water to collect a sample in April 2012 and was based on the small amount of water in well in April 2012 and its history of running dry during sampling.

[10/] Water in well A-MW57 was slightly cloudy during the April 2012 sampling event, which may have affected the ferrous iron and hydrogen sulfide test kit results.

Gray highlight indicates plume centerline wells

DOC – Dissoved Organic Carbon

Dup – Indicates sample is a duplicate collected and analyzed concurrently with the associated project sample.

ORP – oxygen reduction potential

mg/L – milligrams per liter

Mon-Perched – Monitoring of perched zone; Mon-Saturated - Monitoring of shallow aquifer

mV – millivolt

NA – Parameter not measured

pH – acidity based on hydrogen ion potential

µg/L – micrograms per liter

Monitoring Data Taken from 2019 Annual LTM and O&M Data Report for Site F LTM for Site F and E/11 (U.S. Navy, 2019e)

Table E-1. RDX Analytical Results Compilation for the Shallow Aquifer at Site F

RDX in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Mar-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells											
F-MW21						33 D					34 D
F-MW24											
F-MW25											8.3
F-MW26											0.098 U
F-MW27			9.2					7.7			5.8
F-MW28											3.8
F-MW31			22 D			49 D M		69 D		22 D	77 J J1 D Q
F-MW32			0.46					0.69 M			0.79
F-MW33			58 D			39 D		46 D		50 D	40 D Q
F-MW34											0.099 U
F-MW35			110 D			150 D		120 D			220 D Q
F-MW36											
F-MW37			1.6					1.4			2
F-MW38			17 D			20 D		15 HDJ		14 D	16 D
F-MW39			66 D			150 D		0.27 J		22 D	14 D
F-MW41	0.43		0.41		0.41	0.38	0.44	0.59	0.67	0.57	0.55
F-MW42	0.42		0.44		0.42	0.40	0.35	0.33	0.25	0.32	0.23
F-MW44			1,300 D			1,500 D		1,300 D		610 D	350 D
F-MW44S											0.046 J J1
F-MW48			930 D			1,000 D		120 D			69 D Q
F-MW51											22 J Q D
F-MW52											0.40
F-MW53			4.0					4.7			3.9
F-MW54											
F-MW54S			3.2			3.6		2.3		20 D	13 D
F-MW55			91 D			110 D		91 D			66 D
F-MW55M			16 D			26 D		1.1 M		36 D	7.2
F-MW55S											1.3
F-MW59			20 D			28 D		28 D			22 D M
F-MW61			0.20			0.15 U		0.44		0.15 U	0.056 J
F-MW62			2.5			1.8		0.65		0.33	0.12 J
F-MW63	1.4	1.2	0.93	1.0	1.2	1.2	1.1	0.83	0.96	1.2	0.89
F-MW67	0.83	0.80	0.93	0.92	0.95	0.99	0.77	0.59	0.61	0.54	0.37
F-MW68	2.6	2.2	2.2	1.9	1.7	2	2.2	2.3	2.2	1.7	1.4
Compliance Wells											
F-MW40											0.099 U
F-MW43											0.098 U
F-MW43S											0.10 U
F-MW45											0.087 J
F-MW46											0.099 U
F-MW56			0.15 U					0.15 U			0.098 U M
F-MW57			0.15 U					0.15 U			0.10 U
F-MW58			0.15 U					0.15 U			0.098 U M
F-MW60			0.15 U					0.15 U			0.098 U M
F-MW64	0.78	0.77	0.60	0.57	0.64	0.35	0.50	0.55	0.60	0.81	0.90
F-MW65			0.19			0.19		0.22		0.25	0.20
F-MW66			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U J1
F-MW69			0.15 U					0.15 U		0.15 U	0.099 U
F-MW70	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.054 J	0.099 U
F-MW71	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
Extraction Wells											
F-EW1			16 D			27 D		19 D		26 D	38 D
F-EW2			18 D			30 D		24 D		36 D	14 D
F-EW3 [1/]			22 D					28 D		28 D	20 D
F-EW4 [1/]			23 D			30 D		26 D		26 D	14 D
F-EW5			35 D			53 D		44 D		44 D	28 D
F-EW6			4.4			3.0		3.0		3.2	2.8
F-EW7			5.0			5.7		5.7		6.7	5.2
F-EW8			35 D			39 D		39 D		23 D	25 D
F-EW9			36 D			46 D		50 D		23 D	15 D
F-EW10			28 D			30 D		24 D		22 D	20 D

Notes:

RDX groundwater cleanup level is 0.8 ug/L.

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Table E-1. RDX Analytical Results Compilation for the Shallow Aquifer at Site F

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

D – The reported value is from a diluted reanalysis.

H – The sample was extracted or analyzed beyond the holding time.

J – Detected below routine reporting limit. This value should be considered an estimate.

J1 – The result is an estimated value due to discrepancies in meeting certain analyte-specific quality control criteria.

M – A manual integration was performed on the chromatographic peak.

P – When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, the higher value is reported

PG - The % difference between the original and confirmation analyses is greater than 40%.

Q – One or more quality control criteria failed.

U – Not detected at associated detection limit.

Table E-2. TNT Analytical Results Compilation for the Shallow Aquifer at Site F

TNT in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Mar-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells											
F-MW21						72 D					45 D
F-MW24											
F-MW25											0.10 U
F-MW26											0.098 U
F-MW27			0.15 U					0.15 U			0.098 U
F-MW28											0.10 U
F-MW31			510 D			960 D M		1,500 D		700 D	2,500 D Q
F-MW32			3.9					6.9 M			11 D
F-MW33			92 D			77 D		3.2 J		96 D	140 D Q
F-MW34											0.099 U
F-MW35			9.5 D			11 D M		0.15 U			0.7 M
F-MW36											
F-MW37			0.15 U					0.15 U			0.099 U
F-MW38			0.15 U			0.15 U		0.15 UJ		0.15 U	0.10 U
F-MW39			0.15 U			0.15 U		0.15 UJ		0.15 U	0.099 U
F-MW41	0.15 U		0.15 U		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW42	0.15 U		0.15 U		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW44			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U
F-MW44S											0.10 U
F-MW48			0.15 U			0.15 U		0.15 U			0.099 U
F-MW51											0.098 U
F-MW52											0.098 U
F-MW53			0.15 U					0.15 U			0.10 U
F-MW54											
F-MW54S			0.18			0.12 J		0.14 J		1.5	0.47 J J1
F-MW55			0.15 U			0.15 U		0.15 U			0.098 U M
F-MW55M			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U
F-MW55S											0.10 U
F-MW59			0.15 UJ			0.15 U		0.15 UJ			0.099 U
F-MW61			0.37			0.15 U		0.15 U		0.15 U	0.098 U
F-MW62			1.2			0.15 U		0.15 U		0.15 U	0.098 U
F-MW63	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U
F-MW67	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW68	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.098 U
Compliance Wells											
F-MW40											0.099 U
F-MW43											0.098 U

Table E-2. TNT Analytical Results Compilation for the Shallow Aquifer at Site F

F-MW43S											0.10 U
F-MW45											0.098 U M
F-MW46											0.099 U
F-MW56			0.15 U					0.15 U			0.098 U
F-MW57			0.15 U					0.15 U			0.10 U
F-MW58			0.15 U					0.15 U			0.098 U
F-MW60			0.15 U					0.15 U			0.098 U
F-MW64	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U
F-MW65			0.15 U			0.15 U		0.15 U		0.15 U	0.10 U
F-MW66			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U
F-MW69			0.15 U					0.15 U		0.15 U	0.099 U
F-MW70	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW71	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
Extraction Wells											
F-EW1			12 D			17 D		14 D		6.9	6.4
F-EW2			0.45			0.64		0.59		0.82	0.38
F-EW3 [1/]			18 D					19 D		18 D	20 D
F-EW4 [1/]			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U
F-EW5			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U
F-EW6			0.15 U			0.15 U		0.15 U		0.15 U	0.10 U
F-EW7			35 D M			39 D		37 D		30 D	31 D
F-EW8			0.15 U			0.15 U		0.15 U		0.15 U	0.098 U
F-EW9			0.15 U			0.15 U		0.15 U		0.15 U	0.099 U
F-EW10			0.15 U			0.15 U		0.15 U		0.16 U	0.099 U

Notes:

TNT groundwater cleanup level is 2.9 ug/L.

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

U – Not detected at associated detection limit.

D – The reported value is from a diluted reanalysis.

J – Detected below routine reporting limit. This value should be considered an estimate.

J1 – The result is an estimated value due to discrepancies in meeting certain analyte-specific quality control criteria.

M – A manual integration was performed on the chromatographic peak.

P – When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, the higher value is reported

PG - The % difference between the original and confirmation analyses is greater than 40%.

Q – One or more quality control criteria failed.

U – Not detected at associated detection limit.

Table E-3. DNT Analytical Results Compilation for the Shallow Aquifer at Site F

Total DNT in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Mar-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells											
F-MW21						3.2 J					2.1 J M
F-MW24											
F-MW25											0.10 U
F-MW26											0.098 U
F-MW27			0.13 U					0.13 U			0.098 U M
F-MW28											0.1 U M
F-MW31			13.8 JDM			5.5 J		34.7		30 D	37 J J1 D Q
F-MW32			0.13 U					0.13 U			0.098 U
F-MW33			14.5 JDM			10.55		5.86		18.8 DJM	22.1 J D Q
F-MW34											0.099 U
F-MW35			0.51 M			0.37		0.13 U			0.099 U
F-MW36											
F-MW37			0.13 U					0.13 U			0.099 U
F-MW38			0.13 U			0.13 U		0.13 UJ		0.13 U	0.10 U
F-MW39			0.13 U			0.13 U		0.13 UJ		0.13 U	0.099 U
F-MW41	0.13 U		0.13 U		0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.099 U
F-MW42	0.13 U		0.13 U		0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.099 U
F-MW44			0.13 U			0.13 U		0.13 U		0.13 U	0.099 U
F-MW44S											0.10 U
F-MW48			0.13 U			0.13 U		0.13 U			0.099 U
F-MW51											0.098 U M
F-MW52											0.098 U
F-MW53			0.13 U					0.13 U			0.10 U
F-MW54											
F-MW54S			0.13 U			0.13 U		0.13 U		0.14 U	0.098 U
F-MW55			0.13 U			0.13 U		0.13 U			0.098 U M
F-MW55M			0.13 U			0.13 U		0.13 U		0.13 U	0.099 U
F-MW55S											0.10 U
F-MW59			0.13 UJ			0.13 U M		0.13 UJ M			0.099 U
F-MW61			0.13 U			0.13 U		0.13 U		0.13 U	0.098 U
F-MW62			0.13 U			0.13 U M		0.13 U		0.13 U	0.098 U
F-MW63	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U
F-MW67	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.099 U
F-MW68	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.098 U
Compliance Wells											
F-MW40											0.099 U
F-MW43											0.098 U
F-MW43S											0.10 U
F-MW45											0.098 U M
F-MW46											0.099 U
F-MW56			0.13 U					0.13 U			0.098 U
F-MW57			0.13 U					0.13 U			0.10 U
F-MW58			0.13 U					0.13 U			0.098 U M
F-MW60			0.13 U					0.13 U			0.098 U M
F-MW64	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U
F-MW65			0.13 U			0.13 U		0.13 U		0.13 U	0.10 U
F-MW66			0.13 U			0.13 U		0.13 U		0.13 U	0.099 U

Table E-3. DNT Analytical Results Compilation for the Shallow Aquifer at Site F

F-MW69			0.13 U					0.13 U		0.13 U	0.099 U
F-MW70	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.099 U
F-MW71	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.099 U M
Extraction Wells											
F-EW1			0.36 M			0.46		0.40 M		0.59	0.75
F-EW2			0.13 U			0.13 U		0.13 U		0.092 J	0.098 U
F-EW3 [1/]			1.63					1.69		1.49	1.38
F-EW4 [1/]			0.13 U			0.13 U		0.13 U		0.13 U	0.099 U
F-EW5			0.13 U			0.13 U		0.13 U		0.13 U	0.099 U
F-EW6			0.13 U			0.13 U		0.13 U		0.13 U	0.10 U
F-EW7			1.65 M			1.78		1.54		1.27	0.27
F-EW8			0.13 U			0.13 U		0.13 U		0.13 U	0.098 U
F-EW9			0.13 U			0.13 U		0.13 U		0.13 U	0.099 U
F-EW10			0.13 U			0.13 U		0.13 U		0.14 U	0.099 U

Notes:

DNT groundwater cleanup level is 0.13 ug/L.

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

D – The reported value is from a diluted reanalysis.

J – Detected below routine reporting limit. This value should be considered an estimate.

J1 – The result is an estimated value due to discrepancies in meeting certain analyte-specific quality control criteria.

M – A manual integration was performed on the chromatographic peak.

P – When a dual column GC technique is employed, this flag indicates that test results from the two columns differ by more than 25%. Generally, the higher value is reported

PG - The % difference between the original and confirmation analyses is greater than 40%.

Q – One or more quality control criteria failed

U – Not detected at associated detection limit.

Table E-4. 1,3,5-TNB Analytical Results Compilation for the Shallow Aquifer at Site F

TNB in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells										
F-MW21					220 D					150 D
F-MW24										
F-MW25										0.1 U
F-MW26										0.098 U
F-MW27			0.063 J				0.15 U			0.098 U M
F-MW28										0.18 M
F-MW31			190 D		360 DM		590 D		300 D	620 D Q
F-MW32			0.35				0.45 M			0.2
F-MW33			17 D		22 D		1.2 J		12 D	26 D Q
F-MW34										0.099 U
F-MW35			64 D		87 D		0.068 J			1.6 M
F-MW37			0.15 U				0.15 U			0.099 U M
F-MW38			0.15 U		0.15 U		0.15 UJ		0.15 U	0.10 U
F-MW39			0.083 J		0.15 U		0.15 UJ		0.15 U	0.099 U
F-MW41	0.15 U		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U M
F-MW42	0.15 U		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW44			0.15 U		0.15 U		0.048 J		0.15 U	0.099 U
F-MW44S										0.10 U
F-MW48			0.16 J		0.15 U		0.15 U			0.099 U
F-MW51										0.098 U
F-MW52										0.098 U M
F-MW53			0.15 U				0.15 U			0.10 U
F-MW54S			0.89		0.53		0.64		1.4	0.57
F-MW55			0.1 J		0.15 U		0.15 U			0.098 U
F-MW55M			0.15 U		0.15 U		0.051 MJ		0.15 U	0.099 U
F-MW55S										0.10 U
F-MW59			0.15 UJ		0.16 M		0.15 UJ			0.099 U
F-MW61			0.85		0.47		0.26		0.13 J	0.043 J
F-MW62			0.53				0.15 U		0.15 U	0.098 U M
F-MW63	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U
F-MW67	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW68	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.098 U M
Compliance Wells										

Table E-4. 1,3,5-TNB Analytical Results Compilation for the Shallow Aquifer at Site F

F-MW40										0.099 U
F-MW43										0.098 U M
F-MW43S										0.10 U
F-MW45										0.098 U M
F-MW46										0.099 U
F-MW56			0.15 U				0.15 U			0.098 U
F-MW57			0.15 U				0.15 U			0.10 U
F-MW58			0.15 U				0.15 U			0.098 U
F-MW60			0.15 U				0.15 U			0.098 U M
F-MW64	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U M
F-MW65			0.15 U		0.15 U		0.15 U		0.15 U	0.10 U
F-MW66			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-MW69			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-MW70	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW71	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
Extraction Wells										
F-EW1			84 D		130 D		100 D		150 D	230 D
F-EW2			2.1		3.5		3.7		5.5	2.6
F-EW3			8.5				5.3		7.0	8.2
F-EW4			0.053 J		0.15 U		0.15 U		0.15 U	0.099 U
F-EW5			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-EW6			0.15 U		0.15 U		0.15 U		0.15 U	0.10 U M
F-EW7			24 D		33 D		26 D		23 D	23 D
F-EW8			0.084 J		0.15 U		0.15 U		0.040 J M	0.098 U
F-EW9			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-EW10			0.066 J		0.15 UJ		0.15 U		0.16 U	0.099 U

TNB groundwater cleanup level is 0.8 ug/L.

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

D – The reported value is from a diluted reanalysis.

J – Detected below routine reporting limit. This value should be considered an estimate.

M – A manual integration was performed on the chromatographic peak.

Q – One or more quality control criteria failed.

U – Not detected at associated detection limit.

Table E-5. 1,3-DNB Analytical Results Compilation for the Shallow Aquifer at Site F

DNB in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells										
F-MW21					0.54					0.19
F-MW24										
F-MW25										0.10 U
F-MW26										0.098 U
F-MW27			0.15 U				0.15 U			0.098 U M
F-MW28										0.10 U
F-MW31			4.9 JM		8.7 J		24 D		6.4 J	22 D Q
F-MW32			0.15 U				0.15 U			0.098 U
F-MW33			0.68 JM		0.15 U		0.33 MJ		1.4 J	1.4 J Q
F-MW34										0.099 U
F-MW35			0.15 U		0.15 U		0.15 U			0.099 U
F-MW37			0.15 U				0.15 U			0.099 U
F-MW38			0.15 U		0.15 U		0.15 UJ		0.15 U	0.10 U
F-MW39			0.15 U		0.15 U		0.15 UJ		0.15 U	0.099 U
F-MW41	0.15 U		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW42	0.15 U		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW44			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-MW44S										0.10 U
F-MW48			0.15 U		0.15 U		0.15 U			0.099 U
F-MW51										0.098 U
F-MW52										0.098 U
F-MW53			0.15 U				0.15 U			0.10 U
F-MW54S			0.15 U		0.15 U		0.15 U		0.16 U	0.098 U
F-MW55			0.15 U		0.15 U		0.15 U			0.098 U M
F-MW55M			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-MW55S										0.10 U
F-MW59			0.15 UJ		0.15 U		0.15 UJ			0.099 U
F-MW61			0.15 U		0.15 U		0.15 U		0.15 U	0.098 U M
F-MW62			0.15 U				0.15 U		0.15 U	0.098 U
F-MW63	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U
F-MW67	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW68	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.098 U
Compliance Wells										
F-MW40										0.099 U

Table E-5. 1,3-DNB Analytical Results Compilation for the Shallow Aquifer at Site F

F-MW43										0.098 U
F-MW43S										0.10 U
F-MW45										0.098 U
F-MW46										0.099 U
F-MW56			0.15 U				0.15 U			0.098 U
F-MW57			0.15 U				0.15 U			0.10 U
F-MW58			0.15 U				0.15 U			0.098 U
F-MW60			0.15 U				0.15 U			0.098 U M
F-MW64	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.10 U
F-MW65			0.15 U		0.15 U		0.15 U		0.15 U	0.10 U
F-MW66			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-MW69			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-MW70	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
F-MW71	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.099 U
Extraction Wells										
F-EW1			0.15 U		0.15 U		0.15 U		0.15 U	0.098 U
F-EW2			0.15 U		0.15 U		0.15 U		0.15 U	0.098 U
F-EW3			0.11 JM				0.12 J		0.087 J	0.10 J
F-EW4			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-EW5			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-EW6			0.15 U		0.15 U		0.15 U		0.15 U	0.10 U
F-EW7			0.24		0.28		0.26		0.19	0.19
F-EW8			0.15 U		0.15 U		0.15 U		0.15 U	0.098 U
F-EW9			0.15 U		0.15 U		0.15 U		0.15 U	0.099 U
F-EW10			0.15 U		0.15 U		0.15 U		0.16 U	0.099 U

Notes:

DNB groundwater cleanup level is 1.6 ug/L.

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

D – The reported value is from a diluted reanalysis.

J – Detected below routine reporting limit. This value should be considered an estimate.

M – A manual integration was performed on the chromatographic peak.

U – Not detected at associated detection limit.

Table E-6. MNX Analytical Results Compilation for the Shallow Aquifer at Site F

MNX in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Mar-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells											
F-MW21						0.50 U					0.50
F-MW24											
F-MW25											0.10 U
F-MW26											0.098 U
F-MW27			0.50 U					0.51 U			0.098 U
F-MW28											0.099 J
F-MW31			0.50 U			0.50 U		0.51 U		1.1 J	0.098 U Q
F-MW32			0.51 U					0.50 U			0.098 U
F-MW33			0.51 U			0.50 U		0.95 MJ		1.1 J	0.28 J Q J1
F-MW34											0.099 U
F-MW35			0.97 J M			0.50 U		2.6			2.8
F-MW36											
F-MW37			0.51 U					0.50 U			0.099 U M
F-MW38			0.50 U			0.50 U		0.50 UJ		0.50 U	0.10 U
F-MW39			0.68			0.91 M		0.66 MJ		9.7	6.1
F-MW41	0.50 U		0.50 U		0.51 U	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.099 U
F-MW42	0.50 U		0.50 U		0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.50 U	0.10 U
F-MW44			2.2			2.5		0.51 U		0.85	0.62
F-MW44S											0.10 U
F-MW48			1.2			1.2		0.50 U			0.12 J
F-MW51											0.12 J
F-MW52											0.098 U
F-MW53			0.51 U					0.50 U			0.10 U
F-MW54											
F-MW54S			0.51 U			0.50 U		0.51 U		0.14 J	0.10 J
F-MW55			0.22 J			0.28 J		0.20 J			0.34 J
F-MW55M			0.49 J M			0.46 J		0.64 MJ		2.5	2.8
F-MW55S											0.10 U
F-MW59			2.4 J			1.1		0.77 J			0.12 J
F-MW61			0.51 U			0.50 U		0.51 U		0.51 U	0.098 U
F-MW62			0.51 U			0.50 U		0.50 U		0.50 U	0.10 U M
F-MW63	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.51 U	0.50 U	0.10 U
F-MW67	0.51 U	0.51 U	0.51 U	0.49 U	0.51 U	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.099 U
F-MW68	0.50 U	0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.50 U	0.50 U	0.51 U	0.50 U	0.10 U M
Compliance Wells											
F-MW40											0.099 U
F-MW43											0.098 U
F-MW43S											0.10 U
F-MW45											0.098 U
F-MW46											0.099 U
F-MW56			0.51 U					0.51 U			0.098 U
F-MW57			0.51 U					0.51 U			0.10 U M
F-MW58			0.50 U					0.50 U			0.098 U
F-MW60			0.50 U					0.51 U			0.098 U
F-MW64	0.51 U	0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.51 U	0.50 U	0.51 U	0.51 U	0.10 U
F-MW65			0.51 U			0.50 U		0.51 U		0.50 U	0.10 U
F-MW66			0.51 U			0.50 U		0.50 U		0.50 U	0.10 U
F-MW69			0.50 U					0.51 U		0.50 U	0.10 U
F-MW70	0.50 U	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.49 U	0.50 U	0.52 U	0.51 U	0.099 U
F-MW71	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.50 U	0.50 U	0.51 U	0.51 U	0.50 U	0.10 U
Extraction Wells											
F-EW1			0.51 U			0.50 U		0.51 U		0.23 J	0.098 U
F-EW2			0.50 U			0.50 U		0.15 J		0.22 J	0.086 J
F-EW3			0.51 U					0.25 J		0.29 J	0.17 J J1
F-EW4			0.081 J			0.50 U		0.51 U		0.51 U	0.099 U
F-EW5			0.086 J			0.097 J		0.50 U		0.11 J	0.099 U
F-EW6			0.50 U			0.51 U		0.50 U		0.51 U	0.10 U
F-EW7			0.50 U			0.50 U		0.51 U		0.11 J	0.098 U
F-EW8			0.21 J			0.51 U		0.14 J		0.082 J	0.16 J
F-EW9			0.11 J			0.51 U		0.18 J		0.062 J	0.099 U
F-EW10			0.078 J			0.069 J		0.50 U		0.057 J	0.099 U

Notes:

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

CV – Quality control criteria failed (for the continuing calibration verification)

J – Detected below routine reporting limit. This value should be considered an estimate.

J1 – The result is an estimated value due to discrepancies in meeting certain analyte-specific quality control criteria.

M – Manual integration was performed

Q – One or more quality control criteria failed.

U – Not detected at associated detection limit.

Table E-7. DNX Analytical Results Compilation for the Shallow Aquifer at Site F

DNX in µg/L

Well No.	Jul-14	Oct-14	Jan-15/ Feb-15	Mar-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells											
F-MW21						0.50 U					0.099 U M
F-MW24											
F-MW25											0.10 U
F-MW26											0.098 U
F-MW27			0.50 U					0.51 U			0.098 U
F-MW28											0.10 U M
F-MW31			0.50 U			0.50 UJ		0.51 U		0.50 U	0.10 U Q
F-MW32			0.51 U					0.50 U			0.098 U
F-MW33			0.51 U			0.50 U		0.51 U M		0.51 U	0.10 U Q
F-MW34											0.10 U
F-MW35			0.50 U			0.50 U		1.6			0.80 J1
F-MW36											
F-MW37			0.51 U					0.50 U			0.099 U
F-MW38			0.50 U			0.50 U		0.50 UJ		0.50 U	0.10 U
F-MW39			0.76			0.70		3.1 J		2.3	0.95
F-MW41	0.50 U		0.50 U		0.51 U	0.50 U	0.50 UQ	0.51 U	0.51 U	0.51 U	0.10 U
F-MW42	0.50 U		0.50 U		0.51 U	0.51 U	0.50 UQ	0.51 U	0.50 U	0.50 U	0.10 U
F-MW44			0.40 J			0.50 U		0.51 U		0.51 U	0.06 J
F-MW44S											0.10 U
F-MW48			0.51 U			0.50 U		0.50 U			0.099 U
F-MW51											0.098 U
F-MW52											0.098 U
F-MW53			0.51 U					0.50 U			0.10 U
F-MW54											
F-MW54S			0.51 U			0.50 U		0.51 U		0.54 U	0.10 U
F-MW55			0.50 U			0.50 U		0.50 U			0.098 U M
F-MW55M			0.066 J			0.50 U		0.80		0.99	1.5
F-MW55S											0.10 U
F-MW59			6.0 J			2.0		1.6 J			0.099 U
F-MW61			0.51 U			0.50 U		0.51 U		0.51 U	0.10 U M
F-MW62			0.51 U			0.50 U		0.50 U		0.50 U	0.10 U M
F-MW63	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.51 U	0.50 UQ	0.50 U	0.51 U	0.50 U	0.10 U
F-MW67	0.51 U	0.51 U	0.51 U	0.49 U	0.51 U	0.50 U	0.50 UQ	0.51 U	0.51 U	0.51 U	0.10 U
F-MW68	0.50 U	0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.50 UQ	0.50 U	0.51 U	0.50 U	0.10 U
Compliance Wells											
F-MW40											0.099 U
F-MW43											0.098 U
F-MW43S											0.10 U
F-MW45											0.098 U M
F-MW46											0.099 U M
F-MW56			0.51 U					0.51 U			0.10 U M
F-MW57			0.51 U					0.51 U			0.10 U
F-MW58			0.50 U					0.50 U			0.10 U
F-MW60			0.50 U					0.51 U			0.10 U M
F-MW64	0.51 U	0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.51 UQ	0.50 U	0.51 U	0.51 U	0.10 U
F-MW65			0.51 U			0.50 U		0.51 U		0.50 U	0.10 U
F-MW66			0.51 U			0.50 U		0.50 U		0.50 U	0.10 U
F-MW69			0.50 U					0.51 U		0.50 U	0.10 U
F-MW70	0.50 U	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.49 UQ	0.50 U	0.52 UJ	0.51 U	0.10 U
F-MW71	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.50 U	0.50 UQ	0.51 U	0.51 U	0.50 U	0.10 U
Extraction Wells											
F-EW1			0.45 J			0.50 U		0.51 U		0.50 U	0.10 U
F-EW2			0.50 U			0.50 U		0.51 U		0.50 U	0.10 U
F-EW3			0.51 U					0.50 U		0.51 U	0.10 U M
F-EW4			0.50 U			0.50 U		0.51 U		0.51 U	0.10 U
F-EW5			0.50 U			0.50 U		0.50 U		0.50 U	0.10 U
F-EW6			0.50 U			0.51 U		0.50 U		0.51 U	0.10 U
F-EW7			0.50 U			0.50 U		0.51 U		0.50 U	0.10 U
F-EW8			0.51 U			0.51 U		0.51 U		0.50 U	0.10 U
F-EW9			0.50 U			0.51 U		0.51 U		0.50 U	0.10 U
F-EW10			0.51 U			0.50 U		0.50 U		0.54 U	0.10 U

Notes:

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

CV – Quality control criteria failed (for the continuing calibration verification)

J – Detected below routine reporting limit. This value should be considered an estimate.

M – Manual integration was performed

Q – One or more quality control criteria failed.

U – Not detected at associated detection limit.

Table E-8. TNX Analytical Results Compilation for the Shallow Aquifer at Site F

TNX in µg/L

Well No.	Mar-14	Mar-14	Jul-14	Oct-14	Jan-15/ Feb-15	Mar-15	Jul-15	Jan-16/ Feb-16	Aug-16	Jan-17	Aug-17	Jan-18	Mar-19/ Apr-19
Performance Monitoring Wells													
F-MW21								0.50 U					0.20 U
F-MW24													
F-MW25													0.20 U
F-MW26													0.20 U
F-MW27					0.50 UJ Q					0.51 U			0.20 U M
F-MW28													0.20 U
F-MW31					0.50 U			0.50 UJ		0.51 U		0.50 U	0.20 U Q
F-MW32					0.51 U					0.50 U			0.20 U
F-MW33					0.64 J			0.50 U		3.4 MJ		1.0 J	0.20 U Q
F-MW34													0.20 U
F-MW35					0.50 U			0.50 U		2.3			0.20 U
F-MW36													
F-MW37					0.51 U					0.50 U			0.20 U
F-MW38					0.50 UJ Q			0.50 U		0.50 UJ		0.50 U	0.20 U
F-MW39					3.7			3.4		95 D		2.3	1.7
F-MW41			0.50 U		0.50 UJ Q		0.51 U	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.20 U
F-MW42			0.50 U		0.50 UJ Q		0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.50 U	0.20 U
F-MW44					0.18 J M			0.50 U		0.51 U		0.51 U	0.17 J M
F-MW44S													0.20 U
F-MW48					0.51 U			0.50 U		0.50 U			0.20 U
F-MW51													0.20 U
F-MW52													0.20 U
F-MW53					0.51 UJ Q					0.50 U			0.20 U
F-MW54													
F-MW54S					0.51 UJ Q			0.50 U		0.51 U		0.54 U	0.20 U
F-MW55					0.50 U			0.50 U		0.50 U			0.20 U
F-MW55M					0.24 J Q			0.52		0.75 M		1.6	1.0
F-MW55S													0.20 U
F-MW59					8.4 J Q			2.7		2.9 J			0.20 U
F-MW61					0.51 U			0.50 U		0.51 U		0.51 U	0.20 U
F-MW62					0.51 U			0.50 U		0.50 U		0.50 U	0.20 U
F-MW63		0.51 U	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.51 U	0.50 U	0.20 U
F-MW67		0.51 U	0.51 U	0.51 U	0.51 U	0.49 U	0.51 U	0.50 U	0.50 U	0.51 U	0.51 U	0.51 U	0.20 U
F-MW68		0.51 U	0.50 U	0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.50 U	0.50 U	0.51 U	0.50 U	0.20 U M
Compliance Wells													
F-MW40													0.20 U
F-MW43													0.20 U
F-MW43S													0.20 U
F-MW45													0.20 U M
F-MW46													0.20 U
F-MW56					0.51 U					0.51 U			0.20 U
F-MW57					0.51 U					0.51 U			0.20 U
F-MW58					0.50 U					0.50 U			0.20 U
F-MW60					0.50 U					0.51 U			0.20 U M
F-MW64		0.51 U	0.51 U	0.51 U	0.51 U	0.50 U	0.51 U	0.50 U	0.51 U	0.50 U	0.51 U	0.51 U	0.20 U
F-MW65					0.51 U			0.50 U		0.51 U		0.50 U	0.20 U
F-MW66					0.51 U			0.50 U		0.50 U		0.50 U	0.20 U
F-MW69					0.50 U					0.51 U		0.50 U	0.20 U
F-MW70		0.52 U	0.50 U	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.49 U	0.50 U	0.52 U	0.51 U	0.20 U
F-MW71		0.50 U	0.51 U	0.51 U	0.51 U	0.50 U	0.50 U	0.50 U	0.50 U	0.51 U	0.51 U	0.50 U	0.20 U
Extraction Wells													
F-EW1	0.51 U				0.51 UJ Q			0.50 U		0.57 MJ		0.50 U	0.20 U
F-EW2	0.52 U				0.50 UJ Q			0.50 U		0.51 U		0.50 U	0.20 U
F-EW3	0.51 U				0.51 U					0.50 U		0.51 U	0.20 U
F-EW4	0.50 U				0.50 U			0.50 U		0.51 U		0.51 U	0.20 U

Table E-8. TNX Analytical Results Compilation for the Shallow Aquifer at Site F

F-EW5	0.51 U	0.50 UJ Q	0.50 U	0.50 U	0.50 U	0.20 U
F-EW6	0.51 U	0.50 U	0.51 U	0.50 U	0.51 U	0.20 U
F-EW7	0.51 U	0.50 UJ Q	0.50 U	0.21 MJ	0.50 U	0.20 U
F-EW8	0.50 U	0.51 U	0.51 U	0.51 U	0.50 U	0.20 U
F-EW9	0.50 U	0.50 U	0.51 U	0.51 U	0.50 U	0.20 U
F-EW10	0.51 U	0.51 U	0.50 U	0.50 U	0.54 U	0.20 U

Notes:

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

D – The reported value is from a diluted reanalysis

J – Detected below routine reporting limit. This value should be considered an estimate.

M – Manual integration was performed

Q – The laboratory indicated one or more quality control criteria were outside the control limit.

U – Not detected at associated detection limit.

Table E-9. Otto Fuel Analytical Results Compilation for the Shallow Aquifer at Site E/11

Well ID	Aquifer Depth Interval	Top of Screen Elevation (ft MLLW)	Bottom of Screen Elevation (ft MLLW)	Mar-19
Site F Wells				
F-EW4	Intermediate	211.4	191.4	
Site E/11 Wells				
E-MW21L	Deep	167.9	152.9	
E-MW21U	Shallow	253.4	238.4	0.31
E-MW22L	Deep	167.86	152.86	
E-MW22U	Shallow	252.4	243.4	
E-MW23L	Deep	171.2	166.2	
E-MW23U	Shallow	245.9	232.9	0.35 J

Notes:

The Otto Fuel groundwater cleanup level is 0.2 ug/L.

The "L" and "U" designations associated with well ID refer to lower (deeper) and upper (shallower) wells, respectively, within a well cluster.

Blank spaces indicate sample not collected on that date.

ft – Feet

MLLW – Mean lower low water

Shallow – Screen interval within range of 225-260 ft MLLW

Intermediate – Screen interval within range of 185-225 ft MLLW

Deep – Screen interval below 185 ft MLLW

J – Detected below routine reporting limit. This value should be considered an estimate.

U – Not detected at associated detection limit.

Monitoring Data Taken from Round 40 (Spring 2019)
Monitoring Report Monitored Natural Attenuation Operable Unit 8 (U.S. Navy, 2019t)

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
3/21/2000		8MW03		1,1,2-TRICHLOROETHANE		µg/L	3.9		J	OU 8
3/21/2000		8MW03		1,1-DICHLOROETHENE		µg/L	2		J	OU 8
3/21/2000		8MW03		1,2-DIBROMOETHANE		µg/L	1		U	OU 8
3/21/2000		8MW03		1,2-DICHLOROETHANE		µg/L	64		J	OU 8
3/21/2000		8MW03		1,2-DICHLOROPROPANE		µg/L	2		J	OU 8
3/21/2000		8MW03		BENZENE		µg/L	0.8		J	OU 8
3/21/2000		8MW03		ETHYLBENZENE		µg/L	1		U	OU 8
3/21/2000		8MW03		TOLUENE		µg/L	1		U	OU 8
3/21/2000		8MW03		VINYL CHLORIDE		µg/L	1		U	OU 8
10/30/2000		8MW03		1,1,2-TRICHLOROETHANE		µg/L	5.5		A	OU 8
10/30/2000		8MW03		1,1-DICHLOROETHENE		µg/L	3.4		A	OU 8
10/30/2000		8MW03		1,2-DIBROMOETHANE		µg/L	2		U	OU 8
10/30/2000		8MW03		1,2-DICHLOROETHANE		µg/L	80		J	OU 8
10/30/2000		8MW03		1,2-DICHLOROPROPANE		µg/L	2.6		A	OU 8
10/30/2000		8MW03		BENZENE		µg/L	0.54		A	OU 8
10/30/2000		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/30/2000		8MW03		TOLUENE		µg/L	0.3		J	OU 8
10/30/2000		8MW03		VINYL CHLORIDE		µg/L	0.5		J	OU 8
1/16/2001		8MW03		1,1,2-TRICHLOROETHANE		µg/L	4.9		A	OU 8
1/16/2001		8MW03		1,1-DICHLOROETHENE		µg/L	3		A	OU 8
1/16/2001		8MW03		1,2-DIBROMOETHANE		µg/L	0.8		U	OU 8
1/16/2001		8MW03		1,2-DICHLOROETHANE		µg/L	61		A	OU 8
1/16/2001		8MW03		1,2-DICHLOROPROPANE		µg/L	2.4		A	OU 8
1/16/2001		8MW03		BENZENE		µg/L	0.53		A	OU 8
1/16/2001		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
1/16/2001		8MW03		TOLUENE		µg/L	0.5		U	OU 8
1/16/2001		8MW03		VINYL CHLORIDE		µg/L	0.69		A	OU 8
4/16/2001		8MW03		1,1,2-TRICHLOROETHANE		µg/L	4.5		A	OU 8
4/16/2001		8MW03		1,1-DICHLOROETHENE		µg/L	2.7		A	OU 8
4/16/2001		8MW03		1,2-DIBROMOETHANE		µg/L	0.08		U	OU 8
4/16/2001		8MW03		1,2-DICHLOROETHANE		µg/L	56		A	OU 8
4/16/2001		8MW03		1,2-DICHLOROPROPANE		µg/L	2.2		A	OU 8
4/16/2001		8MW03		BENZENE		µg/L	0.99		A	OU 8
4/16/2001		8MW03		ETHYLBENZENE		µg/L	0.1		U	OU 8
4/16/2001		8MW03		TOLUENE		µg/L	0.2		J	OU 8
4/16/2001		8MW03		VINYL CHLORIDE		µg/L	0.61		A	OU 8
7/18/2001		8MW03		1,1,2-TRICHLOROETHANE		µg/L	3.6		A	OU 8
7/18/2001		8MW03		1,1-DICHLOROETHENE		µg/L	2.9		A	OU 8
7/18/2001		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
7/18/2001		8MW03		1,2-DICHLOROETHANE		µg/L	49		A	OU 8
7/18/2001		8MW03		1,2-DICHLOROPROPANE		µg/L	1.9		A	OU 8
7/18/2001		8MW03		BENZENE		µg/L	0.11		U	OU 8
7/18/2001		8MW03		ETHYLBENZENE		µg/L	0.098		U	OU 8
7/18/2001		8MW03		TOLUENE		µg/L	0.5		U	OU 8
7/18/2001		8MW03		VINYL CHLORIDE		µg/L	0.42		J	OU 8
10/22/2001		8MW03		1,1,2-TRICHLOROETHANE		µg/L	3.4		A	OU 8
10/22/2001		8MW03		1,1-DICHLOROETHENE		µg/L	2.7		A	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
10/22/2001		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
10/22/2001		8MW03		1,2-DICHLOROETHANE		µg/L	46		A	OU 8
10/22/2001		8MW03		1,2-DICHLOROPROPANE		µg/L	1.9		A	OU 8
10/22/2001		8MW03		BENZENE		µg/L	1.2		A	OU 8
10/22/2001		8MW03		ETHYLBENZENE		µg/L	0.098		U	OU 8
10/22/2001		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/22/2001		8MW03		VINYL CHLORIDE		µg/L	0.37		J	OU 8
5/28/2002		8MW03		1,1,2-TRICHLOROETHANE		µg/L	3.7		A	OU 8
5/28/2002		8MW03		1,1-DICHLOROETHENE		µg/L	2.7		A	OU 8
5/28/2002		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
5/28/2002		8MW03		1,2-DICHLOROETHANE		µg/L	47		A	OU 8
5/28/2002		8MW03		1,2-DICHLOROPROPANE		µg/L	2		A	OU 8
5/28/2002		8MW03		BENZENE		µg/L	2.3		A	OU 8
5/28/2002		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
5/28/2002		8MW03		TOLUENE		µg/L	0.16		J	OU 8
5/28/2002		8MW03		VINYL CHLORIDE		µg/L	0.36		J	OU 8
10/29/2002		8MW03		1,1,2-TRICHLOROETHANE		µg/L	3		A	OU 8
10/29/2002		8MW03		1,1-DICHLOROETHENE		µg/L	1.8		A	OU 8
10/29/2002		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
10/29/2002		8MW03		1,2-DICHLOROETHANE		µg/L	28		A	OU 8
10/29/2002		8MW03		1,2-DICHLOROPROPANE		µg/L	1.5		A	OU 8
10/29/2002		8MW03		BENZENE		µg/L	1.3		A	OU 8
10/29/2002		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
10/29/2002		8MW03		TOLUENE		µg/L	0.098		U	OU 8
10/29/2002		8MW03		VINYL CHLORIDE		µg/L	0.22		J	OU 8
4/7/2003		8MW03		1,1,2-TRICHLOROETHANE		µg/L	1.7		A	OU 8
4/7/2003		8MW03		1,1-DICHLOROETHENE		µg/L	1.6		A	OU 8
4/7/2003		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
4/7/2003		8MW03		1,2-DICHLOROETHANE		µg/L	18		A	OU 8
4/7/2003		8MW03		1,2-DICHLOROPROPANE		µg/L	0.69		A	OU 8
4/7/2003		8MW03		BENZENE		µg/L	0.28		J	OU 8
4/7/2003		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
4/7/2003		8MW03		TOLUENE		µg/L	0.098		U	OU 8
4/7/2003		8MW03		VINYL CHLORIDE		µg/L	0.22		U	OU 8
10/6/2003		8MW03		1,1,2-TRICHLOROETHANE		µg/L	1.9		A	OU 8
10/6/2003		8MW03		1,1-DICHLOROETHENE		µg/L	2		A	OU 8
10/6/2003		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
10/6/2003		8MW03		1,2-DICHLOROETHANE		µg/L	20		A	OU 8
10/6/2003		8MW03		1,2-DICHLOROPROPANE		µg/L	0.91		A	OU 8
10/6/2003		8MW03		BENZENE		µg/L	0.37		J	OU 8
10/6/2003		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
10/6/2003		8MW03		TOLUENE		µg/L	0.098		U	OU 8
10/6/2003		8MW03		VINYL CHLORIDE		µg/L	0.25		J	OU 8
4/12/2004		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.87		A	OU 8
4/12/2004		8MW03		1,1-DICHLOROETHENE		µg/L	0.68		A	OU 8
4/12/2004		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
4/12/2004		8MW03		1,2-DICHLOROETHANE		µg/L	11		A	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
4/12/2004		8MW03		1,2-DICHLOROPROPANE		µg/L	0.34		J	OU 8
4/12/2004		8MW03		BENZENE		µg/L	0.11		U	OU 8
4/12/2004		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
4/12/2004		8MW03		TOLUENE		µg/L	0.15		J	OU 8
4/12/2004		8MW03		VINYL CHLORIDE		µg/L	0.22		U	OU 8
10/6/2004		8MW03		1,1,2-TRICHLOROETHANE		µg/L	1.3		A	OU 8
10/6/2004		8MW03		1,1-DICHLOROETHENE		µg/L	1.4		A	OU 8
10/6/2004		8MW03		1,2-DIBROMOETHANE		µg/L	0.073		U	OU 8
10/6/2004		8MW03		1,2-DICHLOROETHANE		µg/L	19		A	OU 8
10/6/2004		8MW03		1,2-DICHLOROPROPANE		µg/L	0.58		A	OU 8
10/6/2004		8MW03		BENZENE		µg/L	0.2		J	OU 8
10/6/2004		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
10/6/2004		8MW03		TOLUENE		µg/L	0.098		U	OU 8
10/6/2004		8MW03		VINYL CHLORIDE		µg/L	0.22		U	OU 8
4/6/2005		8MW03		1,1,2-TRICHLOROETHANE		µg/L	1		A	OU 8
4/6/2005		8MW03		1,1-DICHLOROETHENE		µg/L	0.93		A	OU 8
4/6/2005		8MW03		1,2-DIBROMOETHANE		µg/L	0.099		U	OU 8
4/6/2005		8MW03		1,2-DICHLOROETHANE		µg/L	12		A	OU 8
4/6/2005		8MW03		1,2-DICHLOROPROPANE		µg/L	0.42		J	OU 8
4/6/2005		8MW03		BENZENE		µg/L	0.14		U	OU 8
4/6/2005		8MW03		ETHYLBENZENE		µg/L	0.13		U	OU 8
4/6/2005		8MW03		TOLUENE		µg/L	0.34		J	OU 8
4/6/2005		8MW03		VINYL CHLORIDE		µg/L	0.22		U	OU 8
10/13/2005		8MW03		1,1,2-TRICHLOROETHANE		µg/L	1		A	OU 8
10/13/2005		8MW03		1,1-DICHLOROETHENE		µg/L	1.1		A	OU 8
10/13/2005		8MW03		1,1-DICHLOROETHENE		µg/L	1		A	OU 8
10/13/2005		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/13/2005		8MW03		1,2-DICHLOROETHANE		µg/L	16		A	OU 8
10/13/2005		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
10/13/2005		8MW03		BENZENE		µg/L	0.5		U	OU 8
10/13/2005		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/13/2005		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/13/2005		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/27/2006		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.8		A	OU 8
4/27/2006		8MW03		1,1-DICHLOROETHENE		µg/L	0.9		A	OU 8
4/27/2006		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/27/2006		8MW03		1,2-DICHLOROETHANE		µg/L	14		A	OU 8
4/27/2006		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
4/27/2006		8MW03		BENZENE		µg/L	0.5		U	OU 8
4/27/2006		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/27/2006		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/27/2006		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/25/2006		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.72		J	OU 8
10/25/2006		8MW03		1,1-DICHLOROETHENE		µg/L	0.98		J	OU 8
10/25/2006		8MW03		1,2-DIBROMOETHANE		µg/L	1		U	OU 8
10/25/2006		8MW03		1,2-DICHLOROETHANE		µg/L	16		A	OU 8
10/25/2006		8MW03		1,2-DICHLOROPROPANE		µg/L	1		U	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
10/25/2006		8MW03		BENZENE		µg/L	1		U	OU 8
10/25/2006		8MW03		ETHYLBENZENE		µg/L	1		U	OU 8
10/25/2006		8MW03		TOLUENE		µg/L	1		U	OU 8
10/25/2006		8MW03		VINYL CHLORIDE		µg/L	1		U	OU 8
4/10/2007		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.57		A	OU 8
4/10/2007		8MW03		1,1-DICHLOROETHENE		µg/L	0.47		J	OU 8
4/10/2007		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/10/2007		8MW03		1,2-DICHLOROETHANE		µg/L	11		A	OU 8
4/10/2007		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
4/10/2007		8MW03		BENZENE		µg/L	0.5		U	OU 8
4/10/2007		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/10/2007		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/10/2007		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/23/2007		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.63		N	OU 8
10/23/2007		8MW03		1,1-DICHLOROETHENE		µg/L	0.83		N	OU 8
10/23/2007		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/23/2007		8MW03		1,2-DICHLOROETHANE		µg/L	16		N	OU 8
10/23/2007		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
10/23/2007		8MW03		BENZENE		µg/L	0.22		J	OU 8
10/23/2007		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/23/2007		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/23/2007		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/21/2008		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.52		A	OU 8
4/21/2008		8MW03		1,1-DICHLOROETHENE		µg/L	0.76		A	OU 8
4/21/2008		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/21/2008		8MW03		1,2-DICHLOROETHANE		µg/L	11		A	OU 8
4/21/2008		8MW03		1,2-DICHLOROPROPANE		µg/L	0.25		J	OU 8
4/21/2008		8MW03		BENZENE		µg/L	0.23		J	OU 8
4/21/2008		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/21/2008		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/21/2008		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/6/2008		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.61		A	OU 8
10/6/2008		8MW03		1,1-DICHLOROETHENE		µg/L	0.84		A	OU 8
10/6/2008		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/6/2008		8MW03		1,2-DICHLOROETHANE		µg/L	13		A	OU 8
10/6/2008		8MW03		1,2-DICHLOROPROPANE		µg/L	0.24		J	OU 8
10/6/2008		8MW03		BENZENE		µg/L	0.23		J	OU 8
10/6/2008		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/6/2008		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/6/2008		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/6/2009		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.68		A	OU 8
4/6/2009		8MW03		1,1-DICHLOROETHENE		µg/L	0.82		A	OU 8
4/6/2009		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/6/2009		8MW03		1,2-DICHLOROETHANE		µg/L	10		A	OU 8
4/6/2009		8MW03		1,2-DICHLOROPROPANE		µg/L	0.2		J	OU 8
4/6/2009		8MW03		BENZENE		µg/L	0.28		J	OU 8
4/6/2009		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
4/6/2009		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/6/2009		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/5/2009		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.6		A	OU 8
10/5/2009		8MW03		1,1-DICHLOROETHENE		µg/L	0.77		A	OU 8
10/5/2009		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/5/2009		8MW03		1,2-DICHLOROETHANE		µg/L	11		A	OU 8
10/5/2009		8MW03		1,2-DICHLOROPROPANE		µg/L	0.22		J	OU 8
10/5/2009		8MW03		BENZENE		µg/L	0.24		J	OU 8
10/5/2009		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/5/2009		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/5/2009		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/19/2010		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.31		J	OU 8
4/19/2010		8MW03		1,1-DICHLOROETHENE		µg/L	0.44		J	OU 8
4/19/2010		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/19/2010		8MW03		1,2-DICHLOROETHANE		µg/L	7.6		A	OU 8
4/19/2010		8MW03		1,2-DICHLOROPROPANE		µg/L	0.12		J	OU 8
4/19/2010		8MW03		BENZENE		µg/L	0.5		U	OU 8
4/19/2010		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/19/2010		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/19/2010		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		1,1-DICHLOROETHENE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		1,2-DICHLOROETHANE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		BENZENE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/6/2010		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		1,1-DICHLOROETHENE		µg/L	0.22		J	OU 8
4/11/2011		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		1,2-DICHLOROETHANE		µg/L	4		A	OU 8
4/11/2011		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		BENZENE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/11/2011		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
9/27/2011		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.52		A	OU 8
9/27/2011		8MW03		1,1-DICHLOROETHENE		µg/L	0.75		A	OU 8
9/27/2011		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
9/27/2011		8MW03		1,2-DICHLOROETHANE		µg/L	7.8		A	OU 8
9/27/2011		8MW03		1,2-DICHLOROPROPANE		µg/L	0.22		J	OU 8
9/27/2011		8MW03		BENZENE		µg/L	0.22		J	OU 8
9/27/2011		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
9/27/2011		8MW03		TOLUENE		µg/L	0.5		U	OU 8
9/27/2011		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
4/19/2012		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.39		J	OU 8
4/19/2012		8MW03		1,1-DICHLOROETHENE		µg/L	0.6		A	OU 8
4/19/2012		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/19/2012		8MW03		1,2-DICHLOROETHANE		µg/L	6.5		A	OU 8
4/19/2012		8MW03		1,2-DICHLOROPROPANE		µg/L	0.19		J	OU 8
4/19/2012		8MW03		BENZENE		µg/L	0.22		J	OU 8
4/19/2012		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/19/2012		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/19/2012		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/1/2012		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.22		J	OU 8
10/1/2012		8MW03		1,1-DICHLOROETHENE		µg/L	0.37		J	OU 8
10/1/2012		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/1/2012		8MW03		1,2-DICHLOROETHANE		µg/L	4.2			OU 8
10/1/2012		8MW03		1,2-DICHLOROPROPANE		µg/L	0.1		J	OU 8
10/1/2012		8MW03		BENZENE		µg/L	0.5		U	OU 8
10/1/2012		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/1/2012		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/1/2012		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/18/2013		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.50		U	OU 8
4/18/2013		8MW03		1,1-DICHLOROETHENE		µg/L	0.27		J	OU 8
4/18/2013		8MW03		1,2-DIBROMOETHANE		µg/L	0.50		U	OU 8
4/18/2013		8MW03		1,2-DICHLOROETHANE		µg/L	3.2			OU 8
4/18/2013		8MW03		1,2-DICHLOROPROPANE		µg/L	0.50		U	OU 8
4/18/2013		8MW03		BENZENE		µg/L	0.5		U	OU 8
4/18/2013		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/18/2013		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/18/2013		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/24/2013		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.50		U	OU 8
10/24/2013		8MW03		1,1-DICHLOROETHENE		µg/L	0.39		J	OU 8
10/24/2013		8MW03		1,2-DIBROMOETHANE		µg/L	0.50		U	OU 8
10/24/2013		8MW03		1,2-DICHLOROETHANE		µg/L	3.3			OU 8
10/24/2013		8MW03		1,2-DICHLOROPROPANE		µg/L	0.10		J	OU 8
10/24/2013		8MW03		BENZENE		µg/L	0.5		U	OU 8
10/24/2013		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/24/2013		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/24/2013		8MW03		VINYL CHLORIDE		µg/L	0.5		UJ	OU 8
3/31/2014		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.26		J	OU 8
3/31/2014		8MW03		1,1-DICHLOROETHENE		µg/L	0.47		J	OU 8
3/31/2014		8MW03		1,2-DIBROMOETHANE		µg/L	0.50		U	OU 8
3/31/2014		8MW03		1,2-DICHLOROETHANE		µg/L	4.4			OU 8
3/31/2014		8MW03		1,2-DICHLOROPROPANE		µg/L	0.12		J	OU 8
3/31/2014		8MW03		BENZENE		µg/L	0.50		U	OU 8
3/31/2014		8MW03		ETHYLBENZENE		µg/L	0.50		U	OU 8
3/31/2014		8MW03		TOLUENE		µg/L	0.50		U	OU 8
3/31/2014		8MW03		VINYL CHLORIDE		µg/L	0.50		U	OU 8
10/21/2014		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.27		J	OU 8
10/21/2014		8MW03		1,1-DICHLOROETHENE		µg/L	0.36		J	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
10/21/2014		8MW03		1,2-DIBROMOETHANE		µg/L	0.50		U	OU 8
10/21/2014		8MW03		1,2-DICHLOROETHANE		µg/L	3.9			OU 8
10/21/2014		8MW03		1,2-DICHLOROPROPANE		µg/L	0.11		J	OU 8
10/21/2014		8MW03		BENZENE		µg/L	0.50		U	OU 8
10/21/2014		8MW03		ETHYLBENZENE		µg/L	0.50		U	OU 8
10/21/2014		8MW03		TOLUENE		µg/L	0.50		U	OU 8
10/21/2014		8MW03		VINYL CHLORIDE		µg/L	0.50		U	OU 8
4/7/2015		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.24		J	OU 8
4/7/2015		8MW03		1,1-DICHLOROETHENE		µg/L	0.41		J	OU 8
4/7/2015		8MW03		1,2-DICHLOROETHANE		µg/L	4.3			OU 8
4/7/2015		8MW03		1,2-DICHLOROPROPANE		µg/L	0.11		J	OU 8
4/7/2015		8MW03		1,2-DIBROMOETHANE		µg/L	0.50		U	OU 8
4/7/2015		8MW03		BENZENE		µg/L	0.50		U	OU 8
4/7/2015		8MW03		ETHYLBENZENE		µg/L	0.50		U	OU 8
4/7/2015		8MW03		TOLUENE		µg/L	0.12		J	OU 8
4/7/2015		8MW03		VINYL CHLORIDE		µg/L	0.50		U	OU 8
10/22/2015		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.38		J	OU 8
10/22/2015		8MW03		1,1-DICHLOROETHENE		µg/L	0.71			OU 8
10/22/2015		8MW03		1,2-DIBROMOETHANE		µg/L	0.50		U	OU 8
10/22/2015		8MW03		1,2-DICHLOROETHANE		µg/L	5.6			OU 8
10/22/2015		8MW03		1,2-DICHLOROPROPANE		µg/L	0.18		J	OU 8
10/22/2015		8MW03		BENZENE		µg/L	0.50		U	OU 8
10/22/2015		8MW03		ETHYLBENZENE		µg/L	0.50		U	OU 8
10/22/2015		8MW03		TOLUENE		µg/L	0.50		U	OU 8
10/22/2015		8MW03		VINYL CHLORIDE		µg/L	0.50		U	OU 8
4/11/2016		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.5		U	OU 8
4/11/2016		8MW03		1,1-DICHLOROETHENE		µg/L	0.15		J	OU 8
4/11/2016		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
4/11/2016		8MW03		1,2-DICHLOROETHANE		µg/L	1.3			OU 8
4/11/2016		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
4/11/2016		8MW03		BENZENE		µg/L	0.50		U	OU 8
4/11/2016		8MW03		TOLUENE		µg/L	0.68		UJ	OU 8
4/11/2016		8MW03		ETHYLBENZENE		µg/L	0.50		U	OU 8
4/11/2016		8MW03		VINYL CHLORIDE		µg/L	0.50		U	OU 8
10/17/2016		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.5		U	OU 8
10/17/2016		8MW03		1,1-DICHLOROETHENE		µg/L	0.5		U	OU 8
10/17/2016		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/17/2016		8MW03		1,2-DICHLOROETHANE		µg/L	0.5		U	OU 8
10/17/2016		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
10/17/2016		8MW03		BENZENE		µg/L	0.50		U	OU 8
10/17/2016		8MW03		TOLUENE		µg/L	0.50		U	OU 8
10/17/2016		8MW03		ETHYLBENZENE		µg/L	0.50		U	OU 8
10/17/2016		8MW03		VINYL CHLORIDE		µg/L	0.50		UJ	OU 8
4/13/2017		8MW03		1,2-DICHLOROETHANE		µg/L	2.4			OU 8
4/13/2017		8MW03		1,1-DICHLOROETHENE		µg/L	0.29		J	OU 8
4/13/2017		8MW03		1,2-DICHLOROPROPANE		µg/L	0.5		U	OU 8
4/13/2017		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site
4/13/2017		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.15		J	OU 8
4/13/2017		8MW03		BENZENE		µg/L	0.5		U	OU 8
4/13/2017		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
4/13/2017		8MW03		TOLUENE		µg/L	0.5		U	OU 8
4/13/2017		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
10/5/2017		8MW03		1,2-DICHLOROETHANE		µg/L	4.8			OU 8
10/5/2017		8MW03		1,1-DICHLOROETHENE		µg/L	0.68			OU 8
10/5/2017		8MW03		1,2-DICHLOROPROPANE		µg/L	0.19		J	OU 8
10/5/2017		8MW03		1,2-DIBROMOETHANE		µg/L	0.5		U	OU 8
10/5/2017		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.5		U	OU 8
10/5/2017		8MW03		BENZENE		µg/L	0.5		U	OU 8
10/5/2017		8MW03		ETHYLBENZENE		µg/L	0.5		U	OU 8
10/5/2017		8MW03		TOLUENE		µg/L	0.5		U	OU 8
10/5/2017		8MW03		VINYL CHLORIDE		µg/L	0.5		U	OU 8
4/24/2018		8MW03		1,2-DICHLOROETHANE		µg/L	3.99			OU 8
4/24/2018		8MW03		1,1-DICHLOROETHENE		µg/L	0.42			OU 8
4/24/2018		8MW03		1,2-DICHLOROPROPANE		µg/L	0.2		U	OU 8
4/24/2018		8MW03		1,2-DIBROMOETHANE		µg/L	0.2		U	OU 8
4/24/2018		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.28			OU 8
4/24/2018		8MW03		BENZENE		µg/L	0.2		U	OU 8
4/24/2018		8MW03		ETHYLBENZENE		µg/L	0.2		U	OU 8
4/24/2018		8MW03		TOLUENE		µg/L	0.2		U	OU 8
4/24/2018		8MW03		VINYL CHLORIDE		µg/L	0.2		U	OU 8
10/29/2018		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.33			OU 8
10/29/2018		8MW03		1,1-DICHLOROETHENE		µg/L	0.52			OU 8
10/29/2018		8MW03		1,2-DIBROMOETHANE		µg/L	0.1		U	OU 8
10/29/2018		8MW03		1,2-DICHLOROETHANE		µg/L	3.74			OU 8
10/29/2018		8MW03		1,2-DICHLOROPROPANE		µg/L	0.13		J	OU 8
10/29/2018		8MW03		BENZENE		µg/L	0.1		U	OU 8
10/29/2018		8MW03		ETHYLBENZENE		µg/L	0.1	U	U	OU 8
10/29/2018		8MW03		TOLUENE		µg/L	0.1		U	OU 8
10/29/2018		8MW03		VINYL CHLORIDE		µg/L	0.1		U	OU 8
5/13/2019		8MW03		BENZENE		µg/L	0.1	U	U	OU 8
5/13/2019		8MW03		1,2-DICHLOROETHANE		µg/L	0.93			OU 8
5/13/2019		8MW03		1,1-DICHLOROETHENE		µg/L	0.1	U	U	OU 8
5/13/2019		8MW03		1,2-DICHLOROPROPANE		µg/L	0.1	U	U	OU 8
5/13/2019		8MW03		1,2-DIBROMOETHANE		µg/L	0.1	U	U	OU 8
5/13/2019		8MW03		ETHYLBENZENE		µg/L	0.1	U	U	OU 8
5/13/2019		8MW03		1,1,2-TRICHLOROETHANE		µg/L	0.2	U	U	OU 8
5/13/2019		8MW03		TOLUENE		µg/L	0.1	U	U	OU 8
5/13/2019		8MW03		VINYL CHLORIDE		µg/L	0.1	U	U	OU 8

Table C3-1. Historical MNA monitoring results for COCs and COIs

Date	Duplicate Code	Well ID	Gradient	Parameter Name	Replicate Code	Units	Concentration	Comparison Level	Data Qualifier	Site

Table C3-2. Historical MNA Sample Results Supporting Temporal Variation Evaluations

		Analyte (Cleanup Level)					
Monitoring Location	**Date Sampled**	**Benzene (5.0 µg/L)**	**DCA (5.0 µg/L)**	**TCA (5.0 µg/L)**	**DCE (0.5 µg/L)**	**EDB (0.8 µg/L)**	**Toluene (1,000 µg/L)**
8MW47	3/16/1998	7,800	700 J	50 U	50 U	16 J	7,800 J
	6/23/1998	2,900 J	140	50 U	50 U	13 J	16,000 J
	9/28/1998	5,900	250	100 U	100 U	100 U	11,000
	3/30/1999	11,000 J	640 U	50 U	50 U	50 U	2,500 J
	9/27/1999	3,800 J	50 U	50 U	50 U	50 U	12,000 J
	3/27/2000	2,000	100 U	100 U	100 U	100 U	5,600 J
	6/22/2000	2,600 J	100 U	100 U	100 U	100 U	14,000 J
	11/1/2000	3,200	100 U	100 U	100 U	400 U	22,000
	1/17/2001	3,800	50 U	50 U	50 U	20 J	20,000
	4/17/2001	4,400 D	30 U	20 U	30 U	20 U	19,000 D
	7/18/2001	4,600 D	23 U	20 U	24 U	15 U	20,000 D
	10/24/2001	7,500 D	290 D	10 UD	12 UD	37 JD	21,000 D
	5/30/2002	3,600	12 U	10 U	12 U	10 J	18,000
	10/30/2002	7,800	12 U	10 U	12 U	24 J	18,000
	4/9/2003	7,300	5.7 U	5 U	6 U	9.5 J	12,000 J
	10/9/2003	8,900	160	2.5 U	3 U	33	11,000
	4/15/2004	4,000 D	25 JD	10 U	12 U	7.3 U	19,000 D
	10/12/2004	11,000	140	1.7 J	0.6 U	21	11,000
	4/7/2005	6,900	120 U	0.69 U	0.61 U	19	15,000
	10/11/2005	12,000	190 J	18	0.5 U	19	12,000
	5/1/2006	3,700 D	4	110	0.5 U	25	11,000 D
	10/1/2006	12,000 D	200 J	170 J	1 U	10 J	8,100 D
	4/1/2007	2,100	0.5 U	0.5 U	0.5 U	0.5 U	11,000
	10/1/2007	NS	NS	NS	NS	NS	NS
	4/1/2008	NS	NS	NS	NS	NS	NS
	10/8/2008	NS	NS	NS	NS	NS	NS
	4/8/2009	NS	NS	NS	NS	NS	NS
	10/8/2009	12,000 D	61 D	25 U	25 U	13 JD	6,700 D
	4/21/2010	8,700 D	350 U	0.5	13 U	6.5 JD	8,200 D
	10/6/2010	9,100 JD	33 D	25 U	25 U	8.5 JD	12,000 JD
	4/12/2011	7,400 D	31 D	10 U	10 U	2.2 JD	6,600 D
	10/3/2011	5,300 D	19 D	13 U	13 U	3.0 JD	11,000 D
	4/19/2012	2,500 D	11 Ui	1.0 U	1.0 U	1.0 U	7,200 D
	10/16/2012	6,400 D	21 D	10 U	10 U	10 U	5,300 D
	4/19/2013	1,600 D	73 U	5.0 U	5.0 U	5.0 U	3,000 D
	10/22/2013	3,900 D	2.5 U	2.5 U	2.5 U	2.5 U	1,700 D
	4/2/2014	6,000 D	28.0 D	10.0 U	10.0 U	10.0 U	300 D
	10/22/2014	4,200 D	11 D	5.0 U	5.0 U	5.0 U	2,000 D
	4/2/2015	3,600 D	9.8 JD	5.0 U	5.0 U	5.0 U	530 JD
	10/27/2015	4,400 D	6.6 D	5.0 U	5.0 U	5.0 U	1,700 D
	4/12/2016	1,400 D	4.7 D	2.5 U	2.5 U	2.5 U	2,000 D
	10/18/2016	2,000 D	4.6 D	2.5 U	2.5 U	2.5 U	180 D
	4/12/2017	880 D	2.5 U	2.5 U	2.5 U	2.5 U	470 D
	10/10/2017	594	20 U	20 U	20 U	20 U	449
	4/16/2018	330	0.2 U	0.2 U	0.2 U	0.2 U	190
	10/22/2018	708	5 U	10 U	5 U	5 U	132
	5/7/2019	786	2 U	4 U	2 U	2 U	428

Table A-2. Historical MNA Sample Results Supporting Temporal Variation Evaluations (continued)

		Analyte (Cleanup Level)					
Monitoring Location	**Date Sampled**	**Benzene (5.0 µg/L)**	**DCA (5.0 µg/L)**	**TCA (5.0 µg/L)**	**DCE (0.5 µg/L)**	**EDB (0.8 µg/L)**	**Toluene (1,000 µg/L)**
MW05	3/28/2000	1,800 D	220 D	100 U	100 U	18 J	2,100 D
	6/22/2000	4,000 J	340 D	100 U	100 U	25 J	2,500 U
	10/31/2006	9,000 D	500 D	99 J	1 UJ	1 UJ	2,900 D
	4/16/2007	4,700 D	260 D	0.5 U	0.5 U	0.5 U	1,700 D
	10/29/2007	7,600 N	430 N	0.5 U	0.5 U	0.5 U	2,200 N
	10/9/2008	6,700 D	500 D	0.5 U	0.5 U	0.5 U	1,400 D
	10/13/2009	10,000 J	500 J	25 U	25 U	25 U	810 D
	5/4/2010	8,400 J	680 U	13 U	13 U	13 U	790 J
	10/5/2010	20,000 D	820 D	25 U	25 U	25 U	15,000 JD
	2/3/2011	15,000 J	610 J	25 U	25 U	25 U	11,000 J
	10/3/2011	17,000 D	510 J	25 U	25 U	25 U	16,000 D
	10/16/2012	14,000 D	210 D	25 U	25 U	25 U	11,000 D
	10/23/2013	14,000 D	180 D	25 U	25 U	25 U	6,000 D
	10/28/2014	14,000 D	130 D	25 U	25 U	25 U	6,300 D
	10/27/2015	15,000 D	92 D	25 U	25 U	25 U	6,100 D
	10/20/2016	8,500 D	53 D	10 U	10 U	10 U	1,200 D
	10/10/2017	3,870	40 U	40 U	40 U	40 U	1,920
	10/22/2018	2,230	5.74 J	10 U	5 U	5 U	466
	5/7/2019	1,900	4.04 J	4 U	2 UJ	2 U	480

Table A-2. Historical MNA Sample Results Supporting Temporal Variation Evaluations (continued)

		Analyte (Cleanup Level)					
Monitoring Location	**Date Sampled**	**Benzene (5.0 µg/L)**	**DCA (5.0 µg/L)**	**TCA (5.0 µg/L)**	**DCE (0.5 µg/L)**	**EDB (0.8 µg/L)**	**Toluene (1,000 µg/L)**
8MW06	3/13/1998	73	1,100 J	20 U	20 U	20 U	4.4 J
	6/19/1998	250	1,500 J	50 U	50 U	50 U	18 J
	9/28/1998	110	1,200	50 U	50 U	50 U	6.5 J
	3/29/1999	53	1,000 J	20 U	20 U	20 U	3 J
	9/27/1999	130	1,100	50 U	50 U	50 U	20 J
	3/24/2000	170	1,600 J	50 U	50 U	50 U	11 J
	6/21/2000	470 J	1,200 D	1 U	1 U	1 U	82 D
	10/31/2000	370	1,200	0.5 U	0.5 U	0.4 J	61
	1/18/2001	950	1,200	1 U	1 U	3 J	340
	4/17/2001	860 D	1,200 D	2 U	3 U	2 U	200 D
	7/18/2001	850 D	1,200 D	2.5 U	3 U	1.9 U	91 D
	10/23/2001	830 D	1,400 D	0.5 U	0.6 U	1.8 JD	180 D
	5/30/2002	1,100	1,700	1 U	1.2 U	1.6 J	140
	10/30/2002	1,400	1,500	1 U	1.2 U	2.5 J	180 J
	4/9/2003	910	1,100	0.5 U	0.6 U	0.37 U	27
	10/7/2003	580	940	0.5 U	0.6 U	0.37 U	57
	4/14/2004	1,900 D	1,100 D	0.5 U	0.6 U	1.6 JD	69 D
	10/8/2004	1,700	1,300 J	0.5 U	0.6 U	1.5 J	110
	4/7/2005	3,000	980	0.69 U	0.61 U	1.4 J	57
	10/11/2005	6,300	2,400	0.5 U	0.5 U	1.2	76 J
	4/26/2006	3,600 D	820 D	0.5 U	0.5 U	1.1	110
	10/1/2006	1,300 D	660 D	1 U	1 U	1 U	23 J
	4/1/2007	4,800	740	0.5 U	0.5 U	0.5 U	100
	10/1/2007	4,700 D	690 D	0.5 U	0.5 U	1.3	170 D
	4/1/2008	7,200	800	0.5 U	0.5 U	0.5 U	160
	10/9/2008	4,400 D	640 D	0.5 U	0.5 U	0.5 U	200 D
	4/8/2009	11,000 D	940 D	0.5 U	0.5 U	0.5 U	300 D
	10/6/2009	13,000 J	810 D	25 U	25 U	25 U	590 D
	4/19/2010	13,000 D	1,100 D	25 U	25 U	25 U	430 D
	10/5/2010	12,000 D	740 D	25 U	25 U	25 U	630 D
	4/12/2011	18,000 D	620 D	25 U	25 U	25 U	290 D
	10/3/2011	13,000 D	610 D	13 U	13 U	13 U	480
	4/19/2012	19,000 D	510 D	1.5 DJ	1.0 U	1.0 U	180 D
	10/17/2012	13,000 D	810 DJ	13 U	13 U	13 U	350 D
	4/19/2013	17,000 D	740 U	25 U	25 U	25 U	210 D
	10/23/2013	15,000 D	280 D	25 U	25 U	25 U	460 D
	4/2/2014	11,000 D	300 D	25 U	25 U	25 U	71 D
	10/28/2014	12,000 D	180 D	25 U	25 U	25 U	350 D
	4/2/2015	17,000 D	210 D	25 U	25 U	25 U	440 D
	10/19/2015	15,000 D	250 D	25 U	25 U	25 U	390 D
	4/12/2016	10,000 D	140 D	25 U	25 U	25 U	150 D
	10/18/2016	9,900 D	170 D	10 U	10 U	10 U	170 D
	4/13/2017	7,400 D	85 D	10 U	10 U	10 U	150 D
	10/10/2017	6,480	79.3	40 U	40 U	40 U	358
	4/18/2018	2,840	44.6	10 U	10 U	10 U	58
	10/24/2018	7,950	60.1	0.2 U	0.1 U	0.1 U	186
	5/7/2019	3,890	30.5	10.00 U	5 U	5 U	127

Table A-2. Historical MNA Sample Results Supporting Temporal Variation Evaluations (continued)

		Analyte (Cleanup Level)					
Monitoring Location	**Date Sampled**	**Benzene (5.0 µg/L)**	**DCA (5.0 µg/L)**	**TCA (5.0 µg/L)**	**DCE (0.5 µg/L)**	**EDB (0.8 µg/L)**	**Toluene (1,000 µg/L)**
8MW33	3/13/1998	0.73 J	270	20	9.2	1 U	1 U
	8/5/1998	0.4 J	51	31	16	1 U	0.12 J
	9/25/1998	0.44 J	35	34 J	15	1 U	1 U
	3/24/1999	1 U	1 U	1 U	1 U	1 U	1 U
	6/24/1999	0.32 J	26 J	37 J	18 J	1 U	1 U
	9/22/1999	0.3 J	18 J	28 J	18	1 U	1 U
	12/15/1999	0.24 J	26 J	31 J	17	2 U	2 U
	3/23/2000	0.23 J	20 J	27 J	18	1 U	1 U
	6/20/2000	0.26 J	16	31 J	21	1 U	1 U
	10/31/2000	0.2 J	15	31	20	2 U	0.1 J
	1/18/2001	0.3 J	14	25	14	2 U	0.5 U
	4/17/2001	0.2 J	16	25	14	0.08 U	0.4 J
	7/20/2001	0.5 U	14	24	13	0.073 U	0.5 U
	10/24/2001	0.18 J	14	24	15	0.073 U	0.26 U
	5/30/2002	0.28 J	17	23	17	0.073 U	0.098 U
	10/30/2002	0.11 U	13	25	16	0.073 U	0.098 U
	4/10/2003	0.25 J	16	19	15	0.073 U	0.098 U
	10/8/2003	0.14 J	12	19	18	0.073 U	0.098 U
	4/14/2004	0.18 J	35	18	14	0.073 U	0.098 U
	10/8/2004	0.13 J	27 J	19	16	0.073 U	0.098 U
	4/5/2005	0.15 J	38	14	10	0.099 U	0.50 U
	10/10/2005	0.50 U	30	13	10	0.50 U	0.50 U
	4/22/2006	0.50 U	58	12	9.9	0.50 U	0.50 U
	10/1/2006	1 U	54	12	10	1 U	1 U
	4/1/2007	0.50 U	49	9.9	5.3	0.50 U	0.50 U
	10/1/2007	0.50 U	72	9.4	6.4	0.50 U	0.50 U
	4/1/2008	0.50 U	57	6.8	5.1	0.50 U	0.50 U
	10/7/2008	0.50 U	64	7.8	6.3	0.50 U	0.50 U
	4/6/2009	0.50 U	51	5.4	3.5	0.50 U	0.50 U
	10/5/2009	0.50 U	67	7.7	4.5	0.50 U	0.06 J
	4/20/2010	0.50 U	49	5.7	3.5	0.50 U	0.50 U
	10/5/2010	0.50 U	49	5.8	3.6	0.50 U	0.50 U
	4/11/2011	0.50 U	36	4.4	3.4	0.50 U	0.50 U
	9/27/2011	0.50 U	39	5.8	3.7	0.50 U	0.50 U
	4/25/2012	0.50 U	32 J	4.1	2.5	0.50 U	0.50 U
	10/17/2012	0.50 U	40	5.5	3.8	0.50 U	0.50 U
	4/19/2013	0.50 U	21	2.4	1.6	0.50 U	0.25 J
	10/24/2013	0.50 U	28	4.5	3.1	0.50 U	0.50 U
	3/31/2014	0.50 U	24	2.8	2.0	0.50 U	0.50 U
	10/21/2014	0.50 UJ	19	2.2	1.1	0.50 U	0.50 U
	4/7/2015	0.50 U	16	1.7	1.1	0.50 U	0.16 J
	10/27/2015	0.50 U	25	2.6	1.7	0.50 U	0.50 U
	4/12/2016	0.50 U	11	1.3	0.85	0.50 U	0.50 U
	10/18/2016	0.50 U	13	1.4	0.81	0.50 U	0.50 U
	4/13/2017	0.50 U	7.5	0.65	0.49 J	0.50 U	0.50 U
	10/5/2017	0.50 U	15	1.5	1.3	0.50 U	0.50 U
	4/16/2018	0.20 U	6.69	0.46	0.31	0.20 U	0.20 U
	10/23/2018	0.10 U	13.6	2.01	1.35	0.10 U	0.10 U
	5/7/2019	0.51	14.2	1.51	1.29	0.10 U	0.09 J

Table A-2. Historical MNA Sample Results Supporting Temporal Variation Evaluations (continued)

		Analyte (Cleanup Level)					
Monitoring Location	**Date Sampled**	**Benzene (5.0 µg/L)**	**DCA (5.0 µg/L)**	**TCA (5.0 µg/L)**	**DCE (0.5 µg/L)**	**EDB (0.8 µg/L)**	**Toluene (1,000 µg/L)**
8MW03	3/9/1998	29	150	5.4 J	2.1 J	1 U	1 U
	9/24/1998	6.6	110	5	2	1 U	1 U
	3/24/1999	1 U	1 U	1 U	1 U	1 U	1 U
	6/23/1999	4.8	90 J	6 J	2.7 J	1 U	1 U
	9/21/1999	1.5	70 J	4.7	2.4	1 U	1 U
	3/21/2000	0.83 J	69 J	4.2	2.4	1 U	1 U
	10/30/2000	0.54	80	5.5	3.4	2 U	0.3 J
	1/16/2001	0.53	61	4.9	3	0.8 U	0.5 U
	4/16/2001	0.99	56	4.5	2.7	0.08 U	0.2 J
	7/18/2001	0.11 U	49	3.6	2.9	0.073 U	0.5 U
	10/22/2001	1.2	46	3.4	2.7	0.073 U	0.13 U
	5/30/2002	2.3	47	3.7	2.7	0.073 U	0.16 J
	10/29/2002	1.3	28	3	1.8	0.073 U	0.098 U
	4/7/2003	0.28 J	18	1.7	1.6	0.073 U	0.098 U
	10/6/2003	0.37 J	20	1.9	2	0.073 U	0.098 U
	4/12/2004	0.11 U	11	0.87	0.68	0.073 U	0.15 J
	10/6/2004	0.2 J	19	1.3	1.4	0.073 U	0.098 U
	4/6/2005	0.14 U	12	1	0.93	0.099 U	0.34 J
	10/13/2005	0.5 U	14	1	1.1	0.50 U	0.50 U
	4/27/2006	0.5 U	14	0.8	0.9	0.50 U	0.50 U
	10/1/2006	1 U	16	0.72 J	0.98 J	1 U	1 U
	4/1/2007	0.50 U	11	0.5 U	0.47 J	0.50 U	0.50 U
	10/1/2007	0.22 J	16	0.63	0.83	0.50 U	0.50 U
	4/1/2008	0.23 J	11	0.52	0.76	0.50 U	0.50 U
	10/6/2008	0.23 J	13	0.61	0.84	0.50 U	0.50 U
	4/6/2009	0.28 J	10	0.68	0.82	0.50 U	0.50 U
	10/5/2009	0.24 J	11	0.60	0.77	0.50 U	0.50 U
	4/19/2010	0.50 U	7.6	0.50 U	0.44 J	0.50 U	0.50 U
	10/6/2010	0.50 U	0.50 U	0.50 U	0.5 U	0.50 U	0.50 U
	4/11/2011	0.50 U	4	0.50 U	0.22 J	0.50 U	0.50 U
	9/27/2011	0.22 J	7.8	0.52	0.75	0.50 U	0.50 U
	4/19/2012	0.22 J	6.5	0.39 J	0.60	0.50 U	0.50 U
	10/18/2012	0.50 U	4.2	0.22 J	0.37	0.50 U	0.50 U
	4/19/2013	0.50 U	3.2	0.50 U	0.27 J	0.50 U	0.50 U
	10/24/2013	0.50 U	3.3	0.50 U	0.39 J	0.50 U	0.50 U
	3/31/2014	0.50 U	4.4	0.50 U	0.26 J	0.50 U	0.50 U
	10/21/2014	0.50 U	3.9	0.27 J	0.36 J	0.50 U	0.50 U
	4/7/2015	0.50 U	4.3	0.24 J	0.41 J	0.50 U	0.12 J
	10/22/2015	0.50 U	5.6	0.38 J	0.71	0.50 U	0.50 U
	4/11/2016	0.50 U	1.3	0.50 U	0.15 J	0.50 U	0.68 UJ
	10/17/2016	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
	4/13/2017	0.50 U	2.4	0.15 J	0.29 J	0.50 U	0.50 U
	10/5/2017	0.50 U	4.8	0.50 U	0.68	0.50 U	0.50 U
	4/24/2018	0.20 U	3.99	0.28	0.42	0.20 U	0.20 U
	10/29/2018	0.10 U	3.74	0.33	0.52	0.10 U	0.10 U
	5/13/2019	0.10 U	0.93	0.2 U	0.1 U	0.10 U	0.10 U

Table A-2. Historical MNA Sample Results Supporting Temporal Variation Evaluations (continued)

		Analyte (Cleanup Level)					
Monitoring Location	**Date Sampled**	**Benzene (5.0 µg/L)**	**DCA (5.0 µg/L)**	**TCA (5.0 µg/L)**	**DCE (0.5 µg/L)**	**EDB (0.8 µg/L)**	**Toluene (1,000 µg/L)**
8MW13	3/11/1998	2.6	70	3.3	1.1	1 U	1 U
	6/17/1998	2.3	37	2.1	0.55 J	1 U	0.38 J
	9/23/1998	2.4	24	1.5	0.45 J	1 U	1 U
	12/14/1998	2.4	21	1.5	0.39 J	1 U	1 U
	3/25/1999	0.30 J	7.3	0.95 J	1 U	1 U	1 U
	6/24/1999	1 U	4.3	0.73 J	1 U	1 U	1 U
	9/20/1999	0.29 J	3.4	0.86 J	1 U	1 U	1 U
	12/13/1999	0.43 J	3.5	0.72 J	1 U	1 U	1 U
	3/23/2000	0.3 J	2.7	0.59 J	1 U	1 U	1 U
	6/19/2000	0.13 J	2.2	0.53 J	1 U	1 U	1 U
	11/2/2000	0.5 U	2.9	0.52	0.50 U	2 U	0.5 U
	1/15/2001	0.5 U	3.2	0.53	0.50 U	0.8 U	0.5 U
	4/19/2001	0.2 U	2.9	0.1 U	0.2 U	0.08 U	0.1 U
	7/19/2001	0.11 U	2.9	0.44 J	0.12 U	0.073 U	0.5 U
	10/25/2001	0.11 U	2	0.41 J	0.12 U	0.073 U	0.18 U
	5/30/2002	0.11 U	1.4	0.28 J	0.12 U	0.073 U	0.098 U
	10/29/2002	0.11 U	1.6	0.04 J	0.12 U	0.073 U	0.098 U
	4/8/2003	0.11 U	0.85	0.25 J	0.12 U	0.073 U	0.098 U
	10/6/2003	0.11 U	0.76	0.23 J	0.12 U	0.073 U	0.098 U
	4/13/2004	0.11 U	0.7	0.21 J	0.12 U	0.073 U	0.098 U
	10/7/2004	0.11 U	0.82 J	0.23 J	0.12 U	0.073 U	0.098 U
	4/4/2005	0.14 U	0.84	0.18 J	0.13 U	0.099 U	0.50 U
	10/6/2005	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
	5/2/2006	0.50 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
	10/1/2006	1 U	1 U	1 U	1 U	1 U	1 U
	4/1/2007	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
	10/1/2007	0.50 U	0.38 J	0.50 U	0.50 U	0.50 U	0.50 U
	4/1/2008	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
	10/3/2008	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
	4/9/2009	0.50 U	1.7	0.50 U	0.50 U	0.50 U	0.50 U
	10/13/2009	0.50 U	2.1	0.50 U	0.50 U	0.50 U	0.14 J
	4/22/2010	0.50 U	2.3	0.50 U	0.50 U	0.50 U	0.05 J
	10/7/2010	0.50 U	2.2	0.50 U	0.50 U	0.50 U	0.50 U
	4/15/2011	0.50 U	1.8	0.50 U	0.50 U	0.50 U	0.50 U
	9/30/2011	0.50 U	1.2	0.50 U	0.50 U	0.50 U	0.50 U
	4/20/2012	0.50 U	1.8	0.50 U	0.50 U	0.50 U	0.50 U
	10/22/2012	0.50 U	1.1	0.50 U	0.50 U	0.50 U	0.50 U
	4/19/2013	0.50 U	1.1	0.50 U	0.50 U	0.50 U	0.50 U
	10/24/2013	0.50 U	0.71	0.50 U	0.50 U	0.50 U	0.50 U
	3/27/2014	0.50 U	0.16 J	0.50 U	0.50 U	0.50 U	0.50 U
	10/27/2014	0.50 U	0.29 J	0.50 U	0.50 U	0.50 U	0.50 U
	4/6/2015	0.50 U	0.63	0.50 U	0.50 U	0.50 U	0.50 U
	10/26/2015	0.50 U	0.69	0.50 U	0.50 U	0.50 U	0.50 U
	10/19/2016	0.50 U	0.15 J	0.50 U	0.50 U	0.50 U	0.50 U
	10/4/2017	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
	10/30/2018	0.10 U	0.10 UJ	0.20 U	0.10 U	0.10 U	0.10 U

Notes:
D = The result is reported from a diluted analysis.
DCA = 1,2-dichloroethane
DCE = 1,1-dichloroethene
EDB = 1,2-dibromoethane
TCA = 1,1,2-Trichloroethane
J = The result is an estimated concentration that is less than the reporting limit but greater than or equal to the method detection limit (MDL).
U = The compound was analyzed for but was not detected (non-detect) at or above the MRL/MDL.
µg/L = micrograms per liter

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/21/2000	8MW03	1,1,2-TRICHLOROETHANE	UG_L	3.9000001	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	1,1,2-TRICHLOROETHANE	UG_L	4.0999999	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	1,1-DICHLOROETHENE	UG_L	2	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	1,2-DICHLOROETHANE	UG_L	64	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	1,2-DICHLOROETHANE	UG_L	69	J	DUP	Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	1,2-DICHLOROPROPANE	UG_L	2	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	BENZENE	UG_L	0.8	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	BENZENE	UG_L	0.83	J	DUP	Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	ETHYLBENZENE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	TOLUENE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	VINYL CHLORIDE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW03	XYLENES, TOTAL	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW15	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	1,2-DICHLOROETHANE	UG_L	1.4	A		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	BENZENE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW19	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/21/2000	8MW25	1,1,2-TRICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	1,1-DICHLOROETHENE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	1,2-DIBROMOETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	1,2-DICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	1,2-DICHLOROPROPANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	BENZENE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	ETHYLBENZENE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	TOLUENE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	VINYL CHLORIDE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/21/2000	8MW25	XYLENES, TOTAL	UG_L	1	U		Deep	OPERABLE UNIT 8
3/23/2000	25MW01	1,1,2-TRICHLOROETHANE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	1,1-DICHLOROETHENE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	1,2-DIBROMOETHANE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	1,2-DICHLOROETHANE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	1,2-DICHLOROPROPANE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	BENZENE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	ETHYLBENZENE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	TOLUENE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	VINYL CHLORIDE	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	25MW01	XYLENES, TOTAL	UG_L	1	U		No data	OPERABLE UNIT 8
3/23/2000	8MW01	1,1,2-TRICHLOROETHANE	UG_L	0.51	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,1,2-TRICHLOROETHANE	UG_L	0.65	J	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,1-DICHLOROETHENE	UG_L	0.42	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,1-DICHLOROETHENE	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/23/2000	8MW01	1,2-DIBROMOETHANE	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,2-DICHLOROETHANE	UG_L	40	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,2-DICHLOROPROPANE	UG_L	0.47	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	1,2-DICHLOROPROPANE	UG_L	0.6	J	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	BENZENE	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	ETHYLBENZENE	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	TOLUENE	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	VINYL CHLORIDE	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW01	XYLENES, TOTAL	UG_L	5	U	DUP	Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW11	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.59	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.56	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,2-DICHLOROETHANE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,2-DICHLOROPROPANE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	1,2-DICHLOROPROPANE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	BENZENE	UG_L	0.29	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	BENZENE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW13	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.95	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	1.1	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.72	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.74	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,1-DICHLOROETHENE	UG_L	0.3	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,1-DICHLOROETHENE	UG_L	0.29	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,2-DICHLOROETHANE	UG_L	30	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	0.43	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	0.42	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	BENZENE	UG_L	2.0999999	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	BENZENE	UG_L	2.2	J		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	BENZENE	UG_L	2.2	A		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	BENZENE	UG_L	2.0999999	A		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	ETHYLBENZENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	TOLUENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/23/2000	8MW32	XYLENES, TOTAL	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW32	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW33	1,1,2-TRICHLOROETHANE	UG_L	27	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,1-DICHLOROETHENE	UG_L	18	A		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,1-DICHLOROETHENE	UG_L	14	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,2-DIBROMOETHANE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,2-DICHLOROETHANE	UG_L	20	A		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,2-DICHLOROETHANE	UG_L	20	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,2-DICHLOROPROPANE	UG_L	9.5	A		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	1,2-DICHLOROPROPANE	UG_L	8.3000002	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	BENZENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	BENZENE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	ETHYLBENZENE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	TOLUENE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	VINYL CHLORIDE	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW33	XYLENES, TOTAL	UG_L	5	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW34	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	BENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW34	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/23/2000	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.42	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	1,1-DICHLOROETHENE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	1,2-DICHLOROETHANE	UG_L	2	A		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	1,2-DICHLOROPROPANE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/23/2000	8MW35	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW06	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	1,2-DICHLOROETHANE	UG_L	1600	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	BENZENE	UG_L	170	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	ETHYLBENZENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	ETHYLBENZENE	UG_L	6.5	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	TOLUENE	UG_L	11	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	TOLUENE	UG_L	8	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	XYLENES, TOTAL	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW06	XYLENES, TOTAL	UG_L	50	U	DUP	Shallow	OPERABLE UNIT 8
3/24/2000	8MW07	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	1,2-DICHLOROETHANE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/24/2000	8MW07	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW07	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/24/2000	8MW16	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	BENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW16	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW36	1,1,2-TRICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	1,1-DICHLOROETHENE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	1,2-DIBROMOETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	1,2-DICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	1,2-DICHLOROPROPANE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	BENZENE	UG_L	0.24	J		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	ETHYLBENZENE	UG_L	0.21	J		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	TOLUENE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	VINYL CHLORIDE	UG_L	1	U		Deep	OPERABLE UNIT 8
3/24/2000	8MW36	XYLENES, TOTAL	UG_L	0.2	J		Deep	OPERABLE UNIT 8
3/24/2000	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.27	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	BENZENE	UG_L	0.37	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW42	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,2-DIBROMOETHANE	UG_L	30	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,2-DIBROMOETHANE	UG_L	55	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,2-DICHLOROETHANE	UG_L	380	A		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,2-DICHLOROETHANE	UG_L	340	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	BENZENE	UG_L	4900	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	ETHYLBENZENE	UG_L	980	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	TOLUENE	UG_L	4600	J		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	XYLENES, TOTAL	UG_L	2900	A		Shallow	OPERABLE UNIT 8
3/24/2000	8MW48	XYLENES, TOTAL	UG_L	2800	J		Shallow	OPERABLE UNIT 8
3/27/2000	28MW1	1,1,2-TRICHLOROETHANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	1,1-DICHLOROETHENE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	1,2-DIBROMOETHANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	1,2-DICHLOROETHANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	1,2-DICHLOROPROPANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	BENZENE	UG_L	7000	J		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	ETHYLBENZENE	UG_L	730	A		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	TOLUENE	UG_L	330	A		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/27/2000	28MW1	VINYL CHLORIDE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
3/27/2000	28MW1	XYLENES, TOTAL	UG_L	2900	A		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW24	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,2-DICHLOROETHANE	UG_L	360	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,2-DICHLOROETHANE	UG_L	300	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	BENZENE	UG_L	5200	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	ETHYLBENZENE	UG_L	1000	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	ETHYLBENZENE	UG_L	700	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	TOLUENE	UG_L	690	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	TOLUENE	UG_L	500	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	XYLENES, TOTAL	UG_L	710	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW24	XYLENES, TOTAL	UG_L	520	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW28	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	BENZENE	UG_L	0.67	J		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	ETHYLBENZENE	UG_L	1.2	A		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	TOLUENE	UG_L	2.9000001	A		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW28	XYLENES, TOTAL	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
3/27/2000	8MW30	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,2-DICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,2-DICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	BENZENE	UG_L	180	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	BENZENE	UG_L	240	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	ETHYLBENZENE	UG_L	1000	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	TOLUENE	UG_L	2900	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	XYLENES, TOTAL	UG_L	2300	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW30	XYLENES, TOTAL	UG_L	3200	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,2-DICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,2-DICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/27/2000	8MW47	BENZENE	UG_L	2000	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	BENZENE	UG_L	1400	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	ETHYLBENZENE	UG_L	890	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	TOLUENE	UG_L	5600	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	XYLENES, TOTAL	UG_L	4500	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW47	XYLENES, TOTAL	UG_L	3300	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,2-DICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	BENZENE	UG_L	680	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	ETHYLBENZENE	UG_L	170	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	ETHYLBENZENE	UG_L	200	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	TOLUENE	UG_L	700	J		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	XYLENES, TOTAL	UG_L	490	A		Shallow	OPERABLE UNIT 8
3/27/2000	8MW53	XYLENES, TOTAL	UG_L	520	J		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	BENZENE	UG_L	3.2	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	ETHYLBENZENE	UG_L	5.0999999	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	TOLUENE	UG_L	16	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW03	XYLENES, TOTAL	UG_L	34	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	1,2-DIBROMOETHANE	UG_L	18	J		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	1,2-DICHLOROETHANE	UG_L	220	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	BENZENE	UG_L	1800	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	ETHYLBENZENE	UG_L	91	J		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	TOLUENE	UG_L	2100	A		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
3/28/2000	MW05	XYLENES, TOTAL	UG_L	2900	A		Shallow	OPERABLE UNIT 8
6/19/2000	8MW11	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW11	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.51	J		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.53	J		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
6/19/2000	8MW13	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	1,2-DICHLOROETHANE	UG_L	2.2	A		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	1,2-DICHLOROETHANE	UG_L	2.0999999	A		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	BENZENE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW13	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW15	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	1,2-DICHLOROETHANE	UG_L	1.3	A		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	BENZENE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/19/2000	8MW19	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	3.5999999	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	4.4000001	A		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	3.9000001	J	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1,2-TRICHLOROETHANE	UG_L	4.0999999	A	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1-DICHLOROETHENE	UG_L	1.3	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1-DICHLOROETHENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1-DICHLOROETHENE	UG_L	1.2	A		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,1-DICHLOROETHENE	UG_L	1.2	A	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DIBROMOETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DIBROMOETHANE	UG_L	1	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DICHLOROETHANE	UG_L	120	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DICHLOROETHANE	UG_L	120	J	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	2.7	A		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	2.8	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	2.8	J	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	1,2-DICHLOROPROPANE	UG_L	2.7	A	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	BENZENE	UG_L	8.3999996	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	BENZENE	UG_L	9.6999998	A		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	BENZENE	UG_L	7.8000002	J	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	BENZENE	UG_L	9.5	A	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	ETHYLBENZENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	ETHYLBENZENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	ETHYLBENZENE	UG_L	1	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	TOLUENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	TOLUENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	TOLUENE	UG_L	0.17	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	TOLUENE	UG_L	0.16	J	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
6/20/2000	8MW32	VINYL CHLORIDE	UG_L	0.25	J		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	VINYL CHLORIDE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	VINYL CHLORIDE	UG_L	0.31	J	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	XYLENES, TOTAL	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	XYLENES, TOTAL	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW32	XYLENES, TOTAL	UG_L	1	U	DUP	Shallow	OPERABLE UNIT 8
6/20/2000	8MW33	1,1,2-TRICHLOROETHANE	UG_L	31	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,1-DICHLOROETHENE	UG_L	21	A		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,1-DICHLOROETHENE	UG_L	19	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,2-DICHLOROETHANE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,2-DICHLOROETHANE	UG_L	15	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,2-DICHLOROPROPANE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	1,2-DICHLOROPROPANE	UG_L	9.6999998	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	BENZENE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	BENZENE	UG_L	0.26	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	ETHYLBENZENE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	TOLUENE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	VINYL CHLORIDE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW33	XYLENES, TOTAL	UG_L	2	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW34	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	BENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW34	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/20/2000	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.6	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	1,1-DICHLOROETHENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	1,2-DICHLOROETHANE	UG_L	2.4000001	A		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	1,2-DICHLOROPROPANE	UG_L	0.19	J		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/20/2000	8MW35	XYLENES, TOTAL	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/21/2000	25MW01	1,1,2-TRICHLOROETHANE	UG_L	3.0999999	J		No data	OPERABLE UNIT 8
6/21/2000	25MW01	1,1-DICHLOROETHENE	UG_L	2	J		No data	OPERABLE UNIT 8
6/21/2000	25MW01	1,2-DIBROMOETHANE	UG_L	5	U		No data	OPERABLE UNIT 8
6/21/2000	25MW01	1,2-DICHLOROETHANE	UG_L	62	J		No data	OPERABLE UNIT 8
6/21/2000	25MW01	1,2-DICHLOROPROPANE	UG_L	2	J		No data	OPERABLE UNIT 8
6/21/2000	25MW01	BENZENE	UG_L	1	U		No data	OPERABLE UNIT 8
6/21/2000	25MW01	ETHYLBENZENE	UG_L	1	U		No data	OPERABLE UNIT 8
6/21/2000	25MW01	TOLUENE	UG_L	1	U		No data	OPERABLE UNIT 8
6/21/2000	25MW01	VINYL CHLORIDE	UG_L	1	U		No data	OPERABLE UNIT 8
6/21/2000	25MW01	XYLENES, TOTAL	UG_L	1	U		No data	OPERABLE UNIT 8
6/21/2000	8MW06	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	1,2-DICHLOROETHANE	UG_L	1200	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
6/21/2000	8MW06	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	BENZENE	UG_L	470	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	ETHYLBENZENE	UG_L	40	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	ETHYLBENZENE	UG_L	41	J	DUP	Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	TOLUENE	UG_L	82	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	TOLUENE	UG_L	81	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	XYLENES, TOTAL	UG_L	94	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW06	XYLENES, TOTAL	UG_L	97	J	DUP	Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	1,1,2-TRICHLOROETHANE	UG_L	1.7	A		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	1,1-DICHLOROETHENE	UG_L	0.43	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	1,2-DICHLOROETHANE	UG_L	0.54	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	1,2-DICHLOROPROPANE	UG_L	0.6	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	BENZENE	UG_L	0.66	J		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/21/2000	8MW42	XYLENES, TOTAL	UG_L	1	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,2-DICHLOROETHANE	UG_L	330	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,2-DICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	BENZENE	UG_L	6600	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	ETHYLBENZENE	UG_L	1000	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	ETHYLBENZENE	UG_L	960	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	TOLUENE	UG_L	1300	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	TOLUENE	UG_L	1200	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW24	XYLENES, TOTAL	UG_L	1100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,2-DICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,2-DICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	BENZENE	UG_L	260	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	BENZENE	UG_L	220	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	ETHYLBENZENE	UG_L	1500	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	TOLUENE	UG_L	6500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	XYLENES, TOTAL	UG_L	3700	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW30	XYLENES, TOTAL	UG_L	3500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,1,2-TRICHLOROETHANE	UG_L	1000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,1-DICHLOROETHENE	UG_L	1000	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
6/22/2000	8MW47	1,2-DIBROMOETHANE	UG_L	1000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,2-DIBROMOETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,2-DICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,2-DICHLOROETHANE	UG_L	1000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,2-DICHLOROPROPANE	UG_L	1000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	BENZENE	UG_L	2500	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	BENZENE	UG_L	2600	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	ETHYLBENZENE	UG_L	1400	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	TOLUENE	UG_L	14000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	VINYL CHLORIDE	UG_L	1000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	XYLENES, TOTAL	UG_L	7000	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW47	XYLENES, TOTAL	UG_L	7200	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,2-DIBROMOETHANE	UG_L	22	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,2-DICHLOROETHANE	UG_L	320	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,2-DICHLOROETHANE	UG_L	310	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	BENZENE	UG_L	6100	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	ETHYLBENZENE	UG_L	1200	J		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	ETHYLBENZENE	UG_L	1200	A		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	TOLUENE	UG_L	4900	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	8MW48	XYLENES, TOTAL	UG_L	2700	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	BENZENE	UG_L	5.1999998	A		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	ETHYLBENZENE	UG_L	4.9000001	J		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	TOLUENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW03	XYLENES, TOTAL	UG_L	35	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,1,2-TRICHLOROETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,1-DICHLOROETHENE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,2-DIBROMOETHANE	UG_L	25	J		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,2-DIBROMOETHANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,2-DICHLOROETHANE	UG_L	340	A		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,2-DICHLOROETHANE	UG_L	350	J		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	1,2-DICHLOROPROPANE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	BENZENE	UG_L	4000	J		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	ETHYLBENZENE	UG_L	170	A		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	ETHYLBENZENE	UG_L	200	J		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	TOLUENE	UG_L	5000	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	VINYL CHLORIDE	UG_L	500	U		Shallow	OPERABLE UNIT 8
6/22/2000	MW05	XYLENES, TOTAL	UG_L	5100	U		Shallow	OPERABLE UNIT 8
6/23/2000	28MW1	1,1,2-TRICHLOROETHANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
6/23/2000	28MW1	1,1-DICHLOROETHENE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	1,2-DIBROMOETHANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	1,2-DICHLOROETHANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	1,2-DICHLOROPROPANE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	BENZENE	UG_L	7700	J		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	ETHYLBENZENE	UG_L	820	A		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	TOLUENE	UG_L	1600	U		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	VINYL CHLORIDE	UG_L	100	U		Intermediate	OPERABLE UNIT 8
6/23/2000	28MW1	XYLENES, TOTAL	UG_L	3900	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	BENZENE	UG_L	6.6999998	A		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	ETHYLBENZENE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	TOLUENE	UG_L	3.7	A		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW28	XYLENES, TOTAL	UG_L	9.3000002	A		Intermediate	OPERABLE UNIT 8
6/23/2000	8MW53	1,1,2-TRICHLOROETHANE	UG_L	200	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,1-DICHLOROETHENE	UG_L	200	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,2-DIBROMOETHANE	UG_L	200	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,2-DICHLOROETHANE	UG_L	200	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,2-DICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,2-DICHLOROPROPANE	UG_L	200	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	BENZENE	UG_L	2700	J		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	ETHYLBENZENE	UG_L	770	J		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	ETHYLBENZENE	UG_L	860	A		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	TOLUENE	UG_L	1700	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	VINYL CHLORIDE	UG_L	200	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	XYLENES, TOTAL	UG_L	3000	U		Shallow	OPERABLE UNIT 8
6/23/2000	8MW53	XYLENES, TOTAL	UG_L	3100	U		Shallow	OPERABLE UNIT 8
10/30/2000	8MW03	1,1,2-TRICHLOROETHANE	UG_L	5.5	A		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	1,1-DICHLOROETHENE	UG_L	3.4	A		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	1,2-DICHLOROETHANE	UG_L	80	J		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	1,2-DICHLOROPROPANE	UG_L	2.6	A		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	BENZENE	UG_L	0.54	A		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	TOLUENE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW03	VINYL CHLORIDE	UG_L	0.5	J		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	1,2-DIBROMOETHANE	UG_L	2	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	TOLUENE	UG_L	0.2	J		Deep	OPERABLE UNIT 8
10/30/2000	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/30/2000	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	1,2-DICHLOROETHANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/30/2000	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	TOLUENE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8
10/30/2000	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	1,2-DIBROMOETHANE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	1,2-DICHLOROETHANE	UG_L	1200	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	BENZENE	UG_L	370	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	ETHYLBENZENE	UG_L	60	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	TOLUENE	UG_L	61	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW06	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW33	1,1,2-TRICHLOROETHANE	UG_L	30	A		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,1,2-TRICHLOROETHANE	UG_L	31	A	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,1-DICHLOROETHENE	UG_L	19	A	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,1-DICHLOROETHENE	UG_L	20	A		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,2-DIBROMOETHANE	UG_L	2	U	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,2-DICHLOROETHANE	UG_L	15	A	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,2-DICHLOROETHANE	UG_L	15	A		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,2-DICHLOROPROPANE	UG_L	9.4	A	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	1,2-DICHLOROPROPANE	UG_L	9.6	A		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	BENZENE	UG_L	0.2	J	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	BENZENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	TOLUENE	UG_L	0.1	J	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	TOLUENE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/31/2000	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/31/2000	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	BENZENE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	TOLUENE	UG_L	0.1	J		Shallow	OPERABLE UNIT 8
10/31/2000	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	ETHYLBENZENE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	TOLUENE	UG_L	0.68	A		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW28	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/1/2000	8MW47	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,1,2-TRICHLOROETHANE	UG_L	100	U	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,1-DICHLOROETHENE	UG_L	100	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,1-DICHLOROETHENE	UG_L	100	U	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,2-DIBROMOETHANE	UG_L	400	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,2-DIBROMOETHANE	UG_L	400	U	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,2-DICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,2-DICHLOROETHANE	UG_L	100	U	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,2-DICHLOROPROPANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	1,2-DICHLOROPROPANE	UG_L	100	U	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	BENZENE	UG_L	3200	A		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
11/1/2000	8MW47	BENZENE	UG_L	3200	A	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	ETHYLBENZENE	UG_L	1600	A		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	ETHYLBENZENE	UG_L	1600	A	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	TOLUENE	UG_L	22000	A		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	TOLUENE	UG_L	20000	A	DUP	Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	VINYL CHLORIDE	UG_L	100	U		Shallow	OPERABLE UNIT 8
11/1/2000	8MW47	VINYL CHLORIDE	UG_L	100	U	DUP	Shallow	OPERABLE UNIT 8
11/2/2000	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.52	A		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	1,2-DICHLOROETHANE	UG_L	2.9	A		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	1,2-DICHLOROETHANE	UG_L	0.86	A		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	BENZENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	TOLUENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/2/2000	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	1,2-DIBROMOETHANE	UG_L	2	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	TOLUENE	UG_L	0.3	U		Deep	OPERABLE UNIT 8
11/2/2000	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/15/2001	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.53	A		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	1,2-DIBROMOETHANE	UG_L	0.8	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	1,2-DICHLOROETHANE	UG_L	3.2	A		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	1,2-DIBROMOETHANE	UG_L	0.8	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	1,2-DICHLOROETHANE	UG_L	0.9	A		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	BENZENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/15/2001	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	1,1,2-TRICHLOROETHANE	UG_L	4.9	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	1,1-DICHLOROETHENE	UG_L	3	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	1,2-DIBROMOETHANE	UG_L	0.8	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	1,2-DICHLOROETHANE	UG_L	61	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	1,2-DICHLOROPROPANE	UG_L	2.4	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	BENZENE	UG_L	0.53	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
1/16/2001	8MW03	VINYL CHLORIDE	UG_L	0.69	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	1,2-DIBROMOETHANE	UG_L	0.8	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
1/16/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	J		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.56	A	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.2	J	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,2-DIBROMOETHANE	UG_L	0.8	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,2-DIBROMOETHANE	UG_L	0.8	U	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,2-DICHLOROETHANE	UG_L	2.3	A		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,2-DICHLOROETHANE	UG_L	2.3	A	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.2	J	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/16/2001	8MW35	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW28	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/17/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.2	J	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,2-DIBROMOETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,2-DICHLOROETHANE	UG_L	0.2	J	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	BENZENE	UG_L	0.5	A	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	BENZENE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	ETHYLBENZENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	TOLUENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW42	VINYL CHLORIDE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	1,2-DIBROMOETHANE	UG_L	20	J		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	1,2-DICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
1/17/2001	8MW47	BENZENE	UG_L	3800	A		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	TOLUENE	UG_L	20000	A		Shallow	OPERABLE UNIT 8
1/17/2001	8MW47	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	1,2-DIBROMOETHANE	UG_L	3	J		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	1,2-DICHLOROETHANE	UG_L	1200	A		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	BENZENE	UG_L	950	A		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	ETHYLBENZENE	UG_L	65	A		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	TOLUENE	UG_L	340	A		Shallow	OPERABLE UNIT 8
1/18/2001	8MW06	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/18/2001	8MW33	1,1,2-TRICHLOROETHANE	UG_L	25	A		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	1,1-DICHLOROETHENE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	1,2-DIBROMOETHANE	UG_L	2	U		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	1,2-DICHLOROETHANE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	1,2-DICHLOROPROPANE	UG_L	7.4	A		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	BENZENE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
1/18/2001	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	1,1,2-TRICHLOROETHANE	UG_L	4.5	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	1,1-DICHLOROETHENE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	1,2-DIBROMOETHANE	UG_L	0.08	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	1,2-DICHLOROETHANE	UG_L	56	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	1,2-DICHLOROPROPANE	UG_L	2.2	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	BENZENE	UG_L	0.99	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	TOLUENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW03	VINYL CHLORIDE	UG_L	0.61	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	1,1-DICHLOROETHENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	1,2-DIBROMOETHANE	UG_L	0.08	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	1,2-DICHLOROETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	1,2-DICHLOROPROPANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	BENZENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	ETHYLBENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	TOLUENE	UG_L	0.4	J		Deep	OPERABLE UNIT 8
4/16/2001	8MW25	VINYL CHLORIDE	UG_L	0.3	U		Deep	OPERABLE UNIT 8
4/16/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.68	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	1,2-DIBROMOETHANE	UG_L	0.08	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	1,2-DICHLOROETHANE	UG_L	3	A		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	BENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	TOLUENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
4/16/2001	8MW35	VINYL CHLORIDE	UG_L	0.3	U		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW06	1,1,2-TRICHLOROETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,1-DICHLOROETHENE	UG_L	3	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,1-DICHLOROETHENE	UG_L	3	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,2-DIBROMOETHANE	UG_L	2	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,2-DICHLOROETHANE	UG_L	1200	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,2-DICHLOROETHANE	UG_L	1100	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,2-DICHLOROPROPANE	UG_L	3	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	1,2-DICHLOROPROPANE	UG_L	3	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	BENZENE	UG_L	860	J	DUP	Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/17/2001	8MW06	BENZENE	UG_L	850	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	ETHYLBENZENE	UG_L	80	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	ETHYLBENZENE	UG_L	79	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	TOLUENE	UG_L	200	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	TOLUENE	UG_L	190	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	VINYL CHLORIDE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2001	8MW06	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW33	1,1,2-TRICHLOROETHANE	UG_L	25	A		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	1,1-DICHLOROETHENE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	1,2-DIBROMOETHANE	UG_L	0.08	U		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	1,2-DICHLOROETHANE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	1,2-DICHLOROPROPANE	UG_L	7.7	A		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	BENZENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	TOLUENE	UG_L	0.4	J		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW33	VINYL CHLORIDE	UG_L	0.3	U		Intermediate	OPERABLE UNIT 8
4/17/2001	8MW47	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	1,1-DICHLOROETHENE	UG_L	30	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	1,2-DICHLOROETHANE	UG_L	30	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	1,2-DICHLOROPROPANE	UG_L	30	U		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	BENZENE	UG_L	4400	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	ETHYLBENZENE	UG_L	1400	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	TOLUENE	UG_L	19000	J		Shallow	OPERABLE UNIT 8
4/17/2001	8MW47	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	J		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	1,2-DIBROMOETHANE	UG_L	0.08	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	1,2-DICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	BENZENE	UG_L	0.3	J		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	BENZENE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW42	VINYL CHLORIDE	UG_L	0.3	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	1,2-DIBROMOETHANE	UG_L	0.08	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	1,2-DICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	BENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/18/2001	8MW48	VINYL CHLORIDE	UG_L	0.3	U		Shallow	OPERABLE UNIT 8
4/19/2001	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	1,1-DICHLOROETHENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	1,2-DIBROMOETHANE	UG_L	0.08	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	1,2-DICHLOROETHANE	UG_L	2.9	A		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	1,2-DICHLOROETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	1,2-DICHLOROPROPANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	BENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW13	VINYL CHLORIDE	UG_L	0.3	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	1,1-DICHLOROETHENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	1,2-DIBROMOETHANE	UG_L	0.08	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	1,2-DICHLOROETHANE	UG_L	0.99	A		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	1,2-DICHLOROPROPANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/19/2001	8MW19	BENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/19/2001	8MW19	VINYL CHLORIDE	UG_L	0.3	U		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	ETHYLBENZENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
7/17/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.59	A		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.51	A		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.26	J		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,2-DICHLOROETHANE	UG_L	2.9	A		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,2-DICHLOROETHANE	UG_L	3	A		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/17/2001	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	1,1,2-TRICHLOROETHANE	UG_L	3.6	A		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	1,1-DICHLOROETHENE	UG_L	2.9	A		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	1,2-DICHLOROETHANE	UG_L	49	A		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	1,2-DICHLOROPROPANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW03	VINYL CHLORIDE	UG_L	0.42	J		Intermediate	OPERABLE UNIT 8
7/18/2001	8MW06	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	1,1-DICHLOROETHENE	UG_L	3	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	1,2-DIBROMOETHANE	UG_L	1.9	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	1,2-DICHLOROETHANE	UG_L	1200	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	1,2-DICHLOROPROPANE	UG_L	5.5	JD		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	BENZENE	UG_L	850	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	ETHYLBENZENE	UG_L	83	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	TOLUENE	UG_L	91	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW06	VINYL CHLORIDE	UG_L	5.3	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	1,1-DICHLOROETHENE	UG_L	24	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	1,2-DIBROMOETHANE	UG_L	15	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	1,2-DICHLOROETHANE	UG_L	23	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	BENZENE	UG_L	4600	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	ETHYLBENZENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	TOLUENE	UG_L	20000	D		Shallow	OPERABLE UNIT 8
7/18/2001	8MW47	VINYL CHLORIDE	UG_L	43	U		Shallow	OPERABLE UNIT 8
7/19/2001	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.44	J		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	1,2-DICHLOROETHANE	UG_L	2.9	A		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
7/19/2001	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	1,2-DICHLOROETHANE	UG_L	1.2	A		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	BENZENE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
7/19/2001	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	ETHYLBENZENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
7/19/2001	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
7/20/2001	8MW33	1,1,2-TRICHLOROETHANE	UG_L	22	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,1,2-TRICHLOROETHANE	UG_L	24	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,1-DICHLOROETHENE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,2-DICHLOROETHANE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,2-DICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,2-DICHLOROPROPANE	UG_L	6.8	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	1,2-DICHLOROPROPANE	UG_L	7	A		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
7/20/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	1,2-DICHLOROETHANE	UG_L	0.24	J		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	BENZENE	UG_L	0.71	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	ETHYLBENZENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
7/20/2001	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
10/22/2001	8MW03	1,1,2-TRICHLOROETHANE	UG_L	3.4	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	1,1-DICHLOROETHENE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	1,2-DICHLOROETHANE	UG_L	46	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	1,2-DICHLOROPROPANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	BENZENE	UG_L	1.2	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW03	VINYL CHLORIDE	UG_L	0.37	J		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/22/2001	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	ETHYLBENZENE	UG_L	0.1	J		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/22/2001	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.71	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.59	A	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.32	J		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,1-DICHLOROETHENE	UG_L	0.31	J	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,2-DICHLOROETHANE	UG_L	4.9	A		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,2-DICHLOROETHANE	UG_L	4.9	A	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	1,2-DICHLOROPROPANE	UG_L	0.18	J	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	BENZENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	BENZENE	UG_L	0.24	J	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	ETHYLBENZENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/22/2001	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/23/2001	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	1,1-DICHLOROETHENE	UG_L	0.6	U		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	1,2-DIBROMOETHANE	UG_L	1.8	JD		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	1,2-DICHLOROETHANE	UG_L	1400	D		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	1,2-DICHLOROPROPANE	UG_L	7.9	D		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	BENZENE	UG_L	830	D		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	ETHYLBENZENE	UG_L	56	D		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	TOLUENE	UG_L	180	D		Shallow	OPERABLE UNIT 8
10/23/2001	8MW06	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW33	1,1,2-TRICHLOROETHANE	UG_L	24	A		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	1,1-DICHLOROETHENE	UG_L	15	A		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	1,2-DICHLOROETHANE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	1,2-DICHLOROPROPANE	UG_L	7.5	A		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	BENZENE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/24/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/24/2001	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	BENZENE	UG_L	0.62	A	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	BENZENE	UG_L	0.61	A		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	ETHYLBENZENE	UG_L	0.098	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	ETHYLBENZENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	TOLUENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	VINYL CHLORIDE	UG_L	0.22	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2001	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	UD		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	1,1-DICHLOROETHENE	UG_L	12	UD		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	1,2-DIBROMOETHANE	UG_L	37	JD		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	1,2-DICHLOROETHANE	UG_L	290	D		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	1,2-DICHLOROPROPANE	UG_L	13	UD		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	BENZENE	UG_L	7500	D		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	ETHYLBENZENE	UG_L	1400	D		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	TOLUENE	UG_L	21000	D		Shallow	OPERABLE UNIT 8
10/24/2001	8MW47	VINYL CHLORIDE	UG_L	22	UD		Shallow	OPERABLE UNIT 8
10/25/2001	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.41	J		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	1,2-DICHLOROETHANE	UG_L	2	A		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	1,2-DICHLOROETHANE	UG_L	1.6	A		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	BENZENE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	ETHYLBENZENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/25/2001	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	ETHYLBENZENE	UG_L	0.14	J		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/25/2001	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW03	1,1,2-TRICHLOROETHANE	UG_L	3.7	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	1,1-DICHLOROETHENE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	1,2-DICHLOROETHANE	UG_L	47	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	1,2-DICHLOROPROPANE	UG_L	2	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	BENZENE	UG_L	2.3	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	TOLUENE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW03	VINYL CHLORIDE	UG_L	0.36	J		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.28	J		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	1,2-DICHLOROETHANE	UG_L	1.4	A		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/28/2002	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	1,2-DICHLOROETHANE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	TOLUENE	UG_L	0.18	J		Deep	OPERABLE UNIT 8
5/28/2002	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.63	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.66	A	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,1-DICHLOROETHENE	UG_L	0.35	J	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,1-DICHLOROETHENE	UG_L	0.36	J		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,2-DICHLOROETHANE	UG_L	8.5	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,2-DICHLOROETHANE	UG_L	8.6	A	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,2-DICHLOROPROPANE	UG_L	0.21	J		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	1,2-DICHLOROPROPANE	UG_L	0.21	J	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	BENZENE	UG_L	0.91	A		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	BENZENE	UG_L	0.91	A	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
5/28/2002	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
5/28/2002	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
5/28/2002	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
5/29/2002	8MW33	1,1,2-TRICHLOROETHANE	UG_L	23	A		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	1,1-DICHLOROETHENE	UG_L	17	A		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	1,2-DICHLOROETHANE	UG_L	17	A		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	1,2-DICHLOROPROPANE	UG_L	7.6	A		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	BENZENE	UG_L	0.28	J		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
5/29/2002	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.19	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/29/2002	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	1,2-DICHLOROETHANE	UG_L	0.47	J		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	BENZENE	UG_L	0.35	J		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	TOLUENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
5/29/2002	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	1,1-DICHLOROETHENE	UG_L	1.2	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	1,2-DIBROMOETHANE	UG_L	1.6	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	1,2-DICHLOROETHANE	UG_L	1700	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	1,2-DICHLOROPROPANE	UG_L	12	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	BENZENE	UG_L	1100	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	ETHYLBENZENE	UG_L	120	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	TOLUENE	UG_L	140	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW06	VINYL CHLORIDE	UG_L	2.2	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
5/30/2002	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
5/30/2002	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	1,1-DICHLOROETHENE	UG_L	12	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	1,2-DIBROMOETHANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	1,2-DICHLOROETHANE	UG_L	12	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	BENZENE	UG_L	3600	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	ETHYLBENZENE	UG_L	1500	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	TOLUENE	UG_L	18000	J		Shallow	OPERABLE UNIT 8
5/30/2002	8MW47	VINYL CHLORIDE	UG_L	22	U		Shallow	OPERABLE UNIT 8
10/28/2002	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/28/2002	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/28/2002	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	1,1,2-TRICHLOROETHANE	UG_L	3	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	1,1-DICHLOROETHENE	UG_L	1.8	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	1,2-DICHLOROETHANE	UG_L	28	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	1,2-DICHLOROPROPANE	UG_L	1.5	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	BENZENE	UG_L	1.3	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW03	VINYL CHLORIDE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.4	J		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	1,2-DICHLOROETHANE	UG_L	1.6	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	1,2-DICHLOROETHANE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	TOLUENE	UG_L	0.17	J		Deep	OPERABLE UNIT 8
10/29/2002	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.61	A	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.63	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,1-DICHLOROETHENE	UG_L	0.28	J	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,1-DICHLOROETHENE	UG_L	0.26	J		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,2-DICHLOROETHANE	UG_L	9.1	A	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,2-DICHLOROETHANE	UG_L	9	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,2-DICHLOROPROPANE	UG_L	0.21	J	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	1,2-DICHLOROPROPANE	UG_L	0.21	J		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	BENZENE	UG_L	0.85	A	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	BENZENE	UG_L	0.84	A		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	TOLUENE	UG_L	0.17	J	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	TOLUENE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2002	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/29/2002	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/29/2002	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
10/29/2002	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/30/2002	8MW06	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	1,1-DICHLOROETHENE	UG_L	1.2	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	1,2-DIBROMOETHANE	UG_L	2.5	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	1,2-DICHLOROETHANE	UG_L	1500	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	1,2-DICHLOROPROPANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	BENZENE	UG_L	1400	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	ETHYLBENZENE	UG_L	140	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	TOLUENE	UG_L	180	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW06	VINYL CHLORIDE	UG_L	2.2	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW33	1,1,2-TRICHLOROETHANE	UG_L	25	A		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	1,1-DICHLOROETHENE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	1,2-DICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	1,2-DICHLOROPROPANE	UG_L	7.7	A		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/30/2002	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	1,2-DICHLOROETHANE	UG_L	0.14	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	BENZENE	UG_L	0.53	A		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	TOLUENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	1,1-DICHLOROETHENE	UG_L	12	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	1,2-DIBROMOETHANE	UG_L	24	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	1,2-DICHLOROETHANE	UG_L	12	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	BENZENE	UG_L	7800	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	ETHYLBENZENE	UG_L	1500	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	TOLUENE	UG_L	18000	J		Shallow	OPERABLE UNIT 8
10/30/2002	8MW47	VINYL CHLORIDE	UG_L	22	U		Shallow	OPERABLE UNIT 8
4/7/2003	8MW03	1,1,2-TRICHLOROETHANE	UG_L	1.7	A		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	1,1-DICHLOROETHENE	UG_L	1.6	A		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	1,2-DICHLOROETHANE	UG_L	18	A		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	1,2-DICHLOROPROPANE	UG_L	0.69	A		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	BENZENE	UG_L	0.28	J		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW03	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	1,2-DICHLOROETHANE	UG_L	1.5	A		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/7/2003	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	TOLUENE	UG_L	0.16	J		Deep	OPERABLE UNIT 8
4/7/2003	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.51	A	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.49	J		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,1-DICHLOROETHENE	UG_L	0.3	J	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,1-DICHLOROETHENE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,2-DICHLOROETHANE	UG_L	13	A	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,2-DICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,2-DICHLOROPROPANE	UG_L	0.17	J	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	1,2-DICHLOROPROPANE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	BENZENE	UG_L	0.45	J	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	BENZENE	UG_L	0.45	J		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
4/7/2003	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/7/2003	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
4/7/2003	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
4/8/2003	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	1,2-DICHLOROETHANE	UG_L	0.85	A		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/8/2003	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
4/8/2003	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/8/2003	8MW42	1,1,2-TRICHLOROETHANE	UG_L	1.2	A		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	1,1-DICHLOROETHENE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	1,2-DICHLOROETHANE	UG_L	1.3	A		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	1,2-DICHLOROPROPANE	UG_L	0.54	A		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	BENZENE	UG_L	1.1	A		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	TOLUENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
4/8/2003	8MW42	VINYL CHLORIDE	UG_L	0.36	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	1,1-DICHLOROETHENE	UG_L	0.6	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	1,2-DIBROMOETHANE	UG_L	0.37	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	1,2-DICHLOROETHANE	UG_L	1100	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	1,2-DICHLOROPROPANE	UG_L	0.62	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	BENZENE	UG_L	910	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	ETHYLBENZENE	UG_L	120	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	TOLUENE	UG_L	27	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW06	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	1,1-DICHLOROETHENE	UG_L	6	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	1,2-DIBROMOETHANE	UG_L	9.5	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	1,2-DICHLOROETHANE	UG_L	5.7	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	1,2-DICHLOROPROPANE	UG_L	6.2	U		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	BENZENE	UG_L	7300	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	ETHYLBENZENE	UG_L	1200	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	TOLUENE	UG_L	12000	J		Shallow	OPERABLE UNIT 8
4/9/2003	8MW47	VINYL CHLORIDE	UG_L	11	U		Shallow	OPERABLE UNIT 8
4/10/2003	8MW33	1,1,2-TRICHLOROETHANE	UG_L	19	A		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	1,1-DICHLOROETHENE	UG_L	15	A		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	1,2-DICHLOROETHANE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	1,2-DICHLOROPROPANE	UG_L	5.7	A		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	BENZENE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/10/2003	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	1,1,2-TRICHLOROETHANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	1,1-DICHLOROETHENE	UG_L	2	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	1,2-DICHLOROETHANE	UG_L	20	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	1,2-DICHLOROPROPANE	UG_L	0.91	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	BENZENE	UG_L	0.37	J		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW03	VINYL CHLORIDE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	1,2-DICHLOROETHANE	UG_L	0.76	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	1,2-DICHLOROETHANE	UG_L	1.3	A		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/6/2003	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.78	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.76	A	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,1-DICHLOROETHENE	UG_L	0.52	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,1-DICHLOROETHENE	UG_L	0.53	A	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,2-DICHLOROETHANE	UG_L	15	A		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,2-DICHLOROETHANE	UG_L	15	A	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,2-DICHLOROPROPANE	UG_L	0.31	J		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	1,2-DICHLOROPROPANE	UG_L	0.27	J	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	VINYL CHLORIDE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
10/6/2003	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2003	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
10/6/2003	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/7/2003	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	1,1-DICHLOROETHENE	UG_L	0.6	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	1,2-DIBROMOETHANE	UG_L	0.37	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	1,2-DICHLOROETHANE	UG_L	940	J		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	1,2-DICHLOROPROPANE	UG_L	6.1	J		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	BENZENE	UG_L	580	J		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	ETHYLBENZENE	UG_L	75	J		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	TOLUENE	UG_L	57	J		Shallow	OPERABLE UNIT 8
10/7/2003	8MW06	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/7/2003	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/7/2003	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2003	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	BENZENE	UG_L	0.56	A		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	TOLUENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
10/7/2003	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
10/8/2003	8MW33	1,1,2-TRICHLOROETHANE	UG_L	19	A		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	1,1-DICHLOROETHENE	UG_L	18	A		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	1,2-DICHLOROETHANE	UG_L	12	A		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	1,2-DICHLOROPROPANE	UG_L	6.2	A		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	BENZENE	UG_L	0.14	J		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/8/2003	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/9/2003	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	1,1-DICHLOROETHENE	UG_L	3	U		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	1,2-DIBROMOETHANE	UG_L	33	J		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	1,2-DICHLOROETHANE	UG_L	160	J		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	1,2-DICHLOROPROPANE	UG_L	3.1	U		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	BENZENE	UG_L	8900	J		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	ETHYLBENZENE	UG_L	1100	J		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	TOLUENE	UG_L	11000	J		Shallow	OPERABLE UNIT 8
10/9/2003	8MW47	VINYL CHLORIDE	UG_L	5.3	U		Shallow	OPERABLE UNIT 8
4/12/2004	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.87	A		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	1,1-DICHLOROETHENE	UG_L	0.68	A		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	1,2-DICHLOROETHANE	UG_L	11	A		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	1,2-DICHLOROPROPANE	UG_L	0.34	J		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	TOLUENE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW03	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
4/12/2004	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.69	A		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.73	A	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,1-DICHLOROETHENE	UG_L	0.43	J		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,1-DICHLOROETHENE	UG_L	0.42	J	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,2-DICHLOROETHANE	UG_L	20	A		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/12/2004	8MW35	1,2-DICHLOROETHANE	UG_L	20	A	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,2-DICHLOROPROPANE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	1,2-DICHLOROPROPANE	UG_L	0.28	J	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/12/2004	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.21	J		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	1,2-DICHLOROETHANE	UG_L	0.7	A		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	1,2-DICHLOROETHANE	UG_L	1.5	A		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
4/13/2004	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/13/2004	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2004	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
4/14/2004	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	1,1-DICHLOROETHENE	UG_L	0.6	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	1,2-DIBROMOETHANE	UG_L	1.6	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	1,2-DICHLOROETHANE	UG_L	1100	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/14/2004	8MW06	1,2-DICHLOROPROPANE	UG_L	7.1	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	BENZENE	UG_L	1900	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	ETHYLBENZENE	UG_L	220	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	TOLUENE	UG_L	69	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW06	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW33	1,1,2-TRICHLOROETHANE	UG_L	18	A		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	1,1-DICHLOROETHENE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	1,2-DICHLOROETHANE	UG_L	35	A		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	1,2-DICHLOROPROPANE	UG_L	5.7	A		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	BENZENE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/14/2004	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	1,2-DICHLOROETHANE	UG_L	0.3	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	BENZENE	UG_L	0.37	J		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	TOLUENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
4/14/2004	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	1,1-DICHLOROETHENE	UG_L	12	U		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	1,2-DIBROMOETHANE	UG_L	7.3	U		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	1,2-DICHLOROETHANE	UG_L	25	J		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	BENZENE	UG_L	4000	J		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	ETHYLBENZENE	UG_L	1400	J		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	TOLUENE	UG_L	19000	J		Shallow	OPERABLE UNIT 8
4/15/2004	8MW47	VINYL CHLORIDE	UG_L	22	U		Shallow	OPERABLE UNIT 8
10/6/2004	8MW03	1,1,2-TRICHLOROETHANE	UG_L	1.3	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	1,1-DICHLOROETHENE	UG_L	1.4	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	1,2-DICHLOROETHANE	UG_L	19	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	1,2-DICHLOROPROPANE	UG_L	0.58	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	BENZENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW03	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/6/2004	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.89	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.92	A	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,1-DICHLOROETHENE	UG_L	0.63	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,1-DICHLOROETHENE	UG_L	0.65	A	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,2-DICHLOROETHANE	UG_L	25	A		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,2-DICHLOROETHANE	UG_L	25	A	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,2-DICHLOROPROPANE	UG_L	0.33	J		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	1,2-DICHLOROPROPANE	UG_L	0.34	J	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/6/2004	8MW35	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/6/2004	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	1,2-DICHLOROETHANE	UG_L	0.82	J		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	1,2-DICHLOROETHANE	UG_L	1.6	J		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,1-DICHLOROETHENE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,2-DIBROMOETHANE	UG_L	0.073	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	1,2-DICHLOROPROPANE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	BENZENE	UG_L	0.11	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	BENZENE	UG_L	0.11	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	TOLUENE	UG_L	0.098	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2004	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/7/2004	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	1,1-DICHLOROETHENE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	1,2-DIBROMOETHANE	UG_L	0.073	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	1,2-DICHLOROPROPANE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	BENZENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	TOLUENE	UG_L	0.098	U		Deep	OPERABLE UNIT 8
10/7/2004	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
10/8/2004	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	1,1-DICHLOROETHENE	UG_L	0.6	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	1,2-DIBROMOETHANE	UG_L	1.5	J		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	1,2-DICHLOROETHANE	UG_L	1300	J		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	1,2-DICHLOROPROPANE	UG_L	6.6	J		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	BENZENE	UG_L	1700	J		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	ETHYLBENZENE	UG_L	190	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/8/2004	8MW06	TOLUENE	UG_L	110	J		Shallow	OPERABLE UNIT 8
10/8/2004	8MW06	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW33	1,1,2-TRICHLOROETHANE	UG_L	19	A		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	1,1-DICHLOROETHENE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	1,2-DIBROMOETHANE	UG_L	0.073	U		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	1,2-DICHLOROETHANE	UG_L	27	J		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	1,2-DICHLOROPROPANE	UG_L	5.7	A		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	BENZENE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	TOLUENE	UG_L	0.098	U		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
10/8/2004	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	1,1-DICHLOROETHENE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	1,2-DIBROMOETHANE	UG_L	0.073	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	UJ		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	1,2-DICHLOROPROPANE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	BENZENE	UG_L	0.55	A		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	TOLUENE	UG_L	0.098	U		Shallow	OPERABLE UNIT 8
10/8/2004	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	1,1,2-TRICHLOROETHANE	UG_L	1.7	J		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	1,1-DICHLOROETHENE	UG_L	0.6	U		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	1,2-DIBROMOETHANE	UG_L	21	J		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	1,2-DICHLOROETHANE	UG_L	140	J		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	1,2-DICHLOROPROPANE	UG_L	4.8	U		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	BENZENE	UG_L	11000	J		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	ETHYLBENZENE	UG_L	1200	J		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	TOLUENE	UG_L	11000	J		Shallow	OPERABLE UNIT 8
10/12/2004	8MW47	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
4/4/2005	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	1,1-DICHLOROETHENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	1,2-DIBROMOETHANE	UG_L	0.099	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	1,2-DICHLOROETHANE	UG_L	0.84	A		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	1,2-DICHLOROPROPANE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	BENZENE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW13	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	1,1-DICHLOROETHENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	1,2-DIBROMOETHANE	UG_L	0.099	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	1,2-DICHLOROETHANE	UG_L	1.4	A		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	1,2-DICHLOROPROPANE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	BENZENE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW19	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/4/2005	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.14	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	1,1-DICHLOROETHENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	1,2-DIBROMOETHANE	UG_L	0.099	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	1,2-DICHLOROPROPANE	UG_L	0.14	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	BENZENE	UG_L	0.14	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	TOLUENE	UG_L	0.11	U		Deep	OPERABLE UNIT 8
4/4/2005	8MW37	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
4/5/2005	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.14	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,1-DICHLOROETHENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,1-DICHLOROETHENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/5/2005	8MW28	1,2-DIBROMOETHANE	UG_L	0.099	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,2-DIBROMOETHANE	UG_L	0.099	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,2-DICHLOROETHANE	UG_L	0.12	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,2-DICHLOROPROPANE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	1,2-DICHLOROPROPANE	UG_L	0.14	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	BENZENE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	BENZENE	UG_L	0.14	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW28	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	1,1,2-TRICHLOROETHANE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	1,1-DICHLOROETHENE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	1,2-DIBROMOETHANE	UG_L	0.099	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	1,2-DICHLOROETHANE	UG_L	38	A		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	1,2-DICHLOROPROPANE	UG_L	4.2	A		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	BENZENE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/5/2005	8MW33	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	1,1,2-TRICHLOROETHANE	UG_L	1	A		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	1,1-DICHLOROETHENE	UG_L	0.93	A		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	1,2-DIBROMOETHANE	UG_L	0.099	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	1,2-DICHLOROETHANE	UG_L	12	A		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	1,2-DICHLOROPROPANE	UG_L	0.42	J		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	BENZENE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	TOLUENE	UG_L	0.34	J		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW03	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.14	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	1,1-DICHLOROETHENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	1,2-DIBROMOETHANE	UG_L	0.099	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	1,2-DICHLOROETHANE	UG_L	0.12	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	1,2-DICHLOROPROPANE	UG_L	0.14	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	BENZENE	UG_L	0.14	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	ETHYLBENZENE	UG_L	0.13	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	TOLUENE	UG_L	0.17	J		Deep	OPERABLE UNIT 8
4/6/2005	8MW25	VINYL CHLORIDE	UG_L	0.22	U		Deep	OPERABLE UNIT 8
4/6/2005	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.42	J		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.44	J	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,1-DICHLOROETHENE	UG_L	0.41	J		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,1-DICHLOROETHENE	UG_L	0.43	J	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,2-DIBROMOETHANE	UG_L	0.099	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,2-DIBROMOETHANE	UG_L	0.099	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,2-DICHLOROETHANE	UG_L	12	A		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,2-DICHLOROETHANE	UG_L	12	A	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,2-DICHLOROPROPANE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	1,2-DICHLOROPROPANE	UG_L	0.2	J	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	BENZENE	UG_L	0.14	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	BENZENE	UG_L	0.14	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	ETHYLBENZENE	UG_L	0.13	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	ETHYLBENZENE	UG_L	0.13	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	TOLUENE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	TOLUENE	UG_L	0.11	J	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	VINYL CHLORIDE	UG_L	0.22	U		Intermediate	OPERABLE UNIT 8
4/6/2005	8MW35	VINYL CHLORIDE	UG_L	0.22	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2005	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.14	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/6/2005	8MW42	1,1-DICHLOROETHENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	1,2-DIBROMOETHANE	UG_L	0.099	U		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	U		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	1,2-DICHLOROPROPANE	UG_L	0.14	U		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	BENZENE	UG_L	0.48	J		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	ETHYLBENZENE	UG_L	0.13	U		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	TOLUENE	UG_L	0.16	J		Shallow	OPERABLE UNIT 8
4/6/2005	8MW42	VINYL CHLORIDE	UG_L	0.22	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.69	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	1,1-DICHLOROETHENE	UG_L	0.61	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	1,2-DIBROMOETHANE	UG_L	1.4	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	1,2-DICHLOROETHANE	UG_L	980	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	1,2-DICHLOROPROPANE	UG_L	0.7	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	BENZENE	UG_L	3000	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	ETHYLBENZENE	UG_L	330	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	TOLUENE	UG_L	57	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW06	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	1,1,2-TRICHLOROETHANE	UG_L	0.69	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	1,1-DICHLOROETHENE	UG_L	0.61	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	1,2-DIBROMOETHANE	UG_L	19	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	1,2-DICHLOROETHANE	UG_L	120	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	1,2-DICHLOROPROPANE	UG_L	0.7	U		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	BENZENE	UG_L	6900	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	ETHYLBENZENE	UG_L	1200	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	TOLUENE	UG_L	15000	J		Shallow	OPERABLE UNIT 8
4/7/2005	8MW47	VINYL CHLORIDE	UG_L	1.1	U		Shallow	OPERABLE UNIT 8
10/6/2005	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	1,2-DICHLOROETHANE	UG_L	0.9	A		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2005	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/6/2005	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2005	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2005	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	BENZENE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	BENZENE	UG_L	13	A	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	ETHYLBENZENE	UG_L	6	A		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	ETHYLBENZENE	UG_L	7.4	A	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	TOLUENE	UG_L	2.7	A		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	TOLUENE	UG_L	3.3	A	DUP	Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2005	8MW28	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	1,1,2-TRICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	1,1-DICHLOROETHENE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	1,2-DICHLOROETHANE	UG_L	30	A		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	1,2-DICHLOROPROPANE	UG_L	4.3	A		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/10/2005	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/11/2005	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	1,2-DIBROMOETHANE	UG_L	1.2	A		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	1,2-DICHLOROETHANE	UG_L	2400	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	1,2-DICHLOROPROPANE	UG_L	8.3	A		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	BENZENE	UG_L	6300	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	ETHYLBENZENE	UG_L	550	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	TOLUENE	UG_L	76	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW06	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	1,1,2-TRICHLOROETHANE	UG_L	18	A		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	1,2-DIBROMOETHANE	UG_L	20	A		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	1,2-DICHLOROETHANE	UG_L	190	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	1,2-DICHLOROPROPANE	UG_L	4	A		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	BENZENE	UG_L	12000	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	ETHYLBENZENE	UG_L	1100	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	TOLUENE	UG_L	12000	J		Shallow	OPERABLE UNIT 8
10/11/2005	8MW47	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/13/2005	8MW03	1,1,2-TRICHLOROETHANE	UG_L	1	A		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,1,2-TRICHLOROETHANE	UG_L	1	A	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,1-DICHLOROETHENE	UG_L	1.1	A		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,1-DICHLOROETHENE	UG_L	1	A	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/13/2005	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,2-DICHLOROETHANE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,2-DICHLOROETHANE	UG_L	16	A	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/13/2005	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.6	A		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	1,2-DICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2005	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/26/2006	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	1,2-DIBROMOETHANE	UG_L	1.1	A		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	1,2-DICHLOROETHANE	UG_L	820	J		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	1,2-DICHLOROPROPANE	UG_L	7.4	A		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	BENZENE	UG_L	3600	J		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	ETHYLBENZENE	UG_L	230	J		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	TOLUENE	UG_L	110	A		Shallow	OPERABLE UNIT 8
4/26/2006	8MW06	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/27/2006	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.8	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.8	A	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,1-DICHLOROETHENE	UG_L	0.9	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,1-DICHLOROETHENE	UG_L	0.9	A	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,2-DICHLOROETHANE	UG_L	14	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,2-DICHLOROETHANE	UG_L	14	A	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW03	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/27/2006	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/27/2006	8MW33	1,1,2-TRICHLOROETHANE	UG_L	12	A		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/27/2006	8MW33	1,1-DICHLOROETHENE	UG_L	9.9	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	1,2-DICHLOROETHANE	UG_L	58	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	1,2-DICHLOROPROPANE	UG_L	3.6	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.6	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	1,2-DICHLOROETHANE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/27/2006	8MW35	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/28/2006	8MW28	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
5/1/2006	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	1,1,2-TRICHLOROETHANE	UG_L	110	A		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	1,2-DIBROMOETHANE	UG_L	4	A		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	1,2-DICHLOROETHANE	UG_L	25	A		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	BENZENE	UG_L	3700	J		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	ETHYLBENZENE	UG_L	1000	J		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	TOLUENE	UG_L	11000	J		Shallow	OPERABLE UNIT 8
5/1/2006	8MW47	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/2/2006	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/2/2006	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	1,2-DICHLOROETHANE	UG_L	0.8	A		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/2/2006	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
5/2/2006	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2006	8MW32	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	1,2-DICHLOROETHANE	UG_L	15	A		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	BENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW32	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/24/2006	8MW33	1,1,2-TRICHLOROETHANE	UG_L	12	A		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	1,1-DICHLOROETHENE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	1,2-DICHLOROETHANE	UG_L	54	A		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	1,2-DICHLOROPROPANE	UG_L	3.8	A		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/24/2006	8MW33	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.72	J		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	1,1-DICHLOROETHENE	UG_L	0.98	J		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	1,2-DICHLOROETHANE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW03	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.71	J		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	1,1-DICHLOROETHENE	UG_L	0.51	J		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	1,2-DICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW35	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/25/2006	8MW42	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/25/2006	8MW42	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	BENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	ETHYLBENZENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	TOLUENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/25/2006	8MW42	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/27/2006	8MW13	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,1,2-TRICHLOROETHANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,1-DICHLOROETHENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,2-DIBROMOETHANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,2-DICHLOROETHANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	1,2-DICHLOROPROPANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	BENZENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	ETHYLBENZENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	TOLUENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW13	VINYL CHLORIDE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW19	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/27/2006	8MW37	1,1,2-TRICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	1,1-DICHLOROETHENE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	1,2-DIBROMOETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	1,2-DICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	1,2-DICHLOROPROPANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	BENZENE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	ETHYLBENZENE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	TOLUENE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/27/2006	8MW37	VINYL CHLORIDE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/30/2006	8MW06	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	1,2-DICHLOROETHANE	UG_L	660	A		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	1,2-DICHLOROPROPANE	UG_L	5.1	J		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	BENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	ETHYLBENZENE	UG_L	160	J		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	TOLUENE	UG_L	23	J		Shallow	OPERABLE UNIT 8
10/30/2006	8MW06	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/30/2006	8MW28	1,1,2-TRICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,1,2-TRICHLOROETHANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,1-DICHLOROETHENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,1-DICHLOROETHENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,2-DIBROMOETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,2-DIBROMOETHANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,2-DICHLOROETHANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,2-DICHLOROETHANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,2-DICHLOROPROPANE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	1,2-DICHLOROPROPANE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/30/2006	8MW28	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	BENZENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	ETHYLBENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	ETHYLBENZENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	TOLUENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	TOLUENE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	VINYL CHLORIDE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
10/30/2006	8MW28	VINYL CHLORIDE	UG_L	1	U	DUP	Intermediate	OPERABLE UNIT 8
10/31/2006	8MW25	1,1,2-TRICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	1,1-DICHLOROETHENE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	1,2-DIBROMOETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	1,2-DICHLOROETHANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	1,2-DICHLOROPROPANE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	BENZENE	UG_L	15	A		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	ETHYLBENZENE	UG_L	2.3	A		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	TOLUENE	UG_L	14	A		Deep	OPERABLE UNIT 8
10/31/2006	8MW25	VINYL CHLORIDE	UG_L	1	U		Deep	OPERABLE UNIT 8
10/31/2006	8MW47	1,1,2-TRICHLOROETHANE	UG_L	170	J		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	1,1-DICHLOROETHENE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	1,2-DIBROMOETHANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	1,2-DICHLOROETHANE	UG_L	200	J		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	1,2-DICHLOROPROPANE	UG_L	4.2	J		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	BENZENE	UG_L	12000	A		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	ETHYLBENZENE	UG_L	1000	A		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	TOLUENE	UG_L	8100	A		Shallow	OPERABLE UNIT 8
10/31/2006	8MW47	VINYL CHLORIDE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	1,1,2-TRICHLOROETHANE	UG_L	99	J		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	1,1-DICHLOROETHENE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	1,2-DIBROMOETHANE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	1,2-DICHLOROETHANE	UG_L	500	A		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	1,2-DICHLOROPROPANE	UG_L	5.2	J		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	BENZENE	UG_L	9000	A		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	ETHYLBENZENE	UG_L	520	A		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	TOLUENE	UG_L	2,900	A		Shallow	OPERABLE UNIT 8
10/31/2006	MW05	VINYL CHLORIDE	UG_L	0.61	J		Shallow	OPERABLE UNIT 8
4/10/2007	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.57	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	1,1-DICHLOROETHENE	UG_L	0.47	J		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	1,2-DICHLOROETHANE	UG_L	11	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	BENZENE	UG_L	1	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/10/2007	8MW33	1,1,2-TRICHLOROETHANE	UG_L	9.9	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	1,1-DICHLOROETHENE	UG_L	5.3	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	1,2-DICHLOROETHANE	UG_L	49	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	1,2-DICHLOROPROPANE	UG_L	2.4	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/10/2007	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.4	J	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.43	J		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,1-DICHLOROETHENE	UG_L	0.25	J	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,2-DICHLOROETHANE	UG_L	5.4	A	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,2-DICHLOROETHANE	UG_L	5.2	A		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/10/2007	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW28	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2007	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2007	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	BENZENE	UG_L	2100	A		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	ETHYLBENZENE	UG_L	880	A		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	ETHYLBENZENE	UG_L	830	A		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	TOLUENE	UG_L	11000	A		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2007	8MW47	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/13/2007	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	1,2-DICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	1,2-DICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2007	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	1,2-DICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	1,2-DICHLOROPROPANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	BENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	TOLUENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/13/2007	8MW37	VINYL CHLORIDE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/16/2007	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	1,2-DICHLOROETHANE	UG_L	780	A		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	1,2-DICHLOROPROPANE	UG_L	6.7	A		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	BENZENE	UG_L	4800	A		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	ETHYLBENZENE	UG_L	260	A		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	ETHYLBENZENE	UG_L	310	A		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	TOLUENE	UG_L	100	A		Shallow	OPERABLE UNIT 8
4/16/2007	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,2-DICHLOROETHANE	UG_L	260	A		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	BENZENE	UG_L	4700	A		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	ETHYLBENZENE	UG_L	320	A		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	TOLUENE	UG_L	1700	A		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/16/2007	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2007	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.63	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	1,1-DICHLOROETHENE	UG_L	0.83	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	1,2-DICHLOROETHANE	UG_L	16	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	BENZENE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/23/2007	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	1,1,2-TRICHLOROETHANE	UG_L	9.4	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	1,1-DICHLOROETHENE	UG_L	6.4	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	1,2-DICHLOROETHANE	UG_L	72	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	1,2-DICHLOROPROPANE	UG_L	2.8	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.51	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	1,1-DICHLOROETHENE	UG_L	0.51	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	1,2-DICHLOROETHANE	UG_L	8.1	A		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2007	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2007	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	BENZENE	UG_L	0.2	J		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	BENZENE	UG_L	0.21	J	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	ETHYLBENZENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	TOLUENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2007	8MW42	VINYL CHLORIDE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	1,2-DICHLOROETHANE	UG_L	690	A		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	BENZENE	UG_L	4700	A		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	ETHYLBENZENE	UG_L	310	A		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	TOLUENE	UG_L	170	A		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/25/2007	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/25/2007	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/25/2007	8MW28	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/26/2007	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.50	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,1-DICHLOROETHENE	UG_L	0.50	U	DUP	Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/26/2007	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,2-DIBROMOETHANE	UG_L	0.50	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,2-DICHLOROETHANE	UG_L	0.50	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,2-DICHLOROPROPANE	UG_L	0.50	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	BENZENE	UG_L	0.5	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	ETHYLBENZENE	UG_L	0.50	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	TOLUENE	UG_L	0.5	U	DUP	Deep	OPERABLE UNIT 8
10/26/2007	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2007	8MW25	VINYL CHLORIDE	UG_L	0.5	U	DUP	Deep	OPERABLE UNIT 8
10/29/2007	MW05	1,1,2-TRICHLOROETHANE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,1-DICHLOROETHENE	UG_L	25.0	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,2-DICHLOROETHANE	UG_L	430	A		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,2-DICHLOROPROPANE	UG_L	25.0	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	1,2-DICHLOROPROPANE	UG_L	5.3	A		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	BENZENE	UG_L	7600	A		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	ETHYLBENZENE	UG_L	440	A		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	TOLUENE	UG_L	2200	A		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/29/2007	MW05	VINYL CHLORIDE	UG_L	0.32	J		Shallow	OPERABLE UNIT 8
11/7/2007	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	1,2-DICHLOROETHANE	UG_L	0.38	J		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	1,2-DICHLOROETHANE	UG_L	0.42	J		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
11/7/2007	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/7/2007	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/21/2008	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.52	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	1,1-DICHLOROETHENE	UG_L	0.76	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	1,2-DICHLOROETHANE	UG_L	11.00	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	1,2-DICHLOROPROPANE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/21/2008	8MW03	BENZENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW03	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,1,2-TRICHLOROETHANE	UG_L	6.80	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,1,2-TRICHLOROETHANE	UG_L	6.9	A	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,1-DICHLOROETHENE	UG_L	4.9	A	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,1-DICHLOROETHENE	UG_L	5.1	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,2-DICHLOROETHANE	UG_L	55	A	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,2-DICHLOROETHANE	UG_L	57	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,2-DICHLOROPROPANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	1,2-DICHLOROPROPANE	UG_L	2	A	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	ETHYLBENZENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW33	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.46	J		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	1,1-DICHLOROETHENE	UG_L	0.48	J		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	1,2-DICHLOROETHANE	UG_L	5.80	A		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2008	8MW35	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,1-DICHLOROETHENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,2-DICHLOROETHANE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,2-DICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	1,2-DICHLOROPROPANE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	ETHYLBENZENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	VINYL CHLORIDE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/22/2008	8MW28	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/22/2008	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/22/2008	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2008	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/23/2008	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW13	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	1,2-DICHLOROETHANE	UG_L	0.44	J		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/23/2008	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	BENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2008	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW06	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	1,2-DICHLOROETHANE	UG_L	800	A		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	BENZENE	UG_L	7200	A		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	ETHYLBENZENE	UG_L	340	A		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	TOLUENE	UG_L	160	A		Shallow	OPERABLE UNIT 8
4/24/2008	8MW06	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/24/2008	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/24/2008	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,1-DICHLOROETHENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,2-DIBROMOETHANE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,2-DICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,2-DICHLOROETHANE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	1,2-DICHLOROPROPANE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	ETHYLBENZENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
10/3/2008	8MW13	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/3/2008	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	1,1-DICHLOROETHENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/3/2008	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2008	8MW37	VINYL CHLORIDE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.61	A		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	1,1-DICHLOROETHENE	UG_L	0.84	A		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	1,2-DICHLOROETHANE	UG_L	13	A		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	1,2-DICHLOROPROPANE	UG_L	0.24	J		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	BENZENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/6/2008	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	A		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	1,1-DICHLOROETHENE	UG_L	0.4	J		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	1,2-DICHLOROETHANE	UG_L	5.8	A		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2008	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	1,1,2-TRICHLOROETHANE	UG_L	7.8	A		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	1,1-DICHLOROETHENE	UG_L	6.3	A		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	1,2-DICHLOROETHANE	UG_L	64	A		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	1,2-DICHLOROPROPANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2008	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	1,1-DICHLOROETHENE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	1,2-DIBROMOETHANE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	1,2-DICHLOROETHANE	UG_L	640.00	A		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	1,2-DICHLOROPROPANE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/9/2008	8MW06	BENZENE	UG_L	4400.00	A		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	ETHYLBENZENE	UG_L	220	A		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	TOLUENE	UG_L	200	A		Shallow	OPERABLE UNIT 8
10/9/2008	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	1,1-DICHLOROETHENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	1,2-DICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW28	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/9/2008	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	1,1-DICHLOROETHENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	1,2-DICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	BENZENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	ETHYLBENZENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	TOLUENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	8MW42	VINYL CHLORIDE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1,2-TRICHLOROETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1,2-TRICHLOROETHANE	UG_L	25.00	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1-DICHLOROETHENE	UG_L	25.00	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1-DICHLOROETHENE	UG_L	0.500	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,1-DICHLOROETHENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DIBROMOETHANE	UG_L	25.00	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DIBROMOETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DICHLOROETHANE	UG_L	490	A		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DICHLOROETHANE	UG_L	500	A	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DICHLOROPROPANE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DICHLOROPROPANE	UG_L	25.00	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	BENZENE	UG_L	6700	A	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	BENZENE	UG_L	6800	A		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	ETHYLBENZENE	UG_L	400	A		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	ETHYLBENZENE	UG_L	400.00	A	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	TOLUENE	UG_L	1400.00	A	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	TOLUENE	UG_L	1400.00	A		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/9/2008	MW05	VINYL CHLORIDE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/9/2008	MW05	VINYL CHLORIDE	UG_L	0.50	U	DUP	Shallow	OPERABLE UNIT 8
4/6/2009	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.68	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	1,1-DICHLOROETHENE	UG_L	0.82	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	1,2-DICHLOROETHANE	UG_L	10	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	1,2-DICHLOROPROPANE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	BENZENE	UG_L	0.28	J		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW03	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	1,1,2-TRICHLOROETHANE	UG_L	5.4	A		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/6/2009	8MW33	1,1-DICHLOROETHENE	UG_L	3.5	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	1,2-DICHLOROETHANE	UG_L	51	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	1,2-DICHLOROPROPANE	UG_L	1.3	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW33	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.54	A	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.29	J		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,1-DICHLOROETHENE	UG_L	0.44	J		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,1-DICHLOROETHENE	UG_L	0.44	J	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,2-DICHLOROETHANE	UG_L	4.2	A	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,2-DICHLOROETHANE	UG_L	4.6	A		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	1,2-DICHLOROPROPANE	UG_L	0.21	J	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	TOLUENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/6/2009	8MW35	VINYL CHLORIDE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/7/2009	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	1,1-DICHLOROETHENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	1,2-DICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	1,2-DICHLOROPROPANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	BENZENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	TOLUENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/7/2009	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,1-DICHLOROETHENE	UG_L	50.00	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,2-DICHLOROETHANE	UG_L	1100	A		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	1,2-DICHLOROPROPANE	UG_L	50.00	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	BENZENE	UG_L	11000.00	A		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	ETHYLBENZENE	UG_L	370	A		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	ETHYLBENZENE	UG_L	420.00	A		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	TOLUENE	UG_L	300	A		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW06	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/8/2009	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/8/2009	8MW28	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/9/2009	8MW13	1,2-DICHLOROETHANE	UG_L	1.7	A		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW13	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	1,1-DICHLOROETHENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	1,2-DICHLOROETHANE	UG_L	0.28	J		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW19	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/9/2009	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	1,1-DICHLOROETHENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	1,2-DIBROMOETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	1,2-DICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	1,2-DICHLOROPROPANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	BENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	ETHYLBENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	TOLUENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW25	VINYL CHLORIDE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	1,1-DICHLOROETHENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	ETHYLBENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/9/2009	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/5/2009	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.60	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	1,1-DICHLOROETHENE	UG_L	0.77	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	1,2-DICHLOROETHANE	UG_L	11.00	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	1,2-DICHLOROPROPANE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	BENZENE	UG_L	0.24	J		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW03	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	1,1,2-TRICHLOROETHANE	UG_L	7.70	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	1,1-DICHLOROETHENE	UG_L	4.50	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	1,2-DICHLOROETHANE	UG_L	67.00	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	1,2-DICHLOROPROPANE	UG_L	1.90	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	TOLUENE	UG_L	0.06	J		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW33	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.62	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	1,1-DICHLOROETHENE	UG_L	0.47	J		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	1,2-DICHLOROETHANE	UG_L	5.2	A		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	1,2-DICHLOROPROPANE	UG_L	0.21	J		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	BENZENE	UG_L	0.04	J		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2009	8MW35	VINYL CHLORIDE	UG_L	0.08	J		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/6/2009	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	1,2-DICHLOROETHANE	UG_L	810	J		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	1,2-DICHLOROPROPANE	UG_L	12	J		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	BENZENE	UG_L	13000	J		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	ETHYLBENZENE	UG_L	590	J		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	TOLUENE	UG_L	590	J		Shallow	OPERABLE UNIT 8
10/6/2009	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2009	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	BENZENE	UG_L	3	A		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	ETHYLBENZENE	UG_L	0.69	A		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	TOLUENE	UG_L	1.2	A		Intermediate	OPERABLE UNIT 8
10/6/2009	8MW28	VINYL CHLORIDE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
10/7/2009	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.50	U	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,1-DICHLOROETHENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,1-DICHLOROETHENE	UG_L	0.50	U	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,2-DIBROMOETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,2-DICHLOROETHANE	UG_L	0.23	J		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,2-DICHLOROETHANE	UG_L	0.2	J	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	BENZENE	UG_L	0.4	J	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	BENZENE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	ETHYLBENZENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	ETHYLBENZENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	TOLUENE	UG_L	0.06	J	DUP	Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	VINYL CHLORIDE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
10/7/2009	8MW42	VINYL CHLORIDE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	1,2-DICHLOROETHANE	UG_L	31	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	1,2-DICHLOROPROPANE	UG_L	10.0	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	BENZENE	UG_L	3500	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	ETHYLBENZENE	UG_L	1500	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	TOLUENE	UG_L	990.0	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW24	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	1,1,2-TRICHLOROETHANE	UG_L	25.0	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	1,2-DIBROMOETHANE	UG_L	13.0	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	1,2-DICHLOROETHANE	UG_L	61.00	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	BENZENE	UG_L	12000	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	ETHYLBENZENE	UG_L	1300.00	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	TOLUENE	UG_L	6700	J		Shallow	OPERABLE UNIT 8
10/8/2009	8MW47	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	1,1,2-TRICHLOROETHANE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	1,1-DICHLOROETHENE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	1,2-DIBROMOETHANE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	1,2-DICHLOROETHANE	UG_L	500.00	J		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	1,2-DICHLOROPROPANE	UG_L	7.00	J		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	BENZENE	UG_L	10000	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/8/2009	MW05	ETHYLBENZENE	UG_L	630.00	J		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	TOLUENE	UG_L	810	J		Shallow	OPERABLE UNIT 8
10/8/2009	MW05	VINYL CHLORIDE	UG_L	25.00	U		Shallow	OPERABLE UNIT 8
10/13/2009	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	1,1-DICHLOROETHENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	1,2-DICHLOROETHANE	UG_L	2.10	A		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	TOLUENE	UG_L	0.14	J		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW13	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	1,2-DICHLOROETHANE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	TOLUENE	UG_L	0.41	J		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW19	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
10/13/2009	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	1,2-DICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	TOLUENE	UG_L	0.19	J		Deep	OPERABLE UNIT 8
10/13/2009	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	1,1-DICHLOROETHENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	1,2-DIBROMOETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	1,2-DICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	1,2-DICHLOROPROPANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	BENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	ETHYLBENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	TOLUENE	UG_L	0.28	J		Deep	OPERABLE UNIT 8
10/13/2009	8MW37	VINYL CHLORIDE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
12/1/2009	8MW01	1,1,2-TRICHLOROETHANE	UG_L	2.20	A		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	1,1-DICHLOROETHENE	UG_L	1.40	A		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	1,2-DICHLOROETHANE	UG_L	11.00	A		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	1,2-DICHLOROPROPANE	UG_L	0.77	A		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	BENZENE	UG_L	0.04	J		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	TOLUENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW01	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
12/1/2009	8MW02	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	1,1-DICHLOROETHENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	1,2-DICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	1,2-DICHLOROPROPANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	TOLUENE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
12/1/2009	8MW02	VINYL CHLORIDE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/19/2010	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.31	J		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	1,1-DICHLOROETHENE	UG_L	0.44	J		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/19/2010	8MW03	1,2-DICHLOROETHANE	UG_L	7.6	A		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	1,2-DICHLOROPROPANE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	1,2-DICHLOROETHANE	UG_L	1100	J		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	1,2-DICHLOROPROPANE	UG_L	12	J		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	BENZENE	UG_L	13000	J		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	ETHYLBENZENE	UG_L	820.0	J		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	TOLUENE	UG_L	430	J		Shallow	OPERABLE UNIT 8
4/19/2010	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/19/2010	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	1,2-DICHLOROETHANE	UG_L	0.6	A		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2010	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,1,2-TRICHLOROETHANE	UG_L	5.60	A	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,1,2-TRICHLOROETHANE	UG_L	5.7	A		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,1-DICHLOROETHENE	UG_L	3.5	A		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,1-DICHLOROETHENE	UG_L	3.7	A	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,2-DICHLOROETHANE	UG_L	50	A	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,2-DICHLOROETHANE	UG_L	49	A		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,2-DICHLOROPROPANE	UG_L	1.60	A		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	1,2-DICHLOROPROPANE	UG_L	1.6	A	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	BENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	TOLUENE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	VINYL CHLORIDE	UG_L	0.50	U	DUP	Intermediate	OPERABLE UNIT 8
4/20/2010	8MW33	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/20/2010	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.50	A		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	1,1-DICHLOROETHENE	UG_L	0.15	J		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	1,2-DIBROMOETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	1,2-DICHLOROETHANE	UG_L	0.48	J		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	1,2-DICHLOROPROPANE	UG_L	0.21	J		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	BENZENE	UG_L	0.51	A		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	TOLUENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/20/2010	8MW42	VINYL CHLORIDE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
4/21/2010	8MW28	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	BENZENE	UG_L	5.60	A		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	ETHYLBENZENE	UG_L	35	A		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	TOLUENE	UG_L	38	A		Intermediate	OPERABLE UNIT 8
4/21/2010	8MW28	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/21/2010	8MW47	1,1,2-TRICHLOROETHANE	UG_L	13.00	U		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	1,2-DIBROMOETHANE	UG_L	6.5	J		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	1,2-DICHLOROETHANE	UG_L	350.00	U		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	BENZENE	UG_L	8700	J		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	ETHYLBENZENE	UG_L	1200.00	J		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	TOLUENE	UG_L	8200.00	J		Shallow	OPERABLE UNIT 8
4/21/2010	8MW47	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/22/2010	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	1,1-DICHLOROETHENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	1,2-DICHLOROETHANE	UG_L	2.30	A		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	BENZENE	UG_L	0.05	J		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW13	VINYL CHLORIDE	UG_L	0.43	J		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	1,1-DICHLOROETHENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	1,2-DICHLOROETHANE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	1,2-DICHLOROPROPANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW19	VINYL CHLORIDE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/22/2010	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	1,1-DICHLOROETHENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	1,2-DIBROMOETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	1,2-DICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	1,2-DICHLOROPROPANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	BENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	ETHYLBENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	TOLUENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW25	VINYL CHLORIDE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	1,1-DICHLOROETHENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	1,2-DIBROMOETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	1,2-DICHLOROETHANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	1,2-DICHLOROPROPANE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	BENZENE	UG_L	0.500	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	ETHYLBENZENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	TOLUENE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/22/2010	8MW37	VINYL CHLORIDE	UG_L	0.50	U		Deep	OPERABLE UNIT 8
4/26/2010	8MW01	1,1,2-TRICHLOROETHANE	UG_L	2.70	A		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	1,1-DICHLOROETHENE	UG_L	1.8	A		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	1,2-DIBROMOETHANE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	1,2-DICHLOROETHANE	UG_L	8.6	A		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	1,2-DICHLOROPROPANE	UG_L	0.90	A		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	BENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	ETHYLBENZENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	TOLUENE	UG_L	0.50	U		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW01	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/26/2010	8MW02	1,1,2-TRICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	1,2-DICHLOROETHANE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/26/2010	8MW02	ETHYLBENZENE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2010	8MW02	VINYL CHLORIDE	UG_L	0.50	U		Shallow	OPERABLE UNIT 8
5/4/2010	8MW07	1,1,2-TRICHLOROETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	1,1-DICHLOROETHENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	1,2-DIBROMOETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	1,2-DICHLOROETHANE	UG_L	0.38			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	1,2-DICHLOROPROPANE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	BENZENE	UG_L	0.54			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	ETHYLBENZENE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	TOLUENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW07	VINYL CHLORIDE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/4/2010	8MW48	1,1,2-TRICHLOROETHANE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	1,1-DICHLOROETHENE	UG_L	25.0			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	1,2-DIBROMOETHANE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	1,2-DICHLOROETHANE	UG_L	510.0			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	1,2-DICHLOROPROPANE	UG_L	25.0			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	BENZENE	UG_L	13000.0			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	ETHYLBENZENE	UG_L	1800			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	TOLUENE	UG_L	2200.00			Shallow	OPERABLE UNIT 8
5/4/2010	8MW48	VINYL CHLORIDE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	1,1-DICHLOROETHENE	UG_L	13.0			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	1,2-DIBROMOETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	1,2-DICHLOROETHANE	UG_L	680.0			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	1,2-DICHLOROPROPANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	BENZENE	UG_L	8400			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	ETHYLBENZENE	UG_L	510			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	TOLUENE	UG_L	790.0			Shallow	OPERABLE UNIT 8
5/4/2010	MW05	VINYL CHLORIDE	UG_L	13.0			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	1,1,2-TRICHLOROETHANE	UG_L	1.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	1,1-DICHLOROETHENE	UG_L	1.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	1,2-DIBROMOETHANE	UG_L	1.20			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	1,2-DICHLOROETHANE	UG_L	130.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	1,2-DICHLOROPROPANE	UG_L	1.80			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	BENZENE	UG_L	480.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	ETHYLBENZENE	UG_L	89.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	TOLUENE	UG_L	440.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-4	VINYL CHLORIDE	UG_L	1.00			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	1,1,2-TRICHLOROETHANE	UG_L	2.10			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	1,1-DICHLOROETHENE	UG_L	0.96			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	1,2-DICHLOROETHANE	UG_L	20			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	1,2-DICHLOROPROPANE	UG_L	1.10			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	BENZENE	UG_L	17			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	ETHYLBENZENE	UG_L	6.1			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	TOLUENE	UG_L	2.5			Shallow	OPERABLE UNIT 8
5/5/2010	8IW-5	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/5/2010	8MW23	1,1,2-TRICHLOROETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	1,1-DICHLOROETHENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	1,2-DIBROMOETHANE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	1,2-DICHLOROETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	1,2-DICHLOROPROPANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	BENZENE	UG_L	0.090			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	ETHYLBENZENE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	TOLUENE	UG_L	0.500			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW23	VINYL CHLORIDE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
5/5/2010	8MW24	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	1,1-DICHLOROETHENE	UG_L	13			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	1,2-DIBROMOETHANE	UG_L	30			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/5/2010	8MW24	1,2-DICHLOROETHANE	UG_L	400			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	1,2-DICHLOROPROPANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	BENZENE	UG_L	9100			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	ETHYLBENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	TOLUENE	UG_L	3600.0			Shallow	OPERABLE UNIT 8
5/5/2010	8MW24	VINYL CHLORIDE	UG_L	13			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	1,1,2-TRICHLOROETHANE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	1,1-DICHLOROETHENE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	1,2-DIBROMOETHANE	UG_L	34			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	1,2-DICHLOROETHANE	UG_L	380			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	1,2-DICHLOROPROPANE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	BENZENE	UG_L	8900			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	ETHYLBENZENE	UG_L	710			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	TOLUENE	UG_L	8100			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-2	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	1,1-DICHLOROETHENE	UG_L	13			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	1,2-DIBROMOETHANE	UG_L	11			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	1,2-DICHLOROETHANE	UG_L	94			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	1,2-DICHLOROPROPANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	BENZENE	UG_L	3000			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	ETHYLBENZENE	UG_L	440			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	TOLUENE	UG_L	6500			Shallow	OPERABLE UNIT 8
5/10/2010	8IW-3	VINYL CHLORIDE	UG_L	13			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	1,2-DIBROMOETHANE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	1,2-DICHLOROETHANE	UG_L	120.00			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	1,2-DICHLOROPROPANE	UG_L	25			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	BENZENE	UG_L	9300			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	TOLUENE	UG_L	12000.00			Shallow	OPERABLE UNIT 8
5/10/2010	8MW49	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	5			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	1,1-DICHLOROETHENE	UG_L	5			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	1,2-DIBROMOETHANE	UG_L	5			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	1,2-DICHLOROETHANE	UG_L	1500			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	1,2-DICHLOROPROPANE	UG_L	8.7			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	BENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	ETHYLBENZENE	UG_L	350			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	TOLUENE	UG_L	340			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C1	VINYL CHLORIDE	UG_L	5			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	1.3			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	1,1-DICHLOROETHENE	UG_L	1.3			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	1,2-DIBROMOETHANE	UG_L	1.30			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	1,2-DICHLOROETHANE	UG_L	670.00			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	1,2-DICHLOROPROPANE	UG_L	1.8			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	BENZENE	UG_L	13.00			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	ETHYLBENZENE	UG_L	1			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	TOLUENE	UG_L	5.2			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C2	VINYL CHLORIDE	UG_L	1.30			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	1,2-DICHLOROETHANE	UG_L	17.00			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	BENZENE	UG_L	9.50			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	ETHYLBENZENE	UG_L	2.50			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	TOLUENE	UG_L	18			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-C3	VINYL CHLORIDE	UG_L	0.50			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/10/2010	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	1,1-DICHLOROETHENE	UG_L	13.00			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	1,2-DIBROMOETHANE	UG_L	7.3			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	1,2-DICHLOROETHANE	UG_L	1300			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	1,2-DICHLOROPROPANE	UG_L	9			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	BENZENE	UG_L	8400			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	TOLUENE	UG_L	1400			Shallow	OPERABLE UNIT 8
5/10/2010	8PS-D1	VINYL CHLORIDE	UG_L	13			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	1,1,2-TRICHLOROETHANE	UG_L	1.3			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	1,1-DICHLOROETHENE	UG_L	1.3			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	1,2-DIBROMOETHANE	UG_L	0.48			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	1,2-DICHLOROETHANE	UG_L	150			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	1,2-DICHLOROPROPANE	UG_L	0.58			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	BENZENE	UG_L	650			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	ETHYLBENZENE	UG_L	53			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	TOLUENE	UG_L	120			Shallow	OPERABLE UNIT 8
5/11/2010	8IW-1	VINYL CHLORIDE	UG_L	1.3			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	1,1-DICHLOROETHENE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	1,2-DIBROMOETHANE	UG_L	11.00			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	1,2-DICHLOROETHANE	UG_L	1500			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	1,2-DICHLOROPROPANE	UG_L	8.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	BENZENE	UG_L	15000			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	TOLUENE	UG_L	1700			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	1,2-DICHLOROETHANE	UG_L	30.00			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	BENZENE	UG_L	16			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	ETHYLBENZENE	UG_L	1.60			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	TOLUENE	UG_L	8.4			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-A3	VINYL CHLORIDE	UG_L	0.50			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,1-DICHLOROETHENE	UG_L	25.00			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,1-DICHLOROETHENE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,2-DIBROMOETHANE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,2-DICHLOROETHANE	UG_L	1600		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,2-DICHLOROETHANE	UG_L	1600			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,2-DICHLOROPROPANE	UG_L	9.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	1,2-DICHLOROPROPANE	UG_L	7.5		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	BENZENE	UG_L	15000			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	BENZENE	UG_L	15000		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	ETHYLBENZENE	UG_L	1200.00		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	TOLUENE	UG_L	360		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	TOLUENE	UG_L	390			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	VINYL CHLORIDE	UG_L	25.00		DUP	Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	1,2-DICHLOROETHANE	UG_L	400			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	1,2-DICHLOROPROPANE	UG_L	0.63			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	BENZENE	UG_L	24			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/11/2010	8PS-B2	ETHYLBENZENE	UG_L	4.4			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	TOLUENE	UG_L	28			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-B2	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
5/11/2010	8PS-C4	1,1,2-TRICHLOROETHANE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	1,1-DICHLOROETHENE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	1,2-DIBROMOETHANE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	1,2-DICHLOROETHANE	UG_L	0.23			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	1,2-DICHLOROPROPANE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	BENZENE	UG_L	0.68			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	ETHYLBENZENE	UG_L	0.3			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	TOLUENE	UG_L	2			Intermediate	OPERABLE UNIT 8
5/11/2010	8PS-C4	VINYL CHLORIDE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
8/2/2010	8MW48	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	1,1-DICHLOROETHENE	UG_L	13			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	1,2-DIBROMOETHANE	UG_L	3.30			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	1,2-DICHLOROETHANE	UG_L	65			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	1,2-DICHLOROPROPANE	UG_L	4.8			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	BENZENE	UG_L	10000			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	ETHYLBENZENE	UG_L	1700			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	TOLUENE	UG_L	4000.00			Shallow	OPERABLE UNIT 8
8/2/2010	8MW48	VINYL CHLORIDE	UG_L	13			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	1			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	1,1-DICHLOROETHENE	UG_L	1			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	1,2-DIBROMOETHANE	UG_L	1			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	1,2-DICHLOROETHANE	UG_L	790			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2.6			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	BENZENE	UG_L	83			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	ETHYLBENZENE	UG_L	18			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	TOLUENE	UG_L	2.5			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C2	VINYL CHLORIDE	UG_L	1			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.50			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	1,2-DICHLOROETHANE	UG_L	140			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.21			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	BENZENE	UG_L	45.00			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	ETHYLBENZENE	UG_L	0.99			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	TOLUENE	UG_L	6.40			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C3	VINYL CHLORIDE	UG_L	0.50			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-C4	1,1,2-TRICHLOROETHANE	UG_L	0.17			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	1,1-DICHLOROETHENE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	1,2-DIBROMOETHANE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	1,2-DICHLOROETHANE	UG_L	0.67			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	1,2-DICHLOROPROPANE	UG_L	0.17			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	BENZENE	UG_L	3.50			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	ETHYLBENZENE	UG_L	0.21			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	TOLUENE	UG_L	2.80			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-C4	VINYL CHLORIDE	UG_L	0.50			Intermediate	OPERABLE UNIT 8
8/2/2010	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25.00			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	1,1-DICHLOROETHENE	UG_L	25.00			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	1,2-DIBROMOETHANE	UG_L	12.00			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	1,2-DICHLOROETHANE	UG_L	1200			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	1,2-DICHLOROPROPANE	UG_L	11			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	BENZENE	UG_L	11000			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	ETHYLBENZENE	UG_L	1200.00			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	TOLUENE	UG_L	1500.00			Shallow	OPERABLE UNIT 8
8/2/2010	8PS-D1	VINYL CHLORIDE	UG_L	25.00			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	1,1-DICHLOROETHENE	UG_L	13			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	1,2-DIBROMOETHANE	UG_L	28			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
8/3/2010	8PS-A1	1,2-DICHLOROETHANE	UG_L	910			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	1,2-DICHLOROPROPANE	UG_L	5.8			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	BENZENE	UG_L	9900			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	ETHYLBENZENE	UG_L	310			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	TOLUENE	UG_L	2700			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A1	VINYL CHLORIDE	UG_L	13			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.21			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.13			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.35			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	1,2-DICHLOROETHANE	UG_L	130			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.68			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	BENZENE	UG_L	290			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	ETHYLBENZENE	UG_L	6.3			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	TOLUENE	UG_L	120			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-A3	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	1,2-DICHLOROETHANE	UG_L	1400			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	1,2-DICHLOROPROPANE	UG_L	11			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	BENZENE	UG_L	18000			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	TOLUENE	UG_L	480			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	1,2-DICHLOROETHANE	UG_L	440			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	1,2-DICHLOROPROPANE	UG_L	1.4			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	BENZENE	UG_L	130			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	ETHYLBENZENE	UG_L	2.2			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	TOLUENE	UG_L	38			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-B2	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,1-DICHLOROETHENE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,2-DIBROMOETHANE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,2-DICHLOROETHANE	UG_L	1600			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,2-DICHLOROETHANE	UG_L	1500		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,2-DICHLOROPROPANE	UG_L	12			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	1,2-DICHLOROPROPANE	UG_L	12		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	BENZENE	UG_L	14000			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	BENZENE	UG_L	14000		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	ETHYLBENZENE	UG_L	1300		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	TOLUENE	UG_L	500		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	TOLUENE	UG_L	480			Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	VINYL CHLORIDE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
8/3/2010	8PS-C1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	TOLUENE	UG_L	0.06	J		Shallow	OPERABLE UNIT 8
10/4/2010	8MW16	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/4/2010	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.14	J		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	1,1-DICHLOROETHENE	UG_L	0.09	J		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	1,2-DICHLOROETHANE	UG_L	0.24	J		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	BENZENE	UG_L	0.29	J		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	TOLUENE	UG_L	0.89	A		Shallow	OPERABLE UNIT 8
10/4/2010	8MW42	VINYL CHLORIDE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	1,2-DICHLOROETHANE	UG_L	740	A		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	1,2-DICHLOROPROPANE	UG_L	11	J		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	BENZENE	UG_L	12000	A		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	ETHYLBENZENE	UG_L	480	A		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	TOLUENE	UG_L	630	A		Shallow	OPERABLE UNIT 8
10/5/2010	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	8MW33	1,1,2-TRICHLOROETHANE	UG_L	5.8	A		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	1,1-DICHLOROETHENE	UG_L	3.6	A		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	1,2-DICHLOROETHANE	UG_L	49	A		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	1,2-DICHLOROPROPANE	UG_L	1.6	A		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.36	J		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	1,1-DICHLOROETHENE	UG_L	0.21	J		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	1,2-DICHLOROETHANE	UG_L	1.9	A		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	1,2-DICHLOROPROPANE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	BENZENE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2010	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	1,2-DICHLOROETHANE	UG_L	820	A		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	1,2-DICHLOROPROPANE	UG_L	8.5	J		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	BENZENE	UG_L	20000	A		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	TOLUENE	UG_L	15000	A		Shallow	OPERABLE UNIT 8
10/5/2010	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2010	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/6/2010	8MW47	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,2-DIBROMOETHANE	UG_L	8.5	J		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,2-DIBROMOETHANE	UG_L	9	J	DUP	Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/6/2010	8MW47	1,2-DICHLOROETHANE	UG_L	33	A	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,2-DICHLOROETHANE	UG_L	33	A		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,2-DICHLOROPROPANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	BENZENE	UG_L	9100	J		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	BENZENE	UG_L	9200	A	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	ETHYLBENZENE	UG_L	1500	A	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	ETHYLBENZENE	UG_L	1500	A		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	TOLUENE	UG_L	12000	A	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	TOLUENE	UG_L	12000	J		Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/6/2010	8MW47	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	1,2-DICHLOROETHANE	UG_L	13	A		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	BENZENE	UG_L	4600	A		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	TOLUENE	UG_L	280	A		Shallow	OPERABLE UNIT 8
10/6/2010	MW08	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/7/2010	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	1,2-DICHLOROETHANE	UG_L	2.2	A		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW13	VINYL CHLORIDE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	1,2-DICHLOROETHANE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/7/2010	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/7/2010	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
11/1/2010	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
11/1/2010	8PS-B2	1,2-DICHLOROETHANE	UG_L	390			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	1,2-DICHLOROPROPANE	UG_L	1.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	BENZENE	UG_L	220			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	ETHYLBENZENE	UG_L	4.1			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	TOLUENE	UG_L	72			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-B2	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	1,2-DICHLOROETHANE	UG_L	1300			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	1,2-DICHLOROPROPANE	UG_L	8.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	BENZENE	UG_L	19000			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	TOLUENE	UG_L	560			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	1		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	1			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,1-DICHLOROETHENE	UG_L	1		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,1-DICHLOROETHENE	UG_L	1			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,2-DIBROMOETHANE	UG_L	1			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,2-DIBROMOETHANE	UG_L	1		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,2-DICHLOROETHANE	UG_L	870			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,2-DICHLOROETHANE	UG_L	890		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,2-DICHLOROPROPANE	UG_L	3.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	1,2-DICHLOROPROPANE	UG_L	3.5		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	BENZENE	UG_L	170			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	BENZENE	UG_L	170		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	ETHYLBENZENE	UG_L	50			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	ETHYLBENZENE	UG_L	51		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	TOLUENE	UG_L	9.6			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	TOLUENE	UG_L	8.9		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	VINYL CHLORIDE	UG_L	0.2		DUP	Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C2	VINYL CHLORIDE	UG_L	0.18			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	1,2-DICHLOROETHANE	UG_L	200			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.48			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	BENZENE	UG_L	85			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	ETHYLBENZENE	UG_L	1.8			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	TOLUENE	UG_L	19			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C3	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-C4	1,1,2-TRICHLOROETHANE	UG_L	0.25			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	1,1-DICHLOROETHENE	UG_L	0.08			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	1,2-DIBROMOETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	1,2-DICHLOROETHANE	UG_L	5.9			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	1,2-DICHLOROPROPANE	UG_L	0.24			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	BENZENE	UG_L	17			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	ETHYLBENZENE	UG_L	1.1			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	TOLUENE	UG_L	6			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-C4	VINYL CHLORIDE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
11/1/2010	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	1,2-DIBROMOETHANE	UG_L	24			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	1,2-DICHLOROETHANE	UG_L	830			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	1,2-DICHLOROPROPANE	UG_L	9			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	BENZENE	UG_L	19000			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	TOLUENE	UG_L	3500			Shallow	OPERABLE UNIT 8
11/1/2010	8PS-D1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
11/2/2010	8MW48	1,1,2-TRICHLOROETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	1,1-DICHLOROETHENE	UG_L	13			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	1,2-DIBROMOETHANE	UG_L	13			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	1,2-DICHLOROETHANE	UG_L	55			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	1,2-DICHLOROPROPANE	UG_L	3.8			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	BENZENE	UG_L	8300			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	TOLUENE	UG_L	4200			Shallow	OPERABLE UNIT 8
11/2/2010	8MW48	VINYL CHLORIDE	UG_L	13			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	1,2-DIBROMOETHANE	UG_L	40			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	1,2-DICHLOROETHANE	UG_L	880			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	1,2-DICHLOROPROPANE	UG_L	7			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	BENZENE	UG_L	15000			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	ETHYLBENZENE	UG_L	310			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	TOLUENE	UG_L	4300			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.09			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	1,2-DICHLOROETHANE	UG_L	120			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	BENZENE	UG_L	300			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	ETHYLBENZENE	UG_L	7			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	TOLUENE	UG_L	140			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-A3	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	1,2-DICHLOROETHANE	UG_L	1100			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	1,2-DICHLOROPROPANE	UG_L	8			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	TOLUENE	UG_L	380			Shallow	OPERABLE UNIT 8
11/2/2010	8PS-B1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	1,2-DICHLOROETHANE	UG_L	1300			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	1,2-DICHLOROPROPANE	UG_L	12			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	BENZENE	UG_L	11000			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	TOLUENE	UG_L	940			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	1.3			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	1,1-DICHLOROETHENE	UG_L	1.3			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	1,2-DIBROMOETHANE	UG_L	1.3			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	1,2-DICHLOROETHANE	UG_L	690			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2.2			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	BENZENE	UG_L	640			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	ETHYLBENZENE	UG_L	82			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	TOLUENE	UG_L	13			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C2	VINYL CHLORIDE	UG_L	1.3			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	1,2-DICHLOROETHANE	UG_L	170			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.33			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	BENZENE	UG_L	24			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
1/31/2011	8PS-C3	ETHYLBENZENE	UG_L	1.4			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	TOLUENE	UG_L	5.4			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-C3	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,1-DICHLOROETHENE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,2-DIBROMOETHANE	UG_L	21			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,2-DIBROMOETHANE	UG_L	20		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,2-DICHLOROETHANE	UG_L	1000		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,2-DICHLOROETHANE	UG_L	1000			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,2-DICHLOROPROPANE	UG_L	12		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	1,2-DICHLOROPROPANE	UG_L	11			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	BENZENE	UG_L	14000		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	BENZENE	UG_L	14000			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	ETHYLBENZENE	UG_L	1400		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	TOLUENE	UG_L	3000		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	TOLUENE	UG_L	3200			Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	VINYL CHLORIDE	UG_L	25		DUP	Shallow	OPERABLE UNIT 8
1/31/2011	8PS-D1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
2/1/2011	8MW07	1,1,2-TRICHLOROETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	1,1-DICHLOROETHENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	1,2-DIBROMOETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	1,2-DICHLOROETHANE	UG_L	1.8			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	1,2-DICHLOROPROPANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	BENZENE	UG_L	17			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	ETHYLBENZENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	TOLUENE	UG_L	0.1			Intermediate	OPERABLE UNIT 8
2/1/2011	8MW07	VINYL CHLORIDE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.5			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	1,2-DICHLOROETHANE	UG_L	100			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.22			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	BENZENE	UG_L	260			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	ETHYLBENZENE	UG_L	4.8			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	TOLUENE	UG_L	91			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-A3	VINYL CHLORIDE	UG_L	0.5			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	1			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	1,1-DICHLOROETHENE	UG_L	1			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	1,2-DIBROMOETHANE	UG_L	1			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	1,2-DICHLOROETHANE	UG_L	530			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	1,2-DICHLOROPROPANE	UG_L	1.5			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	BENZENE	UG_L	67			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	ETHYLBENZENE	UG_L	1.3			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	TOLUENE	UG_L	14			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-B2	VINYL CHLORIDE	UG_L	1			Shallow	OPERABLE UNIT 8
2/1/2011	8PS-C4	1,1,2-TRICHLOROETHANE	UG_L	0.15			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	1,1-DICHLOROETHENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	1,2-DIBROMOETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	1,2-DICHLOROETHANE	UG_L	7.3			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	1,2-DICHLOROPROPANE	UG_L	0.18			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	BENZENE	UG_L	9.3			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	ETHYLBENZENE	UG_L	0.15			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	TOLUENE	UG_L	1.5			Intermediate	OPERABLE UNIT 8
2/1/2011	8PS-C4	VINYL CHLORIDE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/2/2011	8MW48	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
2/2/2011	8MW48	1,2-DICHLOROETHANE	UG_L	300			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	1,2-DICHLOROPROPANE	UG_L	6.5			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	BENZENE	UG_L	10000			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	TOLUENE	UG_L	2700			Shallow	OPERABLE UNIT 8
2/2/2011	8MW48	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	1,2-DIBROMOETHANE	UG_L	5.5			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	1,2-DICHLOROETHANE	UG_L	1100			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	1,2-DICHLOROPROPANE	UG_L	7.5			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	ETHYLBENZENE	UG_L	510			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	TOLUENE	UG_L	5500			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-A1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	1,2-DICHLOROETHANE	UG_L	1200			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	1,2-DICHLOROPROPANE	UG_L	10			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	TOLUENE	UG_L	360			Shallow	OPERABLE UNIT 8
2/2/2011	8PS-B1	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	8MW23	1,1,2-TRICHLOROETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	1,1-DICHLOROETHENE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	1,2-DIBROMOETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	1,2-DICHLOROETHANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	1,2-DICHLOROPROPANE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	BENZENE	UG_L	0.28			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	ETHYLBENZENE	UG_L	0.06			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	TOLUENE	UG_L	0.13			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW23	VINYL CHLORIDE	UG_L	0.5			Intermediate	OPERABLE UNIT 8
2/3/2011	8MW24	1,1,2-TRICHLOROETHANE	UG_L	10			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	1,1-DICHLOROETHENE	UG_L	10			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	1,2-DIBROMOETHANE	UG_L	5.6			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	1,2-DICHLOROETHANE	UG_L	34			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	1,2-DICHLOROPROPANE	UG_L	2.2			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	BENZENE	UG_L	5200			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	TOLUENE	UG_L	1800			Shallow	OPERABLE UNIT 8
2/3/2011	8MW24	VINYL CHLORIDE	UG_L	10			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	1,2-DICHLOROETHANE	UG_L	62			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	1,2-DICHLOROPROPANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	BENZENE	UG_L	7600			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	TOLUENE	UG_L	10000			Shallow	OPERABLE UNIT 8
2/3/2011	8MW49	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	1,1,2-TRICHLOROETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	1,1-DICHLOROETHENE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	1,2-DICHLOROETHANE	UG_L	610			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	1,2-DICHLOROPROPANE	UG_L	7.5			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	BENZENE	UG_L	15000			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
2/3/2011	MW05	VINYL CHLORIDE	UG_L	25			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/11/2011	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	1,1-DICHLOROETHENE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	1,2-DICHLOROETHANE	UG_L	4	A		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	1,1,2-TRICHLOROETHANE	UG_L	4.4	A		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	1,1-DICHLOROETHENE	UG_L	3.4	A		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	1,2-DICHLOROETHANE	UG_L	36	A		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	1,2-DICHLOROPROPANE	UG_L	1.4	A		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	1,2-DICHLOROETHANE	UG_L	0.62	A		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2011	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2011	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,2-DICHLOROETHANE	UG_L	690	A	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,2-DICHLOROETHANE	UG_L	620	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	1,2-DICHLOROPROPANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	BENZENE	UG_L	18000	A	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	BENZENE	UG_L	18000	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	ETHYLBENZENE	UG_L	670	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	ETHYLBENZENE	UG_L	770	A	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	TOLUENE	UG_L	320	A	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	TOLUENE	UG_L	290	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW06	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	1,2-DIBROMOETHANE	UG_L	2.2	J		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	1,2-DICHLOROETHANE	UG_L	31	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	BENZENE	UG_L	7400	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	ETHYLBENZENE	UG_L	760	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	TOLUENE	UG_L	6600	A		Shallow	OPERABLE UNIT 8
4/12/2011	8MW47	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	1,2-DICHLOROETHANE	UG_L	110			Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	BENZENE	UG_L	2600	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/13/2011	8IW-5	ETHYLBENZENE	UG_L	340			Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	TOLUENE	UG_L	280			Shallow	OPERABLE UNIT 8
4/13/2011	8IW-5	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.85	A		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	1,1-DICHLOROETHENE	UG_L	0.28	J		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	1,2-DICHLOROETHANE	UG_L	0.48	J		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	1,2-DICHLOROPROPANE	UG_L	0.37	J		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	BENZENE	UG_L	0.44	J		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	1,2-DICHLOROETHANE	UG_L	46	A		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	BENZENE	UG_L	12000	A		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	TOLUENE	UG_L	170	A		Shallow	OPERABLE UNIT 8
4/13/2011	MW08	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	1,2-DICHLOROETHANE	UG_L	450			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	BENZENE	UG_L	2600			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	ETHYLBENZENE	UG_L	38			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	TOLUENE	UG_L	530			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-1	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	1,2-DIBROMOETHANE	UG_L	3.6	J		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	1,2-DICHLOROETHANE	UG_L	260			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	1,2-DICHLOROPROPANE	UG_L	2.6	J		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	BENZENE	UG_L	8000			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	ETHYLBENZENE	UG_L	130			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	TOLUENE	UG_L	4500			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-2	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	1,2-DICHLOROETHANE	UG_L	87			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	BENZENE	UG_L	4600			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	ETHYLBENZENE	UG_L	110			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	TOLUENE	UG_L	7100			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-3	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	1,2-DICHLOROETHANE	UG_L	50			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	BENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	ETHYLBENZENE	UG_L	140			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	TOLUENE	UG_L	2000			Shallow	OPERABLE UNIT 8
4/14/2011	8IW-4	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2011	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/15/2011	8MW13	1,2-DICHLOROETHANE	UG_L	1.8	A		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW13	VINYL CHLORIDE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	1,2-DICHLOROETHANE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/15/2011	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/15/2011	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
8/15/2011	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	1,2-DICHLOROETHANE	UG_L	810			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	1,2-DICHLOROPROPANE	UG_L	11	J		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	BENZENE	UG_L	26000			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	ETHYLBENZENE	UG_L	780			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	TOLUENE	UG_L	23000			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	1,2-DICHLOROETHANE	UG_L	41			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	BENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	ETHYLBENZENE	UG_L	10			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	TOLUENE	UG_L	210			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-A3	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	1,2-DIBROMOETHANE	UG_L	7.5	J		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	1,2-DICHLOROETHANE	UG_L	990			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	1,2-DICHLOROPROPANE	UG_L	8.5	J		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	BENZENE	UG_L	17000			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	TOLUENE	UG_L	1500			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
8/15/2011	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	1,2-DICHLOROETHANE	UG_L	350			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	1,2-DICHLOROPROPANE	UG_L	1.4			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	BENZENE	UG_L	310			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	ETHYLBENZENE	UG_L	11			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	TOLUENE	UG_L	110			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-B2	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,2-DICHLOROETHANE	UG_L	1300			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,2-DICHLOROETHANE	UG_L	1300		DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,2-DICHLOROPROPANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	1,2-DICHLOROPROPANE	UG_L	12	J	DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	BENZENE	UG_L	17000			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	BENZENE	UG_L	18000		DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	ETHYLBENZENE	UG_L	1400		DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	TOLUENE	UG_L	660			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	TOLUENE	UG_L	540		DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	1,2-DICHLOROETHANE	UG_L	1000			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	1,2-DICHLOROPROPANE	UG_L	5.4			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	BENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	ETHYLBENZENE	UG_L	170			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	TOLUENE	UG_L	21			Shallow	OPERABLE UNIT 8
8/15/2011	8PS-C2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	1,2-DICHLOROETHANE	UG_L	250	J		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.71			Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	BENZENE	UG_L	89	J		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	ETHYLBENZENE	UG_L	2.1			Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	TOLUENE	UG_L	29			Shallow	OPERABLE UNIT 8
8/16/2011	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	1,2-DIBROMOETHANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	1,2-DICHLOROETHANE	UG_L	930			Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	1,2-DICHLOROPROPANE	UG_L	11	J		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	BENZENE	UG_L	13000	J		Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	TOLUENE	UG_L	1200			Shallow	OPERABLE UNIT 8
8/16/2011	8PS-D1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/27/2011	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.52			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	1,1-DICHLOROETHENE	UG_L	0.75			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	1,2-DICHLOROETHANE	UG_L	7.8			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	1,2-DICHLOROPROPANE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	BENZENE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
9/27/2011	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	1,1,2-TRICHLOROETHANE	UG_L	5.8			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	1,1-DICHLOROETHENE	UG_L	3.7			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	1,2-DICHLOROETHANE	UG_L	39			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	1,2-DICHLOROPROPANE	UG_L	1.6			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.46	J		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	1,1-DICHLOROETHENE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	1,2-DICHLOROETHANE	UG_L	2.1			Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	1,2-DICHLOROPROPANE	UG_L	0.19	J		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/27/2011	8MW35	VINYL CHLORIDE	UG_L	0.08	J		Intermediate	OPERABLE UNIT 8
9/29/2011	8IW-1	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	1,2-DICHLOROETHANE	UG_L	470			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	1,2-DICHLOROPROPANE	UG_L	2.4	J		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	BENZENE	UG_L	5900			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	ETHYLBENZENE	UG_L	64			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	TOLUENE	UG_L	1500			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-1	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,2-DICHLOROETHANE	UG_L	390			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,2-DICHLOROETHANE	UG_L	370		DUP	Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,2-DICHLOROPROPANE	UG_L	2.4	J		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	1,2-DICHLOROPROPANE	UG_L	2.6	J	DUP	Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	BENZENE	UG_L	3000			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	BENZENE	UG_L	3100		DUP	Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	ETHYLBENZENE	UG_L	86			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	ETHYLBENZENE	UG_L	81		DUP	Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	TOLUENE	UG_L	1100			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	TOLUENE	UG_L	1000		DUP	Shallow	OPERABLE UNIT 8
9/29/2011	8IW-2	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	1,2-DICHLOROETHANE	UG_L	41			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	BENZENE	UG_L	2400			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	ETHYLBENZENE	UG_L	620			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	TOLUENE	UG_L	12000			Shallow	OPERABLE UNIT 8
9/29/2011	8IW-3	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/30/2011	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	1,2-DICHLOROETHANE	UG_L	1.2			Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
9/30/2011	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	1,2-DICHLOROETHANE	UG_L	0.26	J		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
9/30/2011	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
9/30/2011	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/3/2011	8MW06	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	1,2-DICHLOROETHANE	UG_L	610			Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	1,2-DICHLOROPROPANE	UG_L	8.3	J		Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	BENZENE	UG_L	13000			Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	ETHYLBENZENE	UG_L	470			Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	TOLUENE	UG_L	480			Shallow	OPERABLE UNIT 8
10/3/2011	8MW06	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.19	J		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	1,2-DICHLOROETHANE	UG_L	0.22	J		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	BENZENE	UG_L	0.24	J		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,1,2-TRICHLOROETHANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,1-DICHLOROETHENE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,2-DIBROMOETHANE	UG_L	3	J	DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,2-DIBROMOETHANE	UG_L	3	J		Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,2-DICHLOROETHANE	UG_L	19			Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,2-DICHLOROETHANE	UG_L	20		DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,2-DICHLOROPROPANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	1,2-DICHLOROPROPANE	UG_L	2.5	J		Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	BENZENE	UG_L	5300		DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	BENZENE	UG_L	5300			Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	ETHYLBENZENE	UG_L	1100		DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	TOLUENE	UG_L	11000		DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	VINYL CHLORIDE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
10/3/2011	8MW47	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/3/2011	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/3/2011	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/3/2011	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/3/2011	MW05	1,2-DICHLOROETHANE	UG_L	510			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/3/2011	MW05	1,2-DICHLOROPROPANE	UG_L	9.5	J		Shallow	OPERABLE UNIT 8
10/3/2011	MW05	BENZENE	UG_L	17000			Shallow	OPERABLE UNIT 8
10/3/2011	MW05	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
10/3/2011	MW05	TOLUENE	UG_L	16000			Shallow	OPERABLE UNIT 8
10/3/2011	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/4/2011	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	TOLUENE	UG_L	0.13	J		Deep	OPERABLE UNIT 8
10/4/2011	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2011	MW08	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/4/2011	MW08	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/4/2011	MW08	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/4/2011	MW08	1,2-DICHLOROETHANE	UG_L	19			Shallow	OPERABLE UNIT 8
10/4/2011	MW08	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/4/2011	MW08	BENZENE	UG_L	7500			Shallow	OPERABLE UNIT 8
10/4/2011	MW08	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
10/4/2011	MW08	TOLUENE	UG_L	160			Shallow	OPERABLE UNIT 8
10/4/2011	MW08	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	1,2-DICHLOROETHANE	UG_L	1100			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	1,2-DICHLOROPROPANE	UG_L	9.5	J		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	ETHYLBENZENE	UG_L	1000			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	TOLUENE	UG_L	900			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	1,2-DICHLOROETHANE	UG_L	630			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	1,2-DICHLOROPROPANE	UG_L	3.4			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	BENZENE	UG_L	930			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	ETHYLBENZENE	UG_L	84			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	TOLUENE	UG_L	48			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	1,2-DICHLOROETHANE	UG_L	160			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.5	J		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	BENZENE	UG_L	350			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	ETHYLBENZENE	UG_L	3.8			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	TOLUENE	UG_L	80			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-C3	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	1,2-DICHLOROETHANE	UG_L	720			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	BENZENE	UG_L	13000			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	TOLUENE	UG_L	860			Shallow	OPERABLE UNIT 8
11/17/2011	8PS-D1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
11/18/2011	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	1,2-DICHLOROETHANE	UG_L	730			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	ETHYLBENZENE	UG_L	700			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	TOLUENE	UG_L	6700			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	1,2-DICHLOROETHANE	UG_L	120			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	BENZENE	UG_L	320	J		Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	ETHYLBENZENE	UG_L	8.9			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	TOLUENE	UG_L	120			Shallow	OPERABLE UNIT 8
11/18/2011	8PS-B2	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	1,2-DICHLOROETHANE	UG_L	29			Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	BENZENE	UG_L	7700			Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	TOLUENE	UG_L	9300			Shallow	OPERABLE UNIT 8
11/21/2011	8MW48	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	1,2-DICHLOROETHANE	UG_L	69			Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	BENZENE	UG_L	7500			Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	TOLUENE	UG_L	7900			Shallow	OPERABLE UNIT 8
11/21/2011	8MW49	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,2-DICHLOROETHANE	UG_L	650		DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,2-DICHLOROETHANE	UG_L	600			Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,2-DICHLOROPROPANE	UG_L	8	J		Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	BENZENE	UG_L	18000		DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	BENZENE	UG_L	19000			Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	ETHYLBENZENE	UG_L	910			Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	ETHYLBENZENE	UG_L	930		DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	TOLUENE	UG_L	10000		DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
11/21/2011	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	1,2-DICHLOROETHANE	UG_L	14			Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	1,2-DICHLOROPROPANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	BENZENE	UG_L	700			Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	ETHYLBENZENE	UG_L	10			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
11/22/2011	8PS-A3	TOLUENE	UG_L	170			Shallow	OPERABLE UNIT 8
11/22/2011	8PS-A3	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.39	J		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	1,1-DICHLOROETHENE	UG_L	0.6			Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	1,2-DICHLOROETHANE	UG_L	6.5			Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	1,2-DICHLOROPROPANE	UG_L	0.19	J		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	BENZENE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW06	1,1,2-TRICHLOROETHANE	UG_L	1.5	J		Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	1,2-DICHLOROETHANE	UG_L	510			Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	1,2-DICHLOROPROPANE	UG_L	9.9	J		Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	BENZENE	UG_L	19000			Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	ETHYLBENZENE	UG_L	430			Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	TOLUENE	UG_L	180			Shallow	OPERABLE UNIT 8
4/19/2012	8MW06	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.3	J		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	1,1-DICHLOROETHENE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	1,2-DICHLOROETHANE	UG_L	1.3			Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	1,2-DICHLOROPROPANE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/19/2012	8MW47	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	1,2-DICHLOROETHANE	UG_L	11	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	BENZENE	UG_L	2500			Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	ETHYLBENZENE	UG_L	590			Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	TOLUENE	UG_L	7200			Shallow	OPERABLE UNIT 8
4/19/2012	8MW47	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/20/2012	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	1,2-DICHLOROETHANE	UG_L	1.8			Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	1,2-DICHLOROETHANE	UG_L	0.21	J		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/20/2012	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/20/2012	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2012	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/23/2012	8MW02	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW02	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	BENZENE	UG_L	2.6			Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	ETHYLBENZENE	UG_L	1.1			Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	8MW14	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,1,2-TRICHLOROETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,1-DICHLOROETHENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,2-DIBROMOETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,2-DICHLOROETHANE	UG_L	12	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,2-DICHLOROETHANE	UG_L	11	U	DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	1,2-DICHLOROPROPANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	BENZENE	UG_L	7600			Shallow	OPERABLE UNIT 8
4/23/2012	MW08	BENZENE	UG_L	6400		DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	ETHYLBENZENE	UG_L	1300		DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
4/23/2012	MW08	TOLUENE	UG_L	140			Shallow	OPERABLE UNIT 8
4/23/2012	MW08	TOLUENE	UG_L	150		DUP	Shallow	OPERABLE UNIT 8
4/23/2012	MW08	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/23/2012	MW08	VINYL CHLORIDE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.37	J		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	1,1-DICHLOROETHENE	UG_L	0.1	J		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	1,2-DICHLOROETHANE	UG_L	0.29	J		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	1,2-DICHLOROPROPANE	UG_L	0.17	J		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	BENZENE	UG_L	0.38	J		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/24/2012	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/25/2012	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW32	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW33	1,1,2-TRICHLOROETHANE	UG_L	4.1			Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	1,1-DICHLOROETHENE	UG_L	2.5			Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	1,2-DICHLOROETHANE	UG_L	32	J		Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	1,2-DICHLOROPROPANE	UG_L	1.2			Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/25/2012	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/25/2012	8MW34	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/25/2012	8MW34	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	1,2-DICHLOROETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	1,2-DICHLOROPROPANE	UG_L	3.2	J		Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	BENZENE	UG_L	10000			Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	ETHYLBENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	TOLUENE	UG_L	9400			Shallow	OPERABLE UNIT 8
4/26/2012	8MW48	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	1,2-DICHLOROETHANE	UG_L	35	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	BENZENE	UG_L	5700			Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	ETHYLBENZENE	UG_L	910			Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	TOLUENE	UG_L	7600			Shallow	OPERABLE UNIT 8
4/26/2012	8MW49	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	1,2-DIBROMOETHANE	UG_L	7.4			Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	1,2-DICHLOROETHANE	UG_L	710			Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	1,2-DICHLOROPROPANE	UG_L	7.3			Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	BENZENE	UG_L	4800			Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	ETHYLBENZENE	UG_L	580			Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	TOLUENE	UG_L	1200			Shallow	OPERABLE UNIT 8
4/26/2012	8PS-G1	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	1,2-DICHLOROETHANE	UG_L	790			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	1,2-DICHLOROPROPANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	BENZENE	UG_L	25000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	ETHYLBENZENE	UG_L	1900			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/30/2012	8PS-A1	TOLUENE	UG_L	21000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	1,2-DICHLOROETHANE	UG_L	32			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	BENZENE	UG_L	930			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	ETHYLBENZENE	UG_L	5.3			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	TOLUENE	UG_L	120			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-A3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,2-DICHLOROETHANE	UG_L	880		DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,2-DICHLOROETHANE	UG_L	870			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,2-DICHLOROPROPANE	UG_L	8.5	J		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	1,2-DICHLOROPROPANE	UG_L	9	J	DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	BENZENE	UG_L	23000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	BENZENE	UG_L	23000		DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	ETHYLBENZENE	UG_L	1000		DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	TOLUENE	UG_L	11000		DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B1	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	1,2-DICHLOROETHANE	UG_L	110			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	BENZENE	UG_L	430			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	ETHYLBENZENE	UG_L	9.6			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	TOLUENE	UG_L	120			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-B2	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	1,2-DIBROMOETHANE	UG_L	38			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	1,2-DICHLOROETHANE	UG_L	790			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	1,2-DICHLOROPROPANE	UG_L	8.5	J		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	BENZENE	UG_L	23000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	TOLUENE	UG_L	6100			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-D1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	1,2-DIBROMOETHANE	UG_L	2.5	J		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	1,2-DICHLOROETHANE	UG_L	580			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	1,2-DICHLOROPROPANE	UG_L	6.8	J		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	BENZENE	UG_L	12000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	TOLUENE	UG_L	4300			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-E1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	1,2-DIBROMOETHANE	UG_L	25			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	1,2-DICHLOROETHANE	UG_L	810			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/30/2012	8PS-F1	1,2-DICHLOROPROPANE	UG_L	7.5	J		Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	BENZENE	UG_L	11000			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	TOLUENE	UG_L	2100			Shallow	OPERABLE UNIT 8
4/30/2012	8PS-F1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	1,2-DICHLOROETHANE	UG_L	1300			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	1,2-DICHLOROPROPANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	BENZENE	UG_L	20000			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	TOLUENE	UG_L	1100			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	1,2-DICHLOROETHANE	UG_L	1100			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	1,2-DICHLOROPROPANE	UG_L	6			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	BENZENE	UG_L	3000			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	ETHYLBENZENE	UG_L	200			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	TOLUENE	UG_L	420			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C2	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	1,2-DICHLOROETHANE	UG_L	190			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.49	J		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	BENZENE	UG_L	250			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	ETHYLBENZENE	UG_L	2.5			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	TOLUENE	UG_L	58			Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/1/2012	8PS-C4	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	1,1-DICHLOROETHENE	UG_L	0.08	J		Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	1,2-DICHLOROETHANE	UG_L	48			Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	1,2-DICHLOROPROPANE	UG_L	0.27	J		Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	BENZENE	UG_L	250			Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	ETHYLBENZENE	UG_L	0.97			Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	TOLUENE	UG_L	36			Intermediate	OPERABLE UNIT 8
5/1/2012	8PS-C4	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/21/2012	8CB-MW23	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	1,2-DICHLOROETHANE	UG_L	2.1	J		Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	1,2-DICHLOROPROPANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	BENZENE	UG_L	0.95			Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	ETHYLBENZENE	UG_L	1.9			Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	TOLUENE	UG_L	0.93			Shallow	OPERABLE UNIT 8
5/21/2012	8CB-MW23	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	1,2-DICHLOROETHANE	UG_L	2.1			Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	BENZENE	UG_L	0.07	J		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	TOLUENE	UG_L	0.16	J		Shallow	OPERABLE UNIT 8
5/22/2012	8CB-MW24	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	1,1,2-TRICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/30/2012	8CB-MW23	1,1-DICHLOROETHENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	1,2-DIBROMOETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	1,2-DICHLOROETHANE	UG_L	1.3	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	1,2-DICHLOROPROPANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	BENZENE	UG_L	27	J		Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	ETHYLBENZENE	UG_L	190			Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	TOLUENE	UG_L	68			Shallow	OPERABLE UNIT 8
5/30/2012	8CB-MW23	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	1,2-DICHLOROETHANE	UG_L	12	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	BENZENE	UG_L	1000			Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	ETHYLBENZENE	UG_L	1900			Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	TOLUENE	UG_L	2400			Shallow	OPERABLE UNIT 8
5/30/2012	8MW24	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	1,2-DICHLOROETHANE	UG_L	2.5	UJ		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	BENZENE	UG_L	320	J		Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	ETHYLBENZENE	UG_L	1000			Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	TOLUENE	UG_L	280			Shallow	OPERABLE UNIT 8
5/30/2012	8MW53	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
5/31/2012	8MW27	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	1,2-DICHLOROPROPANE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	BENZENE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	TOLUENE	UG_L	0.54	UJ		Intermediate	OPERABLE UNIT 8
5/31/2012	8MW27	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
5/31/2012	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/31/2012	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/31/2012	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
5/31/2012	MW05	1,2-DICHLOROETHANE	UG_L	270	J		Shallow	OPERABLE UNIT 8
5/31/2012	MW05	1,2-DICHLOROPROPANE	UG_L	7	J		Shallow	OPERABLE UNIT 8
5/31/2012	MW05	BENZENE	UG_L	16000	J		Shallow	OPERABLE UNIT 8
5/31/2012	MW05	ETHYLBENZENE	UG_L	870			Shallow	OPERABLE UNIT 8
5/31/2012	MW05	TOLUENE	UG_L	13000			Shallow	OPERABLE UNIT 8
5/31/2012	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	1,1-DICHLOROETHENE	UG_L	25	UJ		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	1,2-DIBROMOETHANE	UG_L	13	J		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	1,2-DICHLOROETHANE	UG_L	91	U		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	BENZENE	UG_L	14000			Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	ETHYLBENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW02	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	1,1-DICHLOROETHENE	UG_L	25	UJ		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	1,2-DIBROMOETHANE	UG_L	110			Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	1,2-DICHLOROETHANE	UG_L	620			Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	1,2-DICHLOROPROPANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	BENZENE	UG_L	25000	J		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	ETHYLBENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
6/4/2012	8CB-MW28	TOLUENE	UG_L	22000	J		Shallow	OPERABLE UNIT 8
6/4/2012	8CB-MW28	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	1,2-DICHLOROETHANE	UG_L	2.7	J		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	BENZENE	UG_L	1.2			Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	ETHYLBENZENE	UG_L	0.58			Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	TOLUENE	UG_L	4.4			Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW24	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	1,2-DIBROMOETHANE	UG_L	13	J		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	BENZENE	UG_L	3400	J		Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	ETHYLBENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	TOLUENE	UG_L	17000			Shallow	OPERABLE UNIT 8
6/5/2012	8CB-MW26	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	1,1-DICHLOROETHENE	UG_L	10	UJ		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	BENZENE	UG_L	1000			Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	TOLUENE	UG_L	8400			Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW17	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	1,1-DICHLOROETHENE	UG_L	25	UJ		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	BENZENE	UG_L	21000			Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	TOLUENE	UG_L	9700			Shallow	OPERABLE UNIT 8
6/6/2012	8CB-MW18	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
8/14/2012	8CB-MW08	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	1,2-DICHLOROETHANE	UG_L	25			Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	1,2-DICHLOROPROPANE	UG_L	1.4			Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	BENZENE	UG_L	240	J		Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	ETHYLBENZENE	UG_L	21			Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	M- AND P-XYLENE	UG_L	32			Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	O-XYLENE	UG_L	14			Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	TOLUENE	UG_L	100			Intermediate	OPERABLE UNIT 8
8/14/2012	8CB-MW08	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	29MW1	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	29MW1	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
8/20/2012	8CB-MW01	1,1,2-TRICHLOROETHANE	UG_L	0.74			Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	1,1-DICHLOROETHENE	UG_L	0.58			Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	1,2-DICHLOROETHANE	UG_L	40			Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	BENZENE	UG_L	0.19	J		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	ETHYLBENZENE	UG_L	0.05	J		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	M- AND P-XYLENE	UG_L	0.21	J		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	O-XYLENE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW01	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
8/20/2012	8CB-MW08	1,1,2-TRICHLOROETHANE	UG_L	0.46	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	1,1-DICHLOROETHENE	UG_L	0.14	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	1,2-DICHLOROETHANE	UG_L	0.47	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	1,2-DICHLOROPROPANE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	BENZENE	UG_L	6.8			Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	ETHYLBENZENE	UG_L	1.9			Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	M- AND P-XYLENE	UG_L	8.5			Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	O-XYLENE	UG_L	3.2			Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	TOLUENE	UG_L	17			Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW08	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,1-DICHLOROETHENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,2-DICHLOROETHANE	UG_L	7.8		DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,2-DICHLOROETHANE	UG_L	7.8			Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	BENZENE	UG_L	0.08	J	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	BENZENE	UG_L	0.08	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	ETHYLBENZENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	M- AND P-XYLENE	UG_L	0.13	J	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	M- AND P-XYLENE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	O-XYLENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	TOLUENE	UG_L	0.5	U	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	VINYL CHLORIDE	UG_L	0.5	UJ	DUP	Intermediate	OPERABLE UNIT 8
8/20/2012	8CB-MW25	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	BENZENE	UG_L	0.23	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	M- AND P-XYLENE	UG_L	0.14	J		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
8/20/2012	8MW29	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
9/4/2012	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	1,2-DICHLOROETHANE	UG_L	84			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.11	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
9/4/2012	8PS-C3	BENZENE	UG_L	370			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	ETHYLBENZENE	UG_L	5			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	TOLUENE	UG_L	75			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	1,2-DIBROMOETHANE	UG_L	9.5	J		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	1,2-DICHLOROETHANE	UG_L	650			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	1,2-DICHLOROPROPANE	UG_L	7	J		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	ETHYLBENZENE	UG_L	960			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	TOLUENE	UG_L	3100			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-D1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	1,2-DIBROMOETHANE	UG_L	3.5	J		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	1,2-DICHLOROETHANE	UG_L	310			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	1,2-DICHLOROPROPANE	UG_L	3.8	J		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	BENZENE	UG_L	7800			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	ETHYLBENZENE	UG_L	740			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	TOLUENE	UG_L	2600			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-F1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	1,2-DIBROMOETHANE	UG_L	22	J		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	1,2-DICHLOROETHANE	UG_L	340			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	1,2-DICHLOROPROPANE	UG_L	5.5	J		Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	BENZENE	UG_L	11000			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	ETHYLBENZENE	UG_L	940			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	TOLUENE	UG_L	5100			Shallow	OPERABLE UNIT 8
9/4/2012	8PS-G1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	1,2-DICHLOROETHANE	UG_L	440			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	1,2-DICHLOROPROPANE	UG_L	5	J		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	ETHYLBENZENE	UG_L	730			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	TOLUENE	UG_L	8900			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	1,2-DICHLOROETHANE	UG_L	120			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	BENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	ETHYLBENZENE	UG_L	29			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	TOLUENE	UG_L	120			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-B2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	1,2-DICHLOROETHANE	UG_L	560			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	1,2-DICHLOROPROPANE	UG_L	6.5	J		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	BENZENE	UG_L	17000			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	TOLUENE	UG_L	6100			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
9/5/2012	8PS-C2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	1,2-DICHLOROETHANE	UG_L	370			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2	J		Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	BENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	ETHYLBENZENE	UG_L	62			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	TOLUENE	UG_L	220			Shallow	OPERABLE UNIT 8
9/5/2012	8PS-C2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,2-DICHLOROETHANE	UG_L	530			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,2-DICHLOROETHANE	UG_L	520		DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	BENZENE	UG_L	11000		DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	BENZENE	UG_L	12000			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	ETHYLBENZENE	UG_L	890			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	ETHYLBENZENE	UG_L	860		DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	TOLUENE	UG_L	8600		DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	TOLUENE	UG_L	9700			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	1,2-DICHLOROETHANE	UG_L	46			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	1,2-DICHLOROPROPANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	BENZENE	UG_L	490			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	ETHYLBENZENE	UG_L	13			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	TOLUENE	UG_L	95			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-A3	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	1,2-DICHLOROETHANE	UG_L	150			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	1,2-DICHLOROPROPANE	UG_L	1	J		Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	BENZENE	UG_L	640			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	ETHYLBENZENE	UG_L	20			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	TOLUENE	UG_L	360			Shallow	OPERABLE UNIT 8
9/6/2012	8PS-E1	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	BENZENE	UG_L	0.22	J		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	1,2-DICHLOROETHANE	UG_L	21			Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	BENZENE	UG_L	6400			Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
10/16/2012	8MW47	TOLUENE	UG_L	5300			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/16/2012	8MW47	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,2-DICHLOROETHANE	UG_L	210			Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,2-DICHLOROETHANE	UG_L	230		DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,2-DICHLOROPROPANE	UG_L	6	J	DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	1,2-DICHLOROPROPANE	UG_L	5.5	J		Shallow	OPERABLE UNIT 8
10/16/2012	MW05	BENZENE	UG_L	14000			Shallow	OPERABLE UNIT 8
10/16/2012	MW05	BENZENE	UG_L	15000		DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	ETHYLBENZENE	UG_L	1100		DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	ETHYLBENZENE	UG_L	1000			Shallow	OPERABLE UNIT 8
10/16/2012	MW05	TOLUENE	UG_L	12000		DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
10/16/2012	MW05	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/16/2012	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	1,2-DICHLOROETHANE	UG_L	810	J		Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	1,2-DICHLOROPROPANE	UG_L	9.3	J		Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	BENZENE	UG_L	13000			Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	ETHYLBENZENE	UG_L	710			Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	TOLUENE	UG_L	350			Shallow	OPERABLE UNIT 8
10/17/2012	8MW06	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	1,2-DICHLOROETHANE	UG_L	2	J		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	BENZENE	UG_L	0.15	J		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW32	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW33	1,1,2-TRICHLOROETHANE	UG_L	5.5			Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	1,1-DICHLOROETHENE	UG_L	3.8			Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	1,2-DICHLOROETHANE	UG_L	40			Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	1,2-DICHLOROPROPANE	UG_L	1.6			Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2012	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2012	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	BENZENE	UG_L	6300			Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	ETHYLBENZENE	UG_L	1700			Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	TOLUENE	UG_L	7900			Shallow	OPERABLE UNIT 8
10/17/2012	8MW48	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/18/2012	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	1,1-DICHLOROETHENE	UG_L	0.37	J		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	1,2-DICHLOROETHANE	UG_L	4.2			Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	1,2-DICHLOROPROPANE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/18/2012	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/18/2012	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.32	J		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	1,1-DICHLOROETHENE	UG_L	0.24	J		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	1,2-DICHLOROETHANE	UG_L	1.3			Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	1,2-DICHLOROPROPANE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2012	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	1,2-DICHLOROETHANE	UG_L	1.1			Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	1,2-DICHLOROETHANE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2012	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/22/2012	MW08	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2012	MW08	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2012	MW08	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2012	MW08	1,2-DICHLOROETHANE	UG_L	10			Shallow	OPERABLE UNIT 8
10/22/2012	MW08	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2012	MW08	BENZENE	UG_L	5100			Shallow	OPERABLE UNIT 8
10/22/2012	MW08	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
10/22/2012	MW08	TOLUENE	UG_L	170			Shallow	OPERABLE UNIT 8
10/22/2012	MW08	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
12/3/2012	8PS-A3	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	1,2-DICHLOROETHANE	UG_L	30			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	1,2-DICHLOROPROPANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	BENZENE	UG_L	570	J		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	ETHYLBENZENE	UG_L	10			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	TOLUENE	UG_L	64			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-A3	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	1,2-DICHLOROETHANE	UG_L	110			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	BENZENE	UG_L	890			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	ETHYLBENZENE	UG_L	30			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	TOLUENE	UG_L	130			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-B2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	1,2-DICHLOROETHANE	UG_L	66			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	BENZENE	UG_L	270			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	ETHYLBENZENE	UG_L	3.9			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	TOLUENE	UG_L	78			Shallow	OPERABLE UNIT 8
12/3/2012	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	1,2-DICHLOROETHANE	UG_L	140			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	BENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	ETHYLBENZENE	UG_L	64			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	TOLUENE	UG_L	200			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-C2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	1,2-DICHLOROETHANE	UG_L	120			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	1,2-DICHLOROPROPANE	UG_L	0.85	J		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	BENZENE	UG_L	790			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	ETHYLBENZENE	UG_L	14			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	TOLUENE	UG_L	310			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-E1	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,1-DICHLOROETHENE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,2-DIBROMOETHANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,2-DICHLOROETHANE	UG_L	400			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,2-DICHLOROETHANE	UG_L	380		DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,2-DICHLOROPROPANE	UG_L	2.5	J	DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	BENZENE	UG_L	7300		DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	BENZENE	UG_L	7300			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	ETHYLBENZENE	UG_L	770		DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	ETHYLBENZENE	UG_L	760			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	TOLUENE	UG_L	2800		DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	TOLUENE	UG_L	2800			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-F1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
12/4/2012	8PS-F1	VINYL CHLORIDE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	1,2-DICHLOROETHANE	UG_L	390			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	BENZENE	UG_L	10000			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	TOLUENE	UG_L	5800			Shallow	OPERABLE UNIT 8
12/4/2012	8PS-G1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	1,2-DICHLOROETHANE	UG_L	32			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	BENZENE	UG_L	10000			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	ETHYLBENZENE	UG_L	890			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	TOLUENE	UG_L	9100			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	1,2-DICHLOROETHANE	UG_L	140			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	BENZENE	UG_L	13000			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	ETHYLBENZENE	UG_L	730			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	TOLUENE	UG_L	8600			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	1,2-DICHLOROETHANE	UG_L	640			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	1,2-DICHLOROPROPANE	UG_L	6	J		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	TOLUENE	UG_L	5100			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	1,2-DICHLOROETHANE	UG_L	800			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	1,2-DICHLOROPROPANE	UG_L	7.5	J		Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	BENZENE	UG_L	19000			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	ETHYLBENZENE	UG_L	1200			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	TOLUENE	UG_L	6000			Shallow	OPERABLE UNIT 8
12/5/2012	8PS-D1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,1,2-TRICHLOROETHANE	UG_L	4	U	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,1-DICHLOROETHENE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,2-DIBROMOETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,2-DICHLOROETHANE	UG_L	1.5	U	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,2-DICHLOROETHANE	UG_L	1.7	U		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,2-DICHLOROPROPANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	BENZENE	UG_L	19	A	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	BENZENE	UG_L	17	A		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	ETHYLBENZENE	UG_L	1700	A	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	ETHYLBENZENE	UG_L	1500	A		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
1/29/2013	8MW30	M- AND P-XYLENE	UG_L	2500	A	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	M- AND P-XYLENE	UG_L	2200	A		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	O-XYLENE	UG_L	2800	A	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	O-XYLENE	UG_L	2500	A		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	TOLUENE	UG_L	1200	A		Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	TOLUENE	UG_L	1300	A	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	VINYL CHLORIDE	UG_L	1	U	DUP	Shallow	OPERABLE UNIT 8
1/29/2013	8MW30	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	1,2-DICHLOROETHANE	UG_L	1.5	U		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	BENZENE	UG_L	4	J		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	ETHYLBENZENE	UG_L	750	A		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	M- AND P-XYLENE	UG_L	3700	A		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	O-XYLENE	UG_L	2900	A		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	TOLUENE	UG_L	670	A		Shallow	OPERABLE UNIT 8
1/29/2013	MW04	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	1,1,2-TRICHLOROETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	1,2-DICHLOROETHANE	UG_L	0.15	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	BENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	ETHYLBENZENE	UG_L	0.24	J		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	M- AND P-XYLENE	UG_L	0.33	J		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	O-XYLENE	UG_L	0.11	J		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/30/2013	29MW1	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	1,1,2-TRICHLOROETHANE	UG_L	0.4	UJ		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	1,1-DICHLOROETHENE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	1,2-DIBROMOETHANE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	1,2-DICHLOROETHANE	UG_L	2	UJ		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	1,2-DICHLOROPROPANE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	BENZENE	UG_L	45	J		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	ETHYLBENZENE	UG_L	370	A		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	M- AND P-XYLENE	UG_L	330	A		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	O-XYLENE	UG_L	40	A		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	TOLUENE	UG_L	88	A		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW23	VINYL CHLORIDE	UG_L	0.1	UJ		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	1,1,2-TRICHLOROETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	1,2-DICHLOROETHANE	UG_L	2.2	A		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	BENZENE	UG_L	0.07	J		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	M- AND P-XYLENE	UG_L	0.17	J		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	O-XYLENE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/30/2013	8CB-MW24	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	1,2-DICHLOROETHANE	UG_L	15	A		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	BENZENE	UG_L	820	A		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	ETHYLBENZENE	UG_L	22	A		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	M- AND P-XYLENE	UG_L	39	A		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
1/30/2013	8IW-5	O-XYLENE	UG_L	30	A		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	TOLUENE	UG_L	180	A		Shallow	OPERABLE UNIT 8
1/30/2013	8IW-5	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	1,2-DICHLOROETHANE	UG_L	8.5	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	BENZENE	UG_L	740	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	M- AND P-XYLENE	UG_L	1800	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	O-XYLENE	UG_L	270	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	TOLUENE	UG_L	720	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW24	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	1,2-DICHLOROETHANE	UG_L	16	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	BENZENE	UG_L	4000	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	ETHYLBENZENE	UG_L	520	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	M- AND P-XYLENE	UG_L	3700	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	O-XYLENE	UG_L	2000	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	TOLUENE	UG_L	4000	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW47	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	1,1,2-TRICHLOROETHANE	UG_L	8	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	1,1-DICHLOROETHENE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	1,2-DIBROMOETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	1,2-DICHLOROETHANE	UG_L	22	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	1,2-DICHLOROPROPANE	UG_L	2.6	J		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	BENZENE	UG_L	7700	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	ETHYLBENZENE	UG_L	1200	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	M- AND P-XYLENE	UG_L	3400	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	O-XYLENE	UG_L	2200	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	TOLUENE	UG_L	5100	A		Shallow	OPERABLE UNIT 8
1/30/2013	8MW48	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	1,1,2-TRICHLOROETHANE	UG_L	8	U		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	1,1-DICHLOROETHENE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	1,2-DIBROMOETHANE	UG_L	3.4	J		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	1,2-DICHLOROETHANE	UG_L	160	A		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	1,2-DICHLOROPROPANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	BENZENE	UG_L	10000	A		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	ETHYLBENZENE	UG_L	790	A		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	M- AND P-XYLENE	UG_L	4900	A		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	O-XYLENE	UG_L	2700	A		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	TOLUENE	UG_L	11000	A		Shallow	OPERABLE UNIT 8
1/30/2013	MW05	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	1,2-DICHLOROETHANE	UG_L	390	A		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	1,2-DICHLOROPROPANE	UG_L	8	J		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	BENZENE	UG_L	14000	A		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	ETHYLBENZENE	UG_L	740	A		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	M- AND P-XYLENE	UG_L	880	A		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	O-XYLENE	UG_L	330	A		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	TOLUENE	UG_L	270	A		Shallow	OPERABLE UNIT 8
1/31/2013	8MW06	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
1/31/2013	8MW32	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	1,2-DICHLOROETHANE	UG_L	0.15	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	BENZENE	UG_L	0.3	J		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	ETHYLBENZENE	UG_L	0.06	J		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	M- AND P-XYLENE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	O-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
1/31/2013	8MW32	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	1,2-DICHLOROETHANE	UG_L	0.75	U		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	BENZENE	UG_L	1900	A		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	ETHYLBENZENE	UG_L	930	A		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	M- AND P-XYLENE	UG_L	700	A		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	O-XYLENE	UG_L	20	A		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	TOLUENE	UG_L	90	A		Shallow	OPERABLE UNIT 8
1/31/2013	MW08	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	1,2-DICHLOROETHANE	UG_L	97			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	BENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	ETHYLBENZENE	UG_L	37			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	TOLUENE	UG_L	130			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-B2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	1,2-DICHLOROETHANE	UG_L	570			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	1,2-DICHLOROPROPANE	UG_L	3.4	J		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	BENZENE	UG_L	1900			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	ETHYLBENZENE	UG_L	97			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	TOLUENE	UG_L	330			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C2	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	1,2-DICHLOROETHANE	UG_L	140	J		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.37	J		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	BENZENE	UG_L	510	J		Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	ETHYLBENZENE	UG_L	6.3			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	TOLUENE	UG_L	71			Shallow	OPERABLE UNIT 8
3/6/2013	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	1,2-DIBROMOETHANE	UG_L	12			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	1,2-DICHLOROETHANE	UG_L	66	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	BENZENE	UG_L	12000			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	ETHYLBENZENE	UG_L	2100			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	TOLUENE	UG_L	13000			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW02	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/7/2013	8CB-MW17	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	BENZENE	UG_L	850			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	TOLUENE	UG_L	4700			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW17	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	1,2-DICHLOROETHANE	UG_L	4.4			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	1,2-DICHLOROPROPANE	UG_L	2.3			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	BENZENE	UG_L	78	J		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	ETHYLBENZENE	UG_L	260			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	TOLUENE	UG_L	110			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW23	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	1,2-DICHLOROETHANE	UG_L	2.2			Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	BENZENE	UG_L	0.4	J		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	TOLUENE	UG_L	0.32	J		Shallow	OPERABLE UNIT 8
3/7/2013	8CB-MW24	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	1,2-DICHLOROETHANE	UG_L	26	U		Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	BENZENE	UG_L	8500			Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	ETHYLBENZENE	UG_L	1800			Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	TOLUENE	UG_L	7100			Shallow	OPERABLE UNIT 8
3/8/2013	8MW48	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	1,2-DICHLOROETHANE	UG_L	32			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	BENZENE	UG_L	840			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	ETHYLBENZENE	UG_L	15			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	TOLUENE	UG_L	50			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-A3	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	1,2-DICHLOROETHANE	UG_L	520			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	1,2-DICHLOROPROPANE	UG_L	6.5	J		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	ETHYLBENZENE	UG_L	1300			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	TOLUENE	UG_L	2800			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-C4	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	1,2-DICHLOROETHANE	UG_L	16			Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	1,2-DICHLOROPROPANE	UG_L	0.27	J		Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	BENZENE	UG_L	68			Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	ETHYLBENZENE	UG_L	0.55			Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	TOLUENE	UG_L	0.58			Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-C4	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/8/2013	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/8/2013	8PS-G1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	1,2-DICHLOROETHANE	UG_L	400			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	BENZENE	UG_L	10000	J		Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	TOLUENE	UG_L	4200			Shallow	OPERABLE UNIT 8
3/8/2013	8PS-G1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	BENZENE	UG_L	16000			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	ETHYLBENZENE	UG_L	1400			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	TOLUENE	UG_L	11000			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW18	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,2-DICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,2-DICHLOROPROPANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	BENZENE	UG_L	950			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	BENZENE	UG_L	860		DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	ETHYLBENZENE	UG_L	1400		DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	TOLUENE	UG_L	9100			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	TOLUENE	UG_L	9300		DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW26	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	1,2-DICHLOROETHANE	UG_L	440			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	BENZENE	UG_L	19000			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	ETHYLBENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	TOLUENE	UG_L	22000			Shallow	OPERABLE UNIT 8
3/11/2013	8CB-MW28	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	1,2-DICHLOROETHANE	UG_L	130			Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	1,2-DICHLOROPROPANE	UG_L	1.1	J		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	BENZENE	UG_L	790	J		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	ETHYLBENZENE	UG_L	12			Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	TOLUENE	UG_L	370			Shallow	OPERABLE UNIT 8
3/11/2013	8PS-E1	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	1,2-DICHLOROETHANE	UG_L	130			Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	BENZENE	UG_L	8100			Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	ETHYLBENZENE	UG_L	800			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/11/2013	8PS-F1	TOLUENE	UG_L	2700			Shallow	OPERABLE UNIT 8
3/11/2013	8PS-F1	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	1,2-DICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	BENZENE	UG_L	3300			Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	ETHYLBENZENE	UG_L	510			Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	TOLUENE	UG_L	5000			Shallow	OPERABLE UNIT 8
3/12/2013	8MW49	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	1,2-DICHLOROETHANE	UG_L	31			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	BENZENE	UG_L	14000			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	ETHYLBENZENE	UG_L	990			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	TOLUENE	UG_L	12000			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	1,2-DICHLOROETHANE	UG_L	140			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	BENZENE	UG_L	15000	J		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	ETHYLBENZENE	UG_L	830			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	TOLUENE	UG_L	10000			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	50	U	DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,1-DICHLOROETHENE	UG_L	50	U	DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,2-DIBROMOETHANE	UG_L	50	U	DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,2-DICHLOROETHANE	UG_L	880		DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,2-DICHLOROETHANE	UG_L	880			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,2-DICHLOROPROPANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	1,2-DICHLOROPROPANE	UG_L	10	J	DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	BENZENE	UG_L	20000		DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	BENZENE	UG_L	21000			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	ETHYLBENZENE	UG_L	1500			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	ETHYLBENZENE	UG_L	1400		DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	TOLUENE	UG_L	9500		DUP	Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	TOLUENE	UG_L	9900			Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
3/12/2013	8PS-D1	VINYL CHLORIDE	UG_L	50	U	DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.14	J		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	1,2-DICHLOROETHANE	UG_L	0.14	J		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	BENZENE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	TOLUENE	UG_L	0.23	J		Shallow	OPERABLE UNIT 8
4/15/2013	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,1-DICHLOROETHENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/15/2013	8MW47	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,2-DIBROMOETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,2-DICHLOROETHANE	UG_L	75	U	DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,2-DICHLOROETHANE	UG_L	73	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,2-DICHLOROPROPANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	1,2-DICHLOROPROPANE	UG_L	2.7	J		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	BENZENE	UG_L	2500		DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	BENZENE	UG_L	1600			Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	ETHYLBENZENE	UG_L	670		DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	ETHYLBENZENE	UG_L	680			Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	TOLUENE	UG_L	4300		DUP	Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	TOLUENE	UG_L	3000			Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/15/2013	8MW47	VINYL CHLORIDE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	1,2-DICHLOROETHANE	UG_L	740	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	BENZENE	UG_L	17000			Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	ETHYLBENZENE	UG_L	740			Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	TOLUENE	UG_L	210			Shallow	OPERABLE UNIT 8
4/16/2013	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	1,2-DICHLOROETHANE	UG_L	29	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	1,2-DICHLOROPROPANE	UG_L	2.6	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	BENZENE	UG_L	970			Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	ETHYLBENZENE	UG_L	2300			Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	TOLUENE	UG_L	660			Shallow	OPERABLE UNIT 8
4/16/2013	8MW24	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	1,2-DICHLOROETHANE	UG_L	220	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	BENZENE	UG_L	8000			Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	ETHYLBENZENE	UG_L	1800			Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	TOLUENE	UG_L	6700			Shallow	OPERABLE UNIT 8
4/16/2013	8MW48	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/16/2013	MW08	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/16/2013	MW08	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/16/2013	MW08	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/16/2013	MW08	1,2-DICHLOROETHANE	UG_L	82	U		Shallow	OPERABLE UNIT 8
4/16/2013	MW08	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/16/2013	MW08	BENZENE	UG_L	2900			Shallow	OPERABLE UNIT 8
4/16/2013	MW08	ETHYLBENZENE	UG_L	1100			Shallow	OPERABLE UNIT 8
4/16/2013	MW08	TOLUENE	UG_L	110			Shallow	OPERABLE UNIT 8
4/16/2013	MW08	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/17/2013	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/17/2013	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	TOLUENE	UG_L	0.3	J		Shallow	OPERABLE UNIT 8
4/17/2013	8MW32	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2013	8MW33	1,1,2-TRICHLOROETHANE	UG_L	2.4			Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	1,1-DICHLOROETHENE	UG_L	1.6			Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	1,2-DICHLOROETHANE	UG_L	21			Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	1,2-DICHLOROPROPANE	UG_L	0.72			Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	TOLUENE	UG_L	0.25	J		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.27	J		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	1,1-DICHLOROETHENE	UG_L	0.14	J		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	1,2-DICHLOROETHANE	UG_L	1.1			Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2013	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	1,1-DICHLOROETHENE	UG_L	0.27	J		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	1,2-DICHLOROETHANE	UG_L	3.2			Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	1,2-DICHLOROETHANE	UG_L	1.1			Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	1,2-DICHLOROETHANE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/18/2013	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/18/2013	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/18/2013	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
7/9/2013	29MW1	1,1,2-TRICHLOROETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	1,2-DICHLOROETHANE	UG_L	0.15	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	BENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	M- AND P-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	O-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	TOLUENE	UG_L	0.06	J		Shallow	OPERABLE UNIT 8
7/9/2013	29MW1	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	1,1,2-TRICHLOROETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	1,2-DICHLOROETHANE	UG_L	0.15	U		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	BENZENE	UG_L	14	A		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	ETHYLBENZENE	UG_L	41	A		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	M- AND P-XYLENE	UG_L	100	A		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	O-XYLENE	UG_L	3.2	A		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	TOLUENE	UG_L	6.4	A		Shallow	OPERABLE UNIT 8
7/9/2013	8CB-MW23	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	1,1,2-TRICHLOROETHANE	UG_L	0.8	U		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	1,1-DICHLOROETHENE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	1,2-DIBROMOETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	1,2-DICHLOROETHANE	UG_L	4.3	A		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	1,2-DICHLOROPROPANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	BENZENE	UG_L	750	A		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	ETHYLBENZENE	UG_L	30	A		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	M- AND P-XYLENE	UG_L	57	A		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	O-XYLENE	UG_L	43	A		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	TOLUENE	UG_L	270	A		Shallow	OPERABLE UNIT 8
7/9/2013	8IW-5	VINYL CHLORIDE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	1,2-DICHLOROETHANE	UG_L	270	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	BENZENE	UG_L	13000	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	ETHYLBENZENE	UG_L	450	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	M- AND P-XYLENE	UG_L	700	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	O-XYLENE	UG_L	250	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	TOLUENE	UG_L	200	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW06	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	1,1,2-TRICHLOROETHANE	UG_L	8	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	1,1-DICHLOROETHENE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	1,2-DIBROMOETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	1,2-DICHLOROETHANE	UG_L	14	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	1,2-DICHLOROPROPANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	BENZENE	UG_L	5500	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	M- AND P-XYLENE	UG_L	3500	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	O-XYLENE	UG_L	2200	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	TOLUENE	UG_L	5400	A		Shallow	OPERABLE UNIT 8
7/9/2013	8MW48	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
7/9/2013	MW05	1,2-DICHLOROETHANE	UG_L	150	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	1,2-DICHLOROPROPANE	UG_L	5.5	J		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	BENZENE	UG_L	12000	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	ETHYLBENZENE	UG_L	850	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	M- AND P-XYLENE	UG_L	4300	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	O-XYLENE	UG_L	2100	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	TOLUENE	UG_L	8600	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW05	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	1,2-DICHLOROETHANE	UG_L	6.1	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	BENZENE	UG_L	3100	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	ETHYLBENZENE	UG_L	1000	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	M- AND P-XYLENE	UG_L	770	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	O-XYLENE	UG_L	25	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	TOLUENE	UG_L	110	A		Shallow	OPERABLE UNIT 8
7/9/2013	MW08	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	1,1,2-TRICHLOROETHANE	UG_L	0.4	UJ		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	1,1-DICHLOROETHENE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	1,2-DIBROMOETHANE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	1,2-DICHLOROETHANE	UG_L	0.58	J		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	1,2-DICHLOROPROPANE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	BENZENE	UG_L	0.1	UJ		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	M- AND P-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	O-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	TOLUENE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
7/10/2013	8CB-MW24	VINYL CHLORIDE	UG_L	0.1	UJ		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	1,2-DICHLOROETHANE	UG_L	7.8	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	1,2-DICHLOROPROPANE	UG_L	0.65	J		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	BENZENE	UG_L	660	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	M- AND P-XYLENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	O-XYLENE	UG_L	260	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	TOLUENE	UG_L	660	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW24	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,1,2-TRICHLOROETHANE	UG_L	4	U	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,1-DICHLOROETHENE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,2-DIBROMOETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,2-DICHLOROETHANE	UG_L	1.8	J		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,2-DICHLOROETHANE	UG_L	2	J	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	1,2-DICHLOROPROPANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	BENZENE	UG_L	15	A	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	BENZENE	UG_L	16	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	ETHYLBENZENE	UG_L	1300	A	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	M- AND P-XYLENE	UG_L	2000	A	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	M- AND P-XYLENE	UG_L	1900	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	O-XYLENE	UG_L	2200	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	O-XYLENE	UG_L	2200	A	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	TOLUENE	UG_L	830	A		Shallow	OPERABLE UNIT 8

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Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
7/10/2013	8MW30	TOLUENE	UG_L	870	A	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW30	VINYL CHLORIDE	UG_L	1	U	DUP	Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	1,2-DICHLOROETHANE	UG_L	0.2	J		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	BENZENE	UG_L	0.75	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	ETHYLBENZENE	UG_L	0.32	J		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	M- AND P-XYLENE	UG_L	0.59	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	O-XYLENE	UG_L	0.26	J		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	TOLUENE	UG_L	0.76	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW32	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	1,2-DICHLOROETHANE	UG_L	7.7	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	BENZENE	UG_L	2300	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	ETHYLBENZENE	UG_L	680	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	M- AND P-XYLENE	UG_L	4100	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	O-XYLENE	UG_L	1600	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	TOLUENE	UG_L	4000	A		Shallow	OPERABLE UNIT 8
7/10/2013	8MW47	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	1,2-DICHLOROETHANE	UG_L	1.5	U		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	BENZENE	UG_L	3.6	J		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	ETHYLBENZENE	UG_L	900	A		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	M- AND P-XYLENE	UG_L	2900	A		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	O-XYLENE	UG_L	2400	A		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	TOLUENE	UG_L	650	A		Shallow	OPERABLE UNIT 8
7/10/2013	MW04	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	BENZENE	UG_L	0.18	J		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	1,2-DICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	BENZENE	UG_L	450	A		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	ETHYLBENZENE	UG_L	1100	A		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	M- AND P-XYLENE	UG_L	900	A		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	O-XYLENE	UG_L	53	A		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	TOLUENE	UG_L	110	A		Shallow	OPERABLE UNIT 8
10/21/2013	8MW53	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/21/2013	MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	BENZENE	UG_L	16	J		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	ETHYLBENZENE	UG_L	13	J		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	M- AND P-XYLENE	UG_L	28	J		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	O-XYLENE	UG_L	11	J		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	TOLUENE	UG_L	15	J		Shallow	OPERABLE UNIT 8
10/21/2013	MW03	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	1,2-DICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	BENZENE	UG_L	620	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	M- AND P-XYLENE	UG_L	790	J		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	O-XYLENE	UG_L	130	J		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	TOLUENE	UG_L	210	J		Shallow	OPERABLE UNIT 8
10/22/2013	8MW24	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	1,2-DICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	BENZENE	UG_L	15	J		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	M- AND P-XYLENE	UG_L	2000	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	O-XYLENE	UG_L	2200	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	TOLUENE	UG_L	640	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW30	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	1,2-DICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	BENZENE	UG_L	3900	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	ETHYLBENZENE	UG_L	1100	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	M- AND P-XYLENE	UG_L	4900	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	O-XYLENE	UG_L	960	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	TOLUENE	UG_L	1700	A		Shallow	OPERABLE UNIT 8
10/22/2013	8MW47	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	1,2-DICHLOROPROPANE	UG_L	1.6	J		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	BENZENE	UG_L	4500	A		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	M- AND P-XYLENE	UG_L	550	A		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	O-XYLENE	UG_L	22	A		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	TOLUENE	UG_L	100	A		Shallow	OPERABLE UNIT 8
10/22/2013	MW08	VINYL CHLORIDE	UG_L	5	UJ		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,2-DICHLOROETHANE	UG_L	260	A	DUP	Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/23/2013	8MW06	1,2-DICHLOROETHANE	UG_L	280	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,2-DICHLOROPROPANE	UG_L	7.5	J	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	1,2-DICHLOROPROPANE	UG_L	7.5	J		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	BENZENE	UG_L	15000	A	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	BENZENE	UG_L	15000	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	ETHYLBENZENE	UG_L	880	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	ETHYLBENZENE	UG_L	830	A	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	M- AND P-XYLENE	UG_L	1100	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	M- AND P-XYLENE	UG_L	1100	A	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	O-XYLENE	UG_L	330	A	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	O-XYLENE	UG_L	360	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	TOLUENE	UG_L	460	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	TOLUENE	UG_L	410	A	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/23/2013	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW16	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	1,2-DICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	1,2-DICHLOROPROPANE	UG_L	3.3	J		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	BENZENE	UG_L	5000	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	ETHYLBENZENE	UG_L	1400	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	M- AND P-XYLENE	UG_L	3500	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	O-XYLENE	UG_L	2300	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	TOLUENE	UG_L	4200	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW48	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	1,2-DICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	BENZENE	UG_L	6400	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	ETHYLBENZENE	UG_L	1300	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	M- AND P-XYLENE	UG_L	6700	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	O-XYLENE	UG_L	3000	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	TOLUENE	UG_L	6900	A		Shallow	OPERABLE UNIT 8
10/23/2013	8MW49	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	1,2-DICHLOROETHANE	UG_L	180	A		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	1,2-DICHLOROPROPANE	UG_L	5	J		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	BENZENE	UG_L	14000	A		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	ETHYLBENZENE	UG_L	1100	A		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	M- AND P-XYLENE	UG_L	5000	A		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	O-XYLENE	UG_L	2400	A		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	TOLUENE	UG_L	6000	A		Shallow	OPERABLE UNIT 8
10/23/2013	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/24/2013	25MW04	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/24/2013	25MW04	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/24/2013	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	1,2-DICHLOROETHANE	UG_L	0.71	A		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW13	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	1,2-DICHLOROETHANE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW19	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/24/2013	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW25	VINYL CHLORIDE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	TOLUENE	UG_L	0.06	J		Deep	OPERABLE UNIT 8
10/24/2013	8MW37	VINYL CHLORIDE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
10/29/2013	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/29/2013	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW03	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	1,2-DICHLOROETHANE	UG_L	2.1	A		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	BENZENE	UG_L	0.22	J		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/29/2013	8MW32	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/29/2013	8MW33	1,1,2-TRICHLOROETHANE	UG_L	4.5	A		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	1,1-DICHLOROETHENE	UG_L	3.1	A		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	1,2-DICHLOROETHANE	UG_L	28	A		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	1,2-DICHLOROPROPANE	UG_L	1.3	A		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW33	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	1,1-DICHLOROETHENE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	1,2-DICHLOROETHANE	UG_L	0.84	A		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	1,2-DICHLOROPROPANE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/29/2013	8MW35	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	1,2-DICHLOROETHANE	UG_L	1.1	A		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	1,2-DICHLOROETHANE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/27/2014	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
3/27/2014	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/27/2014	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
3/31/2014	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.26	J		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	1,1-DICHLOROETHENE	UG_L	0.47	J		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	1,2-DICHLOROETHANE	UG_L	4.4	A		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	1,2-DICHLOROPROPANE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	1,1,2-TRICHLOROETHANE	UG_L	2.8	A		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	1,1-DICHLOROETHENE	UG_L	2	A		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	1,2-DICHLOROETHANE	UG_L	24	A		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.22	J		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	1,1-DICHLOROETHENE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	1,2-DICHLOROETHANE	UG_L	0.86	A		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	1,2-DICHLOROPROPANE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
3/31/2014	8MW35	VINYL CHLORIDE	UG_L	0.08	J		Intermediate	OPERABLE UNIT 8
4/1/2014	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.71	A		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	1,1-DICHLOROETHENE	UG_L	0.23	J		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	1,2-DICHLOROETHANE	UG_L	0.36	J		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	1,2-DICHLOROPROPANE	UG_L	0.28	J		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	BENZENE	UG_L	0.23	J		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2014	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	1,2-DICHLOROETHANE	UG_L	300	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/2/2014	8MW06	BENZENE	UG_L	11000	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	ETHYLBENZENE	UG_L	520	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	M- AND P-XYLENE	UG_L	180	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	O-XYLENE	UG_L	42	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	TOLUENE	UG_L	71	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	BENZENE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	ETHYLBENZENE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	O-XYLENE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/2/2014	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,1-DICHLOROETHENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,2-DIBROMOETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,2-DICHLOROETHANE	UG_L	30	A	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,2-DICHLOROETHANE	UG_L	28	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	1,2-DICHLOROPROPANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	BENZENE	UG_L	6000	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	BENZENE	UG_L	6400	A	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	ETHYLBENZENE	UG_L	680	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	ETHYLBENZENE	UG_L	770	A	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	M- AND P-XYLENE	UG_L	2300	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	M- AND P-XYLENE	UG_L	2500	A	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	O-XYLENE	UG_L	500	A	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	O-XYLENE	UG_L	460	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	TOLUENE	UG_L	330	A	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	TOLUENE	UG_L	300	A		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/2/2014	8MW47	VINYL CHLORIDE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2014	MW08	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	1,2-DICHLOROETHANE	UG_L	4.6	A		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	BENZENE	UG_L	1700	A		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	ETHYLBENZENE	UG_L	390	A		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	M- AND P-XYLENE	UG_L	240	A		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	O-XYLENE	UG_L	9.5	A		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	TOLUENE	UG_L	40	A		Shallow	OPERABLE UNIT 8
4/2/2014	MW08	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	1,2-DICHLOROETHANE	UG_L	14	=		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	1,2-DICHLOROPROPANE	UG_L	2	J		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	BENZENE	UG_L	4400	=		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	ETHYLBENZENE	UG_L	890	=		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	M- AND P-XYLENE	UG_L	6600	=		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	O-XYLENE	UG_L	3400	=		Shallow	OPERABLE UNIT 8
4/14/2014	8MW49	TOLUENE	UG_L	4700	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/14/2014	8MW49	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	1,2-DICHLOROETHANE	UG_L	29	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	1,2-DICHLOROPROPANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	BENZENE	UG_L	820	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	ETHYLBENZENE	UG_L	40	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	M- AND P-XYLENE	UG_L	19	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	O-XYLENE	UG_L	15	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	TOLUENE	UG_L	96	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-C2	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,1-DICHLOROETHENE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,2-DIBROMOETHANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,2-DICHLOROETHANE	UG_L	79	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,2-DICHLOROETHANE	UG_L	42	=	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,2-DICHLOROPROPANE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	BENZENE	UG_L	8700	J	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	BENZENE	UG_L	8200	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	ETHYLBENZENE	UG_L	730	=	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	ETHYLBENZENE	UG_L	600	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	M- AND P-XYLENE	UG_L	600	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	M- AND P-XYLENE	UG_L	700	=	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	O-XYLENE	UG_L	450	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	O-XYLENE	UG_L	570	J	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	TOLUENE	UG_L	2600	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	TOLUENE	UG_L	2800	J	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	VINYL CHLORIDE	UG_L	13	U	DUP	Shallow	OPERABLE UNIT 8
4/14/2014	8PS-F1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	1,2-DICHLOROETHANE	UG_L	48	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	BENZENE	UG_L	9800	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	ETHYLBENZENE	UG_L	750	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	M- AND P-XYLENE	UG_L	740	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	O-XYLENE	UG_L	430	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	TOLUENE	UG_L	2700	=		Shallow	OPERABLE UNIT 8
4/14/2014	8PS-G1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	BENZENE	UG_L	16000	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	ETHYLBENZENE	UG_L	980	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	M- AND P-XYLENE	UG_L	2500	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	O-XYLENE	UG_L	1900	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	TOLUENE	UG_L	12000	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	1,2-DICHLOROETHANE	UG_L	10	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/15/2014	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	BENZENE	UG_L	230	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	ETHYLBENZENE	UG_L	4.6	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	M- AND P-XYLENE	UG_L	6.3	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	O-XYLENE	UG_L	5.1	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	TOLUENE	UG_L	16	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-A3	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	BENZENE	UG_L	12000	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	ETHYLBENZENE	UG_L	610	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	M- AND P-XYLENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	O-XYLENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	TOLUENE	UG_L	7400	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	1,2-DICHLOROETHANE	UG_L	24	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	BENZENE	UG_L	690	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	ETHYLBENZENE	UG_L	11	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	M- AND P-XYLENE	UG_L	6.5	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	O-XYLENE	UG_L	8.1	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	TOLUENE	UG_L	18	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-B2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	1,2-DICHLOROETHANE	UG_L	140	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	BENZENE	UG_L	14000	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	ETHYLBENZENE	UG_L	810	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	M- AND P-XYLENE	UG_L	900	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	O-XYLENE	UG_L	480	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	TOLUENE	UG_L	1900	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	1,2-DICHLOROETHANE	UG_L	21	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	BENZENE	UG_L	62	J		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	ETHYLBENZENE	UG_L	1.9	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	M- AND P-XYLENE	UG_L	3.4	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	O-XYLENE	UG_L	3.8	J		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	TOLUENE	UG_L	6	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	1,2-DICHLOROETHANE	UG_L	110	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	BENZENE	UG_L	19000	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	M- AND P-XYLENE	UG_L	2400	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	O-XYLENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/15/2014	8PS-D1	TOLUENE	UG_L	8200	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-D1	VINYL CHLORIDE	UG_L	50	UJ		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	1,2-DICHLOROETHANE	UG_L	91	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	1,2-DICHLOROPROPANE	UG_L	0.5	J		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	BENZENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	ETHYLBENZENE	UG_L	25	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	M- AND P-XYLENE	UG_L	43	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	O-XYLENE	UG_L	33	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	TOLUENE	UG_L	650	=		Shallow	OPERABLE UNIT 8
4/15/2014	8PS-E1	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2014	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.27	J		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	1,1-DICHLOROETHENE	UG_L	0.36	J		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	1,2-DICHLOROETHANE	UG_L	3.9	=		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	1,2-DICHLOROPROPANE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	1,1,2-TRICHLOROETHANE	UG_L	2.2	=		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	1,1-DICHLOROETHENE	UG_L	1.1	=		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	1,2-DICHLOROETHANE	UG_L	19	=		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	1,2-DICHLOROPROPANE	UG_L	0.56	=		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	BENZENE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	1,2-DICHLOROETHANE	UG_L	0.29	J		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/21/2014	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2014	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	1,2-DICHLOROETHANE	UG_L	2.7	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	BENZENE	UG_L	0.16	J		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW32	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/22/2014	8MW42	1,2-DICHLOROETHANE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	BENZENE	UG_L	0.17	J		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	1,2-DICHLOROETHANE	UG_L	11	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	1,2-DICHLOROPROPANE	UG_L	1.7	J		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	BENZENE	UG_L	4200	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	M- AND P-XYLENE	UG_L	4600	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	O-XYLENE	UG_L	990	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	TOLUENE	UG_L	2000	=		Shallow	OPERABLE UNIT 8
10/22/2014	8MW47	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	1,2-DICHLOROETHANE	UG_L	5.6	J		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	BENZENE	UG_L	4500	=		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	M- AND P-XYLENE	UG_L	730	=		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	O-XYLENE	UG_L	30	=		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	TOLUENE	UG_L	140	=		Shallow	OPERABLE UNIT 8
10/22/2014	MW08	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	25MW04	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/23/2014	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	1,2-DICHLOROETHANE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/23/2014	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/23/2014	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/23/2014	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	ETHYLBENZENE	UG_L	0.07	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	M- AND P-XYLENE	UG_L	0.34	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	O-XYLENE	UG_L	0.12	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	TOLUENE	UG_L	0.24	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW05	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	1,2-DICHLOROETHANE	UG_L	0.99	=		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	ETHYLBENZENE	UG_L	0.06	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	M- AND P-XYLENE	UG_L	0.25	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	O-XYLENE	UG_L	0.09	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	TOLUENE	UG_L	0.15	J		Deep	OPERABLE UNIT 8
10/27/2014	25MW07	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	1,2-DICHLOROETHANE	UG_L	0.29	J		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2014	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2014	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/28/2014	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,1-DICHLOROETHENE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,2-DIBROMOETHANE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,2-DICHLOROETHANE	UG_L	190	=	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,2-DICHLOROETHANE	UG_L	180	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,2-DICHLOROPROPANE	UG_L	6	J	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	1,2-DICHLOROPROPANE	UG_L	7	J		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	BENZENE	UG_L	13000	=	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	BENZENE	UG_L	12000	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	ETHYLBENZENE	UG_L	870	=	DUP	Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/28/2014	8MW06	ETHYLBENZENE	UG_L	830	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	M- AND P-XYLENE	UG_L	810	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	M- AND P-XYLENE	UG_L	840	=	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	O-XYLENE	UG_L	270	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	O-XYLENE	UG_L	290	=	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	TOLUENE	UG_L	370	=	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	TOLUENE	UG_L	350	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW06	VINYL CHLORIDE	UG_L	25	U	DUP	Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	1,2-DICHLOROETHANE	UG_L	5.8	J		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	BENZENE	UG_L	4000	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	ETHYLBENZENE	UG_L	1300	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	M- AND P-XYLENE	UG_L	3700	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	O-XYLENE	UG_L	1400	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	TOLUENE	UG_L	620	=		Shallow	OPERABLE UNIT 8
10/28/2014	8MW48	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	1,2-DICHLOROETHANE	UG_L	130	=		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	1,2-DICHLOROPROPANE	UG_L	6.5	J		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	BENZENE	UG_L	14000	=		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	ETHYLBENZENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	M- AND P-XYLENE	UG_L	4900	=		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	O-XYLENE	UG_L	2400	=		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	TOLUENE	UG_L	6300	=		Shallow	OPERABLE UNIT 8
10/28/2014	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	1,2-DICHLOROETHANE	UG_L	0.13	J		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	BENZENE	UG_L	0.2	J		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/1/2015	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	1,2-DICHLOROETHANE	UG_L	210	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	1,2-DICHLOROPROPANE	UG_L	7	J		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	BENZENE	UG_L	17000	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	ETHYLBENZENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	M- AND P-XYLENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	O-XYLENE	UG_L	460	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	TOLUENE	UG_L	440	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,1,2-TRICHLOROETHANE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,1-DICHLOROETHENE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,2-DIBROMOETHANE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,2-DICHLOROETHANE	UG_L	9.8	J		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/2/2015	8MW47	1,2-DICHLOROETHANE	UG_L	9.1	J	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,2-DICHLOROPROPANE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	1,2-DICHLOROPROPANE	UG_L	1.4	J		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	BENZENE	UG_L	3600	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	BENZENE	UG_L	3500	=	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	ETHYLBENZENE	UG_L	860	=	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	ETHYLBENZENE	UG_L	790	J		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	M- AND P-XYLENE	UG_L	3700	=		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	M- AND P-XYLENE	UG_L	3900	=	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	O-XYLENE	UG_L	460	J		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	O-XYLENE	UG_L	530	J	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	TOLUENE	UG_L	530	J		Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	TOLUENE	UG_L	600	J	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	VINYL CHLORIDE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
4/2/2015	8MW47	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	1,2-DICHLOROETHANE	UG_L	4.8	J		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	1,2-DICHLOROPROPANE	UG_L	1.6	J		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	BENZENE	UG_L	3200	=		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	ETHYLBENZENE	UG_L	950	=		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	M- AND P-XYLENE	UG_L	370	J		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	O-XYLENE	UG_L	16	J		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	TOLUENE	UG_L	110	J		Shallow	OPERABLE UNIT 8
4/2/2015	MW08	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/6/2015	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	1,2-DICHLOROETHANE	UG_L	0.63	=		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	1,2-DICHLOROETHANE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/6/2015	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/6/2015	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/6/2015	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/7/2015	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.24	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	1,1-DICHLOROETHENE	UG_L	0.41	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	1,2-DICHLOROETHANE	UG_L	4.3	=		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	1,2-DICHLOROPROPANE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	TOLUENE	UG_L	0.12	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	1,1,2-TRICHLOROETHANE	UG_L	1.7	=		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	1,1-DICHLOROETHENE	UG_L	1.1	=		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	1,2-DICHLOROETHANE	UG_L	16	=		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	1,2-DICHLOROPROPANE	UG_L	0.58	=		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	TOLUENE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	1,1-DICHLOROETHENE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	1,2-DICHLOROETHANE	UG_L	0.72	J		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/7/2015	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2015	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	1,2-DICHLOROETHANE	UG_L	250	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	1,2-DICHLOROPROPANE	UG_L	10	J		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	BENZENE	UG_L	15000	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	ETHYLBENZENE	UG_L	760	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	M- AND P-XYLENE	UG_L	790	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	O-XYLENE	UG_L	320	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	TOLUENE	UG_L	390	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW06	VINYL CHLORIDE	UG_L	25	UJ		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	1,1,2-TRICHLOROETHANE	UG_L	13	UJ		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	1,1-DICHLOROETHENE	UG_L	13	UJ		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	1,2-DIBROMOETHANE	UG_L	13	UJ		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	1,2-DICHLOROETHANE	UG_L	15	J		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	1,2-DICHLOROPROPANE	UG_L	13	UJ		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	BENZENE	UG_L	7000	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/19/2015	8MW49	ETHYLBENZENE	UG_L	1300	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	M- AND P-XYLENE	UG_L	6400	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	O-XYLENE	UG_L	2800	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	TOLUENE	UG_L	6600	=		Shallow	OPERABLE UNIT 8
10/19/2015	8MW49	VINYL CHLORIDE	UG_L	13	UJ		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	1,2-DICHLOROETHANE	UG_L	13	J		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	BENZENE	UG_L	12000	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	ETHYLBENZENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	M- AND P-XYLENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	O-XYLENE	UG_L	440	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	TOLUENE	UG_L	540	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-F1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	1,2-DICHLOROETHANE	UG_L	23	J		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	BENZENE	UG_L	12000	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	M- AND P-XYLENE	UG_L	1900	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	O-XYLENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	TOLUENE	UG_L	2400	=		Shallow	OPERABLE UNIT 8
10/19/2015	8PS-G1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	1,2-DICHLOROETHANE	UG_L	4.5	J		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	BENZENE	UG_L	18000	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	M- AND P-XYLENE	UG_L	2700	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	O-XYLENE	UG_L	2200	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	TOLUENE	UG_L	3600	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-B1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	1,2-DICHLOROETHANE	UG_L	22	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	BENZENE	UG_L	16000	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	ETHYLBENZENE	UG_L	1000	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	M- AND P-XYLENE	UG_L	2300	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	O-XYLENE	UG_L	1600	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	TOLUENE	UG_L	5900	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	1,2-DICHLOROETHANE	UG_L	12	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	BENZENE	UG_L	2600	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	ETHYLBENZENE	UG_L	120	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	M- AND P-XYLENE	UG_L	130	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	O-XYLENE	UG_L	150	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	TOLUENE	UG_L	17	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-C2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/20/2015	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	1,1-DICHLOROETHENE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	1,2-DIBROMOETHANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	1,2-DICHLOROETHANE	UG_L	32	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	1,2-DICHLOROPROPANE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	BENZENE	UG_L	16000	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	ETHYLBENZENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	M- AND P-XYLENE	UG_L	2200	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	O-XYLENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	TOLUENE	UG_L	1900	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-D1	VINYL CHLORIDE	UG_L	13	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	1,2-DICHLOROETHANE	UG_L	11	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	BENZENE	UG_L	3400	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	ETHYLBENZENE	UG_L	49	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	M- AND P-XYLENE	UG_L	91	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	O-XYLENE	UG_L	79	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	TOLUENE	UG_L	1000	=		Shallow	OPERABLE UNIT 8
10/20/2015	8PS-E1	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	1,2-DICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	BENZENE	UG_L	18000	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	ETHYLBENZENE	UG_L	1400	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	M- AND P-XYLENE	UG_L	3600	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	O-XYLENE	UG_L	2700	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	TOLUENE	UG_L	3400	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	1,2-DICHLOROETHANE	UG_L	13	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	BENZENE	UG_L	140	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	ETHYLBENZENE	UG_L	6.2	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	M- AND P-XYLENE	UG_L	13	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	O-XYLENE	UG_L	7.4	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	TOLUENE	UG_L	8	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-A3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	1,2-DICHLOROETHANE	UG_L	11	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	BENZENE	UG_L	1500	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	ETHYLBENZENE	UG_L	49	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	M- AND P-XYLENE	UG_L	33	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	O-XYLENE	UG_L	32	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	TOLUENE	UG_L	16	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-B2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	1,2-DICHLOROETHANE	UG_L	8.6	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/21/2015	8PS-C3	BENZENE	UG_L	47	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	ETHYLBENZENE	UG_L	1.6	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	M- AND P-XYLENE	UG_L	5.7	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	O-XYLENE	UG_L	6.1	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	TOLUENE	UG_L	7.5	=		Shallow	OPERABLE UNIT 8
10/21/2015	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,1,2-TRICHLOROETHANE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,1-DICHLOROETHENE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,2-DIBROMOETHANE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,2-DICHLOROETHANE	UG_L	1.1	J	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,2-DICHLOROPROPANE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	BENZENE	UG_L	3200	=		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	BENZENE	UG_L	3600	=	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	ETHYLBENZENE	UG_L	1700	=		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	ETHYLBENZENE	UG_L	1700	=	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	M- AND P-XYLENE	UG_L	1000	=		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	M- AND P-XYLENE	UG_L	1100	=	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	O-XYLENE	UG_L	34	=		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	O-XYLENE	UG_L	36	=	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	TOLUENE	UG_L	220	=	DUP	Shallow	OPERABLE UNIT 8
10/21/2015	MW08	TOLUENE	UG_L	220	=		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/21/2015	MW08	VINYL CHLORIDE	UG_L	5	U	DUP	Shallow	OPERABLE UNIT 8
10/22/2015	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.38	J		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	1,1-DICHLOROETHENE	UG_L	0.71	=		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	1,2-DICHLOROETHANE	UG_L	5.6	=		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	1,2-DICHLOROPROPANE	UG_L	0.18	J		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/22/2015	8MW16	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW16	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	1,2-DICHLOROETHANE	UG_L	1.8	J		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	BENZENE	UG_L	15	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	ETHYLBENZENE	UG_L	1500	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	M- AND P-XYLENE	UG_L	2100	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	O-XYLENE	UG_L	2100	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW30	TOLUENE	UG_L	470	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/22/2015	8MW30	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	1,2-DICHLOROETHANE	UG_L	0.09	J		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	BENZENE	UG_L	0.15	J		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	1,1,2-TRICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	1,1-DICHLOROETHENE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	1,2-DIBROMOETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	1,2-DICHLOROETHANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	1,2-DICHLOROPROPANE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	BENZENE	UG_L	450	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	M- AND P-XYLENE	UG_L	520	=		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	O-XYLENE	UG_L	23	J		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	TOLUENE	UG_L	140	J		Shallow	OPERABLE UNIT 8
10/22/2015	8MW53	VINYL CHLORIDE	UG_L	1.3	U		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	1,1-DICHLOROETHENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	1,2-DIBROMOETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	1,2-DICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	1,2-DICHLOROPROPANE	UG_L	0.75	UJ		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	BENZENE	UG_L	19	=		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	ETHYLBENZENE	UG_L	30	=		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	M- AND P-XYLENE	UG_L	40	=		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	O-XYLENE	UG_L	14	=		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	TOLUENE	UG_L	23	J		Shallow	OPERABLE UNIT 8
10/22/2015	MW03	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	25MW04	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/26/2015	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	1,2-DICHLOROETHANE	UG_L	0.69	=		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	1,2-DICHLOROETHANE	UG_L	0.1	J		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/26/2015	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/26/2015	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/26/2015	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/27/2015	8MW24	1,1,2-TRICHLOROETHANE	UG_L	1.3	UJ		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	1,1-DICHLOROETHENE	UG_L	1.3	UJ		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	1,2-DIBROMOETHANE	UG_L	1.3	UJ		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	1,2-DICHLOROETHANE	UG_L	7.1	J		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	1,2-DICHLOROPROPANE	UG_L	1.3	UJ		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	BENZENE	UG_L	850	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	ETHYLBENZENE	UG_L	1500	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	M- AND P-XYLENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	O-XYLENE	UG_L	45	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	TOLUENE	UG_L	290	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW24	VINYL CHLORIDE	UG_L	1.3	UJ		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	1,2-DICHLOROETHANE	UG_L	1.8	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	BENZENE	UG_L	0.07	J		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	TOLUENE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
10/27/2015	8MW32	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW33	1,1,2-TRICHLOROETHANE	UG_L	2.6	=		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	1,1-DICHLOROETHENE	UG_L	1.7	=		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	1,2-DICHLOROETHANE	UG_L	25	=		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	1,2-DICHLOROPROPANE	UG_L	0.77	=		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/27/2015	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.32	J		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	1,1-DICHLOROETHENE	UG_L	0.2	J		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	1,2-DICHLOROETHANE	UG_L	0.89	=		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	1,2-DICHLOROPROPANE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/27/2015	8MW47	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	1,2-DICHLOROETHANE	UG_L	6.6	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	BENZENE	UG_L	4400	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	ETHYLBENZENE	UG_L	1400	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	M- AND P-XYLENE	UG_L	5800	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	O-XYLENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	TOLUENE	UG_L	1700	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW47	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	1,2-DICHLOROETHANE	UG_L	4.3	J		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	BENZENE	UG_L	3700	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	ETHYLBENZENE	UG_L	1600	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	M- AND P-XYLENE	UG_L	3800	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	O-XYLENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	TOLUENE	UG_L	1900	=		Shallow	OPERABLE UNIT 8
10/27/2015	8MW48	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	1,2-DICHLOROETHANE	UG_L	92	=		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	BENZENE	UG_L	15000	=		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	ETHYLBENZENE	UG_L	1200	=		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	M- AND P-XYLENE	UG_L	5000	=		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	O-XYLENE	UG_L	2500	=		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	TOLUENE	UG_L	6100	=		Shallow	OPERABLE UNIT 8
10/27/2015	MW05	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/11/2016	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	1,1-DICHLOROETHENE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	1,2-DICHLOROETHANE	UG_L	1.3	=		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	TOLUENE	UG_L	0.68	UJ		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/11/2016	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.48	J		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	1,1-DICHLOROETHENE	UG_L	0.19	J		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/11/2016	8MW42	1,2-DICHLOROETHANE	UG_L	0.29	J		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	1,2-DICHLOROPROPANE	UG_L	0.19	J		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	BENZENE	UG_L	0.28	J		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	TOLUENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/11/2016	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	1,2-DICHLOROETHANE	UG_L	140	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	1,2-DICHLOROPROPANE	UG_L	5.5	J		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	BENZENE	UG_L	10000	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	ETHYLBENZENE	UG_L	910	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	M- AND P-XYLENE	UG_L	510	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	O-XYLENE	UG_L	190	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	TOLUENE	UG_L	150	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW06	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW33	1,1,2-TRICHLOROETHANE	UG_L	1.3	=		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	1,1-DICHLOROETHENE	UG_L	0.85	=		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	1,2-DICHLOROETHANE	UG_L	11	=		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	1,2-DICHLOROPROPANE	UG_L	0.45	J		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	ETHYLBENZENE	UG_L	0.05	J		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/12/2016	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,1-DICHLOROETHENE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,2-DIBROMOETHANE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,2-DICHLOROETHANE	UG_L	4.7	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,2-DICHLOROETHANE	UG_L	4.9	=	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,2-DICHLOROPROPANE	UG_L	0.7	J	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	1,2-DICHLOROPROPANE	UG_L	0.6	J		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	BENZENE	UG_L	1400	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	BENZENE	UG_L	1400	=	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	ETHYLBENZENE	UG_L	400	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	ETHYLBENZENE	UG_L	410	=	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	M- AND P-XYLENE	UG_L	3400	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	M- AND P-XYLENE	UG_L	3500	=	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	O-XYLENE	UG_L	1000	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	O-XYLENE	UG_L	990	=	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	TOLUENE	UG_L	2000	=		Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	TOLUENE	UG_L	2000	=	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	VINYL CHLORIDE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2016	8MW47	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2016	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/13/2016	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/13/2016	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.16	J		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	1,1-DICHLOROETHENE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	1,2-DICHLOROETHANE	UG_L	0.61	=		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2016	MW08	1,1,2-TRICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	1,1-DICHLOROETHENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	1,2-DIBROMOETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	1,2-DICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	1,2-DICHLOROPROPANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	BENZENE	UG_L	960	=		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	ETHYLBENZENE	UG_L	690	=		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	M- AND P-XYLENE	UG_L	150	J		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	O-XYLENE	UG_L	6.9	J		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	TOLUENE	UG_L	46	J		Shallow	OPERABLE UNIT 8
4/13/2016	MW08	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/17/2016	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW03	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	1,2-DICHLOROETHANE	UG_L	0.17	J		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW35	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/17/2016	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	1,2-DICHLOROETHANE	UG_L	0.1	J		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	BENZENE	UG_L	0.1	J		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/17/2016	8MW42	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,1,2-TRICHLOROETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8

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Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/18/2016	8MW06	1,1-DICHLOROETHENE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,2-DIBROMOETHANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,2-DICHLOROETHANE	UG_L	150	D	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,2-DICHLOROETHANE	UG_L	170	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	1,2-DICHLOROPROPANE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	BENZENE	UG_L	9900	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	BENZENE	UG_L	9800	D	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	ETHYLBENZENE	UG_L	900	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	ETHYLBENZENE	UG_L	820	D	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	M- AND P-XYLENE	UG_L	530	D	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	M- AND P-XYLENE	UG_L	580	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	O-XYLENE	UG_L	250	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	O-XYLENE	UG_L	220	D	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	TOLUENE	UG_L	160	D	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	TOLUENE	UG_L	170	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	VINYL CHLORIDE	UG_L	10	U	DUP	Shallow	OPERABLE UNIT 8
10/18/2016	8MW06	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	1,2-DICHLOROETHANE	UG_L	0.67	=		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	BENZENE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW32	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
10/18/2016	8MW33	1,1,2-TRICHLOROETHANE	UG_L	1.4	=		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	1,1-DICHLOROETHENE	UG_L	0.81	=		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	1,2-DICHLOROETHANE	UG_L	13	=		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	1,2-DICHLOROPROPANE	UG_L	0.48	J		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW33	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/18/2016	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	1,2-DICHLOROETHANE	UG_L	4.6	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	BENZENE	UG_L	2000	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	ETHYLBENZENE	UG_L	920	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	M- AND P-XYLENE	UG_L	2700	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	O-XYLENE	UG_L	260	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	TOLUENE	UG_L	180	D		Shallow	OPERABLE UNIT 8
10/18/2016	8MW47	VINYL CHLORIDE	UG_L	2.5	UJ		Shallow	OPERABLE UNIT 8
10/19/2016	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	1,2-DICHLOROETHANE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/19/2016	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW13	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	1,2-DICHLOROETHANE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW19	VINYL CHLORIDE	UG_L	0.5	UJ		Intermediate	OPERABLE UNIT 8
10/19/2016	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW25	VINYL CHLORIDE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/19/2016	8MW37	VINYL CHLORIDE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
10/20/2016	8MW24	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	1,2-DICHLOROETHANE	UG_L	4.8	D		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	BENZENE	UG_L	1200	D		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	ETHYLBENZENE	UG_L	1600	D		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	M- AND P-XYLENE	UG_L	1100	D		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	O-XYLENE	UG_L	23	D		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	TOLUENE	UG_L	260	D		Shallow	OPERABLE UNIT 8
10/20/2016	8MW24	VINYL CHLORIDE	UG_L	2.5	UJ		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	1,2-DICHLOROETHANE	UG_L	53	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	BENZENE	UG_L	8500	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	ETHYLBENZENE	UG_L	1100	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	M- AND P-XYLENE	UG_L	4100	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	O-XYLENE	UG_L	1900	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	TOLUENE	UG_L	1200	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW05	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/20/2016	MW08	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	1,2-DICHLOROETHANE	UG_L	1.7	J, D		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	BENZENE	UG_L	2600	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	ETHYLBENZENE	UG_L	1200	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	M- AND P-XYLENE	UG_L	490	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	O-XYLENE	UG_L	18	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	TOLUENE	UG_L	130	D		Shallow	OPERABLE UNIT 8
10/20/2016	MW08	VINYL CHLORIDE	UG_L	5	UJ		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.66	=		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	1,1-DICHLOROETHENE	UG_L	0.23	J		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	1,2-DICHLOROETHANE	UG_L	0.32	J		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	1,2-DICHLOROPROPANE	UG_L	0.25	J		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	BENZENE	UG_L	0.32	J		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,1,2-TRICHLOROETHANE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,1-DICHLOROETHENE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,2-DIBROMOETHANE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,2-DICHLOROETHANE	UG_L	2.9	D	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,2-DICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,2-DICHLOROPROPANE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	BENZENE	UG_L	930	D	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	BENZENE	UG_L	880	D		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	ETHYLBENZENE	UG_L	720	D	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	ETHYLBENZENE	UG_L	730	D		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	M- AND P-XYLENE	UG_L	3700	D	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	M- AND P-XYLENE	UG_L	3800	D		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	O-XYLENE	UG_L	560	D		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	O-XYLENE	UG_L	560	D	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	TOLUENE	UG_L	500	D	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	TOLUENE	UG_L	470	D		Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	VINYL CHLORIDE	UG_L	2.5	U	DUP	Shallow	OPERABLE UNIT 8
4/12/2017	8MW47	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/13/2017	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	1,1-DICHLOROETHENE	UG_L	0.29	J		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	1,2-DICHLOROETHANE	UG_L	2.4	=		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW06	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	1,2-DICHLOROETHANE	UG_L	85	D		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	BENZENE	UG_L	7400	D		Shallow	OPERABLE UNIT 8

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Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/13/2017	8MW06	ETHYLBENZENE	UG_L	610	D		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	M- AND P-XYLENE	UG_L	420	D		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	O-XYLENE	UG_L	180	D		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	TOLUENE	UG_L	150	D		Shallow	OPERABLE UNIT 8
4/13/2017	8MW06	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/13/2017	8MW33	1,1,2-TRICHLOROETHANE	UG_L	0.65	=		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	1,1-DICHLOROETHENE	UG_L	0.49	J		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	1,2-DICHLOROETHANE	UG_L	7.5	=		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	1,2-DICHLOROPROPANE	UG_L	0.31	J		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/13/2017	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
4/17/2017	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	BENZENE	UG_L	16000	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	ETHYLBENZENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	M- AND P-XYLENE	UG_L	3500	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	O-XYLENE	UG_L	2500	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	TOLUENE	UG_L	300	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A1	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	1,2-DICHLOROETHANE	UG_L	8.6	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	BENZENE	UG_L	340	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	ETHYLBENZENE	UG_L	7.1	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	M- AND P-XYLENE	UG_L	3.4	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	O-XYLENE	UG_L	2.7	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	TOLUENE	UG_L	3.2	UJ		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-A3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	1,2-DICHLOROETHANE	UG_L	9.5	J,D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	BENZENE	UG_L	16000	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	ETHYLBENZENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	M- AND P-XYLENE	UG_L	2900	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	O-XYLENE	UG_L	1900	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	TOLUENE	UG_L	870	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/17/2017	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	1,2-DICHLOROETHANE	UG_L	9.2	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	BENZENE	UG_L	2200	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	ETHYLBENZENE	UG_L	99	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	M- AND P-XYLENE	UG_L	96	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	O-XYLENE	UG_L	110	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	TOLUENE	UG_L	11	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-B2	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	1,2-DICHLOROETHANE	UG_L	68	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	BENZENE	UG_L	13000	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	ETHYLBENZENE	UG_L	1000	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	M- AND P-XYLENE	UG_L	2000	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	O-XYLENE	UG_L	1200	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	TOLUENE	UG_L	1800	D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	1,2-DICHLOROETHANE	UG_L	13	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.12	J		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	BENZENE	UG_L	380	J,D		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	ETHYLBENZENE	UG_L	1.2	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	M- AND P-XYLENE	UG_L	1.3	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	O-XYLENE	UG_L	3.4	=		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	TOLUENE	UG_L	1.9	UJ		Shallow	OPERABLE UNIT 8
4/17/2017	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	1,1,2-TRICHLOROETHANE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	1,1-DICHLOROETHENE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	1,2-DIBROMOETHANE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	1,2-DICHLOROETHANE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	1,2-DICHLOROPROPANE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	BENZENE	UG_L	240	D		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	ETHYLBENZENE	UG_L	410	D		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	M- AND P-XYLENE	UG_L	1800	D		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	O-XYLENE	UG_L	660	D		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	TOLUENE	UG_L	350	D		Shallow	OPERABLE UNIT 8
4/18/2017	8MW49	VINYL CHLORIDE	UG_L	1	UJ		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	1,2-DICHLOROETHANE	UG_L	9.7	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	BENZENE	UG_L	6500	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	ETHYLBENZENE	UG_L	450	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	M- AND P-XYLENE	UG_L	810	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	O-XYLENE	UG_L	660	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	TOLUENE	UG_L	25	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-C2	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	1,2-DICHLOROETHANE	UG_L	120	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/18/2017	8PS-D1	BENZENE	UG_L	17000	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	ETHYLBENZENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	M- AND P-XYLENE	UG_L	3100	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	O-XYLENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	TOLUENE	UG_L	5200	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-D1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	1,2-DICHLOROETHANE	UG_L	12	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	1,2-DICHLOROPROPANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	BENZENE	UG_L	4700	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	ETHYLBENZENE	UG_L	74	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	M- AND P-XYLENE	UG_L	130	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	O-XYLENE	UG_L	120	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	TOLUENE	UG_L	1500	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-E1	VINYL CHLORIDE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	1,1-DICHLOROETHENE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	1,2-DIBROMOETHANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	1,2-DICHLOROETHANE	UG_L	21	J,D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	1,2-DICHLOROPROPANE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	BENZENE	UG_L	12000	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	ETHYLBENZENE	UG_L	820	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	M- AND P-XYLENE	UG_L	1200	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	O-XYLENE	UG_L	530	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	TOLUENE	UG_L	280	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-F1	VINYL CHLORIDE	UG_L	25	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	1,2-DICHLOROETHANE	UG_L	84	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	BENZENE	UG_L	8700	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	ETHYLBENZENE	UG_L	790	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	M- AND P-XYLENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	O-XYLENE	UG_L	800	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	TOLUENE	UG_L	1400	D		Shallow	OPERABLE UNIT 8
4/18/2017	8PS-G1	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	1,1,2-TRICHLOROETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	1,1-DICHLOROETHENE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	1,2-DIBROMOETHANE	UG_L	2.5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	1,2-DICHLOROETHANE	UG_L	6.6	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	1,2-DICHLOROPROPANE	UG_L	1.6	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	BENZENE	UG_L	4500	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	ETHYLBENZENE	UG_L	1100	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	M- AND P-XYLENE	UG_L	1900	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	O-XYLENE	UG_L	340	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	TOLUENE	UG_L	520	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW48	VINYL CHLORIDE	UG_L	2.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	1,2-DICHLOROPROPANE	UG_L	1	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	BENZENE	UG_L	1000	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	ETHYLBENZENE	UG_L	1300	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	M- AND P-XYLENE	UG_L	6000	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	O-XYLENE	UG_L	2700	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW54	TOLUENE	UG_L	6400	D		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/19/2017	8MW54	VINYL CHLORIDE	UG_L	5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	1,2-DICHLOROETHANE	UG_L	1.3	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	BENZENE	UG_L	440	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	ETHYLBENZENE	UG_L	1500	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	M- AND P-XYLENE	UG_L	7500	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	O-XYLENE	UG_L	3200	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	TOLUENE	UG_L	7400	D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW55	VINYL CHLORIDE	UG_L	5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	1,1,2-TRICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	1,1-DICHLOROETHENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	1,2-DIBROMOETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	1,2-DICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	1,2-DICHLOROPROPANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	BENZENE	UG_L	0.89	UJ,i		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	ETHYLBENZENE	UG_L	19	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	M- AND P-XYLENE	UG_L	31	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	O-XYLENE	UG_L	7	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	TOLUENE	UG_L	3.2	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW56	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	1,1,2-TRICHLOROETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	1,1-DICHLOROETHENE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	1,2-DIBROMOETHANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	1,2-DICHLOROETHANE	UG_L	0.77	UJ,i		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	1,2-DICHLOROPROPANE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	BENZENE	UG_L	23	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	ETHYLBENZENE	UG_L	150	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	M- AND P-XYLENE	UG_L	210	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	O-XYLENE	UG_L	7	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	TOLUENE	UG_L	17	J		Shallow	OPERABLE UNIT 8
4/19/2017	8MW57	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	1,2-DICHLOROETHANE	UG_L	1.4	U,i		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	BENZENE	UG_L	480	D		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	ETHYLBENZENE	UG_L	420	D		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	M- AND P-XYLENE	UG_L	130	D		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	O-XYLENE	UG_L	7.4	J,D		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	TOLUENE	UG_L	24	J		Shallow	OPERABLE UNIT 8
4/19/2017	MW08	VINYL CHLORIDE	UG_L	0.5	UJ		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	1,2-DICHLOROETHANE	UG_L	12	=		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	BENZENE	UG_L	0.17	J		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	ETHYLBENZENE	UG_L	0.05	J		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	TOLUENE	UG_L	0.1	J		Shallow	OPERABLE UNIT 8
4/20/2017	8CB-MW01	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
4/20/2017	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/20/2017	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
4/20/2017	8MW25	VINYL CHLORIDE	UG_L	0.5	UJ		Deep	OPERABLE UNIT 8
10/2/2017	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	BENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/2/2017	8MW42	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/4/2017	8MW07	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	1,1-DICHLOROETHENE	UG_L	0.34	J		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	1,2-DICHLOROETHANE	UG_L	3	=		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	BENZENE	UG_L	0.86	=		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW07	VINYL CHLORIDE	UG_L	0.57	=		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW13	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	1,1-DICHLOROETHENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	1,2-DICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW19	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/4/2017	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/4/2017	8MW25	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW25	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	1,1-DICHLOROETHENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	1,2-DIBROMOETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	1,2-DICHLOROETHANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	1,2-DICHLOROPROPANE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	BENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	ETHYLBENZENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	M- AND P-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	O-XYLENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	TOLUENE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/4/2017	8MW37	VINYL CHLORIDE	UG_L	0.5	U		Deep	OPERABLE UNIT 8
10/5/2017	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	1,1-DICHLOROETHENE	UG_L	0.68	=		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	1,2-DICHLOROETHANE	UG_L	4.8	=		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	1,2-DICHLOROPROPANE	UG_L	0.19	J		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW03	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	1,2-DICHLOROETHANE	UG_L	1.3	=		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	BENZENE	UG_L	0.15	J		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	ETHYLBENZENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	M- AND P-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	O-XYLENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	TOLUENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW32	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
10/5/2017	8MW33	1,1,2-TRICHLOROETHANE	UG_L	1.5	=		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	1,1-DICHLOROETHENE	UG_L	1.3	=		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	1,2-DICHLOROETHANE	UG_L	15	=		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	1,2-DICHLOROPROPANE	UG_L	0.55	=		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW33	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	1,1-DICHLOROETHENE	UG_L	0.11	J		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	1,2-DIBROMOETHANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	1,2-DICHLOROETHANE	UG_L	0.44	J		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	1,2-DICHLOROPROPANE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	BENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	ETHYLBENZENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	M- AND P-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	O-XYLENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	TOLUENE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/5/2017	8MW35	VINYL CHLORIDE	UG_L	0.5	U		Intermediate	OPERABLE UNIT 8
10/10/2017	8MW06	1,1,2-TRICHLOROETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	1,1-DICHLOROETHENE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	1,2-DIBROMOETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/10/2017	8MW06	1,2-DICHLOROETHANE	UG_L	79.3	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	1,2-DICHLOROPROPANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	BENZENE	UG_L	6480	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	ETHYLBENZENE	UG_L	580	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	M- AND P-XYLENE	UG_L	452	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	O-XYLENE	UG_L	242	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	TOLUENE	UG_L	358	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW06	VINYL CHLORIDE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	BENZENE	UG_L	678	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	ETHYLBENZENE	UG_L	1390	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	M- AND P-XYLENE	UG_L	2170	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	O-XYLENE	UG_L	155	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	TOLUENE	UG_L	747	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW24	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	1,1-DICHLOROETHENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	1,2-DICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	1,2-DICHLOROPROPANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	BENZENE	UG_L	594	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	ETHYLBENZENE	UG_L	687	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	M- AND P-XYLENE	UG_L	2490	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	O-XYLENE	UG_L	521	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	TOLUENE	UG_L	449	=		Shallow	OPERABLE UNIT 8
10/10/2017	8MW47	VINYL CHLORIDE	UG_L	20	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,1,2-TRICHLOROETHANE	UG_L	40	U	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,1,2-TRICHLOROETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,1-DICHLOROETHENE	UG_L	40	U	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,1-DICHLOROETHENE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,2-DIBROMOETHANE	UG_L	40	U	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,2-DIBROMOETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,2-DICHLOROETHANE	UG_L	40	U	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,2-DICHLOROETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,2-DICHLOROPROPANE	UG_L	40	U	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	1,2-DICHLOROPROPANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	BENZENE	UG_L	3780	=	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	BENZENE	UG_L	3870	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	ETHYLBENZENE	UG_L	918	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	ETHYLBENZENE	UG_L	866	=	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	M- AND P-XYLENE	UG_L	4620	=	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	M- AND P-XYLENE	UG_L	4710	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	O-XYLENE	UG_L	1790	=	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	O-XYLENE	UG_L	1810	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	TOLUENE	UG_L	1920	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	TOLUENE	UG_L	1810	=	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW05	VINYL CHLORIDE	UG_L	40	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW05	VINYL CHLORIDE	UG_L	40	U	DUP	Shallow	OPERABLE UNIT 8
10/10/2017	MW08	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	1,2-DICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	BENZENE	UG_L	547	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	ETHYLBENZENE	UG_L	637	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	M- AND P-XYLENE	UG_L	171	=		Shallow	OPERABLE UNIT 8

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Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/10/2017	MW08	O-XYLENE	UG_L	8.19	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	TOLUENE	UG_L	37.2	=		Shallow	OPERABLE UNIT 8
10/10/2017	MW08	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	1,2-DICHLOROETHANE	UG_L	13	=		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	BENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	ETHYLBENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	M- AND P-XYLENE	UG_L	0.07	J		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	O-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	TOLUENE	UG_L	0.05	J		Shallow	OPERABLE UNIT 8
4/16/2018	8CB-MW01	VINYL CHLORIDE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	1,2-DICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	BENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	ETHYLBENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	M- AND P-XYLENE	UG_L	0.4	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	O-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	TOLUENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW16	VINYL CHLORIDE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW33	1,1,2-TRICHLOROETHANE	UG_L	0.46	=		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	1,1-DICHLOROETHENE	UG_L	0.31	=		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	1,2-DIBROMOETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	1,2-DICHLOROETHANE	UG_L	6.69	=		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	1,2-DICHLOROPROPANE	UG_L	0.22	=		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	BENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	ETHYLBENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	M- AND P-XYLENE	UG_L	0.4	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	O-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	TOLUENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW33	VINYL CHLORIDE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/16/2018	8MW47	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	1,2-DICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	BENZENE	UG_L	330	=		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	ETHYLBENZENE	UG_L	693	=		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	M- AND P-XYLENE	UG_L	1850	=		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	O-XYLENE	UG_L	215	=		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	TOLUENE	UG_L	190	=		Shallow	OPERABLE UNIT 8
4/16/2018	8MW47	VINYL CHLORIDE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	BENZENE	UG_L	2080	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	ETHYLBENZENE	UG_L	1180	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	M- AND P-XYLENE	UG_L	1510	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	O-XYLENE	UG_L	257	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	TOLUENE	UG_L	529	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW48	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/17/2018	8MW49	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	1,2-DICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	BENZENE	UG_L	229	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	ETHYLBENZENE	UG_L	318	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	M- AND P-XYLENE	UG_L	1130	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	O-XYLENE	UG_L	359	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	TOLUENE	UG_L	165	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW49	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	1,2-DICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	BENZENE	UG_L	635	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	ETHYLBENZENE	UG_L	1560	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	M- AND P-XYLENE	UG_L	7630	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	O-XYLENE	UG_L	2690	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	TOLUENE	UG_L	3260	=		Shallow	OPERABLE UNIT 8
4/17/2018	8MW54	VINYL CHLORIDE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	1,2-DICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	BENZENE	UG_L	2840	=		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	ETHYLBENZENE	UG_L	143	=		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	M- AND P-XYLENE	UG_L	288	=		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	O-XYLENE	UG_L	308	=		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	TOLUENE	UG_L	30.3	=		Shallow	OPERABLE UNIT 8
4/17/2018	8PS-C2	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,1,2-TRICHLOROETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,1-DICHLOROETHENE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,2-DIBROMOETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,2-DICHLOROETHANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,2-DICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,2-DICHLOROPROPANE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	BENZENE	UG_L	109	=		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	BENZENE	UG_L	109	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	ETHYLBENZENE	UG_L	189	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	ETHYLBENZENE	UG_L	185	=		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	M- AND P-XYLENE	UG_L	52.8	=		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	M- AND P-XYLENE	UG_L	55.8	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	O-XYLENE	UG_L	3.4	=		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	O-XYLENE	UG_L	3.26	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	TOLUENE	UG_L	9.3	=		Shallow	OPERABLE UNIT 8
4/17/2018	MW08	TOLUENE	UG_L	9.19	J	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	VINYL CHLORIDE	UG_L	2	U	DUP	Shallow	OPERABLE UNIT 8
4/17/2018	MW08	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	1,2-DICHLOROETHANE	UG_L	44.6	=		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	BENZENE	UG_L	2840	=		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	ETHYLBENZENE	UG_L	218	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/18/2018	8MW06	M- AND P-XYLENE	UG_L	251	=		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	O-XYLENE	UG_L	128	=		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	TOLUENE	UG_L	57.8	=		Shallow	OPERABLE UNIT 8
4/18/2018	8MW06	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	BENZENE	UG_L	3820	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	ETHYLBENZENE	UG_L	144	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	M- AND P-XYLENE	UG_L	427	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	O-XYLENE	UG_L	333	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	TOLUENE	UG_L	1040	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-A1	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	1,1-DICHLOROETHENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	1,2-DICHLOROETHANE	UG_L	10.3	J		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	1,2-DICHLOROPROPANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	BENZENE	UG_L	5790	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	ETHYLBENZENE	UG_L	491	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	M- AND P-XYLENE	UG_L	632	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	O-XYLENE	UG_L	288	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	TOLUENE	UG_L	770	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-F1	VINYL CHLORIDE	UG_L	20	UJ		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	1,1-DICHLOROETHENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	1,2-DICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	1,2-DICHLOROPROPANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	BENZENE	UG_L	7430	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	ETHYLBENZENE	UG_L	764	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	M- AND P-XYLENE	UG_L	1800	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	O-XYLENE	UG_L	1130	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	TOLUENE	UG_L	4200	=		Shallow	OPERABLE UNIT 8
4/18/2018	8PS-G1	VINYL CHLORIDE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	1,1-DICHLOROETHENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	1,2-DIBROMOETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	1,2-DICHLOROETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	1,2-DICHLOROPROPANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	BENZENE	UG_L	0.03	J		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	ETHYLBENZENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	M- AND P-XYLENE	UG_L	0.4	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	O-XYLENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	TOLUENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
4/19/2018	8MW25	VINYL CHLORIDE	UG_L	0.2	UJ		Deep	OPERABLE UNIT 8
4/19/2018	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	1,2-DICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	BENZENE	UG_L	0.08	J		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	ETHYLBENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	M- AND P-XYLENE	UG_L	0.06	J		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	O-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	TOLUENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/19/2018	8MW42	VINYL CHLORIDE	UG_L	0.2	UJ		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8

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Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/19/2018	8PS-C1	1,1-DICHLOROETHENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	1,2-DICHLOROETHANE	UG_L	19.8	J		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	1,2-DICHLOROPROPANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	BENZENE	UG_L	9450	=		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	ETHYLBENZENE	UG_L	851	=		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	M- AND P-XYLENE	UG_L	2450	=		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	O-XYLENE	UG_L	1460	=		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	TOLUENE	UG_L	1690	=		Shallow	OPERABLE UNIT 8
4/19/2018	8PS-C1	VINYL CHLORIDE	UG_L	20	UJ		Shallow	OPERABLE UNIT 8
4/24/2018	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.28	=		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	1,1-DICHLOROETHENE	UG_L	0.42	=		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	1,2-DIBROMOETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	1,2-DICHLOROETHANE	UG_L	3.99	=		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	1,2-DICHLOROPROPANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	BENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	ETHYLBENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	M- AND P-XYLENE	UG_L	0.4	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	O-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	TOLUENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW03	VINYL CHLORIDE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	1,1-DICHLOROETHENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	1,2-DIBROMOETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	1,2-DICHLOROETHANE	UG_L	0.19	J		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	1,2-DICHLOROPROPANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	BENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	ETHYLBENZENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	M- AND P-XYLENE	UG_L	0.4	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	O-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	TOLUENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8MW35	VINYL CHLORIDE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
4/24/2018	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	1,2-DICHLOROETHANE	UG_L	1.05	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	BENZENE	UG_L	54.7	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	ETHYLBENZENE	UG_L	2.8	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	M- AND P-XYLENE	UG_L	3.74	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	O-XYLENE	UG_L	2.59	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	TOLUENE	UG_L	3.69	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-A3	VINYL CHLORIDE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	BENZENE	UG_L	294	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	ETHYLBENZENE	UG_L	4.02	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	M- AND P-XYLENE	UG_L	4.99	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	O-XYLENE	UG_L	10.1	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	TOLUENE	UG_L	12.1	=		Shallow	OPERABLE UNIT 8
4/24/2018	8PS-C3	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	1,1-DICHLOROETHENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	1,2-DICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	1,2-DICHLOROPROPANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	BENZENE	UG_L	7560	=		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
4/25/2018	8PS-B1	ETHYLBENZENE	UG_L	672	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	M- AND P-XYLENE	UG_L	1700	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	O-XYLENE	UG_L	1100	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	TOLUENE	UG_L	1350	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B1	VINYL CHLORIDE	UG_L	20	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	BENZENE	UG_L	1060	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	ETHYLBENZENE	UG_L	27.3	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	M- AND P-XYLENE	UG_L	31.2	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	O-XYLENE	UG_L	32.1	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	TOLUENE	UG_L	11.6	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-B2	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	1,1-DICHLOROETHENE	UG_L	40	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	1,2-DIBROMOETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	1,2-DICHLOROETHANE	UG_L	83.7	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	1,2-DICHLOROPROPANE	UG_L	40	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	BENZENE	UG_L	20100	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	ETHYLBENZENE	UG_L	1470	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	M- AND P-XYLENE	UG_L	4580	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	O-XYLENE	UG_L	1990	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	TOLUENE	UG_L	5960	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-D1	VINYL CHLORIDE	UG_L	40	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	1,2-DICHLOROETHANE	UG_L	12	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	BENZENE	UG_L	583	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	ETHYLBENZENE	UG_L	86.3	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	M- AND P-XYLENE	UG_L	165	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	O-XYLENE	UG_L	83.7	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	TOLUENE	UG_L	429	=		Shallow	OPERABLE UNIT 8
4/25/2018	8PS-E1	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	BENZENE	UG_L	708			Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	BENZENE	UG_L	386			Shallow	OPERABLE UNIT 8
10/22/2018	MW05	BENZENE	UG_L	2230			Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	MW05	1,2-DICHLOROETHANE	UG_L	5.74	J		Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	MW05	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	MW05	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	MW05	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	ETHYLBENZENE	UG_L	1150			Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	ETHYLBENZENE	UG_L	1480			Shallow	OPERABLE UNIT 8
10/22/2018	MW05	ETHYLBENZENE	UG_L	770			Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2018	MW05	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	TOLUENE	UG_L	132			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/22/2018	8MW24	TOLUENE	UG_L	195			Shallow	OPERABLE UNIT 8
10/22/2018	MW05	TOLUENE	UG_L	466			Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	M- AND P-XYLENE	UG_L	1530			Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	M- AND P-XYLENE	UG_L	1380			Shallow	OPERABLE UNIT 8
10/22/2018	MW05	M- AND P-XYLENE	UG_L	3050			Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	O-XYLENE	UG_L	75.8			Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	O-XYLENE	UG_L	11.8			Shallow	OPERABLE UNIT 8
10/22/2018	MW05	O-XYLENE	UG_L	467			Shallow	OPERABLE UNIT 8
10/22/2018	8MW47	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	8MW24	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/22/2018	MW05	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
10/23/2018	MW08	BENZENE	UG_L	944			Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	1,2-DICHLOROETHANE	UG_L	0.63	J		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	1,2-DICHLOROETHANE	UG_L	13.6			Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	1,1-DICHLOROETHENE	UG_L	1.35			Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	1,2-DICHLOROPROPANE	UG_L	0.65			Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	ETHYLBENZENE	UG_L	721			Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	1,1,2-TRICHLOROETHANE	UG_L	2.01			Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	TOLUENE	UG_L	55.6	J		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	M- AND P-XYLENE	UG_L	176			Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	M- AND P-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	O-XYLENE	UG_L	12	J		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	O-XYLENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/23/2018	MW08	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/23/2018	8MW33	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/24/2018	8MW42	BENZENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	BENZENE	UG_L	7950			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	BENZENE	UG_L	7800		DUP	Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	1,2-DICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	1,2-DICHLOROETHANE	UG_L	60.1			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	1,2-DICHLOROETHANE	UG_L	54.3			Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	1,2-DICHLOROPROPANE	UG_L	4.89			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	1,2-DICHLOROPROPANE	UG_L	4.62			Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	ETHYLBENZENE	UG_L	605			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	ETHYLBENZENE	UG_L	656			Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	TOLUENE	UG_L	0.05	J		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	TOLUENE	UG_L	186			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	TOLUENE	UG_L	211			Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	M- AND P-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	M- AND P-XYLENE	UG_L	627			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	M- AND P-XYLENE	UG_L	696			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/24/2018	8MW42	O-XYLENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	O-XYLENE	UG_L	350			Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	O-XYLENE	UG_L	379			Shallow	OPERABLE UNIT 8
10/24/2018	8MW42	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06	VINYL CHLORIDE	UG_L	0.13	J		Shallow	OPERABLE UNIT 8
10/24/2018	8MW06 (Dup)	VINYL CHLORIDE	UG_L	0.13	J		Shallow	OPERABLE UNIT 8
10/29/2018	8MW32	BENZENE	UG_L	0.18	J		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	BENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	1,2-DICHLOROETHANE	UG_L	3.88			Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	1,2-DICHLOROETHANE	UG_L	0.18	J	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	1,2-DICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	1,2-DICHLOROETHANE	UG_L	3.74			Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	1,1-DICHLOROETHENE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	1,1-DICHLOROETHENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	1,1-DICHLOROETHENE	UG_L	0.52			Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	1,2-DICHLOROPROPANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	1,2-DICHLOROPROPANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	1,2-DICHLOROPROPANE	UG_L	0.13	J		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	1,2-DIBROMOETHANE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	1,2-DIBROMOETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	ETHYLBENZENE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	ETHYLBENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.24		DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.33			Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	TOLUENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	TOLUENE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	TOLUENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	M- AND P-XYLENE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	M- AND P-XYLENE	UG_L	0.2	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	M- AND P-XYLENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	M- AND P-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	O-XYLENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	O-XYLENE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	O-XYLENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	O-XYLENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/29/2018	8MW32	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
10/29/2018	8MW35	VINYL CHLORIDE	UG_L	0.1	U	DUP	Intermediate	OPERABLE UNIT 8
10/29/2018	8MW25	VINYL CHLORIDE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/29/2018	8MW03	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	BENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	1,2-DICHLOROETHANE	UG_L	0.1	UJ		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	1,2-DICHLOROETHANE	UG_L	0.1	UJ		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	1,2-DICHLOROETHANE	UG_L	0.15	J		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	1,1-DICHLOROETHENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	1,1-DICHLOROETHENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	1,1-DICHLOROETHENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	1,2-DICHLOROPROPANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
10/30/2018	8MW37	1,2-DICHLOROPROPANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	1,2-DICHLOROPROPANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	1,2-DIBROMOETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	ETHYLBENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	TOLUENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	M- AND P-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	M- AND P-XYLENE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	M- AND P-XYLENE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	O-XYLENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	O-XYLENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	O-XYLENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW13	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
10/30/2018	8MW37	VINYL CHLORIDE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
10/30/2018	8MW19	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/7/2019	8MW06	BENZENE	UG_L	3890			Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	1,2-DICHLOROETHANE	UG_L	30.5			Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	ETHYLBENZENE	UG_L	472			Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	TOLUENE	UG_L	127			Shallow	OPERABLE UNIT 8
5/7/2019	8MW06	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	BENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	1,2-DICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	TOLUENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW16	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW33	BENZENE	UG_L	0.51			Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	1,2-DICHLOROETHANE	UG_L	14.2			Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	1,1-DICHLOROETHENE	UG_L	1.29			Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	1,2-DICHLOROPROPANE	UG_L	0.62			Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	ETHYLBENZENE	UG_L	0.22			Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	1,1,2-TRICHLOROETHANE	UG_L	1.51			Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	TOLUENE	UG_L	0.09	J		Intermediate	OPERABLE UNIT 8
5/7/2019	8MW33	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/7/2019	8MW47	BENZENE	UG_L	786				OPERABLE UNIT 8
5/7/2019	8MW47	1,2-DICHLOROETHANE	UG_L	2	U			OPERABLE UNIT 8
5/7/2019	8MW47	1,1-DICHLOROETHENE	UG_L	2	U			OPERABLE UNIT 8
5/7/2019	8MW47	1,2-DICHLOROPROPANE	UG_L	4.72	U, Y1			OPERABLE UNIT 8
5/7/2019	8MW47	1,2-DIBROMOETHANE	UG_L	2	U			OPERABLE UNIT 8
5/7/2019	8MW47	ETHYLBENZENE	UG_L	1260				OPERABLE UNIT 8
5/7/2019	8MW47	1,1,2-TRICHLOROETHANE	UG_L	4	U			OPERABLE UNIT 8
5/7/2019	8MW47	TOLUENE	UG_L	428				OPERABLE UNIT 8
5/7/2019	8MW47	VINYL CHLORIDE	UG_L	2	U			OPERABLE UNIT 8
5/7/2019	8MW48	BENZENE	UG_L	1610			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/7/2019	8MW48	1,2-DICHLOROETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	1,1-DICHLOROETHENE	UG_L	5	UJ		Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	ETHYLBENZENE	UG_L	1040			Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	TOLUENE	UG_L	638			Shallow	OPERABLE UNIT 8
5/7/2019	8MW48	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/7/2019	MW05	BENZENE	UG_L	1900			Shallow	OPERABLE UNIT 8
5/7/2019	MW05	1,2-DICHLOROETHANE	UG_L	4.04	J		Shallow	OPERABLE UNIT 8
5/7/2019	MW05	1,1-DICHLOROETHENE	UG_L	2	UJ		Shallow	OPERABLE UNIT 8
5/7/2019	MW05	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/7/2019	MW05	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/7/2019	MW05	ETHYLBENZENE	UG_L	690			Shallow	OPERABLE UNIT 8
5/7/2019	MW05	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
5/7/2019	MW05	TOLUENE	UG_L	480			Shallow	OPERABLE UNIT 8
5/7/2019	MW05	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	BENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	1,2-DICHLOROETHANE	UG_L	12.4			Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	TOLUENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8CB-MW01	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	BENZENE	UG_L	881	J		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	1,2-DICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	ETHYLBENZENE	UG_L	763	J		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	TOLUENE	UG_L	776	J		Shallow	OPERABLE UNIT 8
5/8/2019	8MW49	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	BENZENE	UG_L	2490			Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	ETHYLBENZENE	UG_L	1850			Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	TOLUENE	UG_L	11500			Shallow	OPERABLE UNIT 8
5/8/2019	8MW54	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	BENZENE	UG_L	6780			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	ETHYLBENZENE	UG_L	467			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	TOLUENE	UG_L	72.9			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-A1	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	BENZENE	UG_L	7640			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	1,2-DICHLOROETHANE	UG_L	18.6	J		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	1,1-DICHLOROETHENE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	1,2-DICHLOROPROPANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	1,2-DIBROMOETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	ETHYLBENZENE	UG_L	693			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	1,1,2-TRICHLOROETHANE	UG_L	40	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/8/2019	8PS-C1	TOLUENE	UG_L	1340			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C1	VINYL CHLORIDE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	BENZENE	UG_L	1370			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	1,2-DICHLOROETHANE	UG_L	3.13	J		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	ETHYLBENZENE	UG_L	105			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	TOLUENE	UG_L	83.3			Shallow	OPERABLE UNIT 8
5/8/2019	8PS-C2	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	BENZENE	UG_L	487	J		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	BENZENE	UG_L	362		DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,2-DICHLOROETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,2-DICHLOROETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,1-DICHLOROETHENE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,2-DICHLOROPROPANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,2-DIBROMOETHANE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	ETHYLBENZENE	UG_L	719	J		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	ETHYLBENZENE	UG_L	561		DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	1,1,2-TRICHLOROETHANE	UG_L	1	U	DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	TOLUENE	UG_L	39.8	J		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	TOLUENE	UG_L	29.9		DUP	Shallow	OPERABLE UNIT 8
5/8/2019	MW08	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/8/2019	MW08	VINYL CHLORIDE	UG_L	0.5	U	DUP	Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	BENZENE	UG_L	7700			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	ETHYLBENZENE	UG_L	594			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	TOLUENE	UG_L	115			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-B1	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	BENZENE	UG_L	16900			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	1,2-DICHLOROETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	1,1-DICHLOROETHENE	UG_L	50	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	1,2-DICHLOROPROPANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	1,2-DIBROMOETHANE	UG_L	50	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	ETHYLBENZENE	UG_L	1260			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	1,1,2-TRICHLOROETHANE	UG_L	100	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	TOLUENE	UG_L	5170			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-D1	VINYL CHLORIDE	UG_L	50	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	BENZENE	UG_L	4940			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	1,2-DICHLOROETHANE	UG_L	5.12	J		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	1,1-DICHLOROETHENE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	1,2-DICHLOROPROPANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	1,2-DIBROMOETHANE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	ETHYLBENZENE	UG_L	409			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	1,1,2-TRICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	TOLUENE	UG_L	459			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-F1	VINYL CHLORIDE	UG_L	5	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	BENZENE	UG_L	7260			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	1,2-DICHLOROETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	1,1-DICHLOROETHENE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	1,2-DICHLOROPROPANE	UG_L	10	U		Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/9/2019	8PS-G1	1,2-DIBROMOETHANE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	ETHYLBENZENE	UG_L	673			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	1,1,2-TRICHLOROETHANE	UG_L	20	U		Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	TOLUENE	UG_L	1410			Shallow	OPERABLE UNIT 8
5/9/2019	8PS-G1	VINYL CHLORIDE	UG_L	10	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW03	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	1,2-DICHLOROETHANE	UG_L	0.93			Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	1,1-DICHLOROETHENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	1,2-DICHLOROPROPANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW03	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW25	BENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	1,2-DICHLOROETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	1,1-DICHLOROETHENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	1,2-DICHLOROPROPANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	1,2-DIBROMOETHANE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	ETHYLBENZENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	TOLUENE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW25	VINYL CHLORIDE	UG_L	0.1	U		Deep	OPERABLE UNIT 8
5/13/2019	8MW35	BENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	1,2-DICHLOROETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	1,1-DICHLOROETHENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	1,2-DICHLOROPROPANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	1,2-DIBROMOETHANE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	ETHYLBENZENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	TOLUENE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW35	VINYL CHLORIDE	UG_L	0.1	U		Intermediate	OPERABLE UNIT 8
5/13/2019	8MW42	BENZENE	UG_L	0.04	J		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	1,2-DICHLOROETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	ETHYLBENZENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	TOLUENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/13/2019	8MW42	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	BENZENE	UG_L	243			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	1,2-DICHLOROETHANE	UG_L	3.2			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	1,1-DICHLOROETHENE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	1,2-DICHLOROPROPANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	1,2-DIBROMOETHANE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	ETHYLBENZENE	UG_L	2.29			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	1,1,2-TRICHLOROETHANE	UG_L	0.2	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	TOLUENE	UG_L	2.17			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-A3	VINYL CHLORIDE	UG_L	0.1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	BENZENE	UG_L	860			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	1,2-DICHLOROETHANE	UG_L	1.51	J		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	1,1-DICHLOROETHENE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	1,2-DICHLOROPROPANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	1,2-DIBROMOETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	ETHYLBENZENE	UG_L	24			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	1,1,2-TRICHLOROETHANE	UG_L	4	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	TOLUENE	UG_L	9.29			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-B2	VINYL CHLORIDE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	BENZENE	UG_L	221			Shallow	OPERABLE UNIT 8

Table C3-3. Historical monitoring results for VOCs from 2000 to 2018

Date	Well ID	Parameter Name	Units	Concentration	Data Qualifier	Duplicate Code	Aquifer Depth Interval	Site
5/14/2019	8PS-C3	1,2-DICHLOROETHANE	UG_L	3.7			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	1,1-DICHLOROETHENE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	1,2-DICHLOROPROPANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	1,2-DIBROMOETHANE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	ETHYLBENZENE	UG_L	5.19			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	1,1,2-TRICHLOROETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	TOLUENE	UG_L	2.73			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-C3	VINYL CHLORIDE	UG_L	0.5	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	BENZENE	UG_L	776			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	1,2-DICHLOROETHANE	UG_L	5.2			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	1,1-DICHLOROETHENE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	1,2-DICHLOROPROPANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	1,2-DIBROMOETHANE	UG_L	1	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	ETHYLBENZENE	UG_L	117			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	1,1,2-TRICHLOROETHANE	UG_L	2	U		Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	TOLUENE	UG_L	588			Shallow	OPERABLE UNIT 8
5/14/2019	8PS-E1	VINYL CHLORIDE	UG_L	1	U		Shallow	OPERABLE UNIT 8

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-1A	12/3/2009	0.0	NP	31.85	32.29	10.1	Yes	NP					Seal and bolts good, 2" butterfly cap, hard bottom
VS-1A	1/12/2010	0.0	NP	31.86	32.29	10.1	Yes	NP					Smell of petroleum on probe
VS-1A	2/9/2010	0.0	NP	30.53	32.29	10.1	Yes	NP					
VS-1A	4/18/2012	NA	NP	27.73	32.29	10.1	Yes	NP					
VS-1A	5/3/2012	NA	NP	27.64	32.29	10.1	Yes	NP					
VS-1A	6/8/2012	NA	NP	28.12	32.29	10.1	Yes	NP					
VS-1A	7/3/2012	NA	NP	28.45	32.29	10.1	Yes	NP					
VS-1A	8/6/2012	NA	NP	28.82	32.29	10.1	Yes	NP					
VS-1A	9/11/2012	NA	NP	29.35	32.29	10.1	Yes	NP					
VS-1A	10/18/2012	NA	NP	29.78	32.29	10.1	Yes	NP					
VS-1A	11/15/2012	NA	NP	29.91	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	12/13/2012	NA	NP	28.78	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	1/17/2013	NA	NP	27.15	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	2/14/2013	NA	NP	27.09	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	3/12/2013	NA	NP	27.15	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	4/12/2013	NA	NP	27.24	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	5/16/2013	NA	27.63	27.64	32.29	10.1	Yes	0.01					White bugs on probe
VS-1A	6/13/2013	NA	NP	27.96	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	7/11/2013	NA	NP	28.31	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	8/15/2013	NA	NP	28.78	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	9/5/2013	NA	NP	29.04	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/7/2013	NA	NP	29.20	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	11/13/2013	NA	NP	29.67	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	12/13/2013	NA	NP	29.89	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	1/10/2014	NA	NP	30.17	32.29	10.1	Yes	NP					
VS-1A	2/13/2014	NA	NP	30.31	32.29	10.1	Yes	NP					
VS-1A	3/13/2014	NA	NP	29.40	32.29	10.1	Yes	NP					
VS-1A	4/3/2014	NA	NP	28.56	32.29	10.1	Yes	NP					
VS-1A	4/24/2014	0.0	NP	28.45	32.29	10.1	Yes	NP					PID wellhead peak 2.3 ppm, White bugs on probe
VS-1A	5/5/2014	NA	NP	28.42	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	5/20/2014	NA	NP	28.48	32.29	10.1	Yes	NP					White bugs on probe. Attached a well ID tag.
VS-1A	6/16/2014	NA	NP	28.83	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	7/15/2014	NA	NP	29.20	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	8/15/2014	NA	NP	29.70	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	9/19/2014	NA	NP	29.87	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/16/2014	NA	NP	30.50	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/31/2014	NA	NP	30.36	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	11/26/2014	0.0	NP	30.57	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	1/9/2015	NA	NP	29.36	32.29	10.1	Yes	NP					White bugs on probe. J cap does not fit well needs lock cut off or person with key to open.
VS-1A	2/5/2015	NA	NP	29.00	32.29	10.1	Yes	NP					J cap fitted
VS-1A	3/6/2015	NA	NP	28.53	32.29	10.1	Yes	NP					
VS-1A	4/1/2015	NA	NP	28.38	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	5/7/2015	NA	NP	27.70	32.29	10.1	Yes	NP					White bugs on probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-1A	6/4/2015	NA	NP	29.08	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	7/9/2015	NA	NP	29.47	32.29	10.1	Yes	NP					
VS-1A	8/11/2015	NA	NP	29.91	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	9/3/2015	NA	NP	30.23	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/6/2015	NA	NP	30.61	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	11/6/2015	NA	NP	30.86	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	12/4/2015	NA	NP	30.63	32.29	10.1	Yes	NP					
VS-1A	1/15/2016	NA	NP	29.07	32.29	10.1	Yes	NP					
VS-1A	2/10/2016	NA	NP	27.43	32.29	10.1	Yes	NP					
VS-1A	3/3/2016	NA	NP	26.61	32.29	10.1	Yes	NP					
VS-1A	4/5/2016	NA	NP	25.1	32.29	10.1	Yes	NP					
VS-1A	5/17/2016	NA	NP	25.74	32.29	10.1	Yes	NP					
VS-1A	6/8/2016	NA	NP	26.13	32.29	10.1	Yes	NP					
VS-1A	7/1/2016	NA	NA	NA	32.29	10.1	Yes	NA					Well closed, construction
VS-1A	8/19/2016	NA	NP	27.32	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	9/22/2016	NA	NP	27.84	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/3/2016	NA	NP	27.96	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	11/11/2016	NA	NP	27.32	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	12/2/2016	NA	NP	26.73	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	1/12/2017	NA	NP	26.2	32.29	10.1	Yes	NP					
VS-1A	2/16/2017	NA	NP	24.83	32.29	10.1	Yes	NP					Well cover not fitting well due to pavement crack
VS-1A	3/15/2017	NA	NP	23.69	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	3/6/2017	NA	NP	22.52	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	4/6/2017	NA	NP	22.52	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	5/15/2017	NA	NP	22	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	6/6/2017	NA	NP	22.31	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	7/6/2017	NA	NP	22.98	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	8/9/2017	NA	NP	23.7	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	9/15/2017	NA	NP	24.33	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/13/2017	NA	NP	24.91	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	11/6/2017	0.0	NP	25.14	32.29	10.1	Yes	NP					White bugs on probe. PID Wellhead 0.2 ppm.
VS-1A	12/12/2017	NA	NP	23.4	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	1/4/2018	NA	NP	24.04	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	2/9/2018	NA	NP	22.42	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	3/1/2018	NA	NP	22.23	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	4/5/2018	NA	NP	22.55	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	6/29/2018	NA	NP	23.51	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	7/19/2018	NA	NP	23.88	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	8/14/2018	NA	NP	24.3	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	9/19/2018	NA	NP	24.3	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	10/10/2018	NA	NP	25.4	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	11/8/2018	0.0	NP	25.86	32.29	10.1	Yes	NP					White bugs on probe.
VS-1A	12/6/2018	NA	NP	25.95	32.29	10.1	Yes	NP					White bugs on probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-1A	1/3/2019	NA	NP	23.3	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	2/15/2019	NA	NP	25	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	3/11/2019	NA	NP	24.84	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	4/30/2019	NA	NP	25.64	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	5/16/2019	NA	NP	25.7	32.29	10.1	Yes	NP					White bugs on probe
VS-1A	6/5/2019	NA	NP	26.23	32.29	10.1	Yes	NP					White bugs on probe
									VS-1A CUMULATIVE		0	0.00	
VS-1	8/3/2010	NA	NP	30.01	32.00	10.1	Yes	NP					
VS-1	8/11/2010	NA	NP	30.12	32.00	10.1	Yes	NP					
VS-1	8/20/2010	NA	NP	30.21	32.00	10.1	Yes	NP					
VS-1	8/25/2010	NA	NP	30.36	32.00	10.1	Yes	NP					
VS-1	9/1/2010	NA	NP	30.44	32.00	10.1	Yes	NP					
VS-1	9/10/2010	NA	NP	30.51	32.00	10.1	Yes	NP					
VS-1	9/15/2010	NA	NP	30.50	32.00	10.1	Yes	NP					
VS-1	9/24/2010	NA	30.62	30.63	32.00	10.1	Yes	0.01					Sheen
VS-1	9/29/2010	NA	NP	30.69	32.00	10.1	Yes	NP					
VS-1	10/5/2010	NA	NP	30.75	32.00	10.1	Yes	NP					
VS-1	10/13/2010	NA	NP	30.80	32.00	10.1	Yes	NP					
VS-1	10/19/2010	NA	NP	30.84	32.00	10.1	Yes	NP					
VS-1	10/27/2010	NA	NP	30.89	32.00	10.1	Yes	NP					
VS-1	11/3/2010	NA	NP	30.92	32.00	10.1	Yes	NP					
VS-1	11/10/2010	NA	NP	30.95	32.00	10.1	Yes	NP					
VS-1	11/17/2010	0.0	NP	30.97	32.00	10.1	Yes	NP					
VS-1	11/24/2010	NA	NP	30.94	32.00	10.1	Yes	NP					
VS-1	12/1/2010	NA	NP	30.91	32.00	10.1	Yes	NP					
VS-1	12/8/2010	NA	NP	30.90	32.00	10.1	Yes	NP					
VS-1	12/15/2010	NA	NP	30.65	32.00	10.1	Yes	NP					
VS-1	12/22/2010	NA	NP	30.30	32.00	10.1	Yes	NP					
VS-1	12/30/2010	NA	NP	29.96	32.00	10.1	Yes	NP					
VS-1	1/5/2011	NA	NP	30.91	32.00	10.1	Yes	NP					
VS-1	1/14/2011	NA	NP	29.48	32.00	10.1	Yes	NP					
VS-1	1/19/2011	NA	NP	29.37	32.00	10.1	Yes	NP					
VS-1	1/26/2011	NA	NP	29.28	32.00	10.1	Yes	NP					
VS-1	2/2/2011	NA	NP	29.21	32.00	10.1	Yes	NP					
VS-1	2/9/2011	NA	NP	29.11	32.00	10.1	Yes	NP					
VS-1	2/17/2011	NA	NP	28.92	32.00	10.1	Yes	NP					
VS-1	2/28/2011	NA	NP	28.79	32.00	10.1	Yes	NP					
VS-1	3/16/2011	NA	NP	28.29	32.00	10.1	Yes	NP					
VS-1	3/24/2011	NA	NP	27.63	32.00	10.1	Yes	NP					
VS-1	3/29/2011	NA	NP	26.43	32.00	10.1	Yes	NP					
VS-1	3/16/2011	NA	NP	28.49	32.00	10.1	Yes	NP					
VS-1	3/24/2011	NA	NP	27.63	32.00	10.1	Yes	NP					
VS-1	3/29/2011	NA	NP	28.66	32.00	10.1	Yes	NP					
VS-1	4/6/2011	NA	NP	28.52	32.00	10.1	Yes	NP					
VS-1	5/18/2011	NA	NP	27.00	32.00	10.1	Yes	NP					
VS-1	6/23/2011	NA	NP	27.31	32.00	10.1	Yes	NP					
VS-1	7/27/2011	NA	NP	27.70	32.00	10.1	Yes	NP					
VS-1	8/18/2011	NA	NP	28.15	32.00	10.1	Yes	NP					
VS-1	8/27/2011	NA	NP	27.97	32.00	10.1	Yes	NP					
VS-1	9/28/2011	NA	NP	28.60	32.00	10.1	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
									VS-1 CUMULATIVE		0	0.00	
VS-2	12/3/2009	0.0	NP	31.98	32.02	12.4	Yes	NP					Bolts and seal good, 2" PVC cap, light sediment in bottom
VS-2	1/12/2010	0.0	NP	31.99	32.02	12.4	Yes	NP					Smell of petroleum on probe
VS-2	2/9/2010	0.1	30.74	30.75	32.02	12.4	Yes	0.01	1	19	1	0.0003	Recovered, DTW 30.75 afterwards
VS-2	8/3/2010	NA	30.20	30.21	32.00	12.4	Yes	0.01					
VS-2	8/11/2010	NA	30.32	30.34	32.00	12.4	Yes	0.02					
VS-2	8/20/2010	NA	30.39	``	32.00	12.4	Yes	0.02					
VS-2	8/25/2010	NA	30.48	30.50	32.00	12.4	Yes	0.02					
VS-2	9/1/2010	NA	30.56	30.58	32.00	12.4	Yes	0.02					
VS-2	9/10/2010	NA	30.68	30.70	32.00	12.4	Yes	0.02					
VS-2	9/15/2010	NA	30.69	30.71	32.00	12.4	Yes	0.02					
VS-2	9/24/2010	NA	30.78	30.81	32.00	12.4	Yes	0.03					
VS-2	9/29/2010	NA	30.84	30.87	32.00	12.4	Yes	0.03					
VS-2	10/5/2010	NA	30.93	30.96	32.00	12.4	Yes	0.03					
VS-2	10/13/2010	NA	30.97	31.00	32.00	12.4	Yes	0.03					
VS-2	10/19/2010	NA	31.03	31.06	32.00	12.4	Yes	0.03					
VS-2	10/27/2010	NA	31.06	31.10	32.00	12.4	Yes	0.04					
VS-2	11/3/2010	NA	31.09	31.12	32.00	12.4	Yes	0.03					
VS-2	11/10/2010	NA	31.12	31.13	32.00	12.4	Yes	0.01					
VS-2	11/17/2010	NA	NP	30.95	32.00	12.4	Yes	NP					
VS-2	11/24/2010	NA	NP	31.01	32.00	12.4	Yes	NP					
VS-2	12/1/2010	NA	NP	31.05	32.00	12.4	Yes	NP					
VS-2	12/8/2010	NA	NP	31.08	32.00	12.4	Yes	NP					
VS-2	12/15/2010	NA	NP	30.83	32.00	12.4	Yes	NP					
VS-2	12/22/2010	NA	NP	30.49	32.00	12.4	Yes	NP					
VS-2	12/30/2010	NA	NP	30.16	32.00	12.4	Yes	NP					
VS-2	1/5/2011	NA	NP	31.10	32.00	12.4	Yes	NP					
VS-2	1/14/2011	NA	NP	29.69	32.00	12.4	Yes	NP					
VS-2	1/19/2011	NA	NP	29.59	32.00	12.4	Yes	NP					
VS-2	1/26/2011	NA	NP	29.54	32.00	12.4	Yes	NP					
VS-2	2/2/2011	NA	NP	29.45	32.00	12.4	Yes	NP					
VS-2	2/9/2011	NA	NP	29.31	32.00	12.4	Yes	NP					
VS-2	2/17/2011	NA	NP	29.13	32.00	12.4	Yes	NP					
VS-2	2/28/2011	NA	NP	29.00	32.00	12.4	Yes	NP					
VS-2	3/16/2011	NA	NP	28.49	32.00	12.4	Yes	NP					
VS-2	3/24/2011	NA	NP	27.85	32.00	12.4	Yes	NP					
VS-2	3/29/2011	NA	NP	26.66	32.00	12.4	Yes	NP					
VS-2	4/6/2011	NA	NP	28.52	32.00	12.4	Yes	NP					
VS-2	5/18/2011	NA	NP	27.19	32.00	12.4	Yes	NP					
VS-2	6/23/2011	NA	NP	27.50	32.00	12.4	Yes	NP					
VS-2	7/27/2011	NA	NP	27.32	32.00	12.4	Yes	NP					
VS-2	8/27/2011	NA	NP	28.15	32.00	12.4	Yes	NP					
VS-2	9/28/2011	NA	NP	28.78	32.00	12.4	Yes	NP					
VS-2	4/18/2012	NA	NP	27.94	32.00	12.4	Yes	NP					Trace found, not measurable.
VS-2	5/3/2012	NA	NP	27.84	32.00	12.4	Yes	NP					
VS-2	6/8/2012	NA	NP	28.33	32.00	12.4	Yes	NP					
VS-2	7/3/2012	NA	NP	28.63	32.00	12.4	Yes	NP					
VS-2	8/6/2012	NA	NP	29.00	32.00	12.4	Yes	NP					
VS-2	9/11/2012	NA	NP	29.52	32.00	12.4	Yes	NP					
VS-2	10/18/2012	NA	29.92	29.93	32.00	12.4	Yes	0.01					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-2	11/15/2012	NA	NP	30.09	32.00	12.4	Yes	NP					White bugs on probe
VS-2	12/13/2012	NA	NP	28.95	32.00	12.4	Yes	NP					White bugs on probe
VS-2	1/17/2013	NA	NP	27.38	32.00	12.4	Yes	NP					Fuel odor
VS-2	2/14/2013	NA	NP	27.29	32.00	12.4	Yes	NP					
VS-2	3/12/2013	NA	NP	27.36	32.00	12.4	Yes	NP					
VS-2	4/12/2013	NA	NP	27.45	32.00	12.4	Yes	NP					
VS-2	5/16/2013	NA	NP	27.82	32.00	12.4	Yes	NP					White bugs on probe
VS-2	6/13/2013	NA	NP	28.14	32.00	12.4	Yes	NP					White bugs on probe
VS-2	7/11/2013	NA	NP	28.50	32.00	12.4	Yes	NP					White bugs on probe
VS-2	8/15/2013	NA	NP	28.93	32.00	12.4	Yes	NP					White bugs on probe
VS-2	9/5/2013	NA	Trace	29.22	32.00	12.4	Yes						White bugs on probe
VS-2	10/7/2013	NA	NP	29.38	32.00	12.4	Yes	NP					
VS-2	11/13/2013	NA	NP	29.84	32.00	12.4	Yes	NP					White bugs on probe
VS-2	12/13/2013	NA	NP	30.07	32.00	12.4	Yes	NP					White bugs on probe
VS-2	1/10/2014	NA	Trace	30.34	32.00	12.4	Yes	NP					
VS-2	2/13/2014	NA	NP	30.51	32.00	12.4	Yes	NP					
VS-2	3/13/2014	NA	NP	29.60	32.00	12.4	Yes	NP					
VS-2	4/3/2014	NA	NP	28.79	32.00	12.4	Yes	NP					
VS-2	4/25/2014	0.0	NP	28.64	32.00	12.4	Yes	NP					PID wellhead peak 15.1 ppm, White bugs on probe
VS-2	5/5/2014	NA	NP	28.61	32.00	12.4	Yes	NP					White bugs on probe
VS-2	5/20/2014	NA	NP	28.66	32.00	12.4	Yes	NP					White bugs on probe
VS-2	6/16/2014	NA	NP	29.04	32.00	12.4	Yes	NP					White bugs on probe
VS-2	7/15/2014	NA	NP	29.38	32.00	12.4	Yes	NP					White bugs on probe
VS-2	8/15/2014	NA	NP	29.85	32.00	12.4	Yes	NP					White bugs on probe
VS-2	9/19/2014	NA	NP	29.91	32.00	12.4	Yes	NP					White bugs on probe
VS-2	10/16/2014	NA	trace	30.68	32.00	12.4	Yes	NP					White bugs on probe
VS-2	10/31/2014	0.4	NP	30.64	32.00	12.4	Yes	NP					White bugs on probe
VS-2	11/26/2014	0.0	trace	30.67	32.00	12.4	Yes	trace					
VS-2	1/9/2015	NA	trace	29.55	32.00	12.4	Yes	trace					Odor on probe
VS-2	2/5/2015	NA	NP	29.20	32.00	12.4	Yes	NP					
VS-2	3/6/2015	NA	NP	28.71	32.00	12.4	Yes	NP					
VS-2	4/1/2015	NA	NP	28.56	32.00	12.4	Yes	NP					
VS-2	5/7/2015	NA	NP	28.84	32.00	12.4	Yes	NP					
VS-2	6/4/2015	NA	NP	29.25	32.00	12.4	Yes	NP					
VS-2	7/9/2015	NA	NP	29.62	32.00	12.4	Yes	NP					
VS-2	8/11/2015	NA	NP	30.1	32.00	12.4	Yes	NP					White bugs on probe
VS-2	9/3/2015	NA	NP	30.38	32.00	12.4	Yes	NP					
VS-2	10/6/2015	NA	30.79	30.82	32.00	12.4	Yes	0.03					Strong hydrocarbon odor
VS-2	11/6/2015	NA	31.01	31.10	32.00	12.4	Yes	0.09					
VS-2	12/4/2015	NA	NP	30.81	32.00	12.4	Yes	NP					
VS-2	1/15/2016	NA	NP	29.25	32.00	12.4	Yes	NP					
VS-2	2/10/2016	NA	NP	27.66	32.00	12.4	Yes	NP					
VS-2	3/3/2016	NA	NP	26.82	32.00	12.4	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-2	4/5/2016	NA	NP	25.32	32.00	12.4	Yes	NP					
VS-2	5/17/2016	NA	NP	25.94	32.00	12.4	Yes	NP					
VS-2	6/8/2016	NA	NP	26.32	32.00	12.4	Yes	NP					
VS-2	7/1/2016	NA	NA	NA	NA	12.4	Yes	NA					Well closed, construction
VS-2	8/19/2016	NA	NP	27.49	32.00	12.4	Yes	NP					
VS-2	9/22/2016	NA	NP	28.02	32.00	12.4	Yes	NP					
VS-2	10/3/2016	NA	NP	28.15	32.00	12.4	Yes	NP					
VS-2	11/11/2016	NA	NP	27.54	32.00	12.4	Yes	NP					
VS-2	12/2/2016	NA	NP	26.96	32.00	12.4	Yes	NP					
VS-2	1/12/2017	NA	NP	26.4	32.00	12.4	Yes	NP					
VS-2	2/16/2017	NA	NP	25.08	32.00	12.4	Yes	NP					
VS-2	3/15/2017	NA	NP	23.92	32.00	12.4	Yes	NP					
VS-2	4/6/2017	NA	NP	22.72	32.00	12.4	Yes	NP					
VS-2	5/15/2017	NA	NP	22.20	32.00	12.4	Yes	NP					
VS-2	6/6/2017	NA	NP	22.51	32.00	12.4	Yes	NP					
VS-2	7/6/2017	NA	NP	23.18	32.00	12.4	Yes	NP					
VS-2	8/9/2017	NA	NP	23.78	32.00	12.4	Yes	NP					
VS-2	9/15/2017	NA	NP	24.51	32.00	12.4	Yes	NP					
VS-2	10/13/2017	NA	NP	25.06	32.00	12.4	Yes	NP					
VS-2	11/6/2017	0.7-0.1	NP	25.33	32.00	12.4	Yes	NP					PID Wellhead 0.7 ppm
VS-2	12/12/2017	NA	NP	24.61	32.00	12.4	Yes	NP					
VS-2	1/4/2018	NA	NP	24.25	32.00	12.4	Yes	NP					
VS-2	2/9/2018	NA	NP	22.60	32.00	12.4	Yes	NP					
VS-2	3/1/2018	NA	NP	22.44	32.00	12.4	Yes	NP					
VS-2	4/5/2018	NA	NP	22.73	32.00	12.4	Yes	NP					
VS-2	6/29/2018	NA	NP	23.71	32.00	12.4	Yes	NP					White bugs on probe
VS-2	7/19/2018	NA	NP	24.08	32.00	12.4	Yes	NP					White bugs on probe
VS-2	8/14/2018	NA	NP	24.5	32.00	12.4	Yes	NP					White bugs on probe
VS-2	9/19/2018	NA	NP	25.15	32.00	12.4	Yes	NP					White bugs on probe
VS-2	10/10/2018	NA	NP	25.55	32.00	12.4	Yes	NP					White bugs on probe
VS-2	11/8/2018	0.0	NP	26.00	32.00	12.4	Yes	NP					White bugs on probe
VS-2	12/6/2018	NA	NP	26.14	32.00	12.4	Yes	NP					White bugs on probe
VS-2	1/3/2019	NA	NP	25.50	32.00	12.4	Yes	NP					
VS-2	2/15/2019	NA	NP	25.18	32.00	12.4	Yes	NP					
VS-2	3/11/2019	NA	NP	25.06	32.00	12.4	Yes	NP					
VS-2	4/30/2019	NA	NP	25.81	32.00	12.4	Yes	NP					
VS-2	5/16/2019	NA	NP	25.97	32.00	12.4	Yes	NP					Well pack sluffing away on south (hole)
VS-2	6/5/2019	NA	NP	26.33	32.00	12.4	Yes	NP					Well pack sluffing away on south (hole)
									VS-2 CUMULATIVE		1	0.0003	
VS-3	12/3/2009	0.3	NP	NA	31.59	11.9	Yes	NP					Allowed to breathe, seal and bolts good, 2" butterfly cap
VS-3	1/12/2010	0.1	NP	31.55	31.60	11.9	Yes	NP					Gray clay bottom, light smell of petroleum on probe
VS-3	2/9/2010	0.2	30.73	30.77	31.60	11.9	Yes	0.04	3	120	3	0.0008	Gray clay bottom, light smell of petroleum on probe, DTW 31.36 afterwards

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-3	8/3/2010	NM	30.00	30.44	32.00	11.9	Yes	0.44					
VS-3	8/11/2010	NA	30.07	30.56	32.00	11.9	Yes	0.49					
VS-3	8/20/2010	NA	30.18	30.74	32.00	11.9	Yes	0.56					
VS-3	8/23/2010	NA	30.23	30.86	32.00	11.9	Yes	0.63	950	NA	953	0.25	Product recovery with sock
VS-3	8/25/2010	NA	31.01	31.01	32.00	11.9	Yes	NP					
VS-3	9/1/2010	NA	30.77	30.77	32.00	11.9	Yes	NP					
VS-3	9/10/2010	NA	30.43	30.43	32.00	11.9	Yes	NP					
VS-3	9/15/2010	NA	30.46	31.04	32.00	11.9	Yes	0.58					
VS-3	9/17/2010	NA	30.47	31.09	32.00	11.9	Yes	0.62	1,300	NA	2,253	0.60	
VS-3	9/24/2010	NA	30.62	30.91	32.00	11.9	Yes	0.29	260	NA	2,513	0.66	
VS-3	9/29/2010	NA	30.69	31.14	32.00	11.9	Yes	0.45					
VS-3	10/5/2010	NA	30.94	31.23	32.00	11.9	Yes	0.29	925	NA	3,438	0.91	
VS-3	10/13/2010	NA	30.74	30.88	32.00	11.9	Yes	0.14					
VS-3	10/19/2010	NA	30.78	30.97	32.00	11.9	Yes	0.19					
VS-3	10/22/2010	NA	30.80	31.39	32.00	11.9	Yes	0.59	1,180	NA	4,618	1.22	Product recovery with sock
VS-3	10/27/2010	NA	30.90	31.10	32.00	11.9	Yes	0.20					
VS-3	11/3/2010	NA	30.96	31.22	32.00	11.9	Yes	0.26					
VS-3	11/10/2010	NA	30.94	31.23	32.00	11.9	Yes	0.29					
VS-3	11/17/2010	NA	30.81	31.18	32.00	11.9	Yes	0.37	810		5,428	1.43	Product recovery with sock
VS-3	11/24/2010	NA	30.74	30.97	32.00	11.9	Yes	0.23	470		5,898	1.56	Product recovery with sock
VS-3	12/1/2010	NA	30.86	31.04	32.00	11.9	Yes	0.18	75		5,973	1.58	Product recovery with sock
VS-3	12/8/2010	NA	30.92	31.16	32.00	11.9	Yes	0.24	100		6,073	1.60	Product recovery with sock
VS-3	12/15/2010	NA	30.75	30.86	32.00	11.9	Yes	0.11	50		6,123	1.62	Product recovery with sock
VS-3	12/22/2010	NA	NP	30.44	32.00	11.9	Yes	NP					
VS-3	12/30/2010	NA	NP	30.14	32.00	11.9	Yes	NP					
VS-3	1/5/2011	NA	30.86	30.92	32.00	11.9	Yes	0.06					
VS-3	1/14/2011	NA	NP	29.67	32.00	11.9	Yes	NP					
VS-3	1/19/2011	NA	NP	29.56	32.00	11.9	Yes	NP					
VS-3	1/26/2011	NA	NP	29.48	32.00	11.9	Yes	NP					
VS-3	2/2/2011	NA	NP	29.34	32.00	11.9	Yes	NP					
VS-3	2/9/2011	NA	29.21	29.22	32.00	11.9	Yes	0.01					
VS-3	2/17/2011	NA	NP	29.07	32.00	11.9	Yes	NP					
VS-3	2/28/2011	NA	NP	28.92	32.00	11.9	Yes	NP					
VS-3	3/24/2011	NA	NP	27.85	32.00	11.9	Yes	NP					
VS-3	3/29/2011	NA	NP	26.67	32.00	11.9	Yes	NP					
VS-3	3/16/2011	NA	NP	28.50	32.00	11.9	Yes	NP					
VS-3	4/6/2011	NA	NP	28.45	32.00	11.9	Yes	NP					
VS-3	4/13/2011	NA	NP	27.09	32.00	11.9	Yes	NP					
VS-3	4/21/2011	NA	26.99	27.00	32.00	11.9	Yes	0.01					
VS-3	4/27/2011	NA	26.92	26.93	32.00	11.9	Yes	0.01					
VS-3	5/4/2011	NA	NP	27.01	32.00	11.9	Yes	NP					
VS-3	5/11/2011	NA	NP	26.94	32.00	11.9	Yes	NP					
VS-3	5/18/2011	NA	26.93	26.94	32.00	11.9	Yes	0.01					
VS-3	6/8/2011	NA	27.10	27.11	32.00	11.9	Yes	0.01					
VS-3	6/23/2011	NA	27.37	27.45	32.00	11.9	Yes	0.08					
VS-3	6/28/2011	NA	27.31	27.33	32.00	11.9	Yes	0.02					
VS-3	7/8/2011	NA	27.55	27.63	32.00	11.9	Yes	0.08					
VS-3	7/20/2011	NA	27.68	27.75	32.00	11.9	Yes	0.07					
VS-3	7/27/2011	NA	27.75	27.83	32.00	11.9	Yes	0.08					
VS-3	8/4/2011	NA	27.81	27.84	32.00	11.9	Yes	0.03					
VS-3	8/18/2011	NA	28.00	28.06	32.00	11.9	Yes	0.06					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-3	8/24/2011	NA	28.10	28.12	32.00	11.9	Yes	0.02					
VS-3	8/27/2011	NA	28.00	28.08	32.00	11.9	Yes	0.08					
VS-3	8/31/2011	NA	28.22	28.25	32.00	11.9	Yes	0.03					
VS-3	9/16/2011	NA	NP	28.44	32.00	11.9	Yes	NP					
VS-3	9/21/2011	NA	NP	28.46	32.00	11.9	Yes	NP					
VS-3	9/28/2011	NA	NP	28.66	32.00	11.9	Yes	NP					
VS-3	4/18/2012	NA	NP	27.90	32.00	11.9	Yes	NP					
VS-3	5/3/2012	NA	NP	27.77	32.00	11.9	Yes	NP					
VS-3	6/8/2012	NA	NP	28.21	32.00	11.9	Yes	NP					
VS-3	7/3/2012	NA	NP	28.49	32.00	11.9	Yes	NP					
VS-3	8/6/2012	NA	28.73	28.89	32.00	11.9	Yes	0.16					
VS-3	8/10/2012	NA	NP	28.90	32.00	11.9	Yes	NP					
VS-3	8/16/2012	NA	28.94	28.95	32.00	11.9	Yes	0.01					
VS-3	8/31/2012	NA	29.22	29.24	32.00	11.9	Yes	0.02					
VS-3	9/5/2012	NA	28.23	28.3	32.00	11.9	Yes	0.07					
VS-3	9/11/2012	NA	29.37	29.5	32.00	11.9	Yes	0.13	160	1,280	6,283	1.66	
VS-3	9/20/2012	0.2	29.45	29.55	32.00	11.9	Yes	0.1	65	935	6,348	1.68	
VS-3	9/27/2012	NA	29.55	29.63	32.00	11.9	Yes	0.08					
VS-3	10/5/2012	NA	29.69	29.81	32.00	11.9	Yes	0.12	80	920	6,428	1.70	
VS-3	10/12/2012	NA	29.73	29.79	32.00	11.9	Yes	0.06					
VS-3	10/18/2012	NA	29.81	29.9	32.00	11.9	Yes	0.09					
VS-3	10/25/2012	NA	29.91	30.05	32.00	11.9	Yes	0.14	100	290	6,528	1.72	
VS-3	10/30/2012	NA	29.93	29.96	32.00	11.9	Yes	0.03					
VS-3	11/15/2012	NA	29.97	30.06	32.00	11.9	Yes	0.09					No product recovered
VS-3	12/13/2012	NA	NP	28.93	32.00	11.9	Yes	NP					No product recovered
VS-3	1/17/2013	NA	27.32	27.33	32.00	11.9	Yes	0.01					No product recovered
VS-3	2/14/2013	NA	27.16	27.17	32.00	11.9	Yes	0.01					No product recovered
VS-3	3/12/2013	NA	27.25	27.26	32.00	11.9	Yes	0.01					No product recovered
VS-3	4/12/2013	NA	NP	27.36	32.00	11.9	Yes	NP					No product recovered
VS-3	5/16/2013	NA	27.71	27.75	32.00	11.9	Yes	0.04					No product recovered
VS-3	6/13/2013	NA	28.01	28.05	32.00	11.9	Yes	0.04					No product recovered
VS-3	7/11/2013	NA	28.36	28.4	32.00	11.9	Yes	0.04					No product recovered
VS-3	8/15/2013	NA	NP	28.84	34.00	11.9	Yes						No product recovered
VS-3	9/5/2013	NA	NP	29.17	34.00	11.9	Yes						
VS-3	10/7/2013	NA	29.25	29.34	32.00	11.9	Yes	0.09	110	210	6,638	1.75	Collected samples for AECOM
VS-3	10/14/2013	NA	29.4	29.55	32.00	11.9	Yes	0.15	80	110	6,718	1.77	Product recovered
VS-3	10/21/2013	NA	29.42	29.5	32.00	11.9	Yes	0.08	0	0			No product recovered
VS-3	11/13/2013	NA	NP	29.7	32.00	11.9	Yes	0					
VS-3	12/13/2013	NA	29.85	30.08	32.00	11.9	Yes	0.23	200	250	6,918	1.83	Product recovered
VS-3	12/20/2013	NA	29.92	29.95	32.00	11.9	Yes	0.03					No product recovered
VS-3	1/10/2014	NA	30.17	30.34	32.00	11.9	Yes	0.17	110	160	7,028	1.86	Product recovered
VS-3	1/17/2014	NA	30.2	30.22	32.00	11.9	Yes	0.02					No product recovered
VS-3	2/13/2014	NA	30.35	30.44	32.00	11.9	Yes	0.09	50	50	7,078	1.87	Product recovered
VS-3	2/21/2014	NA	30.25	30.29	32.00	11.9	Yes	0.04					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-3	3/13/2014	NA	NP	29.61	32.00	11.9	Yes						
VS-3	4/3/2014	NA	NP	28.8	32.00	11.9	Yes						
VS-3	4/25/2014	0.2	NP	28.6	32.00	11.9	Yes						PID wellhead peak 23.2 ppm
VS-3	5/5/2014	NA	NP	28.52	32.00	11.9	Yes	0					White bugs on probe
VS-3	5/20/2014	NA	trace	28.53	32.00	11.9	Yes	0					White bugs on probe
VS-3	6/3/2014	NA	NP	28.75	32.00	11.9	Yes	0					White bugs on probe
VS-3	6/16/2014	NA	NP	28.92	32.00	11.9	Yes	0					White bugs on probe
VS-3	7/2/2014	NA	NP	29.12	32.00	11.9	Yes	0					White bugs on probe
VS-3	7/15/2014	NA	NP	29.26	32.00	11.9	Yes	0					White bugs on probe
VS-3	7/31/2014	NA	29.48	29.51	32.00	11.9	Yes	0.03					White bugs on probe
VS-3	8/15/2014	NA	29.72	29.88	32.00	11.9	Yes	0.16					White bugs on probe
VS-3	8/29/2014	NA	29.91	29.99	32.00	11.9	Yes	0.08					White bugs on probe
VS-3	9/19/2014	NA	30.15	30.4	32.00	11.9	Yes	0.25					White bugs on probe
VS-3	10/2/2014	NA	30.4	30.55	32.00	11.9	Yes	0.15					White bugs on probe
VS-3	10/16/2014	NA	30.53	30.73	32.00	11.9	Yes	0.2					White bugs on probe
VS-3	10/31/2014	NA	30.5	30.69		11.9	Yes	0.19					White bugs on probe
VS-3	11/14/2014	NA	30.43	30.55		11.9	Yes	0.12					White bugs on probe
VS-3	11/26/2014	0.0	30.53	30.74	32.00	11.9	Yes	0.21					White bugs on probe
VS-3	12/10/2014	NA	30.31	30.41	32.00	11.9	Yes	0.1					
VS-3	12/10/2014	NA	30.31	30.41	32.00	11.9	Yes	0.1					
VS-3	12/24/2014	NA	NP	29.92	32.00	11.9	Yes	NP					
VS-3	1/9/2015	NA	NP	29.5	32.00	11.9	Yes	NP					
VS-3	1/22/2015	NA	trace	29.34	32.00	11.9	Yes	trace					
VS-3	2/5/2015	NA	NP	29.1	32.00	11.9	Yes	NP					
VS-3	2/20/2015	NA	NP	28.74	32.00	11.9	Yes	NP					
VS-3	3/6/2015	NA	NP	28.6	32.00	11.9	Yes	NP					
VS-3	3/19/2015	NA	NP	28.52	32.00	11.9	Yes	NP					
VS-3	4/1/2015	NA	NP	28.45	32.00	11.9	Yes	NP					
VS-3	5/7/2015	NA	NP	28.73	32.00	11.9	Yes	NP					
VS-3	6/4/2015	NA	NP	29.13	32.00	11.9	Yes	NP					Orange colored residue on the probe
VS-3	7/9/2015	NA	NP	29.52	32.00	11.9	Yes	NP					Orange colored residue on the probe
VS-3	8/11/2015	NA	29.96	30.01	32.00	11.9	Yes	0.05					
VS-3	9/3/2015	NA	30.25	30.30	32.00	11.9	Yes	0.05					
VS-3	10/6/2015	NA	30.68	30.72	32.00	11.9	Yes	0.04					
VS-3	11/6/2015	NA	30.93	30.97	32.00	11.9	Yes	0.04					
VS-3	12/4/2015	NA	NP	30.70	32.00	11.9	Yes	NP					
VS-3	1/15/2016	NA	NP	29.20	32.00	11.9	Yes	NP					
VS-3	2/10/2016	NA	NP	27.63	32.00	11.9	Yes	NP					
VS-3	3/3/2016	NA	NP	26.74	32.00	11.9	Yes	NP					
VS-3	4/5/2016	NA	NP	25.20	32.00	11.9	Yes	NP					
VS-3	5/17/2016	NA	NP	25.81	32.00	11.9	Yes	NP					
VS-3	6/8/2016	NA	NP	26.19	32.00	11.9	Yes	NP	0	0			
VS-3	7/1/2016	NA	NA	NA	NA	11.9	Yes	NA					Closed for construction

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-3	8/19/2016	NA	NP	27.37	32.00	11.9	Yes	NP					
VS-3	9/22/2016	NA	NP	27.89	32.00	11.9	Yes	NP					
VS-3	10/3/2016	NA	NP	28.07	32.00	11.9	Yes	NP					
VS-3	11/11/2016	NA	NP	27.48	32.00	11.9	Yes	NP					
VS-3	12/2/2016	NA	NP	26.9	32.00	11.9	Yes	NP					
VS-3	1/12/2017	NA	NP	26.25	32.00	11.9	Yes	NP					
VS-3	2/16/2017	NA	NP	25.00	32.00	11.9	Yes	NP					
VS-3	3/15/2017	NA	NP	23.83	32.00	11.9	Yes	NP					
VS-3	4/6/2017	NA	NP	22.59	32.00	11.9	Yes	NP					
VS-3	5/15/2017	NA	NP	22.09	32.00	11.9	Yes	NP					
VS-3	6/6/2017	NA	NP	22.41	32.00	11.9	Yes	NP					
VS-3	7/6/2017	NA	NP	23.04	32.00	11.9	Yes	NP					
VS-3	8/9/2017	NA	NP	23.65	32.00	11.9	Yes	NP					
VS-3	9/15/2017	NA	NP	24.38	32.00	11.9	Yes	NP					
VS-3	10/13/2017	NA	NP	24.93	32.00	11.9	Yes	NP					
VS-3	11/6/2017	0.10	NP	25.19	32.00	11.9	Yes	NP					PID breathing zone 0.1 ppm
VS-3	12/12/2017	NA	NP	24.5	32.00	11.9	Yes	NP					
VS-3	1/4/2018	NA	NP	24.15	32.00	11.9	Yes	NP					
VS-3	2/9/2018	NA	NP	22.55	32.00	11.9	Yes	NP					
VS-3	3/1/2018	NA	NP	22.33	32.00	11.9	Yes	NP					
VS-3	4/5/2018	NA	NP	22.62	32.00	11.9	Yes	NP					
VS-3	6/29/2018	NA	NP	23.6	32.00	11.9	Yes	NP					
VS-3	7/19/2018	NA	NP	23.96	32.00	11.9	Yes	NP					
VS-3	8/14/2018	NA	NP	24.37	32.00	11.9	Yes	NP					
VS-3	9/19/2018	NA	NP	25.09	32.00	11.9	Yes	NP					
VS-3	10/10/2018	NA	NP	25.43	32.00	11.9	Yes	NP					
VS-3	11/8/2018	0.00	NP	25.87	32.00	11.9	Yes	NP					
VS-3	12/6/2018	NA	NP	26.02	32.00	11.9	Yes	NP					
VS-3	1/3/2019	NA	NP	25.41	32.00	11.9	Yes	NP					
VS-3	2/15/2019	NA	NP	25.10	32.00	11.9	Yes	NP					
VS-3	3/11/2019	NA	NP	24.91	32.00	11.9	Yes	NP					
VS-3	4/30/2019	NA	NP	25.71	32.00	11.9	Yes	NP					
VS-3	5/16/2019	NA	NP	25.86	32.00	11.9	Yes	NP					
VS-3	6/5/2019	NA	NP	26.26	32.00	11.9	Yes	NP					
									VS-3 CUMULATIVE		7,078	1.87	
VS-4	12/3/2009	0.0	NP	NA	31.35	11.6	Yes	NP					Seal and bolts good, 2" butterfly cap, muddy bottom
VS-4	1/12/2010	0.0	NP	NA	31.35	11.6	Yes	NP					
VS-4	2/9/2010	0.1	30.32	30.56	31.35	11.6	Yes	0.24	593	142	593	0.16	Heavy smell of petroleum on probe , DTW 30.40 w/ light sheen afterwards
VS-4	8/3/2010	NA	29.90	29.93	32.00	11.6	Yes	0.03					
VS-4	8/11/2010	NA	29.98	29.99	32.00	11.6	Yes	0.01					
VS-4	8/20/2010	NA	30.11	30.11	32.00	11.6	Yes	0.00					
VS-4	8/25/2010	NA	30.19	30.22	32.00	11.6	Yes	0.03	275	NA	868	0.23	
VS-4	9/1/2010	NA	30.32	30.34	32.00	11.6	Yes	0.02					
VS-4	9/10/2010	NA	30.38	30.41	32.00	11.6	Yes	0.03					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-4	9/15/2010	NA	30.40	30.43	32.00	11.6	Yes	0.03					
VS-4	9/24/2010	NA	30.51	30.55	32.00	11.6	Yes	0.04					
VS-4	9/29/2010	NA	30.57	30.59	32.00	11.6	Yes	0.02					
VS-4	10/5/2010	NA	30.64	30.66	32.00	11.6	Yes	0.02					
VS-4	10/13/2010	NA	30.70	30.72	32.00	11.6	Yes	0.02					
VS-4	10/19/2010	NA	30.74	30.77	32.00	11.6	Yes	0.03					
VS-4	10/27/2010	NA	30.77	30.83	32.00	11.6	Yes	0.06					
VS-4	11/3/2010	NA	30.79	30.81	32.00	11.6	Yes	0.02					
VS-4	11/10/2010	NA	30.78	30.80	32.00	11.6	Yes	0.02					
VS-4	11/17/2010	0.0	30.81	30.82	32.00	11.6	Yes	0.01					
VS-4	11/24/2010	NA	NP	30.78	32.00	11.6	Yes	0.01					
VS-4	12/1/2010	NA	NP	30.89	32.00	11.6	Yes	NP					
VS-4	12/8/2010	NA	NP	30.77	32.00	11.6	Yes	NP					
VS-4	12/15/2010	NA	NP	30.52	32.00	11.6	Yes	NP					
VS-4	12/22/2010	NA	NP	30.15	32.00	11.6	Yes	NP					
VS-4	12/30/2010	NA	NP	29.13	32.00	11.6	Yes	NP					
VS-4	1/5/2011	NA	NP	30.56	32.00	11.6	Yes	NP					
VS-4	1/14/2011	NA	NP	29.29	32.00	11.6	Yes	NP					
VS-4	1/19/2011	NA	NP	29.20	32.00	11.6	Yes	NP					
VS-4	1/26/2011	NA	NP	29.12	32.00	11.6	Yes	NP					
VS-4	2/2/2011	NA	NP	29.06	32.00	11.6	Yes	NP					
VS-4	2/9/2011	NA	NP	28.99	32.00	11.6	Yes	NP					
VS-4	2/17/2011	NA	NP	28.79	32.00	11.6	Yes	NP					
VS-4	2/28/2011	NA	NP	28.67	32.00	11.6	Yes	NP					
VS-4	3/16/2011	NA	NP	28.10	32.00	11.6	Yes	NP					
VS-4	3/29/2011	NA	NP	27.24	32.00	11.6	Yes	NP					
VS-4	4/6/2011	NA	NP	28.10	32.00	11.6	Yes	NP					
VS-4	5/18/2011	NA	NP	26.88	32.00	11.6	Yes	NP					
VS-4	6/23/2011	NA	NP	27.20	32.00	11.6	Yes	NP					
VS-4	7/27/2011	NA	NP	27.62	32.00	11.6	Yes	NP					
VS-4	8/27/2011	NA	NP	27.88	32.00	11.6	Yes	NP					
VS-4	9/28/2011	NA	NP	28.51	32.00	11.6	Yes	NP					
VS-4	4/18/2012	NA	NP	27.55	32.00	11.6	Yes	NP					
VS-4	5/3/2012	NA	NP	27.39	32.00	11.6	Yes	NP					
VS-4	6/8/2012	NA	NP	28.03	32.00	11.6	Yes	NP					
VS-4	7/3/2012	NA	28.34	28.39	32.00	11.6	Yes	0.05					
VS-4	7/13/2012	NA	28.37	28.40	32.00	11.6	Yes	0.03					
VS-4	7/20/2012	NA	28.53	28.60	32.00	11.6	Yes	0.07					
VS-4	7/27/2012	NA	28.60	28.64	32.00	11.6	Yes	0.07					
VS-4	8/6/2012	NA	NP	28.75	32.00	11.6	Yes	NP					
VS-4	9/11/2012	NA	NP	29.27	32.00	11.6	Yes	NP					
VS-4	10/18/2012	NA	NP	29.67	32.00	11.6	Yes	NP					
VS-4	11/15/2012	NA	trace	28.80	32.00	11.6	Yes	trace					
VS-4	12/13/2012	NA	trace	28.50	32.00	11.6	Yes	trace					
VS-4	1/17/2013	NA	trace	26.95	32.00	11.6	Yes	trace					
VS-4	2/14/2013	NA	NP	26.96	32.00	11.6	Yes	trace					
VS-4	3/12/2013	NA	NP	27.03	32.00	11.6	Yes	NP					
VS-4	4/12/2013	NA	NP	27.11	32.00	11.6	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-4	5/16/2013	NA	NP	27.52	32.00	11.6	Yes	NP					
VS-4	6/13/2013	NA	27.87	27.88	32.00	11.6	Yes	0.01					No product recovered
VS-4	7/11/2013	NA	NP	28.23	32.00	11.6	Yes	NP					
VS-4	8/15/2013	NA	28.70	28.72	32.00	11.6	Yes	NP					
VS-4	9/5/2013	NA	NP	29.93	32.00	11.6	Yes	NP					
VS-4	10/7/2013	NA	NP	29.09	32.00	11.6	Yes	NP					No product recovered
VS-4	11/13/2013	NA	NP	29.57	32.00	11.6	Yes	NP					
VS-4	12/13/2013	NA	NP	29.81	32.00	11.6	Yes	NP					
VS-4	1/10/2014	NA	Trace	30.06	32.00	11.6	Yes	NP					
VS-4	2/13/2014	NA	NP	30.22	32.00	11.6	Yes	NP					
VS-4	3/13/2014	NA	NP	29.25	32.00	11.6	Yes	NP					
VS-4	4/3/2014	NA	NP	28.37	32.00	11.6	Yes	NP					
VS-4	4/25/2014	0.1	trace	28.30	32.00	11.6	Yes	NP					PID wellhead peak 122.4 ppm
VS-4	5/5/2014	NA	NP	28.30	32.00	11.6	Yes	NP					
VS-4	5/20/2014	NA	NP	28.34	32.00	11.6	Yes	NP					Attached a well ID tag.
VS-4	6/3/2014	NA	NP	28.56	32.00	11.6	Yes	NP					
VS-4	6/16/2014	NA	NP	28.71	32.00	11.6	Yes	NP					
VS-4	7/2/2014	NA	NP	28.95	32.00	11.6	Yes	NP					
VS-4	7/15/2014	NA	NP	29.10	32.00	11.6	Yes	NP					
VS-4	7/31/2014	NA	NP	29.36	32.00	11.6	Yes	NP					Strong fuel odor and grey sludge on the probe
VS-4	8/15/2014	NA	NP	29.60	32.00	11.6	Yes	NP					
VS-4	9/19/2014	NA	NP	29.65	32.00	11.6	Yes	NP					Sand on probe
VS-4	10/2/2014	NA	trace	30.27	32.00	11.6	Yes	NP					
VS-4	10/16/2014	NA	trace	30.40	32.00	11.6	Yes	NP					
VS-4	10/31/2014	NA	NP	30.23	32.00	11.6	Yes	NP					
VS-4	11/14/2014	NA	NP	30.28	32.00	11.6	Yes	NP					
VS-4	11/26/2014	0.0	trace	30.36	32.00	11.6	Yes	trace					
VS-4	12/10/2014	NA	NP	30.01	32.00	11.6	Yes	NP					Bailed inside well monument
VS-4	12/24/2014	NA	NP	29.58	32.00	11.6	Yes	NP					Bailed inside well monument
VS-4	1/9/2015	NA	NP	29.20	32.00	11.6	Yes	NP					Missing 1 bolt on wellhead cover
VS-4	1/22/2015	NA	NP	29.10	32.00	11.6	Yes	NP					Missing 1 bolt on wellhead cover
VS-4	2/5/2015	NA	NP	28.61	32.00	11.6	Yes	NP					Bailed inside well monument
VS-4	2/20/2015	NA	NP	28.42	32.00	11.6	Yes	NP					
VS-4	3/6/2015	NA	NP	28.41	32.00	11.6	Yes	NP					
VS-4	3/19/2015	NA	NP	28.30	32.00	11.6	Yes	NP					
VS-4	4/1/2015	NA	NP	28.25	32.00	11.6	Yes	NP					
VS-4	5/7/2015	NA	NP	28.57	32.00	11.6	Yes	NP					
VS-4	6/4/2015	NA	NP	28.57	32.00	11.6	Yes	NP					White bugs on probe
VS-4	7/9/2015	NA	NP	28.57	32.00	11.6	Yes	NP					White bugs on probe
VS-4	8/11/2015	NA	NP	29.83	32.00	11.6	Yes	NP					
VS-4	9/3/2015	NA	NP	30.16	32.00	11.6	Yes	NP					
VS-4	10/6/2015	NA	NP	30.54	32.00	11.6	Yes	NP					
VS-4	11/6/2015	NA	trace	30.76	32.00	11.6	Yes	trace					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-4	12/4/2015	NA	NP	30.52	32.00	11.6	Yes	NP					
VS-4	1/15/2016	NA	NP	27.60	32.00	11.6	Yes	NP					
VS-4	2/10/2016	NA				11.6	No						Surface water entering monument, unable to measure well
VS-4	3/3/2016	NA	NP	26.45	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	4/5/2016	NA	NP	24.95	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	5/17/2016	NA	NP	25.61	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	6/8/2016	NA	NP	26.02	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	7/1/2016	NA	NA	NA	NA	11.6	Yes	NA					Closed for construction
VS-4	8/19/2016	NA	NP	27.23	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	9/22/2016	NA	trace	27.75	32.00	11.6	Yes	trace					Bailed water out of flush monument
VS-4	10/3/2016	NA	NP	27.92	32.00	11.6	Yes	NP					
VS-4	11/11/2016	NA	NP	27.24	32.00	11.6	Yes	NP					
VS-4	12/2/2016	NA	NP	26.42	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	1/12/2017												Well monument cover was frozen, unable to open to measure
VS-4	1/19/2017	NA	NP	25.35	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	2/16/2017	NA	NP	24.68	32.00	11.6	Yes	NP					
VS-4	3/15/2017	NA	NP	23.55	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	4/6/2017	NA	NP	22.28	32.00	11.6	Yes	NP					Bailed water out of flush monument
VS-4	5/15/2017	NA	NP	21.84	32.00	11.6	Yes	NP					
VS-4	6/6/2017	NA	NP	22.15	32.00	11.6	Yes	NP					Sewer odor at well
VS-4	7/6/2017	NA	NP	22.87	32.00	11.6	Yes	NP					
VS-4	8/9/2017	NA	NP	23.49	32.00	11.6	Yes	NP					Re-marked well cover
VS-4	9/15/2017	NA	NP	24.24	32.00	11.6	Yes	NP					
VS-4	10/13/2017	NA	NP	24.65	32.00	11.6	Yes	NP					
VS-4	11/6/2017	0.4	NP	25.09	32.00	11.6	Yes	NP					PID at Wellhead 138.2 ppm
VS-4	12/12/2017	NA	NP	24.29	32.00	11.6	Yes	NP					
VS-4	1/4/2018	NA	NP	23.90	32.00	11.6	Yes	NP			868	0.23	
VS-4	2/9/2018	NA	NP	21.80	32.00	11.6	Yes	NP			868	0.23	Bailed monument
VS-4	3/1/2018	NA	NP	22.05	32.00	11.6	Yes	NP			868	0.23	Bailed monument
VS-4	4/5/2018	NA	NP	22.68	32.00	11.6	Yes	NP					
VS-4	6/29/2018	NA	NP	23.40	32.00	11.6	Yes	NP					
VS-4	7/19/2018	NA	NP	23.83	32.00	11.6	Yes	NP					
VS-4	8/14/2018	NA	NP	24.23	32.00	11.6	Yes	NP					sewer smell at well upon opening
VS-4	9/19/2018	NA	NP	24.90	32.00	11.6	Yes	NP					
VS-4	10/10/2018	NA	NP	25.29	32.00	11.6	Yes	NP					
VS-4	11/8/2018	0.1, 28.0	NP	25.73	32.00	11.6	Yes	NP					PID at breathing zone 0.1ppm wellhead 28.00 ppm
VS-4	12/6/2018	NA	NP	25.88	32.00	11.6	Yes	NP					
VS-4	1/3/2019	NA	NP	25.16	32.00	11.6	Yes	NP					
VS-4	2/15/2019	NA	NP	24.90	32.00	11.6	Yes	NP					
VS-4	3/11/2019	NA	NP	24.73	32.00	11.6	Yes	NP					
VS-4	4/30/2019	NA	NP	25.55	32.00	11.6	Yes	NP					
VS-4	5/16/2019	NA	NP	25.73	32.00	11.6	Yes	NP					Bailed monument

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-4	6/5/2019	NA	NP	26.10	32.00	11.6	Yes	NP					
									VS-4 CUMULATIVE		868	0.23	
VS-5	12/3/2009	0.0	NP	29.52	29.96	10	Yes	NP					Two good bolts, broken seal, 2" butterfly cap, hard bottom
VS-5	1/12/2010	0.0	NP	29.54	29.96	10	Yes	NP					White particulate on probe, appeared to be small insects
VS-5	2/9/2010	0.0	NP	29.54	29.96	10	Yes	NP					White particulate on probe, appeared to be small insects
VS-5	10/5/2010	NA	NP	29.19	29.96	10	Yes	NP					
VS-5	11/10/2010	NA	NP	29.51	29.96	10	Yes	NP					
VS-5	12/8/2010	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	1/5/2011	NA	NP	29.63	29.96	10	Yes	NP					
VS-5	2/9/2011	NA	NP	29.14	29.96	10	Yes	NP					
VS-5	3/24/2011	NA	NP	27.61	29.96	10	Yes	NP					
VS-5	4/6/2011	NA	NP	28.34	29.96	10	Yes	NP					
VS-5	5/18/2011	NA	NP	26.92	29.96	10	Yes	NP					
VS-5	6/23/2011	NA	NP	27.28	29.96	10	Yes	NP					
VS-5	7/27/2011	NA	NP	27.74	29.96	10	Yes	NP					
VS-5	8/27/2011	NA	NP	28.06	29.96	10	Yes	NP					
VS-5	9/28/2011	NA	NP	28.72	29.96	10	Yes	NP					
VS-5	4/18/2012	NA	NP	27.64	29.96	10	Yes	NP					
VS-5	5/3/2012	NA	NP	27.55	29.96	10	Yes	NP					
VS-5	6/8/2012	NA	NP	28.17	29.96	10	Yes	NP					
VS-5	7/3/2012	NA	NP	28.46	29.96	10	Yes	NP					
VS-5	8/6/2012	NA	NP	28.88	29.96	10	Yes	NP					
VS-5	9/11/2012	NA	NP	29.45	29.96	10	Yes	NP					
VS-5	10/18/2012	NA	NP	29.51	29.96	10	Yes	NP					
VS-5	11/15/2012	NA	NP	29.52	29.96	10	Yes	NP					
VS-5	12/13/2012	NA	NP	28.81	29.96	10	Yes	NP					
VS-5	1/17/2013	NA	NP	26.89	29.96	10	Yes	NP					
VS-5	2/14/2013	NA	NP	26.96	29.96	10	Yes	NP					
VS-5	3/12/2013	NA	trace	27.12	29.96	10	Yes	trace					
VS-5	4/12/2013	NA	NP	27.29	29.96	10	Yes	NP					
VS-5	5/16/2013	NA	NP	27.67	29.96	10	Yes	NP					
VS-5	6/13/2013	NA	NP	28.02	29.96	10	Yes	NP					
VS-5	7/11/2013	NA	NP	28.39	29.96	10	Yes	NP					
VS-5	8/15/2013	NA	NP	28.89	29.96	10	Yes	NP					
VS-5	9/5/2013	NA	NP	29.20.	29.96	10	Yes	NP					
VS-5	10/7/2013	NA	NP	29.33	29.96	10	Yes	NP					
VS-5	11/13/2013	NA	NP	29.54	29.96	10	Yes	NP					
VS-5	12/13/2013	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	1/10/2014	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	2/13/2014	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	3/13/2014	NA	NP	29.54	29.96	10	Yes	NP					
VS-5	4/3/2014	NA	NP	29.96	29.96	10	Yes	NP					
VS-5	4/25/2014	0.1	NP	28.48	29.96	10	Yes	NP					PID wellhead peak 3.9 ppm
VS-5	5/5/2014	NA	NP	28.43	29.96	10	Yes	NP					
VS-5	5/20/2014	NA	NP	28.50	29.96	10	Yes	NP					Attached a well ID tag.

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-5	6/16/2014	NA	NP	28.89	29.96	10	Yes	NP					
VS-5	7/15/2014	NA	NP	29.29	29.96	10	Yes	NP					
VS-5	8/15/2014	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	9/19/2014	NA	NP	29.70	29.96	10	Yes	NP					
VS-5	10/16/2014	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	10/31/2014	NA	NP	29.53	29.96	10	Yes	NP					
VS-5	11/26/2014	0.0	NP	29.53	29.96	10	Yes	NP					
VS-5	1/9/2015	NA	NP	29.40	29.96	10	Yes	NP					Missing 1 bolt from wellhead cover
VS-5	2/5/2015	NA	NP	29.04	29.96	10	Yes	NP					Bailed inside well monument
VS-5	3/6/2015	NA	NP	28.52	29.96	10	Yes	NP					
VS-5	4/1/2015	NA	NP	28.39	29.96	10	Yes	NP					Well no longer measured.
									VS-5 CUMULATIVE		0	0.0	
VS-6	12/3/2009	0.0	NP	29.21	29.65	9.6	Yes	NP					Bolts and seal good, 2" butterfly cap
VS-6	1/12/2010	0.0	NP	29.23	29.65	9.6	Yes	NP					Black sediment, heavy smell of petroleum on probe
VS-6	2/9/2010	0.0	NP	29.23	29.65	9.6	Yes	NP					Black sediment, heavy smell of petroleum on probe
VS-6	10/5/2010	NA	NP	29.18	29.96	9.6	Yes	NP					
VS-6	11/10/2010	NA	NP	29.28	29.96	9.6	Yes	NP					
VS-6	12/8/2010	NA	NP	29.19	29.96	9.6	Yes	NP					
VS-6	1/5/2011	NA	NP	29.18	29.96	9.6	Yes	NP					
VS-6	2/9/2011	NA	NP	29.07	29.96	9.6	Yes	NP					
VS-6	3/24/2011	NA	NP	27.74	29.96	9.6	Yes	NP					
VS-6	4/6/2011	NA	NP	28.11	29.96	9.6	Yes	NP					
VS-6	5/18/2011	NA	NP	26.95	29.96	9.6	Yes	NP					
VS-6	6/23/2011	NA	NP	27.26	29.96	9.6	Yes	NP					
VS-6	7/27/2011	NA	NP	27.65	29.96	9.6	Yes	NP					
VS-6	8/27/2011	NA	NP	27.92	29.96	9.6	Yes	NP					
VS-6	9/28/2011	NA	NP	28.54	29.96	9.6	Yes	NP					
VS-6	4/18/2012	NA	NP	27.77	29.96	9.6	Yes	>0.01					Trace, not measurable.
VS-6	5/3/2012	NA	NP	27.64	29.96	9.6	Yes	>0.01					
VS-6	6/8/2012	NA	NP	28.17	29.96	9.6	Yes	NP					
VS-6	7/3/2012	NA	NP	28.38	29.96	9.6	Yes	NP					
VS-6	8/6/2012	NA	NP	28.75	29.96	9.6	Yes	NP					
VS-6	9/11/2012	NA	NP	29.21	29.96	9.6	Yes	NP					
VS-6	10/18/2012	NA	29.21	29.22	29.96	9.6	Yes	0.01					
VS-6	11/15/2012	NA	NP	29.22	29.96	9.6	Yes	NP					No product recovered
VS-6	12/13/2012	NA	trace	28.79	29.96	9.6	Yes	trace					
VS-6	1/17/2013	NA	NP	27.22	29.96	9.6	Yes						
VS-6	2/14/2013	NA	NP	27.06	29.96	9.6	Yes						
VS-6	3/12/2013	NA	trace	27.15	29.96	9.6	Yes	trace					
VS-6	4/12/2013	NA	trace	27.25	29.96	9.6	Yes	trace					No product recovered
VS-6	5/16/2013	NA	NP	27.60	29.96	9.6	Yes	NP					
VS-6	6/13/2013	NA	NP	27.92	29.96	9.6	Yes	NP					
VS-6	7/11/2013	NA	trace	28.25	29.96	9.6	Yes	NP					
VS-6	8/15/2013	NA	NP	28.74	29.96	9.6	Yes	NP					
VS-6	9/5/2013	NA	NP	28.99	29.96	9.6	Yes	NP					
VS-6	10/7/2013	NA	NP	29.15	29.96	9.6	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-6	11/13/2013	NA	NP	29.24	29.96	9.6	Yes	NP					
VS-6	12/13/2013	NA	NP	29.21	29.96	9.6	Yes	NP					
VS-6	1/10/2014	NA	NP	29.22	29.96	9.6	Yes	NP					
VS-6	2/13/2014	NA	NP	29.21	29.96	9.6	Yes	NP					
VS-6	3/13/2014	NA	NP	29.23	29.96	9.6	Yes	NP					
VS-6	4/3/2014	NA	NP	28.61	29.96	9.6	Yes	NP					
VS-6	4/25/2014	0.1	NP	28.45	29.96	9.6	Yes	NP					PID wellhead peak 80.4 ppm
VS-6	5/5/2014	NA	NP	28.41	29.96	9.6	Yes	NP					
VS-6	5/20/2014	NA	NP	28.42	29.96	9.6	Yes	NP					Monthly water level. Attached a well ID tag.
VS-6	6/16/2014	NA	NP	28.88	29.96	9.6	Yes	NP					
VS-6	7/15/2014	NA	NP	29.15	29.96	9.6	Yes	NP					Thick black viscous (oily) liquid on the probe
VS-6	8/15/2014	NA	NP	29.20	29.96	9.6	Yes	NP					
VS-6	9/19/2014	NA	NP	29.23	29.96	9.6	Yes	NP					Sand on probe
VS-6	10/16/2014	NA	NP	29.22	29.96	9.6	Yes	NP					
VS-6	10/31/2014	NA	trace	29.21	29.96	9.6	Yes	NP					
VS-6	11/26/2014	NA	NP	29.21	29.96	9.6	Yes	NP					
VS-6	1/9/2015	NA	NP	29.23	29.96	9.6	Yes	NP					
VS-6	2/5/2015	NA	NP	28.94	29.96	9.6	Yes	NP					Black residue on probe
VS-6	3/6/2015	NA	NP	28.41	29.96	9.6	Yes	NP					Black residue on probe
VS-6	4/1/2015	NA	NP	28.24	29.96	9.6	Yes	NP					
VS-6	5/7/2015	NA	NP	28.55	29.96	9.6	Yes	NP					
VS-6	6/4/2015	NA	NP	29.00	29.96	9.6	Yes	NP					White bugs on probe
VS-6	7/9/2015	NA	NP	29.21	29.96	9.6	Yes	NP					Black residue on probe
VS-6	8/11/2015	NA	NP	29.22	29.96	9.6	Yes	NP					Black residue on probe
VS-6	9/3/2015	NA	NP	29.26	29.96	9.6	Yes	NP					Black residue on probe
VS-6	10/6/2015	NA	NP	29.21	29.96	9.6	Yes	NP					Black residue on probe
VS-6	11/6/2015	NA	NP	29.20	29.96	9.6	Yes	NP					Black residue on probe
VS-6	12/4/2015	NA	NP	29.22	29.96	9.6	Yes	NP					Black residue on probe. Apparently dry.
VS-6	1/15/2016	NA	NP	28.97	29.96	9.6	Yes	NP					Black residue on probe
VS-6	2/10/2016	NA	NP	27.34	29.96	9.6	Yes	NP					Black residue on probe
VS-6	3/3/2016	NA	trace	26.52	29.96	9.6	Yes	trace					
VS-6	4/5/2016	NA	NP	24.96	29.96	9.6	Yes	trace					
VS-6	5/17/2016	NA	NP	25.66	29.96	9.6	Yes	trace					Pavement is dipping in on north end
VS-6	6/8/2016	NA	NP	26.05	29.96	9.6	Yes	trace					Pavement is dipping in on north end, more cracks around pavement
VS-6	7/1/2016	0.0	NP	26.46	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	8/19/2016	NA	NP	27.25	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	9/22/2016	NA	NP	27.77	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	10/3/2016	NA	NP	27.93	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	11/11/2016	NA	NP	27.29	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	12/2/2016	NA	NP	26.67	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	1/12/2017	NA	NP	26.09	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	2/16/2016	NA	NP	24.84	29.96	9.6	Yes	NP					Pavement is failing around monument

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-6	3/15/2017	NA	NP	23.73	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	4/6/2017	NA	NP	22.50	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	5/15/2017	NA	NP	21.94	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	6/6/2017	NA	NP	22.25	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	7/6/2017	NA	NP	22.91	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	8/9/2017	NA	NP	23.53	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	9/15/2017	NA	NP	24.24	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	10/13/2017	NA	NP	24.80	29.96	9.6	Yes	NP					Pavement is failing around monument
VS-6	11/6/2017	0.0	NP	25.00	29.96	9.6	Yes	NP					Pavement is failing around monument. PID at Wellhead 0.5 ppm
VS-6	12/12/2017	NA	NP	24.35	29.96	9.6	Yes	NP					Pavement is failing around monument. Rust color residue on probe.
VS-6	1/4/2018	NA	NP	24.00	29.96	9.6	Yes	NP					Pavement is failing around monument (increasing) rust color residue on probe
VS-6	2/9/2018	NA	NP	22.42	29.96	9.6	Yes	NP					Pavement is failing around monument (increasing) rust color residue on probe
VS-6	3/1/2018	NA	NP	22.20	29.96	9.6	Yes	NP					Pavement is failing around monument (increasing) rust color residue on probe
VS-6	4/5/2018	NA	NP	22.49	29.96	9.6	Yes	NP					Pavement is failing around monument (increasing) rust color residue on probe
VS-6	6/29/2018	NA	NP	23.46	29.96	9.6	Yes	NP					Pavement is failing around monument (increasing) rust color residue on probe
VS-6	7/19/2018	NA	NP	23.46	29.96	9.6	Yes	NP					
VS-6	8/14/2018	NA	NP	24.26	29.96	9.6	Yes	NP					rusty colored residue on the probe
VS-6	9/19/2018	NA	NP	24.96	29.96	9.6	Yes	NP					White bugs on probe
VS-6	10/10/2018	NA	NP	25.32	29.96	9.6	Yes	NP					White bugs on probe
VS-6	11/8/2018	0.0	NP	25.70	29.96	9.6	Yes	NP					Strong hydrocarbon odor
VS-6	12/6/2018	NA	NP	25.87	29.96	9.6	Yes	NP					Pavement patch is failing around monument
VS-6	1/3/2019	NA	NP	25.29	29.96	9.6	Yes	NP					Pavement patch is failing around monument
VS-6	2/15/2019	NA	NP	25.05	29.96	9.6	Yes	NP					Pavement patch is failing around monument
VS-6	3/11/2019	NA	NP	24.80	29.96	9.6	Yes	NP					Pavement patch is failing around monument
VS-6	4/30/2019	NA	NP	25.60	29.96	9.6	Yes	NP					Pavement patch is failing around monument; white bugs on probe
VS-6	5/16/2019	NA	NP	25.75	29.96	9.6	Yes	NP					Pavement patch is failing around monument; white bugs on probe
VS-6	6/5/2019	NA	NP	26.25	29.96	9.6	Yes	NP					Pavement patch is failing around monument; white bugs on probe
									VS-6 CUMULATIVE		0	0.0	
VS-7	12/3/2009	0.3	NP	NA	28.30	8.3	Yes	NP					Initial PID reading of 10.0, Let breathe 10 minutes
VS-7	1/12/2010	0.0	NP	NA	28.20	8.3	Yes	NP					Sandy bottom, light smell of petroleum on probe
VS-7	2/9/2010	0.0	NP	NA	28.30	8.3	Yes	NP					Sandy bottom, light smell of petroleum on probe
VS-7	3/24/2011	NA	NP	27.52	28.30	8.3	Yes	NP					
VS-7	4/6/2011	NA	NP	28.50	28.30	8.3	Yes	NP					
VS-7	5/18/2011	NA	26.77	26.80	28.30	8.3	Yes	0.03					
VS-7	6/23/2011	NA	27.07	27.09	28.30	8.3	Yes	0.02					
VS-7	6/28/2011	NA	27.00	27.00	28.30	8.3	Yes	0.00					
VS-7	7/8/2011	NA	27.24	27.25	28.30	8.3	Yes	0.01					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-7	7/13/2011	NA	27.26	27.26	28.30	8.3	Yes	0.00					
VS-7	7/20/2011	NA	27.39	27.41	28.30	8.3	Yes	0.02					
VS-7	7/27/2011	NA	27.45	27.51	28.30	8.3	Yes	0.06					
VS-7	8/4/2011	NA	27.51	27.52	28.30	8.3	Yes	0.01					
VS-7	8/18/2011	NA	27.72	27.87	28.30	8.3	Yes	0.15	50	NA	50	0.01	Product recovery with sock
VS-7	8/24/2011	NA	27.81	27.97	28.30	8.3	Yes	0.16	70	50	120	0.03	
VS-7	8/31/2011	NA	27.93	28.08	28.30	8.3	Yes	0.15	60	50	180	0.05	
VS-7	9/21/2011	NA	28.21	28.30	28.30	8.3	Yes	0.09	70	50	250	0.07	
VS-7	9/28/2011	NA	NP	28.30	28.30	8.3	Yes	NP					DTB Dry
VS-7	4/18/2012	NA	NP	27.56	28.30	8.3	Yes	NP					
VS-7	5/3/2012	NA	NP	27.43	28.30	8.3	Yes	NP					
VS-7	6/8/2012	NA	27.91	27.95	28.30	8.3	Yes	NP					
VS-7	6/13/2012	NA	28.01	28.03	28.30	8.3	Yes	0.02					
VS-7	6/20/2012	NA	28.00	28.01	28.30	8.3	Yes	0.01					
VS-7	6/29/2012	NA	28.14	28.16	28.30	8.3	Yes	0.02					
VS-7	7/3/2012	NA	NP	28.23	28.30	8.3	Yes	NP					
VS-7	7/13/2012	NA	NP	28.31	28.30	8.3	Yes	NP					
VS-7	7/20/2012	NA											Dry
VS-7	7/27/2012	NA											Dry
VS-7	8/6/2012	NA											Dry
VS-7	9/11/2012	NA	NP	28.30	28.30	8.3	Yes	NP					
VS-7	10/18/2012	NA	NP	28.30	28.30	8.3	Yes	NP					
VS-7	11/15/2012	NA	NP	28.30	28.30	8.3	Yes	DRY					
VS-7	12/13/2012	NA	NP	28.30	28.30	8.3	Yes	DRY					
VS-7	1/17/2013	NA	NP	27.03	28.03	8.3	Yes	NP					
VS-7	2/14/2013	NA	NP	26.89	28.03	8.3	Yes	NP					
VS-7	3/12/2013	NA	NP	26.96	28.03	8.3	Yes	NP					
VS-7	4/12/2013	NA	NP	27.06	28.03	8.3	Yes	NP					
VS-7	5/16/2013	NA	NP	27.46	27.47	8.3	Yes	0.01					No product recovered
VS-7	6/13/2013	NA	NP	27.75	27.88	8.3	Yes	0.13	210	590	460	0.12	Product recovered. Thicker darker products.
VS-7	6/20/2013	NA	NP	26.80	26.89	8.3	Yes	0.09	70	100	530	0.14	Product recovered.
VS-7	6/27/2013	NA	NP	27.93	28.01	8.3	Yes	0.08					No product recovered
VS-7	7/11/2013	NA	NP	28.09	28.18	8.3	Yes	0.09					No product recovered
VS-7	8/15/2013	NA	NP	28.32	28.30	8.3	Yes	DRY					White bugs on probe
VS-7	9/5/2013	NA	NP	28.32	28.30	8.3	Yes	DRY					White bugs on probe
VS-7	10/7/2013	NA	NP	28.32	28.32	8.3	Yes	DRY					
VS-7	11/13/2013	NA	NP	28.32	28.32	8.3	Yes	DRY					
VS-7	12/13/2013	NA	NP	28.32	28.32	8.3	Yes	DRY					
VS-7	1/10/2014	NA	NP	28.32	28.32	8.3	Yes	NP					
VS-7	2/13/2014	NA	NP	28.32	28.32	8.3	Yes	NP					
VS-7	3/13/2014	NA	NP	28.32	28.32	8.3	Yes	NP					
VS-7	4/3/2014	NA	NP	28.32	28.32	8.3	Yes	NP					
VS-7	4/25/2014	0.1	NP	28.27	28.32	8.3	Yes	NP					PID wellhead peak 31.3 ppm
VS-7	5/5/2014	NA	NP	28.23	28.32	8.3	Yes	NP					
VS-7	5/20/2014	NA	NP	28.25	28.32	8.3	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-7	6/3/2014	NA	NP	28.33	28.32	8.3	Yes	NP					
VS-7	6/16/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	7/2/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	7/15/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	7/31/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	8/15/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	9/19/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	10/2/2014	NA	NP	28.30	28.32	8.3	Yes	NP					
VS-7	10/16/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	10/31/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	11/14/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	11/26/2014	0.0	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	12/10/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well. Strong hydrocarbon odor.
VS-7	12/24/2014	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	1/9/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	1/22/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	2/5/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	2/20/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	3/6/2015	NA	NP	28.29	28.32	8.3	Yes	NP					
VS-7	3/19/2015	NA	NP	28.20	28.32	8.3	Yes	NP					
VS-7	4/1/2015	NA	NP	28.12	28.32	8.3	Yes	NP					
VS-7	5/7/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	6/4/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	7/9/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	8/11/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	9/3/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	10/6/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	11/6/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	12/4/2015	NA	NP	Dry	28.32	8.3	Yes	NP					Dry well
VS-7	1/15/2016	NA	NP	28.32 Dry	28.32	8.3	Yes	NP					Dry well
VS-7	2/10/2016	NA	NP	27.23	28.32	8.3	Yes	NP					
VS-7	3/3/2016	NA	NP	26.54	28.32	8.3	Yes	NP					
VS-7	4/5/2016	NA	NP	24.85	28.32	8.3	Yes	NP					
VS-7	5/17/2016	NA	NP	25.52	28.32	8.3	Yes	NP					
VS-7	6/8/2016	NA	NP	25.92	28.32	8.3	Yes	NP					
VS-7	7/1/2016	0.0	NP	26.33	28.32	8.3	Yes	NP					PID: Breathing zone 0.0 ppm; Wellhead 0.0 ppm.
VS-7	8/19/2016	NA	NP	27.11	28.32	8.3	Yes	NP					
VS-7	9/22/2016	NA	NP	27.65	28.32	8.3	Yes	NP					
VS-7	10/3/2016	NA	NP	27.79	28.32	8.3	Yes	NP					
VS-7	11/11/2016	NA	NP	27.16	28.32	8.3	Yes	NP					
VS-7	12/2/2016	NA	NP	26.61	28.32	8.3	Yes	NP					
VS-7	1/12/2017	NA	NP	26.00	28.32	8.3	Yes	NP					
VS-7	2/16/2017	NA	NP	24.71	28.32	8.3	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-7	3/15/2017	NA	NP	23.53	28.32	8.3	Yes	NP					
VS-7	4/7/2017	NA	NP	22.35	28.32	8.3	Yes	NP					
VS-7	5/15/2017	NA	NP	21.86	28.32	8.3	Yes	NP					
VS-7	6/6/2017	NA	NP	22.14	28.32	8.3	Yes	NP					
VS-7	7/6/2017	NA	NP	22.82	28.32	8.3	Yes	NP					
VS-7	8/9/2017	NA	NP	23.43	28.32	8.3	Yes	NP					
VS-7	9/15/2017	NA	NP	24.16	28.32	8.3	Yes	NP					
VS-7	10/13/2017	NA	NP	24.69	28.32	8.3	Yes	NP					
VS-7	11/6/2017	0.0	NP	24.93	28.32	8.3	Yes	NP					PID Wellhead 15.0 ppm
VS-7	12/12/2017	NA	NP	24.22	28.32	8.3	Yes	NP					
VS-7	1/4/2018	NA	NP	23.87	28.32	8.3	Yes	NP					
VS-7	2/9/2018	NA	NP	22.25	28.32	8.3	Yes	NP					Strong hydrocarbon odor
VS-7	3/1/2018	NA	NP	22.08	28.32	8.3	Yes	NP					
VS-7	4/5/2018	NA	NP	22.36	28.32	8.3	Yes	NP					
VS-7	6/29/2018	NA	NP	23.35	28.32	8.3	Yes	NP					
VS-7	7/19/2018	NA	NP	23.72	28.32	8.3	Yes	NP					
VS-7	8/14/2018	NA	NP	24.14	28.32	8.3	Yes	NP					
VS-7	9/19/2018	NA	NP	24.86	28.32	8.3	Yes	NP					
VS-7	10/10/2018	NA	NP	25.21	28.32	8.3	Yes	NP					
VS-7	11/8/2018	0.0	NP	25.63	28.32	8.3	Yes	NP					
VS-7	12/6/2018	NA	NP	25.75	28.32	8.3	Yes	NP					
VS-7	1/3/2019	NA	NP	25.06	28.32	8.3	Yes	NP					
VS-7	2/15/2019	NA	NP	24.80	28.32	8.3	Yes	NP					
VS-7	3/11/2019	NA	NP	24.58	28.32	8.3	Yes	NP					
VS-7	4/30/2019	NA	NP	25.39	28.32	8.3	Yes	NP					
VS-7	5/16/2019	NA	NP	25.56	28.32	8.3	Yes	NP					
VS-7	6/5/2019	NA	NP	25.97	28.32	8.3	Yes	NP					
									VS-7 CUMULATIVE		530	0.14	
VS-8	12/3/2009	0.0	NP	29.60	29.65	8.9	Yes	NP					Seal and Bolts good, 2" butterfly cap, Hard bottom
VS-8	1/12/2010	0.0	NP	29.60	29.65	8.9	Yes	NP					Light smell of petroleum on probe
VS-8	2/9/2010	0.0	NP	29.60	29.65	8.9	Yes	NP					
VS-8	10/5/2010	NA	NP	29.59	29.65	8.9	Yes	NP					
VS-8	11/10/2010	NA	NP	29.58	29.65	8.9	Yes	NP					
VS-8	12/8/2010	NA	NP	29.59	29.65	8.9	Yes	NP					
VS-8	1/5/2011	NA	NP	29.51	29.65	8.9	Yes	NP					
VS-8	2/9/2011	NA	NP	29.23	29.65	8.9	Yes	NP					
VS-8	3/24/2011	NA	NP	27.75	29.65	8.9	Yes	NP					
VS-8	4/6/2011	NA	NP	28.70	29.65	8.9	Yes	NP					
VS-8	5/18/2011	NA	NP	27.13	29.65	8.9	Yes	NP					
VS-8	6/23/2011	NA	NP	27.44	29.65	8.9	Yes	NP					
VS-8	7/27/2011	NA	NP	27.84	29.65	8.9	Yes	NP					
VS-8	8/27/2011	NA	NP	21.14	29.65	8.9	Yes	NP					
VS-8	9/28/2011	NA	NP	28.81	29.65	8.9	Yes	NP					Light smell of petroleum on probe
VS-8	4/18/2012	NA	NP	27.88	29.65	8.9	Yes	NP					Light smell of petroleum on probe
VS-8	5/3/2012	NA	NP	27.76	29.65	8.9	Yes	NP					
VS-8	6/8/2012	NA	NP	28.23	29.65	8.9	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-8	7/3/2012	NA	NP	28.64	29.65	8.9	Yes	NP					
VS-8	8/6/2012	NA	NP	29.01	29.65	8.9	Yes	NP					
VS-8	9/11/2012	NA	NP	29.54	29.65	8.9	Yes	NP					
VS-8	10/18/2012	NA	29.58	29.59	29.65	8.9	Yes	0.01					
VS-8	11/15/2012	NA	NP	29.59	29.65	8.9	Yes	NP					Worms around well cover
VS-8	12/13/2012	NA	NP	28.85	29.65	8.9	Yes	NP					Worms around well cover
VS-8	1/17/2013	NA	NP	27.31	29.65	8.9	Yes	NP					Worms around well cover
VS-8	2/14/2013	NA	NP	27.27	29.65	8.9	Yes	NP					Worms around well cover
VS-8	3/12/2013	NA	NP	27.33	29.65	8.9	Yes	NP					Worms around well cover, Probe warm to the touch
VS-8	4/12/2013	NA	NP	27.40	29.65	8.9	Yes	NP					Worms around well cover. Probe warm to the touch
VS-8	5/16/2013	NA	NP	27.85	29.65	8.9	Yes	NP					Worms around well cover
VS-8	6/13/2013	NA	NP	28.16	29.65	8.9	Yes	NP					Worms around well cover
VS-8	7/11/2013	NA	NP	28.52	29.65	8.9	Yes	NP					White bugs on probe
VS-8	8/15/2013	NA	NP	29.08	29.65	8.9	Yes	NP					White bugs on probe
VS-8	9/5/2013	NA	NP	29.25	29.65	8.9	Yes	NP					White bugs on probe
VS-8	10/7/2013	NA	NP	29.40	29.65	8.9	Yes	NP					
VS-8	11/13/2013	NA	NP	29.61	29.65	8.9	Yes	NP					
VS-8	12/13/2013	NA	NP	29.60	29.65	8.9	Yes	NP					
VS-8	1/10/2014	NA	NP	29.60	29.65	8.9	Yes	NP					
VS-8	2/13/2014	NA	NP	29.60	29.65	8.9	Yes	NP					
VS-8	3/13/2014	NA	NP	29.56	29.65	8.9	Yes	NP					
VS-8	4/3/2014	NA	NP	28.75	29.65	8.9	Yes	NP					
VS-8	4/25/2014	0.2	NP	28.65	29.65	8.9	Yes	NP					PID wellhead peak 0.2 ppm
VS-8	5/5/2014	NA	NP	28.60	29.65	8.9	Yes	NP					
VS-8	5/20/2014	NA	NP	28.68	29.65	8.9	Yes	NP					Attached a well ID tag.
VS-8	6/16/2014	NA	NP	29.02	29.65	8.9	Yes	NP					
VS-8	7/15/2014	NA	NP	29.39	29.65	8.9	Yes	NP					
VS-8	8/15/2014	NA	NP	29.58	29.65	8.9	Yes	NP					
VS-8	9/19/2014	NA	NP	29.62	29.65	8.9	Yes	NP					
VS-8	10/16/2014	NA	NP	29.60	29.65	8.9	Yes	NP					
VS-8	10/31/2014	NA	NP	29.60	29.65	8.9	Yes	NP					
VS-8	11/26/2014	0.0	NP	29.60	29.65	8.9	Yes	NP					
VS-8	1/9/2015	NA	NP	29.50	29.65	8.9	Yes	NP					
VS-8	2/5/2015	NA	NP	29.14	29.65	8.9	Yes	NP					
VS-8	3/6/2015	NA	NP	28.68	29.65	8.9	Yes	NP					
VS-8	4/1/2015	NA	NP	28.53	29.65	8.9	Yes	NP					
VS-8	5/7/2015	NA	NP	28.85	29.65	8.9	Yes	NP					
VS-8	6/4/2015	NA	NP	29.26	29.65	8.9	Yes	NP					
VS-8	7/9/2015	NA	NP	29.59	29.65	8.9	Yes	NP					
VS-8	8/11/2015	NA	NP	29.62	29.65	8.9	Yes	NP					
VS-8	9/3/2015	NA	NP	29.61	29.65	8.9	Yes	NP					Apparently dry
VS-8	10/6/2015	NA	NP	29.61	29.65	8.9	Yes	NP					
VS-8	11/6/2015	NA	Trace	29.59	29.65	8.9	Yes	Trace					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-8	12/4/2015	NA	NP	29.56	29.65	8.9	Yes	NP					Apparently dry
VS-8	1/15/2016	NA	NP	29.22	29.65	8.9	Yes	NP					
VS-8	2/10/2016	NA	NP	27.56	29.65	8.9	Yes	NP					
VS-8	3/3/2016	NA	NP	26.76	29.65	8.9	Yes	NP					
VS-8	4/5/2016	NA	NP	25.24	29.65	8.9	Yes	NP					
VS-8	5/17/2016	NA	NP	25.93	29.65	8.9	Yes	NP					
VS-8	6/8/2016	NA	NP	26.33	29.65	8.9	Yes	NP					Relabel well cover
VS-8	7/1/2016	0.0	NP	26.74	29.65	8.9	Yes	NP					PID: Breathing zone 0.0 ppm; Wellhead 0.0 ppm. Strong hydrocarbon odor. White bugs on probe.
VS-8	8/19/2016	NA	NP	27.54	29.65	8.9	Yes	NP					
VS-8	9/22/2016	NA	NP	28.09	29.65	8.9	Yes	NP					
VS-8	10/3/2016	NA	NP	28.22	29.65	8.9	Yes	NP					
VS-8	11/11/2016	NA	NP	27.51	29.65	8.9	Yes	NP					
VS-8	12/2/2016	NA	NP	26.93	29.65	8.9	Yes	NP					
VS-8	1/12/2017	NA	NP	26.40	29.65	8.9	Yes	NP					
VS-8	2/16/2017	NA	NP	25.03	29.65	8.9	Yes	NP					
VS-8	3/15/2017	NA	NP	23.90	29.65	8.9	Yes	NP					
VS-8	4/6/2017	NA	NP	22.71	29.65	8.9	Yes	NP					
VS-8	5/15/2017	NA	NP	22.21	29.65	8.9	Yes	NP					
VS-8	6/6/2017	NA	NP	22.55	29.65	8.9	Yes	NP					
VS-8	7/6/2017	NA	NP	23.23	29.65	8.9	Yes	NP					
VS-8	8/9/2017	NA	NP	23.84	29.65	8.9	Yes	NP					
VS-8	9/15/2017	NA	NP	24.57	29.65	8.9	Yes	NP					
VS-8	10/13/2017	NA	NP	25.12	29.65	8.9	Yes	NP					Old hydrocarbon odor
VS-8	11/6/2017	0.1	NP	25.36	29.65	8.9	Yes	NP					Old hydrocarbon odor. PID Wellhead 10.7 ppm.
VS-8	12/12/2017	NA	NP	24.62	29.65	8.9	Yes	NP					Old hydrocarbon odor
VS-8	1/4/2018	NA	NP	22.87	29.65	8.9	Yes	NP					Old hydrocarbon odor
VS-8	2/9/2018	NA	NP	22.61	29.65	8.9	Yes	NP					Old hydrocarbon odor
VS-8	3/1/2018	NA	NP	22.45	29.65	8.9	Yes	NP					
VS-8	4/5/2018	NA	NP	22.74	29.65	8.9	Yes	NP					
VS-8	6/29/2018	NA	NP	23.74	29.65	8.9	Yes	NP					
VS-8	7/19/2018	NA	NP	24.13	29.65	8.9	Yes	NP					
VS-8	8/14/2018	NA	NP	24.53	29.65	8.9	Yes	NP					
VS-8	9/19/2018	NA	NP	25.24	29.65	8.9	Yes	NP					
VS-8	10/10/2018	NA	NP	25.61	29.65	8.9	Yes	NP					
VS-8	11/8/2018	0.0	NP	26.08	29.65	8.9	Yes	NP					
VS-8	12/6/2018	NA	NP	26.18	29.65	8.9	Yes	NP					
VS-8	1/3/2019	NA	NP	25.49	29.65	8.9	Yes	NP					
VS-8	2/15/2019	NA	NP	25.19	29.65	8.9	Yes	NP					
VS-8	3/11/2019	NA	NP	25.00	29.65	8.9	Yes	NP					
VS-8	4/30/2019	NA	NP	25.81	29.65	8.9	Yes	NP					
VS-8	5/16/2019	NA	NP	25.97	29.65	8.9	Yes	NP					
VS-8	6/5/2019	NA	NP	26.40	29.65	8.9	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
									VS-8 CUMULATIVE		0	0.00	
VS-9	12/3/2009	0.1	NP	31.33	45.04	10	Yes	NP					Seal and bolts good
VS-9	1/12/2010	0.0	NP	29.59	29.95	10	Yes	NP					Gray clay bottom, light petroleum smell on probe
VS-9	2/9/2010	0.0	NP	29.60	29.95	10	Yes	NP					Gray clay bottom, light petroleum smell on probe
VS-9	10/5/2010	NA	NP	29.58	29.65	10	Yes	NP					Light smell of petroleum on probe
VS-9	11/10/2010	NA	NP	29.95	29.65	10	Yes	NP					Light smell of petroleum on probe
VS-9	12/8/2010	NA	NP	29.60	29.65	10	Yes	NP					
VS-9	1/5/2011	NA	NP	29.55	29.65	10	Yes	NP					
VS-9	2/9/2011	NA	NP	28.43	29.65	10	Yes	NP					
VS-9	3/24/2011	NA	NP	26.86	29.65	10	Yes	NP					
VS-9	4/6/2011	NA	NP	28.63	29.65	10	Yes	NP					
VS-9	5/18/2011	NA	NP	25.17	29.65	10	Yes	NP					
VS-9	6/23/2011	NA	NP	24.63	29.65	10	Yes	NP					
VS-9	7/27/2011	NA	NP	NA	29.65	10	Yes	NP					Well hot
VS-9	8/27/2011	NA	NP	NA	29.65	10	Yes	NP					Well hot
VS-9	9/28/2011	NA	28.05	28.06	29.65	10	Yes	0.01					
VS-9	4/18/2012	NA	NP	26.96	29.65	10	Yes	NP					
VS-9	5/3/2012	NA	NP	26.18	29.65	10	Yes	NP					
VS-9	6/8/2012	NA	NP	27.31	29.65	10	Yes	NP					
VS-9	7/3/2012	NA	NP	27.77	29.65	10	Yes	NP					
VS-9	8/6/2012	NA	NP	28.22	29.65	10	Yes	NP					
VS-9	9/11/2012	NA	NP	28.78	29.65	10	Yes	NP					
VS-9	10/18/2012	NA	trace	29.23	29.65	10	Yes	Trace					
VS-9	11/15/2012	NA	29.3	29.33	29.65	10	Yes	0.03					Yellow residue on probe, fuel odor and probe was warm
VS-9	12/13/2012	NA		28.00	29.65	10	Yes						
VS-9	1/17/2013	NA	trace	26.40	29.65	10	Yes	trace					
VS-9	2/14/2013	NA	NP	26.35	29.65	10	Yes	NP					
VS-9	3/12/2013	NA	NP	26.50	29.65	10	Yes	NP					
VS-9	4/12/2013	NA	NP	26.62	29.65	10	Yes	NP					
VS-9	5/16/2013	NA	NP	27.04	29.65	10	Yes	NP					
VS-9	6/13/2013	NA	NP	27.38	29.65	10	Yes	NP					
VS-9	7/11/2013	NA	NP	27.75	29.65	10	Yes	NP					
VS-9	8/15/2013	NA	NP	28.25	29.65	10	Yes	NP					
VS-9	9/5/2013	NA	NP	28.53	29.65	10	Yes	NP					
VS-9	10/7/2013	NA	NP	28.60	29.65	10	Yes	NP					
VS-9	11/13/2013	NA	NP	29.14	29.65	10	Yes	NP					
VS-9	12/13/2013	NA	NP	29.34	29.65	10	Yes	NP					
VS-9	1/10/2014	NA	NP	29.53	29.65	10	Yes	NP					
VS-9	2/13/2014	NA	NP	29.53	29.65	10	Yes	NP					
VS-9	3/13/2014	NA	NP	28.75	29.65	10	Yes	NP					
VS-9	4/3/2014	NA	NP	27.94	29.65	10	Yes	NP					
VS-9	4/25/2014	0.0	NP	27.86	29.65	10	Yes	NP					PID wellhead peak 34.2 ppm
VS-9	5/5/2014	NA	NP	27.82	29.65	10	Yes	NP					
VS-9	5/20/2014	NA	NP	27.85	29.65	10	Yes	NP					
VS-9	6/16/2014	NA	NP	28.25	29.65	10	Yes	NP					
VS-9	7/15/2014	NA	NP	28.65	29.65	10	Yes	NP					White bugs on probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-9	8/15/2014	NA	NP	29.13	29.65	10	Yes	NP					
VS-9	9/19/2014	NA	NP	29.27	29.65	10	Yes	NP					
VS-9	10/16/2014	NA	NP	29.54	29.65	10	Yes	NP					
VS-9	10/31/2014	NA	trace	29.55	29.65	10	Yes	NP					
VS-9	11/26/2014	0.0	NP	29.55	29.65	10	Yes	NP					
VS-9	1/9/2015	NA	trace	28.72	29.65	10	Yes	Trace					Beading on the probe
VS-9	2/5/2015	NA	NP	28.38	29.65	10	Yes	NP					Bailed inside well monument
VS-9	3/6/2015	NA	NP	27.89	29.65	10	Yes	NP					
VS-9	4/1/2015	NA	NP	27.71	29.65	10	Yes	NP					
VS-9	5/7/2015	NA	NP	28.10	29.65	10	Yes	NP					
VS-9	6/4/2015	NA	NP	29.49	29.65	10	Yes	NP					
VS-9	7/9/2015	NA	NP	28.90	29.65	10	Yes	NP					
VS-9	8/11/2015	NA	NP	29.41	29.65	10	Yes	NP					White bugs on probe
VS-9	9/3/2015	NA	NP	29.56	29.65	10	Yes	NP					White bugs on probe
VS-9	10/6/2015	NA	NP	29.54	29.65	10	Yes	NP					
VS-9	11/6/2015	NA	trace	29.53	29.65	10	Yes	Trace					
VS-9	12/4/2015	NA	NP	29.55	29.65	10	Yes	NP					Grey sediment on probe. Apparently dry.
VS-9	1/15/2016	NA	NP	28.41	29.65	10	Yes	NP					
VS-9	2/10/2016	NA	NP	26.39	29.65	10	Yes	NP					
VS-9	3/3/2016	NA	NP	25.54	29.65	10	Yes	NP					
VS-9	4/5/2016	NA	NP	23.75	29.65	10	Yes	NP					White bugs on probe
VS-9	5/17/2016	NA	NP	24.96	29.65	10	Yes	NP					White bugs on probe
VS-9	6/8/2016	NA	NP	25.40	29.65	10	Yes	NP					Relabel well cover
VS-9	7/1/2016	0.0	NP	25.86	29.65	10	Yes	NP					Petroleum odor. White bugs on probe. PID: Breathing zone 0.0 ppm; Wellhead 0.0 ppm.
VS-9	8/19/2016	NA	NP	26.72	29.65	10	Yes	NP					Petroleum odor. Ammonia odor. White bugs on probe.
VS-9	9/22/2016	NA	NP	27.27	29.65	10	Yes	NP					
VS-9	10/3/2016	NA	NP	27.44	29.65	10	Yes	NP					
VS-9	11/11/2016	NA	NP	26.70	29.65	10	Yes	NP					
VS-9	12/2/2016	NA	NP	25.98	29.65	10	Yes	NP					Petroleum odor. Ammonia odor. White bugs on probe.
VS-9	1/12/2017	NA	NP	25.05	29.65	10	Yes	NP					Petroleum odor. Ammonia odor. White bugs on probe.
VS-9	2/16/2017	NA	NP	23.37	29.65	10	Yes	NP					
VS-9	3/15/2017	NA	NP	22.20	29.65	10	Yes	NP					White bugs on probe
VS-9	4/6/2017	NA	NP	21.08	29.65	10	Yes	NP					White bugs on probe
VS-9	5/15/2017	NA	NP	20.79	29.65	10	Yes	NP					
VS-9	6/6/2017	NA	NP	21.23	29.65	10	Yes	NP					
VS-9	7/6/2017	NA	NP	22.00	29.65	10	Yes	NP					
VS-9	8/9/2017	NA	NP	22.73	29.65	10	Yes	NP					White bugs on probe
VS-9	9/15/2017	NA	NP	22.73	29.65	10	Yes	NP					White bugs on probe
VS-9	10/13/2017	NA	NP	24.25	29.65	10	Yes	NP					White bugs on probe
VS-9	11/6/2017	0.1	NP	24.50	29.65	10	Yes	NP					White bugs on probe. PID Wellhead 0.8 ppm.
VS-9	12/12/2017	NA	NP	23.06	29.65	10	Yes	NP					
VS-9	1/4/2018	NA	NP	22.87	29.65	10	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-9	2/9/2018	NA	NP	22.20	29.65	10	Yes	NP					White bugs on probe
VS-9	3/1/2018	NA	NP	21.16	29.65	10	Yes	NP					
VS-9	4/5/2018	NA	NP	21.55	29.65	10	Yes	NP					
VS-9	6/29/2018	NA	NP	22.65	29.65	10	Yes	NP					
VS-9	7/19/2018	NA	NP	23.03	29.65	10	Yes	NP					
VS-9	8/14/2018	0.8	NP	23.51	29.65	10	Yes	NP					White bugs on probe
VS-9	9/19/2018	NA	NP	24.42	29.65	10	Yes	NP					White bugs on probe
VS-9	10/10/2018	NA	NP	24.80	29.65	10	Yes	NP					White bugs on probe
VS-9	11/8/2018	0.0, 0.2	NP	25.30	29.65	10	Yes	NP					White bugs on probe. PID brathig zone 0.0 ppm wellhead 0.2 ppm
VS-9	12/6/2018	NA	NP	25.38	29.65	10	Yes	NP					
VS-9	1/3/2019		NP	24.65	29.65	10	Yes	NP			0.0	0.0	Pavement patch showing signs of collapsing
VS-9	2/15/2019		NP	23.76	29.65	10	Yes	NP			0.0	0.0	Pavement patch showing signs of collapsing
VS-9	3/11/2019		NP	23.49	29.65	10	Yes	NP			0.0	0.0	Pavement patch showing signs of collapsing
VS-9	4/30/2019		NP	24.81	29.65	10	Yes	NP			0.0	0.0	Pavement patch showing signs of collapsing; white bugs on probe; sewer odor
VS-9	5/16/2019		NP	25.10	29.65	10	Yes	NP			0.0	0.0	Pavement patch showing signs of collapsing; white bugs on probe; sewer odor
VS-9	6/5/2019		NP	25.55	29.65	10	Yes	NP			0.0	0.0	Pavement patch showing signs of collapsing; white bugs on probe; sewer odor
									VS-9 CUMULATIVE		0	0.00	
VS-10	12/3/2009	0.0	NP	29.79	29.86	10.3	Yes	NP					Bolts and seal good, 2" butterfly cap, hard bottom
VS-10	1/12/2010	0.0	NP	29.79	29.91	10.3	Yes	NP					Light smell of petroleum on probe
VS-10	2/9/2010	0.0	NP	29.79	29.91	10.3	Yes	NP					Light smell of petroleum on probe
VS-10	10/5/2010	NA	NP	29.78	29.91	10.3	Yes	NP					
VS-10	11/10/2010	NA	NP	29.79	29.91	10.3	Yes	NP					
VS-10	12/8/2010	NA	NP	29.79	29.91	10.3	Yes	NP					
VS-10	1/5/2011	NA	NP	29.71	29.91	10.3	Yes	NP					
VS-10	2/9/2011	NA	NP	29.32	29.91	10.3	Yes	NP					
VS-10	3/24/2011	NA	NP	27.76	29.91	10.3	Yes	NP					
VS-10	4/6/2011	NA	NP	28.88	29.91	10.3	Yes	NP					
VS-10	5/18/2011	0.0	27.23	27.27	29.91	10.3	Yes	0.04	200	60	200	0.1	Product recovery with sock
VS-10	5/25/2011	NA	27.29	27.36	29.91	10.3	Yes	0.07	75	50	275	0.07	Product recovery with sock
VS-10	6/1/2011	NA	27.29	27.36	29.91	10.3	Yes	0.07	90	50	365	0.10	Product recovery with sock
VS-10	6/8/2011	NA	27.37	27.48	29.91	10.3	Yes	0.11	150	50	515	0.14	Product recovery with sock
VS-10	6/15/2011	NA	27.45	27.56	29.91	10.3	Yes	0.11	125	50	640	0.17	Product recovery with sock
VS-10	6/23/2011	NA	27.49	27.69	29.91	10.3	Yes	0.20	100	50	740	0.20	Product recovery with sock
VS-10	6/28/2011	NA	27.44	27.53	29.91	10.3	Yes	0.09	200	50	940	0.25	Product recovery with sock
VS-10	7/8/2011	NA	27.68	27.88	29.91	10.3	Yes	0.20	40	50	980	0.26	Product recovery with sock
VS-10	7/20/2011	NA	27.82	27.99	29.91	10.3	Yes	0.17	75	50	1,055	0.28	Product recovery with sock
VS-10	7/27/2011	NA	27.68	27.88	29.91	10.3	Yes	0.20	75	50	1,130	0.30	Product recovery with sock
VS-10	8/4/2011	NA	27.94	28.11	29.91	10.3	Yes	0.17	50	50	1,180	0.31	Product recovery with sock
VS-10	8/18/2011	NA	28.23	28.41	29.91	10.3	Yes	0.18	50	50	1,230	0.32	Product recovery with sock
VS-10	8/24/2011	NA	28.32	28.39	29.91	10.3	Yes	0.07	5	50	1,235	0.33	Product recovery with sock
VS-10	8/27/2011	NA	28.23	28.41	29.91	10.3	Yes	0.18					
VS-10	9/27/2011	NA	NP	28.91	29.91	10.3	Yes	NP					
VS-10	4/18/2012	NA	NP	27.94	29.91	10.3	Yes	NP					
VS-10	5/3/2012	NA	NP	27.88	29.91	10.3	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-10	6/8/2012	NA	NP	28.40	29.91	10.3	Yes	NP					
VS-10	7/3/2012	NA	NP	28.72	29.91	10.3	Yes	NP					
VS-10	8/6/2012	NA	NP	29.12	29.91	10.3	Yes	NP					
VS-10	9/11/2012	NA	NP	29.65	29.91	10.3	Yes	NP					
VS-10	10/18/2012	NA	NP	29.78	29.91	10.3	Yes	NP					
VS-10	11/15/2012	NA	trace	29.80	29.91	10.3	Yes	NP					Fuel odor
VS-10	12/13/2012	NA	NP	28.88	29.91	10.3	Yes	NP					
VS-10	1/17/2013	NA	trace	27.35	29.91	10.3	Yes	NP					
VS-10	2/14/2013	NA	27.33	27.34	29.91	10.3	Yes	0.01					No product recovered
VS-10	3/12/2013	NA	trace	27.40	29.91	10.3	Yes	trace					
VS-10	4/12/2013	NA	27.46	27.50	29.91	10.3	Yes	0.04					No product recovered
VS-10	5/16/2013	NA	NP	27.90	29.91	10.3	Yes	NP					
VS-10	6/13/2013	NA	28.21	28.45	29.91	10.3	Yes	0.24	180	200	1,415	0.37	Product recovered. Strong hydrocarbon musty odor and thicker product.
VS-10	6/20/2013	NA	28.30	28.33	29.91	10.3	Yes	0.03					No product recovered
VS-10	6/27/2013	NA	28.44	28.50	29.91	10.3	Yes	0.06					No product recovered
VS-10	7/11/2013	NA	28.60	28.65	29.91	10.3	Yes	0.05					No product recovered
VS-10	8/15/2013	NA	NP	29.10	29.91	10.3	Yes	NP					No product recovered
VS-10	9/5/2013	NA	NP	29.34	29.91	10.3	Yes	NP					No product recovered
VS-10	10/7/2013	NA	NP	29.46	29.91	10.3	Yes	NP					
VS-10	11/13/2013	NA	NP	29.81	29.91	10.3	Yes	NP					
VS-10	12/13/2013	NA	NP	29.80	29.91	10.3	Yes	NP					
VS-10	1/10/2014	NA	NP	29.78	29.91	10.3	Yes	NP					
VS-10	2/13/2014	NA	NP	29.78	29.91	10.3	Yes	NP					
VS-10	3/13/2014	NA	NP	29.59	29.91	10.3	Yes	NP					
VS-10	4/3/2014	NA	DRY	29.88	29.91	10.3	Yes	NP					
VS-10	4/25/2014	0.1	NP	28.75	29.91	10.3	Yes	NP					PID wellhead peak 0.2 ppm
VS-10	5/5/2014	NA	NP	28.69	29.91	10.3	Yes	NP					
VS-10	5/20.14	NA	NP	28.76	29.91	10.3	Yes	NP					
VS-10	6/16/2014	NA	NP	29.13	29.91	10.3	Yes	NP					
VS-10	7/2/2014	NA	NP	29.36	29.91	10.3	Yes	NP					
VS-10	7/15/2014	NA	NP	29.49	29.91	10.3	Yes	NP					
VS-10	7/31/2014	NA	NP	29.74	29.91	10.3	Yes	NP					
VS-10	8/15/2014	NA	NP	29.80	29.91	10.3	Yes	NP					
VS-10	9/19/2014	NA	NP	DRY	29.91	10.3	Yes	NP					
VS-10	10/2/2014	NA	NP	29.78	29.91	10.3	Yes	NP					
VS-10	10/16/2014	NA	NP	29.79	29.91	10.3	Yes	NP					
VS-10	10/31/2014	NA	trace	29.78	29.91	10.3	Yes	NP					
VS-10	11/14/2014	NA	NP	29.80	29.91	10.3	Yes	NP					
VS-10	11/26/2014	0.0	NP	29.79	29.91	10.3	Yes	NP					
VS-10	12/10/2014	NA	NP	29.81	29.91	10.3	Yes	NP					
VS-10	12/24/2014	NA	NP	29.80	29.91	10.3	Yes	NP					
VS-10	1/9/2015	NA	NP	29.60	29.91	10.3	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-10	1/22/2015	NA	NP	29.46	29.91	10.3	Yes	NP					
VS-10	2/5/2015	NA	NP	29.23	29.91	10.3	Yes	NP					
VS-10	2/20/2015	NA	NP	28.80	29.91	10.3	Yes	NP					
VS-10	3/6/2015	NA	NP	28.80	29.91	10.3	Yes	NP					
VS-10	3/19/2015	NA	Trace	28.66	29.91	10.3	Yes	Trace					Odor on probe and sheen, bailed and collected water
VS-10	4/1/2015	NA	NP	28.64	29.91	10.3	Yes	NP					Odor on probe and sheen, bailed and collected water
VS-10	5/7/2015	NA	NP	28.97	29.91	10.3	Yes	NP					
VS-10	6/4/2015	NA	NP	29.40	29.91	10.3	Yes	NP					
VS-10	7/9/2015	NA	NP	29.75	29.91	10.3	Yes	NP					
VS-10	8/11/2015	NA	NP	29.74	29.91	10.3	Yes	NP					
VS-10	9/3/2015	NA	NP	29.80	29.91	10.3	Yes	NP					
VS-10	10/6/2015	NA	NP	29.81	29.91	10.3	Yes	NP					
VS-10	11/6/2015	NA	NP	29.78	29.91	10.3	Yes	NP					
VS-10	12/4/2015	NA	NP	29.80	29.91	10.3	Yes	NP					Apparently dry.
VS-10	1/15/2016	NA	NP	29.29	29.91	10.3	Yes	NP					
VS-10	2/10/2016	NA	NP	27.60	29.91	10.3	Yes	NP					
VS-10	3/3/2016	NA	NP	26.84	29.91	10.3	Yes	NP					
VS-10	4/5/2016	NA	25.33	25.37	29.91	10.3	Yes	0.04					
VS-10	5/17/2016	NA	25.97	26.20	29.91	10.3	Yes	0.23	600	90	2,015	0.53	
VS-10	6/8/2016	NA	26.38	26.61	29.91	10.3	Yes	0.23	200	50	2,215	0.59	Pavement cracks developing around well
VS-10	7/1/2016	0.0	26.80	26.97	29.91	10.3	Yes	0.17	240	560	2,455	0.65	Pavement cracks developing around well, bailed water from flush monument. 7/5/16 PID: Breathing zone 0.0 ppm; Wellhead 0.0 ppm. 7/12/16 product recovered.
VS-10	8/19/2016	NA	27.60	27.80	29.91	10.3	Yes	0.20	100	300	2,555	0.67	Monthly water level. Pavement cracks developing around well.
VS-10	9/22/2016	NA	28.14	28.25	29.91	10.3	Yes	0.11	70	100	2,625	0.69	Monthly water level. Pavement cracks developing around well.
VS-10	10/3/2016	NA	28.30	28.35	29.91	10.3	Yes	0.05					Monthly water level. Pavement cracks developing around well.
VS-10	11/11/2016	NA	NP	27.61	29.91	10.3	Yes	NP					Monthly water level. Pavement cracks developing around well.
VS-10	12/2/2016	NA	NP	26.99	29.91	10.3	Yes	NP					Monthly water level. Pavement cracks developing around well.
VS-10	1/12/2017	NA	26.45	26.57	29.92	10.3	Yes	0.12					No product recovered at this time, unable to get equipment. Will reschedule once SAA unfreezes
VS-10	1/19/2017	NA	26.13	26.20	29.92	10.3	Yes	0.07					No product recovered at this time, came back for product recover but product is below recovery limits.
VS-10	2/16/2017	NA	25.10	25.18	29.92	10.3	Yes	0.08					No product recovered at this time
VS-10	3/15/2017	NA	NP	23.92	29.92	10.3	Yes	NP					
VS-10	4/6/2017	NA	22.73	22.81	29.92	10.3	Yes	0.08					No product recovered at this time
VS-10	5/15/2017	NA	22.18	22.21	29.92	10.3	Yes	0.03					No product recovered at this time
VS-10	6/6/2017	NA	22.55	22.60	29.92	10.3	Yes	0.05					No product recovered at this time
VS-10	7/6/2017	NA	23.23	23.34	29.92	10.3	Yes	0.11	200	550	2,825	0.75	Product recovered 7/7/17
VS-10	8/9/2017	NA	23.85	24.03	29.92	10.3	Yes	0.18					
VS-10	8/15/2017	NA	23.85	24.03	29.92	10.3	Yes	0.18	100	860	2,925	0.77	Product recovered 8/15/17
VS-10	9/15/2017	NA	24.60	24.80	29.92	10.3	Yes	0.20	260	140	3,185	0.84	Product recovered 9/15/17
VS-10	10/13/2017	NA	25.17	25.40	29.92	10.3	Yes	0.23	240	380	3,425	0.90	Product recovered 10/13/17
VS-10	11/6/2017	0.4	25.44	25.54	29.92	10.3	Yes	0.10	150	280	3,575	0.94	Product recovered 11/7/17. PID Wellhead 30.2 ppm.
VS-10	12/12/2017	NA	24.70	24.77	29.92	10.3	Yes	0.07					No product recovery

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-10	1/4/2018	NA	24.30	24.33	29.92	10.3	Yes	0.03					No product recovery
VS-10	2/9/2018	NA	NP	22.69	NP	10.3	Yes	0.00					
VS-10	3/1/2018	NA	NP	22.47	NP	10.3	Yes	0.00					Hydrocarbon odor
VS-10	4/5/2018	NA	NP	22.84	29.92	10.3	Yes	0.00					Strong hydrocarbon odor
VS-10	6/29/2018	NA	NP	23.75	29.92	10.3	Yes	0.00					Hydrocarbon odor
VS-10	7/19/2018	NA	24.13	24.35	29.92	10.3	Yes	0.22					Hydrocarbon odor. No recovery, only gauging .
VS-10	8/14/2018	NA	24.56	24.80	29.92	10.3	Yes	0.24					Hydrocarbon odor. No recovery, only gauging .
VS-10	9/19/2018	NA	24.24	24.55	29.92	10.3	Yes	0.31	780	720	4,355	1.15	Product recovered 9/20/18. Ending DTP 23.74’ and DTW 23.76’ (0.02' product)
VS-10	10/10/2018	NA	25.65	25.80	29.92	10.3	Yes	0.15	780	720	5,135	1.36	Product recovered 10/10/18. Ending DTP 24.94’ and DTW 24.95’ (0.01' product)
VS-10	11/8/2018	0.0	26.11	26.31	29.92	10.3	Yes	0.20	180	200	5,315	1.40	Product recovered 11/08/18.
VS-10	12/6/2018	NA	26.25	26.33	29.92	10.3	Yes	0.08					
VS-10	1/3/2019	NA	25.54	25.60	29.92	10.3	Yes	0.06					No product recovery, pavement patch showing signs of collapsing
VS-10	2/15/2019	NA	25.25	25.47	29.92	10.3	Yes	0.22	290	850	5,605	1.48	No product recovery, pavement patch showing signs of collapsing
VS-10	3/11/2019	NA	25.10	25.15	29.92	10.3	Yes	0.05	290	850	5,895	1.56	No product recovery, pavement patch showing signs of collapsing
VS-10	4/30/2019	NA	25.87	26.11	29.92	10.3	Yes	0.24	290	850	6,185	1.63	Product recovery followed by request by Navy not to recover this month; pavement patch showing signs of collapsing
VS-10	5/3/2019	NA	25.87	26.11	29.92	10.3	Yes	0.24	290	850	6,475	1.71	Product recovery and filled 2x 2ml vials for NRL
VS-10	5/16/2019	NA	26.06	26.17	29.92	10.3	Yes	0.11	100	320	6,575	1.74	Product recovery
VS-10	6/5/2019	NA	26.45	26.55	29.92	10.3	Yes	0.10					Returned for product recovery 6/7 no product measured in the well. DTW 26.55'
									VS-10 CUMULATIVE		6,575	1.74	
VS-11	12/3/2009	0.0	NP	29.24	29.63	9.7	Yes	NP					3 stripped bolts, good seal, PVC cap without lock,, hard bottom
VS-11	1/12/2010	0.0	NP	29.23	29.65	9.7	Yes	NP					
VS-11	2/9/2010	0.1	>29.23	29.24	29.65	9.7	Yes	Sheen					
VS-11	10/5/2010	NA	NP	29.20	29.65	9.7	Yes	NP					
VS-11	11/10/2010	NA	NP	29.26	29.65	9.7	Yes	NP					
VS-11	12/8/2010	NA	NP	29.23	29.65	9.7	Yes	NP					
VS-11	1/5/2011	NA	NP	29.31	29.65	9.7	Yes	NP					
VS-11	2/9/2011	NA	NP	28.72	29.65	9.7	Yes	NP					
VS-11	3/24/2011	NA	NP	27.16	29.65	9.7	Yes	NP					
VS-11	4/6/2011	NA	NP	28.56	29.65	9.7	Yes	NP					
VS-11	5/18/2011	NA	NP	26.26	29.65	9.7	Yes	NP					
VS-11	6/23/2011	NA	NP	26.66	29.65	9.7	Yes	NP					
VS-11	7/27/2011	NA	NP	27.12	29.65	9.7	Yes	NP					
VS-11	8/27/2011	NA	NP	27.42	29.65	9.7	Yes	NP					
VS-11	9/28/2011	NA	NP	28.19	29.65	9.7	Yes	NP					
VS-11	4/18/2012	NA	NP	26.94	29.65	9.7	Yes	NP					
VS-11	5/3/2012	NA	NP	26.80	29.65	9.7	Yes	NP					
VS-11	6/8/2012	NA	NP	27.41	29.65	9.7	Yes	NP					
VS-11	7/3/2012	NA	NP	27.73	29.65	9.7	Yes	NP					
VS-11	8/6/2012	NA	NP	28.33	29.65	9.7	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-11	9/11/2012	NA	NP	29.06	29.65	9.7	Yes	NP					
VS-11	10/18/2012	NA	NP	29.19	29.65	9.7	Yes	NP					
VS-11	11/15/2012	NA	trace	29.21	29.65	9.7	Yes	trace					
VS-11	12/13/2012	NA	NP	28.55	29.65	9.7	Yes	NP					
VS-11	1/17/2013	NA	trace	25.94	29.65	9.7	Yes	trace					
VS-11	2/14/2013	NA	NP	26.26	29.65	9.7	Yes	NP					
VS-11	3/12/2013	NA	NP	26.53	29.65	9.7	Yes	NP					
VS-11	4/12/2013	NA	NP	26.78	29.65	9.7	Yes	NP					
VS-11	5/16/2013	NA	NP	27.12	29.65	9.7	Yes	NP					
VS-11	6/13/2013	NA	NP	27.45	29.65	9.7	Yes	NP					
VS-11	7/11/2013	NA	NP	27.80	29.65	9.7	Yes	NP					
VS-11	8/15/2013	NA	trace	28.42	29.65	9.7	Yes						
VS-11	9/5/2013	NA	NP	28.80	29.65	9.7	Yes	NP					
VS-11	10/7/2013	NA	NP	29.04	29.65	9.7	Yes	NP					
VS-11	11/13/2013	NA	NP	29.24	29.65	9.7	Yes	NP					
VS-11	12/13/2013	NA	NP	29.23	29.65	9.7	Yes	NP					
VS-11	1/10/2014	NA	NP	29.24	29.65	9.7	Yes	NP					
VS-11	2/13/2014	NA	NP	29.24	29.65	9.7	Yes	NP					
VS-11	3/13/2014	NA	NP	29.24	29.65	9.7	Yes	NP					
VS-11	4/3/2014	NA	NP	28.32	29.65	9.7	Yes	NP					
VS-11	4/25/2014	0.5	NP	27.84	29.65	9.7	Yes	NP					PID wellhead peak 165.5 ppm
VS-11	5/5/2014	NA	NP	27.84	29.65	9.7	Yes	NP					
VS-11	5/20/2014	NA	NP	27.86	29.65	9.7	Yes	NP					Attached a well ID tag.
VS-11	6/16/2014	NA	NP	28.38	29.65	9.7	Yes	NP					
VS-11	7/15/2014	NA	NP	28.92	29.65	9.7	Yes	NP					
VS-11	8/15/2014	NA	NP	29.23	29.65	9.7	Yes	NP					
VS-11	9/19/2014	NA	trace	29.14	29.65	9.7	Yes	NP					
VS-11	10/16/2014	NA	NP	29.22	29.65	9.7	Yes	NP					White bugs on probe
VS-11	10/31/2014	NA	trace	29.23	29.65	9.7	Yes	NP					White bugs on probe
VS-11	11/26/2014	0.0	NP	29.22	29.65	9.7	Yes	NP					
VS-11	1/9/2015	NA	NP	29.20	29.65	9.7	Yes	NP					
VS-11	2/5/2015	NA	NP	28.66	29.65	9.7	Yes	NP					
VS-11	3/6/2015	NA	NP	27.70	29.65	9.7	Yes	NP					
VS-11	4/1/2015	NA	NP	27.65	29.65	9.7	Yes	NP					
VS-11	5/7/2015	NA	NP	28.14	29.65	9.7	Yes	NP					
VS-11	6/4/2015	NA	NP	28.70	29.65	9.7	Yes	NP					
VS-11	7/9/2015	NA	NP	29.21	29.65	9.7	Yes	NP					
VS-11	8/11/2015	NA	NP	29.23	29.65	9.7	Yes	NP					
VS-11	9/3/2015	NA	NP	29.22	29.65	9.7	Yes	NP					
VS-11	10/6/2015	NA	NP	29.24	29.65	9.7	Yes	NP					Sewer odor in well and on probe
VS-11	11/6/2015	NA	NP	29.22	29.65	9.7	Yes	NP					Sewer odor in well and on probe
VS-11	12/4/2015	NA	NP	29.22	29.65	9.7	Yes	NP					Apparently dry.
VS-11	1/15/2016	NA	NP	28.13	29.65	9.7	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-11	2/10/2016	NA	NP	25.80	29.65	9.7	Yes	NP					Strong hydrocarbon odor
VS-11	3/3/2016	NA	NP	25.71	29.65	9.7	Yes	NP					Strong hydrocarbon odor
VS-11	4/5/2016	NA	NP	24.16	29.65	9.7	Yes	NP					
VS-11	5/17/2016	NA	NP	26.20	29.65	9.7	Yes	NP					
VS-11	6/8/2016	NA	NP	25.59	29.65	9.7	Yes	NP					
VS-11	7/1/2016	0.0	NP	26.07	29.65	9.7	Yes	NP					White bugs on probe. PID: Breathing zone 0.0 ppm; Wellhead 0.8 ppm.
VS-11	8/19/2016	NA	NP	26.90	29.65	9.7	Yes	NP					
VS-11	9/22/2016	NA	NP	27.44	29.65	9.7	Yes	NP					
VS-11	10/3/2016	NA	NP	27.63	29.65	9.7	Yes	NP					White bugs on probe
VS-11	11/11/2016	NA	NP	27.12	29.65	9.7	Yes	NP					
VS-11	12/2/2016	NA	NP	26.17	29.65	9.7	Yes	NP					
VS-11	1/12/2017	NA	NP	25.43	29.65	9.7	Yes	NP					Heat coming out from well casing
VS-11	2/16/2017	NA	NP	23.63	29.65	9.7	Yes	NP					
VS-11	3/15/2017	NA	NP	22.66	29.65	9.7	Yes	NP					
VS-11	4/6/2017	NA	NP	20.93	29.65	9.7	Yes	NP					
VS-11	5/15/2017	NA	NP	21.22	29.65	9.7	Yes	NP					
VS-11	6/6/2017	NA	trace	21.68	29.65	9.7	Yes	trace					
VS-11	7/6/2017	NA	NP	22.51	29.65	9.7	Yes	NP					
VS-11	8/9/2017	NA	NP	23.19	29.65	9.7	Yes	NP					Re-marked well cover.
VS-11	9/15/2017	NA	NP	23.97	29.65	9.7	Yes	NP					
VS-11	10/13/2017	NA	NP	24.57	29.65	9.7	Yes	NP					White bugs on probe.
VS-11	11/6/2017	0.1	NP	24.85	29.65	9.7	Yes	NP					White bugs on probe. PID Wellhead 50.8 ppm.
VS-11	12/12/2017	NA	NP	23.68	29.65	9.7	Yes	NP					
VS-11	1/4/2018	NA	NP	23.32	29.65	9.7	Yes	NP					
VS-11	2/9/2018	NA	NP	21.00	29.65	9.7	Yes	NP					
VS-11	3/1/2018	NA	NP	21.50	29.65	9.7	Yes	NP					
VS-11	4/5/2018	NA	NP	22.20	29.65	9.7	Yes	NP					
VS-11	6/29/2018	NA	NP	23.10	29.65	9.7	Yes	NP					
VS-11	7/19/2018	NA	NP	23.49	29.65	9.7	Yes	NP					
VS-11	8/14/2018	NA	NP	23.95	29.65	9.7	Yes	NP					White bugs on probe. Sewer odor at well upon opening
VS-11	9/19/2018	NA	NP	24.70	29.65	9.7	Yes	NP					
VS-11	10/10/2018	NA	NP	25.10	29.65	9.7	Yes	NP					
VS-11	11/8/2018	0.1/10.8	NP	25.59	29.65	9.7	Yes	NP					PID breathing zone 0.1, wellhead 10.8ppm
VS-11	12/6/2018	NA	NP	25.72	29.65	9.7	Yes	NP					
VS-11	1/3/2019	NA	NP	24.90	29.65	9.7	Yes	NP					
VS-11	2/15/2019	NA	NP	24.39	29.65	9.7	Yes	NP					
VS-11	3/11/2019	NA	NP	25.25	29.65	9.7	Yes	NP					
VS-11	4/30/2019	NA	NP	25.15	29.65	9.7	Yes	NP					
VS-11	5/16/2019	NA	NP	25.37	29.65	9.7	Yes	NP					
VS-11	6/5/2019	NA	NP	25.81	29.65	9.7	Yes	NP					
									VS-11 CUMULATIVE		0	0.00	
VS-12	12/3/2009	0.0	NP	28.78	29.13	9.3	Yes	NP					Seal and bolts good, No lock, 2" butterfly cap
VS-12	1/12/2010	0.0	NP	28.98	29.13	9.3	Yes	NP					Smell of petroleum on probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-12	2/9/2010	0.0	NP	28.99	29.13	9.3	Yes	NP					Moderate smell of petroleum on probe
VS-12	10/5/2010	NA	NP	28.98	29.13	9.3	Yes	NP					
VS-12	11/10/2010	NA	NP	28.97	29.13	9.3	Yes	NP					
VS-12	12/8/2010	NA	NP	28.98	29.13	9.3	Yes	NP					
VS-12	1/5/2011	NA	NP	29.76	29.13	9.3	Yes	NP					
VS-12	2/9/2011	NA	28.77	28.97	29.13	9.3	Yes	0.20					
VS-12	3/16/2011	NA	28.01	28.15	29.13	9.3	Yes	0.14	235	0	235	0.06	Product recovery with sock
VS-12	3/24/2011	NA	27.33	27.53	29.13	9.3	Yes	0.20	460	0	695	0.18	Product recovery with sock
VS-12	3/29/2011	NA	27.22	27.31	29.13	9.3	Yes	NP					
VS-12	4/6/2011	NA	28.91	28.95	29.13	9.3	Yes	NP					
VS-12	4/13/2011	NA	26.53	26.97	29.13	9.3	Yes	0.44	850	0	1,545	0.41	Product recovery with sock
VS-12	4/21/2011	NA	26.46	26.85	29.13	9.3	Yes	0.39	650	0	2,195	0.58	Product recovery with sock
VS-12	4/27/2011	NA	26.49	26.65	29.13	9.3	Yes	0.16	200	0	2,395	0.63	Product recovery with sock
VS-12	5/4/2011	NA	26.65	26.71	29.13	9.3	Yes	0.06					
VS-12	5/11/2011	NA	26.68	26.81	29.13	9.3	Yes	0.13	200	0	2,595	0.69	Product recovery with sock
VS-12	5/18/2011	NA	26.42	26.60	29.13	9.3	Yes	0.18	200	50	2,795	0.74	Product recovery with sock
VS-12	6/23/2011	NA	NP	26.64	29.13	9.3	Yes	NP					
VS-12	7/27/2011	NA	26.77	27.27	29.13	9.3	Yes	0.05	600	50	3,395	0.90	Product recovery with sock
VS-12	8/4/2011	NA	26.93	27.47	29.13	9.3	Yes	0.54	650	50	4,045	1.07	Product recovery with sock
VS-12	8/18/2011	NA	27.56	27.79	29.13	9.3	Yes	0.23	100	50	4,145	1.09	Product recovery with sock
VS-12	8/24/2011	NA	27.75	27.90	29.13	9.3	Yes	0.15	30	50	4,175	1.10	Product recovery with sock
VS-12	8/27/2011	NA	27.56	27.77	29.13	9.3	Yes	0.21					
VS-12	9/16/2011	NA	NP	27.84	29.13	9.3	Yes	NP	15		4,190	1.10	Product recovery with sock
VS-12	9/28/2011	NA	28.56	28.60	29.13	9.3	Yes	0.04					
VS-12	4/18/2012	NA	27.45	27.54	29.13	9.3	Yes	0.09	50	30	4,240	1.10	Product recovery with sock
VS-12	4/27/2012	NA	27.40	27.56	29.13	9.3	Yes	0.16					Product recovery with sock
VS-12	5/3/2012	NA	27.14	27.25	29.13	9.3	Yes	0.11					
VS-12	5/4/2012	NA	27.45	27.29	29.13	9.3	Yes	0.16	70		4,310	1.10	Product recovery with sock
VS-12	5/11/2012	NA	27.22	27.32	29.13	9.3	Yes	0.10	50		4,360	1.10	Product recovery with sock
VS-12	5/16/2012	NA	27.20	27.30	29.13	9.3	Yes	0.10	30		4,390	1.10	Product recovery with sock
VS-12	5/25/2012	NA	27.36	27.26	29.13	9.3	Yes	0.10	40	30	4,430	1.17	
VS-12	5/29/2012	NA	27.44	27.59	29.13	9.3	Yes	0.15	95	345	4,525	1.19	
VS-12	6/8/2012	NA	27.69	27.72	29.13	9.3	Yes	0.03					
VS-12	6/13/2012	NA	27.81	27.85	29.13	9.3	Yes	0.04					
VS-12	6/20/2012	NA	27.93	27.97	29.13	9.3	Yes	0.04	2	40	4,527	1.19	
VS-12	6/29/2012	NA	28.10	28.11	29.13	9.3	Yes	0.01					
VS-12	7/3/2012	NA	28.16	28.20	29.13	9.3	Yes	0.04					
VS-12	7/13/2012	NA	28.33	28.36	29.13	9.3	Yes	0.03					
VS-12	7/20/2012												
VS-12	7/27/2012	NA	28.56	28.59	29.13	9.3	Yes	0.03					
VS-12	8/6/2012	NA	28.70	28.74	29.13	9.3	Yes	0.04					
VS-12	8/10/2012	NA	28.75	28.79	29.13	9.3	Yes	0.04					
VS-12	8/16/2012	NA	28.85	28.86	29.13	9.3	Yes	0.01					
VS-12	8/31/2012	NA	NA	29.00	29.13	9.3	Yes	0.00					
VS-12	9/5/2012	NA	NA	28.98	29.13	9.3	Yes	0.00					
VS-12	9/11/2012	NA	NA	28.98	29.13	9.3	Yes	0.00					
VS-12	10/18/2012	NA	NA	29.00	29.13	9.3	Yes						
VS-12	11/15/2012	NA	trace	28.97	29.13	9.3	Yes	0.00					Mothly wather levels, white worms

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-12	12/13/2012	NA	NP	28.56	29.13	9.3	Yes						Monthly water levels moderate petrolium odor
VS-12	1/17/2013	NA	26.85	26.95	29.13	9.3	Yes	0.10	400	230	4,927	1.30	Monthly water levels, product recovered
VS-12	1/24/2013	NA	26.79	26.92	29.13	9.3	Yes	0.13	150	320	5,077	1.34	Product recovered, Probe warm to the touch
VS-12	1/31/2013	NA	26.75	26.83	29.13	9.3	Yes	0.08					No product recovered
VS-12	2/14/2013	NA	26.85	26.97	29.13	9.3	Yes	0.12	160	220	5,237	1.38	Product recovered, Probe warm to the touch
VS-12	2/19/2013	NA	26.73	26.81	29.13	9.3	Yes	0.08					No product recovered
VS-12	3/12/2013	NA	27.00	27.05	29.13	9.3	Yes	0.05					No product recovered
VS-12	4/12/2013	NA	27.13	27.20	29.13	9.3	Yes	0.07					No product recovered
VS-12	5/16/2013	NA	27.50	27.69	29.13	9.3	Yes	0.19	190	210	5,427	1.43	
VS-12	5/23/2013	NA	27.60	27.70	29.13	9.3	Yes	0.10	40	170	5,467	1.44	
VS-12	5/29/2013	NA	27.65	27.69	29.13	9.3	Yes	0.04					
VS-12	6/13/2013	NA	27.85	27.91	29.13	9.3	Yes	0.06					
VS-12	7/11/2013	NA	28.22	28.30	29.13	9.3	Yes	0.08					
VS-12	8/15/2013	NA	NP	28.82	29.13	9.3	Yes	NP					
VS-12	9/5/2013	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	10/7/2013	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	11/13/2013	NA	NP	29.05	29.13	9.3	Yes	NP					
VS-12	12/13/2013	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	1/10/2014	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	2/13/2014	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	3/13/2014	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	4/3/2014	NA	NP	29.13	29.13	9.3	Yes	NP					
VS-12	4/25/2014	0.1	28.39	28.41	29.13	9.3	Yes	0.02					PID wellhead peak 44.5 ppm
VS-12	5/5/2014	NA	28.30	28.38	29.13	9.3	Yes	0.08					Strong Hydrocarbon Odor
VS-12	5/20/2014	NA	28.34	28.46	29.13	9.3	Yes	0.12					Strong Hydrocarbon Odor
VS-12	6/3/2014	NA	28.53	28.75	29.13	9.3	Yes	0.22					
VS-12	6/16/2014	NA	28.67	28.96	29.13	9.3	Yes	0.29					
VS-12	7/2/2014	NA	28.82	28.98	29.13	9.3	Yes	0.16					
VS-12	7/15/2014	NA	28.94	29.00	29.13	9.3	Yes	0.06					
VS-12	7/31/2014	NA	NP	28.99	29.13	9.3	Yes	NP					
VS-12	8/15/2014	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	9/19/2014	NA	NP	29.08	29.13	9.3	Yes	NP					Sand on probe
VS-12	10/2/2014	NA	NP	28.98	29.13	9.3	Yes	NP					
VS-12	10/16/2014	NA	NP	28.99	29.13	9.3	Yes	NP					
VS-12	10/31/2014	NA	NP	28.99	29.13	9.3	Yes	NP					
VS-12	11/14/2014	NA	NP	29.01	29.13	9.3	Yes	NP					
VS-12	11/24/2014	0.0	NP	29.00	29.13	9.3	Yes	NP					
VS-12	12/10/2014	NA	NP	29.01	29.13	9.3	Yes	NP					
VS-12	12/24/2014	NA	NP	29.01	29.13	9.3	Yes	NP					
VS-12	1/9/2015	NA	NP	29.00	29.13	9.3	Yes	NP					
VS-12	1/22/2015	NA	NP	29.02	29.13	9.3	Yes	NP					
VS-12	2/5/2015	NA	28.83	28.93	29.13	9.3	Yes	0.10					Hydrocarbon odor on the probe and beading
VS-12	2/20/2015	NA	trace	28.42	29.13	9.3	Yes	trace					Hydrocarbon odor on the probe and beading

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-12	3/6/2015	NA	28.39	28.41	29.13	9.3	Yes	0.02					
VS-12	3/19/2015	NA	28.34	28.40	29.13	9.3	Yes	0.06					
VS-12	4/1/2015	NA	28.21	28.26	29.13	9.3	Yes	0.05					
VS-12	5/7/2015	NA	28.59	28.80	29.13	9.3	Yes	0.21					Rust colored flakey residue on the probe
VS-12	6/4/2015	NA	28.89	29.00	29.13	9.3	Yes	0.11					
VS-12	7/9/2015	NA	NP	29.00	29.13	9.3	Yes	0.00					
VS-12	8/11/2015	NA	NP	29.03	29.13	9.3	Yes	0.00					
VS-12	9/3/2015	NA	NP	29.03	29.13	9.3	Yes	0.00					
VS-12	10/6/2015	NA	NP	29.03	29.13	9.3	Yes	0.00					
VS-12	11/6/2015	NA	NP	29.00	29.13	9.3	Yes	0.00					
VS-12	12/4/2015	NA	NP	29.01	29.13	9.3	Yes	0.00					Apparently dry.
VS-12	1/15/2016	NA	28.90	29.00	29.13	9.3	Yes	0.10	110	10	5,577	1.47	Muddy deposits and smell of sewer on the probe.
VS-12	2/10/2016	NA	NP	27.19	29.13	9.3	Yes	NP					sewer odor
VS-12	3/3/2016	NA	26.32	26.51	29.13	9.3	Yes	0.19	750	500	6,327	1.67	
VS-12	4/5/2016	NA	24.90	24.96	29.13	9.3	Yes	0.06					
VS-12	5/17/2016	NA	25.58	29.75	29.13	9.3	Yes	0.17	370	730	6,697	1.77	
VS-12	6/8/2016	NA	25.93	26.11	29.13	9.3	Yes	0.18	150	100	6,847	1.81	Recovered fuel/water on 6/10/16
VS-12	7/1/2016	0.0	26.40	26.52	29.13	9.3	Yes	0.12	110	590	6,957	1.84	7/5/16 PID: Breathing zone 0.0 ppm & wellhead 0.0 ppm. 7/12/16 product recovered.
VS-12	8/19/2016	NA	27.20	27.35	29.13	9.3	Yes	0.15	100	330	7,057	1.86	Sewer and hydrocarbon odor
VS-12	9/22/2016	NA	27.74	27.89	29.13	9.3	Yes	0.15	100	470	7,157	1.89	White bugs on probe.
VS-12	10/3/2016	NA	NP	27.96	29.13	9.3	Yes	NP					White bugs on probe. Sewer odor
VS-12	11/11/2016	NA	NP	27.25	29.13	9.3	Yes	NP					White bugs on probe. Sewer odor
VS-12	12/2/2016	NA	26.60	26.63	29.13	9.3	Yes	0.03					White bugs on probe. Sewer odor
VS-12	1/12/2017	NA	26.00	26.12	29.13	9.3	Yes	0.12					No product recovered at this time, unable to get equipment. Will reschedule once SAA unfreezes.
VS-12	1/19/2017	NA	25.80	28.83	29.13	9.3	Yes	0.03					No product recovered at this time, came back for product recover but product is below recovery limits.
VS-12	2/16/2017	NA	Trace	24.51	29.13	9.3	Yes	Trace					No product recovered at this time
VS-12	3/15/2017	NA	NP	23.36	29.13	9.3	Yes	NP					
VS-12	4/6/2017	NA	NP	21.50	29.13	9.3	Yes	NP					
VS-12	5/15/2017	NA	NP	21.14	29.13	9.3	Yes	NP					
VS-12	6/6/2017	NA	NP	21.59	29.13	9.3	Yes	NP					
VS-12	7/6/2017	NA	22.65	22.70	29.13	9.3	Yes	0.05					
VS-12	8/9/2017	NA	23.48	23.60	29.13	9.3	Yes	0.12					
VS-12	8/15/2017	NA	23.48	23.60	29.13	9.3	Yes	0.12	50	610	7,207	1.90	Product recovered with pump 8/15/17
VS-12	9/15/2017	NA	NP	24.24	29.13	9.3	Yes	NP					
VS-12	10/13/2017	NA	NP	24.87	29.13	9.3	Yes	NP					Old hydrocarbon odor
VS-12	11/6/2017	0.1	NP	25.13	29.13	9.3	Yes	NP					Old hydrocarbon odor. PID Wellhead 3.1 ppm.
VS-12	12/12/2017	NA	24.21	24.23	29.13	9.3	Yes	0.02					
VS-12	1/4/2018	NA	NP	23.86	29.13	9.3	Yes	NP					
VS-12	2/9/2018	NA	NP	21.82	29.13	9.3	Yes	NP					Strong hydrocarbon odor
VS-12	3/1/2018	NA	NP	21.53	29.13	9.3	Yes	NP					
VS-12	4/5/2018	NA	NP	22.02	29.13	9.3	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-12	6/29/2018	NA	23.40	23.49	29.13	9.3	Yes	0.09					
VS-12	7/19/2018	NA	NP	23.48	29.13	9.3	Yes	NP					White bugs on probe.
VS-12	8/14/2018	NA	NP	24.26	29.13	9.3	Yes	NP					White bugs on probe. Dirt like residue on the probe.
VS-12	9/19/2018	NA	NP	25.00	29.13	9.3	Yes	NP					White bugs on probe.
VS-12	10/10/2018	NA	Trace	25.35	29.13	9.3	Yes	Trace					White bugs on probe.
VS-12	11/8/2018	0.0	25.83	25.84	29.13	9.3	Yes	0.01					White bugs on probe. PID 0.0ppm.
VS-12	12/6/2018	NA	NP	25.95	29.13	9.3	Yes	NP					
VS-12	1/3/2019		NP	25.25	29.13	9.3	Yes	NP					
VS-12	2/15/2019		NP	24.94	29.13	9.3	Yes	NP					
VS-12	3/11/2019		NP	24.78	29.13	9.3	Yes	NP					
VS-12	4/30/2019		NP	25.53	29.13	9.3	Yes	NP					
VS-12	5/16/2019		NP	25.68	29.13	9.3	Yes	NP					
VS-12	6/5/2019		26.11	26.14	29.13	9.3	Yes	0.03					
									VS-12 CUMULATIVE		7,207	1.90	
VS-13	12/3/2009	0.0	NA	NA	29.22	9.4	Yes	NP					Seal and bolts good, 2" butterfly cap, Muddy bottom, light smell of petroleum on probe
VS-13	1/12/2010	0.2	NA	NA	29.25	9.4	Yes	NP					Probe warm to touch, light smell of petroleum
VS-13	2/9/2010	0.2	>29.23	29.24	29.25	9.4	Yes	Sheen					
VS-13	10/5/2010		NP	28.96	29.25	9.4	Yes	NP					Let well breathe, moderate petro smell, probe warm to touch
VS-13	4/18/2012	NA	NP	24.32	29.25	9.4	Yes	NP					
VS-13	10/18/2012	NA	NP	28.94	29.25	9.4	Yes	NP					
VS-13	11/15/2012	NA	28.73	28.74	29.25	9.4	Yes	0.01					
VS-13	12/13/2012	NA	NP	27.35	29.25	9.4	Yes	NP					
VS-13	1/17/2013	NA	NP	29.25	29.25	9.4	Yes	Dry					
VS-13	2/14/2013	NA	NP	25.79	29.25	9.4	Yes	NP					
VS-13	3/12/2013	NA	NP	25.92	29.25	9.4	Yes	NP					
VS-13	4/12/2013	NA	NP	26.04	29.25	9.4	Yes	NP					Cracked well cap
VS-13	5/16/2013	NA	NP	29.25	29.25	9.4	Yes	Dry					Cracked well cap
VS-13	6/13/2013	NA	NP	26.84	29.25	9.4	Yes	NP					Cracked well cap
VS-13	7/11/2013	NA	NP	27.23	29.25	9.4	Yes	NP					Cracked well cap
VS-13	8/15/2013	NA	NP	27.72	29.25	9.4	Yes	NP					
VS-13	9/5/2013	NA	NP	28.01	29.25	9.4	Yes	NP					
VS-13	10/7/2013	NA	NP	28.06	29.25	9.4	Yes	NP					
VS-13	11/13/2013	NA	NP	28.61	29.25	9.4	Yes	NP					
VS-13	12/13/2013	NA	NP	28.81	29.25	9.4	Yes	NP					
VS-13	1/10/2014	NA	NP	29.10	29.25	9.4	Yes	NP					Black sediment on probe
VS-13	2/13/2014	NA	NP	29.14	29.25	9.4	Yes	NP					
VS-13	3/13/2014	NA	NP	28.13	29.25	9.4	Yes	NP					
VS-13	4/3/2014	NA	NP	27.36	29.25	9.4	Yes	NP					
VS-13	4/25/2014	0.0	NP	27.33	29.25	9.4	Yes	NP					PID wellhead peak 20.1 ppm
VS-13	5/5/2014	NA	NP	27.30	29.25	9.4	Yes	NP					Attached a well ID tag.
VS-13	5/20/2014	NA	NP	27.35	29.25	9.4	Yes	NP					
VS-13	6/16/2014	NA	NP	27.74	29.25	9.4	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-13	7/15/2014	NA	NP	28.13	29.25	9.4	Yes	NP					
VS-13	8/15/2014	NA	NP	28.64	29.25	9.4	Yes	NP					
VS-13	9/19/2014	NA	NP	29.01	29.25	9.4	Yes	NP					
VS-13	10/16/2014	NA	NP	29.18	29.25	9.4	Yes	NP					
VS-13	10/31/2014	NA	trace	18.94	29.25	9.4	Yes	NP					Raining and bailed monument.
VS-13	11/26/2014	0.1	NP	29.16	29.25	9.4	Yes	NP					
VS-13	1/9/2015	NA	NP	28.19	29.25	9.4	Yes	NP					Missing 1 bolt on wellhead cover j plug does not fit tight due to casing slightly melted
VS-13	2/5/2015	NA	NP	28.64	29.25	9.4	Yes	NP					
VS-13	3/6/2015	NA	NP	27.39	29.25	9.4	Yes	NP					Grey residue on the probe
VS-13	4/1/2015	NA	NP	27.23	29.25	9.4	Yes	NP					J plug metal hinge piece broke off. White bugs on probe.
VS-13	5/7/2015	NA	NP	27.61	29.25	9.4	Yes	NP					J plug metal hinge piece broke off. White bugs on probe.
VS-13	6/4/2015	NA	NP	28.02	29.25	9.4	Yes	NP					Monthly water level, J plug metal hinge piece broke off, Folsomia Candida (white bugs) on probe.
VS-13	7/9/2015	NA	NP	28.43	29.25	9.4	Yes	NP					Monthly water level, J plug metal hinge piece broke off, Folsomia Candida (white bugs) on probe.
VS-13	8/11/2015	NA	NP	28.9	29.25	9.4	Yes	NP					Monthly water level, J plug metal hinge piece broke off, Folsomia Candida (white bugs) on probe. Probe had sewer smell.
VS-13	9/3/2015	NA	NP	29.19	29.25	9.4	Yes	NP					Mud on probe.
VS-13	10/6/2015	NA	NP	29.23	29.25	9.4	Yes	NP					Mud on probe.
VS-13	10/7/2015	NA	NP	29.14	29.25	9.4	Yes	NP					Mud on probe.
VS-13	11/6/2015	NA	NP	29.14	29.25	9.4	Yes	NP					Mud on probe. Apparently dry. Sewer odor.
VS-13	12/4/2015	NA	NP	28.9	29.25	9.4	Yes	NP					White bugs on probe. Apparently dry.
VS-13	1/15/2016	NA	NP	27.16	29.25	9.4	Yes	NP					White bugs on probe.
VS-13	2/10/2016	NA	NP	25.91	29.25	9.4	Yes	NP					
VS-13	3/3/2016	NA	NP	24.9	29.25	9.4	Yes	NP					
VS-13	4/5/2016	NA	NP	23.66	29.25	9.4	Yes	NP					
VS-13	5/17/2016	NA	NP	24.57	29.25	9.4	Yes	NP					
VS-13	6/8/2016	NA	NP	24.95	29.25	9.4	Yes	NP					
VS-13	7/1/2016	0.0	NP	25.42	29.25	9.4	Yes	NP					PID: Breathing zone 0.0 ppm. Wellhead 0.0 ppm
VS-13	8/19/2016	NA	NP	26.29	29.25	9.4	Yes	NP					
VS-13	9/22/2016	NA	trace	27.8	29.25	9.4	Yes	Trace					White bugs on probe.
VS-13	10/3/2016	NA	NP	26.98	29.25	9.4	Yes	NP					White bugs on probe.
VS-13	11/11/2016	NA	NP	25.74	29.25	9.4	Yes	NP					
VS-13	12/2/2016	NA	NP	25.08	29.25	9.4	Yes	NP					
VS-13	1/12/2017	NA	NP	24.85	29.25	9.4	Yes	NP					
VS-13	2/16/2017	NA	NP	21.48	29.25	9.4	Yes	NP					
VS-13	3/15/2017	NA	NP	15.33	29.25	9.4	Yes	NP					Bailed water from flush monument
VS-13	4/6/2017	NA	NP	20.63	29.25	9.4	Yes	NP					
VS-13	5/15/2017	NA	NP	20.01	29.25	9.4	Yes	NP					Pavement caving and pvc broken off 2"
VS-13	6/6/2017	NA	NP	20.93	29.25	9.4	Yes	NP					Pavement caving and pvc broken off 2"
VS-13	7/6/2017	NA	NP	21.65	29.25	9.4	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-13	8/9/2017	NA	NP	22.32	29.25	9.4	Yes	NP					
VS-13	9/15/2017	NA	NP	23.08	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	10/13/2017	NA	NP	23.64	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	11/6/2017	0.2	NP	23.68	29.25	9.4	Yes	NP					Monthly water level, pavement caving and pvc broken off 2". Measurment off 1.4". PID Wellhead 0.0 ppm.
VS-13	12/12/2017	NA	NP	22.35	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	1/4/2018	NA	NP	22.3	29.25	9.4	Yes	NP					Pavement caving and pvc broken off 2". Measurment off 1.4". White bugs on probe.
VS-13	2/9/2018	NA	NP	19.74	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	3/1/2018	NA	NP	20.02	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	4/5/2018	NA	NP	21.2	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	6/29/2018	NA	NP	22.36	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	7/19/2018	NA	NP	22.73	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	8/14/2018	NA	NP	23.17	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	9/19/2018	NA	NP	23.95	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	10/10/2018	NA	NP	24.27	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	11/8/2018	0.0	NP	24.75	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4". PID 0.0 ppm breathing zone and well head.
VS-13	12/6/2018	NA	NP	24.81	29.25	9.4	Yes	NP					Pavement caving. Top of 2" PVC well casing broken off. Measurment off 1.4".
VS-13	1/3/2019	NA	NP	18.14	29.25	9.4	Yes	NP					Pavement caving and pvc broken surface water penetration
VS-13	2/15/2019	NA	NP	15.9	29.25	9.4	Yes	NP					Pavement caving and pvc broken surface water penetration
VS-13	3/11/2019	NA	NP	23.4	29.25	9.4	Yes	NP					Pavement caving and pvc broken surface water penetration
VS-13	4/30/2019	NA	NP	24.35	29.25	9.4	Yes	NP					Pavement caving and pvc broken surface water penetration
VS-13	5/16/2019	NA	NP	24.55	29.25	9.4	Yes	NP					Pavement caving and pvc broken surface water penetration
VS-13	6/5/2019	NA	NP	25.03	29.25	9.4	Yes	NP					Pavement caving and pvc broken surface water penetration
									VS-13 CUMULATIVE		0	0.00	
VS-14	12/3/2009	0.1	NP	NA	30.0	10	Yes	NP					Heavy smell of petroleum on probe and in mud, muddy bottom, fitted PVC cap without lock, seal and bolts good
VS-14	1/12/2010	0.0	NP	NA	30.0	10	Yes	NP					Probe warm to touch, light smell of petroleum
VS-14	2/9/2010	0.0	NP	NA	30.0	10	Yes	NP					Probe warm to touch, light smell of petroleum

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VS-14	10/5/2010	NA	NP	17.17	30.0	10	Yes	NP					Well dry
VS-14	11/10/2010	NA	NP	17.17	30.0	10	Yes	NP					Well dry
VS-14	12/8/2010	NA	NP	17.25	30.0	10	Yes	NP					
VS-14	1/5/2011	NA	NP	17.55	30.0	10	Yes	NP					
VS-14	2/9/2011	NA	NP	17.50	30.0	10	Yes	NP					
VS-14	3/24/2011	NA	NP	17.18	30.0	10	Yes	NP					Well dry
VS-14	4/6/2011	NA	NP	16.90	30.0	10	Yes	NP					
VS-14	5/18/2011	NA	NP	17.18	30.0	10	Yes	NP					Well dry
VS-14	6/23/2011	NA	NP	17.18	30.0	10	Yes	NP					Well dry
VS-14	7/27/2011	NA	NP	NA	30.0	10	Yes	NP					Well hot
VS-14	8/27/2011	NA	NP	17.18	30.0	10	Yes	NP					Well dry
VS-14	9/28/2011	NA	NP	17.18	30.0	10	Yes	NP					Well dry
VS-14	4/18/2012	NA	NP	17.26	30.0	10	Yes	NP					Well dry @ 17.26 - also hot and steam emiting out of casing. Tape is very warm.
VS-14	5/3/2012	NA	NP	17.24	30.0	10	Yes	NP					Well dry
VS-14	6/8/2012	NA	NP	17.27	30.0	10	Yes	NP					
VS-14	7/3/2012	NA	NP	17.27	30.0	10	Yes	NP					
VS-14	8/6/2012	NA	NP	17.25	30.0	10	Yes	NP					
VS-14	9/11/2012	NA	NP	17.25	30.0	10	Yes	NP					Well no longer measured.
									VS-14 CUMULATIVE		0	0.00	
VS-16	12/3/2009	0.0	NP	26.59	26.96	6.9	Yes	NP					Missing 2 bolts, two enlarged sockets, 2" butterfly cap, good seal, hard bottom
VS-16	1/12/2010	0.0	NP	26.60	26.90	6.9	Yes	NP					
VS-16	2/9/2010	0.0	NP	26.60	26.96	6.9	Yes	NP					
VS-16	10/5/2010	NA	NP	26.62	26.96	6.9	Yes	NP					
VS-16	11/10/2010	NA	NP	26.64	26.96	6.9	Yes	NP					
VS-16	12/8/2010	NA	NP	26.63	26.96	6.9	Yes	NP					
VS-16	1/5/2011	NA	NP	26.60	26.96	6.9	Yes	NP					
VS-16	2/9/2011	NA	NP	26.62	26.96	6.9	Yes	NP					
VS-16	3/24/2011	NA	NP	26.62	26.96	6.9	Yes	NP					
VS-16	4/6/2011	NA	NP	25.48	26.96	6.9	Yes	NP					
VS-16	5/18/2011	NA	NP	26.41	26.96	6.9	Yes	NP					
VS-16	6/23/2011	NA	NP	26.53	26.96	6.9	Yes	NP					
VS-16	7/27/2011	NA	NP	26.54	26.96	6.9	Yes	NP					
VS-16	8/27/2011	NA	NP	26.55	26.96	6.9	Yes	NP					
VS-16	9/28/2011	NA	NP	26.55	26.96	6.9	Yes	NP					
VS-16	4/18/2012	NA	NP	26.59	26.96	6.9	Yes	NP					
VS-16	5/3/2012	NA	NP	26.56	26.96	6.9	Yes	NP					
VS-16	6/8/2012	NA	NP	26.55	26.96	6.9	Yes	NP					
VS-16	7/3/2012	NA	NP	26.58	26.96	6.9	Yes	NP					
VS-16	8/6/2012	NA	NP	26.55	26.96	6.9	Yes	NP					
VS-16	9/11/2012	NA	NP	26.58	26.96	6.9	Yes	NP					
VS-16	10/18/2012	NA	NP	26.60	26.96	6.9	Yes	NP					
VS-16	11/15/2012	NA	NP	26.59	26.96	6.9	Yes	NP					
VS-16	12/13/2012	NA	NP	26.60	26.96	6.9	Yes	NP					
VS-16	1/17/2013	NA	NP	26.53	26.96	6.9	Yes	NP					
VS-16	2/14/2013	NA	NP	26.52	26.96	6.9	Yes	NP					
VS-16	3/12/2013	NA	NP	26.52	26.96	6.9	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
VS-16	4/12/2013	NA	NP	26.54	26.96	6.9	Yes	trace					
VS-16	5/16/2013	NA	NP	26.55	26.96	6.9	Yes	NP					
VS-16	6/13/2013	NA	NP	26.55	26.96	6.9	Yes	NP					Brown residue on the probe
VS-16	7/11/2013	NA	NP	26.58	26.96	6.9	Yes	NP					Brown residue on the probe
VS-16	8/15/2013	NA	NP	26.58	26.96	6.9	Yes	NP					White bugs on probe
VS-16	9/5/2013	NA	NP	26.59	26.96	6.9	Yes	NP					White bugs on probe
VS-16	10/7/2013	NA	NP	26.60	26.96	6.9	Yes	NP					
VS-16	11/13/2013	NA	NP	26.60	26.96	6.9	Yes	NP					
VS-16	12/13/2013	NA	NP	26.60	26.96	6.9	Yes	NP					Well no longer measured.
									VS-16 CUMULATIVE		0	0.00	
MW01	10/5/2010	NA	NP	30.07	34.10	24	Yes	NP					
MW01	11/10/2010	NA	NP	30.19	34.10	24	Yes	NP					
MW01	1/5/2011	NA	NP	29.80	34.10	24	Yes	NP					
MW01	2/9/2011	NA	NP	28.48	34.10	24	Yes	NP					Sheen
MW01	3/16/2011	0.0	NP	27.49	34.10	24	Yes	NP					
MW01	3/24/2011	NA	NP	25.65	34.10	24	Yes	NP					
MW01	3/29/2011	0.0	NP	26.73	34.10	24	Yes	NP					
MW01	4/13/2011	0.0	NP	26.08	34.10	24	Yes	NP					
MW01	5/18/2011	NA	NP	25.91	34.10	24	Yes	NP					
MW01	6/23/2011	NA	NP	26.52	34.10	24	Yes	NP					
MW01	7/27/2011	NA	NP	26.75	34.10	24	Yes	NP					
MW01	8/27/2011	NA	NP	27.31	34.10	24	Yes	NP					
MW01	9/28/2011	NA	NP	27.49	34.10	24	Yes	NP					
MW01	4/18/2012	NA	NP	26.55	34.10	24	Yes	NP					
MW01	5/3/2012	NA	NP	19.04	34.10	24	No	NP					Water level checked.
MW01	6/8/2012	NA	NP	26.15	34.10	24	Yes	NP					
MW01	7/3/2012	NA	NP	25.03	34.10	24	Yes	NP					
MW01	8/6/2012	NA	NP	28.31	34.10	24	Yes	NP					
MW01	9/11/2012	NA	NP	28.32	34.10	24	Yes	NP					
MW01	10/18/2012	NA	trace	29.35	34.1	24	Yes	NP					
MW01	11/15/2012	NA	NP	28.84	34.10	24	Yes	NP					
MW01	12/13/2012	NA	NP	27.42	34.10	24	Yes	NP					
MW01	1/17/2013	NA	trace	26.32	34.10	24	Yes	NP					
MW01	2/14/2013	NA	trace	25.32	34.10	24	Yes	NP					
MW01	3/12/2013	NA	NP	26.29	34.10	24	Yes	NP					
MW01	4/12/2013	NA	NP	26.22	34.10	24	Yes	NP					
MW01	5/16/2013	NA	NP	27.05	34.10	24	Yes	NP					
MW01	6/13/2013	NA	trace	27.45	34.10	24	Yes	trace					
MW01	7/11/2013	NA	NP	27.83	34.10	24	Yes	NP					
MW01	8/15/2013	NA	NP	27.14	34.10	24	Yes	NP					
MW01	9/5/2013	NA	NP	28.33	34.10	24	Yes	NP					
MW01	10/7/2013	NA	trace	28.77	34.10	24	Yes	NP					
MW01	11/13/2013	NA	NP	29.97	34.10	24	Yes	NP					
MW01	12/13/2013	NA	NP	29.56	34.10	24	Yes	NP					
MW01	1/10/2014	NA	NP	29.3	34.10	24	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW01	2/13/2014	NA	NP	29.19	34.10	24	Yes	NP					
MW01	3/13/2014	NA	NP	28.86	34.10	24	Yes	NP					
MW01	4/3/2014	NA	NP	28.15	34.10	24	Yes	NP					
MW01	4/24/2014	0.1	NP	27.45	34.10	24	Yes	NP					
MW01	5/5/2014	NA	NP	27.82	34.10	24	Yes	NP					
MW01	5/20/2014	NA	NP	27.89	34.10	24	Yes	NP					
MW01	6/16/2014	NA	NP	26.15	34.10	24	Yes	NP					Bailed water from wellhead.
MW01	7/15/2014	NA	NP	28.8	34.10	24	Yes	NP					Red colored liquid on the probe
MW01	8/15/2014	NA	NP	29.12	34.10	24	Yes	NP					
MW01	9/19/2014	NA	NP	29.36	34.10	24	Yes	NP					
MW01	10/16/2014	NA	NP	29.55	34.10	24	Yes	NP					
MW01	10/31/2014	NA	trace	16.49	34.10	24	No	NP					Heavy rain. Bailed water from wellhead.
MW01	11/26/2014	0	NP	29.41	34.10	24	Yes	NP					
MW01	1/9/2015	NA	NP	28.94	34.10	24	Yes	NP					
MW01	2/5/2015	NA			34.10	24	No						Access covered unable to measure
MW01	3/6/2015	NA	NP	28.6	34.10	24	Yes	NP					
MW01	4/1/2015	NA	NP	27.4	34.10	24	Yes	NP					
MW01	5/7/2015	NA	NP	27.82	34.10	24	Yes	NP					
MW01	6/4/2015	NA	NP	27.8	34.10	24	Yes	NP					
MW01	7/9/2015	NA	NP	29.1	34.10	24	Yes	NP					
MW01	8/11/2015	NA	NP	29.72	34.10	24	Yes	NP					
MW01	9/3/2015	NA	NP	29.24	34.10	24	Yes	NP					
MW01	10/6/2015	NA	NP	30.4	34.10	24	Yes	NP					
MW01	11/6/2015	NA	NP	30.55	34.10	24	Yes	NP					
MW01	12/4/2015	NA	NP	28.72	34.10	24	Yes	NP					
MW01	1/15/2016	NA	NP	26.22	34.10	24	Yes	NP					
MW01	2/10/2016	NA	NP	25.4	34.10	24	Yes	NP					
MW01	3/3/2016	NA	NP	23.49	34.10	24	No	NP					
MW01	4/5/2016	NA	NP	24.23	34.10	24	Yes	NP					Removed street soil off of well plug
MW01	5/17/2016	NA	NP	25.15	34.10	24	Yes	NP					
MW01	6/8/2016	NA	NP	25.48	34.10	24	Yes	NP					
MW01	7/1/2016	0	NP	25.94	34.10	24	Yes	NP					PID: Breathing zone 0.0 ppm; wellhead 0.0 ppm.
MW01	8/19/2016	NA	NP	26.82	34.10	24	Yes	NP					
MW01	9/22/2016	NA	NP	27.47	34.10	24	Yes	NP					
MW01	10/3/2016	NA	NP	27.21	34.10	24	Yes	NP					
MW01	11/11/2016	NA	NP	26.7	34.10	24	Yes	NP					
MW01	12/2/2016	NA	NP	24.45	34.10	24	Yes	NP					
MW01	1/12/2017	NA	NP	25.46	34.10	24	Yes	NP					
MW01	2/16/2017	NA	NP	19.73	34.10	24	No	NP					
MW01	3/15/2017	NA	NP	15.57	34.10	24	No	NP					
MW01	4/6/2017	NA	NP	19.99	34.10	24	No	NP					
MW01	5/15/2017	NA	NP	22.5	34.10	24	No	NP					
MW01	6/6/2017	NA	NP	21.1	34.10	24	No	NP					Rust colored substance on probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW01	7/6/2017	NA	NP	21.95	34.10	24	No	NP					Black substance on the probe
MW01	8/9/2017	NA	NP	22.92	34.10	24	No	NP					Black substance on the probe
MW01	9/15/2017	NA	NP	23.73	34.10	24	No	NP					Black substance on the probe
MW01	10/13/2017	NA	NP	24.31	34.10	24	Yes	NP					
MW01	11/6/2017	0.0	NP	24.62	34.10	24	Yes	NP					PID Wellhead 0.0ppm
MW01	12/12/2017	NA	NP	23.71	34.10	24	No	NP					
MW01	1/4/2018	NA	NP	23.33	34.10	24	No	NP					Black substance on the probe
MW01	2/9/2018	NA	NP	19.12	34.10	24	No	NP					
MW01	3/1/2018	NA	NP	20.37	34.10	24	No	NP					
MW01	4/5/2018	NA	NP	21.52	34.10	24	No	NP					
MW01	6/29/2018	NA	NP	22.92	34.10	24	No	NP					
MW01	7/19/2018	NA	NP	23.32	34.10	24	No	NP					
MW01	8/14/2018	NA	NP	23.8	34.10	24	No	NP					Black substance on the probe
MW01	9/19/2018	NA	NP	24.5	34.10	24	Yes	NP					Black substance on the probe
MW01	10/10/2018	NA	NP	24.91	34.10	24	Yes	NP					Black substance on the probe
MW01	11/8/2018	0.0	NP	25.4	34.10	24	Yes	NP					PID breathing zone wellhead 0.0ppm
MW01	12/6/2018	NA	NP	25.44	34.10	24	Yes	NP					
MW01	1/3/2019	NA	NP	17.68	34.10	24	No	NP					
MW01	2/15/2019	NA	NP	21.4	34.10	24	No	NP					
MW01	3/11/2019	NA	NP	24.31	34.10	24	Yes	NP					
MW01	4/30/2019	NA	NP	25.05	34.10	24	Yes	NP					
MW01	5/16/2019	NA	NP	25.09	34.10	24	Yes	NP					
MW01	6/5/2019	NA	NP	25.8	34.10	24	Yes	NP					
									MW01 CUMULATIVE		0	0.00	
MW03	10/5/2010	NA	NP	29.84	35.90	18	Yes	NP					
MW03	11/10/2010	NA	NP	29.94	35.90	18	Yes	NP					
MW03	12/8/2010	NA	NP	29.87	35.90	18	Yes	NP					
MW03	1/5/2011	NA	NP	29.80	35.90	18	Yes	NP					
MW03	2/9/2011	NA	NP	29.09	35.90	18	Yes	NP					
MW03	3/24/2011	NA	NP	26.55	35.90	18	Yes	NP					
MW03	4/6/2011	NA	NP	29.17	35.90	18	Yes	NP					
MW03	5/18/2011	NA	NP	25.89	35.90	18	Yes	NP					
MW03	6/23/2011	NA	NP	26.24	35.90	18	Yes	NP					
MW03	7/27/2011	NA	NP	27.68	35.90	18	Yes	NP					
MW03	8/27/2011	NA	NP	26.98	35.90	18	Yes	NP					
MW03	9/28/2011	NA	NP	27.62	35.90	18	Yes	NP					
MW03	4/18/2012	NA	NP	26.69	35.90	18	Yes	NP					
MW03	5/3/2012	NA	NP	26.58	35.90	18	Yes	NP					
MW03	6/8/2012	NA	NP	27.11	35.90	18	Yes	NP					
MW03	7/3/2012	NA	NP	27.45	35.90	18	Yes	NP					
MW03	8/6/2012	NA	NP	27.85	35.90	18	Yes	NP					
MW03	9/11/2012	NA	NP	28.40	35.90	18	Yes	NP					
MW03	10/18/2012	NA	NP	29.23	35.90	18	Yes	NP					
MW03	11/15/2012	NA	NP	29.11	35.90	18	Yes	NP					
MW03	12/13/2012	NA	NP	27.77	35.90	18	Yes	NP					White bugs on the probe
MW03	1/17/2013	NA	NP	26.09	35.90	18	Yes	NP					White bugs on the probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW03	2/14/2013	NA	NP	26.08	35.90	18	Yes	NP					White bugs on the probe
MW03	3/12/2013	NA	NP	26.15	35.90	18	Yes	NP					White bugs on the probe
MW03	4/12/2013	NA	NP	26.26	35.90	18	Yes	NP					White bugs on the probe
MW03	5/16/2013	NA	NP	26.90	35.90	18	Yes	NP					White bugs on the probe
MW03	6/13/2013	NA	NP	26.98	35.90	18	Yes	NP					White bugs on the probe
MW03	7/11/2013	NA	NP	27.31	35.90	18	Yes	NP					White bugs on the probe
MW03	8/15/2013	NA	NP	27.80	35.90	18	Yes	NP					White bugs on the probe
MW03	9/5/2013	NA	NP	28.00	35.90	18	Yes	NP					White bugs on the probe
MW03	10/7/2013	NA	NP	28.00	35.90	18	Yes	NP					White bugs on the probe
MW03	11/13/2013	NA	NP	28.75	35.90	18	Yes	NP					White bugs on the probe
MW03	12/13/2013	NA	NP	29.00	35.90	18	Yes	NP					White bugs on the probe
MW03	1/10/2014	NA	NP	29.58	35.90	18	Yes	NP					White bugs on the probe
MW03	2/13/2014	NA	NP	28.45	35.90	18	Yes	NP					
MW03	3/13/2014	NA	NP	28.44	35.90	18	Yes	NP					
MW03	4/3/2014	NA	NP	27.55	35.90	18	Yes	NP					
MW03	4/25/2014	0.0	NP	27.43	35.90	18	Yes	NP					PID wellhead peak 0.8 ppm
MW03	5/5/2014	NA	NP	27.42	35.90	18	Yes	NP					
MW03	5/20/2014	NA	NP	27.45	35.90	18	Yes	NP					
MW03	5/20/2014	NA	NP	27.45	35.90	18	Yes	NP					Attached a well ID tag.
MW03	6/16/2014	NA	NP	27.01	35.90	18	Yes	NP					
MW03	7/15/2014	NA	NP	28.30	35.90	18	Yes	NP					Red colored liquid on the probe
MW03	8/15/2014	NA	NP	28.35	35.90	18	Yes	NP					Strong hydrocarbon odor
MW03	9/19/2014	NA	NP	28.82	35.90	18	Yes	NP					Strong hydrocarbon odor
MW03	10/16/2014	NA	NP	29.81	35.90	18	Yes	NP					Strong hydrocarbon odor
MW03	10/31/2014	NA	NP	29.62	35.90	18	Yes	NP					Strong hydrocarbon odor
MW03	11/26/2014	0.0	NP	29.63	35.90	18	Yes	NP					Strong hydrocarbon odor
MW03	1/9/2015	NA	NP	28.39	35.90	18	Yes	NP					Missing wellhead cover bolt
MW03	2/5/2015	NA	NP	28.03	35.90	18	Yes	NP					
MW03	3/6/2015	NA	NP	27.51	35.90	18	Yes	NP					White bugs on the probe
MW03	4/1/2015	NA	NP	27.38	35.90	18	Yes	NP					White bugs on the probe. Well no longer measured.
									MW03 CUMULATIVE		0	0.00	
MW04	12/3/2009	0.0	NA	NA	30.96	20	Yes	NP					Seal and bolts good, 4" butterfly cap, light smell of petro. On probe
MW04	1/12/2010	0.1	NA	30.26	30.96	20	Yes	NP					Black sediment, smell of petroleum on probe
MW04	2/9/2010	0.2	28.73	30.25	20.96	20	Yes	1.52	4,066	2,038	4,066	1.07	Black sediment, heavy smell of petroleum on probe; after bailing DTP 30.63 DTW 30.83 ft, product seems to be flowing into well
MW04	3/3/2010	NA	27.93	28.73	30.96	20	Yes	0.80					Measured product and water in well with probe
MW04	3/4/2010	NA	27.96	28.79	30.96	20	Yes	0.77					Measured product and water in well with probe
MW04	3/5/2010	NA	27.98	28.80	30.96	20	Yes	0.79					Measured product and water in well with probe
MW04	3/8/2010	NA	28.18	28.84	30.96	20	Yes	0.66					Measured product and water in well with probe
MW04	3/9/2010	NA	28.14	28.81	30.96	20	Yes	0.67					Measured product and water in well with probe
MW04	3/10/2010	NA	28.20	28.88	30.96	20	Yes	0.68					Measured product and water in well with probe
MW04	3/11/2010	NA	28.12	28.80	30.96	20	Yes	0.68					Measured product and water in well with probe
MW04	3/12/2010	NA	28.00	28.70	30.96	20	Yes	0.70					Measured product and water in well with probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW04	3/15/2010	NA	28.11	28.82	30.96	20	Yes	0.71					Measured product and water in well with probe
MW04	3/29/2010	NA	27.95	28.62	30.96	20	Yes	0.67					Bailed until rechage of well was greater than bailing rate
MW04	3/29/2010	NA	30.22	30.62	30.96	20	Yes	0.40	540	5,430	4,606	1.22	Measured product and water removed during bailing
MW04	3/30/2010	NA	27.84	28.38	30.96	20	Yes	0.54					
MW04	3/30/2010	NA	29.91	30.20	30.96	20	Yes	0.29					
MW04	3/30/2010	NA	30.31	30.47	30.96	20	Yes	0.16	435	5,685	5,041	1.33	Measured product and water removed during bailing
MW04	3/31/2010	NA	27.92	28.15	30.96	20	Yes	0.23					
MW04	3/31/2010	NA	29.90	30.03	30.96	20	Yes	0.13					
MW04	3/31/2010	NA	29.98	30.00	30.96	20	Yes	0.02					
MW04	3/31/2010	NA	30.39	30.39	30.96	20	Yes	NP	220	5,880	5,261	1.39	Measured product and water removed during bailing
MW04	4/1/2010	NA	27.93	27.98	30.96	20	Yes	0.05					Bailed until rechage of well was greater then bailing rate
MW04	4/1/2010	NA	30.09	30.11	30.96	20	Yes	0.02					Used a absorbant sock to pull remaining product in well
MW04	4/1/2010	NA	30.03	30.03	30.96	20	Yes	NP					Bailed until rechage of well was greater than bailing rate
MW04	4/1/2010	NA	30.57	30.57	30.96	20	Yes	NP	15	6,285	5,276	1.39	Measured product and water in well with probe
MW04	4/2/2010	NA	27.65	27.68	30.96	20	Yes	0.03					Measured product and water in well with probe
MW04	4/5/2010	NA	27.87	27.90	30.96	20	Yes	0.03					Measured product and water in well with probe
MW04	4/6/2010	NA	27.98	28.02	30.96	20	Yes	0.04					Measured product and water in well with probe
MW04	5/5/2010	0.1	NP	28.19	30.96	20	Yes	NA	30	50	5,306	1.40	Recovered 30ml of product. Bailed until recharge of well was greater than bailing rate
MW04	5/10/2010	NA	NP	28.15	30.96	20	Yes	NP					
MW04	8/3/2010	NA	NP	29.27	35.00	20	Yes	NP					
MW04	8/11/2010	NA	NP	29.48	35.00	20	Yes	NP					
MW04	8/20/2010	NA	29.61	29.62	35.00	20	Yes	0.01					Sheen
MW04	8/25/2010	NA	29.95	30.08	35.00	20	Yes	0.13	275	NA	5,581	1.47	Product recovery with sock
MW04	9/1/2010	NA	29.75	29.75	35.00	20	Yes	NP					
MW04	9/10/2010	NA	29.77	29.77	35.00	20	Yes	NP					
MW04	9/15/2010	NA	29.62	29.62	35.00	20	Yes	NP					
MW04	9/24/2010	NA	29.84	29.84	35.00	20	Yes	NP					
MW04	9/29/2010	NA	29.86	29.86	35.00	20	Yes	NP					
MW04	10/5/2010	NA	29.87	29.87	35.00	20	Yes	NP					
MW04	10/13/2010	NA	29.92	29.92	35.00	20	Yes	NP					
MW04	10/19/2010	NA	29.98	29.98	35.00	20	Yes	NP					
MW04	10/27/2010	NA	30.04	30.04	35.00	20	Yes	NP					
MW04	11/3/2010	NA	30.09	30.09	35.00	20	Yes	NP					
MW04	11/10/2010	NA	30.14	30.14	35.00	20	Yes	NP					
MW04	11/17/2010	0.00	30.11	30.11	35.00	20	Yes	NP					
MW04	11/24/2010	NA	NP	30.07	35.00	20	Yes	NP					
MW04	12/1/2010	NA	NP	30.13	35.00	20	Yes	NP					
MW04	12/8/2010	NA	30.26	30.27	35.00	20	Yes	0.01					
MW04	12/15/2010	NA	29.85	29.86	35.00	20	Yes	0.01					
MW04	12/22/2010	NA	NP	29.52	35.00	20	Yes	NP					
MW04	12/30/2010	NA	NP	28.89	35.00	20	Yes	NP					
MW04	1/5/2011	NA	NP	30.16	35.00	20	Yes	NP					
MW04	1/14/2011	NA	NP	28.56	35.00	20	Yes	NP					
MW04	1/19/2011	NA	NP	28.24	35.00	20	Yes	NP					
MW04	1/26/2011	NA	NP	28.19	35.00	20	Yes	NP					
MW04	2/2/2011	NA	NP	28.15	35.00	20	Yes	NP					
MW04	2/9/2011	NA	NP	28.10	35.00	20	Yes	NP					
MW04	2/17/2011	NA	NP	27.94	35.00	20	Yes	NP					
MW04	2/28/2011	NA	NP	27.89	35.00	20	Yes	NP					
MW04	3/16/2011	NA	NP	27.73	35.00	20	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW04	3/24/2011	NA	NP	26.51	35.00	20	Yes	NP					
MW04	3/29/2011	NA	NP	26.14	35.00	20	Yes	NP					
MW04	4/6/2011	NA	NP	29.01	35.00	20	Yes	NP					
MW04	5/18/2011	NA	NP	25.75	35.00	20	Yes	NP					
MW04	6/23/2011	NA	NP	26.48	35.00	20	Yes	NP					
MW04	7/27/2011	NA	NP	26.86	35.00	20	Yes	NP					
MW04	8/27/2011	NA	NP	27.23	35.00	20	Yes	NP					
MW04	9/28/2011	NA	NP	28.01	35.00	20	Yes	NP					
MW04	4/18/2012	NA	NP	25.91	35.00	20	Yes	NP					
MW04	5/3/2012	NA	NP	25.81	35.00	20	Yes	NP					
MW04	6/8/2012	NA	NP	NA	35.00	20	Yes						
MW04	6/13/2012	NA	NP	21.03	35.00	20	Yes	NP					
MW04	7/3/2012	NA	NP	27.46	35.00	20	Yes	NP					
MW04	8/6/2012	NA	NP	27.98	35.00	20	Yes	NP					
MW04	9/11/2012	NA	NP	28.70	35.00	20	Yes	NP					
MW04	11/15/2012	NA	NP	29.63	35.00	20	Yes	NP					Removed absorbent sock in well
MW04	12/13/2012	NA	NP	26.85	35.00	20	Yes	NP					
MW04	1/17/2013	NA	NP	25.28	35.00	20	Yes	NP					
MW04	2/14/2013	NA	trace	25.37	35.00	20	Yes	NP					
MW04	3/12/2013	NA	NP	25.40	35.00	20	Yes	NP					
MW04	4/12/2013	NA	NP	25.53	35.00	20	Yes	NP					
MW04	5/16/2013	NA	NP	26.21	35.00	20	Yes	NP					
MW04	6/13/2013	NA	NP	28.80	35.00	20	Yes	NP					
MW04	7/11/2013	NA	NP	27.50	35.00	20	Yes	NP					
MW04	8/15/2013	NA	NP	28.10	35.00	20	Yes	NP					
MW04	9/5/2013	NA	NP	28.38	35.00	20	Yes	NP					
MW04	10/7/2013	NA	NP	28.43	35.00	20	Yes	NP					
MW04	11/13/2013	NA	NP	28.94	35.00	20	Yes	NP					
MW04	12/13/2013	NA	NP	29.11	35.00	20	Yes	NP					
MW04	1/10/2014	NA	NP	29.50	35.00	20	Yes	NP					
MW04	2/13/2014	NA	NP	29.50	35.00	20	Yes	NP					
MW04	3/13/2014	NA	NP	28.19	35.00	20	Yes	NP					
MW04	4/3/2014	NA	NP	27.19	35.00	20	Yes	NP					
MW04	4/25/2014	7.9	NP	27.29	35.00	20	Yes	NP					PID wellhead peak 193.9 ppm
MW04	5/5/2014	NA	NP	27.19	35.00	20	Yes	NP					
MW04	5/20/2014	NA	NP	27.19	35.00	20	Yes	NP					
MW04	5/20/2014	NA	NP	29.19	35.00	20	Yes	NP					
MW04	6/3/2014	NA	NP	27.52	35.00	20	Yes	NP					
MW04	6/16/2014	NA	NP	27.77	35.00	20	Yes	NP					
MW04	7/2/2014	NA	NP	28.15	35.00	20	Yes	NP					
MW04	7/15/2014	NA	NP	29.37	35.00	20	Yes	NP					
MW04	7/31/2014	NA	NP	28.69	35.00	20	Yes	NP					Let breathe
MW04	8/15/2014	NA	NP	29.00	35.00	20	Yes	NP					Let breathe
MW04	9/19/2014	NA	NP	29.28	36.00	20	Yes	NP					Let breathe
MW04	10/2/2014	NA	trace	29.79	36.00	20	Yes						Let breathe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW04	10/16/2014	NA	NP	29.96	36.00	20	Yes	NP					Let breathe
MW04	10/31/2014	NA	trace	29.77	36.00	20	Yes						Let breathe
MW04	11/14/2014	NA	NP	29.60	36.00	20	Yes	NP					Let breathe
MW04	11/26/2014	0.1	NP	29.57	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	12/10/2014	NA	NP	29.22	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	12/24/2014	NA	NP	28.59	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	1/9/2015	NA	NP	28.20	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	1/22/2015	NA	NP	28.12	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	2/5/2015	NA	NP	27.92	36.00	20	Yes	NP					
MW04	2/20/2015	NA	NP	27.51	36.00	20	Yes	NP					
MW04	3/6/2015	NA	NP	27.57	36.00	20	Yes	NP					
MW04	4/1/2015	NA	NP	27.53	36.00	20	Yes	NP					
MW04	5/7/2015	NA	NP	27.91	36.00	20	Yes	NP					
MW04	6/4/2015	NA	NP	28.36	36.00	20	Yes	NP					Let breathe at the wellhead, brown residue on the probe
MW04	7/9/2015	NA	NP	28.84	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	8/11/2015	NA	NP	29.42	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	9/3/2015	NA	NP	29.73	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	10/6/2015	NA	NP	30.11	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	11/6/2015	NA	NP	30.34	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	12/4/2015	NA	NP	29.50	36.00	20	Yes	NP					Let breathe at the wellhead
MW04	1/15/2016	NA	NP	28.75	36.00	20	Yes	NP					
MW04	2/10/2016	NA	NP	25.57	36.00	20	Yes	NP					Let breathe at the wellhead. Old hydrocarbon odor.
MW04	3/3/2016	NA	NP	25.10	36.00	20	Yes	NP					
MW04	4/5/2016	NA	NP	23.19	36.00	20	Yes	NP					
MW04	5/17/2016	NA	NP	24.66	36.00	20	Yes	NP					
MW04	6/8/2016	NA	NP	25.10	36.00	20	Yes	NP					
MW04	7/1/2016	0.0	NP	25.56	36.00	20	Yes	NP					PID: Breathing zone 0.0 ppm; Wellhead 0.2 ppm.
MW04	8/19/2016	NA	NP	26.49	36.00	20	Yes	NP					
MW04	9/22/2016	NA	NP	27.10	36.00	20	Yes	NP					Strong hydrocarbon and sewer odor
MW04	10/3/2016	NA	NP	27.28	36.00	20	Yes	NP					Strong hydrocarbon odor
MW04	11/11/2016	NA	NP	26.10	36.00	20	Yes	NP					Strong old hydrocarbon odor
MW04	12/2/2016	NA	NP	25.27	36.00	20	Yes	NP					Strong old hydrocarbon odor
MW04	1/12/2017												Well monument cover was frozen, unable to open to measure
MW04	1/19/2017	NA	NP	24.70	36.00	20	Yes	NP					
MW04	2/16/2017	NA	NP	23.63	36.00	20	Yes	NP					
MW04	3/15/2017	NA	NP	22.40	36.00	20	Yes	NP					
MW04	4/6/2017	NA	NP	21.25	36.00	20	Yes	NP					
MW04	5/15/2017	NA	NP	20.63	36.00	20	Yes	NP					
MW04	6/6/2017	NA	NP	21.03	36.00	20	Yes	NP					
MW04	7/6/2017	NA	NP	21.80	36.00	20	Yes	NP					
MW04	8/9/2017	NA	NP	22.50	36.00	20	Yes	NP					
MW04	9/15/2017	NA	NP	23.32	36.00	20	Yes	NP					Re-marked well cover with ID

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW04	10/13/2017	NA	NP	24.00	36.00	20	Yes	NP					
MW04	11/6/2017	0.1	NP	24.35	36.00	20	Yes	NP					Wellhead 2.9 ppm
MW04	12/12/2017	NA	NP	22.94	36.00	20	Yes	NP					
MW04	1/4/2018	NA	NP	22.62	36.00	20	Yes	NP					
MW04	2/9/2018	NA	NP	21.23	36.00	20	Yes	NP					
MW04	3/1/2018	NA	NP	20.01	36.00	20	Yes	NP					
MW04	4/5/2018	NA	NP	21.31	36.00	20	Yes	NP					
MW04	6/29/2018	NA	NP	22.25	36.00	20	Yes	NP					
MW04	7/19/2018	NA	NP	22.63	36.00	20	Yes	NP					
MW04	8/14/2018	NA	NP	23.10	36.00	20	Yes	NP					
MW04	9/19/2018	NA	NP	23.99	36.00	20	Yes	NP					
MW04	10/10/2018	NA	NP`	24.50	36.00	20	Yes	NP					
MW04	11/8/2018	0.1/0.5	NP	25.03	36.00	20	Yes	NP					PID at breathing zone 0.1ppm wellhead 0.5ppm
MW04	12/6/2018	NA	NP	25.11	36.00	20	Yes	NP					
MW04	1/3/2019	NA	NP	24.25	36.00	20	Yes	NP					
MW04	2/15/2019	NA	NP	25.75	36.00	20	Yes	NP					
MW04	3/11/2019	NA	NP	23.74	36.00	20	Yes	NP					
MW04	4/30/2019	NA	NP	24.43	36.00	20	Yes	NP					
MW04	5/16/2019	NA	NP	24.93	36.00	20	Yes	NP					
MW04	6/5/2019	NA	NP	25.33	36.00	20	Yes	NP					
									MW04 CUMULATIVE		5,581	1.47	
MW05	10/5/2010	NA	NP	30.05	40.50	20	Yes	NP					
MW05	11/10/2010	NA	NP	30.08	40.50	20	Yes	NP					
MW05	12/8/2010	NA	NP	29.98	40.50	20	Yes	NP					
MW05	1/5/2011	NA	NP	30.01	40.50	20	Yes	NP					
MW05	2/9/2011	NA	28.26	28.28	40.50	20	Yes	0.02					
MW05	3/16/2011	NA	NP	27.06	40.50	20	Yes	NP					
MW05	3/24/2011	NA	NP	26.42	40.50	20	Yes	NP					
MW05	3/29/2011	NA	NP	26.32	40.50	20	Yes	NP					
MW05	4/6/2011	NA	NP	28.95	40.50	20	Yes	NP					
MW05	4/13/2011	NA	NP	25.96	40.50	20	Yes	NP					
MW05	5/4/2011	NA	26.59	26.61	40.50	20	Yes	0.02					
MW05	5/11/2011	NA	NP	26.17	40.50	20	Yes	NP					
MW05	5/18/2011	NA	NP	26.17	40.50	20	Yes	NP					
MW05	6/23/2011	NA	NP	26.64	40.50	20	Yes	NP					
MW05	7/27/2011	NA	NP	27.70	40.50	20	Yes	NP					
MW05	8/27/2011	NA	NP	27.44	40.50	20	Yes	NP					
MW05	9/28/2011	NA	NP	28.08	40.50	20	Yes	NP					
MW05	4/18/2012	NA	NP	26.62	40.50	20	Yes	NP					
MW05	5/3/2012	NA	NP	26.93	40.50	20	Yes	NP					
MW05	6/8/2012	NA	NP	27.45	40.50	20	Yes	NP					
MW05	7/3/2012	NA	NP	27.79	40.50	20	Yes	NP					
MW05	8/6/2012	NA	NP	28.21	40.50	20	Yes	NP					
MW05	9/11/2012	NA	NP	28.74	40.50	20	Yes	NP					
MW05	10/18/2012	NA	NP	29.26	40.50	20	Yes	NP					
MW05	11/15/2012	NA	NP	29.22	40.50	20	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW05	12/13/2012	NA	NP	27.69	40.50	20	Yes	NP					
MW05	1/17/2013	NA	trace	26.23	40.50	20	Yes	trace					
MW05	2/14/2013	NA	NP	26.32	40.50	20	Yes	NP					
MW05	3/12/2013	NA	trace	26.43	40.50	20	Yes	trace					
MW05	4/12/2013	NA	NP	26.45	40.50	20	Yes						Petroleum odor
MW05	5/16/2013	NA	NP	27.02	40.50	20	Yes						
MW05	6/13/2013	NA	NP	27.35	40.50	20	Yes	NP					
MW05	7/11/2013	NA	NP	27.73	40.50	20	Yes	NP					
MW05	8/15/2013	NA	NP	28.28	40.50	20	Yes	NP					
MW05	9/5/2013	NA	NP	28.52	40.50	20	Yes	NP					
MW05	10/7/2013	NA	NP	28.53	40.50	20	Yes	NP					
MW05	11/13/2013	NA	NP	29.06	40.50	20	Yes	NP					
MW05	12/13/2013	NA	NP	29.34	40.50	20	Yes	NP					
MW05	1/10/2014	NA	NP	29.85	40.50	20	Yes	NP					
MW05	2/13/2014	NA	NP	29.71	40.50	20	Yes	NP					
MW05	3/13/2014	NA	trace	28.31	40.50	20	Yes	NP					
MW05	4/3/2014	NA	trace	27.60	40.50	20	Yes	NP					
MW05	4/25/2014	0.20	NP	27.70	40.50	20	Yes	NP					PID wellhead peak 89.5 ppm
MW05	5/5/2014	NA	NP	27.62	40.50	20	Yes	NP					
MW05	5/20/2014	NA	NP	27.79	40.50	20	Yes	NP					
MW05	5/20/2014	NA	NP	27.79	40.50	20	Yes	NP					
MW05	6/16/2014	NA	NP	28.24	40.50	20	Yes	NP					
MW05	7/15/2014	NA	NP	28.62	40.50	20	Yes	NP					
MW05	8/15/2014	NA	NP	29.09	40.50	20	Yes	NP					
MW05	9/19/2014	NA	NP	29.22	40.50	20	Yes	NP					
MW05	10/16/2014	NA	NP	29.89	40.50	20	Yes	NP					
MW05	10/31/2014	NA	trace	29.68	40.50	20	Yes	NP					
MW05	11/26/2014	0.10	NP	29.71	40.50	20	Yes	NP					
MW05	1/12/2015	NA	trace	28.54	40.50	20	Yes	trace					1/2 inch tubing in well probe had odor and beading on the end
MW05	1/22/2015	NA	trace	28.30	40.50	20	Yes	trace					Used bailer to test water for product
MW05	2/5/2015	NA	NP	28.95	40.50	20	Yes	NP					
MW05	3/6/2015	NA	NP	27.72	40.50	20	Yes	NP					Solvent odor
MW05	4/1/2015	NA	NP	27.60	40.50	20	Yes	NP					Solvent odor
MW05	5/7/2015	NA	NP	28.02	40.50	20	Yes	NP					Solvent odor
MW05	6/4/2015	NA	NP	29.02	40.50	20	Yes	NP					
MW05	7/9/2015	NA	NP	28.94	40.50	20	Yes	NP					
MW05	8/11/2015	NA	SKIP	SKIP	40.50	20	Yes						Skip for August while AECOM testing
MW05	9/3/2015	NA	NP	29.72	40.50	20	Yes	NP					
MW05	10/6/2015	NA	NP	30.07	40.50	20	Yes	NP					
MW05	11/6/2015	NA	NP	30.21	40.50	20	Yes	NP					
MW05	12/4/2015	NA	NP	29.03	40.50	20	Yes	NP					
MW05	1/15/2016	NA	NP	28.11	40.50	20	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW05	2/10/2016	NA	NP	26.36	40.50	20	Yes	NP					
MW05	3/3/2016												AECOM has tube in well, did not take DTW
MW05	4/5/2016	NA	NP	24.25	40.50	20	Yes	NP					
MW05	5/17/2016	NA	NP	25.04	40.50	20	Yes	NP					
MW05	6/8/2016	NA	NP	25.55	40.50	20	Yes	NP					
MW05	7/1/2016	0.5	NP	25.98	40.50	20	Yes	NP					PID: Breathing zone 0.5 ppm; Wellhead 104 ppm.
MW05	8/19/2016	NA	NP	26.80	40.50	20	Yes	NP					Sewer odor and brown slimy material on probe
MW05	9/22/2016	NA	NP	27.35	40.50	20	Yes	NP					
MW05	10/3/2016	NA	NP	27.50	40.50	20	Yes	NP					Monument cover cracked and strong chemical odor
MW05	11/11/2016	NA	NP	26.51	40.50	20	Yes	NP					Monument cover cracked and strong chemical odor
MW05	12/2/2016	NA	NP	25.80	40.50	20	Yes	NP					Monument cover cracked and strong chemical odor
MW05	1/12/2017	NA	NP	25.50	40.50	20	Yes	NP					Monument cover cracked and strong chemical odor
MW05	2/16/2017	NA	NP	23.90	40.50	20	Yes	NP					Monument cover cracked and strong chemical odor
MW05	3/15/2017	NA	NP	22.90	40.50	20	Yes	NP					Monument cover cracked and strong chemical odor
MW05	4/6/2017	NA	NP	21.80	40.50	20	Yes	NP					Monument cover cracked
MW05	5/15/2017	NA	NP	21.39	40.50	20	Yes	NP					Monument cover cracked
MW05	6/6/2017	NA	NP	21.84	40.50	20	Yes	NP					Monument cover cracked
MW05	7/6/2017	NA	NP	22.51	40.50	20	Yes	NP					Monument cover cracked
MW05	8/9/2017	NA	NP	23.17	40.50	20	Yes	NP					Monument cover cracked
MW05	9/15/2017	NA	NP	23.88	40.50	20	Yes	NP					Monument cover cracked
MW05	10/13/2017	NA	NP	24.45	40.50	20	Yes	NP					Monument cover cracked in 4 places
MW05	11/6/2017	0.1	NP	24.62	40.50	20	Yes	NP					Monument cover cracked in 4 places. PID Wellhead 108.2ppm
MW05	12/12/2017	NA	NP	23.82	40.50	20	Yes	NP					Monument cover cracked in 4 places
MW05	1/12/2017	NA	NP	23.31	40.50	20	Yes	NP					Monument cover cracked in 4 places
MW05	2/9/2018	NA	NP	21.70	40.50	20	Yes	NP					Monument cover cracked in 4 places, cracks worse
MW05	3/1/2018	NA	NP	21.61	40.50	20	Yes	NP					Monument cover broken in pieces
MW05	4/5/2018	NA	NP	22.06	40.50	20	Yes	NP					Monument cover broken in pieces
MW05	6/29/2018	NA	NP	23.05	40.50	20	Yes	NP					Monument cover broken in pieces
MW05	7/19/2018	NA	NP	23.48	40.50	20	Yes	NP					Monument cover broken in pieces
MW05	8/14/2018	NA	NP	23.90	40.50	20	Yes	NP					Monument cover broken in pieces
MW05	9/19/2018	NA	NP	24.60	40.50	20	Yes	NP					Monument cover replaced
MW05	10/10/2018	NA	NP	24.90	40.50	20	Yes	NP					
MW05	11/8/2018	0.1/45	NP	25.35	40.50	20	Yes	NP					PID breathing zone 0.1 wellhead 45 ppm
MW05	12/6/2018	NA	NP	25.39	40.50	20	Yes	NP					
MW05	1/3/2019	NA	NP	24.56	40.50	20	Yes	NP					
MW05	2/15/2019	NA	NP	24.40	40.50	20	Yes	NP					
MW05	3/11/2019	NA	NP	24.21	40.50	20	Yes	NP					
MW05	4/30/2019	NA	NP	25.04	40.50	20	Yes	NP					
MW05	5/16/2019	NA	NP	25.24	40.50	20	Yes	NP					
MW05	6/5/2019	NA	NP	25.63	40.50	20	Yes	NP					
									MW05 CUMULATIVE		0	0.00	
MW08	10/5/2010	NA	NP	30.26	39.39	29.39	Yes	NP					
MW08	11/10/2010	NA	NP	30.38	39.39	29.39	Yes	NP					
MW08	12/8/2010	NA	NP	30.33	39.39	29.39	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW08	1/5/2011	NA	NP	30.25	39.39	29.39	Yes	NP					
MW08	2/9/2011	NA	NP	28.59	39.39	29.39	No	NP					
MW08	3/24/2011	NA	NP	26.97	39.39	29.39	No	NP					
MW08	5/18/2011	NA	NP	26.44	39.39	29.39	No	NP					
MW08	6/23/2011	NA	NP	26.85	39.39	29.39	No	NP					
MW08	7/27/2011	NA	NP	27.28	39.39	29.39	No	NP					
MW08	8/27/2011	NA	NP	27.59	39.39	29.39	No	NP					
MW08	9/28/2011	NA	NP	28.22	39.39	29.39	No	NP					
MW08	4/18/2012	NA	NP	27.16	39.39	29.39	No	NP					
MW08	5/3/2012	NA	NP	27.20	39.39	29.39	No	NP					
MW08	6/8/2012	NA	NP	27.70	39.39	29.39	No	NP					
MW08	7/3/2012	NA	NP	27.95	39.39	29.39	No	NP					
MW08	8/6/2012	NA	NP	28.36	39.39	29.39	No	NP					
MW08	9/11/2012	NA	NP	28.93	39.39	29.39	No	NP					
MW08	10/18/2012	NA	trace	29.35	39.39	29.39	No	trace					
MW08	11/15/2012	NA	NP	29.44	39.39	29.39	Yes	NP					
MW08	12/13/2012	NA	NP	28.11	39.39	29.39	No	NP					
MW08	1/17/2013	NA	NP	26.63	39.39	29.39	No	NP					
MW08	2/14/2013	NA	trace	26.60	39.39	29.39	No	trace					Oily residue on probe, fuel odor
MW08	3/12/2013	NA	NP	26.85	39.39	29.39	No	NP					Probe was warm to the touch
MW08	4/12/2013	NA	NP	26.75	39.39	29.39	No	NP					
MW08	5/16/2013	NA	NP	27.22	39.39	29.39	No	NP					
MW08	6/13/2013	NA	trace	27.53	39.39	29.39	No	trace					
MW08	7/11/2013	NA	NP	27.91	39.39	29.39	No	NP					
MW08	8/15/2013	NA	NP	28.40	39.39	29.39	No	NP					
MW08	9/5/2013	NA	NP	28.65	39.39	29.39	No	NP					
MW08	10/7/2013	NA	NP	28.71	39.39	29.39	No	NP					
MW08	11/13/2013	NA	NP	29.26	39.39	29.39	No	NP					
MW08	12/13/2013	NA	NP	29.50	39.39	29.39	Yes	NP					
MW08	1/10/2014	NA	NP	29.75	39.39	29.39	Yes	NP					
MW08	2/13/2014	NA	NP	29.90	39.39	29.39	Yes	NP					
MW08	3/13/2014	NA	NP	28.80	39.39	29.39	No	NP					
MW08	4/3/2014	NA	NP	28.02	39.39	29.39	No	NP					Probe was warm to the touch
MW08	4/25/2014	9.2	NP	28.00	39.39	29.39	No	NP					PID wellhead peak 941.6 ppm
MW08	5/5/2014	NA	NP	27.95	39.39	29.39	No	NP					Bailed monument
MW08	5/20/2014	NA	NP	28.41	39.39	29.39	No	NP					Bailed monument
MW08	5/20/2014	NA	NP	28.41	39.39	29.39	No	NP					Bailed monument
MW08	6/16/2014	NA	NP	28.46	39.39	29.39	No	NP					Bailed monument
MW08	7/15/2014	NA	NP	28.81	39.39	29.39	No	NP					
MW08	8/15/2014	NA	NP	29.29	39.39	29.39	No	NP					
MW08	9/19/2014	NA	NP	29.08	39.39	29.39	No	NP					
MW08	10/16/2014	NA	NP	30.09	39.39	29.39	Yes	NP					
MW08	10/31/2014	NA	trace	29.97	39.39	29.39	Yes	NP					
MW08	11/26/2014	4.5	NP	30.10	39.39	29.39	Yes	NP					
MW08	1/9/2015	NA	NP	28.80	39.39	29.39	No	NP					1 wellhead cover bolt missing
MW08	2/5/2015	NA	NP	28.50	39.39	29.39	No	NP					
MW08	3/6/2015	NA	NP	28.09	39.39	29.39	No	NP					
MW08	4/1/2015	NA	NP	27.90	39.39	29.39	No	NP					Bailed monument
MW08	5/7/2015	NA	NP	28.25	39.39	29.39	No	NP					Bailed monument
MW08	6/4/2015	NA	NP	26.85	39.39	29.39	No	NP					
MW08	7/9/2015	NA	NP	29.09	39.39	29.39	No	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW08	8/11/2015	NA	NP	29.56	39.39	29.39	Yes	NP					
MW08	9/3/2015	NA	NP	29.87	39.39	29.39	Yes	NP					
MW08	10/6/2015	NA	NP	30.24	39.39	29.39	Yes	NP					
MW08	11/6/2015	NA	NP	30.43	39.39	29.39	Yes	NP					
MW08	12/4/2015	NA	NP	30.15	39.39	29.39	Yes	NP					
MW08	1/15/2016	NA	NP	28.53	39.39	29.39	No	NP					
MW08	2/10/2016												Vehicle over well, unable to measure
MW08	3/3/2016	NA	NP	26.09	39.39	29.39	No	NP					
MW08	4/5/2016	NA	NP	24.57	39.39	29.39	No	NP					
MW08	5/17/2016	NA	NP	25.38	39.39	29.39	No	NP					
MW08	6/8/2016	NA	NP	25.72	39.39	29.39	No	NP					
MW08	7/1/2016	0.5	NP	26.14	39.39	29.39	No	NP					PID: Breathing zone 0.5 ppm; Wellhead 414 ppm.
MW08	8/19/2016	NA	NP	27.26	39.39	29.39	No	NP					
MW08	9/22/2016	NA	NP	27.47	39.39	29.39	No	NP					Hydrocarbon odor
MW08	10/3/2016	NA	NP	27.65	39.39	29.39	No	NP					Hydrocarbon odor
MW08	11/11/2016												Vehicle over well, unable to measure
MW08	12/2/2016	NA	NP	26.27	39.39	29.39	No	NP					Hydrocarbon odor
MW08	1/12/2017	NA	NP	25.76	39.39	29.39	No	NP					Hydrocarbon odor
MW08	2/16/2017	NA	NP	24.38	39.39	29.39	No	NP					Hydrocarbon odor
MW08	3/15/2017	NA	NP	23.31	39.39	29.39	No	NP					
MW08	4/6/2017	NA	NP	22.16	39.39	29.39	No	NP					
MW08	5/15/2017	NA	NP	21.64	39.39	29.39	No	NP					
MW08	6/6/2017	NA	NP	22.02	39.39	29.39	No	NP					
MW08	7/6/2017	NA	NP	22.65	39.39	29.39	No	NP					
MW08	8/9/2017												Vehicle over well, unable to measure
MW08	9/15/2017	NA	NP	24.00	39.39	29.39	No	NP					
MW08	10/13/2017	NA	NP	24.52	39.39	29.39	No	NP					
MW08	11/6/2017	1.7/210.9	NP	24.80	39.39	29.39	No	NP					PID Wellhead 210.9 ppm
MW08	12/12/2017	NA	trace	24.01	39.39	29.39	No	trace					Strong hydrocarbon odor
MW08	1/12/2017												Vehicle over well, unable to measure
MW08	2/9/2018	NA	NP	22.02	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	3/1/2018	NA	NP	21.87	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	4/5/2018	NA	NP	22.22	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	6/29/2018	NA	trace	23.19	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	7/19/2018	NA	NP	23.84	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	8/14/2018	NA	NP	24.00	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	9/19/2018	NA	NP	24.70	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	10/10/2018	NA	NP	25.03	39.39	29.39	No	NP					Strong hydrocarbon odor
MW08	11/8/2018												Covered with solid waste dumpster
MW08	12/6/2018	NA	NP	25.58	39.39	29.39	No	NP					Strong hydrocarbon odor, probe warm
MW08	1/3/2019	NA	NP	24.91	39.39	29.39	No	NP					Strong hydrocarbon odor, probe warm
MW08	2/15/2019												Covered with snow
MW08	3/11/2019	NA	NP	24.5	39.39	29.39	No	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
MW08	4/30/2019	NA	NP	25.23	39.39	29.39	No	NP					
MW08	5/16/2019	NA	NP	25.44	39.39	29.39	No	NP					
MW08	6/5/2019	NA	NP	25.83	39.39	29.39	No	NP					
									MW08 CUMULATIVE		0	0.00	
RW-1	10/5/2010	NA	NP	30.50	NA	26	Yes	NP					
RW-1	11/10/2010	NA	NP	NA	NA	26	Yes	NP					Steaming well not sampled
RW-1	12/8/2010	NA	NP	29.44	NA	26	Yes	NP					Steaming well not sampled
RW-1	1/5/2011	NA	NP	29.25	NA	26	Yes	NP					
RW-1	2/9/2011	NA	NP	27.65	NA	26	Yes	NP					
RW-1	3/24/2011	NA	NP	26.03	NA	26	Yes	NP					
RW-1	4/6/2011	NA	NP	28.53	NA	26	Yes	NP					
RW-1	4/18/2012	NA	NP	26.73	NA	26	Yes	NP					
RW-1	5/3/2012	NA	NP	26.62	NA	26	Yes	NP					
RW-1	6/8/2012	NA	NP	27.20	NA	26	Yes	NP					
RW-1	7/3/2012	NA	NP	27.56	NA	26	Yes	NP					
RW-1	8/6/2012	NA	NP	27.94	NA	26	Yes	NP					
RW-1	9/11/2012	NA	Trace	28.47	NA	26	Yes	Trace					
RW-1	9/20/2012	NA	NP	28.59	NA	26	Yes	NP					
RW-1	9/27/2012	NA	NP	28.70	NA	26	Yes	NP					
RW-1	10/5/2012	NA	NP	28.81	NA	26	Yes	NP					
RW-1	10/12/2012	NA	NP	28.84	NA	26	Yes	NP					
RW-1	10/18/2012	NA	NP	28.92	NA	26	Yes	NP					
RW-1	11/15/2012	NA	trace	29.02	NA	26	Yes	trace					
RW-1	12/13/2012	NA	NP	27.65	NA	26	Yes	NP					
RW-1	1/17/2013	NA	NP	26.12	NA	26	Yes	NP					
RW-1	2/14/2013	NA	NP	26.18	NA	26	Yes	NP					
RW-1	3/12/2013	NA	NP	26.22	NA	26	Yes	NP					
RW-1	4/12/2013	NA	trace	26.3	NA	26	Yes	trace					
RW-1	5/16/2013	NA	NP	26.75	44.35	26	Yes	NP					DTB to well monument 44.35 ft
RW-1	6/13/2013	NA	NP	27.09	44.35	26	Yes	NP					Rust colored flakes on the probe
RW-1	7/11/2013	NA	NP	27.45	44.35	26	Yes	NP					Rust colored flakes on the probe
RW-1	8/15/2013	NA	NP	27.95	44.35	26	Yes	NP					Rust colored flakes on the probe
RW-1	9/5/2013	NA	NP	28.2	44.35	26	Yes	NP					Rust colored flakes on the probe
RW-1	10/7/2013	NA	NP	28.3	44.35	26	Yes	NP					
RW-1	11/13/2013	NA	NP	28.8	44.35	26	Yes	NP					
RW-1	12/13/2013	NA	NP	29.09	44.35	26	Yes	NP					
RW-1	1/10/2014	NA	NP	28.89	44.35	26	Yes	NP					
RW-1	2/13/2014	NA	NP	29.44	44.35	26	Yes	NP					
RW-1	3/13/2014	NA	NP	28.31	44.35	26	Yes	NP					
RW-1	4/3/2014	NA	NP	27.53	44.35	26	Yes	NP					
RW-1	4/25/2014	0	NP	27.53	44.35	26	Yes	NP					PID wellhead peak 0.4 ppm
RW-1	5/5/2015	NA	NP	27.54	44.35	26	Yes	NP					
RW-1	5/20/2014	NA	NP	27.58	44.35	26	Yes	NP					Attached a well ID tag.
RW-1	6/16/2014	NA	NP	27.98	44.35	26	Yes	NP					
RW-1	7/15/2014	NA	NP	28.35	44.35	26	Yes	NP					Red liquid on the probe

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
RW-1	8/15/2014	NA	NP	28.84	44.35	26	Yes	NP					
RW-1	9/19/2014	NA	NP	29.12	44.35	26	Yes	NP					
RW-1	10/16/2015	NA	NP	29.65	44.35	26	Yes	NP					
RW-1	10/31/2014	NA	NP	28.78	44.35	26	Yes	NP					
RW-1	11/26/2014	0	NP	29.59	44.35	26	Yes	NP					
RW-1	1/9/2015	NA	NP	28.41	44.35	26	Yes	NP					
RW-1	2/5/2015	NA											Well covered, unable to access
RW-1	3/6/2015	NA	NP	27.62	44.35	26	Yes	NP					
RW-1	4/1/2015	NA	NP	27.48	44.35	26	Yes	NP					
RW-1	5/7/2015	NA	NP	27..82	44.35	26	Yes	NP					Red flakey residue on the probe
RW-1	6/4/2015	NA	NP	28.22	44.35	26	Yes	NP					Red flakey residue on the probe
RW-1	7/9/2015	NA	NP	28.62	44.35	26	Yes	NP					Red flakey residue on the probe
RW-1	8/11/2015	NA	NP	29.11	44.35	26	Yes	NP					Red flakey residue on the probe
RW-1	9/3/2015	NA	NP	29.41	44.35	26	Yes	NP					
RW-1	10/6/2015	NA	NP	29.8	44.35	26	Yes	NP					
RW-1	11/6/2015	NA	NP	29.9	44.35	26	Yes	NP					
RW-1	12/4/2015	NA	NP	29.75	44.35	26	Yes	NP					
RW-1	1/15/2016	NA	NP	28.03	44.35	26	Yes	NP					
RW-1	2/10/2016												Surface water entering monument, unable to measure well
RW-1	3/3/2016	NA	NP	25.58	44.35	26	No	NP					Removed (bailed) approx 2 gallons of water from wellhead to access well for measurement.
RW-1	4/5/2016	NA	NP	24.15	44.35	26	No	NP					Monthly water level, removed street soil from top of cap
RW-1	5/17/2016	NA	NP	24.9	44.35	26	No	NP					
RW-1	6/8/2016	NA	NP	25.2	44.35	26	No	NP					
RW-1	7/1/2016	0.0	NP	25.71	44.35	26	No	NP					
RW-1	8/19/2016	NA	NP	26.5	44.35	26	Yes	NP					
RW-1	9/22/2016	NA	NP	27	44.35	26	Yes	NP					
RW-1	10/3/2016	NA	NP	27.19	44.35	26	Yes	NP					
RW-1	11/11/2016	NA	NP	26.44	44.35	26	Yes	NP					
RW-1	12/2/2016	NA	NP	25.74	44.35	26	No	NP					PID: Breathing zone 0.0 ppm; Wellhead 0.0ppm.
RW-1	1/12/2017	NA	NP	25.31	44.35	26	No	NP					
RW-1	2/16/2017	NA	NP	23.8	44.35	26	No	NP					
RW-1	3/15/2017												Well monument full of water and kept filling, could not get measurement
RW-1	4/6/2017	NA	NP	21.62	44.35	26	No	NP					
RW-1	5/15/2017	NA	NP	21.15	44.35	26	No	NP					
RW-1	6/6/2017	NA	NP	21.53	44.35	26	No	NP					Iron colored residue on probe
RW-1	7/6/2017	NA	NP	22.18	44.35	26	No	NP					
RW-1	8/9/2017	NA	NP	22.8	44.35	26	No	NP					Re-marked well cover
RW-1	9/15/2017	NA	NP	23.52	44.35	26	No	NP					
RW-1	10/13/2017	NA	NP	24.04	44.35	26	No	NP					
RW-1	11/6/2017	0.0	NP	24.3	44.35	26	No	NP					Wellhead 0.0 ppm
RW-1	12/12/2017	NA	NP	23.54	44.35	26	No	NP					
RW-1	1/4/2018		NP	23.17	44.35	26	No	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
RW-1	2/9/2018												Well monument full of water and kept filling, could not get measurement
RW-1	3/1/2018												Well monument full of water and kept filling, could not get measurement
RW-1	4/5/2018												Well monument full of water and kept filling, could not get measurement
RW-1	6/29/2018	NA	NP	22.7	44.35	26	No	NP					
RW-1	7/19/2018	NA	NP	23.1	44.35	26	No	NP					
RW-1	8/14/2018	NA	NP	23.5	44.35	26	No	NP					
RW-1	9/19/2018	NA	NP	24.2	44.35	26	No	NP					
RW-1	10/10/2018	NA	NP	24.57	44.35	26	No	NP					PID at breathing zone wellhead 0.0ppm
RW-1	11/8/2018	0.0	NP	25.03	44.35	26	No	NP					
RW-1	12/6/2018	NA	NP	25.11	44.35	26	No	NP					
RW-1	1/3/2019	NA			44.35	26							Well monument full of water and kept filling, could not get me
RW-1	2/15/2019	NA			44.35	26							Well monument full of water and kept filling, could not get me
RW-1	3/11/2019	NA	NP	23.96	44.35	26	No	NP			0.0	0.0	Bailed at monument
RW-1	4/30/2019	NA	NP	24.8	44.35	26	No	NP			0.0	0.0	
RW-1	5/16/2019	NA	NP	24.98	44.35	26	No	NP			0.0	0.0	
RW-1	6/5/2019	NA	NP	25.37	44.35	26	No	NP			0.0	0.0	
									RW-1 CUMULATIVE		0	0.00	
RW-2	10/5/2010	NA	NP	30.50	44.00	25.5	Yes	NP					
RW-2	12/8/2010	NA	NP	29.44	44.00	25.5	Yes	NP					Steaming well not sampled
RW-2	1/5/2011	NA	NP	29.25	44.00	25.5	Yes	NP					
RW-2	2/9/2011	NA	NP	27.65	44.00	25.5	Yes	NP					
RW-2	3/24/2011	NA	NP	26.03	44.00	25.5	Yes	NP					
RW-2	4/6/2011	NA	NP	28.53	44.00	25.5	Yes	NP					
RW-2	4/18/2012	NA	NP	26.37	44.00	25.5	Yes	NP					Located well in area labeled ECW-2. J-plug brittle/broken. A.Lewis to replace.
RW-2	5/3/2012	NA	NP	26.10	44.00	25.5	Yes	NP					
RW-2	6/8/2012	NA	NP	20.80	44.00	25.5	No	NP					
RW-2	6/13/2012	NA	NP	26.85	44.00	25.5	Yes	NP					
RW-2	6/29/2012	NA	NP	27.02	44.00	25.5	Yes	NP					
RW-2	7/3/2012	NA	NP	27.08	44.00	25.5	Yes	NP					
RW-2	8/6/2012	NA	NP	27.50	44.00	25.5	Yes	NP					
RW-2	9/11/2012	NA	NP	28.05	44.00	25.5	Yes	NP					
RW-2	11/15/2012	NA	trace	28.63	44.00	25.5	Yes	trace					
RW-2	12/13/2012	NA	NP	27.28	44.00	25.5	Yes	NP					
RW-2	1/17/2013	NA	NP	25.75	44.00	25.5	Yes	NP					
RW-2	2/14/2013	NA	NP	25.73	44.00	25.5	Yes	NP					
RW-2	3/12/2013	NA	trace	25.83	44.00	25.5	Yes	trace					
RW-2	4/12/2013	NA	NP	NP	44.00	25.5	Yes	NP					
RW-2	5/16/2013	NA	NP	26.36	44.00	25.5	Yes	NP					DTB to well monument 48.35 ft
RW-2	6/13/2013	NA	NP	27.70	44.00	25.5	Yes	NP					
RW-2	7/11/2013	NA	NP	27.06	44.00	25.5	Yes	NP					
RW-2	8/15/2013	NA	NP	27.58	44.00	25.5	Yes	NP					
RW-2	9/5/2013	NA	NP	27.83	44.00	25.5	Yes	NP					
RW-2	10/7/2013	NA	NP	27.90	44.00	25.5	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
RW-2	11/13/2013	NA	NP	28.46	44.00	25.5	Yes	NP					
RW-2	12/13/2013	NA	NP	28.70	44.00	25.5	Yes	NP					
RW-2	1/10/2014	NA	NP	28.96	44.00	25.5	Yes	NP					
RW-2	2/13/2014	NA	NP	29.06	44.00	25.5	Yes	NP					
RW-2	3/13/2014	NA	NP	28.01	44.00	25.5	Yes	NP					
RW-2	4/3/2014	NA	NP	27.21	44.00	25.5	Yes	NP					
RW-2	4/25/2014	0.0	NP	27.21	44.00	25.5	Yes	NP					PID wellhead peak 0.2 ppm
RW-2	5/5/2014	NA	NP	27.17	44.00	25.5	Yes	NP					
RW-2	5/20/2014	NA	NP	27.28	44.00	25.5	Yes	NP					
RW-2	6/16/2014	NA	NP	27.57	44.00	25.5	Yes	NP					
RW-2	7/15/2014	NA	NP	28.00	44.00	25.5	Yes	NP					
RW-2	8/15/2014	NA	NP	28.49	44.00	25.5	Yes	NP					
RW-2	9/19/2014	NA	NP	28.67	44.00	25.5	Yes	NP					
RW-2	10/16/2014	NA	NP	29.30	44.00	25.5	Yes	NP					
RW-2	10/31/2014	NA	trace	28.35	44.00	25.5	Yes	NP					
RW-2	11/26/2014	0.0	NP	29.25	44.00	25.5	Yes	NP					Open hole possible 6" cap?
RW-2	1/9/2015	NA	NP	28.00	44.00	25.5	Yes	NP					Open hole possible 6" cap with?
RW-2	2/5/2015	NA	NP	26.55	44.00	25.5	Yes	NP					
RW-2	3/6/2015	NA	NP	25.90	44.00	25.5	Yes	NP					
RW-2	4/1/2015	NA	NP	27.13	44.00	25.5	Yes	NP					
RW-2	5/7/2015	NA	NP	27.44	44.00	25.5	Yes	NP					Red flakey residue on the probe
RW-2	6/4/2015	NA	NP	27.90	44.00	25.5	Yes	NP					
RW-2	7/9/2015	NA	NP	28.23	44.00	25.5	Yes	NP					
RW-2	8/11/2015	NA	NP	28.75	44.00	25.5	Yes	NP					
RW-2	9/3/2015	NA	NP	29.09	44.00	25.5	Yes	NP					
RW-2	10/6/2015	NA	NP	29.46	44.00	25.5	Yes	NP					
RW-2	11/6/2015	NA	NP	29.60	44.00	25.5	Yes	NP					
RW-2	12/4/2015	NA	NP	29.40	44.00	25.5	Yes	NP					
RW-2	1/15/2016	NA	NP	27.65	44.00	25.5	Yes	NP					
RW-2	2/10/2016	NA	NP	25.95	44.00	25.5	Yes	NP					
RW-2	3/3/2016	NA	NP	25.25	44.00	25.5	No	NP					
RW-2	4/5/2016	NA	NP	23.81	44.00	25.5	No	NP					
RW-2	5/17/2016	NA	NP	24.55	44.00	25.5	No	NP					
RW-2	6/8/2016												Vehicle over well unable to measure
RW-2	7/1/2016												Vehicle over well unable to measure
RW-2	8/19/2016	NA	NP	26.13	44.00	25.5	Yes	NP					
RW-2	9/22/2016	NA	NP	26.61	44.00	25.5	Yes	NP					
RW-2	10/3/2016	NA	NP	26.82	44.00	25.5	Yes	NP					
RW-2	11/11/2016	NA	NP	26.09	44.00	25.5	Yes	NP					
RW-2	12/2/2016	NA	NP	25.43	44.00	25.5	No	NP					
RW-2	1/12/2017												Vehicle over well unable to measure
RW-2	2/16/2017	NA	NP	25.24	44.00	25.5	No	NP					
RW-2	3/15/2017	NA	NP	21.60	44.00	25.5	No	NP					
RW-2	4/6/2017	NA	NP	21.32	44.00	25.5	No	NP					
RW-2	5/15/2017	NA	NP	20.83	44.00	25.5	No	NP					
RW-2	6/6/2017	NA	NP	21.20	44.00	25.5	No	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
RW-2	7/6/2017	NA	NP	21.84	44.00	25.5	No	NP					
RW-2	8/9/2017	NA	NP	22.45	44.00	25.5	No	NP					
RW-2	9/15/2017	NA	NP	23.17	44.00	25.5	No	NP					
RW-2	10/13/2017	NA	NP	23.70	44.00	25.5	No	NP					
RW-2	11/6/2017	0.1	NP	23.95	44.00	25.5	No	NP					PID Wellhead 0.2 ppm
RW-2	12/12/2017	NA	NP	23.23	44.00	25.5	No	NP					
RW-2	1/4/2018	NA	NP	22.86	44.00	25.5	No	NP					
RW-2	2/9/2018	NA	NP	21.05	44.00	25.5	No	NP					Large crack on lid
RW-2	3/1/2018	NA	NP	21.08	44.00	25.5	No	NP					Large crack on lid, probe was warm
RW-2	4/5/2018	NA	NP	21.40	44.00	25.5	No	NP					Large crack on lid
RW-2	6/29/2018	NA	NP	22.41	44.00	25.5	No	NP					Large crack on lid
RW-2	7/19/2018	NA	NP	22.74	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	8/14/2018	NA	NP	23.15	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	9/19/2018	NA	NP	23.84	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	10/10/2018	NA	NP	24.20	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	11/8/2018	0.0	NP	24.63	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces. PID at breathing zone and wellhead 0.0 ppm
RW-2	12/6/2018	NA	NP	24.79	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	1/3/2019	NA	NP	23.82	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	2/15/2019	NA	NP	23.80	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	3/11/2019	NA	NP	23.66	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	4/30/2019	NA	NP	24.43	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	5/16/2019	NA	NP	24.60	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
RW-2	6/5/2019	NA	NP	25.00	44.00	25.5	No	NP					Large crack on lid almost in 2 pieces
									RW-2 CUMULATIVE		0	0.00	
RW-3	10/5/2010	NA	NP	29.50	NA	24.5	Yes	NP					
RW-3	11/10/2010	NA	NP	29.89	NA	24.5	Yes	NP					
RW-3	12/8/2010	NA	NP	30.03	NA	24.5	Yes	NP					
RW-3	1/5/2011	NA	NP	30.10	NA	24.5	Yes	NP					
RW-3	2/9/2011	NA	NP	28.21	NA	24.5	Yes	NP					
RW-3	3/24/2011	NA	NP	27.01	NA	24.5	Yes	NP					
RW-3	7/27/2011												Steam
RW-3	8/27/2011	NA	NP	26.88	NA	24.5	Yes	NP					
RW-3	9/28/2011												Covered by vehicle
RW-3	4/18/2012	NA	NP	26.45	NA	24.5	Yes	NP					
RW-3	5/3/2012	NA	NP	26.44	NA	24.5	Yes	NP					
RW-3	6/8/2012	NA	NP	NA	NA	24.5	Yes						
RW-3	6/13/2012	NA	NP	21.05	NA	24.5	No	NP					
RW-3	7/3/2012	NA	NP	NA	NA	24.5	Yes	NP					
RW-3	7/13/2012	NA	NP	NA	NA	24.5	Yes	NP					
RW-3	7/20/2012	NA	NP	NA	NA	24.5	Yes	NP					
RW-3	8/6/2012	NA	NP	NA	NA	24.5	Yes	NP					
RW-3	9/11/2012	NA	NP	28.22	NA	24.5	Yes	NP					
RW-3	10/18/2012	NA	NP	NA	NA	24.5	Yes						
RW-3	11/15/2012	NA	NP	28.79	NA	24.5	Yes	NP					Monthly water levels

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
RW-3	12/13/2012												Car parked on this well, unable to measure
RW-3	1/17/2013	NA	NP	29.90	NA	24.5	Yes	NP					Monthly water levels
RW-3	2/14/2013												Truck parked on this well, unable to measure
RW-3	2/19/2013												Truck parked on this well, unable to measure
RW-3	2/28/2013												Truck parked on this well, unable to measure
RW-3	3/7/2013	NA	NP	26.00	NA	24.5	Yes	NP					Monthly water level, rust colored residue on the probe
RW-3	3/12/2013												Truck parked on this well, unable to measure
RW-3	4/12/2013	NA	NP	26.28	NA	24.5	Yes	NP					
RW-3	5/16/2013	NA	NP	27.49	44.44	24.5	Yes	NP					DTP to well monument 44.44ft
RW-3	6/13/2013												Truck parked on this well, unable to measure
RW-3	6/27/2013												Truck parked on this well, unable to measure
RW-3	7/11/2013	NA	NP	27.19	44.44	24.5	Yes	NP					No product recovered
RW-3	8/15/2013	NA	NP	27.72		24.5	Yes						
RW-3	9/5/2013	NA	NP	27.99	44.44	24.5	Yes	NP					
RW-3	10/7/2013												No measurement--Vehicle parked on top of well
RW-3	11/13/2013												No measurement--Vehicle parked on top of well
RW-3	12/13/2013												No measurement--Vehicle parked on top of well
RW-3	12/20/2013	NA	NP	28.76		24.5	Yes						
RW-3	1/10/2014												No measurement--Vehicle parked on top of well
RW-3	2/13/2014												No measurement--Vehicle parked on top of well
RW-3	3/13/2014												No measurement--Vehicle parked on top of well
RW-3	4/3/2014												No measurement--Vehicle parked on top of well
RW-3	4/25/2014	22.9	NP	27.30		24.5	Yes						PID wellhead peak 333.1 ppm
RW-3	5/5/2014												No measurement--Vehicle parked on top of well
RW-3	5/20/2014												No measurement--Vehicle parked on top of well
RW-3	6/16/2014												No measurement--Vehicle parked on top of well
RW-3	7/15/2014												No measurement--Vehicle parked on top of well
RW-3	8/15/2014	NA	NP	28.59	NA	24.5	Yes	NP					Let breathe
RW-3	9/19/2014	NA	NP	28.64	NA	24.5	Yes	NP					Let breathe
RW-3	10/16/2014	NA	NP	29.40	NA	24.5	Yes	NP					Let breathe
RW-3	10/31/2014	NA	NP	29.26	NA	24.5	Yes	NP					Let breathe
RW-3	11/26/2014	1.7	NP	29.31	NA	24.5	Yes	NP					Let breathe at well head
RW-3	1/9/2015												Well covered by vehicle, unable to access
RW-3	1/22/2015	NA	NP	28.16	NA	24.5	Yes	NP					Missing 1 bolt on wellhead cover
RW-3	2/5/2015												Well covered, unable to access
RW-3	3/6/2015	NA	NP	27.35		24.5	Yes	NP					
RW-3	4/1/2015	NA	NP	27.19		24.5	Yes	NP					Probe encountered obstacle at depth of 18', probe warm on recovery and was snagged at 27' for a bit.
													Well no longer measured.
									RW-3 CUMULATIVE		0	0.00	
8MW24	12/3/2009	0.0	NP	31.93	45.04	35	No	NP					
8MW24	1/12/2010	0.0	NP	31.33	45.04	35	No	NP					
8MW24	2/9/2010	0.0	NP	30.04	45.04	35	No	NP					
8MW24	10/5/2010	NA	NP	30.55	45.04	35	No	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW24	11/10/2010	NA	NP	30.63	45.04	35	No	NP					
8MW24	12/8/2010	NA	NP	30.55	45.04	35	No	NP					
8MW24	1/5/2011	NA	NP	30.48	45.04	35	No	NP					
8MW24	2/9/2011	NA	NP	28.85	45.04	35	No	NP					
8MW24	3/24/2011	NA	NP	27.11	45.04	35	No	NP					
8MW24	4/6/2011	NA	NP	29.61	45.04	35	No	NP					
8MW24	5/18/2011	NA	NP	26.70	45.04	35	No	NP					
8MW24	6/23/2011	NA	NP	27.14	45.04	35	No	NP					
8MW24	7/27/2011	NA	NP	27.57	45.04	35	No	NP					
8MW24	8/27/2011	NA	NP	27.88	45.04	35	No	NP					
8MW24	9/28/2011	NA	NP	28.53	45.04	35	No	NP					
8MW24	4/18/2012	NA	NP	27.37	45.04	35	No	NP					
8MW24	5/3/2012	NA	NP	27.41	45.04	35	No	NP					
8MW24	6/8/2012	NA	NP	27.95	45.04	35	No	NP					
8MW24	7/3/2012	NA	NP	28.23	45.04	35	No	NP					
8MW24	8/6/2012	NA	NP	28.65	45.04	35	No	NP					
8MW24	9/11/2012	NA	NP	29.19	45.04	35	No	NP					Well no longer measured.
									8MW24 CUMULATIVE		0	0.00	
8MW47	8/29/2009	0.0	32.85	32.88	NM	22.5	Yes	0.03	1	1	1	0.000	
8MW47	9/24/2009	0.0	33.10	33.11	NM	22.5	Yes	0.01	2	3	3	0.001	
8MW47	10/6/2009	0.0	>33.20	33.21	38.30	22.5	Yes	>0.01					Minor sheen detected, but not measureable
8MW47	12/3/2009	0.0	NA	32.10	38.25	22.5	Yes	NP					Moderate smell of petroleum on probe, 1 missing bolt, 1 stripped bolt, 1 broken socket tab, 4" butterfly cap
8MW47	1/13/2010	0.0	31.51	31.54	NM	22.5	Yes	0.03	52	12	55	0.015	Recovered 52ml of product leaving a light sheen
8MW47	2/9/2010	0.0	NP	30.24	NM	22.5	Yes	NP					Moderate smell of petroleum on probe
8MW47	8/3/2010	NA	NP	30.04	40.50	22.5	Yes	NP					
8MW47	8/11/2010	NA	NP	30.09	40.50	22.5	Yes	NP					
8MW47	8/20/2010	NA	NP	30.19	40.50	22.5	Yes	NP					
8MW47	8/25/2010	NA	NP	30.33	40.50	22.5	Yes	NP					
8MW47	9/1/2010	NA	NP	30.41	40.50	22.5	Yes	NP					
8MW47	9/10/2010	NA	NP	30.55	40.50	22.5	Yes	NP					
8MW47	9/15/2010	NA	NP	30.56	40.50	22.5	Yes	NP					
8MW47	9/24/2010	NA	NP	30.65	40.50	22.5	Yes	NP					
8MW47	9/29/2010	NA	NP	30.68	40.50	22.5	Yes	NP					
8MW47	10/5/2010	NA	NP	30.77	40.50	22.5	Yes	NP					
8MW47	10/13/2010	NA	NP	30.84	40.50	22.5	Yes	NP					
8MW47	10/19/2010	NA	NP	30.88	40.50	22.5	Yes	NP					
8MW47	10/27/2010	NA	NP	30.91	40.50	22.5	Yes	NP					
8MW47	11/3/2010	NA	NP	30.89	40.50	22.5	Yes	NP					
8MW47	11/10/2010	NA	NP	30.87	40.50	22.5	Yes	NP					
8MW47	11/17/2010	0.00	NP	30.88	40.50	22.5	Yes	NP					
8MW47	11/24/2010	0.00	NP	30.92	40.50	22.5	Yes	NP					
8MW47	12/1/2010	NA	NP	30.88	40.50	22.5	Yes	NP					
8MW47	12/8/2010	NA	NP	30.85	40.50	22.5	Yes	NP					
8MW47	12/15/2010	NA	NP	30.47	40.50	22.5	Yes	NP					
8MW47	12/22/2010	NA	NP	30.08	40.50	22.5	Yes	NP					
8MW47	12/30/2010	NA	NP	29.70	40.50	22.5	Yes	NP					
8MW47	1/5/2011	NA	NP	30.89	40.50	22.5	Yes	NP					
8MW47	1/14/2011	NA	NP	29.33	40.50	22.5	Yes	NP					
8MW47	1/19/2011	NA	NP	29.20	40.50	22.5	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW47	1/26/2011	NA	NP	29.17	40.50	22.5	Yes	NP					
8MW47	2/2/2011	NA	NP	29.13	40.50	22.5	Yes	NP					
8MW47	2/9/2011	NA	NP	29.06	40.50	22.5	Yes	NP					
8MW47	2/17/2011	NA	NP	28.85	40.50	22.5	Yes	NP					
8MW47	2/28/2011	NA	NP	28.69	40.50	22.5	Yes	NP					
8MW47	3/16/2011	NA	NP	27.97	40.50	22.5	Yes	NP					
8MW47	3/24/2011	NA	NP	27.36	40.50	22.5	Yes	NP					
8MW47	3/29/2011	NA	NP	26.14	40.50	22.5	Yes	NP					
8MW47	4/6/2011	NA	NP	29.94	40.50	22.5	Yes	NP					
8MW47	5/18/2011	NA	NP	26.90	40.50	22.5	Yes	NP					
8MW47	6/23/2011	NA	NP	27.32	40.50	22.5	Yes	NP					
8MW47	7/27/2011	NA	NP	27.63	40.50	22.5	Yes	NP					
8MW47	8/27/2011	NA	NP	28.06	40.50	22.5	Yes	NP					
8MW47	9/28/2011	NA	NP	28.70	40.50	22.5	Yes	NP					
8MW47	4/18/2012	NA	NP	27.52	40.50	22.5	Yes	NP					
8MW47	5/3/2012	NA	NP	27.63	40.50	22.5	Yes	NP					
8MW47	6/8/2012	NA	NP	28.14	40.50	22.5	Yes	Trace					
8MW47	6/13/2012	NA	NP	28.21	40.50	22.5	Yes	NP					
8MW47	6/20/2012	NA	NP	28.10	40.50	22.5	Yes	NP					
8MW47	6/29/2012	NA	NP	28.39	40.50	22.5	Yes	NP					
8MW47	7/3/2012	NA	NP	28.45	40.50	22.5	Yes	NP					
8MW47	8/6/2012	NA	NP	28.87	40.50	22.5	Yes	NP					
8MW47	9/11/2012	NA	NP	29.42	40.50	22.5	Yes	NP					
8MW47	10/18/2012	NA	NP	29.91	40.50	22.5	Yes	NP					
8MW47	11/15/2012	NA	trace	29.89	40.50	22.5	Yes	trace					
8MW47	12/13/2012	NA	NP	28.49	40.50	22.5	Yes	NP					
8MW47	1/17/2013	NA	trace	27.00	40.50	22.5	Yes	trace					
8MW47	2/14/2013	NA	NP	26.98	40.50	22.5	Yes	NP					
8MW47	3/12/2013	NA	NP	27.14	40.50	22.5	Yes	NP					
8MW47	4/15/2013	NA	NP	27.28	40.50	22.5	Yes	NP					Measured during LTM sampling
8MW47	5/16/2013	NA	NP	27.69	40.50	22.5	Yes	NP					
8MW47	6/13/2013	NA	trace	28.01	40.50	22.5	Yes	NP					
8MW47	7/11/2013	NA	NP	28.40	40.50	22.5	Yes	NP					
8MW47	8/15/2013	NA	NP	28.90	40.50	22.5	Yes	NP					
8MW47	9/5/2013	NA	NP	29.14	40.50	22.5	Yes	NP					
8MW47	10/7/2013	NA	NP	29.20	40.50	22.5	Yes	NP					
8MW47	11/13/2013	NA	NP	29.76	40.50	22.5	Yes	NP					
8MW47	12/13/2013	NA	NP	29.98	40.50	22.5	Yes	NP					
8MW47	1/10/2014	NA	NP	30.25	40.50	22.5	Yes	NP					
8MW47	2/13/2014	NA	NP	30.38	40.50	22.5	Yes	NP					
8MW47	3/13/2014	NA	NP	29.16	40.50	22.5	Yes	NP					
8MW47	4/3/2014	NA	NP	28.06	40.50	22.5	Yes	NP					
8MW47	4/25/2014	1.20	NP	28.43	40.50	22.5	Yes	NP					Wellhead peak 434.1 ppm
8MW47	5/5/2014	NA	NP	28.40	40.50	22.5	Yes	NP					
8MW47	5/20/2014	NA	NP	28.50	40.50	22.5	Yes	NP					
8MW47	6/16/2014	NA	NP	28.91	40.50	22.5	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW47	7/15/2014	NA	NP	29.28	40.50	22.5	Yes	NP					
8MW47	8/15/2014	NA	NP	28.70	40.50	22.5	Yes	NP					
8MW47	9/19/2014	NA	NP	29.42	40.50	22.5	Yes	NP					
8MW47	10/16/2014	NA	NP	28.38	40.50	22.5	Yes	NP					
8MW47	10/31/2014	0.10	trace	30.41	40.50	22.5	Yes	NP					
8MW47	11/26/2014	0.10	30.45	30.47	40.50	22.5	Yes	0.02					
8MW47	1/9/2015	NA	NP	29.01	40.50	22.5	Yes	NP					
8MW47	2/5/2015	NA	NP	28.94	40.50	22.5	Yes	NP					
8MW47	3/6/2015	NA	NP	28.50	40.50	22.5	Yes	NP					
8MW47	4/1/2015	NA	NP	28.24	40.50	22.5	Yes	NP					
8MW47	5/7/2015	NA	NP	28.74	40.50	22.5	Yes	NP					
8MW47	6/4/2015	NA	NP	29.19	40.50	22.5	Yes	NP					
8MW47	7/9/2015	NA	NP	29.58	40.50	22.5	Yes	NP					
8MW47	8/11/2015	NA	NP	30.06	40.50	22.5	Yes	NP					
8MW47	9/3/2015	NA	NP	30.36	40.50	22.5	Yes	NP					
8MW47	10/6/2015	NA	30.00	30.02	40.50	22.5	Yes	0.02					
8MW47	11/6/2015	NA	NP	30.92	40.50	22.5	Yes	NP					
8MW47	12/4/2015	NA	NP	30.63	40.50	22.5	Yes	NP					
8MW47	1/15/2016	NA	NP	28.94	40.50	22.5	Yes	NP					
8MW47	2/10/2016	NA	NP	27.20	40.50	22.5	Yes	NP					
8MW47	3/3/2016	NA	NP	26.44	40.50	22.5	Yes	NP					Bailed monument, strong hydrocarbon odor
8MW47	4/5/2016	NA	NP	25.06	40.50	22.5	Yes	NP					
8MW47	5/17/2016	NA	NP	25.85	40.50	22.5	Yes	NP					
8MW47	6/8/2016	NA	trace	26.22	40.50	22.5	Yes	Trace					
8MW47	7/1/2016	0.00	NP	26.64	40.50	22.5	Yes	NP					PID: Breathing zone 0.0 ppm; Wellhead 2.2 ppm.
8MW47	8/19/2016	NA	NP	27.45	40.50	22.5	Yes	NP					
8MW47	9/22/2016	NA	NP	27.96	40.50	22.5	Yes	NP					
8MW47	10/3/2016	NA	NP	28.12	40.50	22.5	Yes	NP					
8MW47	11/11/2016	NA	NP	27.28	40.50	22.5	Yes	NP					
8MW47	12/2/2016	NA	NP	26.61	40.50	22.5	Yes	NP					
8MW47	1/12/2017												Well monument cover was frozen, unable to open to measure
8MW47	1/19/2017	NA	NP	25.90	40.50	22.5	Yes	NP					
8MW47	2/16/2017	NA	NP	24.70	40.50	22.5	Yes	NP					
8MW47	3/15/2017	NA	NP	23.66	40.50	22.5	Yes	NP					
8MW47	4/6/2017	NA	NP	22.53	40.50	22.5	Yes	NP					
8MW47	5/15/2017	NA	NP	22.40	40.50	22.5	No	NP					
8MW47	6/6/2017	NA	NP	22.48	40.50	22.5	No	NP					
8MW47	7/6/2017	NA	NP	23.13	40.50	22.5	Yes	NP					
8MW47	8/9/2017	NA	NP	23.77	40.50	22.5	Yes	NP					
8MW47	9/15/2017	NA	NP	24.49	40.50	22.5	Yes	NP					
8MW47	10/13/2017	NA	NP	24.05	40.50	22.5	Yes	NP					
8MW47	11/6/2017	0.10	NP	25.30	40.50	22.5	Yes	NP					PID Wellhead 15.2 ppm.

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW47	12/12/2017	NA	NP	24.50	40.50	22.5	Yes	NP					
8MW47	1/12/2018	NA	NP	24.05	40.50	22.5	Yes	NP					
8MW47	2/9/2018	NA	NP	22.40	40.50	22.5	No	NP					
8MW47	3/1/2018	NA	NP	22.30	40.50	22.5	No	NP					
8MW47	4/5/2018	NA	NP	22.65	40.50	22.5	Yes	NP					
8MW47	6/29/2018	NA	NP	23.70	40.50	22.5	Yes	NP					
8MW47	7/19/2018	NA	NP	24.05	40.50	22.5	Yes	NP					
8MW47	8/14/2018	NA	NP	24.49	40.50	22.5	Yes	NP					
8MW47	9/19/2018	NA	NP	25.16	40.50	22.5	Yes	NP					
8MW47	10/10/2018	NA	NP	25.52	40.50	22.5	Yes	NP					
8MW47	11/8/2018	0.0/0.2	NP	26.00	40.50	22.5	Yes	NP					PID breathing zone 0.0 wellhead 0.2ppm
8MW47	12/6/2018	NA	NP	26.07	40.50	22.5	Yes	NP					
8MW47	1/3/2019	NA	NP	25.34	40.50	22.5	Yes	NP					
8MW47	2/15/2019	NA	NP	25.08	40.50	22.5	Yes	NP					
8MW47	3/11/2019	NA	NP	24.93	40.50	22.5	Yes	NP					
8MW47	4/30/2019	NA	NP	26.74	40.50	22.5	Yes	NP					
8MW47	5/16/2019	NA	NP	25.91	40.50	22.5	Yes	NP					
8MW47	6/5/2019	NA	NP	26.32	40.50	22.5	Yes	NP					
								8MW47 CUMULATIVE			55	0.015	
8MW49	5/4/2010	NA	28.67	30.66	40.00	23.5	Yes	1.99					Measured product and water in well with probe
8MW49	5/5/2010	3.0	29.16	29.21	40.00	23.5	Yes	0.05	340		340	0.09	Recovered 340ml of product leaving <0.01 ft of product
8MW49	5/10/2010	NA	29.11	29.15	40.00	23.5	Yes	0.04	200	80	540	0.14	Recovered 200ml of product.
8MW49	8/3/2010	NA	29.83	30.09	40.00	23.5	Yes	0.26					
8MW49	8/11/2010	NA	30.36	30.71	40.00	23.5	Yes	0.35					
8MW49	8/20/2010	NA	30.03	30.35	40.00	23.5	Yes	0.32					
8MW49	8/23/2010	NA	30.15	30.35	40.00	23.5	Yes	0.20					
8MW49	8/25/2010	NA	30.23	30.58	40.00	23.5	Yes	0.35					
8MW49	9/1/2010	NA	30.30	30.63	40.00	23.5	Yes	0.33					
8MW49	9/10/2010	NA	30.34	30.67	40.00	23.5	Yes	0.33					
8MW49	9/15/2010	NA	30.36	30.71	40.00	23.5	Yes	0.35					
8MW49	9/16/2010	NA	30.40	30.75	40.00	23.5	Yes	0.35	700	NA	1,240	0.33	
8MW49	9/24/2010	NA	30.43	30.47	40.00	23.5	Yes	0.04					
8MW49	9/29/2010	NA	30.48	30.54	40.00	23.5	Yes	0.06					
8MW49	10/5/2010	NA	30.55	30.63	40.00	23.5	Yes	0.08					
8MW49	10/13/2010	NA	30.61	30.69	40.00	23.5	Yes	0.08					
8MW49	10/19/2010	NA	30.64	30.70	40.00	23.5	Yes	0.06					
8MW49	10/27/2010	NA	30.69	30.74	40.00	23.5	Yes	0.05					
8MW49	11/3/2010	NA	30.67	30.69	40.00	23.5	Yes	0.02					
8MW49	11/10/2010	NA	NP	30.65	40.00	23.5	Yes	NP					
8MW49	11/17/2010	0.00	NP	30.63	40.00	23.5	Yes	NP					
8MW49	11/24/2010	NA	NP	30.60	40.00	23.5	Yes	NP					
8MW49	12/1/2010	NA	30.57	30.59	40.00	23.5	Yes	0.02					
8MW49	12/8/2010	NA	30.52	30.64	40.00	23.5	Yes	0.12	240	0	1,480	0.39	Product recovery with sock
8MW49	12/15/2010	NA	29.90	29.92	40.00	23.5	Yes	0.02	10	0	1,490	0.39	Product recovery with sock
8MW49	12/22/2010	NA	29.57	29.58	40.00	23.5	Yes	0.01					
8MW49	12/30/2010	NA	NP	29.13	40.00	23.5	Yes	NP					
8MW49	1/5/2011	NA	NP	30.63	40.00	23.5	Yes	NP					
8MW49	1/14/2011	NA	NP	28.89	40.00	23.5	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW49	1/19/2011	NA	NP	29.20	40.00	23.5	Yes	NP					
8MW49	1/26/2011	NA	NP	29.07	40.00	23.5	Yes	NP					
8MW49	2/2/2011	NA	NP	28.93	40.00	23.5	Yes	NP					
8MW49	2/9/2011	NA	NP	28.78	40.00	23.5	Yes	NP					
8MW49	2/17/2011	NA	NP	28.50	40.00	23.5	Yes	NP					
8MW49	2/28/2011	NA	NP	28.42	40.00	23.5	Yes	NP					
8MW49	3/16/2011	NA	NP	27.37	40.00	23.5	Yes	NP					
8MW49	3/24/2011	NA	NP	26.90	40.00	23.5	Yes	NP					
8MW49	3/29/2011	NA	NP	26.72	40.00	23.5	Yes	NP					
8MW49	4/6/2011	NA	NP	29.68	40.00	23.5	Yes	0.29	700	70	2,190	0.58	Product recovery with sock
8MW49	4/21/2011	NA	26.38	26.67	40.00	23.5	Yes	0.29	700	70	2,890	0.76	Product recovery with sock
8MW49	4/27/2011	NA	26.50	26.60	40.00	23.5	Yes	0.10	220	80	3,110	0.82	Product recovery with sock
8MW49	5/11/2011	NA	26.68	26.81	40.00	23.5	Yes	0.13	290	0	3,400	0.90	Product recovery with sock
8MW49	5/18/2011	NA	26.68	26.81	40.00	23.5	Yes	0.13	290	0	3,690	0.97	Product recovery with sock
8MW49	6/23/2011	NA	27.18	27.35	40.00	23.5	Yes	0.17	200	0	3,890	1.03	Product recovery with sock
8MW49	6/28/2011	NA	27.16	27.32	40.00	23.5	Yes	0.16	280	0	4,170	1.10	Product recovery with sock
8MW49	7/8/2011	NA	27.41	27.50	40.00	23.5	Yes	0.09	100	0	4,270	1.13	Product recovery with sock
8MW49	7/27/2011	NA	27.50	27.71	40.00	23.5	Yes	0.21	220	0	4,490	1.19	Product recovery with sock
8MW49	8/24/2011	NA	28.06	28.10	40.00	23.5	Yes	0.04	20	0	4,510	1.19	Product recovery with sock
8MW49	8/27/2011	NA	27.98	28.01	40.00	23.5	Yes	0.03	20	0	4,530	1.20	Product recovery with sock
8MW49	8/31/2011	NA	28.21	28.25	40.00	23.5	Yes	0.04	30	0	4,560	1.20	Product recovery with sock
8MW49	9/16/2011	NA	28.45	28.45	40.00	23.5	Yes	NP					
8MW49	9/28/2011	NA	28.70	28.70	40.00	23.5	Yes	NP					
8MW49	4/18/2012	NA	NP	27.22	40.00	23.5	Yes	NP					
8MW49	5/3/2012	NA	NP	27.44	40.00	23.5	Yes	NP					
8MW49	6/8/2012	NA	NP	28.01	40.00	23.5	Yes	NP					
8MW49	7/3/2012	NA	NP	28.31	40.00	23.5	Yes	NP					
8MW49	8/6/2012	NA	NP	28.78	40.00	23.5	Yes	NP					
8MW49	9/11/2012	NA	29.31	29.32	40.00	23.5	Yes	0.01					
8MW49	9/20/2012	0.00	29.46	29.49	40.00	23.5	Yes	0.03					
8MW49	9/27/2012	NA	29.55	29.60	40.00	23.5	Yes	0.05					
8MW49	10/5/2012	NA	29.65	29.72	40.00	23.5	Yes	0.07					
8MW49	10/12/2012	NA	29.72	29.80	40.00	23.5	Yes	0.08					
8MW49	10/18/2012	NA	29.76	29.82	40.00	23.5	Yes	0.06					
8MW49	11/15/2012	NA	29.68	29.70	40.00	23.5	Yes	0.02					
8MW49	12/13/2012	NA	NP	28.04	40.00	23.5	Yes	NP					
8MW49	1/17/2013	NA	NP	26.64	40.00	23.5	Yes	NP					
8MW49	2/14/2013	NA	NP	26.80	40.00	23.5	Yes	NP					
8MW49	3/12/2013	NA	NP	26.95	40.00	23.5	Yes	NP					
8MW49	4/12/2013	NA	trace	27.93	40.00	23.5	Yes	NP					
8MW49	5/16/2013	NA	NP	27.60	40.00	23.5	Yes	NP					
8MW49	6/13/2013	NA	NP	27.90	40.00	23.5	Yes	NP					
8MW49	7/11/2013	NA	NP	28.30	40.00	23.5	Yes	NP					
8MW49	8/15/2013	NA	NP	28.85	40.00	23.5	Yes						
8MW49	9/5/2013	NA	NP	29.07	40.00	23.5	Yes	NP					
8MW49	10/7/2013	NA	NP	29.00	40.00	23.5	Yes	NP					
8MW49	11/13/2013	NA	NP	29.63	40.00	23.5	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW49	12/13/2013	NA	29.90	29.91	40.00	23.5	Yes	0.01					No product recovered
8MW49	1/10/2014	NA	30.16	30.23	40.00	23.5	Yes	0.07					No product recovered
8MW49	2/13/2014	NA	30.20	30.23	40.00	23.5	Yes	0.03					No product recovered
8MW49	3/13/2014	trace	28.61	30.23	40.00	23.5	Yes	1.62					
8MW49	4/3/2014	NA	28.00	30.23	40.00	23.5	Yes	2.23					
8MW49	4/25/2014	0.50	NP	28.15	40.00	23.5	Yes	NP					PID wellhead peak 38.0 ppm
8MW49	5/5/2014	NA	NP	28.06	40.00	23.5	Yes	NP					
8MW49	5/20/2014	NA	NP	28.28	40.00	23.5	Yes	NP					
8MW49	6/3/2014	NA	NP	28.59	40.00	23.5	Yes	NP					
8MW49	6/16/2014	NA	NP	28.75	40.00	23.5	Yes	NP					
8MW49	7/2/2014	NA	NP	29.00	40.00	23.5	Yes	NP					
8MW49	7/15/2014	NA	NP	29.13	40.00	23.5	Yes	NP					Red liquid on probe.
8MW49	7/31/2014	NA	NP	29.42	40.00	23.5	Yes	NP					
8MW49	8/15/2014	NA	NP	29.64	40.00	23.5	Yes	NP					
8MW49	9/19/2014	NA	NP	29.99	40.00	23.5	Yes	NP					
8MW49	10/2/2014	NA	30.26	30.32	40.00	23.5	Yes	0.06					
8MW49	10/16/2014	NA	30.39	30.47	40.00	23.5	Yes	0.08					
8MW49	10/31/2014	NA	30.11	30.16	40.00	23.5	Yes	0.05					
8MW49	11/14/2014	NA	30.09	30.11	40.00	23.5	Yes	0.02					Odd odor.
8MW49	11/26/2014	0.10	30.18	30.22	40.00	23.5	Yes	0.04					
8MW49	12/10/2014	NA	NP	29.76	40.00	23.5	Yes	NP					
8MW49	12/24/2014	NA	NP	29.05	40.00	23.5	Yes	NP					
8MW49	1/9/2015	NA	NP	28.85	40.00	23.5	Yes	NP					
8MW49	1/22/2015	NA	NP	28.71	40.00	23.5	Yes	NP					
8MW49	2/5/2015	NA	NP	28.61	40.00	23.5	Yes	NP					
8MW49	2/20/2015	NA	NP	28.09	40.00	23.5	Yes	NP					
8MW49	3/6/2015	NA	NP	28.20	40.00	23.5	Yes	NP					
8MW49	3/19/2015	NA	NP	28.03	40.00	23.5	Yes	NP					
8MW49	4/1/2015	NA	NP	28.10	40.00	23.5	Yes	NP					
8MW49	5/7/2015												Unable to measure, Forklift over well
8MW49	6/4/2015												Unable to measure, Forklift over well
8MW49	7/9/2015												Unable to measure, Forklift over well
8MW49	8/11/2015		SKIP	SKIP		23.5	Yes						Skip for August while AECOM testing
8MW49	9/3/2015												Unable to measure, Forklift over well
8MW49	10/6/2015												Unable to measure, Forklift over well
8MW49	11/6/2015	NA	30.67	30.88	40.00	23.5	Yes	0.21					
8MW49	12/4/2015	NA	30.35	30.50	40.00	23.5	Yes	0.15					
8MW49	1/15/2016												Unable to measure; well in use under AECOM/NAVFAC stud
8MW49	2/10/2016	NA	NP	26.76	40.00	23.5	Yes	NP					
8MW49	3/3/2016	NA	NP	25.99	40.00	23.5	Yes	NP					
8MW49	4/5/2016	NA	NP	24.71	40.00	23.5	Yes	NP					
8MW49	5/17/2016	NA	trace	25.71	40.00	23.5	Yes	trace					
8MW49	6/8/2016	NA	26.10	26.12	40.00	23.5	Yes	0.02					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW49	7/1/2016	0.30	26.51	26.53	40.00	23.5	Yes	0.02					PID Breathing zone 0.3 ppm Wellhead 16.8 ppm
8MW49	8/19/2016	NA	27.35	27.36	40.00	23.5	Yes	0.01					
8MW49	9/22/2016	NA	27.90	27.92	40.00	23.5	Yes	0.02					
8MW49	10/3/2016	NA	trace	28.09	40.00	23.5	Yes	trace					
8MW49	11/11/2016	NA	NP	26.94	40.00	23.5	Yes	NP					Bailed water from flush monument
8MW49	12/2/2016	NA	NP	26.21	40.00	23.5	Yes	NP					Bailed water from flush monument
8MW49	1/12/2017												Well monument cover was frozen, unable to open to measure
8MW49	1/19/2017	NA	NP	25.53	40.00	23.5	Yes	NP					
8MW49	2/16/2017	NA	NP	24.39	40.00	23.5	Yes	NP					Bailed water from flush monument, strong hydrocarbon odor
8MW49	3/15/2017	NA	NP	23.52	40.00	23.5	Yes	NP					Bailed water from flush monument
8MW49	4/7/2017	NA	NP	22.75	40.00	23.5	No	NP					Bailed water from flush monument
8MW49	5/15/2017	NA	NP	22.13	40.00	23.5	No	NP					Bailed water from flush monument, strong hydrocarbon odor
8MW49	6/6/2017	NA	trace	22.40	40.00	23.5	No	trace					Bailed water from flush monument, strong hydrocarbon odor
8MW49	7/6/2017	NA	trace	22.96	40.00	23.5	No	trace					
8MW49	8/9/2017	NA	23.65	23.67	40.00	23.5	Yes	0.02					
8MW49	9/15/2017	NA	24.42	24.44	40.00	23.5	Yes	0.02					
8MW49	10/13/2017												Vehicle over well, could not measure
8MW49	11/6/2017												Vehicle over well, could not measure
8MW49	12/12/2017	NA	NP	24.31	40.00	23.5	Yes	NP					Strong hydrocarbon odor, bailed monument
8MW49	1/12/2018	NA	trace	23.83	40.00	23.5	Yes	trace					Strong hydrocarbon odor, bailed monument, pressure in well.
8MW49	2/9/2018	NA	NP	23.15	40.00	23.5	No	NP					Strong hydrocarbon odor, bailed monument
8MW49	3/1/2018	NA	NP	23.10	40.00	23.5	No	NP					Strong hydrocarbon odor, bailed monument
8MW49	4/5/2018												Vehicle over well, could not measure
8MW49	6/29/2018	NP	23.62	23.63	40.00	23.5	Yes	0.01					fuel odor
8MW49	7/19/2018	NP	24.10	24.13	40.00	23.5	Yes	NP					fuel odor
8MW49	8/14/2018	NP	NP	24.50	40.00	23.5	Yes	trace					fuel odor
8MW49	9/19/2018	NP	24.14	24.15	40.00	23.5	Yes	NP					fuel odor
8MW49	10/10/2018	NP	25.46	25.47	40.00	23.5	Yes	NP					fuel odor
8MW49	11/8/2018												Vehicle over well, could not measure
8MW49	12/6/2018												Vehicle over well, could not measure
8MW49	1/3/2019												Vehicle over well, could not measure
8MW49	2/15/2019												Vehicle over well, could not measure
8MW49	3/11/2019												Vehicle over well, could not measure
8MW49	4/30/2019												Vehicle over well, could not measure
8MW49	5/16/2019												Vehicle over well, could not measure
8MW49	6/5/2019												Vehicle over well, could not measure
									8MW49 CUMULATIVE		4,560	1.20	
8MW53	10/5/2010	NA	NP	30.28	46.00	21	Yes	NP					
8MW53	11/10/2010	NA	NP	30.41	46.00	21	Yes	NP					
8MW53	12/8/2010	NA	NP	30.31	46.00	21	Yes	NP					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW53	1/5/2011	NA	NP	30.11	46.00	21	Yes	NP					
8MW53	2/9/2011	NA	NP	28.57	46.00	21	Yes	NP					
8MW53	3/24/2011	NA	NP	26.83	46.00	21	Yes	NP					
8MW53	4/6/2011	NA	NP	29.77	46.00	21	Yes	NP					
8MW53	5/18/2011	NA	NP	26.47	46.00	21	Yes	NP					
8MW53	6/23/2011	NA	NP	26.79	46.00	21	Yes	NP					
8MW53	7/27/2011	NA	NP	27.24	46.00	21	Yes	NP					
8MW53	8/27/2011	NA	NP	27.51	46.00	21	Yes	NP					
8MW53	9/28/2011	NA	NP	28.16	46.00	21	Yes	NP					
8MW53	4/18/2012	NA	NP	27.10	46.00	21	Yes	NP					
8MW53	5/3/2012	NA	NP	27.07	46.00	21	Yes	NP					
8MW53	6/8/2012	NA	NP	27.64	46.00	21	Yes	NP					
8MW53	7/3/2012	NA	NP	27.94	46.00	21	Yes	NP					
8MW53	7/13/2012	NA	NP	28.04	46.00	21	Yes	NP					
8MW53	7/20/2012	NA	NP	28.16	46.00	21	Yes	NP					
8MW53	7/27/2012	NA	NP	28.23	46.00	21	Yes	NP					
8MW53	8/6/2012	NA	NP	28.34	46.00	21	Yes	NP					
8MW53	9/11/2012	NA	NP	28.89	46.00	21	Yes	NP					
8MW53	10/18/2012	NA	NP	29.31	46.00	21	Yes	NP					
8MW53	11/15/2012	NA	NP	29.40	46.00	21	Yes	NP					
8MW53	12/13/2012	NA	NP	28.01	46.00	21	Yes	NP					
8MW53	1/17/2013	NA	NP	26.49	46.00	21	Yes	NP					
8MW53	2/14/2013	NA	NP	26.54	46.00	21	Yes	NP					
8MW53	3/12/2013	NA	NP	26.65	46.00	21	Yes	NP					
8MW53	4/12/2013	NA	NP	26.72	46.00	21	Yes	NP					
8MW53	5/16/2013	NA	NP	27.19	46.00	21	Yes	NP					
8MW53	6/13/2013	NA	NP	27.52	46.00	21	Yes	NP					
8MW53	7/11/2013	NA	NP	27.88	46.00	21	Yes	NP					
8MW53	8/15/2013	NA	NP	28.36	46.00	21	Yes	NP					
8MW53	9/5/2013	NA	NP	28.60	46.00	21	Yes	NP					
8MW53	10/7/2013	NA	NP	28.66	46.00	21	Yes	NP					
8MW53	11/13/2013	NA	NP	29.21	46.00	21	Yes	NP					
8MW53	12/13/2013	NA	NP	29.45	46.00	21	Yes	NP					
8MW53	1/10/2014	NA	NP	29.73	46.00	21	Yes	NP					
8MW53	2/13/2014	NA	NP	29.35	46.00	21	Yes	NP					
8MW53	3/13/2014	NA	NP	28.69	46.00	21	Yes	NP					
8MW53	4/3/2014	NA											Well no longer measured.
									8MW53 CUMULATIVE		0	0.00	
8CB-MW23	10/18/2012	NA	NP	29.58	38.33	23	Yes	NP					
8CB-MW23	11/15/2012	NA	trace	29.59	38.33	23	Yes	trace					
8CB-MW23	12/13/2012	NA	NP	28.10	38.33	23	Yes	NP					
8CB-MW23	1/17/2013	NA	trace	26.67	38.33	23	Yes	trace					
8CB-MW23	2/14/2013												Unable to measure, truck over well for monthly water levels

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW23	2/19/2013												Unable to measure, truck over well for monthly water levels
8CB-MW23	2/28/2013	NA	NP	26.85	38.33	23	Yes	NP					
8CB-MW23	3/12/2013	NA	NP	26.84	38.33	23	Yes	NP					
8CB-MW23	4/12/2013	NA	NP	26.84	38.33	23	Yes	NP					Bailed surface water from well casing
8CB-MW23	5/16/2013	NA	NP	27.40	38.33	23	Yes	NP					Bailed surface water from well casing
8CB-MW23	6/13/2013												Unable to measure, truck over well for monthly water levels
8CB-MW23	6/27/2013												Unable to measure, truck over well for monthly water levels
8CB-MW23	7/11/2013	NA	NP	28.10	38.33	23	Yes	NP					
8CB-MW23	8/15/2013	NA	NP	28.62	38.33	23	Yes	NP					
8CB-MW23	9/5/2013	NA	NP	28.88	38.33	23	Yes	NP					
8CB-MW23	10/7/2013	NA	NP	28.90	38.33	23	Yes	NP					
8CB-MW23	11/13/2013	NA	NP	29.46	38.33	23	Yes	NP					
8CB-MW23	12/13/2013	NA	NP	29.71	38.33	23	Yes	NP					
8CB-MW23	1/10/2014	NA	NP	30.00	38.33	23	Yes	NP					Bailed monument
8CB-MW23	2/13/2014	NA	NP	30.09	38.33	23	Yes	NP					Bailed monument
8CB-MW23	3/13/2014	NA	NP	28.79	38.33	23	Yes	NP					Bailed monument
8CB-MW23	4/3/2014	NA	NP	27.92	38.33	23	Yes	NP					Bailed monument
8CB-MW23	4/25/2014	0.2	NP	28.11	38.33	23	Yes	NP					PID wellhead peak 3.3 ppm
8CB-MW23	5/5/2014	NA	NP	28.04	38.33	23	Yes	NP					Bailed monument
8CB-MW23	5/20/2014	NA	NP	28.19	38.33	23	Yes	NP					
8CB-MW23	6/16/2014												No measurement, vehicle parked over well
8CB-MW23	7/15/2014	NA	NP	28.96	38.33	23	Yes	NP					Bailed monument
8CB-MW23	8/15/2014	NA	NP	29.84	38.33	23	Yes	NP					Bailed monument
8CB-MW23	9/19/2014	NA	NP	30.01	38.33	23	Yes	NP					Bailed monument
8CB-MW23	10/16/2014	NA	NP	30.25	38.33	23	Yes	NP					Bailed monument
8CB-MW23	10/31/2014	NA	trace	30.07	38.33	23	Yes	NP					Bailed monument
8CB-MW23	11/26/2014	0.1	trace	30.13	38.33	23	Yes	Trace					Bailed monument
8CB-MW23	1/12/2015	NA		28.90	38.33	23	Yes						Bailed monument, 1/2 inch tubing in the well
8CB-MW23	1/22/2015	NA	Trace	28.72	38.33	23	Yes	trace					Bailed monument, used bailer to test trace product reading
8CB-MW23	2/5/2015	NA	NP	28.59	38.33	23	Yes	NP					Bailed monument
8CB-MW23	3/6/2015	NA	NP	28.11	38.33	23	Yes	NP					
8CB-MW23	4/1/2015	NA	NP	27.96	38.33	23	Yes	NP					Well no longer measured.
								8CB-MW23 CUMULATIVE			0	0.00	
8CB-MW26	5/29/2012	NA	25.85	26.31	38.11	23.34	Yes	0.46	275	725	275	0.07	Product recovery with peristaltic pump
8CB-MW26	6/8/2012	NA	NP	25.99	38.11	23.34	Yes	NP			275	0.07	
8CB-MW26	7/3/2012	NA	26.38	26.73	38.11	23.34	Yes	0.35			275	0.07	Sock supended in well.
8CB-MW26	7/13/2012	NA	26.51	26.80	38.11	23.34	Yes	0.39	110		385	0.10	Recovered with suspended sock
8CB-MW26	7/20/2012	NA	26.60	27.00	38.11	23.34	Yes	0.40	340	220	725	0.19	Recovered with Peristaltic Pump. DTW After Recovery = 26.82
8CB-MW26	7/27/2012	NA	26.72	26.96	38.11	23.34	Yes	0.24	120	110	845	0.22	Recovered with Peristaltic Pump. DTW After Recovery = 26.82

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW26	8/6/2012	NA	27.18	27.22	38.11	23.34	Yes	0.04					
8CB-MW26	8/10/2012	NA	26.92	27.25	38.11	23.34	Yes	0.33	160	180	1,005	0.27	Recovered with Peristaltic Pump. DTW After Recovery = 27.10
8CB-MW26	8/16/2012	NA	27.03	27.27	38.11	23.34	Yes	0.24	110	130	1,115	0.29	
8CB-MW26	8/31/2012	NA	27.46	27.55	38.11	23.34	Yes	0.09					No product recovered
8CB-MW26	9/5/2012	NA	27.39	27.65	38.11	23.34	Yes	0.26	160	100	1,275	0.34	
8CB-MW26	9/11/2012	NA	27.59	27.73	38.11	23.34	Yes	0.14	70	930	1,345	0.36	Product recovery with peristaltic pump
8CB-MW26	9/20/2012	0.00	27.77	27.92	38.11	23.34	Yes	0.15	80	100	1,425	0.38	Product recovery with peristaltic pump only sheen left
8CB-MW26	9/27/2012	NA	27.89	27.97	38.11	23.34	Yes	0.08					No product recovered
8CB-MW26	10/5/2012	NA	27.95	28.15	38.11	23.34	Yes	0.20	120	500	1,545	0.41	Product recovery with peristaltic pump only sheen left
8CB-MW26	10/12/2012	NA	28.07	28.09	38.11	23.34	Yes	0.02					No product recovered
8CB-MW26	10/18/2012	NA	28.06	28.32	38.11	23.34	Yes	0.26					Monthly water levels, no product recovered
8CB-MW26	10/25/2012	NA	28.22	28.61	38.11	23.34	Yes	0.39	190	460	1,735	0.46	Product recovery with peristaltic pump
8CB-MW26	10/30/2012	NA	28.20	28.32	38.11	23.34	Yes	0.12	60	190	1,795	0.47	Product recovery with peristaltic pump, water recovered was milky in color
8CB-MW26	11/8/2012	NA	28.08	28.14	38.11	23.34	Yes	0.06					No product recovered
8CB-MW26	11/15/2012	NA	28.12	28.30	38.11	23.34	Yes	0.18	80	410	1,875	0.50	Monthly water levels and product removed with peristaltic pump
8CB-MW26	11/21/2012	NA	27.97	28.02	38.11	23.34	Yes	0.05					No product recovered
8CB-MW26	12/13/2012	NA	0.00	26.64	38.11	23.34	Yes						
8CB-MW26	1/17/2013	NA		24.99	38.11	23.34	Yes	NP					
8CB-MW26	2/14/2013	NA	25.00	25.01	38.11	23.34	Yes	0.01					No product recovered
8CB-MW26	3/7/2013	NA	NP	25.26	38.11	23.34	Yes	0.11	68		1,943	0.51	Groundwater sampling, thickness of 0.11 ft removed before sampling
8CB-MW26	3/12/2013	NA	NP	25.26	38.11	23.34	Yes						
8CB-MW26	3/21/2013	NA	25.40	25.42	38.11	23.34	Yes	0.02					No product recovered
8CB-MW26	4/12/2013	NA	NP	25.24	38.11	23.34	Yes	NP					No product recovered
8CB-MW26	5/16/2013	NA	25.71	25.93	38.11	23.34	Yes	0.22	90	210	2,033	0.54	Product recovered
8CB-MW26	5/23/2013	NA	25.88	26.00	38.11	23.34	Yes	0.12	70	150	2,103	0.56	Product recovered
8CB-MW26	5/29/2013	NA	25.91	26.00	38.11	23.34	Yes	0.09	50	200	2,153	0.57	Product recovered
8CB-MW26	6/6/2013	NA	25.96	26.03	38.11	23.34	Yes	0.07					No product recovered
8CB-MW26	6/13/2013	NA	26.09	26.15	38.11	23.34	Yes	0.06					No product recovered
8CB-MW26	7/11/2013	NA	26.46	26.86	38.11	23.34	Yes	0.40	240	610	2,393	0.63	Product recovered
8CB-MW26	7/17/2013	NA	26.65	26.82	38.11	23.34	Yes	0.17	50	770	2,443	0.64	Product recovered
8CB-MW26	7/26/2013	NA	26.80	26.91	38.11	23.34	Yes	0.11	80	120	2,523	0.67	Product recovered
8CB-MW26	8/1/2013	NA	26.91	26.95	38.11	23.34	Yes	0.04					No product recovered
8CB-MW26	8/15/2013	NA	27.19	27.30	38.11	23.34	Yes	0.11	70	410	2,593	0.68	Product recovered
8CB-MW26	8/22/2013	NA	27.23	27.27	38.11	23.34	Yes	0.04					No product recovered
8CB-MW26	9/5/2013	NA	27.28	27.31	38.11	23.34	Yes	0.03					No product recovered
8CB-MW26	9/13/2013	NA	27.50	27.62	38.11	23.34	Yes	0.12	50	60	2,643	0.68	Product recovered
8CB-MW26	9/20/2013	NA	27.55	27.58	38.11	23.34	Yes	0.03					No product recovered
8CB-MW26	10/7/2013	NA	27.50	27.52	38.11	23.34	Yes	0.02					No product recovered
8CB-MW26	11/13/2013	NA	28.02	28.13	38.11	23.34	Yes	0.11	85	130	2,728	0.72	Product recovered
8CB-MW26	11/22/2013	NA	28.09	28.24	38.11	23.34	Yes	0.15	110	90	2,838	0.75	Product recovered

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8CB-MW26	11/27/2013	NA	28.02	28.03	38.11	23.34	Yes	0.01					No product recovered
8CB-MW26	12/13/2013	NA	29.31	29.46	38.11	23.34	Yes	0.15	80	120	2,918	0.77	Product recovered
8CB-MW26	12/20/2013	NA	28.26	28.35	38.11	23.34	Yes	0.09					No product recovered
8CB-MW26	1/10/2014	NA	28.61	28.86	38.11	23.34	Yes	0.25	160	200	3,078	0.81	Product recovered
8CB-MW26	1/17/2014	NA	28.50	28.52	38.11	23.34	Yes	0.02					No product recovered
8CB-MW26	2/13/2014	NA	28.76	28.83	38.11	23.34	Yes	0.07					
8CB-MW26	3/13/2014	NA	NP	27.40	38.11	23.34	Yes	0.00					
8CB-MW26	4/3/2014	NA	NP	26.56	38.11	23.34	Yes	0.00					Bailed monument
8CB-MW26	4/25/2014	0.40	NP	26.50	38.11	23.34	Yes	0.00					PID wellhead peak 714.0 ppm
8CB-MW26	5/5/2014	NA	NP	26.40	38.11	23.34	Yes	0.00					Bailed monument
8CB-MW26	5/20/2014	NA	NP	26.47	38.11	23.34	Yes	0.00					
8CB-MW26	6/3/2014	NA	NP	26.73	38.11	23.34	Yes	0.00					
8CB-MW26	6/16/2014	NA	26.91	26.93	38.11	23.34	Yes	0.02					Bailed monument
8CB-MW26	7/2/2014	NA	27.17	27.25	38.11	23.34	Yes	0.08					
8CB-MW26	7/15/2014	NA	27.31	27.41	38.11	23.34	Yes	0.10					
8CB-MW26	7/31/2014	NA	27.63	27.79	38.11	23.34	Yes	0.16					Let breathe
8CB-MW26	8/15/2014	NA	27.88	28.11	38.11	23.34	Yes	0.23					Let breathe
8CB-MW26	8/29/2014	NA	28.08	28.40	38.11	23.34	Yes	0.32					Let breathe
8CB-MW26	9/19/2014	NA	28.68	28.90	38.11	23.34	Yes	0.22					Let breathe
8CB-MW26	10/2/2014	NA	28.55	29.00	38.11	23.34	Yes	0.45					Let breathe
8CB-MW26	10/16/2014	NA	28.71	29.12	38.11	23.34	Yes	0.41					Let breathe
8CB-MW26	10/31/2014	NA	28.59	28.92	38.11	23.34	Yes	0.33					Let breathe
8CB-MW26	11/14/2014	NA	28.50	28.83	38.11	23.34	Yes	0.33					Let breathe
8CB-MW26	11/26/2014	0.10	28.58	28.94	38.11	23.34	Yes	0.36					Let breathe at the well head, bailed well casing
8CB-MW26	12/10/2014	NA	28.29	28.49	38.11	23.34	Yes	0.20					Let breathe at the well head, strong hydrocarbon odor, bailed well monument
8CB-MW26	12/24/2014	NA	27.66	27.67	38.11	23.34	Yes	0.01					Let breathe at the well head, strong hydrocarbon odor, bailed well monument
8CB-MW26	1/9/2015	NA	NP	27.30	38.11	23.34	Yes	NP					Let breathe at the well head, strong hydrocarbon odor, bailed well monument
8CB-MW26	1/22/2015	NA	Trace	27.13	38.11	23.34	Yes	Trace					Let breathe at the well head, strong hydrocarbon odor, water above TOC so bailed well monument, beading on probe
8CB-MW26	2/5/2015	NA	Trace	26.90	38.11	23.34	Yes	Trace					Let breathe at the well head, strong hydrocarbon odor, bailed water above TOC, beading on probe
8CB-MW26	2/20/2015	NA	Trace	26.36	38.11	23.34	Yes	Trace					Let breathe at the well head
8CB-MW26	3/6/2015	NA	Trace	26.40	38.11	23.34	Yes	Trace					Let breathe at the well head
8CB-MW26	3/19/2015	NA	NP	26.31	38.11	23.34	Yes	NP					Let breathe at the well head, bailed to TOC
8CB-MW26	4/1/2015	NA	Trace	26.24	38.11	23.34	Yes	trace					Odor and beading on probe
8CB-MW26	5/7/2015	NA	26.71	26.89	38.11	23.34	Yes	0.18					Odor and beading on probe
8CB-MW26	6/4/2015	NA	27.22	27.53	38.11	23.34	Yes	0.31					
8CB-MW26	7/9/2015	NA	27.69	28.07	38.11	23.34	Yes	0.38					
8CB-MW26	8/11/2015	NA	28.2	28.7	38.11	23.34	Yes	0.5					
8CB-MW26	9/3/2015	NA	28.5	29.13	38.11	23.34	Yes	0.63					
8CB-MW26	10/6/2015	NA	28.9	29.55	38.11	23.34	Yes	0.65					

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Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW26	11/6/2015	NA	29.06	29.7	38.11	23.34	Yes	0.64					
8CB-MW26	12/4/2015	NA	28.82	29.34	38.11	23.34	Yes	0.52					
8CB-MW26	1/15/2016	NA	26.98	27.23	38.11	23.34	Yes	0.25					Return later to recover; container was full and darkness ensuing on 1/15.
8CB-MW26	1/27/2016	NA	26.05	26.06	38.11	23.34	Yes	0.01					Product had diminished to just 0.01 ft when the well was revisited; no recovery.
8CB-MW26	2/10/2016	NA	Trace	25.1	38.11	23.34	Yes	Trace					
8CB-MW26	3/3/2016	NA	24.1	24.11	38.11	23.34	Yes	0.01					
8CB-MW26	4/5/2016	NA	NP	22.63	38.11	23.34	No	NP					
8CB-MW26	5/17/2016	NA	NP	23.4	38.11	23.34	Yes	NP					
8CB-MW26	6/8/2016	NA	NP	23.93	38.11	23.34	Yes	NP					
8CB-MW26	7/1/2016	0.1	NP	24.52	38.11	23.34	Yes	NP					PID: Breathing zone 0.1 ppm; Wellhead 30.1 ppm.
8CB-MW26	8/19/2016	NA	25.45	25.6	38.11	23.34	Yes	0.15	100	150	3,178	0.84	
8CB-MW26	9/22/2016	NA	26.1	26.18	38.11	23.34	Yes	0.08					Very strong hydrocarbon odor. Let breathe at the well head.
8CB-MW26	10/3/2016	NA	26.25	26.4	38.11	23.34	Yes	0.15	100	350	3,278	0.87	Very strong hydrocarbon odor. Let breathe at the well head.
8CB-MW26	11/11/2016	NA	NP	25.87	38.11	23.34	Yes	NP					Very strong hydrocarbon odor. Let breathe at the well head.
8CB-MW26	12/2/2016	NA	NP	24.6	38.11	23.34	Yes	NP					Very strong hydrocarbon odor. Let breathe at the well head.
8CB-MW26	1/12/2017												Well monument cover was frozen, unable to open to measure
8CB-MW26	1/19/2017	NA	NP	23.7	38.11	23.34	Yes	NP					Bailed monument
8CB-MW26	2/16/2017	NA	Trace	25.55	38.11	23.34	Yes	Trace					Bailed monument
8CB-MW26	3/15/2017	NA	NP	21.5	38.11	23.34	No	NP					Bailed monument
8CB-MW26	4/6/2017	NA	Trace	20.44	38.11	23.34	No	Trace					Bailed monument
8CB-MW26	5/16/2017	NA	Trace	19.79	38.11	23.34	No	Trace					
8CB-MW26	6/6/2017	NA	Trace	20.15	38.11	23.34	No	Trace					
8CB-MW26	7/6/2017	NA	NP	20.94	38.11	23.34	No	NP					
8CB-MW26	8/9/2017	NA	21.71	21.72	38.11	23.34	No	0.01					
8CB-MW26	9/15/2017	NA	Trace	22.45	38.11	23.34	No	Trace					
8CB-MW26	10/13/2017	NA	NP	23.13	38.11	23.34	No	NP					
8CB-MW26	11/6/2017	0	NP	23.2	38.11	23.34	No	NP					PID Wellhead 0.6 ppm.
8CB-MW26	12/12/2017	NA	NP	22.43	38.11	23.34	No	NP					
8CB-MW26	1/12/2018	NA	Trace	22.08	38.11	23.34	No	Trace					
8CB-MW26	2/9/2018	NA	NP	20.51	38.11	23.34	No	NP					
8CB-MW26	3/1/2018	NA	NP	20.35	38.11	23.34	No	NP					
8CB-MW26	4/5/2018	NA	NP	20.68	38.11	23.34	No	NP					
8CB-MW26	6/29/2018	NA	NP	21.72	38.11	23.34	No	NP					
8CB-MW26	7/19/2018	NA	NP	22.1	38.11	23.34	No	NP					
8CB-MW26	8/14/2018	NA	NP	22.55	38.11	23.34	No	NP					
8CB-MW26	9/19/2018	NA	NP	23.24	38.11	23.34	No	NP					
8CB-MW26	10/10/2018	NA	NP	23.6	38.11	23.34	Yes	NP					
8CB-MW26	11/8/2018	0.1	NP	24.08	38.11	23.34	Yes	NP					PID breathing zone wellhead 0.1 ppm

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Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW26	12/6/2018	NA	NP	24.18	38.11	23.34	Yes	NP					
8CB-MW26	1/3/2019	NA	NP	23.23	38.11	23.34	No	NP					
8CB-MW26	2/15/2019	NA	NP	23.97	38.11	23.34	Yes	NP					
8CB-MW26	3/11/2019	NA	NP	22.62	38.11	23.34	No	NP					Very strong hydrocarbon odor.
8CB-MW26	4/30/2019	NA	NP	23.47	38.11	23.34	Yes	NP					Very strong hydrocarbon odor.
8CB-MW26	5/16/2019	NA	NP	23.66	38.11	23.34	Yes	NP					Very strong hydrocarbon odor.
8CB-MW26	6/5/2019	NA	NP	24.06	38.11	23.34	Yes	NP					
								8CB-MW26 CUMULATIVE			3,278	0.87	
8CB-MW28	5/29/2012	NA	NP	28.31	39.5	24.17	Yes	Trace					
8CB-MW28	6/8/2012	NA	NP	28.04	39.5	24.17	Yes	NP					
8CB-MW28	7/3/2012	NA	NP	28.30	39.5	24.17	Yes	NP					
8CB-MW28	8/6/2012	NA	NP	28.77	39.5	24.17	Yes	NP					
8CB-MW28	9/11/2012	NA	NP	29.32	39.5	24.17	Yes	NP					
8CB-MW28	10/18/2012	NA	NP	29.75	39.5	24.17	Yes	NP					
8CB-MW28	11/15/2012	NA	NP	29.72	39.5	24.17	Yes	NP					
8CB-MW28	12/13/2012	NA	NP	28.16	39.5	24.17	Yes	NP					
8CB-MW28	1/17/2013	NA	NP	26.73	39.5	24.17	Yes	NP					
8CB-MW28	2/14/2013	NA	NP	26.84	39.5	24.17	Yes	NP					
8CB-MW28	3/12/2013	NA	NP	27.16	39.5	24.17	Yes	NP					
8CB-MW28	4/12/2013												Vehicle parked over the well
8CB-MW28	5/16/2013	NA	NP	27.59	39.5	24.17	Yes	NP					
8CB-MW28	6/13/2013	NA	NP	27.89	39.5	24.17	Yes	NP					
8CB-MW28	7/11/2013	NA	NP	28.29	39.5	24.17	Yes	NP					
8CB-MW28	8/15/2013	NA	NP	28.82	39.5	24.17	Yes	NP					
8CB-MW28	9/5/2013	NA	NP	29.03	39.5	24.17	Yes	NP					
8CB-MW28	10/7/2013	NA	NP	29.06	39.5	24.17	Yes	NP					
8CB-MW28	11/13/2013	NA	NP	29.61	39.5	24.17	Yes	NP					
8CB-MW28	12/13/2013	NA	NP	28.89	39.5	24.17	Yes	NP					
8CB-MW28	1/10/2014	NA	NP	30.15	39.5	24.17	Yes	NP					
8CB-MW28	2/13/2014	NA	NP	30.25	39.5	24.17	Yes	NP					
8CB-MW28	3/13/2014	NA	NP	28.81	39.5	24.17	Yes	NP					
8CB-MW28	4/3/2014												Well no longer measured.
								8CB-MW28 CUMULATIVE			0	0.00	
8CB-MW02	5/29/2012	NA	NP	27.61	23.33	24.17	Yes	NP					
8CB-MW02	6/8/2012	NA	NP	27.60	23.33	24.17	Yes	NP					
8CB-MW02	7/3/2012	NA	NP	27.88	23.33	24.17	Yes	NP					
8CB-MW02	8/6/2012	NA	NP	28.36	23.33	24.17	Yes	NP					
8CB-MW02	9/11/2012	NA	NP	28.97	23.33	24.17	Yes	NP					
8CB-MW02	10/18/2012	NA	NP	29.40	23.33	24.17	Yes	NP					
8CB-MW02	11/15/2012	NA	trace	29.24	23.33	24.17	Yes	trace					
8CB-MW02	12/13/2012	NA	NP	27.50	23.33	24.17	Yes	NP					
8CB-MW02	1/17/2013	NA	NP	26.14	23.33	24.17	Yes	NP					
8CB-MW02	2/14/2013	NA	trace	26.34	23.33	24.17	Yes	trace					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW02	3/12/2013	NA	trace	26.55	23.33	24.17	Yes	trace					
8CB-MW02	4/12/2013	NA	NP	26.45	23.33	24.17	Yes	NP					
8CB-MW02	5/16/2013	NA	NP	27.20	23.33	24.17	Yes	NP					
8CB-MW02	6/13/2013	NA	NP	27.50	23.33	24.17	Yes	NP					
8CB-MW02	7/11/2013	NA	NP	27.91	23.33	24.17	Yes	NP					
8CB-MW02	8/15/2013	NA	NP	28.49	23.33	24.17	Yes	NP					
8CB-MW02	9/5/2013	NA	NP	28.70	23.33	24.17	Yes	NP					
8CB-MW02	10/7/2013	NA	NP	28.60	23.33	24.17	Yes	NP					
8CB-MW02	11/13/2013	NA	NP	29.25	23.33	24.17	Yes	NP					
8CB-MW02	12/13/2013	NA	NP	29.52	23.33	24.17	Yes	NP					
8CB-MW02	1/10/2014	NA	NP	29.80	23.33	24.17	Yes	NP					
8CB-MW02	2/13/2014	NA	NP	29.79	23.33	24.17	Yes	NP					
8CB-MW02	3/13/2014	NA	NP	28.02	23.33	24.17	Yes	NP					
8CB-MW02	4/3/2014	NA	NP	27.50	23.33	24.17	Yes	NP					
8CB-MW02	4/25/2014	0.2	NP	27.70	23.33	24.17	Yes	NP					PID wellhead peak 167.2 ppm
8CB-MW02	5/5/2014	NA	NP	27.58	23.33	24.17	Yes	NP					
8CB-MW02	5/20/2014	NA	NP	27.85	23.33	24.17	Yes	NP					
8CB-MW02	6/16/2014	NA	NP	28.35	23.33	24.17	Yes	NP					
8CB-MW02	7/15/2014	NA	NP	28.73	23.33	24.17	Yes	NP					
8CB-MW02	8/15/2014	NA	NP	29.25	23.33	24.17	Yes	NP					
8CB-MW02	9/15/2014	NA	NP	28.96	23.33	24.17	Yes	NP					
8CB-MW02	10/16/2014	NA	NP	30.00	23.33	24.17	Yes	NP					
8CB-MW02	10/31/2014	NA	NP	29.65	23.33	24.17	Yes	NP					
8CB-MW02	11/26/2014	0.1	trace	29.73	23.33	24.17	Yes	trace					
8CB-MW02	1/12/2015	NA	trace	28.49	23.33	24.17	Yes	trace					Odor and beading on the probe, 1/2 " tube in the well.
8CB-MW02	1/22/2015	NA	trace	28.16	23.33	24.17	Yes	trace					Odor and beading on the probe, used bailer to test trace product measurements
8CB-MW02	2/5/2015	NA	NP	28.14	23.33	24.17	Yes	NP					
8CB-MW02	3/6/2015	NA	NP	27.74	23.33	24.17	Yes	NP					
8CB-MW02	4/1/2015	NA	NP	27.63	23.33	24.17	Yes	NP					
8CB-MW02	5/7/2015	NA	NP	28.22	23.33	24.17	Yes	NP					
8CB-MW02	6/4/2015	NA	NP	28.79	23.33	24.17	Yes	NP					
8CB-MW02	7/9/2015	NA	NP	29.1	23.33	24.17	Yes	NP					
8CB-MW02	8/11/2015	NA	NP	29.68	23.33	24.17	Yes	NP					Fishing line tied to j-plug
8CB-MW02	9/3/2015	NA	NP	29.88	23.33	24.17	Yes	NP					Fishing line removed
8CB-MW02	10/6/2015	NA	NP	30.24	23.33	24.17	Yes	NP					
8CB-MW02	10/7/2015	NA	NP	30.26	23.33	24.17	Yes	NP					
8CB-MW02	12/4/2015	NA	NP	29.92	23.33	24.17	Yes	NP					
8CB-MW02	1/15/2016												Unable to measure; well in use under AECOM/NAVFAC study.
8CB-MW02	2/10/2016												Unable to measure; well in use under AECOM/NAVFAC study. Line attached to J-Plug
8CB-MW02	3/3/2016												Unable to measure; well in use under AECOM/NAVFAC study. Line attached to J-Plug

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW02	4/5/2016	NA	NP	24.24	23.33	24.17	Yes	NP					
8CB-MW02	5/17/2016	NA	NP	25.13	23.33	24.17	Yes	NP					
8CB-MW02	6/8/2016	NA	NP	25.79	23.33	24.17	Yes	NP					
8CB-MW02	7/1/2016	0.7	NP	26.15	23.33	24.17	Yes	NP					PID: Breathing zone 0.7 ppm; Wellhead 43.2 ppm.
8CB-MW02	8/19/2016	NA	NP	27.03	23.33	24.17	Yes	NP					
8CB-MW02	9/22/2016	NA	NP	27.53	23.33	24.17	Yes	NP					
8CB-MW02	10/3/2016	NA	NP	27.7	23.33	24.17	Yes	NP					Bailed water from flush monument
8CB-MW02	11/11/2016	NA	NP	26.42	23.33	24.17	Yes	NP					Bailed water from flush monument
8CB-MW02	12/2/2016	NA	NP	25.63	23.33	24.17	Yes	NP					Bailed water from flush monument
8CB-MW02	1/12/2017												Well monument cover was frozen, unable to open to measure
8CB-MW02	1/19/2017	NA	NP	25.05	23.33	24.17	Yes	NP					Bailed water from flush monument
8CB-MW02	2/16/2017	NA	NP	23.68	23.33	24.17	No	NP					Bailed water from flush monument
8CB-MW02	3/15/2017	NA	NP	22.32	23.33	24.17	No	NP					Bailed water from flush monument
8CB-MW02	4/7/2017	NA	NP	21.8	23.33	24.17	No	NP					Bailed water from flush monument
8CB-MW02	5/15/2017	NA	NP	21.6	23.33	24.17	No	NP					
8CB-MW02	6/6/2017	NA	NP	22.17	23.33	24.17	No	NP					
8CB-MW02	7/6/2017	NA	NP	22.83	23.33	24.17	No	NP					
8CB-MW02	8/9/2017	NA	NP	23.43	23.33	24.17	No	NP					
8CB-MW02	9/15/2017	NA	NP	24.11	23.33	24.17	No	NP					Re-marked lid with well ID
8CB-MW02	10/13/2017	NA	NP	24.69	23.33	24.17	Yes	NP					
8CB-MW02	11/6/2017	0.1	NP	24.81	23.33	24.17	Yes	NP					PID Wellhead 62.0 ppm.
8CB-MW02	12/12/2017	NA	NP	23.9	23.33	24.17	No	NP					
8CB-MW02	1/12/2018	NA	NP	23.2	23.33	24.17	No	NP					
8CB-MW02	2/9/2018	NA	NP	21.07	23.33	24.17	No	NP					
8CB-MW02	3/1/2018	NA	NP	21.72	23.33	24.17	No	NP					Bailed water from flush monument
8CB-MW02	4/5/2018	NA	NP	22.26	23.33	24.17	No	NP					
8CB-MW02	6/29/2018	NA	NP	23.34	23.33	24.17	No	NP					
8CB-MW02	7/19/2018												Unable to measure; forklift work in area
8CB-MW02	8/14/2018	NA	NP	21.18	43.33	24.17	No	NP					Lid broken in 6 pieces, replaced lid and recycled old lid
8CB-MW02	9/19/2018	NA	NP	24.83	43.33	24.17	Yes	NP					
8CB-MW02	10/10/2018	NA	NP	25.13	43.33	24.17	Yes	NP					
8CB-MW02	11/8/2018	0.1/6.4	NP	25.53	43.33	24.17	Yes	NP					PID at breathingzone 0.1; Wellhead 6.4ppm
8CB-MW02	12/6/2018	NA	NP	25.5	43.33	24.17	Yes	NP					
8CB-MW02	1/3/2019	NA	NP	24.57	43.33	23.33	Yes	NP					
8CB-MW02	2/15/2019	NA	NP	24.42	43.33	23.33	Yes	NP					
8CB-MW02	3/11/2019	NA	NP	24.35	43.33	23.33	Yes	NP					
8CB-MW02	4/30/2019	NA	NP	25.22	43.33	23.33	Yes	NP					
8CB-MW02	5/16/2019	NA	NP	25.44	43.33	23.33	Yes	NP					
8CB-MW02	6/5/2019	NA	NP	25.82	43.33	23.33	Yes	NP					
								8CB-MW02 CUMULATIVE			0	0.00	
8CB-MW17	5/29/2012	NA	NP	27.58	43.16	23.16	Yes	Trace					
8CB-MW17	6/8/2012	NA	NP	27.65	43.16	23.16	Yes	NP					

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Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW17	7/3/2012	NA	27.90	28.08	43.16	23.16	Yes	0.18					
8CB-MW17	7/13/2012	NA	27.92	28.15	43.16	23.16	Yes	0.23					
8CB-MW17	7/20/2012	NA	28.08	28.39	43.16	23.16	Yes	0.31	220	110	220	0.06	
8CB-MW17	7/27/2012	NA	28.17	28.29	43.16	23.16	Yes	0.12	40	160	260	0.07	
8CB-MW17	8/6/2012	NA	28.28	28.44	43.16	23.16	Yes	0.16					
8CB-MW17	8/10/2012	NA	28.30	28.53	43.16	23.16	Yes	0.23	110	440	370	0.10	
8CB-MW17	8/16/2012	NA	28.39	28.48	43.16	23.16	Yes	0.09					
8CB-MW17	8/31/2012	NA	28.60	28.63	43.16	23.16	Yes	0.03					
8CB-MW17	9/5/2012	NA	28.63	28.80	43.16	23.16	Yes	0.17	70	260	440	0.12	
8CB-MW17	9/11/2012	NA	NP	28.79	43.16	23.16	Yes	NP					
8CB-MW17	10/18.2012	NA	29.16	29.61	43.16	23.16	Yes	0.45					
8CB-MW17	10/25/2012	NA	29.30	29.80	43.16	23.16	Yes	0.50	260	290	700	0.18	
8CB-MW17	10/30/2012	NA	29.34	29.43	43.16	23.16	Yes	0.09					
8CB-MW17	11/8/2012	NA	29.25	29.41	43.16	23.16	Yes	0.16	80	420	780	0.21	Product recovery with peristaltic pump
8CB-MW17	11/15/2012				43.16								Ambulance parked over well
8CB-MW17	11/21/2012	NA	29.29	29.38	43.16	23.16	Yes	0.09					No product recovered
8CB-MW17	12/13/2012	NA	28.23	28.24	43.16	23.16	Yes	0.01					
8CB-MW17	1/17/2013	NA	trace	26.71	43.16	23.16	Yes	NP					No product recovered
8CB-MW17	2/14/2013	NA	26.62	26.66	43.16	23.16	Yes	0.04					No product recovered
8CB-MW17	3/7/2013												Groundwater sampling, thickness of 0.03 ft removed before sampling
8CB-MW17	3/12/2013	NA	26.66	26.72	43.16	23.16	Yes	0.06					Follows 0.03 ft product thickness removed the prior week for sampling
8CB-MW17	4/12/2013	NA	26.73	26.90	43.16	23.16	Yes	0.17					No product recovered
8CB-MW17	4/17/2013	NA	26.92	27.01	43.16	23.16	Yes	0.09	50	280	830	0.22	Product recovery with peristaltic pump. Milky opaque water.
8CB-MW17	4/25/2013	NA	26.82	26.92	43.16	23.16	Yes	0.10	50	260	880	0.23	Product recovery with peristaltic pump.
8CB-MW17	5/2/2013	NA	27.04	27.06	43.16	23.16	Yes	0.02					
8CB-MW17	5/16/2013	NA	27.12	27.15	43.16	23.16	Yes	0.03					
8CB-MW17	6/13/2013	NA	27.45	27.52	43.16	23.16	Yes	0.07					
8CB-MW17	7/11/2013	NA	27.76	27.92	43.16	23.16	Yes	0.16	80	90	960	0.25	Product recovery with peristaltic pump. Milky opaque water
8CB-MW17	7/17/2013	NA	27.88	27.91	43.16	23.16	Yes	0.03					No product recovered
8CB-MW17	8/15/2013	NA	28.25	28.33	43.16	23.16	Yes	0.08					No product recovered
8CB-MW17	8/22/2013	NA	28.25	28.33	43.16	23.16	Yes	0.08	20	200	980	0.26	Product recovered with disposable bailer.
8CB-MW17	9/5/2013	NA	NA	27.60	43.16	23.16	Yes						No product recovered, Interface meter issues prevented DTP - 9/6 well covered by large tow truck.
8CB-MW17	9/13/2013	NA	28.59	28.61	43.16	23.16	Yes	0.02	60	200	1,040	0.27	Product recovery with peristaltic pump. Bailed casing
8CB-MW17	9/20/2013	NA	28.60	28.63	43.16	23.16	Yes	0.03					No product recovered
8CB-MW17	10/7/2013	NA	28.65	28.68	43.16	23.16	Yes	0.03	2	100	1,042	0.28	Product recovered for AECOM
8CB-MW17	11/13/2013	NA	29.09	29.21	43.16	23.16	Yes	0.12	70	130	1,112	0.29	Product recovery with peristaltic pump. Milky opaque water.
8CB-MW17	11/22/2013	NA	29.21	29.23	43.16	23.16	Yes	0.02					No product recovered
8CB-MW17	12/13/2013	NA	29.35	29.41	43.16	23.16	Yes	0.06					No product recovered
8CB-MW17	1/10/2014	NA	29.61	29.70	43.16	23.16	Yes	0.09	50	120	1,162	0.31	Product recovery with peristaltic pump.

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Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW17	1/17/2014	NA	29.58	29.59	43.16	23.16	Yes	0.01					No product recovered
8CB-MW17	2/13/2014	NA	29.79	29.82	43.16	23.16	Yes	0.03					No product recovered
8CB-MW17	3/13/2014	NA	trace	28.88	43.16	23.16	Yes	0.00					
8CB-MW17	4/3/2014	NA	NP	28.05	43.16	23.16	Yes	0.00					
8CB-MW17	4/25/2014	0.0	NP	27.99	43.16	23.16	Yes	0.00					PID wellhead peak 123.0 ppm
8CB-MW17	5/5/2014	NA	0.00	27.94	43.16	23.16	Yes	0.00					
8CB-MW17	5/20/2014	NA	0.00	27.96	43.16	23.16	Yes	0.00					
8CB-MW17	6/3/2014	NA	trace	28.16	43.16	23.16	Yes	0.00					
8CB-MW17	6/16/2014	NA	0.00	28.33	43.16	23.16	Yes	0.00					
8CB-MW17	7/2/2014	NA	0.00	28.54	43.16	23.16	Yes	0.00					
8CB-MW17	7/15/2014	NA	0.00	28.71	43.16	23.16	Yes	0.00					
8CB-MW17	7/31/2014	NA	0.00	28.94	43.16	23.16	Yes	0.00					
8CB-MW17	8/15/2014	NA	trace	29.16	43.16	23.16	Yes	0.00					
8CB-MW17	8/29/2014	NA	29.35	29.36	43.16	23.16	Yes	0.01					
8CB-MW17	9/19/2014	NA	29.71	29.75	43.16	23.16	Yes	0.04					
8CB-MW17	10/2/2014	NA	29.83	29.90	43.16	23.16	Yes	0.07					Hard bottom of well.
8CB-MW17	10/16/2014	NA	29.94	30.02	43.16	23.16	Yes	0.08					
8CB-MW17	10/31/2014	NA	29.91	29.98	43.16	23.16	Yes	0.07					
8CB-MW17	11/14/2014	NA	29.86	29.91	43.16	23.16	Yes	0.05					
8CB-MW17	11/26/2014	0.0	28.58	28.94	43.16	23.16	Yes	0.36					
8CB-MW17	12/10/2014	NA	trace	29.70	43.16	23.16	Yes	trace					Bailed well monument
8CB-MW17	12/24/2014	NA	trace	29.29	43.16	23.16	Yes	trace					Bailed well monument, beading on probe and sheen in water bucket
8CB-MW17	1/9/2015	NA	NP	28.86	43.16	23.16	Yes	NP					
8CB-MW17	1/22/2015	NA	Trace	28.76	43.16	23.16	Yes	trace					
8CB-MW17	2/5/2015	NA	NP	28.50	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	2/20/2015	NA	NP	28.09	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	3/6/2015	NA	NP	28.04	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	3/19/2015	NA	NP	27.95	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	4/1/2015	NA	NP	27.90	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	5/7/2015	NA	NP	28.17	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	6/4/2015	NA	NP	28.55	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	7/9/2015	NA	28.91	28.92	43.16	23.16	Yes	0.01					
8CB-MW17	8/11/2015	NA	29.4	29.41	43.16	23.16	Yes	0.01					
8CB-MW17	9/3/2015	NA	29.7	29.71	43.16	23.16	Yes	0.01					
8CB-MW17	10/6/2015	NA	30.05	30.15	43.16	23.16	Yes	0.10					
8CB-MW17	11/6/2015	NA	30.3	30.41	43.16	23.16	Yes	0.11					
8CB-MW17	12/4/2015	NA	30.09	30.15	43.16	23.16	Yes	0.06					
8CB-MW17	1/15/2016	NA	NP	28.55	43.16	23.16	Yes	NP					
8CB-MW17	2/10/2016	NA	NP	26.94	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	3/3/2016	NA	NP	26.15	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	4/5/2016	NA	NP	24.67	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	5/17/2016	NA	25.25	25.28	43.16	23.16	Yes	0.03					Bailed well monument
8CB-MW17	6/8/2016	NA	25.62	25.66	43.16	23.16	Yes	0.04					
8CB-MW17	7/1/2016	NA	NA	NA	43.16	23.16	Yes	NA					Unable to measure. Covered by trailer.
8CB-MW17	8/19/2016	NA	26.78	26.79	43.16	23.16	Yes	0.01					Bailed well monument

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW17	9/22/2016	NA	trace	27.32	43.16	23.16	Yes	trace					Bailed well monument
8CB-MW17	10/3/2016	NA	trace	27.46	43.16	23.16	Yes	trace					Bailed well monument
8CB-MW17	11/11/2016	NA	NP	26.87	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	12/2/2016	NA	NP	26.3	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	1/12/2017												Well monument cover was frozen, unable to open to measure
8CB-MW17	1/19/2017	NA	NP	25.41	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	2/16/2017	NA	Trace	24.35	43.16	23.16	Yes	Trace					Bailed well monument
8CB-MW17	3/15/2017	NA	NP	23.3	43.16	23.16	Yes	NP					Bailed well monument
8CB-MW17	4/6/2017	NA	NP	22.09	43.16	23.16	No	NP					Bailed well monument
8CB-MW17	5/15/2017	NA	NP	21.55	43.16	23.16	No	NP					Bailed well monument
8CB-MW17	6/6/2017	NA	NP	21.84	43.16	23.16	No	NP					Bailed well monument
8CB-MW17	7/6/2017	NA	NP	22.47	43.16	23.16	No	NP					
8CB-MW17	8/9/2017	NA	NP	23.05	43.16	23.16	No	NP					
8CB-MW17	9/15/2017	NA	NP	23.78	43.16	23.16	Yes	NP					Re-marked lid with well ID
8CB-MW17	10/13/2017	NA	NP	24.33	43.16	23.16	Yes	NP					
8CB-MW17	11/6/2017	0.1	NP	24.6	43.16	23.16	Yes	NP					PID Wellhead 50.4 ppm.
8CB-MW17	12/12/2017	NA	Trace	23.94	43.16	23.16	Yes	Trace					Bailed monument
8CB-MW17	1/4/2018	NA	NP	23.57	43.16	23.16	Yes	NP					Bailed monument
8CB-MW17	2/9/2018	NA	NP	22.02	43.16	23.16	No	NP					Bailed monument
8CB-MW17	3/1/2018	NA	NP	21.79	43.16	23.16	No	NP					Bailed monument
8CB-MW17	4/5/2018	NA	trace	22.07	43.16	23.16	No	Trace					Bailed monument
8CB-MW17	6/29/2018	NA	NP	23	43.16	23.16	No	NP					Bailed monument
8CB-MW17	7/19/2018	NA	NP	23.34	43.16	23.16	Yes	NP					
8CB-MW17	8/14/2018	NA	NP	23.78	43.16	23.16	Yes	NP					
8CB-MW17	9/19/2018	NA	NP	24.45	43.16	23.16	Yes	NP					
8CB-MW17	10/10/2018	NA	NP	24.81	43.16	23.16	Yes	NP					
8CB-MW17	11/8/2018	0.0/51	NP	25.3	43.16	23.16	Yes	NP					PID at breathing zone 0.0 Wellhead 51.0ppm
8CB-MW17	12/6/2018	NA	NP	25.47	43.16	23.16	Yes	NP					
8CB-MW17	1/3/2019	NA	trace	24.84	42.11	23.16	Yes	NP					Bailed monument
8CB-MW17	2/15/2019	NA	NP	24.5	42.11	23.16	Yes	NP					Bailed monument
8CB-MW17	3/11/2019	NA	NP	24.4	42.11	23.16	Yes	NP					
8CB-MW17	4/30/2019	NA	NP	25.14	42.11	23.16	Yes	NP					
8CB-MW17	5/16/2019	NA	NP	25.4	42.11	23.16	Yes	NP					
8CB-MW17	6/5/2019	NA	NP	25.7	42.11	23.16	Yes	NP					
								8CB-MW17 CUMULATIVE			1,162	0.31	
8CB-MW18	5/29/2012	NA	NP	28.07	42.77	22.44	Yes	Trace					
8CB-MW18	6/8/2012	NA	NP	28.13	42.77	22.44	Yes	Trace					
8CB-MW18	6/13/2012	NA	NP	28.25	42.77	22.44	Yes	NP					
8CB-MW18	6/29/2012	NA	28.33	28.63	42.77	22.44	Yes	0.30	178	58	178	0.05	
8CB-MW18	7/3/2012	NA	NP	28.45	42.77	22.44	Yes	NP			178	0.05	
8CB-MW18	8/6/2012										178	0.05	
8CB-MW18	9/11/2012	NA	29.32	29.74	42.77	22.44	Yes	0.42	310	1,680	488	0.13	
8CB-MW18	9/20/2012	0.0	29.45	29.63	42.77	22.44	Yes	0.18	80	910	568	0.15	
8CB-MW18	9/27/2012	NA	29.55	29.62	42.77	22.44	Yes	0.07			568	0.15	
8CB-MW18	10/5/2012	NA	29.65	29.82	42.77	22.44	Yes	0.17	80	420	648	0.17	
8CB-MW18	10/12/2012	NA	29.71	29.78	42.77	22.44	Yes	0.07			648	0.17	
8CB-MW18	10/18/2012	NA	29.76	29.90	42.77	22.44	Yes	0.14			648	0.17	
8CB-MW18	10/25/2012	NA	29.93	30.16	42.77	22.44	Yes	0.23	130	120	778	0.21	

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW18	10/30/2012	NA	29.89	29.95	42.77	22.44	Yes	0.06					
8CB-MW18	11/15/2012	NA	trace	30.05	42.77	22.44	Yes						No product recovered
8CB-MW18	12/13/2012	NA	28.60	28.80	42.77	22.44	Yes	0.20	110		888	0.23	Product recovery with peristaltic pump
8CB-MW18	12/20/2012	NA	28.34	28.35	42.77	22.44	Yes	0.01					No product recovered
8CB-MW18	1/17/2013	NA	trace	27.12	42.77	22.44	Yes						No product recovered
8CB-MW18	2/14/2013	NA	27.10	27.15	42.77	22.44	Yes	0.05					No product recovered
8CB-MW18	3/21/2013	NA	27.35	27.42	42.77	22.44	Yes	0.07					No product recovered
8CB-MW18	3/7/2013								68		956	0.25	Groundwater sampling, thickness of 0.11 ft removed before sampling
8CB-MW18	3/12/2013	NA	NP	27.24	42.77	22.44	Yes						
8CB-MW18	4/12/2013	NA	27.20	27.41	42.77	22.44	Yes	0.21					Monthly water levels, no product recovered, sheen red surface water
8CB-MW18	4/17/2013	NA	27.39	27.84	42.77	22.44	Yes	0.45	110	600	1,066	0.28	Monthly water levels, Product recovery with peristaltic pump
8CB-MW18	4/25/2013	NA	27.35	27.49	42.77	22.44	Yes	0.14	60	360	1,126	0.30	Monthly water levels, Product recovery with peristaltic pump. Water opaque in appearance.
8CB-MW18	5/2/2013	NA	27.54	27.62	42.77	22.44	Yes	0.08					No product recovered
8CB-MW18	5/16/2013	NA	NP	27.62	42.77	22.44	Yes						No product recovered
8CB-MW18	6/13/2013	NA	27.92	28.28	42.77	22.44	Yes	0.36	200	360	1,326	0.35	Product recovery with peristaltic pump, strong hydrocarbon odor and the water is milky colored
8CB-MW18	6/20/2013	NA	28.01	28.11	42.77	22.44	Yes	0.10	50	240	1,376	0.36	Product recovery with peristaltic pump, strong hydrocarbon odor and the water is milky colored
8CB-MW18	6/27/2013	NA	28.06	28.12	42.77	22.44	Yes	0.06					No product recovered
8CB-MW18	7/11/2013	NA	28.30	28.56	42.77	22.44	Yes	0.26	140	170	1,516	0.40	Product recovery with peristaltic pump, strong hydrocarbon odor and the water is milky colored
8CB-MW18	7/17/2013	NA	28.43	28.50	42.77	22.44	Yes	0.07					No product recovered
8CB-MW18	8/15/2013	NA	NP	29.06	42.77	22.44	Yes						
8CB-MW18	9/6/2013	NA	29.03	29.39	42.77	22.44	Yes	0.36	220	240	1,736	0.46	Product recovery with peristaltic pump, and the water is milky colored
8CB-MW18	9/13/2013	NA		27.80	42.77	22.44	Yes						No product recovered
8CB-MW18	9/20/2013	NA	29.14	29.22	42.77	22.44	Yes	0.08					No product recovered
8CB-MW18	10/7/2013	NA	29.15	29.30	42.77	22.44	Yes	0.15	80	180	1,816	0.48	Product recovery with peristaltic pump, Sample taken for AECOM
8CB-MW18	10/14/2013	NA	29.38	29.40	42.77	22.44	Yes	0.02					No product recovered
8CB-MW18	11/13/2013	NA		29.66	42.77	22.44	Yes						No product recovered
8CB-MW18	12/13/2013	NA	29.90	30.08	42.77	22.44	Yes	0.18	100	270	1,916	0.51	Product recovered
8CB-MW18	12/20/2013	NA	29.81	29.89	42.77	22.44	Yes	0.08					No product recovered
8CB-MW18	1/10/2014	NA	30.15	30.30	42.77	22.44	Yes	0.15	80	360	1,996	0.53	Product recovered
8CB-MW18	1/17/2014	NA	30.10	30.13	42.77	22.44	Yes	0.03					No product recovered
8CB-MW18	2/13/2014	NA	30.31	30.39	42.77	22.44	Yes	0.08					No product recovered
8CB-MW18	3/13/2014	NA	29.30	29.38	42.77	22.44	Yes	0.08					No product recovered
8CB-MW18	4/3/2014	NA	28.50	28.53	42.77	22.44	Yes	0.03					
8CB-MW18	4/25/2014	0.1	28.44	28.46	42.77	22.44	Yes	0.02					PID wellhead peak 246.4 ppm
8CB-MW18	5/5/2014	NA	28.40	28.42	42.77	22.44	Yes	0.02					Bailed monument.
8CB-MW18	5/20/2014	NA	28.46	28.49	42.77	22.44	Yes	0.03					
8CB-MW18	6/3/2014	NA	28.68	28.75	42.77	22.44	Yes	0.07					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW18	6/16/2014	NA	28.82	28.95	42.77	22.44	Yes	0.13					
8CB-MW18	7/2/2014	NA	29.02	29.25	42.77	22.44	Yes	0.23					
8CB-MW18	7/15/2014	NA	29.17	29.49	42.77	22.44	Yes	0.32					
8CB-MW18	7/31/2014	NA	29.39	29.83	42.77	22.44	Yes	0.44					
8CB-MW18	8/15/2014	NA	29.61	30.14	42.77	22.44	Yes	0.53					
8CB-MW18	8/29/2014	NA	29.67	30.15	42.77	22.44	Yes	0.48					
8CB-MW18	9/19/2014	NA	30.20	30.75	42.77	22.44	Yes	0.55					
8CB-MW18	10/2/2014	NA	30.28	30.82	42.77	22.44	Yes	0.54					
8CB-MW18	10/16/2014	NA	30.40	30.90	42.77	22.44	Yes	0.50					
8CB-MW18	10/31/2014	NA	NA	30.35	42.77	22.44	Yes	NA					
8CB-MW18	11/14/2014	NA	30.30	30.74	42.77	22.44	Yes	0.44					
8CB-MW18	11/26/2014	0.0	30.41	30.85	42.77	22.44	Yes	0.44					
8CB-MW18	12/10/2014	NA	30.10	30.56	42.77	22.44	Yes	0.46					
8CB-MW18	12/24/2014	NA	29.67	29.92	42.77	22.44	Yes	0.25					
8CB-MW18	1/9/2015	NA	29.30	29.40	42.77	22.44	Yes	0.10					
8CB-MW18	1/22/2015	NA	29.21	29.23	42.77	22.44	Yes	0.02					
8CB-MW18	2/5/2015	NA	28.94	28.96	42.77	22.44	Yes	0.02					Bailed well monument
8CB-MW18	2/20/2015	NA	28.51	28.55	42.77	22.44	Yes	0.04					Bailed well monument
8CB-MW18	3/6/2015	NA	28.50	28.51	42.77	22.44	Yes	0.01					Bailed well monument
8CB-MW18	3/19/2015	NA	28.40	28.41	42.77	22.44	Yes	0.01					Bailed well monument
8CB-MW18	4/1/2015	NA	Trace	28.35	42.77	22.44	Yes	Trace					Bailed well monument, black residue on the probe
8CB-MW18	5/7/2015	NA	28.66	28.79	42.77	22.44	Yes	0.13					Bailed well monument, black residue on the probe
8CB-MW18	6/4/2015	NA	29.05	29.25	42.77	22.44	Yes	0.2					Bailed well monument, black residue on the probe
8CB-MW18	7/9/2015	NA	29.4	29.78	42.77	22.44	Yes	0.38					
8CB-MW18	8/11/2015	NA	29.83	30.57	42.77	22.44	Yes	0.74					
8CB-MW18	9/3/2015	NA	30.15	30.74	42.77	22.44	Yes	0.59					
8CB-MW18	10/6/2015	NA	30.53	31.15	42.77	22.44	Yes	0.62					
8CB-MW18	11/6/2015	NA	30.74	31.37	42.77	22.44	Yes	0.63					
8CB-MW18	12/4/2015	NA	31.04	31.52	42.77	22.44	Yes	0.48					
8CB-MW18	1/15/2016	NA	28.94	29.15	42.77	22.44	Yes	0.21	50	950	2,046	0.54	Product recovered.
8CB-MW18	2/10/2016	NA	Trace	27.33	42.77	22.44	Yes	Trace					
8CB-MW18	3/3/2016	NA	NP	26.56	42.77	22.44	Yes	NP					
8CB-MW18	4/5/2016	NA	NP	25.1	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	5/17/2016	NA	25.78	25.8	42.77	22.44	Yes	0.02					Bailed well monument
8CB-MW18	6/8/2016	NA	26.15	26.2	42.77	22.44	Yes	0.05					Bailed well monument
8CB-MW18	7/1/2016	0.00	26.55	26.59	42.77	22.44	Yes	0.04					Bailed well monument. PID: Breathing zone 0.0 ppm; Wellhead 47.8 ppm.
8CB-MW18	8/19/2016	NA	27.33	27.39	42.77	22.44	Yes	0.06					Bailed well monument
8CB-MW18	9/22/2016	NA	27.85	27.94	42.77	22.44	Yes	0.09					Bailed well monument
8CB-MW18	10/3/2016	NA	28	28.11	42.77	22.44	Yes	0.11	60	150	2,106	0.56	Bailed well monument
8CB-MW18	11/11/2016	NA	NP	27.33	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	12/2/2016	NA	NP	26.72	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	1/12/2017												Well monument cover was frozen, unable to open to measure
8CB-MW18	1/19/2017	NA	NP	25.9	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	2/16/2017	NA	Trace	24.8	42.77	22.44	Yes	Trace					Bailed well monument
8CB-MW18	3/15/2017	NA	NP	23.72	42.77	22.44	Yes	NP					Bailed well monument

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8CB-MW18	4/6/2017	NA	NP	22.58	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	5/15/2017	NA	NP	22.05	42.77	22.44	No	NP					Bailed well monument
8CB-MW18	6/6/2017	NA	NP	22.4	42.77	22.44	No	NP					Bailed well monument
8CB-MW18	7/6/2017	NA	NP	23.04	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	8/9/2017	NA	NP	23.64	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	9/15/2017	NA	24.35	24.37	42.77	22.44	Yes	0.02					
8CB-MW18	10/13/2017	NA	Trace	24.91	42.77	22.44	Yes	Trace					
8CB-MW18	11/6/2017	0.40	Trace	25.317	42.77	22.44	Yes	Trace					PID Wellhead 168.4 ppm.
8CB-MW18	12/12/2017	NA	Trace	24.44	42.77	22.44	Yes	Trace					
8CB-MW18	1/4/2018	NA	NP	24.1	42.77	22.44	Yes	NP					
8CB-MW18	2/9/2018	NA	NP	22.44	42.77	22.44	No	NP					
8CB-MW18	3/1/2018	NA	NP	22.29	42.77	22.44	No	NP					
8CB-MW18	4/5/2018	NA	NP	22.59	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	6/29/2018	NA	NP	23.58	42.77	22.44	Yes	NP					Bailed well monument
8CB-MW18	7/19/2018	NA	NP	24	42.77	22.44	Yes	NP					
8CB-MW18	7/19/2018	NA	NP	24	42.77	22.44	Yes	NP					
8CB-MW18	8/14/2018	NA	24.35	24.4	42.77	22.44	Yes	0.05					
8CB-MW18	9/19/2018	NA	25.01	25.08	42.77	22.44	Yes	0.07					
8CB-MW18	10/10/2018	NA	25.4	25.45	42.77	22.44	Yes	0.05					
8CB-MW18	11/8/2018	0.1/147	25.85	25.91	42.77	22.44	Yes	0.06					PID at breathing zone 0.1 Wellhead 147.0 ppm.
8CB-MW18	12/6/2018	NA	25.97	25.99	42.77	22.44	Yes	0.02					
8CB-MW18	1/3/2019	NA	NP	25.33	42.17	22.44	Yes	NP					Bailed well monument
8CB-MW18	2/15/2019	NA	NP	25.03	42.17	22.44	Yes	NP					Bailed well monument
8CB-MW18	3/11/2019	NA	NP	25	42.17	22.44	Yes	NP					Bailed well monument
8CB-MW18	4/30/2019	NA	25.65	25.67	42.17	22.44	Yes	0.02					Bailed well monument
8CB-MW18	5/3/2019	NA	25.65	25.67	42.17	22.44	Yes	0.02	0.5	300	2,106	0.56	Recoved product and filled 2 x 2ml vials of product/water for N
8CB-MW18	5/16/2019	NA	NP	25.86	42.17	22.44	Yes	NP					
8CB-MW18	6/5/2019	NA	26.2	26.33	42.17	22.44	Yes	0.13					Returned for product recovery 6/7 no product measured in the
								8CB-MW18 CUMULATIVE			2,106	0.56	
8IW-6	10/18/2012	NA	NP	29.49	46.40	31.1	No						
8IW-6	11/15/2012	NA	NP	29.41	46.40	31.1	No						
8IW-6	12/13/2012	NA	NP	27.75	46.40	31.1	No						
8IW-6	1/17/2013	NA	NP	26.35	46.40	31.1	No						
8IW-6	2/14/2013	NA	NP	26.52	46.40	31.1	No						
8IW-6	3/12/2013	NA	NP	26.74	46.40	31.1	No						
8IW-6	4/12/2013	NA	NP	26.70	46.40	31.1	No						
8IW-6	5/16/2013	NA	NP	27.35	46.40	31.1	No						
8IW-6	6/13/2013	NA	NP	27.60	46.40	31.1	No						
8IW-6	7/11/2013	NA	NP	27.93	46.40	31.1	No						
8IW-6	8/15/2013	NA	NP	28.50	46.40	31.1	No						
8IW-6	9/5/2013	NA	NP	28.73	46.40	31.1	No						
8IW-6	10/7/2013	NA	NP	28.71	46.40	31.1	No						
8IW-6	11/13/2013	NA	NP	29.46	46.40	31.1	No						
8IW-6	12/13/2013	NA	NP	29.57	46.40	31.1	No						
8IW-6	1/10/2014	NA	NP	29.90	46.40	31.1	No						
8IW-6	2/13/2014	NA	Trace	29.91	46.40	31.1	No						
8IW-6	3/13/2014	NA	NP	28.54	46.40	31.1	No						

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8IW-6	4/3/2014	NA	Trace	27.83	46.40	31.1	No						
8IW-6	4/25/2014	0.10	NP	28.06	46.40	31.1	No						PID Well head peak 23.2 ppm. Well no longer measured.
									8IW-6 CUMULATIVE		0	0.00	
8IW-7	5/31/2012	NA	25.71	29.41	45.05	30.5	No	3.70	9,970		9,970	2.63	
8IW-7	6/4/2012	NA	26.43	27.50	45.05	30.5	No	1.07	2,650		12,620	3.33	
8IW-7	6/8/2012	NA	NP	26.52	45.05	30.5	No	NP					
8IW-7	6/13/2012	NA	NP	26.27	45.05	30.5	No	NP					
8IW-7	6/20/2012	NA	NP	26.79	45.05	30.5	No	NP					
8IW-7	6/29/2012	NA	NP	27.03	45.05	30.5	No	NP					
8IW-7	7/3/2012	NA	NP	27.20	45.05	30.5	No	NP					
8IW-7	8/6/2012	NA	NP	28.29	45.05	30.5	No	NP					
8IW-7	9/11/2012	NA	27.85	28.46	45.05	30.5	No	0.61	1,130	1,620	13,750	3.63	
8IW-7	9/20/2012	0.0	28.05	28.50	45.05	30.5	No	0.45	840	160	14,590	3.85	
8IW-7	9/27/2012	NA	28.35	28.63	45.05	30.5	No	0.28	460	240	15,050	3.97	
8IW-7	10/5/2012	NA	28.65	28.71	45.05	30.5	No	0.06					
8IW-7	10/12/2012	NA	28.27	28.93	45.05	30.5	No	0.66	1,600	100	16,650	4.40	
8IW-7	10/18/2012	NA	29.41	29.57	45.05	30.5	No	0.16					
8IW-7	10/25/2012	NA	28.72	28.79	45.05	30.5	No	0.07					
8IW-7	11/15/2012	NA	28.28	29.73	45.05	30.5	No	1.45	1,080	120	17,730	4.68	Monthly water levels, product removed using peristaltic pump
8IW-7	11/21/2012	NA	28.07	28.09	45.05	30.5	No	0.02					No product recovered
8IW-7	12/13/2012	NA	27.76	27.77	45.05	30.5	No	0.01					
8IW-7	1/17/2013	NA	NP	25.40	45.05	30.5	No						pressure build up in well housing.
8IW-7	2/14/2013	NA	25.55	25.66	45.05	30.5	No	0.11	160	380	17,890	4.72	Product recovered using peristaltic pump
8IW-7	2/19/2013	NA	25.60	25.78	45.05	30.5	No	0.18	530	350	18,420	4.86	Product recovered using peristaltic pump
8IW-7	2/28/2013	NA	25.70	26.30	45.05	30.5	No	0.60	1,460	30	19,880	5.25	Product recovered using peristaltic pump
8IW-7	3/7/2013	NA	25.72	25.76	45.05	30.5	No	0.04					No product recovered
8IW-7	3/12/2013	NA	25.70	25.72	45.05	30.5	No	0.02					No product recovered
8IW-7	4/12/2013	NA	25.88	26.05	45.05	30.5	No	0.17					
8IW-7	4/17/2013	NA	25.75	26.05	45.05	30.5	No	0.30	720	280	20,600	5.44	Product recovered using peristaltic pump
8IW-7	4/25/2013	NA	25.95	25.97	45.05	30.5	No	0.02					
8IW-7	5/16/2013	NA	26.16	26.54	45.05	30.5	No	0.38	910	200	21,510	5.68	Product recovered using peristaltic pump
8IW-7	5/23/2013	NA	26.25	26.70	45.05	30.5	No	0.45	970	50	22,480	5.93	Product recovered using peristaltic pump
8IW-7	5/29/2013	NA	26.38	26.39	45.05	30.5	No	0.01					
8IW-7	6/13/2013	NA	26.56	26.57	45.05	30.5	No	0.01					
8IW-7	7/11/2013	NA	26.97	27.01	45.05	30.5	No	0.04					
8IW-7	8/15/2013	NA	27.50	27.83	45.05	30.5	No	0.33	710	150	23,190	6.12	Product recovered using peristaltic pump
8IW-7	8/22/2013	NA	27.51	27.70	45.05	30.5	No	0.19	480	450	23,670	6.25	Product recovered using peristaltic pump
8IW-7	9/5/2013	NA	27.50	27.60	45.05	30.5	No	0.10					No product recovered
8IW-7	9/6/2013	NA	27.50	27.60	45.05	30.5	No	0.10	260	440	23,930	6.32	Product recovered using peristaltic pump
8IW-7	10/7/2013	NA	27.73	28.20	45.05	30.5	No	0.47	1,030	460	24,960	6.59	Product recovered using peristaltic pump, Bailed 2.5 gal, Samples taken for AECOM
8IW-7	10/14/2013	NA	27.95	27.96	45.05	30.5	No	0.01					No product recovered, took picture of water and rusty film around well housing.

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8IW-7	11/13/2013	NA	28.31	28.71	45.05	30.5	No	0.40	980	60	25,940	6.85	Product removed using peristaltic pump.
8IW-7	11/22/2013	NA	28.35	28.59	45.05	30.5	No	0.24	525	475	26,465	6.99	Product removed using peristaltic pump.
8IW-7	11/27/2013	NA	NP	28.22	45.05	30.5	No						No product recovered
8IW-7	12/12/2013	NA	NP	28.70	45.05	30.5	No						No product recovered
8IW-7	1/10/2014	NA	28.88	29.10	45.05	30.5	No	0.22	380	470	26,845	7.09	Product removed using peristaltic pump.
8IW-7	1/17/2014	NA	28.69	28.73	45.05	30.5	No	0.04					No product recovered
8IW-7	2/13/2014	NA	28.80	29.79	45.05	30.5	No	0.99	2,440	30	29,285	7.73	Product recovered using peristaltic pump, bailed monument
8IW-7	2/21/2014	NA	30.58	30.59	45.05	30.5	Yes	0.01					Bailed monument
8IW-7	3/13/2014	NA	27.34	27.35	45.05	30.5	No	0.01					Bailed monument
8IW-7	4/3/2014	NA	26.70	26.72	45.05	30.5	No	0.02					Bailed monument
8IW-7	4/25/2014	0.1	NP	26.84	45.05	30.5	No	0.00					PID wellhead peak 104.6 ppm
8IW-7	5/5/2014	NA	26.74	26.76	45.05	30.5	No	0.02					Bailed monument
8IW-7	5/20/2014	NA	26.86	27.37	45.05	30.5	No	0.51					
8IW-7	6/3/2014	NA	26.99	28.26	45.05	30.5	No	1.27					
8IW-7	6/16/2014	NA	27.25	28.65	45.05	30.5	No	1.40					
8IW-7	7/2/2014	NA	27.20	29.16	45.05	30.5	No	1.96					
8IW-7	7/15/2014	NA	27.34	29.30	45.05	30.5	No	1.96					
8IW-7	7/31/2014	NA	27.63	29.63	45.05	30.5	No	2.00					Let breathe
8IW-7	8/15/2014	NA	27.81	30.02	45.05	30.5	No	2.21					Let breathe
8IW-7	8/29/2014	NA	28.10	30.18	45.05	30.5	No	2.08					Let breathe
8IW-7	9/19/2014	NA	28.44	30.43	45.05	30.5	No	1.99					Let breathe
8IW-7	10/2/2014	NA	28.55	30.32	45.05	30.5	No	1.77					Let breathe
8IW-7	10/16/2014	NA	28.72	30.10	45.05	30.5	No	1.38					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	10/31/2014	NA	28.60	30.08	45.05	30.5	No	1.48					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	11/14/2014	NA	28.55	28.95	45.05	30.5	No	0.40					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	11/26/2014	0.1	28.52	30.17	45.05	30.5	No	1.65					Let breathe strong hydrocarbon odor
8IW-7	12/10/2014	NA	28.52	30.09	45.05	30.5	No	1.57					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	12/24/2014	NA	27.83	29.18	45.05	30.5	No	1.35					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	1/9/2015	NA	27.40	29.30	45.05	30.5	No	1.90					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	1/22/2015	NA	27.29	29.32	45.05	30.5	No	2.03					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	2/5/2015	NA	27.30	29.93	45.05	30.5	No	2.63					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	2/20/2015	NA	26.18	28.92	45.05	30.5	No	2.74					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	3/6/2015	NA	26.45	29.45	45.05	30.5	No	3.00					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	3/19/2015	NA	26.32	29.30	45.05	30.5	No	2.98					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	4/1/2015	NA	26.19	29.22	45.05	30.5	No	3.03					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	5/7/2015	NA	26.66	29.90	45.05	30.5	No	3.24					Let breathe. Strong hydrocarbon odor, bailed monument
8IW-7	6/4/2015	NA	27.03	30.15	45.05	30.5	No	3.12					Let breathe strong hydrocarbon odor, bailed well casing to TOC
8IW-7	7/9/2015	NA	27.45	30.70	45.05	30.5	Yes	3.25					Let breathe strong hydrocarbon odor,
8IW-7	7/13/2015	NA	27.45	30.70	45.05	30.5	Yes	3.25	8,328	30	37,613	9.93	AECOM removed 8,328 ml (2.2 gallons) of product
8IW-7	8/11/2015	NA	28.40	29.35	45.05	30.5	No	0.95					Cap loose and tightened
8IW-7	9/3/2015	NA	28.65	29.85	45.05	30.5	No	1.20					
8IW-7	10/6/2015	NA	29.09	30.10	45.05	30.5	No	1.01					

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8IW-7	11/6/2015	NA	29.34	29.96	45.05	30.5	No	0.62					
8IW-7	12/4/2015	NA	29.10	29.78	45.05	30.5	No	0.68					
8IW-7	1/15/2016	NA	27.14	28.15	45.05	30.5	No	1.01	2,220	780	39,833	10.52	
8IW-7	2/10/2016	NA	25.60	25.65	45.05	30.5	No	0.05					
8IW-7	3/3/2016	NA	24.75	24.79	45.05	30.5	No	0.04					
8IW-7	4/5/2016	NA	23.56	23.62	45.05	30.5	No	0.06					
8IW-7	5/17/2016	NA	24.26	24.85	45.05	30.5	No	0.59	1,400	350	41,233	10.89	
8IW-7	6/8/2016	NA	24.80	24.91	45.05	30.5	No	0.11	200	1,800	41,433	10.94	
8IW-7	7/1/2016	11.5	25.20	25.24	45.05	30.5	No	0.04					Monthly water level; PID Breathing zone 11.5 ppm Wellhead
8IW-7	8/19/2016	NA	26.02	26.10	45.05	30.5	No	0.08					
8IW-7	9/22/2016	NA	26.51	26.70	45.05	30.5	No	0.19	500	350	41,933	11.07	
8IW-7	10/3/2016	NA	26.72	26.75	45.05	30.5	No	0.03					
8IW-7	11/11/2016	NA	25.62	25.81	45.05	30.5	No	0.19	400	320	42,333	11.18	
8IW-7	12/2/2016	NA	25.10	25.13	45.05	30.5	No	0.03					Bailed monument
8IW-7	1/12/2017												Well monument cover was frozen, unable to open to measure
8IW-7	1/19/2017	NA	24.45	24.49	45.25	30.5	No	0.04					
8IW-7	2/16/2017	NA	23.05	23.09	45.25	30.5	No	0.04					
8IW-7	3/15/2017	NA	Trace	22.11	45.25	30.5	No	Trace					
8IW-7	4/6/2017	NA	21.06	21.09	45.25	30.5	No	0.03					
8IW-7	5/15/2017	NA	20.70	20.73	45.25	30.5	No	0.03					Bailed monument
8IW-7	6/6/2017	NA	21.17	21.18	45.25	30.5	No	0.01					
8IW-7	7/6/2017	NA	21.80	21.82	45.25	30.5	No	0.02					
8IW-7	7/24/2017	NA				30.5	No	0.02	50		42,383	11.19	Slug test; slight product removed by sock before test
8IW-7	8/9/2017	NA	NP	22.43	45.25	30.5	No	NP					
8IW-7	9/15/2017	NA	NP	23.10	45.25	30.5	No	NP					
8IW-7	10/13/2017	NA	NP	23.67	45.25	30.5	No	NP					Peach colored coating on probe
8IW-7	11/6/2017	0.2	NP	23.84	45.25	30.5	No	NP					Salmon colored coating on probe. PID Wellhead 15.7 ppm.
8IW-7	12/12/2017	NA	NP	22.98	45.25	30.5	No	NP					Salmon colored coating on probe.
8IW-7	1/12/2018	NA	NP	22.42	45.25	30.5	No	NP					
8IW-7	2/9/2018	NA	NP	20.83	45.25	30.5	No	NP					Road dirt is making it hard to open cover
8IW-7	3/1/2018	NA	NP	20.80	45.25	30.5	No	NP					Road dirt is making it hard to open cover
8IW-7	4/5/2018	NA	NP	21.30	45.25	30.5	No	NP					
8IW-7	6/29/2018	NA	NP	22.30	45.25	30.5	No	NP					Monument lid is difficult to open
8IW-7	7/19/2018	NA	NP	22.70	45.25	30.5	No	NP					
8IW-7	8/14/2018	NA	NP	23.14	45.25	30.5	No	NP					
8IW-7	9/19/2018	NA	NP	23.79	45.25	30.5	No	NP					
8IW-7	10/10/2018	NA	NP	24.13	45.25	30.5	No	NP					
8IW-7	11/8/2018	0.0/13.7	NP	24.53	45.25	30.5	No	NP					PID at breathing zone 0.0; Wellhead 13.7 ppm.
8IW-7	12/6/2018	NA	NP	24.56	45.25	30.5	No	NP					
8IW-7	1/3/2019	NA	NP	23.71	45.25	30.5	No	NP					
8IW-7	2/15/2019	NA	NP	23.60	45.25	30.5	No	NP					
8IW-7	3/11/2019	NA	NP	23.40	45.25	30.5	No	NP					

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Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8IW-7	4/30/2019	NA	NP	24.25	45.25	30.5	No	NP					Sewer odor
8IW-7	5/16/2019	NA	NP	24.47	45.25	30.5	No	NP					
8IW-7	6/5/2019	NA	NP	24.84	45.25	30.5	No	NP					
									8IW-7 CUMULATIVE		42,383	11.19	
8MW54	5/17/2016	NA	NP	24.99	35.00	20.0	Yes	NP					
8MW54	6/8/2016	NA	NP	25.44	35.00	20.0	Yes	NP					
8MW54	7/1/2016	0.20	NP	25.83	35.00	20.0	Yes	NP					PID: Breathing zone 0.2 ppm; Wellhead 106 ppm.
8MW54	8/19/2016	NA	NP	26.66	35.00	20.0	Yes	NP					
8MW54	9/22/2016	NA	NP	27.20	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	10/3/2016	NA	NP	27.38	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	11/11/2016	NA	NP	26.20	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	12/2/2016	NA	NP	25.44	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	1/12/2017	NA	NP	25.25	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	2/16/2017	NA	NP	23.51	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	3/15/2017												Unable to access, well covered by a vehicle
8MW54	4/7/2017	NA	NP	21.58	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	5/15/2017	NA	NP	21.25	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	6/6/2017	NA	NP	21.79	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	7/6/2017	NA	NP	22.45	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	8/9/2017	NA	NP	23.10	35.00	20.0	Yes	NP					Strong chemical odor
8MW54	9/15/2017	NA	NP	23.78	35.00	20.0	Yes	NP					
8MW54	10/13/2017	NA	NP	24.35	35.00	20.0	Yes	NP					Very strong chemical odor. Depth to product/water measurements changed in well after cap was removed.
8MW54	11/6/2017	0.10	NP	24.50	35.00	20.0	Yes	NP					Very strong chemical odor. PID Wellhead 82.7 ppm.
8MW54	12/12/2017	NA	NP	23.61	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW54	1/12/2018	NA	NP	23.00	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW54	2/9/2018	NA	NP	21.43	35.00	20.0	Yes	NP					Very strong chemical odor. Measurement on the prod jumped 2' from time j plug was removed
8MW54	3/1/2018	NA	NP	21.42	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW54	4/5/2018	NA	NP	21.95	35.00	20.0	Yes	NP					
8MW54	6/29/2018												Vehicle over well. Unable to measure.
8MW54	7/19/2018												Unable to measure; forklift work in area
8MW54	8/14/2018	NA	NP	23.83	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW54	9/19/2018	NA	NP	24.48	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW54	10/10/2018	NA	NP	24.79	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW54	11/8/2018	0.0/ 125.8	NP	25.20	35.00	20.0	Yes	NP					Very strong chemical odor. ery strong chemical odor. PID at breathing zone 0.0 wellhead 125.8 ppm
8MW54	12/6/2018	NA	NP	25.20	35.00	20.0	Yes	NP					
8MW54	1/3/2019	NA	NP	24.32	35.00	20.0	Yes	NP					
8MW54	2/15/2019												Unable to measure; forklift work in area
8MW54	3/11/2019	NA	NP	24.10	35.00	20.0	Yes	NP					
8MW54	4/30/2019	NA	NP	24.90	35.00	20.0	Yes	NP					
8MW54	5/16/2019	NA	NP	25.13	35.00	20.0	Yes	NP					
8MW54	6/5/2019	NA	NP	25.50	35.00	20.0	Yes	NP					

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Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
									8MW54 CUMULATIVE		0	0.00	
8MW55	5/17/2016	NA	25.32	25.56	35.00	20.0	Yes	0.24	150	70	150	0.04	
8MW55	6/8/2016	NA	25.79	25.93	35.00	20.0	Yes	0.14	100	110	250	0.07	
8MW55	7/1/2016	0.30	26.20	26.31	35.00	20.0	Yes	0.11	60	250	310	0.08	7/5/16 PID: Breathing zone 0.3 ppm; Wellhead 72.6 ppm. 7/12/16 product recovered.
8MW55	8/19/2016	NA	NP	27.03	35.00	20.0	Yes	NP					
8MW55	9/22/2016	NA	27.55	27.75	35.00	20.0	Yes	0.20	100	100	410	0.11	Strong chemical odor
8MW55	10/3/2016	NA	27.76	27.82	35.00	20.0	Yes	0.06					Strong chemical odor
8MW55	11/11/2016	NA	NP	26.58	35.00	20.0	Yes	NP					Strong chemical odor
8MW55	12/2/2016	NA	NP	25.79	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	1/12/2017	NA	NP	25.62	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	2/16/2017	NA	NP	23.88	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	3/15/2017	NA	NP	22.94	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	4/7/2017	NA	NP	21.85	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	5/15/2017	NA	NP	21.55	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	6/6/2017	NA	NP	21.11	35.00	20.0	Yes	NP					Strong chemical odor. Rust colored stain on the cement around the exterior of the well cover.
8MW55	7/6/2017												Unable to access, well covered by a vehicle
8MW55	8/9/2017												Unable to access, well covered by a vehicle
8MW55	9/15/2017												Unable to access, well covered by a vehicle
8MW55	10/13/2017												Unable to access, well covered by a vehicle
8MW55	11/6/2017												Unable to access, well covered by a vehicle
8MW55	12/12/2017												Unable to access, well covered by a vehicle
8MW55	1/12/2018	NA	NP	23.35	35.00	20.0	Yes	NP					Strong chemical odor, rust colored stain on the cement around the exterior of the well cover
8MW55	2/9/2018	NA	21.80	23.35	35.00	20.0	Yes	NP					Very strong chemical odor. Measurement on the prod jumped 2' from time j plug was removed
8MW55	3/1/2018	NA	21.80	23.35	35.00	20.0	Yes	NP					Very strong chemical odor.
8MW55	4/5/2018	NA	NP	22.28	35.00	20.0	Yes	NP					
8MW55	6/29/2018												Vehicle over well. Unable to measure.
8MW55	7/19/2018												
8MW55	8/14/2018	NA	NP	24.24	35.00	20.0	Yes	NP					
8MW55	9/19/2018	NA	Trace	24.89	35.00	20.0	Yes	Trace					
8MW55	10/10/2018	NA	Trace	25.19	35.00	20.0	Yes	Trace					
8MW55	11/8/2018	NA	24.58	24.60	35.00	20.0	Yes	0.02					
8MW55	12/6/2018	NA	Trace	25.58	35.00	20.0	Yes	Trace					
8MW55	1/3/2019												Unable to measure; forklift work in area
8MW55	2/15/2019												Unable to measure; forklift work in area
8MW55	3/11/2019		NP	24.41	35.00	20.0	Yes	NP					
8MW55	4/30/2019		NP	25.28	35.00	20.0	Yes	NP					Strong solvent odor

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW55	5/16/2019		NP	25.51	35.00	20.0	Yes	NP					Strong solvent odor
8MW55	6/5/2019												Unable to measure;truck over well
									8MW55 CUMULATIVE		410	0.11	
8MW56	5/17/2016	NA	NP	24.08	35.00	20.0	Yes						
8MW56	6/8/2016	NA	NP	24.61	35.00	20.0	Yes						
8MW56	7/1/2016	0.10	NP	25.07	35.00	20.0	Yes	NP					PID: Breathing zone 0.1 ppm; Wellhead 3.1 ppm.
8MW56	8/19/2016												Vehicle over well. Unable to measure.
8MW56	9/22/2016												Vehicle over well. Unable to measure.
8MW56	10/3/2016												Vehicle over well. Unable to measure.
8MW56	11/11/2016												Vehicle over well. Unable to measure.
8MW56	12/2/2016												Vehicle over well. Unable to measure.
8MW56	1/12/2017	NA	NP	24.50	35.00	20.0	Yes	NP					
8MW56	2/16/2017	NA	NP	22.90	35.00	20.0	Yes	NP					
8MW56	3/15/2017	NA	NP	21.85	35.00	20.0	Yes	NP					
8MW56	4/7/2017	NA	NP	20.71	35.00	20.0	Yes	NP					
8MW56	5/15/2017												Vehicle over well. Unable to measure.
8MW56	6/6/2017												Vehicle over well. Unable to measure.
8MW56	7/6/2017	NA	NP	21.72	35.00	20.0	Yes	NP					
8MW56	8/9/2017												Vehicle over well. Unable to measure.
8MW56	9/15/2017												Vehicle over well. Unable to measure.
8MW56	10/13/2017												Vehicle over well. Unable to measure.
8MW56	11/6/2017												Vehicle over well. Unable to measure.
8MW56	12/12/2017												Vehicle over well. Unable to measure.
8MW56	1/12/2018	NA	NP	22.43	35.00	20.0	Yes	NP					Very strong chemical odor. Measurement on the prod jumped 2' from time j plug was removed
8MW56	2/9/2018	NA	NP	20.83	35.00	20.0	Yes	NP					Very strong chemical odor. Measurement on the prod jumped 2' from time j plug was removed
8MW56	3/1/2018												Vehicle over well. Unable to measure.
8MW56	4/5/2018												Vehicle over well. Unable to measure.
8MW56	6/29/2018												Vehicle over well. Unable to measure.
8MW56	7/19/2018												Unable to measure; forklift work in area
8MW56	8/14/2018												Unable to measure; forklift work in area
								Well no longer measured					
									8MW56 CUMULATIVE		0	0.00	
8MW57	5/17/2016	NA	NP	25.10	35.5	20.0	Yes						
8MW57	6/8/2016	NA	NP	25.64	35.5	20.0	Yes						
8MW57	7/1/2016	NA	NP	26.05	35.5	20.0	Yes	NP					PID: Breathing zone 0.2 ppm; Wellhead 9.1 ppm.
8MW57	8/19/2016	0.20	NP	26.94	35.5	20.0	Yes	NP					
8MW57	9/22/2016	NA	NP	27.51	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	10/3/2016	NA	NA	NA	35.5	20.0	Yes	NA					Vehicle over well. Unable to measure.
8MW57	11/11/2016	NA	NA	NA	35.5	20.0	Yes	NA					Vehicle over well. Unable to measure.
8MW57	12/2/2016	NA	NP	25.72	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	1/12/2017	NA	NP	25.39	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	2/16/2017	NA	NP	23.80	35.5	20.0	Yes	NP					Strong chemical odor

Table C3-4. OU 8 Free Product Monitoring and Recovery Data

Well ID	Date	PID Reading (PPM)	Depth To Product (ft btoc)	Depth to Water (ft btoc)	Depth to Bottom (ft btoc)	Depth to top of well screen (ft btoc)	Fluids below top of screen? (Y/N)	Product Thickness (ft)	Volume of Product Recovered (ml)	Volume of Water Recovered (ml)	Cumulative Product Recovered (ml)	Cumulative Product Recovered (gal)	Comments
8MW57	3/15/2017	NA	NP	22.78	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	4/7/2017	NA	NP	21.68	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	5/15/2017	NA	NA	NA	35.5	20.0	Yes	NA					Vehicle over well. Unable to measure.
8MW57	6/6/2017	NA	NP	21.87	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	7/6/2017												Not accessable, vehicle over well
8MW57	8/9/2017	NA	NP	23.22	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	9/15/2017												Not accessable, vehicle over well
8MW57	10/13/2017	NA	NP	24.46	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	11/6/2017												Not accessable, vehicle over well
8MW57	12/12/2017	NA	NP	23.73	35.5	20.0	Yes	NP					Strong chemical odor
8MW57	1/12/2018	NA	NP	23.24	35.5	20.0	Yes	NP					Strong chemical
8MW57	2/9/2018	NA	NP	21.70	35.5	20.0	Yes	NP					Very strong chemical odor. Measurement on the prod jumped 2' from time j plug was removed
8MW57	3/1/2018												Not accessable bus over well
8MW57	4/5/2018	NA	NP	22.10	35.5	20.0	Yes	NP					
8MW57	6/29/2018	NA	NP	23.13	35.5	20.0	Yes	NP					Opening in the monument lid is bent, no longer lays flush to the ground.
8MW57	7/19/2018												Unable to measure; forklift work in area
8MW57	8/14/2018	NA	NP	23.98	35.5	20.0	Yes	NP					Strong chemical odor.
								Well no longer measured					
								8MW57 CUMULATIVE			0	0.00	
								TOTAL RECOVERED PRODUCT SINCE 2010:			81,793	21.60	

NM - Not Measured NA - Not Available NP - No Product

APPENDIX D
DATA FROM ADDITIONAL INVESTIGATIONS

Data Taken from Implementation Report – 2017 Bangor Site A Well Installation & Trench Sampling (U.S. Navy, 2018a)

Table 3-2. Summary of Soil Geotechnical Laboratory Results for TO 39 Site A 2017 Well Installation

Sample ID	Sample Depth[1/] (ft bgs)	Sample Date	Grain Size Distribution							Porosity	Effective Porosity	Vertical Hydraulic Conductivity (cm/sec)	Geologic Unit
			Percent Gravel		Percent Sand			Percent Silt	Percent Clay				
			Coarse	Fine	Coarse	Medium	Fine						
Borehole: A-MW62													
A-MW62-5.5B	5.5	7/6/17									0.323	5.0×10^{-4}	Qvr
A-MW62-6B	6	7/6/17	0.0	0.0	0.0	0.6	85.5	11.5	2.5	0.43			
A-MW62-7.5B	7.5	7/6/17									0.218	4.1×10^{-5}	
A-MW62-8B	8	7/6/17	0.0	1.4	4.9	13.7	45.9	30.2	3.9	0.28			
A-MW62-10.5B	10.5	7/6/17									0.211	1.2×10^{-5}	
A-MW62-11B	11	7/6/17	0.0	3.5	4.3	9.1	45.8	33.4	3.9	0.29			
A-MW62-13B	13	7/6/17									0.240	5.4×10^{-7}	
A-MW62-13.5B	13.5	7/6/17	0.0	14.6	5.3	10.2	34.6	28.3	7.0	0.23			
A-MW62-15B	15	7/6/17	2.8	15.1	5.1	11.6	32.4	26.7	6.3	0.2			Qvt
A-MW62-20B	20	7/6/17	9.6	10.0	5.1	11.2	30.9	26.0	7.2	0.27			
A-MW62-25B	25	7/6/17	3.9	7.5	5.0	11.7	31.5	29.3	11.0	0.3			
A-MW62-30B	30	7/6/17									0.277	2.0×10^{-8}	Qvgl
A-MW62-30.5B	30.5	7/6/17	0.0	2.7	1.0	2.4	21.8	62.2	9.9	0.28			
A-MW62-51B	51	7/11/17	0.0	0.0	0.0	0.1	2.0	89.4	8.5				
A-MW62-57.5B	57.5	7/11/17	0.0	0.0	0.0	0.1	6.1	86.0	7.9				
A-MW62-70.5B	70.5	7/7/17	0.0	0.0	0.0	0.1	13.0	80.3	6.6	0.37			
A-MW62-75.5B	75.5	7/7/17	0.0	0.0	0.0	0.1	13.0	80.0	7.0	0.39			
A-MW62-80.5B	80.5	7/7/17									0.280	8.6×10^{-7}	
A-MW62-81B	81	7/7/17	0.0	0.0	0.0	0.1	14.3	78.6	7.0	0.36			
A-MW62-85.5B	85.5	7/7/17									0.277	1.1×10^{-5}	
A-MW62-86B	86	7/7/17	0.0	0.0	0.0	0.4	47.5	49.4	2.6	0.36			
A-MW62-90.5B	90.5	7/10/17									0.225	9.8×10^{-5}	
A-MW62-91B	91	7/10/17	0.0	0.0	0.0	0.1	54.4	43.4	2.1	0.35			
A-MW62-95.5B	95.5	7/10/17	0.0	0.0	0.0	2.5	82.5	14.5	0.4	0.34			
A-MW62-96B	96	7/10/17									0.297	1.3×10^{-4}	
A-MW62-100.5B	100.5	7/10/17									0.233	1.2×10^{-4}	
A-MW62-101B	101	7/10/17	0.0	0.0	0.0	0.5	68.8	28.2	2.5	0.32			
A-MW62-105.5B	105.5	7/11/17	0.0	0.0	0.0	1.2	53.0	39.0	6.9	0.31			
A-MW62-106B	106	7/11/17									0.306	9.4×10^{-7}	
A-MW62-109.5B	109.5	7/11/17	0.0	0.0	0.0	0.2	26.6	68.7	4.5				
A-MW62-110B	110	7/11/17									0.297	1.2×10^{-4}	
A-MW62-110.5B	110.5	7/11/17	0.0	0.0	0.0	0.5	39.7	56.3	3.6	0.36			
A-MW62-111B	111	7/11/17	0.0	0.0	0.0	0.8	33.3	63.5	2.5	0.35			
A-MW62-120.5B	120.5	7/11/17									0.263	1.1×10^{-4}	
A-MW62-121B	121	7/11/17	0.0	0.0	0.0	6.6	78.0	14.5	0.9	0.35			
A-MW62-130B	130	7/12/17	0.0	0.0	0.1	4.0	52.9	36.5	6.5	0.32			
A-MW62-130.5B	130.5	7/12/17									0.233	3.5×10^{-6}	
A-MW62-140B	140	7/12/17	0.0	0.0	0.0	12.0	76.0	10.2	1.8				
A-MW62-149B	149	7/12/17	0.0	0.0	0.0	3.5	67.6	26.4	2.5				
A-MW62-153B	153	7/13/17	0.0	0.0	0.0	0.2	4.4	86.0	9.3				Qvp (?)
A-MW62-155.5B	155.5	7/13/17	0.0	0.0	0.0	0.1	5.0	84.2	10.6				
A-MW62-158B	158	7/13/17	0.0	0.0	0.0	0.1	6.3	81.9	11.7				
Borehole: A-MW63													
A-MW63-5B	5	3/6/17	0.0	0.6	3.3	17.0	49.1	20.4	9.8	0.27			Qvr
A-MW63-10B	10	3/6/17	0.0	0.0	0.0	2.9	81.7	12.4	3.0	0.33			
A-MW63-15B	15	3/6/17	4.5	14.5	7.0	14.6	48.6	9.1	1.6				
A-MW63-20B	20	3/6/17	0.0	20.4	6.2	11.5	32.4	22.9	6.5	0.25			Qvt
A-MW63-25B	25	3/6/17	5.3	3.6	2.2	6.0	26.3	48.3	8.4	0.29			
A-MW63-30B	30	3/6/17	0.0	0.0	0.0	0.0	22.1	68.5	9.3	0.35			
A-MW63-65B	65	3/7/17	0.0	0.0	0.0	0.3	15.3	75.8	8.6	0.37			
A-MW63-70B	70	3/7/17	0.0	0.0	0.1	18.2	64.3	15.9	1.8	0.30			
A-MW63-75B	75	3/7/17	0.0	0.0	0.0	1.8	87.2	10.2	0.8	0.38			
A-MW63-80B	80	3/7/17	0.0	0.0	0.0	1.6	89.4	8.5	0.4	0.39			
A-MW63-85B	85	3/8/17	0.0	0.0	0.0	0.2	44.1	53.1	2.6	0.37			
A-MW63-90B	90	3/8/17	0.0	0.0	0.0	1.4	69.6	26.1	3.0	0.41			Qvgl
A-MW63-100B	100	3/8/17	0.0	0.0	0.0	0.5	24.6	66.3	8.4	0.37			
A-MW63-110B	110	3/8/17	0.0	0.0	0.5	0.8	68.6	28.5	1.7	0.37			
A-MW63-120B	120	3/9/17	0.0	0.0	0.0	0.7	14.4	74.6	10.6	0.36			
A-MW63-130B	130	3/9/17	0.0	0.0	0.0	0.3	41.6	56.6	1.7	0.38			
A-MW63-141.5B	141.5	3/10/17	0.0	0.3	0.6	2.1	8.7	75.0	13.1				
A-MW63-150B	150	3/10/17	0.0	0.0	0.0	0.2	24.4	71.3	4.1	0.36			
A-MW63-153B	153	3/10/17	0.0	0.0	0.0	0.2	11.3	78.4	10.0				
A-MW63-158B	158	3/10/17	0.0	0.0	0.0	0.2	4.6	82.8	12.4				Qvp (?)
A-MW63-160B	160	3/10/17	0.0	0.0	0.0	0.1	1.1	86.8	12.2	0.33			
A-MW63-163B	163	3/10/17	0.0	0.0	0.0	0.2	3.9	88.2	7.6				
Qvr	Average		0.6	4.9	3.6	9.7	55.9	20.8	4.5	0.31	0.25	1.3×10^{-5}	
	Geometric Mean					6.6	53.2	18.6	3.8	0.30	0.24	1.9×10^{-5}	
Qvt	Average		4.3	11.3	4.7	10.4	30.7	30.6	7.9	0.26			
	Geometric Mean			9.6	4.5	10.1	30.6	29.5	7.7	0.26			
Qvgl	Average		0.0	0.1	0.1	2.0	41.7	51.1	5.0	0.35	0.27	5.9×10^{-5}	
	Geometric Mean						30.9	42.1	3.6	0.35	0.27	1.0×10^{-5}	
Qvp (?)	Average		0.0	0.0	0.0	0.1	4.2	85.0	10.6	0.33			
	Geometric Mean					0.1	3.8	85.0	10.5	0.33			

Notes:
[1/] Starting depth of sample interval to the nearest foot and extending 0.5 feet.
Qvr – Vashon Recessional Outwash
Qvt – Vashon Till
Qvgl – Vashon Glaciolacustrine Deposits
Qvp– Vashon Proglacial Deposits (presumed – borehole depth was not sufficient to confirm with certainty)

Table 3-3. Summary of Soil Sample Analytical Laboratory Results for TO 39 Site A 2017 Well Installation

Well ID	Sample Depth[1/] (ft bgs)	Sample ID		Sample Date	RDX (mg/kg)		TNT (mg/kg)		2,6-DNT (mg/kg)		2,4-DNT (mg/kg)		1,3,5-TNB (mg/kg)		1,3-DNB (mg/kg)		Total Organic Carbon (mg/kg)		Geologic Unit
Soil Screening Levels [2/]					**9.1**		**33**		**1.5** [2/]		**1.5** [2/]		**NS**		**NS**		**NS**		
A-MW62	3	A-MW62-3		7/6/17	0.62	J	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ			Qvr
	5	A-MW62-5		7/6/17	0.29	J	0.31	J	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	722	J	
	6.5	A-MW62-6.5		7/6/17	0.22	J	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ			
	8.5	A-MW62-8.5		7/6/17	0.24	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ			
	10	A-MW62-10		7/6/17	0.24	J	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	754	U	
	12.5	A-MW62-12.5A		7/6/17	0.11	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	500	U	
	14	A-MW62-14		7/6/17	0.16	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ			Qvt
	15	A-MW62-15		7/6/17	0.19	J	0.11	UJ	0.22	UJ	0.11	UJ	0.11	UJ	0.11	UJ	791	U	
	20	A-MW62-20		7/6/17	0.45	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	725	U	
	20	A-MW72-20	(Dup)	7/6/17	0.36	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	582	U	
	27	A-MW62-27		7/6/17	0.079	J	0.11	UJ	0.22	UJ	0.11	UJ	0.11	UJ	0.11	UJ	795	U	
	32.5	A-MW62-32.5		7/6/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	624	U	Qvgl
	39	A-MW62-39		7/13/17	0.081	J	0.12	U	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ			
	50.5	A-MW62-50.5A		7/12/17	0.22	J	0.12	U	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	543	U	
	70	A-MW62-70		7/7/17	0.34	J	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	703	U	
	80	A-MW62-80		7/7/17	0.12	UJ	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	565	J	
	85	A-MW62-85		7/10/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	709		
	85	A-MW72-85	(Dup)	7/10/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	581		
	90	A-MW62-90		7/10/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	1,140		
	95	A-MW62-95		7/10/17	0.12	UJ	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	633	U	
	100	A-MW62-100		7/10/17	0.060	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	512		
	105	A-MW62-105		7/11/17	0.042	J	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	1,380		
	110	A-MW62-110		7/11/17	0.11	UJ	0.11	UJ	0.22	UJ	0.11	UJ	0.11	UJ	0.11	UJ	2,170		
	120	A-MW62-120		7/12/17	0.11	UJ	0.11	U	0.22	UJ	0.11	UJ	0.11	UJ	0.11	UJ	553	U	
	130	A-MW62-130		7/12/17	0.12	UJ	0.12	U	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	549	U	
	140	A-MW62-140		7/12/17	0.11	UJ	0.11	U	0.22	UJ	0.11	UJ	0.11	UJ	0.11	UJ	606	U	
	150	A-MW62-150		7/13/17	0.12	UJ	0.12	U	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	623	U	
A-MW63	5	A-MW63-5		3/6/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	2,020		Qvr
	10	A-MW63-10		3/6/17	0.12	UJ	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	641		
	15	A-MW63-15		3/6/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	545	U	
		A-MW73-15	(Dup)	3/6/17	0.12	UJ	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	556	U	
	20	A-MW63-20		3/6/17	0.11	UJ	0.11	UJ	0.22	UJ	0.11	UJ	0.11	UJ	0.11	UJ	432	U	Qvt
	25	A-MW63-25		3/6/17	0.12	UJ	0.12	UJ	0.23	UJ	0.12	UJ	0.12	UJ	0.12	UJ	677	U	
	30	A-MW63-30		3/6/17	0.12	UJ	0.12	UJ	0.22	UJ	0.12	UJ	0.12	UJ	0.12	UJ	570	U	Qvgl
	65	A-MW63-65		3/7/17	0.11	J	0.12	U	0.22	UJ	0.12	U	0.12	U	0.12	U	336	J	
	70	A-MW63-70		3/7/17	0.12	U	0.12	U	0.23	UJ	0.12	U	0.12	U	0.12	U	561	U	
	75	A-MW63-75		3/7/17	0.12	U	0.12	U	0.22	U	0.12	U	0.12	U	0.12	U	566	U	
	80	A-MW63-80		3/7/17	0.12	U	0.12	U	0.23	U	0.12	U	0.12	U	0.12	U	582	U	
	85	A-MW63-85		3/8/17	0.12	U	0.12	U	0.22	U	0.12	U	0.12	U	0.12	U	655	U	
	90	A-MW63-90		3/8/17	0.12	U	0.12	U	0.22	U	0.12	U	0.12	U	0.12	U	520	J	
	100	A-MW63-100		3/8/17	0.12	U	0.12	U	0.23	U	0.12	U	0.12	U	0.12	U	913		
	110	A-MW63-110		3/8/17	0.11	U	0.11	U	0.22	U	0.11	U	0.11	U	0.11	U	540	U	
	120	A-MW63-120		3/9/17	0.12	U	0.12	U	0.23	U	0.12	U	0.12	U	0.12	U	1,440		
	130	A-MW63-130		3/9/17	0.12	U	0.12	U	0.22	U	0.12	U	0.12	U	0.12	U	456	U	
	140	A-MW63-140		3/10/17	0.12	U	0.12	U	0.23	U	0.12	U	0.12	U	0.12	U	475	U	
	150	A-MW63-150		3/10/17	0.12	U	0.12	U	0.23	U	0.12	U	0.12	U	0.12	U	297	J	
	160	A-MW63-160		3/10/17	0.12	U	0.12	U	0.23	U	0.12	U	0.12	U	0.12	U	2,790		Qvp (?)

Notes:
[1/] Starting depth of sample interval to the nearest foot and extending up to 1.5 feet.
[2/] MTCA Soil Cleanup Level (direct contact) identified in the ROD (Navy 1991); 2,4-DNT and 2,6-DNT specified as total DNT.
Sample A-MW72-20 is a duplicate of sample A-MW62-20.
Sample A-MW72-85 is a duplicate of sample A-MW62-85.
Sample A-MW73-15 is a duplicate of sample A-MW63-15.
(Dup) – Indicates sample is a duplicate collected and analyzed concurrently with the associated project sample.
ft-bgs – feet below ground surface
J – The result is an estimated value.
M – A manual integration was performed on the chromatographic peak.
U – The compound was not detected at or above the laboratory reporting limit.
UJ – The compound is not detected at or above the estimated quantitation limit.
DNB – dinitrobenzene
DNT – dinitrotoluene
RDX – hexahydro-1,3,5-trinitro-1,3,5-triazine
TNB – trinitrobenzene
TNT – trinitrotoluene
Qvr – Vashon Recessional Outwash Qvt – Vashon Till
Qvgl – Vashon Glaciolacustrine Deposits
Qvp – Vashon Proglacial Deposits (presumed – borehole depth was not sufficient to confirm with certainty)

Table 3-6. Summary of Groundwater Sample Field Measurement Results for TO 39 Site A 2017 Well Installation

Well ID	Well Type	Sample ID	Sample Date	Sample Time	Depth to Groundwater (feet-btoc)	pH	Specific Conductance (mS/cm)	Turbidity (NTUs)	DO (mg/L)	Temperature (°C)	ORP (mV)
A-MW62	Mon-Shallow	SITE-A-TO39-17-203/204	7/19/17	13:00	79.80	7.52	0.334	16.1	4.02	17.94	-84
A-MW62-120	Temporary	SITE-A-TO39-17-200	7/17/17	12:35	94.90	8.35	0.168	9.2	0.00	12.97	-218
A-MW62-136	Temporary	SITE-A-TO39-17-201	7/14/17	14:35	108.90	7.88	0.181	36.3	0.65	13.08	-276
A-MW62-146	Temporary	SITE-A-TO39-17-202	7/14/17	10:55	140.20	8.79	0.182	8.0	0.62	12.99	-173
A-MW63	Mon-Shallow	SITE-A-TO39-17-207	7/19/17	11:13	68.13	7.47	0.211	1.2	3.25	14.51	-147
A-MW63-130	Temporary	SITE-A-TO39-17-205	3/9/17	16:30	125.12	8.46	0.218	0.0	0.617	12.1	-270
A-MW63-145	Temporary	SITE-A-TO39-17-206	3/13/17	12:30	>152	8.86	0.231	139.0	4.80	12.9	-176

Notes:
°C – degrees Celsius
DO – Dissolved oxygen
Dup – Duplicate sample
feet-btoc – feet below top of casing
mg/L – milligrams per liter
mS/cm – milliSiemens per centimeter
mV – millivolts
ORP – Oxidation/reduction potential
pH – potentiometric hydrogen ion concentration
Mon-Shallow – Monitoring of shallow aquifer

Table 3-7. Summary of Groundwater Sample Analytical Laboratory Results for TO 39 Site A 2017 Well Installation

				Nitroaromatics										Natural Attenuation Parameters						
Well ID	**Well Type**	**Sample ID**	**Sample Date**	**RDX (µg/L)**	**TNT (µg/L)**	**2,6-DNT (µg/L)**	**2,4-DNT (µg/L)**	**1,3,5-TNB (µg/L)**	**1,3-DNB (µg/L)**	**HMX (µg/L)**	**MNX (µg/L)**	**DNX (µg/L)**	**TNX (µg/L)**	**Methane (µg/L)**	**Nitrate-Nitrite (mg/L)**	**Alkalinity (mg/L)**	**Chloride (mg/L)**	**Sulfate (mg/L)**	**DOC (mg/L)**	**Dissolved Manganese (µg/L)**
ROD-Specified Groundwater Cleanup Levels[1/]				**0.8**	**2.9**	**0.13**	**0.13**	**0.8**	**1.6**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
A-MW62	Mon-Shallow	SITE-A-TO39-17-203	7/19/17	**300 D**	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	26 D	8.3	0.87	0.33 J	2.0	0.61	155	3.39	12.1	2.24	65.7
		SITE-A-TO39-17-204 (Dup)	7/19/17	**310 D**	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	27 D	8.6	0.87	0.40 J	1.8	0.60	155	3.39	11.8	2.05	65.6
		SITE-A-TO39-17-400	9/6/17	**1.1**	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	0.28	0.19 J	0.50 U	0.50 U	3.8	0.0040 J	149	3.35	10.2	2.62	136
A-MW62-120	Temporary	SITE-A-TO39-17-200	7/17/17	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	0.15 U	0.49 U	0.49 U	0.49 U	NA	NA	NA	NA	NA	NA	NA
A-MW62-136	Temporary	SITE-A-TO39-17-201	7/14/17	0.15 U	0.15 U	0.13 U	0.13 U	0.32 MJ	0.15 U	0.29	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
A-MW62-146	Temporary	SITE-A-TO39-17-202	7/14/17	0.15 U	0.15 U	0.13 U	0.13 U	0.19 J	0.15 U	0.23	0.50 U	0.50 U	0.50 U	NA	NA	NA	NA	NA	NA	NA
A-MW63	Mon-Shallow	SITE-A-TO39-17-207	7/19/17	0.26	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	0.15 U	0.060 J	0.51 U	0.51 U	1.1 J	0.012 J	88	2.87	8.77	0.90	43.3
		SITE-A-TO39-17-401	9/6/17	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	0.15 U	0.50 U	0.50 U	0.50 U	0.74 J	0.0040 J	89	2.85	8.63	0.64	43.4
A-MW63-130	Temporary	SITE-A-TO39-17-205	3/9/17	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	0.15 U	0.51 U	0.51 U	0.51 U	NA	NA	NA	NA	NA	NA	NA
A-MW63-145	Temporary	SITE-A-TO39-17-206	3/13/17	0.15 U	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	0.27	0.51 U	0.51 U	0.51 U	NA	NA	NA	NA	NA	NA	NA

Notes:
[1/] MTCA groundwater cleanup levels specified in the ROD (Navy 1991); 2,4-DNT and 2,6-DNT specified as total DNT.
Sample SITE-A-TO39-17-204 is a duplicate of sample SITE-A-TO39-17-203.
Bold – exceeds cleanup level
(Dup) – Indicates sample is a duplicate collected and analyzed concurrently with the associated project sample.
NA – Not analyzed
NS – Not specified
D – The result is reported from a dilution.
J – The result is an estimated value.
M – A manual integration was performed on the chromatographic peak.
U – The compound was not detected at or above the laboratory reporting limit.
µg/L – micrograms per liter
Mon-Shallow – Monitoring of shallow aquifer
RDX – hexahydro-1,3,5-trinitro-1,3,5-triazine
DNX – hexahydro-1,3-dinitroso-5-nitro-1,3,5-triazine
TNT – trinitrotoluene
TNB – trinitrobenzene
MNX – hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNT – dinitrotoluene
DNB – dinitrobenzene
HMX - octogen
TNX – hexahydro-1,3,5-trinitroso-1,3,5-triazine

Table 3-8. Site A Groundwater Elevations for July through December 2017

Well ID	Top of Well Casing Elevation (feet-MLLW)	Groundwater Elevation (feet-MLLW)					
		7/31/17	8/3/17	9/7/17	10/27/17	11/17/17	12/5/17
Perched Zone Wells							
A-MW58	181.36	158.75	158.75	158.88	158.51	158.51	158.51
A-MW47	167.05	150.74	150.82	149.67	150.00	149.19	151.92
A-MW34	156.88	142.74	142.74	142.72	142.68	142.68	150.42
A-MW36	162.06	146.55	146.51	145.04	142.70	142.03	141.99
A-MW59	166.54	146.36	146.34	145.27	145.37	145.37	145.37
A-MW48	159.98	143.18	143.18	142.92	142.92	142.92	148.12
A-MW61	156.39	134.04	133.98	132.19	132.15	132.18	132.18
A-MW22	153.37	131.83	131.79	130.92	130.89	130.89	130.89
Vashon Till Interbed Wells							
A-MW38	162.81	143.06	143.13	141.29	139.58	138.01	137.67
A-MW60R	156.99	131.99	131.91	131.87	131.87	131.87	131.87
Shallow Aquifer Wells							
A-MW21	179.7	110.44	110.66	110.27	109.70	109.42	108.92
A-MW46	160.53	99.24	99.40	99.21	98.53	98.28	91.08
A-MW35	157.08	86.86	87.28	87.42	86.88	86.47	85.70
A-MW37	155.46	96.34	96.72	96.71	96.07	95.99	87.21
A-MW63	160.36	91.79	92.27	92.26	91.85	91.86	95.38
A-MW62	157.07	77.31	78.86	79.96	79.58	79.47	77.48
A-MW33	164.38	91.68	92.04	92.21	91.72	91.68	90.74
A-EW4	153.78	56.48	73.13	76.02	84.93	74.72	56.47
A-EW5	153.18	50.08	73.55	75.48	75.42	75.23	50.13
A-EW6	152.88	68.90	73.63	75.37	75.26	75.00	70.32
A-EW7	152.6	66.98	73.36	75.17	74.93	74.58	67.51
A-EW8	152.54	73.14	74.97	76.3	75.94	75.79	59.24
A-MW54	158.88	66.03	66.44	67.08	67.78	67.52	67.08
A-MW55	159.63	62.18	62.61	63.54	64.04	63.86	63.32
A-MW49	161.84	62.03	62.35	63.32	63.96	63.92	63.52
A-MW56	167.66	60.27	60.63	61.17	61.17	61.45	61.08
A-MW32	153.82	67.71	68.32	68.92	69.04	68.89	68.28
A-IW3	151.27	64.75	65.12	65.49	65.57	65.93	65.03
A-MW53	163.95	62.62	62.95	63.65	63.96	63.87	63.40
A-MW50	157.99	56.07	56.36	56.74	57.22	56.84	56.54
A-MW51	153.57	53.19	53.47	53.67	53.13	53.54	53.07
A-MW57	152.29	58.29	58.58	58.31	57.25	56.52	55.69
A-MW52	147.39	53.44	53.71	53.99	54.06	53.83	53.36
A-MW44	157.11	55.8	56.11	56.19	56.27	55.86	55.68
A-MW31	98.31	38.69	38.75	38.1	37.31	36.54	36.29
A-MW30	145.57	56.43	56.77	56.82	56.80	56.92	55.93
A-MW28	111.53	44.68	44.88	44.43	44.43	43.73	42.85

Note:
feet-MLLW – feet above mean lower low water

Table 4-2. Summary of Soil Sample Analytical Laboratory Results for TO 17F4234 Site A 2017 Well Installation

Well ID	Sample Depth[1/] (ft bgs)	Sample ID	Sample Date	RDX (mg/kg) 9.1	TNT (mg/kg) 33	2,6-DNT (mg/kg) 1.5 [2/]	2,4-DNT (mg/kg) 1.5 [2/]	1,3,5-TNB (mg/kg) NS	1,3-DNB (mg/kg) NS	Geologic Unit
A-MW64	1.25	A-MW64-1.25	12/6/2017	0.043 J	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	5	A-MW64-5	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	7.8	A-MW64-7.5	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	10	A-MW64-10	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	12.5	A-MW64-12.5	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	15	A-MW64-15	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	17.5	A-MW64-17.5	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
A-MW65	1.5	A-MW65-1.5	12/5/2017	0.41 J	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	2.5	A-MW65-2.5	12/5/2017	0.97	0.12 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvr
	5	A-MW65-5	12/5/2017	0.041 J	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	6.5	A-MW65-6.5	12/5/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	7.5	A-MW65-7.5	12/5/2017	0.12 U	0.12 U	0.24 U	0.12 U	0.12 U	0.12 U	Qvr
	10	A-MW65-10	12/5/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	10	A-MW75-10 (Dup)	12/5/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	12.5	A-MW65-12.5	12/5/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	14	A-MW65-14	12/5/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
A-MW66	2.5	A-MW66-2.5	12/5/2017	2.0	2.7	0.23 U	0.12 U	0.12 U	0.12 U	Qvr
	5	A-MW66-5	12/5/2017	2.3	3.1	0.22 U	0.22 U	0.12 U	0.12 U	Qvr
	7.5	A-MW66-7.5	12/5/2017	1.2	0.12 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvr
	10	A-MW66-10	12/5/2017	0.11 U	0.11 U	0.22 U	0.11 U	0.11 U	0.11 U	Qvr
	12.5	A-MW66-12.5	12/5/2017	0.12 U	0.12 U	0.22 U	0.12 U	0.12 U	0.12 U	Qvt
	15	A-MW66-15	12/5/2017	0.12 U	0.12 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvt
	17.5	A-MW66-17.5	12/5/2017	0.12 U	0.12 U	0.22 U	0.12 U	0.12 U	0.12 U	Qvt
A-MW67	1	A-MW67-1	12/4/2017	0.41	0.36 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvr
	2.5	A-MW67-2.5	12/4/2017	7.9	5.6	0.23 U	0.43 U	0.12 U	0.12 U	Qvr
	5	A-MW67-5	12/4/2017	0.12 U	0.12 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvr
	7.5	A-MW67-7.5	12/4/2017	0.12 U	0.12 U	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	10	A-MW67-10	12/4/2017	0.12 U	0.12 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvr
	10	A-MW77-10 (Dup)	12/4/2017	0.12 U	0.12 U	0.22 U	0.12 U	0.12 U	0.12 U	Qvt
	12.5	A-MW67-12.5	12/4/2017	0.12 U	0.12 U	0.22 U	0.12 U	0.12 U	0.12 U	Qvt
	15	A-MW67-15	12/4/2017	0.12 U	0.12 U	0.23 U	0.12 U	0.12 U	0.12 U	Qvt
	16.5	A-MW67-16.5	12/4/2017	0.12 U	0.12 U	0.22 U	0.12 U	0.12 U	0.12 U	Qvt
A-MW70	11	A-MW70-11	12/7/2017	0.12 UJ	0.14 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
A-MW71	5	A-MW71-5	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	7.5	A-MW71-7.5	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	10	A-MW71-10	12/6/2017	0.11 UJ	0.11 UJ	0.22 UJ	0.11 UJ	0.11 UJ	0.11 UJ	Qvr
	12.5	A-MW71-12.5	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	15	A-MW71-15	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	15	A-MW81-15 (Dup)	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	17.5	A-MW71-17.5	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvr
	20	A-MW71-20	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvt
	40	A-MW71-40	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvgl
	65	A-MW71-65	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvgl
	70	A-MW71-70	12/6/2017	0.12 UJ	0.12 UJ	0.22 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvgl
	75	A-MW71-75	12/6/2017	0.12 UJ	0.12 UJ	0.23 UJ	0.12 UJ	0.12 UJ	0.12 UJ	Qvgl

Notes:
[1/] Starting depth of sample interval to the nearest foot and extending up to 1.5 feet.
[2/] MTCA Soil Cleanup Level (direct contact) identified in the ROD (Navy 1991); 2,4-DNT and 2,6-DNT specified as total DNT.
Sample A-MW75-10 is a duplicate of sample A-MW65-10.
Sample A-MW77-10 is a duplicate of sample A-MW67-10.
Sample A-MW81-15 is a duplicate of sample A-MW71-15.
(Dup) – Indicates sample is a duplicate collected and analyzed concurrently with the associated project sample.
ft bgs – feet below ground surface
J – The result is an estimated value.
M – A manual integration was performed on the chromatographic peak.
U – The compound was not detected at or above the laboratory reporting limit.
UJ – The compound is not detected at or above the estimated quantitation limit.
NS – not sampled
DNB – dinitrobenzene
DNT – dinitrotoluene
RDX – hexahydro-1,3,5-trinitro-1,3,5-triazine
TNB – trinitrobenzene
TNT – trinitrotoluene
Qvr – Vashon Recessional Outwash
Qvy – Vashon Till
Qvgl – Vashon Glaciolacustrine Deposits

Table 4-5. Summary of Groundwater Sample Field Measurement Results for TO 17F4234 Site A 2017 Well Installation

Well ID	Well Type	Sample Date	Sample Time	Depth to Groundwater (feet-btoc)	pH	Specific Conductance (mS/cm)	Turbidity (NTUs)	DO (mg/L)	Temperature (°C)	ORP (mV)
A-MW64	Perched	1/4/2018	9:10	8.63	5.24	0.090	0	2.52	9.14	299
A-MW65	Perched	1/3/2018	14:05	6.9	4.97	0.069	14.8	13.06	9.05	253
A-MW66	Perched	1/3/2018	12:45	8.3	4.92	0.055	0	10.07	10.06	339
A-MW67	Perched	1/3/2018	10:40	8.01	5.11	0.042	0.9	12.06	9.10	332
A-MW70	Perched	1/3/2018 - 5/10/18	dry	dry	--	--	--	--	--	--
A-MW71	Mon-Shallow	1/4/2018	11:15	68.57	6.93	0.200	13.1	7.30	12.20	194

Notes:
°C – degrees Celsius
DO – Dissolved oxygen
Dup – Duplicate sample
feet-btoc – feet below top of casing
mg/L – milligrams per liter
mS/cm – milliSiemens per centimeter
mV – millivolts
ORP – Oxidation/reduction potential
pH – potentiometric hydrogen ion concentration
Mon-Shallow – Monitoring of shallow aquifer

Table 4-6. Summary of Groundwater Sample Analytical Laboratory Results for TO 17F4234 Site A 2017 Wells

				Nitroaromatics										Natural Attenuation Parameters						
Well ID	**Well Type**	**Sample ID**	**Sample Date**	**RDX (µg/L)**	**TNT (µg/L)**	**2,6-DNT (µg/L)**	**2,4-DNT (µg/L)**	**1,3,5-TNB (µg/L)**	**1,3-DNB (µg/L)**	**HMX (µg/L)**	**MNX (µg/L)**	**DNX (µg/L)**	**TNX (µg/L)**	**Methane (µg/L)**	**Nitrate-Nitrite (mg/L)**	**Alkalinity (mg/L)**	**Chloride (mg/L)**	**Sulfate (mg/L)**	**DOC (mg/L)**	**Dissolved Manganese (µg/L)**
ROD-Specified Groundwater Cleanup Levels[1/]				**0.8**	**2.9**	**0.13**	**0.13**	**0.8**	**1.6**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**
A-MW64	Perched	SITE-A-4234-17-400	1/4/2018	**230 D**	**5.4**	0.13 U	0.13 U	0.15 U	0.15 U	160 D	15 D	3.1 J M	0.67 M	6.0 U	1.6	27.2	2.8	6.1	2.6	0.028
A-MW65	Perched	SITE-A-4234-17-401	1/3/2018	**70 D**	0.15 U M	0.13 U	0.13 U	0.15 U	0.15 U	75 D	6.1	1.5 J M	1.5 M	6.0 U	0.62	26.5	2.5	3.9 J	1.3	0.033
A-MW66	Perched	SITE-A-4234-17-402	1/3/2018	**66 D**	**9.6**	0.13 U	0.13 U	0.15 U M	0.15 U	19 D	3.4	0.51 U M	0.10 J M	6.0 U	0.37	20.9	3.3	4.4 J	0.99 J	0.013
A-MW67	Perched	SITE-A-4234-17-403	1/3/2018	**15 D**	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	5.7	0.97	0.26 J M	0.51 U	6.0 U	0.066	13.9	2.7	3.6 J	1.0	0.0059 J
		SITE-A-4234-17-404	1/3/2018	**15 D**	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	5.7	0.98	0.11 J M	0.50 U M	6.0 U	0.065	13.8	2.5	3.2 J	1.0 U	0.0059 J
A-MW70	Perched	Dry-Not sampled																		
A-MW71	Mon-Shallow	SITE-A-4234-17-406	1/4/2018	**46 D J**	0.15 U	0.13 U	0.13 U	0.15 U	0.15 U	17 D J	0.66	0.11 J M	0.076 J M	6.0 U	0.75	89.2	3.5	6.1	0.71 J	0.0075 J

Notes:
[1/] MTCA groundwater cleanup levels specified in the ROD (Navy 1991); 2,4-DNT and 2,6-DNT specified as total DNT.
Sample SITE-A-4234-17-404 is a duplicate of sample SITE-A-4234-17-403.
Bold – exceeds cleanup level
(Dup) – Indicates sample is a duplicate collected and analyzed concurrently with the associated project sample.
NA – Not analyzed
NS – Not specified
D – The result is reported from a dilution.
J – The result is an estimated value.
M – A manual integration was performed on the chromatographic peak.
U – The compound was not detected at or above the laboratory reporting limit.
µg/L – micrograms per liter
Mon-Shallow – Monitoring of shallow aquifer
RDX – hexahydro-1,3,5-trinitro-1,3,5-triazine
DNX – hexahydro-1,3-dinitroso-5-nitro-1,3,5-triazine
TNT – trinitrotoluene
TNB – trinitrobenzene
MNX – hexahydro-1-nitroso-3,5-dinitro-1,3,5-triazine
DNT – dinitrotoluene
DNB – dinitrobenzene
HMX – octogen
TNX – hexahydro-1,3,5-trinitroso-1,3,5-triazine
DOC – dissolved organic carbon

Table 5-2. Vertical Profiles of RDX in Shallow Aquifer

Well ID	Well Type	Sample Date	Depth to Top of Well Screen[1/] (feet-btoc)	Well Screen Length (feet-btoc)	Top of Well Screen Elevation[1/] (feet-MLLW)[2/]	Bottom of Well Screen Elevation[1/] (feet-MLLW)[2/]	RDX (µg/L)	
Vertical Profile One								
A-MW62	New Monitoring	7/19/17	87.34	10	70.08	60.08	300	D
		9/6/17					1.1	
A-MW62-120	Temporary	7/17/17	120	5	34.4	29.4	0.15	U
A-MW62-136	Temporary	7/14/17	136	5	18.4	13.4	0.15	U
A-MW62-146	Temporary	7/14/17	146	5	8.4	3.4	0.15	U
Vertical Profile Two								
A-MW37[3/]	Existing Extraction	3/2/17	65.61	10	91.92	81.92	20	D
A-MW63	New Monitoring	7/19/17	102	10	58.35	48.35	0.26	
		9/6/17					0.15	U
A-MW63-130	Temporary	3/9/17	130	5	27.9	22.9	0.15	U
A-MW63-145	Temporary	3/13/17	145	5	12.9	7.9	0.15	U

Notes:
[1/] Temporary screen intervals are relative to ground surface at the time of drilling, which was not surveyed.
[2/] feet-MLLW – Vertical elevations relative to Mean Lower Low Water (MLLW), which is 5.93 feet below National Geodetic Vertical Datum of 1929 (NGVD 1929) mean sea level.
[3/] Reported in Sealaska (2017e).
feet-btoc – feet below top of casing
D – The result is reported from a dilution.
U – The compound was not detected at or above the laboratory reporting limit.
RDX – hexahydro-1,3,5-trinitro-1,3,5-triazine
µg/L – microgram per liter

Data Taken from Final Data Gap Investigation and Pilot Test Results Operable Unit 8 (U.S. Navy, 2017q)

Appendix D2-1. Slug Tests in OU 8 Wells

Well ID[1/]	Well Casing Diameter (Inches)	Well Casing Radius (ft)	Well Boring Diameter (Inches)	Well Boring Radius (ft)	Top of Well Casing Elevation (Feet-MLLW)[2/]	Well Depth in Plan (Feet TOC)	Ground Elevation (Feet-MLLW)[2/]	Test Date	Depth to Water (Feet TOC)	Water Elevation (Feet-MLLW)	Well Screen Length (Feet)	Top of Well Screen Elevation (Feet-MLLW)	Water Above Screen (Feet-MLLW)	Water Above Screen? Yes/No	Effect. Well Screen Length (Feet)	Applied Aquifer Thickness (Feet)	Data column	Start	Time	Displace-ment (ft)
8IW-1	4	0.167	10	0.417	285.45	69.03	285.9	7/25/2017	23.38	262.07	35	251.75	10.32	Yes	35	35	r2,d3	r136	15.178	23.389
															35					
8IW-2	4	0.167	10	0.417	285.25	69.23	285.6	7/25/2017	23.15	262.1	35	251.35	10.75	Yes	35	35	r2,d3	r160	21.186	23.164
															35	35				
8IW-3	4	0.167	10	0.417	284.80	69.23	285.3	7/25/2017	22.7	262.1	35	250.90	11.20	Yes	35	35	r2,d3	r138	15.801	22.673
															35	35				
8IW-4	4	0.167	10	0.417	284.59	68.98	285.0	7/25/2017	22.5	262.09	35	250.94	11.15	Yes	35	35	r2,d3	r135	15.259	22.522
															35	35				
8IW-5	4	0.167	10	0.417	285.04	69.03	285.4	7/25/2017	22.94	262.1	35	251.34	10.76	Yes	35	35		r132	14.175	22.917
															35	35				
8IW-6	4	0.167	10	0.417	285.10	47.2	285.4	7/25/2017	23.05	262.05	15	254.3	7.75	Yes	15	15		r147	17.81	22.874
															15	15				
8IW-7	4	0.167	10	0.417	284.16	46.56	284.6	7/25/2017	22.09	262.07	15	254.1	7.97	Yes	15	15		r148	18.486	22.1
															15	15				
Post Redevelopment																				
8IW-1	4	0.167	10	0.417	285.45	69.03	285.9	8/31/2017	24.17	261.28	35	251.75	9.53	Yes	35	35				
															35					
8IW-3	4	0.167	10	0.417	284.80	69.23	285.3	8/31/2017	23.49	261.31	35	250.90	10.41	Yes	35	35				
															35	35				
8IW-6	4	0.167	10	0.417	285.10	47.2	285.4	8/31/2017	23.8	261.3	15	254.3	7.00	Yes	15	15	r2,d5			
															15	15				
8IW-7	4	0.167	10	0.417	284.16	46.56	284.6	8/31/2017	22.89	261.27	15	254.1	7.17	Yes	15	15				
															15	15				

Note: Shading for distinguishing data by well

Falling Head						Rising Head						Checked
Change(ft)	Method	S	T (cm/s)	K (cm/s)	Start	Time	Displace-ment (ft)	Change (feet)	S	T (cm/s)	K (cm/s)	
1.93	Bouwer			1.17E-03		10.273	23.374	1.93			**8.86E-04**	
	Cooper	0.00337	1.91	1.79E-03					0.00588	1.21	1.13E-03	
2.45	Bouwer			3.74E-04	r89	3.608	23.143	2.22			**2.44E-04**	
	Cooper	0.01666	0.4603	4.31E-04					0.00444	0.3182	2.98E-04	
1.647	Bouwer			3.26E-03	r123	12.475	22.691	1.982			**2.89E-03**	
	Cooper								0.0004	4.522	4.24E-03	
2.00	Bouwer			2.18E-03	r109	8.955	22.493	2.289			**2.29E-03**	
	Cooper								0.00109	3.192	2.99E-03	
2.418	Bouwer			1.53E-03	r122	12.059	22.93	2.445			**1.44E-03**	
	Cooper								0.00021	2.559	2.40E-03	
3.72	Bouwer			7.70E-04	r142	16.676	23.046	3.00			**4.17E-04**	
	Cooper								0.01442	0.2136	4.67E-04	
2.46	Bouwer			5.89E-04	r146	18.107	22.082	3.257			**5.26E-04**	
	Cooper								0.01094	0.3013	6.59E-04	
	Bouwer		r395	79.751	24.168	1.99					**1.12E-03**	
	Cooper											
	Bouwer		r965	222	23.4702	1.91					**3.64E-03**	
	Cooper								0.0004	4.522	4.24E-03	
	Bouwer		r293	54.25	23.752	2.86					**5.47E-04**	
	Cooper											
	Bouwer		r344	67	22.844	3.0786					**7.49E-04**	
	Cooper											

Change from development

126%

126%

131%

8IW-7 compared to 8IW-6

143% 137%

Initial Geomean (7 wells)

8.92E-04

1.51E-03

8%

Table D2-2: Subsurface Soil Chemical Data

		Location ID	8MW54	8MW55	8MW55	8MW56	8MW56	8MW56	8MW57	8SO1	8SO1
		Sample ID	8MW54-BH-24-25	8MW55-BH-9-10	8MW55-BH-34-35	8-BH-FD-01	8MW56-BH-18-19	8MW56-BH-39-40	8MW57-BH-22-23	8SO1-BH-19-20	8SO1-BH-44-45
		Sample Type	N	N	N	FD	N	N	N	N	N
		Depth	24 - 25 ft	9 - 10 ft	34 - 35 ft	18 - 19 ft	18 - 19 ft	39 - 40 ft	22 - 23 ft	19 - 20 ft	44 - 45 ft
Method	**Analyte**	**units**									
8260B	1,2-DICHLOROETHANE	ug/kg	< 118 U	< 2.59 U	< 89.4 U	< 2.61 U	< 2.52 U	< 2.16 UJ	< 2.12 U	< 104 U	33.4
8260B	BENZENE	ug/kg	< 118 U	< 2.59 U	1400	< 2.61 U	< 2.52 U	< 2.16 UJ	2.16 J	< 104 U	239
NWTPH-Dx	TPH AS DIESEL	mg/kg	< 7.6 U	< 27 U	< 8.1 U	< 3.7 U	< 3.8 U	< 3.7 U	< 7.7 U	< 57 U	< 4.0 U
NWTPH-Dx	Residual-Range Petroleum Hydrocarbons	mg/kg	< 230 U	< 110 U	< 240 U	< 110 U	< 110 U	< 110 U	< 230 U	< 230 U	< 120 U
NWTPH-Gx	Gasoline-Range Petroleum Hydrocarbons	mg/kg	52	< 2.5 U	15	< 2.5 U	< 2.5 U	< 2.5 U	3.5	200	1.6 J
6010C	CALCIUM	mg/kg	5370 N	4350		4740	4670	6480		2680 N	5710 N
6010C	MAGNESIUM	mg/kg	5120 N	6190		3900	3340	5180		3650 N	6220 N
6010C	POTASSIUM	mg/kg	508 J	425 J		365 J	349 J	571 J		335 J	615 J
6010C	SODIUM	mg/kg	462 JN	< 717 NU		< 642 NU	312 JN	464 JN		< 661 NU	340 JN
9056A	CHLORIDE	mg/kg	< 3.31 U	< 3.77 U		24.3	22.5	2.30 J		< 3.16 U	3.99 J
9056A	NITRATE	mg/kg	< 1.00 U	< 1.14 U		0.602 J	0.579 J	< 1.03 U		< 0.957 U	< 1.01 U
9056A	NITRITE	mg/kg	< 1.00 U	< 1.14 U		< 1.01 U	< 1.09 U	< 1.03 U		< 0.957 U	< 1.01 U
4500_P_E	PHOSPHATE	mg/kg	7.47 D	1.20 DJ		< 1.08 U	6.37 D	10.5 D		< 0.214 U	1.50
9056A	SULFATE	mg/kg	7.77 J	6.91 J		7.37 J	7.66 J	< 10.3 U		37.0	< 10.1 U
9030	SULFIDE	mg/kg	< 0.23 U	0.72	< 0.25 U	< 0.22 U	< 0.22 U	< 0.22 U	< 0.23 U	< 0.23 U	< 0.24 U
160.3	TOTAL SOLIDS	Percent	88.4	93.7	82.1	91.8	91.8	92.0	87.9	87.4	85.6

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentration range for the standard curve

J: Estimated result. The compund is presend, but less than the LOQ

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Table D2-3: Groundwater Laboratory Data

						Location ID	8CBMW02	8CBMW02	8CBMW02	8CBMW02	8CBMW02
						Sample Date	11/3/2015	12/1/2015	12/1/2015	12/10/2015	12/17/2015
						Sample ID	8CBMW02-GW-BL	8CBMW02-GW-D5	8-GW-FD-01 120115	8CBMW02-GW-W2	8CBMW02-GW-W3
						Sample Type	N	N	FD	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**						
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7		< 50.0 UJ	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L			1160	1240	1400	960	940
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05		< 50.0 UJ	< 50.0 U	< 50.0 U	< 50.0 U	< 50.0 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5		56.6 J	53.2 J	63.1 J	43.2 J	31.8 J
8260B	BENZENE	N	71-43-2	ug/L	5		12200	14000	16200	11400	9070
8260B	NAPHTHALENE	N	91-20-3	ug/L	320		628 J	580	639	484	460
8260B	TOLUENE	N	108-88-3	ug/L	1000		9450	12200	14200	9460	8590
6010C	CALCIUM	FF	7440-70-2	ug/L			97800	91900	92400	92400	90200
6010C	IRON	N	7439-89-6	ug/L			4250	2260	2150	5210	5600
6010C	MAGNESIUM	FF	7439-95-4	ug/L			33700	33600	33600	38700	34500
6010C	POTASSIUM	FF	7440-09-7	ug/L			1700 J	1770 J	1750 J	1710 J	1760 J
6010C	SODIUM	FF	7440-23-5	ug/L			17600	15500	15500	17000	15900 N
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L			180	230		180	190
AM20GAX	ETHANE	N	74-84-0	ug/L			2	3.3		2.4	2.3
AM20GAX	METHANE	N	74-82-8	ug/L			54	86		66	72
AM20GAX	OXYGEN	N	7782-44-7	mg/L			2.7	7.2		2.3	6.9
2320B	ALKALINITY, TOTAL	N	-152	mg/L			419	396	405	433	414 N
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L			14.0	15.9 Y	16.5 Y	13.7	12.3
353.2_MOD	NITRATE	N	14797-55-8	mg/L							< 0.00500 U
9056A	NITRATE	N	14797-55-8	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L							< 0.375 U
4500_NO2_B	NITRITE	N	14797-65-0	mg/L							< 0.00500 U
9056A	NITRITE	N	14797-65-0	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	
9056A	SULFATE	N	14808-79-8	mg/L			< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	0.341 JM
4500_S2_F	SULFIDE	N	18496-25-8	mg/L			< 1.67 U	< 1.94 U	< 1.94 U	< 1.79 U	< 1.82 NU

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentration range for the standard curve

J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit on the low side

Table D2-3: Groundwater Laboratory Data

						Location ID	8CBMW02	8CBMW02	8CBMW02	8CBMW02	8MW06
						Sample Date	1/5/2016	1/26/2016	3/9/2016	3/9/2016	11/3/2015
						Sample ID	8CBMW02-GW-W6	8CBMW02-GW-W9	8CBMW02-GW-W15	8-GW-FD-01 030916	8-GW-FD-01
						Sample Type	N	N	N	FD	FD
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**						
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7		< 25.0 U	< 50.0 U	< 25.0 U	< 25.0 U	< 50.0 UJ
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L			930	914	691	652	211
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05		< 25.0 U	< 50.0 U	< 25.0 U	< 25.0 U	< 50.0 UJ
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5		25.9 J	< 50.0 U	23.1 J	22.3 J	217
8260B	BENZENE	N	71-43-2	ug/L	5		7660	6640	6230	6230	14500
8260B	NAPHTHALENE	N	91-20-3	ug/L	320		487	548 J	433 J	407 J	326 J
8260B	TOLUENE	N	108-88-3	ug/L	1000		7450	5880	5620	5270	506
6010C	CALCIUM	FF	7440-70-2	ug/L			94500	100000	98200	98400	112000
6010C	IRON	N	7439-89-6	ug/L			9680	7670	9050	6600	4490
6010C	MAGNESIUM	FF	7439-95-4	ug/L			36000	36200	35000	35200	47400
6010C	POTASSIUM	FF	7440-09-7	ug/L			1860 J	1690 J	1650 J	1670 J	1920 J
6010C	SODIUM	FF	7440-23-5	ug/L			16900	16600	16000	16100	16600
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L			190	200	190	200	140
AM20GAX	ETHANE	N	74-84-0	ug/L			2	1.7	1.9	2.1	3.8
AM20GAX	METHANE	N	74-82-8	ug/L			76	76	83	90	480
AM20GAX	OXYGEN	N	7782-44-7	mg/L			3.4	5	2.5	3.5	2
2320B	ALKALINITY, TOTAL	N	-152	mg/L			478	472	473	476	508
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L			13.3	10.4	11.8	11.1	14.7
353.2_MOD	NITRATE	N	14797-55-8	mg/L							
9056A	NITRATE	N	14797-55-8	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L							
4500_NO2_B	NITRITE	N	14797-65-0	mg/L							
9056A	NITRITE	N	14797-65-0	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
9056A	SULFATE	N	14808-79-8	mg/L			< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
4500_S2_F	SULFIDE	N	18496-25-8	mg/L			< 2.50 U	< 1.89 U	< 1.82 U	< 1.82 U	< 1.67 U

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentratior

J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-3: Groundwater Laboratory Data

						Location ID	8MW06	8MW06	8MW06	8MW06	8MW06	8MW06
						Sample Date	11/3/2015	12/1/2015	12/10/2015	12/17/2015	1/5/2016	1/26/2016
						Sample ID	8MW06-GW-BL	8MW06-GW-D5	8MW06-GW-W2	8MW06-GW-W3	8MW06-GW-W6	8MW06-GW-W9
						Sample Type	N	N	N	N	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**							
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7		< 50.0 UJ	< 50.0 U	< 50.0 U	< 50.0 U	< 25.0 U	< 100 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L			206	44.8 J	120	83.7 J	50.7	< 100 U
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05		< 50.0 UJ	< 50.0 U	< 50.0 U	< 50.0 U	< 25.0 U	< 100 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5		204	161	194	208	182	224
8260B	BENZENE	N	71-43-2	ug/L	5		14400	12300	13700	14600	13100	12500
8260B	NAPHTHALENE	N	91-20-3	ug/L	320		341 J	274	230	272	230	173 J
8260B	TOLUENE	N	108-88-3	ug/L	1000		549	195	191	229	142	59.8 J
6010C	CALCIUM	FF	7440-70-2	ug/L			112000	103000	102000	98100	105000	113000
6010C	IRON	N	7439-89-6	ug/L			4370	2100	1870	2330	3690	2770
6010C	MAGNESIUM	FF	7439-95-4	ug/L			47300	45400	51500	47400	47400	49800
6010C	POTASSIUM	FF	7440-09-7	ug/L			1900 J	1960 J	1780 J	1840 J	1900 J	1750 J
6010C	SODIUM	FF	7440-23-5	ug/L			16300	14700	16300	15000	16600	16400
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L			160	100	130	160	170	170
AM20GAX	ETHANE	N	74-84-0	ug/L			4.3	0.57	4.7	3.5	3.1	3.9
AM20GAX	METHANE	N	74-82-8	ug/L			550	25	700	230	93	92
AM20GAX	OXYGEN	N	7782-44-7	mg/L			1.6	8.6	2.7	4	3.4	4.3
2320B	ALKALINITY, TOTAL	N	-152	mg/L			551	484	680	575	593	586
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L			15.1	15.5 Y	11.9	12.9	16.1	15.6
353.2_MOD	NITRATE	N	14797-55-8	mg/L						< 0.00500 U		
9056A	NITRATE	N	14797-55-8	mg/L			< 0.100 U	< 0.100 U	< 0.100 U		< 0.100 U	< 0.100 U
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L						< 0.375 U		
4500_NO2_B	NITRITE	N	14797-65-0	mg/L						< 0.00500 U		
9056A	NITRITE	N	14797-65-0	mg/L			< 0.100 U	< 0.100 U	< 0.100 U		< 0.100 U	< 0.100 U
9056A	SULFATE	N	14808-79-8	mg/L			< 1.00 U	1.06 J	< 1.00 U	< 1.00 MU	< 1.00 U	< 1.00 U
4500_S2_F	SULFIDE	N	18496-25-8	mg/L			< 1.67 U	< 1.94 U	< 1.69 U	< 1.74 U	< 2.50 U	< 1.72 U

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentratior

J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-3: Groundwater Laboratory Data

						Location ID	8MW06	8MW06	8MW49	8MW49	8MW54
						Sample Date	1/26/2016	3/9/2016	1/26/2016	3/9/2016	11/3/2015
						Sample ID	8-GW-FD-01 012616	8MW06-GW-W15	8MW49-GW-W9	8MW49-GW-W15	8MW54-GW-BL
						Sample Type	FD	N	N	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**						
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7		< 100 U	< 50.0 U	< 50.0 U	< 25.0 U	< 100 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L			< 100 U	77.2 J	1430	1410	1070
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05		< 100 U	< 50.0 U	< 50.0 U	< 25.0 U	< 100 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5		224	210	< 50.0 U	< 25.0 U	71.3 J
8260B	BENZENE	N	71-43-2	ug/L	5		12300	13700	5050	1720	14300 J
8260B	NAPHTHALENE	N	91-20-3	ug/L	320		163 J	303 J	581 J	440 J	429 J
8260B	TOLUENE	N	108-88-3	ug/L	1000		54.1 J	67.2 J	5820	2500	19500 J
6010C	CALCIUM	FF	7440-70-2	ug/L			111000	115000	103000	115000	82200
6010C	IRON	N	7439-89-6	ug/L			2760	2740	5950	2600	323
6010C	MAGNESIUM	FF	7439-95-4	ug/L			49000	48300	44000	46400	29300
6010C	POTASSIUM	FF	7440-09-7	ug/L			1700 J	1800 J	1730 J	1660 J	2090 J
6010C	SODIUM	FF	7440-23-5	ug/L			16200	16900	16600	18900	18300
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L			170	180	170	190	140
AM20GAX	ETHANE	N	74-84-0	ug/L			3.6	3	1.6	0.87	3.4
AM20GAX	METHANE	N	74-82-8	ug/L			86	72	1800	3000	59
AM20GAX	OXYGEN	N	7782-44-7	mg/L			6.6	8.1	4.3	3.1	2.3
2320B	ALKALINITY, TOTAL	N	-152	mg/L			571	655	563	617	372
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L			15.9	16.1	34.6	61.9 D	17.3
353.2_MOD	NITRATE	N	14797-55-8	mg/L							
9056A	NITRATE	N	14797-55-8	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L							
4500_NO2_B	NITRITE	N	14797-65-0	mg/L							
9056A	NITRITE	N	14797-65-0	mg/L			0.0583 J	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
9056A	SULFATE	N	14808-79-8	mg/L			< 1.00 U	< 1.00 U	< 1.00 U	0.891 J	18.7
4500_S2_F	SULFIDE	N	18496-25-8	mg/L			< 1.72 U	< 1.82 U	< 1.72 U	< 1.75 U	< 1.67 U

Notes:

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J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-3: Groundwater Laboratory Data

						Location ID	8MW54	8MW54	8MW54	8MW54	8MW54	8MW54
						Sample Date	12/1/2015	12/10/2015	12/17/2015	12/17/2015	1/5/2016	1/26/2016
						Sample ID	8MW54-GW-D5	8MW54-GW-W2	8MW54-GW-W3	8-GW-FD-01 121715	8MW54-GW-W6	8MW54-GW-W9
						Sample Type	N	N	N	FD	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**							
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7	< 100 U	< 100 U	< 100 U	< 100 U	< 50.0 U	< 50.0 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L		1520	1340	1420	1100	1460	998
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05	< 100 U	< 100 U	< 100 U	< 100 U	< 50.0 U	< 50.0 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5	< 100 U	< 100 U	52.3 J	< 100 U	31.5 J	47.7 J
8260B	BENZENE	N	71-43-2	ug/L	5	9880	5890 J	9140	7740	5660	6730 J
8260B	NAPHTHALENE	N	91-20-3	ug/L	320	606	536	497	374	477	451 J
8260B	TOLUENE	N	108-88-3	ug/L	1000	23300	14600 J	18700	14600	13000	6520
6010C	CALCIUM	FF	7440-70-2	ug/L		64800	62200	63700	63800	62400	65900
6010C	IRON	N	7439-89-6	ug/L		747	296	71.5 J	45.2 J	497	375
6010C	MAGNESIUM	FF	7439-95-4	ug/L		24800	26200	26000	25000	24000	24400
6010C	POTASSIUM	FF	7440-09-7	ug/L		2020 J	1950 J	1880 J	2000 J	1960 J	1620 J
6010C	SODIUM	FF	7440-23-5	ug/L		15500	17100	15400	15800 N	16000	14700
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L		70	56	82	87	79	85
AM20GAX	ETHANE	N	74-84-0	ug/L		0.17	0.18	0.36	0.37	0.39	0.53
AM20GAX	METHANE	N	74-82-8	ug/L		4.4	2.1	5.6	6.1	6.8	8.4
AM20GAX	OXYGEN	N	7782-44-7	mg/L		10	7	4.6	4.8	3.3	8.8
2320B	ALKALINITY, TOTAL	N	-152	mg/L		279	276	319	319	303	321
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L		20.4	20.8	21.0	21.2	26.7	20.4
353.2_MOD	NITRATE	N	14797-55-8	mg/L				0.664	0.484 J		
9056A	NITRATE	N	14797-55-8	mg/L		< 0.100 U	< 0.100 U			0.868	1.31
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L				0.701	0.535		
4500_NO2_B	NITRITE	N	14797-65-0	mg/L				0.0367	0.0508		
9056A	NITRITE	N	14797-65-0	mg/L		< 0.100 U	< 0.100 U			0.531	1.74
9056A	SULFATE	N	14808-79-8	mg/L		17.1	17.3	17.9	18.0	17.9	18.7
4500_S2_F	SULFIDE	N	18496-25-8	mg/L		< 1.72 NU	< 1.89 NU	< 1.74 U	< 1.74 U	< 2.50 U	< 1.79 NU

Notes:

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J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-3: Groundwater Laboratory Data

						Location ID	8MW54	8MW55	8MW55	8MW56	8MW56	8MW56
						Sample Date	3/9/2016	11/4/2015	12/1/2015	11/4/2015	12/1/2015	12/10/2015
						Sample ID	8MW54-GW-W15	8MW55-GW-BL	8MW55-GW-D5	8MW56-GW-BL	8MW56-GW-D5	8MW56-GW-W2
						Sample Type	N	N	N	N	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**							
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7		< 50.0 U	< 50.0 U	< 100 U	< 5.00 UJ	< 5.00 U	< 10.0 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L			1450	1290	1260	1010	899	734
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05		< 50.0 U	41.6 J	57.8 J	< 5.00 UJ	< 5.00 U	< 10.0 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5		< 50.0 U	39.6 J	< 100 U	< 5.00 U	< 5.00 U	< 10.0 U
8260B	BENZENE	N	71-43-2	ug/L	5		3130	14700	12100	< 10.0 U	3.97 J	< 10.0 U
8260B	NAPHTHALENE	N	91-20-3	ug/L	320		469 J	412 J	507	391 J	111	60.4
8260B	TOLUENE	N	108-88-3	ug/L	1000		10800	16300	28300	1620	31.5	27.6
6010C	CALCIUM	FF	7440-70-2	ug/L			48500	85700	62300	102000	83700	73900
6010C	IRON	N	7439-89-6	ug/L			2910	1530	< 60.0 U	1410	4330	450
6010C	MAGNESIUM	FF	7439-95-4	ug/L			17700	27500	20200	35800	29800	30500
6010C	POTASSIUM	FF	7440-09-7	ug/L			1480 J	2260 J	2150 J	2850 J	1890 J	1570 J
6010C	SODIUM	FF	7440-23-5	ug/L			13200	16400	14700	24300	14900	15900
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L			64	160	92	140	200	210
AM20GAX	ETHANE	N	74-84-0	ug/L			1.1	2.8	0.5	2.9	0.57	0.44
AM20GAX	METHANE	N	74-82-8	ug/L			10	34	5.4	24	42	47
AM20GAX	OXYGEN	N	7782-44-7	mg/L			5.6	2.6	5.1	2	4.4	2.7
2320B	ALKALINITY, TOTAL	N	-152	mg/L			193	354	290	409	355	332
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L			24.4	10.3	8.59	7.54	6.82	6.19
353.2_MOD	NITRATE	N	14797-55-8	mg/L								
9056A	NITRATE	N	14797-55-8	mg/L			0.387	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L								
4500_NO2_B	NITRITE	N	14797-65-0	mg/L								
9056A	NITRITE	N	14797-65-0	mg/L			0.599	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
9056A	SULFATE	N	14808-79-8	mg/L			25.3	3.62	7.24	20.3	9.27	8.25
4500_S2_F	SULFIDE	N	18496-25-8	mg/L			< 1.82 U	< 1.67 U	< 1.94 U	< 1.67 U	< 1.71 U	< 1.69 U

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentratior

J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-3: Groundwater Laboratory Data

						Location ID	8MW56	8MW56	8MW56	8MW56	8MW57	8MW57
						Sample Date	12/17/2015	1/5/2016	1/26/2016	3/9/2016	11/4/2015	12/1/2015
						Sample ID	8MW56-GW-W3	8MW56-GW-W6	8MW56-GW-W9	8MW56-GW-W15	8MW57-GW-BL	8MW57-GW-D5
						Sample Type	N	N	N	N	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**							
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7	< 5.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 5.00 U	< 12.5 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L		576	590 J	529	567	383	922
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05	< 5.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 5.00 U	< 12.5 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5	< 5.00 U	< 1.00 U	< 5.00 U	< 5.00 U	4.39 J	< 12.5 U
8260B	BENZENE	N	71-43-2	ug/L	5	3.06 J	1.47 J	< 5.00 U	< 5.00 U	1730	2470
8260B	NAPHTHALENE	N	91-20-3	ug/L	320	36.1	37.4	58.7 J	48.8 J	268 J	443
8260B	TOLUENE	N	108-88-3	ug/L	1000	13.0	7.25	7.91 J	4.52 J	1570	4860
6010C	CALCIUM	FF	7440-70-2	ug/L		68700	66800	64000	57800 N	129000	126000
6010C	IRON	N	7439-89-6	ug/L		300	314	451	349	2140	1710
6010C	MAGNESIUM	FF	7439-95-4	ug/L		26600	24300	21500	19700 N	57600	57300
6010C	POTASSIUM	FF	7440-09-7	ug/L		1650 J	1540 J	1360 J	1220 NJ	3190 J	3320 J
6010C	SODIUM	FF	7440-23-5	ug/L		14100	14400	13800	13000 N	22400	19800
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L		190	170	170	150	87	110
AM20GAX	ETHANE	N	74-84-0	ug/L		0.27	0.2	0.24	0.22	4.2	4.3
AM20GAX	METHANE	N	74-82-8	ug/L		48	45	53	47	33	56
AM20GAX	OXYGEN	N	7782-44-7	mg/L		3.6	4.4	3.6	4.4	3.7	5.7
2320B	ALKALINITY, TOTAL	N	-152	mg/L		383	317 N	324	303	592	594
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L		5.46	4.37	4.08	3.14	10.2	12.7
353.2_MOD	NITRATE	N	14797-55-8	mg/L		< 0.00500 U					
9056A	NITRATE	N	14797-55-8	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L		< 0.375 U					
4500_NO2_B	NITRITE	N	14797-65-0	mg/L		< 0.00500 U					
9056A	NITRITE	N	14797-65-0	mg/L			< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U	< 0.100 U
9056A	SULFATE	N	14808-79-8	mg/L		9.45	9.47	8.19	7.80	8.31	10.5
4500_S2_F	SULFIDE	N	18496-25-8	mg/L		< 1.74 U	< 2.50 NU	< 1.72 U	< 1.72 U	< 1.67 U	< 1.71 U

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentratior

J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-3: Groundwater Laboratory Data

						Location ID	8MW57	8MW57	8MW57	8MW57	8MW57
						Sample Date	12/10/2015	12/17/2015	1/5/2016	1/26/2016	3/9/2016
						Sample ID	8MW57-GW-W2	8MW57-GW-W3	8MW57-GW-W6	8MW57-GW-W9	8MW57-GW-W15
						Sample Type	N	N	N	N	N
Method	**Analyte**	**fraction**	**CAS**	**units**	**Project Action Level**						
8260B	1,1-DICHLOROETHENE	N	75-35-4	ug/L	7	< 10.0 U	< 25.0 U	< 10.0 U	< 10.0 U	< 25.0 U
8260B	1,2,4-TRIMETHYLBENZENE	N	95-63-6	ug/L		624	1390	759	660	2010
8260B	1,2-DIBROMOETHANE	N	106-93-4	ug/L	0.05	< 10.0 U	< 25.0 U	< 10.0 U	< 10.0 U	< 25.0 U
8260B	1,2-DICHLOROETHANE	N	107-06-2	ug/L	5	< 10.0 U	< 25.0 U	< 10.0 U	< 10.0 U	< 25.0 U
8260B	BENZENE	N	71-43-2	ug/L	5	2130	3880	2040	1750	462
8260B	NAPHTHALENE	N	91-20-3	ug/L	320	371	713	425	565 J	270 J
8260B	TOLUENE	N	108-88-3	ug/L	1000	2960	5490	3160	2360	4380
6010C	CALCIUM	FF	7440-70-2	ug/L		112000	113000	110000	117000	41600
6010C	IRON	N	7439-89-6	ug/L		1430	3870	2010	3930	524
6010C	MAGNESIUM	FF	7439-95-4	ug/L		60900	58200	54700	55500	14100
6010C	POTASSIUM	FF	7440-09-7	ug/L		2720 J	2820 J	2640 J	2300 J	1130 J
6010C	SODIUM	FF	7440-23-5	ug/L		19900	18000	19100	18000	12400
AM20GAX	CARBON DIOXIDE	N	124-38-9	mg/L		93	82	110	110	84
AM20GAX	ETHANE	N	74-84-0	ug/L		4.5	3.6	4.4	3.1	0.17
AM20GAX	METHANE	N	74-82-8	ug/L		43	33	44	43	6.7
AM20GAX	OXYGEN	N	7782-44-7	mg/L		8	7.8	4	4.2	3.6
2320B	ALKALINITY, TOTAL	N	-152	mg/L		589	638	603	659	175
9060A	CARBON, TOTAL ORGANIC	N	7440-44-0	mg/L		9.88	10.5	11.8	10.5	20.8
353.2_MOD	NITRATE	N	14797-55-8	mg/L			< 0.00500 U			
9056A	NITRATE	N	14797-55-8	mg/L		< 0.100 U		< 0.100 U	< 0.100 U	< 0.100 U
353.2	NITRATE/NITRITE	N	7697-37-2/14797	mg/L			< 0.375 U			
4500_NO2_B	NITRITE	N	14797-65-0	mg/L			< 0.00500 U			
9056A	NITRITE	N	14797-65-0	mg/L		< 0.100 U		< 0.100 U	< 0.100 U	< 0.100 U
9056A	SULFATE	N	14808-79-8	mg/L		0.504 J	0.467 JM	0.998 J	0.849 J	22.3
4500_S2_F	SULFIDE	N	18496-25-8	mg/L		< 1.82 U	< 1.79 U	< 2.50 U	< 1.79 U	< 1.72 U

Notes:

D: Diluted sample, one of the compunds in the analysis run exceeded the highest concentratior

J: Estimated result. The compund is presend, but less than the LOQ

M: Matrix interfered with quantitation of analyte

N: The spike recovery is not within control limts for the associated parameter

U: Analyte was analyzed for but not detected

Y: Parameter shows a potential negative bias due to exceedance of ICV on lower control limit c

Table D2-4: Groundwater Field Parameters

Day 5 - air sparging
Week 2 through Week 9 - biosparging

Well	Round	Date	DTW ft bgs	DTP ft bgs	pH (SI Units)	Conductivity uS/m	Temperature ºC	DO mg/L	ORP mV	Turbidity NTU	Sulfite mg/L	Ferrous Iron mg/L
8MW54	Baseline	11/3/2015	30.22	NP	6.53	375	15.29	0.30	26	8.2	1.28	0.5
	Day 5	12/1/2015	28.73	NP	6.90	428	14.7	3.91	274.6	79.5	1.92	0.0
	Week 2	12/10/2015	28.97	NP	6.78	623	14.1	3.93	30	26.6	1.92	0.0
	Week 3	12/17/2015	28.45	NP	7.18	446	13.76	0.5	328.1	5.84	1.92	0.0
	Week 6	1/5/2016	28.03	NP	6.08	574	13.52	0	-19	43.1	0.64	0.25
	Week 9	1/26/2016	29.94	NP	6.58	576	14.92	0.17	82.4	27.0	0	0.5
	Week 15	3/9/2016	24.8	NP	6.73	365	14.48	0.2	283.0	9.5	1.0	1.5
8MW55	Baseline	11/4/2015	30.54	NP	6.58	643	15.6	4.21	5	32.8	1.92	0.5
	Day 5	12/1/2015	30.93	NP	6.11	412	14.72	3.98	42.0	80.2	NR	NR
	Week 2	12/10/2015	29.26	29.12	product in well - no measurements							
	Week 3	12/17/2015	28.88	28.7	product in well - no measurements							
	Week 6	1/5/2016	28.47	28.27	product in well - no measurements							
	Week 9	1/26/2016	27.09	26.95	product in well - no measurements							
	Week 15	3/9/2016	25.16	25.07	product in well - no measurements							
8MW56	Baseline	11/4/2015	30.92	NP	6.59	815	14.3	2.69	-18	28.1	1.92	0.5
	Day 5	12/1/2015	29.41	NP	6.56	510	14.92	0.15	218.5	47.8	1.92	1
	Week 2	12/10/2015	29.15	NP	---	554	14.56	0.26	-29.8	12.4	1.92	0.5
	Week 3	12/17/2015	28.35	NP	6.57	492	14.22	0.16	296.0	6.36	1.92	0.5
	Week 6	1/5/2016	27.86	NP	6.86	478	14	0.68	294.7	4.83	1.92	0.5
	Week 9	1/26/2016	26.65	NP	6.41	415	15.06	0.15	235.9	5.05	1.92	0.5
	Week 15	3/9/2016	24.50	NP	5.89	404	14.93	0.98	134.6	7.86	1.28	0.5
8MW57	Baseline	11/4/2015	30.70	NP	7.23	1003	14.99	5.55	-63.2	14.68	NR	0.25
	Day 5	12/1/2015	30.12	NP	7.03	761	15.03	0.24	267.2	10.6	2.56	1.5
	Week 2	12/10/2015	29.1	NP	7.01	1016	13.8	0.09	-83	21.9	4.48	1.5
	Week 3	12/17/2015	28.69	NP	6.73	1008	14.2	0	-46	122	1.92	1.5
	Week 6	1/5/2016	28.86	NP	7.51	773	14.74	0.11	291.5	4.00	1.92	2.0
	Week 9	1/26/2016	27.41	NP	6.84	982	14.35	0.22	-95.0	86.4	3	1.5
	Week 15	3/9/2016	25.18	sheen	5.79	3.15	14.61	0.69	75.4	12.1	1.28	0.5
8MW06	Baseline	11/3/2015	30.70	NP	6.70	938	14.87	7.05	0.5	39.6	1.92	2.5
	Day 5	12/1/2015	30.04	NP	6.31	713	14.21	4.63	24.3	70.2	1.28	NR
	Week 2	12/10/2015	29.40	NP	5.61	747	14.45	0.65	-85.5	4.03	1.92	2
	Week 3	12/17/2015	28.96	NP	6.85	6.9	14.48	0.12	319.9	5.57	1.92	2.5
	Week 6	1/5/2016	28.53	NP	6.02	982	12.70	0.00	-30	118	3.84	1.25
	Week 9	1/26/2016	27.29	NP	6.62	733	14.67	0.16	245.8	4.15	1.28	3
	Week 15	3/9/2016	25.27	NP	6.62	781	13.67	0.39	288.8	3.50	4	2.5
8CBMW02	Baseline	11/3/2015	30.35	NP	6.56	771	15.64	3.35	-40	38.4	1.92	2.25
	Day 5	12/1/2015	29.76	NP	5.8	632	15.00	0.27	-30.9	7.4	0.64	NR
	Week 2	12/10/2015	29.09	NP	---	657	14.13	0.15	-68.7	92.1	2.56	2.5
	Week 3	12/17/2015	28.6	NP	6.22	831	13.4	0	7	115	1.92	1.5
	Week 6	1/5/2016	28.18	NP	5.91	830	12.49	0.32	-12	0	1.28	2.0
	Week 9	1/26/2016	26.94	NP	6.44	808	15.18	0.30	-25.7	196	1	2.5
	Week 15	3/9/2016	24.93	NP	6.41	698	15.04	0.25	299.2	350	1.0	2.0
8MW49	Baseline	11/3/2015	30.93	30.93	product in well - no measurements							
	Day 5	12/1/2015	30.65	30.53	product in well - no measurements							
	Week 2	12/10/2015	29.65	29.57	product in well - no measurements							
	Week 3	12/17/2015	29.21	29.14	product in well - no measurements							
	Week 6	1/5/2016	28.72	28.7	product in well - no measurements							
	Week 9	1/26/2016	27.75	NP	6.6	636	14.24	0.13	224.4	8.23	1.28	3
	Week 15	3/9/2016	25.59	NP	6.01	761	13.55	0.09	-7.5	30.5	1.28	3

Notes:

DTW - Depth to Water
DTP - Depth to Product
---- No reading

NP - No product
ft - feet
bgs - below ground surface

uS/m - microsemens per milliliter
mg/L - milligrams per liter
mV - millivolts

APPENDIX E
SITE INSPECTION CHECKLISTS

Site Inspection Checklist

I. SITE INFORMATION

Site name: *NBK Bangor OU 1 (Site A)*	**Date of inspection:** *June 19, 2019*
Location: *Silverdale, Kitsap County, Washington*	**EPA ID:** *110000771219*
Agency, office, or company leading the five-year review: *NAVFAC NW*	**Weather/temperature:** *Sunny, high of 65 °F*

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment
- ☒ Access controls
- ☒Institutional controls
- ☒ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls
- ☒ Other *Soil excavation and on-site treatment, leach basin closure, well abandonment*

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. DOCUMENTS & RECORDS

1. **O&M Records**

☒ O&M manual	☒ Readily available	☐ Up to date	☐ N/A
☐ As-built drawings	☐ Readily available	☐ Up to date	☐ N/A
☒ Maintenance logs	☒ Readily available	☐ Up to date	☐ N/A

Remarks: *Latest O&M manual and maintenance logs kept in support vehicle of contractor performing the O&M work for the Navy.*

2. **Leach basin closure records** ☒ Readily available ☒ Up to date
Remarks: *Documented in first 5-year review, with citations to record documents*

3. **Soil excavation and treatment records** ☒ Readily available ☒ Up to date
Remarks: *Documented in first 5-year review, with citations to record documents*

4. **Well Abandonment Records** ☒ Readily available ☒ Up to date
Remarks: *On-going Navy policy to abandon unused wells. Wells abandoned with regulatory concurrence.*

5. **Groundwater Monitoring Records** ☒ Readily available ☒ Up to date
Remarks: *See narrative of 5-year review report*

6. **Institutional Controls Inspection Records** ☒ Readily available ☒ Up to date
Remarks *See narrative of 5-year review report*

III. O&M COSTS

1. **O&M Organization**

- ☐ State in-house
- ☐ PRP in-house
- ☐ Federal Facility in-house
- ☐ Contractor for State
- ☐ Contractor for PRP
- ☒ Contractor for Federal Facility
- ☐ Other_____

2. **O&M Cost Records**

- ☒ Readily available ☒ Up to date
- ☒ Funding mechanism/agreement in place

3. **Unanticipated or Unusually High O&M Costs During Review Period**
Describe costs and reasons: *See narrative in five-year review report.*

IV. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Site A Burn Area

1. **Treatment system secure?** ☒ Yes ☐ No
Remarks

2. **Current land use consistent with ROD and ICMP?** ☒ Yes ☐ No
Remarks

3. **Any wells installed except for environmental cleanup?** ☐ Yes ☒ No
Remarks

4. **Any indication of damage to leach basin liner?** ☐ Yes ☒ No
Remarks: *Trees and Scotch Broom growing within the leach basin could potentially damage the liner*.

5. **Any evidence of excavation?** ☒ Yes ☐ No
Remarks *Trenching and drilling associated with remedy optimization pilot testing*. *No evidence of the apparent excavation from the previous FYR.*

B. Site A Debris Area 2

1. **Current land use consistent with ROD and ICMP?** ☒ Yes ☐ No
Remarks

2. **Are signs and posts present, in good condition, and legible?** ☒ Yes ☐ No
Remarks

3. **Is deterrent vegetation intact with no penetrating trails?** ☐ Yes ☒ No
Remarks: *There is no vegetation such as blackberry to restrict access. A primitive trail leads through the native vegetation, which is not an inviting trail to walk on*

4. **Any evidence of excavation?** ☐ Yes ☒ No
Remarks

C. Overall Institutional Controls Evaluation

1. **Implementation and enforcement**
Site conditions imply ICs properly implemented ☒ Yes ☐ No
Site conditions imply ICs being fully enforced ☒ Yes ☐ No

Type of monitoring (*e.g.*, self-reporting, drive by) *Site visit.*
Frequency *Annual*
Responsible party *NAVFAC NW*
Contact *Malcolm Gander* (Name) *RPM* (Title) *360.315.2804* (Phone no.)

Reporting is up to date ☒ Yes ☐ No

Specific requirements in decision documents have been met ☒ Yes ☐ No
Violations have been reported ☐ Yes ☒ No
Other problems or suggestions: ☐ Report attached ☒ None

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A
Remarks

V. TREATMENT COMPONENTS ☒ Applicable ☐ N/A

A. Groundwater treatment system components

1. **Treatment Train** (Check components that apply)
   ☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
   ☐ Air stripping ☒ Carbon adsorbers
   ☒ Filters_____
   ☐ Additive (*e.g.*, chelation agent, flocculent)_____
   ☐ Others_____
   ☒Good condition ☐ Needs Maintenance
   ☒ Sampling ports properly marked and functional
   ☒ Sampling/maintenance log displayed and up to date
   ☐ Equipment properly identified
   ☐ Quantity of groundwater treated annually ___*See five-year review report text*_____
   ☐ Quantity of surface water treated annually_____
   Remarks _____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   ☐ N/A ☒ Good condition ☐ Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   ☐ N/A ☒ Good condition ☐Proper secondary containment ☐ Needs Maintenance
   Remarks

4. **Discharge Structure and Appurtenances**
   ☐ N/A ☒ Good condition ☐ Needs Maintenance
   Remarks

5. **Treatment Building(s)**
   ☐ N/A ☒ Good condition (esp. roof and doorways) ☐Needs repair
   ☒ Chemicals and equipment properly stored
   Remarks

6. **Monitoring Wells** (pump and treatment remedy)
   ☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled ☒ Good condition
   ☒ All required wells located ☐ Needs Maintenance ☐ N/A
   Remarks

B. Monitoring Data

1. Monitoring Data
   ☒ Is routinely submitted on time ☒ Is of acceptable quality

2. Monitoring data suggests:
   ☒ Groundwater plume is effectively contained ☒ Contaminant concentrations are declining

C. Other Remedy Components

1. Soil excavation ☒ Completed ☐ Not Completed

2. Leach basin closure ☒ Completed ☐ Not Completed

3. Well abandonment ☒ Completed ☐ Not Completed

VI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). *See narrative of five-year review report.*
B.	**Adequacy of O&M**
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. *See narrative of five-year review report*
C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. *See narrative of five-year review report*
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. *See narrative of five-year review report*

Site Inspection Checklist

I. SITE INFORMATION

Site Name: *NBK Bangor, OU 2 (Site F)*	**Date of inspection:** *June 19, 2019*
Location: *Silverdale, Kitsap County, Washington*	**EPA ID:** *110000771219*
Agency, office, or company leading the five-year review: *NAVFAC NW*	**Weather/temperature:** *Sunny, high of 65 °F*

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment
- ☒ Access controls
- ☒ Institutional controls
- ☒ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☒ Other: *Soil excavation and on-base treatment; infiltration barrier*
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. DOCUMENTS & RECORDS

1. **O&M Records**

☒ O&M manual	☒ Readily available	☒ Up to date	☐ N/A
☐ As-built drawings	☐ Readily available	☐ Up to date	☐ N/A
☒ Maintenance logs	☒ Readily available	☒ Up to date	☐ N/A
☒ Health and Safety Plan	☒ Readily available	☐ Up to date	☐ N/A
☐ Access logs	☐ Readily available	☐ Up to date	☐ N/A

Remarks: *Latest O&M manual and maintenance logs kept in support vehicle of contractor performing the O&M work for the Navy*

2. **Soil excavation and treatment records** ☒ Readily available ☒ Up to date
Remarks: *Documented in first 5-year review, with citations to record documents*

3. **Infiltration barrier as-built records** ☒ Readily available ☒ Up to date
Remarks: *Documented in first 5-year review, with citations to record documents*

4. **Groundwater Monitoring Records** ☒ Readily available ☒ Up to date
Remarks: *See narrative of 5-year review report.*

5. **Institutional Controls Inspection Records** ☒ Readily available ☒ Up to date
Remarks: *See narrative of 5-year review report.*

III. O&M COSTS

1. **O&M Organization**

- ☐ State in-house
- ☐ PRP in-house
- ☐ Federal Facility in-house
- ☐ Other
- ☐ Contractor for State
- ☐ Contractor for PRP
- ☒ Contractor for Federal Facility

2. **O&M Cost Records**
☒ Readily available ☒Up to date
☒ Funding mechanism/agreement in place

3. **Unanticipated or Unusually High O&M Costs During Review Period**
Describe costs and reasons: *See narrative of 5-year review report.*

IV. ACCESS AND INSTITUTIONAL CONTROLS ☐ Applicable ☐ N/A

A. Site F

1. **Treatment system secure?** ☒ Yes ☐ No
Remarks

2. **Current land use consistent with ROD and ICMP?** ☒ Yes ☐ No
Remarks

3. **Any wells installed except for environmental cleanup?** ☐ Yes ☒ No
Remarks

4. **Any indication of damage to infiltration barrier or cracked asphalt?** ☒ Yes ☐ No
Remarks: As noted during the previous five-year review inspection, the asphalt in the area of the infiltration barrier is cracked with plants growing through the cracks. Significant water ponding was observed on the day of inspection around a block storm drain. The area is being used for soil handling. Ponded water implies that water is not easily infiltrating, however, ponding in lieu of flow through the stormdrain provides a hydraulic head that could be driving infiltration.

5. **Any evidence of excavation?** ☐ Yes ☒No
Remarks

B. Overall Institutional Controls Evaluation

1. **Implementation and enforcement**
Site conditions imply ICs properly implemented ☒ Yes ☐ No
Site conditions imply ICs being fully enforced ☒ Yes ☐ No

Type of monitoring (*e.g.*, self-reporting, drive by) *Site inspection*.
Frequency *Annual*
Responsible party *NAVFAC NW*
Contact *Malcolm Gander* (Name) *RPM* (Title) *360.315.2804* (Phone no.)

Reporting is up to date ☒Yes ☐ No

Specific requirements in decision documents have been met ☒ Yes ☐ No
Violations have been reported ☐ Yes ☒ No
Other problems or suggestions: ☐ Report attached ☒ None

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A
Remarks

V. TREATMENT COMPONENTS ☒Applicable ☐ N/A

A. Groundwater treatment system components

1. **Treatment Train** (Check components that apply)
   - ☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
   - ☐ Air stripping ☒ Carbon adsorbers
   - ☒ Filters_____
   - ☐ Additive (*e.g.*, chelation agent, flocculent)_____
   - ☐ Others_____
   - ☒Good condition ☐ Needs Maintenance
   - ☒ Sampling ports properly marked and functional
   - ☒ Sampling/maintenance log displayed and up to date
   - ☒ Equipment properly identified
   - ☒ Quantity of groundwater treated annually _See narrative of five-year review report
   - ☐ Quantity of surface water treated annually_____

   Remarks_____
   _____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   - ☐ N/A ☒ Good condition ☐ Needs Maintenance

   Remarks

3. **Tanks, Vaults, Storage Vessels**
   - ☐ N/A ☒ Good condition ☒ Proper secondary containment ☐ Needs Maintenance

   Remarks

4. **Discharge Structure and Appurtenances**
   - ☐ N/A ☒ Good condition ☐ Needs Maintenance

   Remarks

5. **Treatment Building(s)**
   - ☐ N/A ☒ Good condition (esp. roof and doorways) ☐ Needs repair
   - ☐ Chemicals and equipment properly stored

   Remarks

6. **Monitoring Wells** (pump and treatment remedy)
   - ☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled ☒ Good condition
   - ☒ All required wells located ☐ Needs Maintenance ☐ N/A

   Remarks

B. Monitoring Data

1. Monitoring Data
   - ☒ Is routinely submitted on time ☒ Is of acceptable quality

2. Monitoring data suggests:
   - ☒ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining

C. Other Remedy Components

1. **Soil excavation** ☒Completed ☐ Not Completed
2. **Infiltration barrier** ☒ Completed ☐ Not Completed

VI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). *See narrative of 5-year review*
B.	**Adequacy of O&M**
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. *See narrative of 5-year review*
C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. *See narrative of 5-year review*
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. *See narrative of 5-year review*

Site Inspection Checklist

I. SITE INFORMATION	
Site name: *NBK Bangor, OU 3 (Sites 16/24 and 25)*	**Date of inspection:** *June 19, 2019*
Location: *Silverdale, Kitsap County, Washington*	**EPA ID:** *110000771219*
Agency, office, or company leading the five-year review: *NAVFAC NW*	**Weather/temperature:** *Sunny, high of 65 °F*

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment
- ☐ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Other
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. DOCUMENTS & RECORDS

1. **Groundwater Monitoring Records** ☒ Readily available ☒ Up to date
   Remarks

2. **Institutional Controls Inspection Records** ☒ Readily available ☒ Up to date
   Remarks

III. O&M COSTS

1. **O&M Organization**
   - ☐ State in-house
   - ☐ PRP in-house
   - ☐ Federal Facility in-house
   - ☐ Other
   - ☐ Contractor for State
   - ☐ Contractor for PRP
   - ☒ Contractor for Federal Facility

2. **Remedy Cost Records** *Costs associated with the annual institutional controls inspections for this site are included in the costs for OU 1, OU 2, OU 7, and OU 8.*

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: *N/A*

IV. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Site 16/24

1. **Current land use consistent with ROD and ICMP?** ☒ Yes ☐ No
   Remarks: *Being used as long-term private vehicle storage.*

2. **Any evidence of excavation?** ☐ Yes ☒ No
   Remarks

B. Site 25

1. No ICs Required or Established

C. Overall Institutional Controls Evaluation

1. **Implementation and enforcement**

Site conditions imply ICs properly implemented ☒ Yes ☐ No

Site conditions imply ICs being fully enforced ☒ Yes ☐ No

Type of monitoring (*e.g.*, self-reporting, drive by) ☒

Frequency *Annual*

Responsible party *NAVFAC NW*

Contact *Malcolm Gander* (Name) *RPM* (Title) *360.315.2804* (Phone no.)

Reporting is up to date ☒ Yes ☐ No

Specific requirements in decision documents have been met ☒ Yes ☐ No

Violations have been reported ☐ Yes ☒No

2. **Adequacy** ☒ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks

V. TREATMENT COMPONENTS ☒ Applicable ☐ N/A

A. Groundwater Monitoring

2. **Verification Monitoring Completed?** ☒ Yes ☐ No

Remarks: *The Navy and regulatory agencies have concluded that monitoring is no longer required. Metals concentrations in groundwater do not exceed background. One monitoring well and protective casing have been compromised at Site 25. Decommissioning of this well is recommended.*

VI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). *See narrative of 5-year review*

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. *See narrative of 5-year review*

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. *See narrative of 5-year review*

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. *See narrative of 5-year review*

Site Inspection Checklist

I. SITE INFORMATION	
Site name: *NBK Bangor, OU 6 (Site D)*	**Date of inspection:** *June 19, 2019*
Location: *lverdale, Kitsap County, Washington*	**EPA ID:** *110000771219*
Agency, office, or company leading the five-year review: *NAVFAC NW*	**Weather/temperature:** *Sunny, high of 65 °F*

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment
- ☐ Access controls
- ☐ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls
- ☒ Other *Soil excavation and on-base treatment; short-term groundwater monitoring; surface water confirmation monitoring*

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. DOCUMENTS & RECORDS

1. **Groundwater Monitoring Records** ☒ Readily available ☒ Up to date
   Remarks: *Documented in first five-year review, with citations to record documents*

2. **Soil Treatment Records** ☒ Readily available ☒ Up to date
   Remarks: *Documented in first five-year review, with citations to record documents*

III. REMEDY COSTS

1. **Implementing Organization**
   - ☐ State in-house
   - ☐ PRP in-house
   - ☐ Federal Facility in-house
   - ☐ Other
   - ☐ Contractor for State
   - ☐ Contractor for PRP
   - ☒ Contractor for Federal Facility

2. **Remedy Cost Records:** *Costs associated with the annual institutional controls inspections for this site are included in the costs for OU 1, OU 2, OU 7, and OU 8*

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: *NA*

IV. TREATMENT COMPONENTS ☒ Applicable ☐ N/A

A. Surface Water and Groundwater Monitoring

1. Verification Monitoring Completed? ☒ Yes ☐ No
Remarks: *See narrative of 5-year review report*

B. Other Remedy Components	
1. Soil excavation and treatment	☒ Completed ☐ Not Completed
V. OVERALL OBSERVATIONS	
A.	**Implementation of the Remedy**
	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). *There are no formal ICs for Site D. Land use remains as a wetland within a larger wetland ecosystem. The excavation permitting and the construction project review system are used. There were no signs of excavation during the site visit*. *This area was assessed for the potential presence of MEC during a preliminary assessment, with the report published in February 2017.*
B.	**Adequacy of O&M**
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. *See narrative of 5-year review* .
C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. *See narrative of 5-year review*
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. *See narrative of 5-year review*

Site Inspection Checklist

I. SITE INFORMATION	
Site name: *NBK Bangor, OU 7 (Sites B, E/11, 10)*	**Date of inspection:** *June 19, 2019*
Location: *Silverdale, Kitsap County, Washington*	**EPA ID:** *110000771219*
Agency, office, or company leading the five-year review: *NAVFAC NW*	**Weather/temperature:** *Sunny, high of 65 °F*

Remedy Includes: (Check all that apply)

- ☒ Landfill cover/containment
- ☒ Access controls
- ☒ Institutional controls
- ☐ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls
- ☒ Groundwater pump and treatment (as part of Site F system)
- ☐ Surface water collection and treatment
- ☒ Other *Surface water control; off-site soil and debris disposal; verification monitoring of groundwater, sediment, and clam tissue*

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. DOCUMENTS & RECORDS

1. **Otto fuel monitoring of Site F system for Site E/11** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report.*

2. **Soil and debris disposal records (Sites B and E/11)** ☒ Readily available ☒ Up to date
   Remarks *Documented in first 5-year review, with citations to record documents.*

3. **Soil cover and storm water control as-built records (Site B)** ☒ Readily available ☒Up to date
   Remarks *Documented in first 5-year review, with citations to record documents.*

4. **Soil cover inspection and maintenance records (Site B)** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report*

5. **Groundwater monitoring records (Site 10)** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report*

6. **Institutional controls inspection records (Sites B, E/11, 10)** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report*

III. O&M COSTS

1. **O&M Organization**
   - ☐ State in-house
   - ☐ Contractor for State
   - ☐ PRP in-house
   - ☐ Contractor for PRP
   - ☐ Federal Facility in-house
   - ☒ Contractor for Federal Facility
   - ☐ Other

2. **O&M Cost Records**
   - ☒ Readily available
   - ☒ Up to date
   - ☒ Funding mechanism/agreement in place

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: *NA*

IV. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. Site B – Floral Point (checklist items from ICMP)

1. **Current land use consistent with ROD and ICMP?** ☒ Yes ☐ No
   Remarks: Remarks *Site B is for outdoor recreational use only. Any construction requires an excavation permit and construction project review. Presently, enhanced security measures limit visitations to the lower base area of Bangor, greatly reducing the number of potential recreational users. Use of the area for a contractor laydown yard was observed, and a new portable antenna structure has been installed, but with all infrastructure above ground. Concrete anchors for guy cables are poured on ground surface.*

2. **Any erosion along shoreline or on the vegetated cover?** ☒ Yes ☐ No
   Remarks: *Erosion markers exposed 12 inches to 24 inches, with an eroded cut-bank at the top of the beach slope*.

3. **Appropriate vegetation on cover?** ☒ Yes ☐ No
   Remarks: *Yes, some invasive species and many large trees*.

4. **Sufficient remaining gravel thickness on cap?** ☒ Yes ☐ No
   Remarks

B. Sites E/11 and 10 covered by ICs at Sites F and OU 8, respectively.

Remarks

C. Overall Institutional Controls Evaluation

1. **Implementation and enforcement**
   Site conditions imply ICs properly implemented ☒ Yes ☐ No
   Site conditions imply ICs being fully enforced ☒ Yes ☐ No

   Type of monitoring (*e.g.*, self-reporting, drive by) *Site visit.*
   Frequency *Annual*
   Responsible party *NAVFAC NW*
   Contact *Malcolm Gander* (Name) *RPM* (Title) *360.315.2804* (Phone no.)

   Reporting is up to date ☒ Yes ☐ No

   Specific requirements in decision documents have been met ☒ Yes ☐ No
   Violations have been reported ☐ Yes ☒ No
   Other problems or suggestions: ☐ Report attached ☒ None

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A
   Remarks

V. TREATMENT COMPONENTS ☒ Applicable ☐ N/A

A. Groundwater treatment system components – USING SITE F SYSTEM.

B. Monitoring Data

1. Monitoring Data
   ☒Is routinely submitted on time ☒ Is of acceptable quality

2. Monitoring data suggests:
   ☒ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining
   ☒ Sediments and clams are not being affected by COCs at Floral Point
   Remarks

C. Floral Point Cover

1. **Settlement** (Low spots) ☐ Location shown on site map ☒ Settlement not evident
   Areal extent_____ Depth_____
   Remarks

2. **Cracks** ☐ Location shown on site map ☒ Cracking not evident
   Lengths_____ Widths_____ Depths_____
   Remarks

3. **Erosion** ☐ Location shown on site map ☐ Erosion not evident
   Areal extent *Intertidal* Depth *12-24 inches*
   Remarks: *Area is monitored for erosion annually. Additional cover is added to the beach as needed.*

4. **Holes** ☐ Location shown on site map ☒ Holes not evident
   Areal extent_____ Depth_____
   Remarks

5. **Vegetative Cover** ☒ Grass ☒ Cover properly established ☒ No signs of stress
   ☒ Trees/Shrubs (indicate size and locations on a diagram)
   Remarks *Numerous trees up to 12-inches in diameter, and invasive species*.

6. **Bulges** ☐ Location shown on site map ☒ Bulges not evident
   Areal extent_____ Height_____
   Remarks

7. **Wet Areas/Water Damage** ☒ Wet areas/water damage not evident
   ☐ Wet areas ☐ Location shown on site map Areal extent_____
   ☐ Ponding ☐ Location shown on site map Areal extent_____
   ☐ Seeps ☐ Location shown on site map Areal extent_____
   ☐ Soft subgrade ☐ Location shown on site map Areal extent_____
   Remarks

8. **Slope Instability** ☐ Slides ☐ Location shown on site map ☒ No evidence of slope instability
   Areal extent_____
   Remarks: *Except for erosional headscarp at top of beach slope*.

D. Surface water control swales

1. **Erosion** ☐ Location shown on site map ☒ No evidence of erosion
   Areal extent_____ Depth_____
   Remarks

2. **Obstructions** Type_____ ☒ No obstructions
   ☐ Location shown on site map Areal extent_____
   Size_____
   Remarks

3. **Excessive Vegetative Growth** Type
☐ No evidence of excessive growth
☒ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent_____
Remarks

E. Cover Penetrations ☒ Applicable ☐ N/A

1. **Monitoring Wells** (within surface area of landfill)
☒Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks_____
_____

2. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☐ N/A
Remarks *None located*.

F. Other Remedy Components

1. Soil and debris disposal ☒ Completed ☐ Not Completed

VI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). *See narrative of five-year review report.*

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. *See narrative of five-year review report.*

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. *See narrative of five-year review report.*

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. *See narrative of five-year review report.*

Site Inspection Checklist

I. SITE INFORMATION	
Site name: *NBK Bangor OU 8 (Sites 27, 28, 29 and off-site plume)*	**Date of inspection:** *June 19, 2019*
Location: *Silverdale, Kitsap County, Washington*	**EPA ID:** *110000771219*
Agency, office, or company leading the five-year review: *NAVFAC NW*	**Weather/temperature:** *Sunny, high of 65 °F*

Remedy Includes: (Check all that apply)

- ☐ Landfill cover/containment
- ☒ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☒ Other *LNAPL removal*
- ☒ Monitored natural attenuation
- ☐ Groundwater containment
- ☐ Vertical barrier walls

Attachments: ☐ Inspection team roster attached ☐ Site map attached

II. DOCUMENTS & RECORDS

1. **LNAPL recovery system installation records** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report.*

2. **Groundwater monitoring records** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report.*

3. **Institutional controls inspection records** ☒ Readily available ☒ Up to date
   Remarks *See narrative of 5-year review report.*

III. O&M COSTS

1. **O&M Organization**
   - ☐ State in-house
   - ☐ PRP in-house
   - ☐ Federal Facility in-house
   - ☐ Other_____
   - ☐ Contractor for State
   - ☐ Contractor for PRP
   - ☒ Contractor for Federal Facility

2. **O&M Cost Records**
   - ☒ Readily available
   - ☒ Up to date
   - ☒ Funding mechanism/agreement in place

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: *See narrative in the five-year review report.*

IV. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

A. OU 8 (All Sites)

1. **Current land use consistent with ROD and ICMP?** ☒ Yes ☐ No
   Remarks

2. **Have any wells been installed except for environmental cleanup?** ☐ Yes ☒ No
   Remarks

3. **Monitoring reports supplied to Health Department?** ☒ Yes ☐ No
   Remarks

4. **Any wells allowed by Health Department in restricted area?** ☐ Yes ☒ No
   Remarks

B. Overall Institutional Controls Evaluation

1. **Implementation and enforcement**
   Site conditions imply ICs properly implemented ☒ Yes ☐ No
   Site conditions imply ICs being fully enforced ☒ Yes ☐ No

   Type of monitoring (*e.g.*, self-reporting, drive by) *Site visit.*
   Frequency *Annual*
   Responsible party *NAVFAC NW*
   Contact *Malcolm Gander* (Name) *RPM* (Title) *360.315.2804* (Phone no.)

   Reporting is up to date ☒ Yes ☐ No

   Specific requirements in decision documents have been met ☒ Yes ☐ No
   Violations have been reported ☐ Yes ☒ No
   Other problems or suggestions: ☐ Report attached ☒ None

2. **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A
   Remarks

V. TREATMENT COMPONENTS ☒ Applicable ☐ N/A

A. LNAPL and MNA Monitoring Data

1. Monitoring Data
   ☒ Is routinely submitted on time ☒ Is of acceptable quality

2. Monitoring data suggests:
   ☒ LNAPL is being removed ☐ Contaminant concentrations are declining
   ☒MNA is effective
   Remarks: *See narrative in the five-year review report.*

B. Monitored Natural Attenuation Infrastructure

1. **Monitoring Wells** (natural attenuation portion of remedy)
   ☒Properly secured/locked ☒ Functioning ☒ Routinely sampled ☒ Good condition
   ☒ All required wells located ☐ Needs Maintenance ☐ N/A
   Remarks

VI. OVERALL OBSERVATIONS	
A.	**Implementation of the Remedy**
	Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.). *See narrative in the five-year review report*
B.	**Adequacy of O&M**
	Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. *See narrative in the five-year review report*
C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. *See narrative in the five-year review report*
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. *See narrative in the five-year review report*