DRAFT
Statement of Basis

FOR

Wyeth Pharmaceuticals, LLC
Town of Rouses Point, Clinton County

NYSDEC Permit No.: 5-0928-00017/00175
DER Site No.: 510018
USEPA RCRA ID No.: NYD000707901

NEW YORK STATE | Department of Environmental Conservation

Prepared by:
Division of Materials Management
New York State Department of Environmental Conservation

July 16, 2025

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ACRONYMS

A
AFFF - Aqueous Film Forming Foam
AOC - Areas of Concern
AST - Aboveground Storage Tank

B
bgs - below ground surface

C
CMI - Corrective Measures Implementation
CMS - Corrective Measures Study
COCs - Constituents of Concerns
CPP - Citizen Participation Plan

D
DEC - Department of Environmental Conservation
DER - Division of Environmental Remediation
Department - Department of Environmental Conservation
DMM - Division of Materials Management
DOH - NYS Department of Health

E
ECL - Environmental Conservation Law
EDS - Electronic Document Standards
EE - Environmental Easement
ELAP - Environmental Laboratory Approval Program

F
FER - Final Engineering Report
FS - Feasibility Study

G
GW - Groundwater
GWM - Groundwater Monitoring
GWMP - Groundwater Monitoring Program

H

I
ICM - Interim Corrective Measures
ISCO - In-Situ Chemical Oxidation
ISCR - In-Situ Chemical Reduction
ISMP - Interim Site Management Plan

J

K

L
LDR - Land Disposal Restrictions

M
MCL - Maximum Contaminant Level
µg/L - micrograms per liter, in water
mg/kg - milligrams per kilogram, in soil
MNA - Monitored Natural Attenuation
MSL - Mean Sea Level
MTBE - Methyl Tert-Butyl Ether

N
NYCRR - New York Codes, Rules & Regulations
NYSDEC - New York State Department of Environmental Conservation
NYSDOH - New York State Department of Health

O
O&M - Operation & Maintenance
OGC - Office of General Counsel
OM&M - Operation, Maintenance & Monitoring
OSHA - Occupational Safety & Health Administration
OU - Operating Unit
OU - Operable Unit (under Corrective Action or 6 NYCRR Part 375)

P
PCBs - Polychlorinated Biphenyls
PDF - Portable Document Format
PFAS - Per- and Polyfluoroalkyl substances
ppb - Parts per billion
ppm - Parts per million
PPP – Public Participation Plan
PR - Preliminary Review
PR/VSI - Preliminary Review/Visual Site Inspection
PRR - Periodic Review Report

Q
QAPP - Quality Assurance Project Plan
QA/QC - Quality Assurance/Quality Control

R
RA - Remedial Action
RCRA - Resource Conservation & Recovery Act

RD - Remedial Design
RD/RA - Remedial Design/Remedial Action
RFA - RCRA Facility Assessment
RFI - RCRA Facility Investigation
RI - Remedial Investigation
ROD - Record of Decision
RP - Remedial Plan
RP - Responsible Party
RPL - Real Property Law
RSO - Remedial System Optimization
RTC(s) - Response(s) to TNOIA Comments

S
SAP - Sampling and Analysis Plan
SAPA - State Administrative Procedures Act
SAR -Sampling and Analysis Report
SB - Statement of Basis
SC - Site Characterization
SCG - Standard Criteria or Guidance
SCOs – Soil Cleanup Objectives
SEQR - State Environmental Quality Review
SLERA - Screening Level Ecological Risk Assessment
SM - Site Management
SMP - Site Management Plan
SPDES - State Pollutant Discharge Elimination System
SSDSs - Sub Slab Depressurization System
SWMU - Solid Waste Management Unit
SV - Sampling Visit
SVOCs - Semi-Volatile Organic Compounds

T
TOGS - NYSDEC's Division of Water's Technical and Operational Guidance Series
TSDF - Treatment, Storage & Disposal Facility

U
UIC - Underground Injection Control
USDA - United States Department of Agriculture
USDOT - United States Department of Transportation
USEPA - United States Environmental Protection Agency

V
VOCs – Volatile Organic Compounds
VSI - Visual Site Inspection

W
WAP - Waste Analysis Plan

X

Y

Z

NEW YORK STATE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management

STATEMENT OF BASIS

Wyeth Pharmaceuticals, LLC
64 Maple Street, Rouses Point, Clinton County
NYSDEC Permit No.: 5-0928-00017/00175
DER UIS No. 510018
EPA ID No. NYD002081396

July 16, 2025

SECTION 1: INTRODUCTION

The New York State Department of Environmental Conservation (Department or NYSDEC) has determined that hazardous wastes and/or hazardous constituents were released into the environment at the Former Wyeth Pharmaceuticals Site located at 64 Maple Street in Rouses Point, New York (the "Facility"). The Department, in consultation with the New York State Department of Health (NYSDOH), is proposing final corrective measures for this Facility. The Facility is owned by ERS Rouses Point, LLC and is operated for this corrective action by Wyeth Pharmaceuticals, LLC. The proposed corrective measures for this Facility are intended to attain the cleanup objectives identified for the protection of public health and the environment. This Statement of Basis (SB) summarizes the contaminant investigations which were performed at the site, identifies the proposed corrective measures, presents the other alternatives considered, explains the reasons for selecting the proposed remedy, and solicits public involvement in the selection of corrective measures.

The purpose of this SB is to describe the proposed Final Corrective Measures for this facility and provide an opportunity for the public to be informed of and to participate in the development of the remedial program(s) for the Facility. Public input on all potential remedial alternatives, and on the information that supports the alternatives, is an important contribution to the corrective measure selection process. The Department may modify the proposed remedy or select another remedy based on new information and/or public comments. While the SB summarizes and highlights key information from the Resource Conservation & Recovery Act (RCRA) Facility Investigations (RFI)[1] and the Corrective Measures Study

[1] RCRA Facility Investigation activities for the subject Facility are detailed in the September 1, 2006 SWMU/AOC Assessment Report (which includes a summary of the final 1992 NYSDEC RCRA Facility Assessment (RFA)), April

(CMS) Report, it is not a substitute for these documents. The RFI and CMS Report and the administrative record are more complete sources of information regarding the corrective measures.

After the public comment period has ended and all comments have been reviewed and considered, the NYSDEC will either implement the proposed Final Corrective Measures or modify the Final Corrective Measures for the facility based on the comments received. Implementation of the Final Corrective Measures will be accomplished through issuance of the renewed 6 New York Codes, Rules & Regulations (NYCRR) Part 373 Hazardous Waste Management Permit.

SECTION 2: CITIZEN PARTICIPATION

The Department has selected the proposed Final Corrective Measures. The proposed corrective measures were selected because the Department believes that when completed, the remedial activities will be protective of human health and the environment. The Department encourages the public to review and comment on all of the corrective measure alternatives described in this document and on any additional options not previously identified and/or studied. Public input on all potential remedial alternatives, and on the information that supports the alternatives, is an important contribution to the corrective measure selection process. The Department may modify the proposed remedy or select another remedy based on new information and/or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. The Department will address all comments received during the public comment period in the Response to Comments document (RTC). The preferred remedy in the SB is a preliminary determination. Should another option be selected as the remedy based upon public comment, new information, or a re-evaluation of existing information, any significant differences from this SB will be explained the in RTC. The RTC will be sent to each person who submits written comments and/or who requests such notice.

A public comment period has been set from:

July 16, 2025 to September 2, 2025

In lieu of, or in addition to the submission of written comments, any interested person may request a public hearing. Any request for a public hearing must be in writing and must state the nature of the issues proposed to be raised in the hearing.

All comments and/or requests for a public hearing must be submitted no later than **September 2, 2025**.

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5, 2007 Sampling and Analysis Report (SAR), March 12, 2010 Engineering Evaluation of Select SWMUs Report, June 25, 2010 Supplemental SAR, April 2016 Chemical Development Pilot Plant SAR revised September 2023, April 2019 Former Main Plant SAR revised October 2023, and/or the December 2020 Supplemental Former Main Plant SAR revised December 2023.

Document Availability

This document summarizes information that can be found in greater detail in the administrative record for the Facility. The administrative record contains many reports, including investigations and sampling results which the Department used to select the proposed final corrective measures. A list of all reports is referenced in **Appendix A** of this SB. Copies of the CMS Report as well as other reports, a Fact Sheet, the Public Notice and the draft Part 373 Hazardous Waste Management Permit for this facility are available for review at the following repositories:

The Facility's online repository is available at https://rpupdate.com/document-repository/index.html and information is also available on DEC Info Locator at Index of /data/DecDocs/510018 (ny.gov) or at D E C | DER | Environmental Remediation Databases Home.

Receive Site Citizen Participation Information by Email: Please note that the Department's Division of Materials Management (DMM) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about impacted sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State's Part 373 Hazardous Waste Management Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html.

SECTION 3: FACILITY BACKGROUND

Facility Description and History

Location: The Facility is located at the intersection of Maple Street (east of the Facility) and Academy Street (south of the Facility) in the Village of Rouses Point, NY. Railroad tracks border the property along the west side. The facility is approximately 800 feet west of the northern end of Lake Champlain/Richelieu River. The Facility includes land within the Village of Rouses Point and the Town of Champlain.

Historical Operations: The Facility formally contained two operational plants, the Main Plant and the Chemical Development Plant. The Main Plant and Chemical Development Plant operated as semi-autonomous units, although much of the infrastructure was shared between the two plants including steam, process wastewater treatment facilities, and hazardous waste storage.

The Main Plant (located primarily on the eastern portion of the Facility) included approximately 1 million square feet of manufacturing and supporting infrastructure space. This portion of the Facility was previously owned by Wyeth Pharmaceuticals, LLC (formerly Wyeth Pharmaceuticals Inc.; Wyeth) and sold to Akrimax Manufacturing, LLC (Akrimax) in 2006, who then leased the plant back to Wyeth for pharmaceutical manufacturing operations. Wyeth re-acquired the Main Plant portion of the Facility from Akrimax in 2011. Operations at the Main Plant formerly included the manufacturing, primary processing and packaging of over-the-counter and prescription pharmaceuticals. Production operations at the Main Plant ceased in December 2017. The Main Plant facility included the manufacturing buildings, boiler house, air treatment buildings, and general Facility grounds including the undeveloped portions of the Facility.

The Chemical Development Plant (located on the western portion of the Facility) was owned and operated by Wyeth until 2018 and included approximately 120,000 square feet of pharmaceutical research and development and warehouse space. The Chemical Development Plant facility included the process wastewater treatment plant, steam stripper, tank farm, various storage buildings, the fire water system, and the greater than 90-day hazardous waste storage facility.

In November 2018, the Facility was sold to ERS Rouses Point LLC. A portion of the buildings were demolished prior to the sale of the property. Most of the remaining buildings have since been demolished by the current owner. The former Main Plant portion of the Facility maintains an address of 64 Maple Street. The former Chemical Development Plant portion of the Facility maintains an address of 100 Academy Street.

Topographically, the Facility is generally flat, sloping gently to the east from the railroad tracks to Maple Street.

Current Zoning: The Facility is zoned I-2, Industrial

Operable Units: The Facility maintains a 6 NYCRR Part 373 Hazardous Waste Management Permit (NYSDEC Permit # 5-0928-00017/00175) for Corrective Action, which does not use the term "Operable Units" but instead uses the RCRA nomenclature of Solid Waste Management Units SWMUs) and Areas of Concern (AOCs) when discussing areas where there were/are releases that need remediation.

Geology and Hydrogeology: The soils are mapped by the United States Department of Agriculture (USDA) Soil Conservation Service as Malone gravelly loam with 0 to 3 percent slopes. Malone gravelly loam is described by the USDA as a very deep, somewhat poorly drained, loamy soil found in high lime glacial till. Permeability is moderate in the surface soil, and moderately slow to slow in the subsoil.

The surficial geology consists primarily of glacial till. Till commonly consists of poorly sorted, generally non-stratified mixtures of grain-sizes ranging from clay to boulders. Based on observations from the soil boring and test pit excavation logs, it appears that the generalized soil lithology for the shallow, unconsolidated overburden underlying the Facility includes three primary stratigraphic units as follows:

- Upper till unit – consists of a brown to gray, medium dense to dense, fine to coarse sand with little silt and varying amounts of clay, gravel, cobbles, and boulders.
- Lower till unit – consists of a dense to very dense sand and silt with lower amounts of clay and a higher percentage of cobbles and boulders.
- Undifferentiated silt and clay – consist of a stiff gray to brown clay and silt with trace to some fine to medium gravel.

Hydrogeologic conditions have been evaluated in detail through the installation and monitoring of overburden groundwater monitoring wells and through the completion of a groundwater flow model with particle tracking.

Groundwater can be found in limited quantities in the lower of two glacial till layers. There is an upper till unit consisting of medium dense to dense soils with low permeability which does not yield significant groundwater. The lower till unit appears to be the more significant water bearing unit and the primary unit through which groundwater flows. The upper till unit is likely representative of vadose zone-type conditions and the lower unit is more likely representative of the regional groundwater flow conditions. Based on the observations made during drilling of bedrock wells, the bedrock at the Facility is solid, competent and does not readily transmit water. The bedrock is mapped as the Stony Point Shale, a black, fissile, carbonaceous, calcareous shale. The depth to bedrock ranges from 18 feet in the northeast to 35 feet in the southwest.

Recharge to the groundwater flow system is likely to originate primarily in unpaved portions of the area upgradient of the Facility and in some of the drainage swales on and around the Facility. Groundwater discharges to the Lake Champlain/Richelieu River. There are several closed contour drainage swales on the

Facility which likely serve as areas of enhanced recharge to the flow system during wet times of the year. In **Exhibit A**, a Facility location map is attached as **Figure 1-1** (from the CMS Report, see **Exhibit F**) and a Facility map is attached as **Figure 2** (this figure was modified from the Solid Waste Management Unit/Area of Concern (SWMU/AOC) Assessment Report, see **Exhibit F**).

SECTION 4: REGULATORY OVERVIEW

Department issued 6 NYCRR Part 373 Hazardous Waste Management Permits include requirements for Corrective Action (see 6 NYCRR 373-2.6) as well as the RCRA Hazardous Waste Cleanup Program. This requires owners and/or operators of facilities that applied to treat, store or dispose of hazardous waste to investigate and, when appropriate, remediate releases of hazardous wastes and/or constituents to the environment. In relation to this Facility, the Department issued a Part 373 Hazardous Waste Management Permit 5-0928-00017/00175 to Wyeth on March 9, 2009. That permit was subsequently modified to a Corrective Action Permit on September 29, 2014. A Part 373 Permit Renewal Application Package for the Permit was submitted to the Department on September 4, 2018, and the permit expiration was extended by the Department pursuant to Section 401(2) of the State Administrative Procedures Act. As such, the conditions of the 2009 permit, as may have been modified, remain in effect until the new Part 373 Permit is issued. The public comment period for the Draft Part 373 Permit coincides with the SB public comment period.

SECTION 5: RCRA FACILITY INVESTIGATION (RFI)

Corrective Action activities began with investigations at the Facility that may have been impacted by hazardous wastes and/or hazardous constituents. Based on the results of investigations, the Department has determined that hazardous wastes and/or hazardous constituents were released at the Facility. The impact of releases of hazardous wastes and/or hazardous constituents at the Facility were characterized and evaluated.

The analytical data collected for the Facility includes data for soil, soil vapor, indoor air, and groundwater.

The data have identified contaminants of concern. A "contaminant of concern" (COC) is a hazardous constituent that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Based on the results, the Department determined that corrective measures were required to address some of the areas investigated. The RFI Reports contain a full discussion of the data. The nature and extent of impacts and environmental media requiring action are summarized in **Exhibit A**.

The COCs identified at this Facility are considered to be primarily related to Wyeth's historic operations and include volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs).

As noted in **Exhibit A**, certain COCs detected at the Facility were above the proposed cleanup objectives for soil, groundwater, soil vapor, and indoor air.

5.1: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the Facility. Environmental impacts may include existing and potential future exposure pathways. The RFI Reports present a more detailed discussion of any existing and potential impacts from the Facility.

Summary of Soil Investigations: Several areas identified as containing soil with concentrations of PCBs, VOCs, and/or semi-volatile organic compounds (SVOCs) above Unrestricted Soil Cleanup Objectives (SCOs) have been addressed through the implementation of Department approved Interim Corrective Measure (ICM) programs (see **Section 6**) involving soil excavation, confirmation sampling, and post-removal groundwater monitoring. There are seven isolated areas remaining with concentrations above the Unrestricted SCOs for PCBs and VOCs in addition to the SMWU-7D area. Except for the trichloroethene impacts associated with SWMU-7D, the residual impacted soil is limited and isolated. Additional information is included in **Exhibit A**.

Summary of Groundwater Investigations: COCs reported as detected in groundwater both at the Facility and off-site to the east-southeast that were the focus of the CMS included chlorinated VOCs. The primary COCs detected at the Facility were trichloroethene, 1,2-dichloroethane, and cis-1,2-dichloroethene and the primary COC detected in the downgradient/off-site groundwater was carbon tetrachloride. Based on the data collected, it appears that these COCs historically emanated from the Facility and do not appear to represent a current or ongoing source of a release.

VOCs have been reported as detected in on-site and off-site groundwater monitoring wells screened in the upper till and lower till units, with higher overall constituent concentrations reported in the lower till. Several chlorinated VOCs (primarily carbon tetrachloride, trichloroethene, 1,2-dichloroethane, and cis-1,2-dichloroethene) were reported as detected at concentrations above NYSDEC groundwater quality standards primarily around the Facility and extending off-site to the east-southeast of the Facility. Additional information is included in **Exhibit A**.

Per- and Polyfluoroalkyl substances (PFAS) were detected at the center of the Facility where aqueous film forming foam (AFFF) may have been used as part of firefighting training activities. Past investigations in groundwater determined concentrations are low and decreased to the east of the Facility. The extent of PFAS in groundwater, and soil, is not fully delineated and has been identified as a data gap. A supplemental investigation will be developed and implemented to complete this information.

Summary of Soil Vapor Investigations: VOCs were reported as detected in sub-slab vapor samples collected from three sampling events at the Main Plant from December 2008 to November 2009 and at the Chemical Development Plant in 2011. Indoor air samples were collected concurrently with collocated sub-slab vapor samples. Several constituents (primarily trichloroethene and carbon tetrachloride) were detected at concentrations above one or more NYSDOH guidance values for sub-slab vapor, primarily located in the eastern portion of the Main Plant. In general, low to non-detect concentrations of VOCs were reported in the indoor air samples. Based on the results of these investigations, no further investigation was proposed at the time regarding soil vapor intrusion at the Main Plant or at the Chemical Development Plant. The Facility has since transitioned from a large manufacturing facility to a mostly open lot with three original buildings remaining, with the Chemical Development facility demolished in 2015 and most of the Main Plant buildings demolished in 2019.

Several vapor intrusion investigation activities including sub-slab soil vapor sampling, indoor air sampling, and outdoor air sampling were conducted at off-site properties in 2008, 2009, 2019, and 2020 to evaluate the potential for vapor intrusion into indoor air at several off-site locations. These investigations primarily focused on residential properties to the east and southeast of the Facility, though the 2019 to 2020 investigation also included properties to the north and south of the Facility.

Based on the results of these investigation activities, soil vapor mitigation systems in the form of sub-slab depressurization systems (SSDSs) were installed as corrective measures to address the potential for

exposures via the soil vapor intrusion pathway at several off-site properties to the east and southeast. No mitigation measures were required for properties to the north and south.

Additional information is included in **Exhibit A**.

5.2: Summary of Human Exposure Pathways

This human exposure assessment identified potential ways in which people may be exposed to COCs detected at the Facility. Chemicals can enter the body through three major pathways (breathing, touching, or swallowing). This is referred to as *exposure.*

Exposure to groundwater: Groundwater at the Facility and off-site locations to the east-southeast of the Facility has been impacted by VOCs. The Facility and off-site property owners are not currently using the groundwater for drinking water or non-potable water. The groundwater at the Facility and in the vicinity of Rouses Point is not a principal or primary aquifer as defined by the NYSDEC and the aquifer is non-productive and therefore is not used for human consumption. The Village of Rouses Point provides water to the Facility and to off-site properties from Lake Champlain. No public or private drinking water wells are known to be in Rouses Point or within 1-mile downgradient of the Facility.

Exposure to soil vapor: Prior to demolition of the buildings, low to non-detect concentrations of VOCs were found in indoor air samples at the former manufacturing buildings at the Facility, and soil vapor intrusion was not found to be a major contributor to indoor air quality at the Facility. Only carbon tetrachloride was detected above the most stringent NYSDOH indoor air screening level; however, outdoor air samples contained similar concentrations of carbon tetrachloride indicating a potential background contribution. Methylene chloride was also detected at concentrations above the NYSDOH air guideline value at two locations where active use of methylene chloride was observed. If new buildings are to be built at the Facility, vapor intrusion must be re-evaluated.

Based on the vapor assessment described in **Exhibit A**, soil vapor mitigation systems were installed at 37 off-site properties to the east-southeast of the Facility to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. Based on the results of the Vapor Intrusion Investigation sampling summarized in the 2018-2019 Off-Site Soil Vapor Mitigation System OM&M Report, four properties were identified as no longer requiring a SSDS as either a requirement or precautionary measure. In September 2021 with concurrence from the homeowners, two of these four off-site soil vapor mitigation systems were deenergized and removed. The property owners for the remaining two properties selected to keep their soil vapor mitigation systems in operation following Wyeth's offer to remove them, and therefore responsibility of maintenance and electrical costs have transferred to the owner. The soil vapor mitigation systems at the remaining 33 properties will be maintained and monitored in accordance with previously approved work plans until such time it is determined that they are no longer required.

Exposure to soil: For surface soils, there are limited complete pathways remaining at the Facility, as a majority of the site is covered with remaining buildings or former building foundations. Additionally, surface soil reported as containing COCs above media cleanup standards proposed for the Facility was removed as part of previous remedial action activities, then replaced with clean fill to further mitigate the potential for exposure. Detections of PCBs above the soil cleanup standards in surface soil were presented in one sample in SWMU-10 and one sample in AOC-1. The concentrations for both of these samples are below the Industrial Use SCO of 25 mg/kg. Exposure to soil with concentrations exceeding SCOs will be managed through a Site Management Plan (SMP) approved by the Department and an Environmental Easement. The SMP will have soil management requirements for any excavation done to prevent contact

with any residual contamination remaining on-site. Aside from this, no additional corrective measures are being required at this time.

For the subsurface soil, a potential pathway exists for future construction workers to come into contact with subsurface soil containing COCs in SWMU-7D. Other previously identified on-site areas with soil COCs have been addressed through the ICMs summarized in **Section 6**.

5.3: Summary of Ecological Exposure Pathways

The screening level ecological risk assessment in the form of a Fish & Wildlife Resource Impact Analysis was conducted and the results are summarized in Appendix D of the CMS Report. Based on this assessment, the concentrations of constituents detected in the downgradient wells are not expected to present a potential for adverse effects to the aquatic resources of Lake Champlain. Constituents detected in the easternmost downgradient wells have low bioaccumulation potential and the maximum concentrations of all detected constituents were well below ecological benchmark values.

5.4: Summary of the Remediation Objectives

The remediation objectives for the corrective measures have been established through a remedy selection process. The goals of the corrective measures are to protect public health and the environment and achieve unrestricted use of the Facility to the extent feasible. Media cleanup standards are presented in **Exhibit B**.

The remedial action objectives for this Facility are:

Groundwater

- Prevent direct contact with or ingestion of groundwater with Facility-related COC levels above drinking water standards for potable water[2].
- Prevent inhalation of volatile COCs from impacted groundwater to occupied buildings.
- Prevent the discharge of groundwater impacted by Facility-related COCs to surface water.

Soil

- Prevent ingestion/direct contact with Facility-related COCs in soil.
- Prevent inhalation exposure from potential volatilization of Facility-related COCs in soil.
- Remove/reduce potential source(s) of groundwater or surface water impact to allow natural attenuation and the assimilative capacity of the aquifer to further reduce residual concentrations of Facility-related COCs in groundwater.

Soil Vapor, Sub-Slab Vapor, and Indoor Air

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings with engineering controls (e.g., sub-slab depressurization systems, vapor barriers).

[2] Although groundwater is classified as GA, the aquifer is non-productive and therefore is not used for human consumption. The only potentially potable water is surface water - Lake Champlain/Richelieu River.

SECTION 6: INTERIM CORRECTIVE MEASURES (ICMs)

If at any time during an investigation, it becomes apparent that corrective actions should be taken to immediately address the spread of COCs, ICMs must be taken. The design emphasis is to construct an ICM as close to a permanent system or final remedy as possible. The Department has determined that the ICMs provided herein are protective of human health and the environment and could serve as part of the Final Corrective Measures at the Facility.

Based on conditions observed during the RFI, the following ICMs have been completed at the Facility:

SWMU-6: Tank Farm: An ICM at SWMU-6 involving soil and concrete excavation was conducted in 2008 concurrently with SWMU-7A process sewer removal and soil excavation activities at the truck containment pad for the tank farm. Approximately 300 tons of soil and 100 tons of decontaminated concrete from the truck containment pad was excavated and transported off-site for disposal or as beneficial use landfill material. Post excavation confirmation soil sample analytical results indicated that the concentrations of VOCs detected in nine of 18 soil samples were below established NYSDEC Unrestricted Use SCOs in 6 NYCRR Subpart 375-6.8(a). Based on the results of the ICM activities, no further action was recommended with regard to soil investigation or remedial excavation activities for the truck containment pad at SWMU-6 in the ICM Completion Report dated May 28, 2010. The NYSDEC concurred with the no further action recommendation in a letter dated August 26, 2010.

In 2011, operations at the Chemical Development Plant no longer necessitated operation of the hazardous waste storage tanks that comprised SWMU-6. Therefore, required hazardous waste management unit closure activities were conducted as documented in the Rinsate Sample Collection Report (dated September 23, 2011) for the decontamination and decommissioning of hazardous waste storage tanks T 1005, T-1008, and ST-1, ancillary piping, the tank containment area (tank farm), and truck containment pad. All constituents in final rinsate samples for components that remain as part of the tank systems and containment areas were below applicable criteria (NYSDEC GA groundwater criteria plus background concentrations). Based on the results, the Tank Farm was placed in a non-regulated "caretaker" (inactive) status. The Part 373 Permit No. 5-0928-00017/00175 underwent Minor Modification relieving requirements associated with active status of these decommissioned components as outlined in the correspondence from Wyeth of August 1, 2011 and as documented in the modified permit issued on December 27, 2011.

The Tank Farm and the regulated units were never put back into service by Wyeth following decontamination and decommissioning activities in 2011. The containments were cleaned again with final rinsate samples collected as documented in the Tank Farm Final Closure Report (dated January 24, 2014). The closure report was approved by NYSDEC on March 19, 2014. Following demolition activities in 2014/2015, additional soil samples were collected beneath the former buildings/structures and an NFA for the entire SWMU-6 was approved by NYSDEC in a letter dated May 9, 2023.

SWMU-7A: Process Sewer (North and West Sides-Chemical Development Plant): The ICM at SMWU-7A was conducted from June 2008 to December 2009 and consisted of the following primary activities: soil excavation, exterior process sewer piping removal and abandonment, collection and analysis of post-excavation confirmatory soil samples, site restoration, excavated materials management and disposal, and community air monitoring. Approximately 5,200 tons of excavated

soil (which included decontaminated Duriron and fiberglass piping) from SWMU-7A was transported off-site for disposal. Approximately 2,100 tons of soil was reused for backfill at SWMU-7A. Relevant excavated materials were decontaminated (steam cleaned) and size reduced, with approximately 280 tons of concrete and 30 tons of asphalt shipped to a local landfill to be used as beneficial use landfill material. In addition, approximately 0.5 tons of stainless-steel piping was shipped off-site for recycling.

VOCs (including tentatively identified compounds) were detected in 31 of 43 soil samples analyzed. Of the 31 samples where VOCs were detected, six samples were above the established Subpart 375-6.8(a) Unrestricted Use SCOs. No VOC concentrations were above established Subpart 375-6.8(b) Restricted Use – Residential SCOs. Based on the results of the post-excavation confirmation soil sampling, no further action was recommended with regard to soil investigation or excavation activities for SWMU-7A in the ICM Completion Report dated May 14, 2010. The NYSDEC concurred with the no further action recommendation in a letter dated June 3, 2010.

SWMU-10: North Field Fire Fighting Training Area 2: The ICM at SWMU-10 consisted of excavation of the former firefighting training structure and surrounding soil in 2007. Approximately 190 tons of soil and concrete were excavated and transported off-site for disposal. The analytical results of the post-excavation confirmation soil sampling indicate that the elevated concentrations of VOCs and SVOCs previously detected in soil and groundwater in 2006 were mostly removed. Following ICM soil excavation activities, concentrations of benzene and methyl tert-butyl ether (MTBE) were detected in soil at the base and east and west sidewalls above NYSDEC Unrestricted Use SCOs (6 NYCRR Subpart 375-6.8 (a)) at between 10 and 11 feet below ground surface (bgs); however, the benzene and MTBE concentrations were below NYSDEC Restricted Use – Residential SCOs (6 NYCRR Subpart 375-6.8(b)). No concentrations of SVOCs remained in soil above established SCOs.

The surface soil sampling analytical results from around the perimeter of the ICM excavation indicated several SVOCs below established SCOs. Total PCBs in one surface soil sample was above the NYSDEC Unrestricted Use SCO only, while a second surface soil sample was slightly above the NYSDEC Restricted Use – Residential SCO. Similar to the post excavation soil sampling results, the total chromium concentrations in surface soil appeared to be within typical background ranges and did not appear to be related to the SWMU 10 release. No further action was recommended for SWMU-10 in the ICM Completion Report dated March 19, 2010 (revised April 29, 2010). In a letter dated May 12, 2010, the NYSDEC concurred with the no further action recommendation at the time, NYSDECs approval letter noted that further action may be required "pending final site disposition" (i.e., an Environmental Easement will be required to allow for Restricted Use SCOs to be utilized). Based on the review of the Main Plant SAR in 2023, NYSDEC has rejected the no further action request based on the PFAS data gap. A supplemental PFAS investigation will be completed for SMWU-10.

SWMU-14: Waste Toluene Management East of Tank Farm: The ICM involving soil excavation was conducted concurrently with SWMU-7A process sewer excavation activities in 2009 as the two SWMUs were co-located. Approximately 13 tons of soil was excavated and transported off-site for disposal. The analytical results of the post-excavation confirmation soil sampling indicate that the elevated concentrations of VOCs previously detected in soil in 2006 and 2007 at SWMU-14 were removed. The concentrations of acetone, MTBE, and toluene detected in post-excavation confirmation soil samples collected from the base of the excavation at 10 feet bgs were below all established NYSDEC Unrestricted Use SCOs in 6 NYCRR Subpart 375-6.8(a). Additional soil in the vicinity of the SWMU 14 release area was excavated from underneath and around the perimeter

of the overhead solvent pipe rack as part of SWMU-7A ICM work. A 2006 excavation of approximately 12 tons of soil from the SWMU 14 release area had been previously conducted as part of a spill response.

Based on the results of the ICM activities, no further action was recommended with regard to soil investigation or remedial excavation activities for SWMU-14 in the ICM Completion Report dated May 21, 2010. The NYSDEC concurred with the no further action recommendation in a letter dated June 17, 2010.

AOC-4: Petroleum Aboveground Storage Tank (AST) Without Base Containment (Building 6): An ICM involving soil excavation was conducted in 2008 following removal of the 60,000-gallon petroleum aboveground storage tank (AST) and prior to construction of a replacement AST. Approximately 130 tons of soil was excavated and transported off-site for disposal. The analytical results of the post-excavation confirmation soil sampling indicated that all VOC and SVOC concentrations were below established NYSDEC Unrestricted Use SCOs in 6 NYCRR Subpart 375-6.8(a). Based on the results of the ICM activities, NYSDEC concurred in a letter dated July 21, 2010 that no further action was necessary with regard to soil investigation or remedial excavation activities for AOC-4.

AOC-11: Off-Site Groundwater: Based on field conditions and the results from a 2011 bench-scale testing/field pilot study (refer to CMS Report), an In-Situ Chemical Oxidation (ISCO) program was initiated as an ICM in the Maple/Academy Streets intersection (primary treatment area) to reduce volatile organic compounds (VOCs) in off-site groundwater. Between August and November 2013, two (2) ISCO ICM events (Events I and II) were conducted in the primary treatment area using Modified Fenton's Reagent (MFR) and Activated Sodium Persulfate. Based on the 2013 ISCO ICM treatment program results, two (2) ISCO ICM events (Events III and IV) were conducted in the primary treatment area using MFR and Activated Sodium Persulfate between July and August 2016. Based on recent groundwater monitoring results (2023), the Department has determined that an evaluation to determine if performing additional ISCO events is warranted.

SECTION 7: CORRECTIVE MEASURES STUDY (CMS)

Potential final corrective action measures for the Facility were identified, screened, and evaluated in the CMS Report Revision 3 dated November 7, 2024. The CMS Report also provided a summary of past investigations and ICMs in order to determine Final Correctives Measures or No Further Action for specific SMWUs/AOCs at the Site. To be selected, the proposed final corrective measures must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies, or resource recovery technologies to the maximum extent practicable. The final corrective action measures for the Facility must address potential routes of exposure to humans and the environment and attain the cleanup objectives identified for the Facility, which are presented in **Exhibit B**. In its determination of a Final Corrective Measure, the Department also considers if the measure is technically and economically feasible.

A summary of the corrective measure alternatives that were considered for the Facility is presented in **Exhibit C**. A summary of the Proposed Corrective Measure Alternatives Costs is included as **Exhibit D**.

7.1: Evaluation of Corrective Measure Alternatives

A detailed discussion of the evaluation criteria and comparative analysis is included in the CMS Report.

The general performance standards for corrective measures that must be satisfied for an alternative to be considered for selection are listed below.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

2. Achieve Cleanup Objectives for the Contaminated Media. – This criterion evaluates the ability of alternatives to achieve the cleanup objectives established for the Facility.

3. Remediate the Sources of Releases. – This criterion evaluates the ability of the alternatives to reduce or eliminate to the maximum extent possible further releases.

4. Comply with Standards for Management of Wastes. – This criterion evaluates how alternatives assure that management of wastes during corrective measures is conducted in a protective manner.

The next five selection criteria are used to compare the positive and negative aspects of each of the remedial alternatives.

5. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

6. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the Facility.

7. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the cleanup objectives is also estimated and compared against the other alternatives.

8. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

9. Cost-Effectiveness. Relative costs are estimated for each alternative. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

SECTION 8: ELEMENTS of the PROPOSED CORRECTIVE MEASURE(S)

The basis for the Department's proposed corrective measures is set forth in **Exhibit E**.

The estimated cost to implement the remedy is $5,180,000 based on a 30-year remedy. The cost to construct the remedy is estimated to be $1,200,000 and the estimated average annual cost is $75,000.

The elements of the proposed corrective measures are as follows:

Corrective Measure for Soil

Alternative S2: In Situ Chemical Reduction Injections. In situ chemical reduction (ISCR) would target areas and depth intervals with soil concentrations above 50 percent of the Commercial SCOs for trichloroethene in SWMU-7D. The Department chose a cleanup target of 50 percent of the Commercial SCO value to be protective to public health at off-site property(ies) for any possible soil vapor intrusion. The conceptual design assumed 30 injection points over the three areas shown with target depths ranging from 6 to 24 feet bgs depending on the area. A conceptual design (**Figure 8-1** from the CMS) is attached in **Exhibit F**.

Implementing this alternative would require:

- Implementing an Environmental Easement limiting the Facility to commercial use;
- Developing a SMP;
- Submitting an Underground Injection Control (UIC) permit;
- Completing bench or pilot scale testing;
- Completing pre-design investigation;
- Mobilizing, operating, and subsequently demobilizing injection materials and equipment (e.g., injection equipment, direct push drilling equipment, ISCR reagent(s), water);
- Management of generated treatment residuals (e.g., groundwater and ISCR reagents);
- Restoration of concrete slab; and
- Soil verification sampling.

Corrective Measure for Groundwater

Alternative GW1: Institutional Controls and Monitored Natural Attenuation. This alternative consists of institutional controls and monitored natural attenuation in groundwater. This alternative also includes an environmental easement and the potential implementation of a waiver based on technical impracticability and assessment of the overall environmental benefit of remediation. This alternative would pose a low environmental impact from remedial processes where no active remediation is needed. A groundwater monitoring plan would be developed to evaluate the continued effectiveness of the natural processes.

Remediation for carbon tetrachloride via ISCO (Alternative GW2) in areas that are not attenuating in a reasonable timeframe would be considered in the future to facilitate cessation of the need for vapor mitigation systems. Evaluation criteria for additional ISCO would be specified in the groundwater monitoring plan.

Corrective Measure for Soil Vapor

The potential for VOCs to migrate from the subsurface to indoor air of on-site buildings via soil vapor intrusion will be evaluated if new buildings are constructed on the Facility. Sub-slab depressurization systems may be installed on newly constructed buildings should soil vapor intrusion evaluation/sampling indicate that mitigation is warranted. Alternately, as a proactive measure, sub-slab depressurization systems may be installed on newly constructed buildings.

Operation of off-site soil vapor mitigation systems will continue until such time as they are no longer required following consultation with NYSDOH and NYSDEC. Routine inspections and maintenance

activities will be conducted as specified in the Operations, Maintenance & Monitoring (OM&M) Plan for the off-site soil vapor mitigation systems.

STATEMENT OF BASIS

Exhibits A through E

Wyeth Pharmaceuticals, Inc.
64 Maple Street, Rouses Point, Clinton County
EPA ID No. NYD002081396
DER UIS No. 510018

July 16, 2025

EXHIBIT A: NATURE AND EXTENT OF CONTAMINATION

This section describes the findings of the RCRA Facility Investigations for all environmental media that were evaluated. As described in **Section 5** of the SB, samples were collected from various environmental media to characterize the nature and extent of impacts at the Facility.

A.1 SWMU(s)/AOC(s)

As described in the CMS Report, SWMUs and AOCs were identified at the Facility and are/were potentially impacting groundwater, soil, and/or soil vapor.

A SWMU includes any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of hazardous or solid wastes. Such units include any area at the Facility where solid wastes have been routinely and systematically released. An AOC is an area at the Facility, or an off-site area, which is not at the time known to be SWMU, where hazardous wastes and/or constituents are present or are suspected to be present as a result of a release from the Facility. Solid wastes are defined in 6 NYCRR Part 371.1(c) and hazardous wastes are defined in 6 NYCRR Part 371.1(d).

A total of 30 SWMUs[3] and 11 AOCs have been identified at the Facility. The NYSDEC was notified of the presence of the 36 SWMUs/AOCs per the requirements of the Part 373 permit in July 2006 and one additional SWMU in 2013. Per discussions with NYSDEC, off-site groundwater has been identified as AOC-11 in 2023. The locations of the majority of the SWMUs and AOCs (including those SWMUs and AOCs where no further action has been achieved as a result of previous investigation activities) are depicted on **Figure 2-1** of the CMS Report (see **Exhibit F**).

The status of SWMUs/AOCs are provided to NYSDEC on or about March 4 of each calendar year per the requirements of the Part 373 permit. To date, No Further Action status has been approved for 27 SWMUs and 9 AOCs by NYSDEC. A total of 3 SWMUs and 2 AOCs remain with an active status to continue with remedial activities. The table summarizing the status of SWMUs/AOCs that was provided in the report dated March 4, 2024 is appended to this exhibit. Additionally, a listing of the SWMUs/AOCs and their status is also contained in Table 1 of the SWMU/AOC Current Conditions Report included in Attachment K of the Part 373 Permit. SWMU-7D will be addressed in the remedy selection process (see **Exhibit E**).

A.2 Groundwater

Routine groundwater monitoring is currently conducted annually at the Facility. Impacts are present in two areas:

- Carbon tetrachloride and associated daughter products have been identified off-site in the vicinity of the intersection of Maple Street and Academy Street immediately southeast of the Facility. The source and release mechanism for this area is not known, however, it is suspected to be associated with former sewer systems and/or preferential pathways along utility corridors.

- Trichloroethene and associated daughter products as well as 1,2-dichloroethane have been identified on-site associated with SWMU-7D. The release mechanism is believed to be associated

[3] Including the four subparts of SWMU-7.

with a historical process piping and subsequent shallow migration under former Buildings 18 and 27.

Detected Constituents	Concentration Range Detected (ppb)[a,b]	SCG[c] (ppb)	Frequency Above SCG [b]
VOCs			
Benzene	1.3	1	1 of 39
Carbon tetrachloride	0.36 – 3,200	5	3 of 39
Chloroform	0.44 – 570	7	2 of 39
1,2-dichloroethane	1 – 840	0.6	9 of 39
Methyl-tert-butyl ether (MTBE)	0.42 – 1.9	10	0 of 39
cis-1,2-dichloroethene	3 – 9,700	5	8 of 39
trans-1,2-dichloroethene	1.2 – 8.7	5	2 of 39
Trichloroethene	0.49 – 41,000	5	5 of 39
Vinyl chloride	13 – 17	2	2 of 39

a. ppb: parts per billion, which is equivalent to micrograms per liter, µg/L, in water.
b. based on the results from the 37 monitoring wells from 2022 groundwater monitoring event.
c. SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGS 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

VOCs have been reported as detected in on-site and off-site groundwater monitoring wells screened in the upper till and lower till units, with higher overall constituent concentrations found in the lower till. Certain chlorinated VOCs (primarily carbon tetrachloride, trichloroethene, 1,2-dichloroethane, and cis-1,2-dichloroethene) were reported as detected at concentrations above NYSDEC groundwater quality standards primarily around the Facility and extending off-site to the east-southeast.

Based on the findings of the RFI and CMS, VOCs have been detected in groundwater. The COCs which will drive the remediation of groundwater to be addressed by the remedy selection process are primarily carbon tetrachloride, trichloroethene, 1,2-dichloroethane, and cis-1,2-dichloroethene.

A.3 Soil

COCs for soil at the Facility are considered to be primarily related to the historic operation of SWMUs and AOCs and include VOCs and PCBs as referenced in previously submitted reports. Several areas containing soil impacts have been addressed through the implementation of approved ICM programs (see **Section 6**) involving soil excavation, confirmation sampling, and groundwater monitoring. Except for SWMU-7D, the residual impacted soil is limited and isolated. **Figure 4-1** from the CMS is attached (see **Exhibit F**) to show the soil concentrations in SWMU-7D. Other detections above Unrestricted Use SCOs are presented on figures in Appendix F of the CMS.

Detected Constituents	Maximum Concentration Detected (ppm)[a]	Unrestricted SCO[b] (ppm)	Number of Samples Above Unrestricted SCO	Restricted - Commercial Use SCO [c] (ppm)	Number of Samples Above Commercial SCO
VOCs					
Acetone	1.1	0.05	6	500	0
Benzene	0.48	0.06	6	44	0
1,1-Dichloroethene	2	0.33	1	500	0
Methylene chloride	1.4	0.05	13	500	0
MTBE	6.2	0.93	2	500	0
Toluene	34	0.7	1	500	0
Vinyl chloride	0.16	0.02	3	13	0
1,2-dichloroethane	50	0.02	40	30	1
cis-1,2-dichloroethene	87	0.25	46	500	0
trans-1,2-dichloroethene	6.4	0.19	21	5000	0
Tetrachloroethene	1.9	1.3	1	150	0
Trichloroethene	660	0.47	93	200	3
PCBs					
Total PCBs	1.4	0.1	2	1	1

a. ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b. SCO: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c. SCO: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Commercial Use.

A.4 Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of soil or groundwater impacts was evaluated by the sampling of sub-slab soil vapor under structures, and indoor air inside structures. At this Facility, due to the presence of buildings in the impacted area, a full suite of samples were collected to evaluate whether soil vapor intrusion was occurring.

VOCs were detected in sub-slab vapor samples collected from three sampling events at the Main Plant from December 2008 to November 2009 and at the Chemical Development facility from January to March 2011. Several constituents (primarily trichloroethene and carbon tetrachloride) were detected at concentrations above one or more NYSDOH screening levels for sub-slab vapor, primarily located in the eastern portion of the Main Plant facility and in the southern and eastern portions of the Chemical Development facility. In general, low to non-detect concentrations of VOCs were found in indoor air samples. These samples were collected concurrently with collocated sub-slab vapor samples, which contained higher concentrations of VOCs. Based on the results of these investigations, no further investigation was proposed at the time

regarding soil vapor intrusion at the Main Plant or at the Chemical Development Plant. The Facility has since transitioned from a large manufacturing facility to a mostly open lot with three original buildings remaining, with the Chemical Development facility demolished in 2015 and most of the Main Plant buildings demolished in 2019.

Several vapor intrusion investigation activities including sub-slab soil vapor sampling, indoor air sampling, and outdoor air sampling were conducted in 2008, 2009, 2019, and 2020 in order to evaluate the potential for vapor intrusion into indoor air at several off-site locations. These investigations primarily focused on residential properties and a school to the east and southeast of the Facility, though the 2019 to 2020 investigation also included properties to the north and south of the Facility.

Based on the results of these investigation activities, measures to address sub-slab soil vapor were initiated at several off-site properties consisting of the installation of soil vapor mitigation systems in the form of SSDSs. The locations of properties currently containing mitigation systems, including the location of properties where no further action has been achieved in conjunction with the NYSDEC/NYSDOH, has not been shared as it contains private personal information. Any mitigation systems are managed according to the NYSDEC/NYSDOH approved OM&M Plan dated May 2009 (revised July 1, 2009 and March 15, 2010 or as revised).

Recent vapor intrusion investigation activities conducted in 2019 and 2020 provide additional clarity into the presence/absence of concentrations of COCs in soil vapor and appear to correlate with the concentrations of COCs detected in groundwater. The results of these investigation activities were summarized in the June 2020 Vapor Intrusion Investigation Sampling and Analysis Report and in the 2018-2019 Off-Site Soil Vapor Mitigation System OM&M Report, dated June 2020.

Based on the findings of the RFI and CMS, the presence of VOCs in groundwater has resulted in the presence of COCs in soil vapor. The COCs which will drive the mitigation of soil vapor to be addressed by the remedy selection process are trichloroethene and carbon tetrachloride.

EXHIBIT B: SUMMARY OF THE CLEANUP OBJECTIVES

The goal for the corrective measure program is to achieve unrestricted use of the Facility to the extent feasible. At a minimum, the corrective measure(s) shall eliminate or mitigate all significant threats to public health and the environment presented by the impacts identified at the Facility through the proper application of scientific and engineering principles.

The established cleanup objectives for this Facility are:

Constituents of Concern[a]	Soil Cleanup Objective[b] (in ppm)	Groundwater Cleanup Objective[c] (ppb)[d]
Volatile Organic Compounds		
Acetone	500	50
Benzene	44	1
Carbon tetrachloride	22	5
Chloroform	350	7
1,1-dichloroethene	500	5
1,2-dichloroethane	30	0.6
cis-1,2-dichloroethene	500	5
trans-1,2-dichloroethene	500	5
Methylene chloride	500	5
Methyl-tert-butyl ether (MTBE)	500	10
Tetrachloroethene	150	5
Toluene	500	5
Trichloroethene	200	5
Vinyl chloride	13	2
Polychlorinated biphenyls (PCBs)		
Polychlorinated biphenyls (PCBs)	1	0.09

a. Constituents of concern listed based on soil constituents of concern identified in CMS as PFAS is still being investigated their status as COC(s) are as yet undetermined.
b. Recommended Soil Cleanup Objectives - NYSDEC Restricted Use – Commercial; ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil.
c. NYS Groundwater Standards (6 NYCRR Part 700), Division of Water TOGS
d. ppb: parts per billion, which is equivalent to micrograms per liter, µg/L, in water.

EXHIBIT C: DESCRIPTION OF REMEDIAL ALTERNATIVES

The following alternatives were considered based on the cleanup objectives (see **Exhibit B**) to address the impacted media identified at the Facility as described in **Exhibit A**.

Soils: Based on current documentation and the goals of the Corrective Action program, to be protective of human health and the environment, options for remediation of soils were considered and developed, as presented below:

Alternative S1: Excavation and Off-site Disposal. Excavation would remove areas with soil concentrations above Commercial SCOs, from three areas totaling approximately 1,500 cubic yards. Excavation would extend to approximately 25 feet bgs in two locations and 20 feet bgs in one location. It is assumed that the top 10 feet of soil will be suitable for reuse on-site based on VOC concentrations. Conceptual remediation areas are depicted on CMS **Figure 6-1** (see **Exhibit F**).

The estimated capital cost for Alternative S1 is $1,990,000. The cost range based on a -30 to +50 percent range of accuracy is $1,400,000 to $3,000,000.

Alternative S2: In Situ Chemical Reduction Injections. In situ chemical reduction (ISCR) would target areas and depth intervals with soil concentrations above 50 percent of the Commercial SCOs. It is assumed 19 injection points over the three areas shown on CMS **Figure 6-2** (see **Exhibit F**) with target depths ranging from 10 to 24 feet bgs depending on the area.

The estimated capital cost for Alternative S2 is $1,200,000. The 30-year cost range based on a -30 to +50 percent of accuracy is $2,420,000 to $5,180,000.

Alternative S3: Soil Mixing with ISCR. Soil mixing would treat areas with soil concentrations above Commercial SCOs, from three areas totaling approximately 1,800 square feet. It is assumed that the top 10 feet of soil would be excavated and stockpiled on site to enable soil mixing and that this material would be suitable for reuse on-site for backfill. Soil mixing would extend to approximately 25 feet bgs in two locations and 20 feet bgs in one location. Conceptual remediation areas are the same as the excavation areas as shown on **Figure 6-1**.

The estimated capital cost for Alternative S3 is $1,300,000. The cost range based on a 30 to +50 percent of accuracy is $910,000 to $1,950,000.

The comparative analysis for soils is presented in Table 7-1 from the CMS Report.

Groundwater: Based on current documentation and the goals of the Corrective Action program, to be protective of human health and the environment, options for remediation of groundwater were considered and developed, as presented below:

Alternative GW1: Institutional Controls and Monitored Natural Attenuation. This alternative consists of institutional controls and monitored natural attenuation in groundwater. This alternative also includes potential implementation of a waiver based on technical impracticability and assessment of the overall environmental benefit of remediation. This alternative would pose a low environmental impact from remedial processes where no active remediation is needed. A groundwater monitoring plan would be developed to evaluate the continued effectiveness of the

natural processes. The cost estimate for this alternative is included in the recommended corrective action (Section 8.4).

Alternative GW2: In Situ Chemical Oxidation (ISCO). This alternative would include the introduction of an oxidizing chemical to react with and eliminate VOCs in groundwater. The chemical would be introduced to the subsurface by injection. This alternative has been previously completed on-site as part of an ICM. The chemical mixture for oxidation (oxidant and supporting chemistry) would need to consider overall environmental benefit of constituent removal verses chemical addition to the subsurface. This alternative is minimally invasive with chemicals applied in situ as a batch, has minimal site and community disturbance, would have minimal energy usage, and would have negligible waste generation, during application only. The cost estimate for this alternative is expected to be more than Alternative GW1.

Alternative GW3: Enhanced Biological Remediation. This alternative would include the introduction of reagents and/or chemical supplements below the water table to enhance natural biological degradation of VOCs in groundwater. The chemicals would be introduced to the subsurface by injection. This alternative would require pilot testing to confirm site-specific applicability. The chemical mixture for bioremediation would need to consider overall environmental benefit of constituent removal verses chemical addition to the subsurface. This alternative is minimally invasive with chemicals applied in-situ as a batch, has minimal site and community disturbance, would have minimal energy usage, and would have negligible waste generation, during application only. The cost estimate for this alternative is expected to be more than Alternative GW1.

The comparative analysis for groundwater is presented in Table 7-2 from the CMS Report.

EXHIBIT D: CORRECTIVE MEASURE ALTERNATIVE COSTS

Corrective Measure Alternative	Capital Cost ($) [a, b]	Annual Costs ($) [c]	Total Present Worth ($) [d]
Alternative S1: Excavation and Off-site Disposal	$1,990,000	$75,000 [e]	$3,150,000
Alternative S2: In Situ Chemical Reduction Injections	$1,200,000	$75,000 [e]	$3,450,000
Alternative S3: Soil Mixing with ISCR	$1,300,000	$75,000 [e]	$2,460,000
Alternative GW1: Institutional Controls and Monitored Natural Attenuation	NA	$75,000	$1,160,000

a. Capital costs for soil alternatives were based on conceptual designs that were developed based on areas of soil exceeding the Commercial SCOs for comparison purposes. The cost for the proposed final remedy (Exhibit E), and as shown herein for Alternative S2, addresses the areas of soil exceeding 50 percent of the Commercial SCOs.
b. Capital costs for the Alternative GW1 were included in the soil alternatives.
c. Annual costs include long-term groundwater monitoring and operation of the vapor mitigations systems.
d. Present Worth was calculated by adding the capital cost to the present worth of the annual costs computed for the expected duration of the operation of the remedy (30 years) using a 5% interest rate.
e. Cost included for Alternative GW1 to allow for calculation of present worth for the soil alternatives.

EXHIBIT E: SUMMARY OF THE PROPOSED FINAL CORRECTIVE MEASURE(S)

The Department is proposing Alternative S2, ISCR Injections and Alternative GW1, institutional controls and monitored natural attenuation as the final corrective measure(s) SWMU-7D and AOC-11 at this Facility, with continued operation of the off-site vapor mitigation systems as well as that an evaluation for if performing remediation or additional ISCO events is warranted for AOC-11. The elements of this alternative are described in **Section 8**.

Basis for Selection

The proposed final corrective measures are based on the results of the RFI, CMS and the evaluation of alternatives.

Soils

The recommended remedial alternative for soil is Alternative S2, ISCR Injections. A conceptual design (**Figure 8-1**, see **Exhibit F**) is attached to this exhibit. The primary reasons for selecting this approach include:

- Most cost-effective remedial alternative that will still achieve corrective action objectives;
- Enhances natural attenuation processes and reduces overall time to cleanup criteria at the Facility; and
- Remedial alternative that most aligns with EPAs Green and Sustainable Remediation goals.

Groundwater

The recommended remedial alternative for groundwater is Alternative GW1, institutional controls and monitored natural attenuation. The ISCR injections to treat soil in the SWMU-7D area are expected to create reducing geochemical conditions in the aquifer that will enhance the processes involved with natural attenuation of VOC mass in the groundwater; therefore, monitored natural attenuation was selected as the groundwater alternative. Remediation via ISCO (Alternative GW2) in areas that are not attenuating in a reasonable timeframe will be considered in the future to facilitate cessation of the need for vapor mitigation systems based on evaluation criteria that will be specified in the groundwater monitoring plan.

The primary reasons for selecting these alternatives are discussed below.

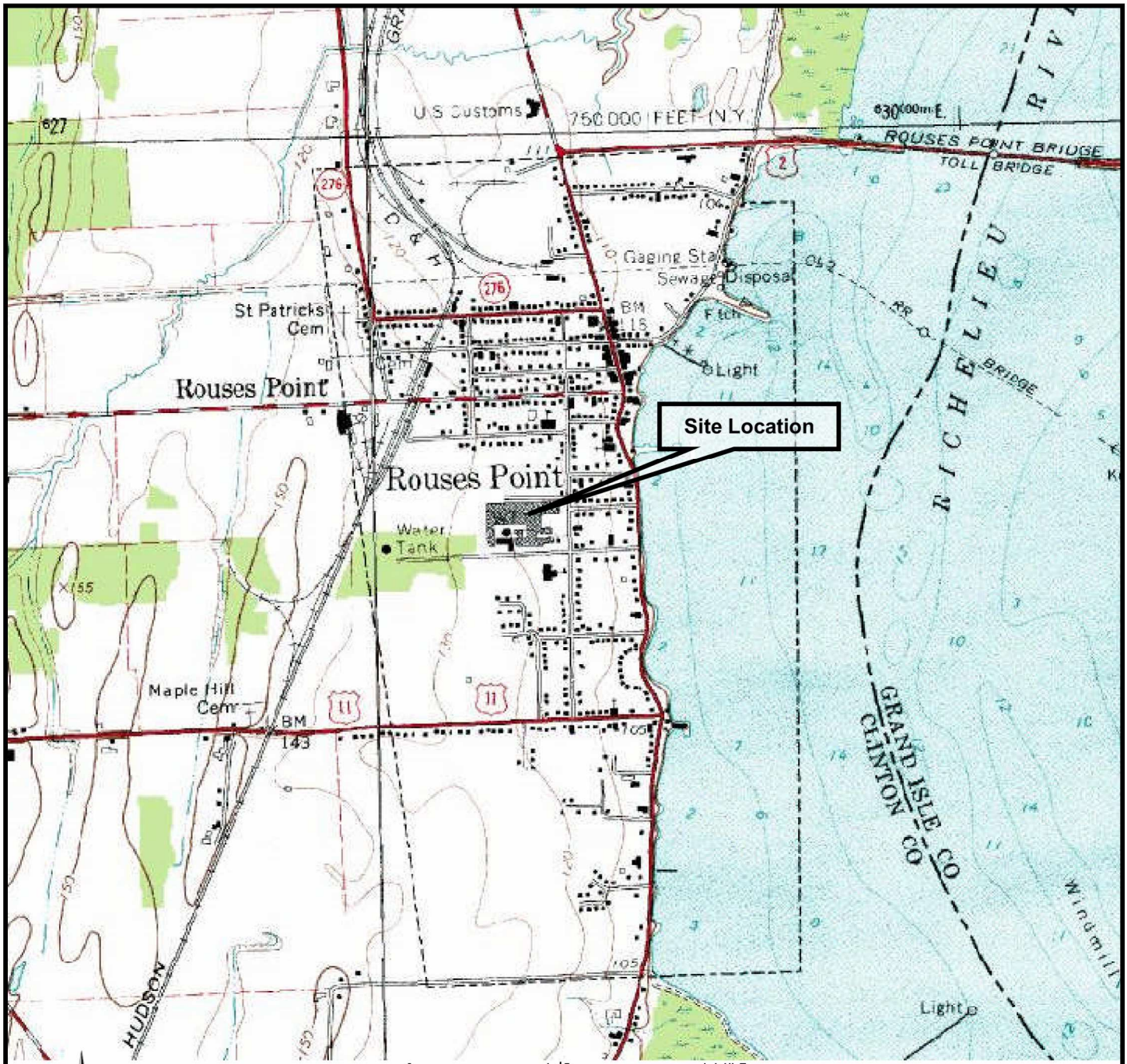
- Groundwater at the Facility and at off-site locations is not used for drinking water or other potable uses;
- The groundwater to soil vapor intrusion pathway has been and will continue to be evaluated and mitigated as necessary at off-site locations as described in the CMS Report;
- The screening level ecological risk assessment has demonstrated that the concentrations of constituents detected in the downgradient wells are not expected to present a potential for adverse effects to the aquatic resources of Lake Champlain/Richelieu River; and
- On-going monitoring has demonstrated that concentrations of carbon tetrachloride (addressed under an ICM) in groundwater have remained steady and downgradient concentrations have remained stable or have been reduced by the ICM and active natural attenuation mechanisms present at the Facility.

Soil Vapor

The potential for VOCs to migrate from the subsurface to indoor air of on-site buildings via soil vapor intrusion will be evaluated if new buildings are constructed on the Facility. Sub-slab depressurization systems may be installed on newly constructed buildings should soil vapor intrusion evaluation/sampling indicate that mitigation is warranted.

Operation of off-site soil vapor mitigation systems will continue until such time as they are no longer required following consultation with NYSDOH and NYSDEC. Routine inspections and maintenance activities will be conducted as specified in the Operations, Maintenance & Monitoring (OM&M) Plan for the off-site soil vapor mitigation systems.

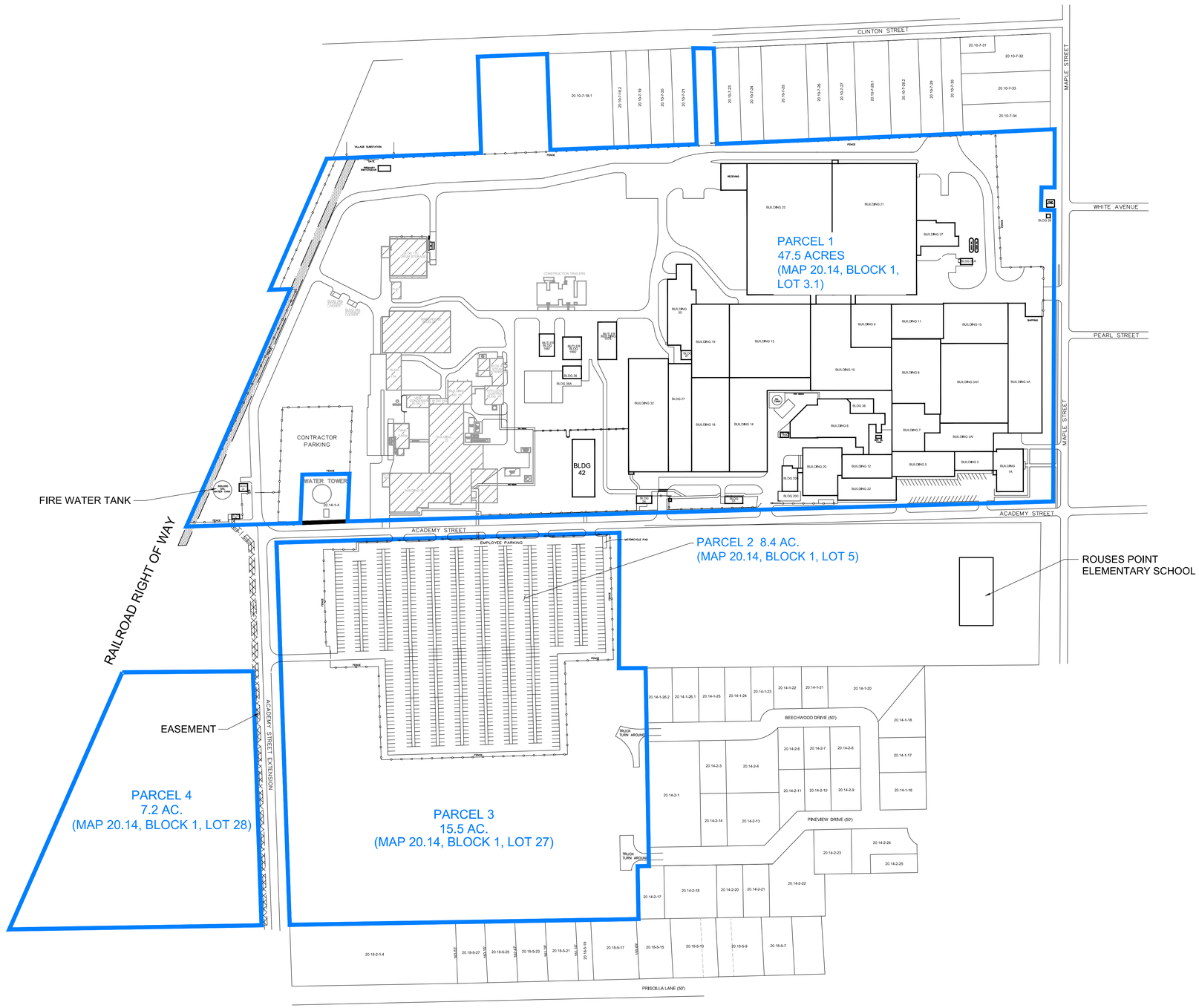
EXHIBIT F: FIGURES



QUADRANGLE LOCATION

Figure 1-1 SITE LOCATION MAP
Wyeth Pharmaceuticals LLC
Rouses Point, NY

Woodard & Curran
COMMITMENT & INTEGRITY DRIVE RESULTS



Woodard & Curran Engineering PA PC
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Rye Brook, New York 10573
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Woodard & Curran COMMITMENT & INTEGRITY DRIVE RESULTS

REV.	DESCRIPTION	DATE
TBD	TBD	TBD

DESIGNED BY: GR
DRAWN BY: PF
CHECKED BY: AP
206910_U2 2.dwg

SITE BOUNDARY MAP

WYETH LLC
ROUSES POINT, NEW YORK

STATEMENT OF BASIS

JOB NO.: 206910.00
DATE: MARCH 2018
SCALE: AS NOTED
SHEET: OF

FIGURE 2

LEGEND

- APPROXIMATE SITE BOUNDARIES
- AOC-7 NO FURTHER ACTION STATUS APPROVED
- SWMU-7D SWMU/AOC

SOLID WASTE MANAGEMENT UNITS (SWMUs)

SWMU-1	INTERIM DRUM STORAGE AREA
SWMU-2	BUILDING 20A ACCUMULATION AREA
SWMU-3	BUILDING 20 ACCUMULATION AREA
SWMU-4	FORMER CONTAINER STORAGE AREA
SWMU-5	CONTAINER STORAGE AREA
SWMU-6	TANK FARM
SWMU-7	PROCESS SEWER
SWMU-8	WASTE NEUTRALIZATION USTs
SWMU-9	LABORATORY WASTE MANAGEMENT AREA
SWMU-10	NORTH FIELD
SWMU-11	SUMPS AND CATCHMENTS IN SOLVENT USE AREAS (MULTIPLE LOCATIONS)
SWMU-12	BUILDING 16 FORMER DRYWELL
SWMU-13	BUILDING 16 FORMER SANITARY SEWER HOLDING TANKS
SWMU-14	WASTE TOLUENE MANAGEMENT EAST OF TANK FARM
SWMU-15	BUILDING 24 WASTEWATER TREATMENT PLANT
SWMU-16	FORMER FIRE FIGHTING TRAINING AREAS 3 AND 4
SWMU-17	BUILDING 40 WASTEWATER STEAM STRIPPER BUILDING
SWMU-18	BUILDING 41 PROCESS WASTEWATER AST
SWMU-19	PROCESS EQUIPMENT SOLVENT RECOVERY UNITS (MULTIPLE LOCATIONS)
SWMU-20	PROCESS DUST COLLECTION DRUM-OUTS (MULTIPLE LOCATIONS)
SWMU-21	BUILDING 25 ACTIVE PHARMACEUTICAL INGREDIENT WASTE STORAGE AREA
SWMU-22	BUILDING 20 COURT YARD WASTE OIL STORAGE SHED
SWMU-23	BUILDING 16 FORMER WASTE STORAGE AREA IN NORTHWEST CORNER
SWMU-24	BUILDING 31 SOLVENT CONDENSATE SYSTEM
SWMU-25	BUILDING 11 INACTIVE SPRAY PAINT BOOTH
SWMU-26	CHEMICAL DEVELOPMENT REACTOR BAY DRUMMING AREAS (MULTIPLE LOCATIONS)

AREAS OF CONCERN (AOCs)

AOC-1	FORMER PCB-CONTAINING TRANSFORMER, STAINING ON CONCRETE PAD
AOC-2	STAINED SOIL NEAR CONTRACTOR AST
AOC-3	PETROLEUM STAINED SOIL – BUILDING 6 FORMER 30,000 GALLON UST
AOC-4	PETROLEUM AST WITHOUT BASE CONTAINMENT – BUILDING 6
AOC-5	ETHYLENE DICHLORIDE RELEASE NEAR BUILDING 23 LOADING DOCK
AOC-6	PETROLEUM AND DICHLOROMETHANE RELEASE FROM BUILDING 25 LOADING DOCK
AOC-7	NO. 6 FUEL OIL RELEASES TO CONCRETE TRENCH NORTH OF BUILDING 6
AOC-8	RELEASE OF ACETONITRILE TO THE CONCRETE AT CHEMICAL DEVELOPMENT
AOC-9	BUILDING 34 LOADING DOCK MIXED ALCOHOL WASTE RELEASE
AOC-10	BUILDING 23 THERMINOL RELEASE TO SOIL
AOC-11	OFFSITE GROUNDWATER

BAR SCALE
1" = 100'
100' 0 100' 200'
CHECK GRAPHIC SCALE BEFORE USING

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Woodard & Curran
COMMITMENT & INTEGRITY DRIVE RESULTS

REV	DESCRIPTION	DESIGNED BY: JE	DRAWN BY: SH	CHECKED BY: DW	DATE
				Fig. 2-1.dwg	

SWMU AND AOC LOCATIONS AND STATUS

WYETH PHARMACEUTICALS LLC
ROUSES POINT, NEW YORK

CORRECTIVE MEASURES STUDY

JOB NO.: 206910
DATE: NOVEMBER 2024
SCALE: AS NOTED
SHEET: OF

FIGURE 2-1

C:\Users\vbautos\appdata\local\temp\AcPublish_12296\Fig. 2-1.dwg, Oct 31, 2024 - 7:16pm

TCE-SB11	
Depth	TCE
5	1.7J
8	< 4.9
9	< 4.1
14	< 4.4
17	< 4.3
21	< 4.3

19-2704-1-01	
Depth	TCE
1.5-2'	< 4.7

7-2701-1-02	
Depth	TCE
4-5'	12

TCE-SB03	
Depth	TCE
7	6600
11	< 92
15	110000
19	75000
22	110000

7-2701-1-03	
Depth	TCE
4-5'	< 5.1
0.0	< 4.9

11-2705-1-01	
Depth	TCE
9.5'	< 4.9

TCE-SB10	
Depth	TCE
8	< 4.3
12	< 4.3
18	< 4.4
22	53000

11-1801C-01	
Depth	TCE
6-7'	< 5.1

19-1801C-01	
Depth	TCE
1.5-2'	< 5.2

7-1801C-01	
Depth	TCE
4'	5.6 UJ

TCE-SB09	
Depth	TCE
5	< 5.0
5	< 4.4
8	< 4.2
12	< 4.6
14	< 4.4
22	94J

TCE-SB02	
Depth	TCE
7	1800
11	1.0J
14	50000
16	120000
16 DUP	110000
19	230000
23	3.9J

7-1801-1-09	
Depth	TCE
1	4.7J
7	2300
13	2800
15	67000
21	170000
23	12000

7-2701-1-01	
Depth	TCE
4.5-5'	51

TCE-SB04	
Depth	TCE
5	5700
10	4700
10	91000
18	1100
21	71000

7-2701-1-04	
Depth	TCE
3-4'	3.5 J

7-2702-1-03	
Depth	TCE
4	130
8 DUP	120
8	3500
12	47000
16	3700

7-2702-1-01	
Depth	TCE
3-4'	2000

7-2702-1-07	
Depth	TCE
3	120
10	69000
23	18000

TCE-SB12	
Depth	TCE
5	2800
8	8100
9	24000
10	35000
11	12000
11	7700
16	< 4.7
18	< 5.0
23	< 4.1

7-2702-1-06	
Depth	TCE
5	3.9J

7-2702-1-05	
Depth	TCE
4	6100
9	150000
10	79000
18	110000
23	660000

7-2702-1-08B	
Depth	TCE
5	6400
7	30000

7-2702-1-08A	
Depth	TCE
4	1300
6	110000
12	220000
14	110000E
18	183000E
25	188000

TCE-SB13	
Depth	TCE
4	65000
6	65000
9	56000
10	52000
12	2.3J
16	2400
18	< 4.9
21	< 5.6

TCE-SB05	
Depth	TCE
6	36000
6	33000
8	44000
9	37000
10	37000
12	< 2100
15	110000
19	150000
23	190000

TCE-SB01	
Depth	TCE
7	650
9	60000
12	69000
17	63000
21	56000

TCE-SB06	
Depth	TCE
9	3600
12	510
18	150000
20	50000
23	640

TCE-SB14	
Depth	TCE
7	< 4.5
9	< 4.5
13	31000
15	31000
18	< 7.1

7-1801-1-08	
Depth	TCE
2	1200
9	45000
9 DUP	50000
12	80000
19	30000
22	57000
24	21000

7-1801-1-07	
Depth	TCE
5	300
8	28000
11	30000
19	< 4.1
23	< 1800

TCE-SB07	
Depth	TCE
4	< 4.3
9	< 4.1
12	< 4.5
17	< 4.1
21	< 4.3

7-1801-1-01	
Depth	TCE
5'	1100
6'	1400

7-1801-1-03	
Depth	TCE
5	760
8	12000
17	< 4.1
19	< 4.5
21	< 4.8
23	< 4.8

7-1801-1-10	
Depth	TCE
3	73
7	82
15	68000

7-1801-1-04	
Depth	TCE
1	280
8	40000
8	40000

TCE-SB08	
Depth	TCE
5	< 4.3
9	< 4.5
11	< 61
14	45J
21	1600

7-1801-1-02	
Depth	TCE
2'	740
4.5'	720
6.5'	4200

7-1801-1-11	
Depth	TCE
3	1.0J
12	8400

7-1801-1-05	
Depth	TCE
2	160
7	14000
14	56000E

7-1801-1-06B	
Depth	TCE
1	1.3J

7-1801-1-06A	
Depth	TCE
5	20
9	< 4.9
17	< 4.3
17 DUP	< 4.2
22	< 5.2

TCE-SB15	
Depth	TCE
5	< 4.3
8	< 4.6
12	< 4.5
17	< 4.5
21	150

-11 -10 -09 -12 -01 -08 -05 -06 -07 -13 -14 -15 -04 -03 -02

19-2704-1-01 (1.5-2')
RM 2704-1
RM 2705-1
SWMU-11 PAL-4 SUMP (PUMPED TO BLDG. 41)
11-2705-1-01 (9.5')
FD (DOES NOT DRAIN TO SUMP)
7-2701-1-03 (4-5')
2701-1-CO-2 (LEAK DETECTION SYSTEM)
7-2701-1-01 (4.5-5')
7-2701-1-02 (4-5')
2701-1-CO-1 (LEAK DETECTION SYSTEM)
RM 2703-1
BUILDING 27
RM 2701-1
RM 2702-1
7-2702-1-03
7-2702-1-04 (3-4')
7-2702-1-07
2702-1-CO-1 (LEAK DETECTION SYSTEM)
7-2702-1-01 (3-4')
7-2702-1-02
7-2702-1-04
2701-1-CO-3 (LEAK DETECTION SYSTEM)
7-2702-1-06
7-2702-1-05
MW-40S
7-2702-1-8B
7-2702-1-8A
MW-40
11-1801C-01 (6-7')
RM 1801C-1
GLYCOL SPILL AREA
SWMU-11 GLATT-1 SUMP PUMPED TO BLDG. 41)
1801C-1-TR-1
19-1801C-01 (1.5-2')
RM 1801D-1
FD (DOES NOT DRAIN TO SUMP)
RM 1801B-1
7-1801C-01 (4')
RM 1801E-1
7-1801-1-09
BUILDING 18
RM 1803-1
7-1801-1-01 (5')
7-1801-1-01 (6')
7-1801-1-03
7-1801-1-08
7-1801-1-10
RM 1804A-1
7-1801-1-04
7-1801-1-02 (2')
7-1801-1-02 (4.5')
7-1801-1-02 (6.5')
7-1801-1-05
7-1801-1-11
RM 1801-1
RM 1804-1
7-1801-1-06A
7-1801-1-06B

BUILDING 18 AND 27 INVESTIGATION AREA

KEY MAP

LEGEND

- 2018 MAIN PLANT SWMU INVESTIGATION SOIL BORING
- 2019 SUPPLEMENTAL INVESTIGATION SOIL BORING
- 2020 SUPPLEMENTAL INVESTIGATION SOIL BORING
- AREA OF CONCERN (AOC) SWMU 7 AREA

Exceeds NYSDEC Unrestricted Use Soil Cleanup Objectives (6 NYCRR Part 375-6.8(a)) and Exceeds NYSDEC Protection of Groundwater Objectives (6 NYCRR Part 375-6.8(b))
Exceeds NYSDEC Restricted Use Soil Cleanup Objectives - Residential (6 NYCRR Part 375-6.8(b))
Exceeds NYSDEC Restricted Use Soil Cleanup Objectives - Commercial (6 NYCRR Part 375-6.8(b))

0 6' 12'
SCALE IN FEET

STATEMENT OF BASIS, Wyeth Pharmaceuticals, LLC
DER Site No.: 510018, USEPA RCRA ID No.: NYD002081396

Woodard & Curran Engineering PA PC
800 Westchester Avenue, Suite N507
Rye Brook, New York 10573
800.807.4080 | www.woodardcurran.com

REV	DESCRIPTION	DATE

DESIGNED BY: GR
DRAWN BY: MRM
CHECKED BY: ZS
FIGURE_6_&BLDG 18_27 T7.dwg

BUILDING 18 AND 27 AREA
TCE CONCENTRATIONS

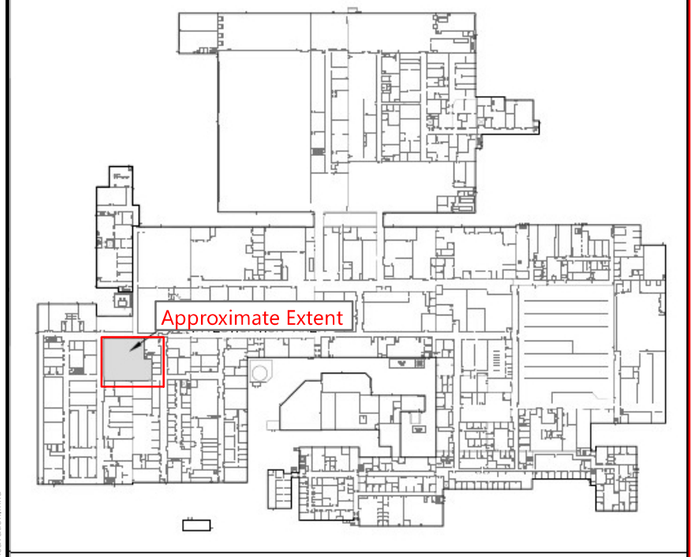
WYETH PHARMACEUTICALS LLC
ROUSES POINT, NEW YORK

MAIN PLANT SWMU 2020
SUPPLEMENTAL INVESTIGATION

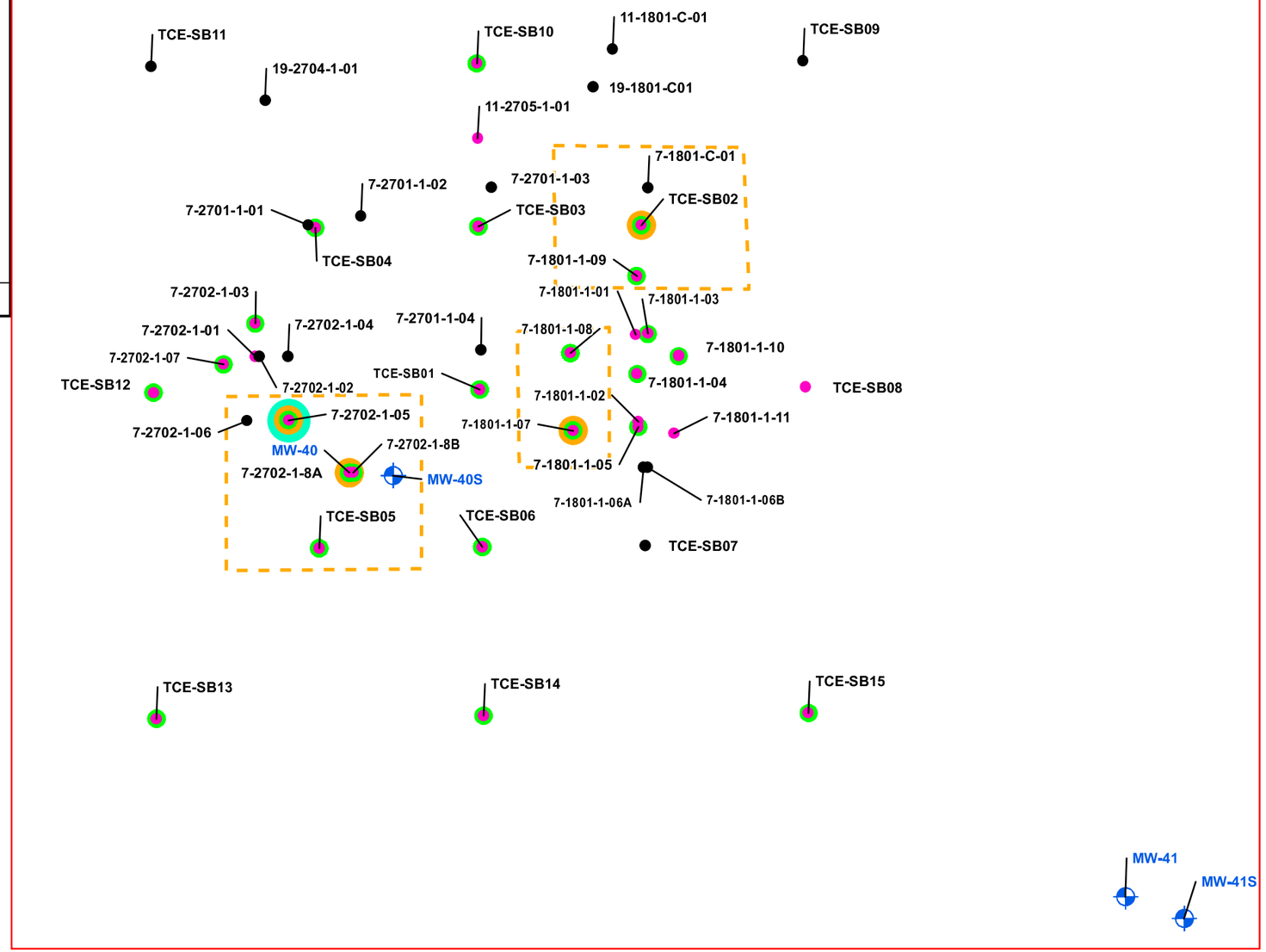
JOB NO: 206910.23
DATE: NOVEMBER 2020
SCALE: 1" = 6'
SHEET: 1 OF 1

FIGURE 4-1

\\woodardcurran.net\shared\Projects\206910 Wyeth Rouses Point - Environmental Site Assess\wip\RCRA\Main Plant SWMU SAP\B18_27 Supplemental Work\Figures\CAD\FIGURE 3-BLDG 18_27 TCE Areas.dwg, Nov 03, 2020 - 8:29pm PFILLMORE



KEY MAP



Conceptual Plan for Alternative S1 Excavation and Disposal

Former Buildings 18 and 27
Wyeth
Rouses Point, NY

Figure 6-1

N

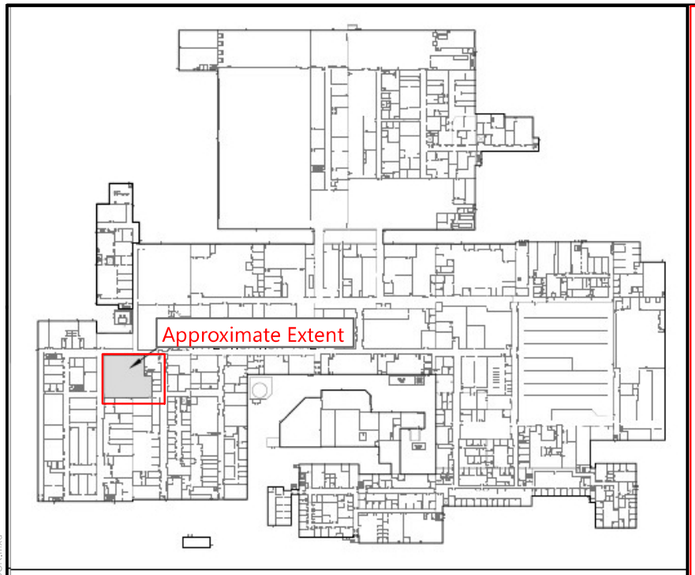
- Approximate Excavation Area
- Soil Borings with No Concentrations Above Unrestricted Use Standards
- Soil Borings with Concentrations Above Unrestricted Use Standards
- Soil Concentration Above Residential and Restricted Residential Standards
- Soil Concentration Above Restricted Use Commercial Standards
- Soil Concentration Above Restricted Use Industrial Standards
- Monitoring Well

0 10 20 Feet

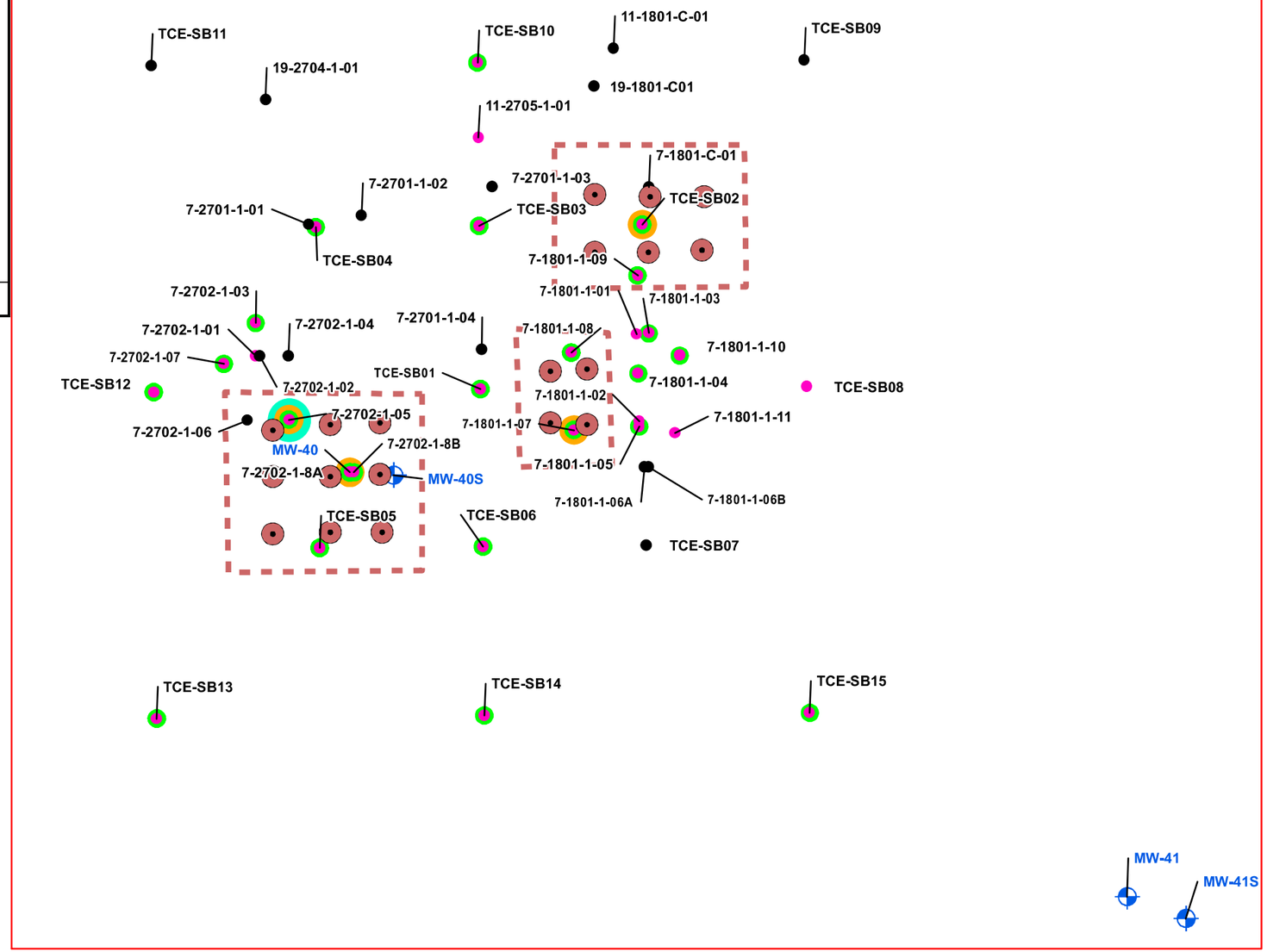
Woodard & Curran

Project #: 206910
Map Created: September 2022

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. Data Sources: ESRI



KEY MAP



Conceptual Plan for Alternative S2 - In Situ Chemical Reduction

Former Buildings 18 and 27
Wyeth
Rouses Point, NY

Figure 6-2

N

- Proposed Injection Location
- Approximate Injection Areas
- Soil Borings with No Concentrations Above Unrestricted Use Standards
- Soil Borings with Concentrations Above Unrestricted Use Standards
- Soil Concentration Above Residential and Restricted Residential Standards
- Soil Concentration Above Restricted Use Commercial Standards
- Soil Concentration Above Restricted Use Industrial Standards
- Monitoring Well

0 10 20 Feet

Woodard & Curran

Project #: 206910
Map Created: September 2022

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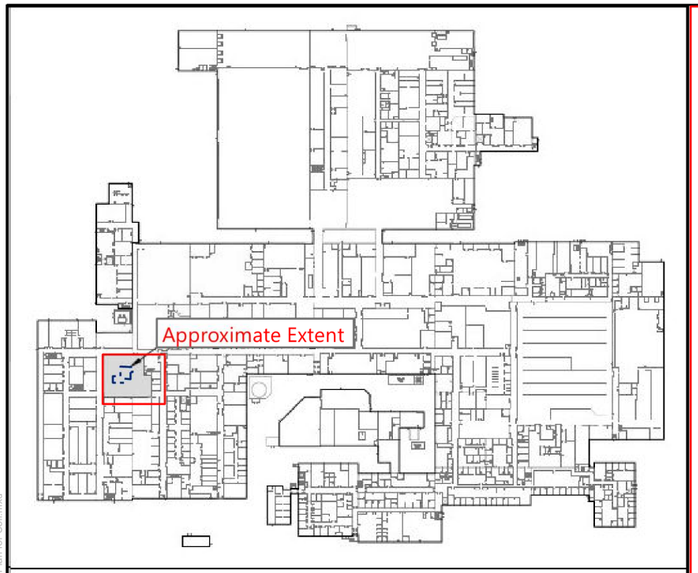
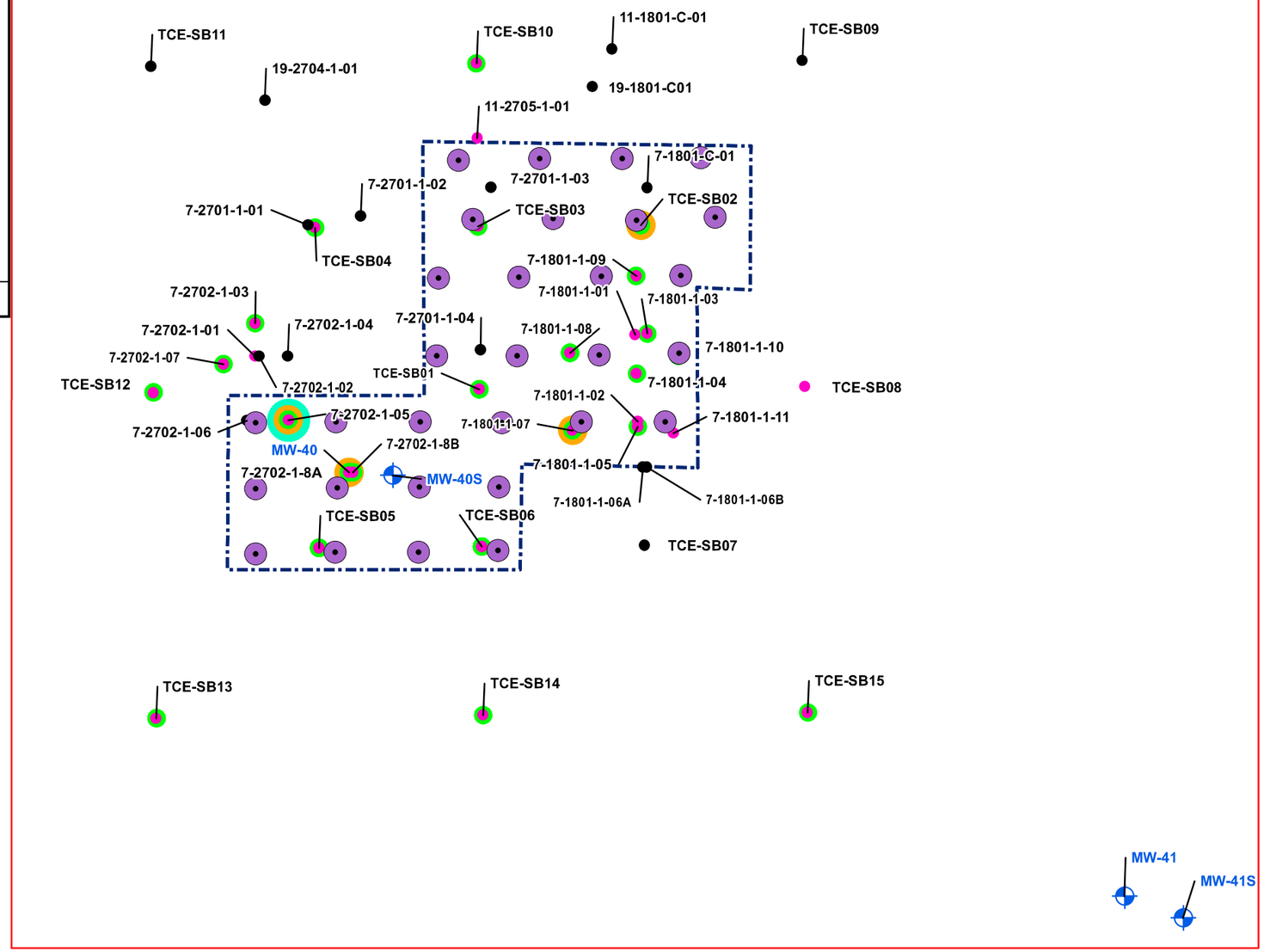
Figure Exported: 9/21/2022 By: nkelsall\cas Using: \\woodardcurran.net\shared\Projects\206910 Wyeth Rouses Point - Environmental Site Assess\wip\GIS\Project Files\2021.09 TCE Area FS\Figure 6-2 Alt S2 ISCR.mxd



KEY MAP



Conceptual Plan for Soil Recommended Corrective Measure

Former Buildings 18 and 27
Wyeth
Rouses Point, NY

Figure 8-1

N

- Approximate Treatment Area
- Proposed Injection Location
- Soil Borings with No Concentrations Above Unrestricted Use Standards
- Soil Borings with Concentrations Above Unrestricted Use Standards
- Soil Concentration Above Residential and Restricted Residential Standards
- Soil Concentration Above Restricted Use Commercial Standards
- Soil Concentration Above Restricted Use Industrial Standards
- Monitoring Well

0 10 20 Feet

Woodard & Curran

Project #: 206910
Map Created: February 2024

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Figure Exported: 2/14/2024 By: kfarrbek Using: \\woodardcurran.net\shared\Projects\206910 Wyeth Rouses Point - Environmental Site Assess\wip\GIS\Project Files\2021.09 TCE Area FS\Figure 8-1 Conceptual Plan for Soil.mxd

APPENDIX A: ADMINISTRATIVE RECORD

Administrative Record

Wyeth Pharmaceuticals Inc. Rouses Point
64 Maple Street, Rouses Point, Clinton County
EPA ID No. NYD002081396

July 16, 2025

Reference Number	Title	Document Date	NYSDEC Response
Reference 1 - Identification and Initial Investigation of SWMUs/AOCs			
1A	Final SWMU/AOC Notification; Wyeth Pharmaceuticals	7/21/2006	
1B	Solid Waste Management Unit (SWMU) and Area of Concern (AOC) Assessment Report; Woodard & Curran (W&C)	9/1/2006	NYSDEC comments dated 9/26/2006 Response to Comments submitted to NYSDEC dated 10/9/2006 NYSDEC Approval Letter dated 10/17/2006
1C	Solid Waste Management Unit (SWMU) & Area of Concern (AOC) Sampling and Analysis Report; W&C [Includes Appendix A: Engineering Evaluation Workplan]	4/5/2007	Sampling and Analysis Report: NYSDEC comments dated 5/8/2007 Response to Comments and Revisions submitted to NYSDEC dated 6/29/2007 NYSDEC Approval Letter dated 7/17/2007 Engineering Evaluation Workplan: NYSDEC Approval Letter dated 5/8/2007
1D	Engineering Evaluation of Select Solid Waste Management Units (SWMUs) Report; W&C	3/12/2010	NYSDEC Approval Letter dated 4/27/2010
Reference 2 - SWMU-10 Interim Corrective Measure			
2A	Interim Corrective Measure Workplan, SWMU-10; W&C	6/15/2007	NYSDEC Approval Letter dated 7/17/2007
2B	Interim Corrective Measure Completion Report, SWMU-10; W&C	3/19/2010 Rev 1 - 4/29/2010	NYSDEC Approval Letter dated 5/12/2010
Reference 3 - Supplemental Investigation			
3A	Supplemental Sampling & Analysis Plan (SAP); W&C	6/29/2007	NYSDEC Approval Letter dated 7/17/2007
3B	Supplemental Sampling & Analysis Plan (SAP) Addendum 1; W&C	9/27/2007	Verbal Approval 10/2007; field overview 10/18/07
3C	Supplemental Sampling & Analysis Plan (SAP) Addendum 2; W&C	9/2/2008	NYSDEC Approval Letter dated 9/16/2008
3D	Supplemental Sampling and Analysis Plan Addendum No.3; W&C	6/21/2010	NYSDEC Approval Letter dated 6/24/2010
3E	Supplemental Sampling & Analysis Report (SAR); W&C	6/25/2010 Rev 1 - 9/10/2010	NYSDEC Comment Letter dated 7/30/2010

Reference Number	Title	Document Date	NYSDEC Response
Reference 4 - SWMU-7 and SWMU-14 Interim Corrective Measure			
4A	Interim Corrective Measure (ICM) Workplan, SWMU-7 Process Sewer (Chem D) & SWMU-14 Waste Toluene Management Area; W&C;	6/13/2008	NYSDEC Conditional Approval Letter dated 6/9/2008
4B	ICM Workplan Addendum No. 1, SWMU-7 Process Sewer (Chem D); W&C	5/28/2009	NYSDEC Approval Letter dated 6/2/2009
4C	ICM Workplan Addendum No.2, SWMU-7 Process Sewer (Chem D); W&C	8/21/2009	NYSDEC Approval Letter dated 8/24/2009
4D	ICM Completion Report, SWMU-7 Process Sewer, North and West Sides (Chem D); W&C	5/14/2010	NYSDEC Approval Letter dated 6/3/2010
4E	ICM Completion Report, SWMU-14 Waste Toluene Management East of Tank Farm; W&C	5/21/2010	NYSDEC Approval Letter dated 6/17/2010
Reference 5 - Permit 5-0928-00017/00175 Documents			
5A	6 NYCRR Part 373 Permit, DEC Permit Number 5-0928-00017/00175	3/4/2009	Final permit issued by NYSDEC on 3/4/2009
5B	Minor Permit Modification Application, 6 NYCRR Part 373 Permit, DEC Permit No. 5-0928-00017/00175	6/29/2009	Permit modification issued by NYSDEC on 6/30/2009
5C	Request for Minor Permit Modification of Hazardous Waste Management Permit No. 5-0928-00017/00175; Wyeth	8/1/2011	NYSDEC Approval Letter dated 12/27/2011
5D	Request for Minor Permit Modification of Hazardous Waste Management Permit No. 5-0928-00017/00175; Wyeth	11/22/2011	NYSDEC Approval Letter dated 12/27/2011
5E	Request for Major Permit Modification for Corrective Measures; Wyeth	2/8/2013	NYSDEC Response dated 3/29/2013
5F	Request for Minor Modification for Permit #5-0928-00017/00175 to update Table 1 in Attachment XI to include <90 day storage area; Wyeth	12/17/2013	
5G	Request for Minor Permit Modification of Hazardous Waste Management Permit No. 5-0928-00017/00175; Wyeth	2/13/2014	NYSDEC Approval Letter dated 2/14/2014
5H	Request for Minor Permit Modification of Hazardous Waste Management Permit No. 5-0928-00017/00175; Wyeth	8/4/2014	NYSDEC Approval Letter dated 10/3/2014
Reference 6 - 2008-2009 Off-Site Vapor Intrusion Investigation			
6A	Vapor Intrusion Investigation Workplan; W&C	2/8/2008	NYSDEC Approval Letter dated 2/15/2008 Response to Comments submitted to NYSDEC 2/20/2008
6B	Vapor Intrusion Investigation Workplan, Addendum No.1; W&C	8/19/2008	NYSDEC Approval Letter dated 8/21/2008
6C	Vapor Intrusion Investigation Work Plan Addendum No.2; W&C	12/10/2008	NYSDEC Approval Letter dated 12/30/2008
6D	Vapor Intrusion Investigation Work Plan Addendum No.3; W&C	5/20/2009	NYSDEC Approval Letter dated 5/29/2009

Reference Number	Title	Document Date	NYSDEC Response
Reference 7 - Off-Site Soil Vapor Mitigation System Completion Reports			
7A	Off-Site Soil Vapor Mitigation System Completion Report; W&C	May 2009	NYSDEC Comment Email dated 6/22/2009 Response to Comments Email submitted to NYSDEC submitted 7/27/2009
7B	Off-Site Soil Vapor Mitigation System Completion Report No.2; W&C	4/20/2010	
7C	Off-Site Soil Vapor Mitigation System Completion Report No.3; W&C	8/1/2017	
Reference 8 - Off-Site Soil Vapor Mitigation System OM&M Reports			
8A	Off-Site Soil Vapor Mitigation System Operations, Maintenance & Monitoring (OM&M) Plan; W&C	May 2009 Rev 1 - July 2009 Rev 2 - 3/15/2010	NYSDEC Comment Letter dated 3/3/2009 NYSDEC Approval Letter dated 6/26/2009 NYSDEC Approval Letter dated 3/23/10
8B	2009-2010 Off-Site Soil Vapor Mitigation System OM&M Report; W&C	3/22/2010	NYSDEC Approval Letter dated 4/19/2010
8C	2010-2015 Off-Site Soil Vapor Mitigation System OM&M Report; W&C	1/28/2016	
8D	2016-2017 Off-Site Soil Vapor Mitigation System OM&M Report; W&C	3/30/2018	
8E	2018-2019 Off-Site Soil Vapor Mitigation System OM&M Report; W&C	6/25/2020	
8F	2020-2021 Off-Site Soil Vapor Mitigation System OM&M Report; W&C	3/1/2022 Rev 1 – 10/24/2024	NYSDEC Comment Letter dated 6/12/2025 Pending final NYSDEC approval
8G	2022-2023 Off-Site Soil Vapor Mitigation System OM&M Report; W&C	11/20/2024	NYSDEC Comment Letter dated 6/12/2025 Pending final NYSDEC approval
Reference 9 - On-Site Vapor Intrusion Investigation - Main Plant			
9A	Vapor Intrusion Investigation Workplan - Main Plant; W&C	11/2/2009	NYSDEC Approval Letter dated 11/12/2009
Note: results of these investigation activities were reported in the 9/10/2010 SAR			
Reference 10 - On-Site Vapor Intrusion Investigation - Chemical Development Pilot Plant			
10A	Vapor Intrusion Investigation Workplan - Chemical Development Pilot Plant; W&C	10/15/2010	NYSDEC Approval Letter dated 11/3/2010
10B	Vapor Intrusion Investigation Report - Chemical Development Pilot Plant; W&C	9/23/2011	
Reference 11 - SWMU-6 Interim Corrective Measure			
11A	ICM Completion Report, SWMU-6 Tank Farm (Truck Containment Pad); W&C	5/28/2010	NYSDEC Approval Letter dated 8/26/2010
Reference 12 - AOC-4 Interim Corrective Measure			
12A	ICM Completion Report, AOC-4 Petroleum AST Without Base Containment; W&C	6/4/2010	NYSDEC Approval Letter dated 7/21/2010

Reference Number	Title	Document Date	NYSDEC Response
Reference 13 - Corrective Measures Study			
13A	Corrective Measures Study Work Plan; W&C	10/8/2010 Rev 1 - 12/9/2010	NYSDEC Comments dated 11/9/2010 NYSDEC Approval Letter dated 12/20/2010
13B	In-Situ Chemical Oxidation (ISCO) Pilot Study Work Plan; W&C	7/7/2011	NYSDEC Email dated 8/4/2011
13C	Fact Sheet for Corrective Measure Study; NYSDEC	March 2013	
13D	Corrective Measures Study Report; W&C	3/29/2013 Rev 1 - 9/26/2022 Rev 2 - 2/20/2024 Rev 3 – 11/07/2024	NYSDEC Approval Letter dated 11/15/2024
13E	Focused Feasibility Study and Corrective Measures Study Addendum, Buildings 18 & 27; W&C	11/5/2021	NYSDEC Comment Letter dated 6/2/2022 *report not revised content incorporated into CMS
Reference 14 - CMS Progress Reports			
14A	Corrective Measures Study Progress Report No. 1; W&C	2/25/2011	
14B	Corrective Measures Study Progress Report No. 2; W&C	6/3/2011	
14C	Corrective Measures Study Progress Report No. 3; W&C	9/22/2011	
14D	Corrective Measures Study Progress Report No. 4; W&C	12/22/2011	
14E	Corrective Measures Study Progress Report No. 5; W&C	9/1/2012	
14F	Corrective Measures Study Progress Report No. 6; W&C	12/14/2012	
14G	2013-2014 Annual Progress Report for RCRA Corrective Action Activities; W&C	4/9/2014	
14H	2014-2015 Annual Progress Report for RCRA Corrective Action Activities; W&C	9/18/2015	
14I	2015-2016 Annual Progress Report for RCRA Corrective Action Activities; W&C	2/8/2017	
14J	2017 Annual Progress Report for RCRA Corrective Action Activities; W&C	3/21/2018	
14K	2018 Annual Progress Report for RCRA Corrective Action Activities; W&C	3/19/2019	
14L	2019 Annual Progress Report for RCRA Corrective Action Activities; W&C	5/8/2020	
14M	2020 Annual Progress for RCRA Corrective Action Activities; W&C	5/10/2021	
14N	2021 Annual Progress for RCRA Corrective Action Activities; W&C	4/14/2022	
Reference 15 - Groundwater Monitoring Program Reports			

Reference Number	Title	Document Date	NYSDEC Response
15A	2020 Groundwater Monitoring Program Evaluation Report; W&C	7/24/2020	
15B	2021 Annual Groundwater Monitoring Program Report; W&C	7/26/2021 Addendum dated 9/7/2023	NYSDEC Comment Letter dated 6/1/2022 Response to Comments dated 7/8/2022 Pending NYSDEC Approval
15C	2022 Annual Groundwater Monitoring Program Report; W&C	10/3/2023	NYSDEC Comment Letter dated 2/15/2022 Response to Comments dated 6/12/2024 NYSDEC Approval Letter dated 6/13/2025
15D	2023 Annual Groundwater Monitoring Program Report; W&C	8/15/2024	NYSDEC Approval Letter dated 5/19/2025
Reference 16 - Tank Farm Closure			
16A	Rinsate Sample Collection Plan, Decontamination and Decommissioning of Tanks T-1005, T-1008 and ST-1; W&C	5/4/2011	NYSDEC Approval Letter dated 5/13/2011
16B	Rinsate Sample Locations, Decontamination and Decommissioning of Tanks T-1005, T-1008 and ST-1; W&C	6/13/2011	NYSDEC Approval Letter dated 7/7/2011
16C	Rinsate Sample Collection Report, Decontamination and Decommissioning of Tanks T-1005, T-1008 and T-1009 (ST-1); W&C	9/23/2011	NYSDEC Approval Letter dated 12/27/2011
16D	Notice of Final Receipt of Waste for Tanks T1005, T1008, and ST-1 - Permit 5-0928-00017/00175; Wyeth	11/5/2013	
16E	Final Tank Farm Containment and Truck Pad Rinsate Sample Collection Plan; W&C	11/22/2013	
16F	Tank Farm Final Closure Report; W&C	1/29/2014	NYSDEC Approval Letter dated 3/19/2014
Reference 17 - ISCO ICM			
17A	ISCO Interim Corrective Measure (ICM) Recommendation Letter; NYSDEC	3/29/2013	Not applicable
17B	ISCO ICM Work Plan; W&C	6/5/2013	NYSDEC Approval Letter dated 7/1/2013
17C	2014 ISCO ICM Work Plan; W&C	7/11/2014	NYSDEC Approval Email dated 7/28/2014
17D	Request to Reauthorize the 2014 ISCO ICM Work Plan; W&C	6/10/2016	NYSDEC Approval Email dated 6/21/2016
Reference 18 - Building 17C			
18A	Revised Final Rinsate Sample Collection Plan - Building 17C (Container Storage Building); W&C	1/21/2014 Rev 1 - 2/25/2014	NYSDEC Approval Letter dated 3/6/2014
18B	Building 17C (Container Storage Building) Final Closure Report; Wyeth	6/3/2014	NYSDEC Approval Letter dated 7/23/2014
Reference 19 - Chemical Development Pilot Plant Investigation			

Reference Number	Title	Document Date	NYSDEC Response
19A	Solid Waste Management Unit Sampling & Analysis Plan - Chemical Development Pilot Plant; W&C	9/18/2014 Rev 1 - 12/1/2014	NYSDEC Email 12/10/2014
19B	Addendum to the Chemical Development Pilot Plant Solid Waste Management Unit Sampling & Analysis Plan; W&C	9/22/2015	NYSDEC Email dated 10/5/2015
19C	Solid Waste Management Unit Sampling & Analysis Report - Chemical Development Pilot Plant; W&C	4/8/2016 Rev 1 - 9/7/2023	NYSDEC Approval Letters dated 5/9/2023
19D	Letter Response to NYSDEC Re: 2016 Solid Waste Management Unit and Sampling Analysis Report Chemical Development Pilot Plant	9/8/2023	NYSDEC Approval Letter dated 10/6/2023
Reference 20 - Main Plant Investigation			
20A	Solid Waste Management Unit & Area of Concern Sampling & Analysis Plan - Main Plant; W&C	8/26/2015 Rev 1 - 3/7/2018 Rev 2 - 9/20/2023	NYSDEC Comment Email dated 11/29/2017 NYSDEC Comment Email dated 5/9/2018 NYSDEC Approval Letter dated 11/16/2023
20B	Solid Waste Management Unit and Area of Concern Sampling & Analysis Report, Former Main Plant; W&C	4/19/2019 Rev 1 - 10/30/2023	NYSDEC Approval Letter dated 11/28/2023
Reference 21 - SWMU-18 Notification			
21A	Newly Identified SWMU/AOC Notification: SWMU-18 Tank T36-2; W&C	5/18/2018	
21B	Newly Identified SWMU/AOC Assessment Report: SWMU-18 Tank T36-2; W&C	6/15/2018	
Reference 22 - PFAS Sampling			
22A	PFAS Sampling and Analysis Plan; W&C	6/18/2018	NYSDEC Approval Email dated 8/6/2018
22B	PFAS Sampling and Analysis Report; W&C	12/20/2018	
Reference 23 - 2019 Off-Site Vapor Intrusion Investigation			
23A	2019 Off-Site Vapor Intrusion Investigation Work Plan; W&C; 4/17/2019	4/17/2019	NYSDEC Approval Email dated 9/23/2019
23B	Vapor Intrusion Investigation Sampling and Analysis Report; W&C	6/17/2020	
Reference 24 - Supplemental Main Plant Investigation			
24A	Addendum to the Proposed Supplemental Actions included in the April 2019 Main Plant SWMU/AOC SAR; W&C	10/3/2019 Rev 1 - 10/30/2023	NYSDEC Response dated 11/28/2023
24B	Supplemental Main Plant SWMU/AOC Sampling & Analysis Report; W&C	12/29/2020 Rev 1 - 12/29/2023	NYSDEC Response dated 2/8/2024