Site Management Plan

WYETH PHARMACEUTICALS
ROCKLAND COUNTY
PEARL RIVER, NEW YORK

SITE MANAGEMENT PLAN

Order on Consent Index No.: CO 3-20150325-33
NYSDEC Site Number 344003

Prepared for: Wyeth Holdings LLC
401 North Middletown Road
Pearl River, NY 10965

Submitted By: Golder Associates Inc.
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Revisions to Final Approved Site Management Plan

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

October 2015

Project No. 1535318

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Golder Associates

CERTIFICATION STATEMENT

I, Gary P. Hurta, Jr., P.E., certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

DATE: October 26, 2015

Warning: It is a violation of New York State Education Law Section 7209 for any person to alter any document that bears the seal of a professional engineer, unless the person is acting under the direction of a licensed professional engineer. If altered, the altering person shall comply with all requirements of New York State Education Law Section 7209.

EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspection, monitoring, maintenance and reporting activities required by this Site Management Plan (SMP):

Site Identification: Wyeth Pharmaceuticals (Facility)
401 North Middletown Road
Pearl River, New York
NYSDEC Site Number 344003

Institutional Controls (ICs)	The Site may be used for commercial and/or industrial uses.
	Deed Notice, dated March 5, 2009 The use of groundwater as a source of potable water is prohibited per Section V of the Order on Consent No. CO 3-20150325-33 (to be recorded with the Deed)
Engineering Controls (ECs)	Building and concrete building slabs for Buildings 96 and 130 Soil gas venting system for Building 130 All ECs must be inspected at a frequency and in a manner defined in the SMP.

Inspections	Frequency
Building and Building Slabs	Monthly
Soil Gas Venting System	Monthly
Maintenance	
Building and Building Slabs	As needed
Soil Gas Venting System	As needed or per equipment specification
Reporting	
Inspections	Biennially
Periodic Review Report	Biennially

Additional descriptions of the above requirements are provided this SMP.

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1.0 INTRODUCTION

1.1 General

Wyeth Holdings LLC (Respondent) has entered into an Order on Consent Index No. CO 3-20150325-33 ("Consent Order") with the New York State Department of Environmental Conservation (NYSDEC), dated July 21, 2015 (effective date: July 31, 2015). The Consent Order addresses approximately 206 acres of the overall Wyeth Holdings LLC property located at 401 North Middletown Road, Pearl River, Rockland County New York (see Figure 1) and as further described in Section I of the Consent Order, hereinafter referred to as the "Facility". The Consent Order terminated the Resource Conservation and Recovery Act (RCRA) Permit (EPA ID. No. NYD054065909) for the overall Wyeth Holdings LLC property.

This Site Management Plan (SMP) is a required element of the Consent Order. Any further remedial activities performed at the Facility pursuant to the Consent Order will be subject to the terms and conditions of the Consent Order and performed in accordance with this SMP. A copy of the executed Consent Order is included as Appendix A.

This SMP specifically addresses the following:

- Management of residual impacts associated with two inaccessible Solid Waste Management Units (SWMUs) that remain after the completion and NYSDEC approval of the RCRA Corrective Action Program for the Facility.
- Continued implementation of Institutional and Engineering Controls (ICs/ECs) which prevent direct contact with impacted soils, the potential for exposure to soil vapor and prohibit the use of groundwater underlying the Facility as a source of potable water.

The two inaccessible SMWUs are depicted in Figure 2 and include:

- An area of soil with residual mercury-impacts that remains beneath Building 96, as described in Section II (F) of the Consent Order.
- An area of soil with residual volatile organic compound (VOC) impacts that remains beneath Building 130, as described in Section II (G) of the Consent Order.

These SWMUs will require further remedial activities upon the demolition of both buildings at some as yet undefined time in the future. Consistent with the Consent Order, any future remedial activities will be performed in accordance with one or more NYSDEC-approved work plans ("Work Plans").

ICs/ECs were implemented as part of the completed RCRA Corrective Action Program for these two inaccessible SWMUs to control exposure to remaining impacts for the protection of public health and the environment.

Pursuant to NYSDEC requirements, an IC that includes a Deed Notice was granted to the NYSDEC and recorded with the Rockland County Clerk on March 5, 2009 (see Appendix B). This Deed Notice provides the metes and bounds descriptions for the two inaccessible SWMUs and requires that unauthorized access to these inaccessible SWMUs be prevented unless and until the impacted soils are remediated. The Respondent or its successor in title at the time any future subsurface construction activities are performed is required to comply with all environmental and worker health and safety requirements that are applicable to the construction activities.

ECs are in place for the Building 96, which includes the building and the building concrete slab which prohibit human exposure by direct contact with any mercury-impacted soils. Direct contact with VOC-impacted soils and the potential for exposure to soil vapor in Building 130 are controlled by ECs that include the building, the building concrete slab and a soil gas venting system.

The ICs/ECs for Buildings 96 and 130 will remain in effect and may be revised in the future depending on the remedial activities that may be performed in accordance with NYSDEC-approved Work Plans once the buildings are demolished.

In accordance with Section V (A) of the Consent Order, the use of groundwater as a source of potable water underlying the Facility is prohibited. A copy of the Consent Order will be recorded with the Deed.

This SMP will manage remaining impacts at the Facility until the Deed Notice and the Consent Order are modified or terminated. This SMP has been subject to approval by NYSDEC and compliance with this SMP is required by the grantor of the Deed Notice and the Consent Order and the grantor's successors and assigns. This SMP may only be revised with the approval of NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Deed Notice and, as applicable, the Consent Order. Failure to properly implement the SMP could be considered a violation of the Deed Notice and the Consent Order.
- Failure to comply with this SMP could also be considered a violation of the Environmental Conservation Law, 6 NYCRR Part 375 and the Consent Order for the Facility.

All reports associated with the Facility can be viewed by contacting NYSDEC or any successor agency with jurisdiction in New York State. A list of contacts for persons involved with the Facility is provided in Appendix C of this SMP.

This SMP was prepared by Golder Associates, Inc., on behalf of Wyeth Holdings LLC, in accordance with the applicable requirements of the NYSDEC "Technical Guidance for Site Investigation and Remediation" (DER-10), dated May 2010, and guidelines provided by NYSDEC.

1.2 Current Site Owner

The owner of the Facility at the time of approval of this SMP is:

Pearl River Campus, LLC
401 North Middletown Road
Pearl River, New York 10965

The Respondent or its successor in title is responsible for the implementation of the SMP.

1.3 Revisions

Revisions to this SMP will be proposed in writing to the NYSDEC Project Manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in monitoring requirements, upgrades to or shut-down of ECs, removal of impacted soil or other significant changes to the site conditions. In accordance with the Deed Notice and Consent Order, NYSDEC will provide a notice of any approved changes to the SMP and append these notices to the SMP that is retained in its files.

1.4 Notifications

Notifications will be submitted by the Respondent or its successor in title to the NYSDEC, as needed, in accordance with DER-10 for the following reasons:

- 60-day advance notice of any proposed changes of use of the inaccessible SWMUs that are required under the terms of the Consent Order, 6 NYCRR Part 375 and/or the Environmental Conservation Law.
- 7-day advance notice of any field activity associated with the remedial program.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (Appendix D).
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Facility, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to public and the environment.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Facility or the responsibility for implementing this SMP will include the following notifications:

- At least 45 days prior to the change in ownership, NYSDEC is to be notified in writing of the proposed change. This will include a certification that the Prospective Purchaser/Remedial Party has been provided with a copy of the Consent Order, and all approved Work Plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Facility, the new owner's name and contact representative. Contact information is to be confirmed in writing to NYSDEC.
- In the case of a voluntary transfer through a bankruptcy, NYSDEC is to be notified within twenty-24 hours of the decision to transfer property. Further, NYSDEC is to be notified of any involuntary transfers within 24 hours upon initial receipt of notice of any involuntary transfer. No later than 3 days after the transfer, copies of the transfer documents shall be submitted to NYSDEC.

Table 1 includes current NYSDEC contact information for the above notifications. This table will be updated as necessary to provide accurate contact information. A listing of Facility-related contact information is provided in Appendix C.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL

2.1 Site Location and Description

The Facility is located on North Middletown Road within Pearl River, Rockland County, New York (see Figure 1). The Facility occupies an area of approximately 206 acres of which 182 acres are located in the Town of Orangetown and 24 acres are located in the Town of Clarkstown. The Facility is located within the lower Hudson River Valley just a few miles west of the Hudson River and the Palisades (Golder, 2011).

The locations of these inaccessible SWMUs are depicted in Figure 2. A Facility tax map is presented in Figure 3.

2.2 Physical Setting

2.2.1 Land Use

The Facility consists of numerous buildings of varying sizes that are currently used for pharmaceutical research and development (R&D) and the manufacture of biotech products. Certain buildings are currently leased to third party tenants. Support facilities include a co-generation plant, a warehouse and related storage buildings, QA laboratories, an industrial wastewater pre-treatment plant (old IWTP), chiller plants, cooling towers, a less than 90 day hazardous waste storage building and other related utility and support services.

The Facility includes 12 miles of road and several parking lots. The three main lots are located on the eastern portion of the Facility between Middletown Road and the buildings. The Facility has six storm water ponds that primarily collect discharges from the cooling towers and storm water runoff.

The main entrance to the Facility is from Middletown Road on the eastern border. The western portion of the Facility is bordered north to south by a NJ Transit Rail Line easement.

The surrounding area of Pearl River is predominantly mixed-use. The adjacent properties and current land uses surrounding the Facility are as follows:

- North: Wooded land and residential properties from the property fence line to County Road 46.
- South: State Route 304, Pharmaceutical R&D facility operated by Pfizer Inc or one of its subsidiaries or affiliates and residential and commercial land uses beyond Route 304.
- East: North Middletown Road (County Road 33) and residential and commercial properties.
- West: Primarily wooded areas, including four closed landfills and scattered residential and commercial properties. (Golder, 2011).

2.2.2 Geology

The Facility is underlain by the Brunswick formation of the Newark group, which principally consists of sandstone, shale, and conglomerate. The Newark group is the principal source of water in Rockland County. It is estimated that the maximum thickness of the Newark group in the county is on the order of 10,000 feet.

Overlying the Brunswick formation is a layer of sand and silt on top of which is a layer of stratified drift composed of sand, silt, and gravel. The thickness of these layers varies between 20 and 100 feet (Golder, 2011).

2.2.3 Hydrogeology

Two groundwater aquifers underlie the Facility. The upper water table aquifer varies in depth within the soils between 5 to 70 feet below ground surface (ft-bgs) due to the rolling topography of the area. The observed depth to groundwater in the upper water table aquifer has been reported in site monitoring wells between 10.45 and 20.95 ft-bgs (HydroQual, 2005). It has been reported that the groundwater level varies across the Facility but in general is encountered between 10 and 30 ft-bgs. Groundwater yields from wells screened within this aquifer are between two to three gallons per minute (gpm), with a maximum of five gpm. Groundwater in the upper water table aquifer is inferred to flow west towards Muddy Brook. However, because of a ridge on the eastern part of the Facility, groundwater in this aquifer, east of Draper Way, would be expected to follow the general topography and flow east.

The Triassic bedrock aquifer, which is located in the underlying conglomerate-sandstone-siltstone bed, is considered a principal aquifer in the vicinity of the Facility. Water in this aquifer is primarily stored in secondary porosity openings such as rock formations joints and bedding planes. The depth to this aquifer varies between 24 to 86 ft-bgs and is also influenced by topography. Groundwater yields from wells screened within the aquifer range between 20 and 265 gpm. Because of the presence of low permeability till soils and stratified layers of silt and beds of clay, the recharge between the water table aquifer and the Triassic bedrock aquifer is impeded (AT Kearney, 1992).

Water for process, drinking and sanitary purposes at the Facility is purchased from United Water New York amounting to approximately 0.75 million gallons per day (mgd). The Facility withdraws non-contact cooling water from nine active production wells located offsite. The Facility extracts a total of approximately one million gallons of water from these production wells on a daily basis (Golder, 2011).

2.3 Site History and Ownership

The overall Wyeth campus property on which the Facility is located was first developed in 1906 and has been used for the pharmaceutical R&D and the manufacture of consumer and biotech products over its operational history.

According to information provided by Facility representatives, the chronology of acquisitions and transfers is as follows:

- 1906 - Dr. Ernst Lederle purchased 99 acres in Pearl River to expand diphtheria antitoxin production
- 1930 - Acquired by American Cyanamid Company
- 1994 - American Cyanamid Company acquired by American Home Products Corporation
- 2002 - American Home Products Corporation name changed to Wyeth and American Cyanamid Company name changed to Wyeth Holdings Corporation
- 2009 Wyeth was acquired by Pfizer, and the Facility continued to be owned by Wyeth Holdings, LLC (formerly, Wyeth Holdings Corporation).

2.4 Investigation and Remedial History

2.4.1 General

A RCRA Corrective Action Program for the overall Wyeth campus was completed pursuant to the NYSDEC 6 NYCRR Part 373 Permit No. 3-3924-00025/00107-0 as a result of its former status as a greater than 90-day hazardous waste storage facility. The permit was issued September 29, 1993 and extended under the New York State Administrative Procedures Act on October 5, 1998.

The evaluation of the Facility was included as part of the RCRA Corrective Action Program. Only the two inaccessible SWMUs associated with Buildings 96 and 130 remain as noted in the Consent Order. The Consent Order terminated the RCRA Permit that included the Facility. Any further remedial activities related to the inaccessible SWMUs performed at the Facility will be subject to the terms and conditions of the Consent Order and performed in accordance with this SMP.

2.4.2 RCRA Corrective Action Summary

A chronological summary of the RCRA Corrective Action Program completed at the overall Wyeth Campus to date is presented below. References used in the preparation of this summary are provided in Section 8.0, References.

- Permit Module III specified corrective action requirements for 62 SWMUs and two Areas of Concern (AOCs).
- A RCRA Facility Assessment Preliminary Review completed in 1992 indicated that of the 62 SWMUs and two AOCs identified in Permit Module III, 38 SWMUs and one AOC required No Further Action (NFA) or NFA was specified, while the remaining SWMUs and AOC required further assessment. A RCRA Facility Assessment (RFA) Sampling Visit (SV) was performed for 22 SWMUs and the AOC and completed in 1996. A RCRA Facility Investigation (RFI) was conducted at five SWMUs between 1998 and 2000.
- A Corrective Measures Study (CMS) was also performed under the direction of NYSDEC between 1998 and 2000 which focused on impacts associated with the former Landfill 1 (SWMU

46) and Landfill 2 (SWMU 47)[1], several SWMUs located in the active plant areas, including SWMU 33 – Industrial Sewer System and SWMU 34 – old IWTP.

- Groundwater sampling was conducted in monitoring wells selected by NYSDEC to meet the objectives of the CMS. Groundwater sampling was performed on a quarterly basis in 2002, 2003, and 2004. The sampling results indicated the following:
    - VOCs were not identified above 6 NYCRR 703 Class GA Ground Water Quality Standards (GWQS) at monitoring wells MW-02-7, MW-02-6, MW-82-15 and MW-96-14, which were selected to monitor the SWMUs on the active side of the facility, including SWMU 33.
    - VOCs were identified in monitoring well MW-96-13 (downgradient of the old IWTP), but the concentrations have reportedly decreased consistently over time such that by the 4th Quarter 2004 only two compounds were reported at levels above GWQS.
    - VOC concentrations had declined significantly downgradient of the Landfills 1 and 2 in monitoring wells MW-99A and MW-99B such that the concentrations were below, (at MW-99A) or were marginally above (at MW-99B), the GWQS in the shallow groundwater.
    - VOCs reported in the deep bedrock well MW-83-2 were considered related to off-site sources and represent regional bedrock contamination unrelated to the Facility.
- Following completion of the CMS, NFA determinations were requested for the 22 SWMUs and the AOC that included a proposal for a long-term groundwater monitoring plan for select Facility monitoring wells on August 10, 2005.
- NYSDEC approved the NFA request and proposed long-term groundwater monitoring plan on October 14, 2005 (NYSDEC, 2005).
- Long-term groundwater monitoring activities have been performed since the completion of the CMS in 2005 at two monitoring wells; MW-96-13 (located downgradient of the old IWTP) and MW-99B (located downgradient of the former closed landfills) to evaluate the attenuation of VOCs. The monitoring program was to be performed for a period of five years or until the reported concentrations decreased below their respective GWQS for four consecutive years.

  Analytical results for groundwater sampling in 2012 indicated that three VOCs were detected above GWQS during two sampling periods. Trichloroethene was detected above GWQS in MW-96-13, and vinyl chloride and 1, 2-dichloroethane were detected above GWQS in MW-99B. As of December 2014, both wells showed an overall declining trend with respect to all constituents of concern. Consistent with the Consent Order, the long-term groundwater monitoring program at these two wells has been discontinued.
- Two additional inaccessible SWMUs were identified during the performance of normal operations at the Facility at Buildings 96 and 130 (see Figure 2). Pursuant to NYSDEC requirements, a Deed Notice was granted to NYSDEC and recorded with the Rockland County Clerk for these inaccessible SWMUs on March 5, 2009. This Deed Notice requires that unauthorized access to these inaccessible SWMUs be prevented unless and until the impacted soils are remediated and specifies additional requirements for any subsurface construction activities. Reference is made to the Deed Notice included in Appendix B for additional details. The management of these SWMUs is addressed in this SMP as are described in the sections which follow.

2.4.3 Building 96

As part of a renovation project for the chiller rooms located in Building 96, an investigation was performed in 2006 to assess the potential for environmental impacts in the vicinity of basement floor drains. Borings

[1] The management of these closed landfills is not included in the Facility boundaries and is not subject to this SMP.

were advanced through the concrete floor at seven locations within the vestibule area of the building basement and in the roadway just beyond the building footprint. Composite samples consisting of shallow subsurface soils from each location were collected for analysis. The results indicated that the impact was limited to the vicinity of drain D-4 located in the vestibule area of the building basement adjacent to the two chiller rooms. Total mercury soil concentrations report ranged from 4.6 to 380 milligrams per kilogram (mg/kg). No mercury was detected at the other drains or beyond the building footprint.

Excavation of an area approximately 4.5 by 5.5 feet was subsequently performed, but was limited due to the presence of the building foundation. Total mercury was detected in excavated soils at a concentrations ranging from 4.7 to 113 mg/kg. Toxicity characteristic leaching procedure (TCLP) concentration results ranged from 0.001 to 0.02 milligrams per liter (mg/l).

Residual total mercury soil concentrations reported following excavation for samples collected from the four sidewalls and bottom of the excavation ranged from 0.14 to 38.4 mg/kg (see Table 2 and Figure 4). Only two of the post-excavation sample results (PE-1; 18.1 mg/kg) and (PE-4; 38.4) exceeded the 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) for commercial (2.8 mg/kg) and industrial (5.7 mg/kg) use. TCLP concentration results ranged from non-detect to 0.16 mg/l (HydroQual, 2008). The reported TCLP concentrations were less than the TCLP limit for mercury (0.2 mg/l). As such, residual mercury-impacted soil remains beneath the building slab.

As noted above, NYSDEC indicated this portion of Building 96 is considered an inaccessible SWMU requiring a deed notice until such time that the residual impacts can be remediated. A Deed Notice was granted to the NYSDEC and recorded with the Rockland County Clerk for this inaccessible SWMU on March 5, 2009. No further remedial activities have been performed at this location to date.

Signage is present in the building and on the floor covering the impacted area that indicates that no disturbance of the building slab or soils is to be performed without prior notification of the Designated Contact named on the signage. The Designated Contact shall be the Facility contact listed in Section XVI (A)(2) of the Consent Order or his/her successor as notified to the NYSDEC.

Consistent with the Consent Order, upon the demolition of Building 96 and removal of the concrete floor, an area of soil with residual mercury impacts will need to be excavated to a depth of at least 3 feet below the bottom of the previous excavation to achieve compliance with 6 NYCRR Part 375 SCOs for commercial or industrial use. The excavated area is to be backfilled with clean fill.

2.4.4 Building 130

In the late 1990s, compromised sewer lines located beneath the first floor of the building were discovered during a construction project within Building 130. The area was excavated and sewer lines were repaired in 1997. Excavation sidewall soil sample results for VOCs were reported above laboratory reporting limit for toluene (0.2 to 56.3 mg/kg), chlorobenzene (0.02 to 5.7 mg/kg), acetone (2.70 mg/kg), trichloroethene (0.01 mg/kg), xylenes (0.004 mg/kg) and 1,4-dichlorobenzene (0.005 mg/kg) (Parson, 1997). All reported sidewall results are below the 6 NYCRR Part 375 SCOs for commercial or industrial uses (see Table 3 and Figure 5). Further delineation of the impact of the sewer leak could not be performed because the building was in use and occupied. As such, residual VOC-impacted soil remains beneath the building slab.

Five soil vapor monitoring wells were installed in Building 130 following the repair of the sewer line and prior to the installation of the soil gas venting system. Soil vapor samples were collected for eight sampling events from 1997 to 2001 (see Table 4) with results reported for toluene (4.1 to 2,000 micrograms per cubic meter [µg/m^3]), chlorobenzene (ND to 622 µg/m^3), acetone (ND to 450 µg/m^3), trichloroethene (ND to 591 µg/m^3), xylenes (2.4 to 200 µg/m^3) and 1,4-dichlorobenzene (ND to 6.6 µg/m^3). No additional sub-slab soil vapor samples have been collected to date.

A soil gas venting system was installed in December 2004 and is still in operation. It consists of an approximate 2,000 square foot rectangular area with 160 linear feet of 3-inch of PVC perforated piping installed in pea gravel beneath the slab of the affected portion of Building 130. A Dynavac fan (Model GP301C) extracts soil gas, which is vented through an outlet pipe on the northwestern wall to the outside of the building without treatment. The soil vapor monitoring wells were abandoned following the installation of the soil gas venting system in 2004 (Parsons, 2005).

As noted above, NYSDEC indicated this portion of Building 130 is an inaccessible SWMU subject to a Deed Notice until such time that the residual impacts can be remediated. A deed notice was filed with Rockland County on March 30, 2009. A Deed Notice was granted to NYSDEC and recorded with the Rockland County Clerk for this inaccessible SWMU on March 5, 2009. No further remedial activities have been performed at this location to date.

Signage is present in the building and on the floor that indicates that no disturbance of the building slab or soils is to be performed without prior notification of the Designated Contact named on the signage.

Consistent with the Consent Order, upon the demolition of Building 130 and removal of the concrete floor overlying the area encompassing the soil gas venting system, the piping for the gas venting system is to be removed and the underlying soil excavated to depth of at least 6 feet to remove any residual VOC

impacts to achieve compliance with 6 NYCRR Part 375 SCOs for commercial or industrial use. The excavated area is to be backfilled with clean fill.

2.5 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Facility for the protection of public health and the environment were addressed in accordance with the completed RCRA Corrective Action Program as described in Section 2.4. Consistent with the Consent Order, the continued protection of public health and the environment is required for the two inaccessible SWMUs described in this SMP until the demolition of the buildings at some as yet undefined time in the future.

The ICs/ECs for these inaccessible SWMUs will remain in effect to protect the public from exposure by direct contact to remaining mercury- or VOC-impacted soils that may be present below the building slabs of Buildings 96 and 130, respectively, and from the potential exposure to soil vapor in Building 130. No construction, use or occupancy of the Facility may occur that will result in the disturbance or excavation of the Facility which threatens or compromises the integrity of the ECs or which result in unacceptable human exposure. These ICs/ECs may be revised in the future depending on the remedial activities that may be performed once the buildings are demolished in accordance with NYSDEC-approved Work Plans.

In accordance with Section V (A) of the Consent Order, the use of groundwater as a source of potable water underlying the Facility is prohibited. A copy of the Consent Order will be recorded with the Deed

2.6 Remaining Impacts

2.6.1 Soil

2.6.1.1 Building 96

For Building 96, residual soil concentrations following the excavation of mercury-impacted soils in 2007 are summarized in Table 2 and presented in Figure 4. Total mercury soil concentrations collected from the four sidewalls and bottom of the excavation ranged from 0.14 to 38.4 mg/kg. Only two of the post-excavation sample results (PE-1; 18.1 mg/kg) and (PE-4; 38.4) exceeded the 6 NYCRR Part 375 SCOs for commercial (2.8 mg/kg) and industrial (5.7 mg/kg) use. TCLP concentration results ranged from non-detect to 0.16 mg/l (HydroQual, 2008). The reported TCLP concentrations were less than the TCLP limit for mercury (0.2 mg/l).

The remaining impacted soils at Building 96 will be remediated upon the demolition of Building 96. Following the removal of the area of soil with residual mercury impacts, excavation will be performed to a depth of at least 3 feet below the bottom of the previous excavation to achieve compliance with 6 NYCRR Part 375 SCOs for commercial or industrial use.

The estimated volume of soil that will be excavated is approximately 10 cubic yards. The excavated area will be backfilled with clean fill.

2.6.1.2 Building 130

For Building 130, the initial concentrations of VOCs detected during the performance of excavation and sewer line repairs performed in 1997 are summarized in Table 3 and presented in Figure 5. Excavation sidewall soil sample results for VOCs were reported above laboratory reporting limit for toluene (0.2 to 56.3 mg/kg), chlorobenzene (0.02 to 5.7 mg/kg), acetone (2.70 mg/kg), trichloroethene (0.01 mg/kg), xylenes (0.004 mg/kg) and 1,4-dichlorobenzene (0.005 mg/kg) (Parson, 1997). All the reported sidewall results are below the 6 NYCRR Part 375 SCOs for commercial or industrial uses.

The residual impacted soils at Building 130 will be remediated upon the demolition of Building 130. Following the removal of the concrete floor overlying the area encompassing the soil gas venting system and the piping for the gas venting system, excavation will be performed to depth of at least 6 feet to remove any residual VOC impacts to achieve compliance with 6 NYCRR Part 375 SCOs for commercial or industrial use.

The estimated volume of soil that will be excavated is approximately 400 cubic yards. The excavated area will be backfilled with clean fill.

2.6.2 Groundwater

Long-term groundwater monitoring activities have been performed since the completion of the CMS in 2005 at two monitoring wells; MW-96-13 (located downgradient of the old IWTP) and MW-99B (located downgradient of the former closed landfills) to evaluate the attenuation of VOCs. The monitoring program was to be performed for a period of five years or until the reported concentrations decreased below their respective GWQS for four consecutive years.

Analytical results for groundwater sampling in 2012 indicated that three VOCs were detected above GWQS during two sampling periods. Trichloroethene was detected above GWQS in MW-96-13, and vinyl chloride and 1, 2-dichloroethane were detected above GWQS in MW-99B. As of December 2014, both wells showed an overall declining trend with respect to all contaminants of concern. Consistent with the Consent Order, the long-term groundwater monitoring program at these two well has been discontinued.

In accordance with Section V (A) of the Consent Order, the use of groundwater as a source of potable water underlying the Facility is prohibited. A copy of the Consent Order will be recorded with the Deed.

2.6.3 Soil Vapor

For Building 130, VOCs detected in soil vapor monitoring wells installed in Building 130 following the repair of the sewer line and prior to the installation of the soil gas venting system are summarized in Table

4. Soil vapor samples were collected for eight sampling events from 1997 to 2001 with results reported for toluene (4.1 to 2,000 µg/m^3), chlorobenzene (ND to 622 µg/m^3), acetone (ND to 450 µg/m^3), trichloroethene (ND to 591 µg/m^3), xylenes (2.4 to 200 µg/m^3) and 1,4-dichlorobenzene (ND to 6.6 µg/m^3). The soil vapor monitoring wells were abandoned following the installation of the soil gas venting system in 2004 to manage the potential for exposure. No additional sub-slab soil vapor samples have been collected to date.

The residual VOC-impacted soils at Building 130 that may be contributing to soil vapor will be remediated upon the demolition of Building 130 as described in Section 2.6.1.2.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining impacts exist at the Facility, Institutional Controls and Engineering Controls (ICs/ECs) might be required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of the IC/ECs at the Facility. The IC/EC Plan is one component of the SMP and is subject to revision by NYSDEC.

The IC/EC Plan provides:

- A description of all IC/ECs for the Facility
- The basic implementation and intended role of each IC/EC
- A description of the key components of the ICs set forth in the Deed Notice and the Consent Order
- A description of the controls to be evaluated during each required inspection and periodic review
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan provided in Appendix D for the proper handling of remaining impacted soils that may be disturbed during maintenance or redevelopment work on the Facility
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the Consent Order, as determined by NYSDEC

3.2 Institutional Controls

ICs could be required by the completed RCRA Corrective Action Program and the Consent Order to achieve the following objectives:

- Implement, maintain and monitor EC systems
- Prevent future exposure to remaining impacts
- Limit the use and development of the Facility to commercial or industrial uses only.

Adherence to these ICs is required by the Deed Notice and the Consent Order and will be implemented under this SMP. ICs identified in these documents may not be discontinued without modification or termination of the Deed Notice and/or the Consent Order.

ICs for the Facility are as follows:

- **Deed Notice.** Pursuant to NYSDEC requirements, this IC includes a deed notice granted to the NYSDEC and recorded with the Rockland County Clerk on March 5, 2009. This Deed Notice requires that unauthorized access to these inaccessible SWMUs at Buildings 96 and 130 be prevented unless and until the impacted soils are remediated. A copy of the Deed Notice is included as Appendix B and provides the metes and bounds descriptions for the two inaccessible SWMUs.

Consistent with the Consent Order, both locations will require further remedial activities upon the demolition of the buildings at some as yet undefined time in the future. Any future remedial activities will be performed in accordance with one or more NYSDEC-approved Work Plans. Impacted soils will require excavation to achieve compliance with 6 NYCRR Part 375 SCOs for commercial or industrial use.

- **Use of Groundwater.** In accordance with Section V (A) of the Consent Order, the use of groundwater as a source of potable water underlying the Facility is prohibited. A copy of the Consent Order will be recorded with the Deed.

Access to the Facility must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the Respondent or its successor in title to assure compliance with the restrictions identified by the Deed Notice and the Consent Order.

3.3 Engineering Controls

ECs for the Facility include the buildings and building slabs present for Buildings 96 and 130 and the soil gas venting system in Building 130.

3.3.1 Building 96

Exposure to remaining residual mercury-impacted soils beneath at Building 96 is prevented by the building and the building slab. The reported thickness of the concrete slab in the vestibule area is 8 to 9 inches (KS Engineers, 2007). Both the building and the building slab are in good condition for the continued protection of public health and the environment as of the date of preparation of this SMP.

The Excavation Work Plan (EWP) provided in Appendix D outlines the procedures required to be implemented in the event the building slab is breached, penetrated or temporarily removed, and any underlying remaining impacted soils are disturbed prior to the demolition of the building as specified in the Consent Order. Procedures for the inspection of the building and building slab are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be performed in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared specifically for the work when required.

3.3.2 Building 130

Exposure to remaining residual VOC-impacted soils beneath Building 130 is prevented by the building, the building slab and the soil gas venting system. The reported thickness of the concrete slab in the impacted area is 6 inches (Parsons, 2005). The slab is in good condition for the continued protection of public health and the environment as of the date of preparation of this SMP.

The EWP provided in Appendix D outlines the procedures required to be implemented in the event the building slab is breached, penetrated or temporarily removed, and any underlying remaining impacted

soils are disturbed prior to the demolition of the building as specified in the Consent Order. Procedures for the inspection of the building and the building slab are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be performed in accordance with the procedures defined in a HASP and associated CAMP prepared specifically for the work when required.

Exposure to potential soil vapor from residual VOC-impacted soils in Building 130 is prevented by a soil gas venting system installed beneath the building slab. The soil gas venting system, installed and in operation since December 2004, consists of an approximate 2,000 square foot rectangular area with 160 linear feet of 3-inch of PVC perforated piping installed in pea gravel beneath the slab of the affected portion of Building 130. A Dynavac fan (Model GP301C) extracts soil gas, which is vented through an outlet pipe on the northwestern wall to the outside of the building without treatment (Parsons, 2005).

The installation and certification Report (Parsons, 2005) prepared for the soil gas venting system is included in Appendix E. System design information is as follows:

- Treatment Area: Approximately 2,000 square feet by one foot deep below the building slab.
- Sub-slab Piping: A loop of 160 feet of 3-inch diameter perforated PVC piping which transitions to a solid 3-inch PVC riser pipe.
- Riser and Building Exhaust Piping: The riser pipe transitions to an overhead pipe that runs along the ceiling on the first floor of the building to an in-line low flow fan. An additional 3-inch PVC pipe penetrates the exterior wall of the building and discharges the exhaust from the fan outdoors.
- Discharge: A grated cap is provided on the end of the exhaust pipe for safety purposes that directs the exhaust in a downward direction.

The installed fan is capable of up to 45 cubic feet per minute flow at 2 inches of water column. Specifications for the fan are included in Appendix F. The fan runs continuously without interruption.

The soil venting system will not be discontinued until the demolition of Building 130 at some yet undefined time in the future or occupancy or other conditions change. The soil gas venting system is not to be shutdown unless prior written approval is provided by NYSDEC and the New York State Department of Health (NYSDOH).

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Remedial processes are considered completed when monitoring or other conditions indicate that the final remedy has achieved the Remedial Action Objectives identified by the Consent Order. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

3.3.3.1 Building 96 and 130 Impacted Soils

Remediation of the inaccessible SWMUs in Buildings 96 and 130 will be considered complete when the following conditions have been implemented:

- Demolition of the buildings, including the building slabs, has been performed.
- Excavation and post-excavation sampling have been conducted to remove any remaining impacted soils to 6 NYCRR Part 375 SCOs for commercial or industrial uses.
- The excavated area has been backfilled with clean fill and properly restored.
- Any impacted soils have been transported and disposed at permitted off-site disposal facilities.

Upon completion of the remediation, a Final Engineering Report (FER) will be prepared and submitted to NYSDEC. Upon approval of the FER, the Deed Notice for the inaccessible SWMUs may be modified accordingly.

3.3.3.2 Building 130 Soil Gas Venting System

The operation of the soil gas venting system will be considered complete when the demolition of Building 130 has been completed as described in Section 3.3.3.1, including the submittal and approval of the FER and the modification of the Deed Notice.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

No sampling is required given the current status of the inaccessible SWMUs and the conditions specified in the Deed Notice and the Consent Order. Monitoring of the conditions of the ECs will be performed by the Respondent or its successor in title as part of routine building inspections performed at the Facility.

In accordance with the Consent Order, further remedial activities are anticipated upon the demolition of Buildings 96 and 130. Any future remedial activities will be performed in accordance with one or more Work Plans that will be prepared and submitted to NYSDEC for approval prior to the performance of any subsurface work activities. These Work Plans will include the following items:

- Scope of work for the removal of any remaining impacted soils following the demolition of the buildings.
- A Quality Assurance Plan (QAP) describing sampling procedures, data quality usability objectives and analytical methods for all samples collected to confirm that residual impacted soils have been removed to the applicable 6 NYCRR Part 375 SCOs for commercial or industrial uses.
- A Facility-specific HASP
- A CAMP prepared in accordance with NYSDEC DER-10 requirements, as applicable and specifically with Appendix 1A, Generic Community Air Monitoring Plan and Appendix 1B, Fugitive Dust and Particulate Monitoring.
- A Project Schedule
- Reporting procedures for the submittal of the FER.

4.2 Building Inspections

Building inspections will be performed on a monthly basis to assess the condition of the building and the building slabs for Buildings 96 and 130. Inspections will also be performed after all severe weather conditions (i.e., hurricane, tornado, flood, or severe thunderstorm as defined by the National Weather Service) that may affect these ECs or in the event of an emergency. Modification to the frequency or duration of these inspections will require approval from NYSDEC.

During these inspections, the Inspection Form included in Appendix G will be completed. The form will be used to compile sufficient information to assess and document the following as appropriate:

- General site and building conditions at the time of the inspection
- Verification of the continued presence of appropriate signage in the buildings and on the impacted floor areas with current Designated Contact information
- Compliance with all ICs and the requirements of this SMP, including site usage
- An evaluation of the condition and continued effectiveness and protectiveness of the ECs

- Confirmation that site records are up to date and specifically, the SMP, the Consent Order and the prior monthly inspection forms
- The need to perform any corrective actions, including any maintenance and repair activities

In the case an event, such as a natural disaster or an unforeseen failure of any of the ECs occurs, which reduces or has the potential to reduce the effectiveness of ECs in place at the Facility, verbal notice to NYSDEC must be given by noon of the following day after the conclusion of the event. The Designated Contact shall be responsible for the notification. In addition, an inspection of the Facility will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the Facility by a Qualified Environmental Professional, as determined by NYSDEC. Written confirmation must be provided to NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the public and the environment.

Inspections will continue until demolition of either or both of the buildings occurs as required by the Consent Order.

4.3 Soil Gas Venting System Monitoring

Inspections will be performed on a monthly basis to assess the condition and operational status of the soil gas venting system in Building 130. Inspections will also be performed after all severe weather conditions (i.e., hurricane, tornado, flood, or severe thunderstorm as defined by the National Weather Service) that may affect this EC or in the event of an emergency. Modification to the frequency or duration of these inspections will require approval from NYSDEC.

During these inspections, the Inspection Form included in Appendix G will be completed. The form will be used to compile sufficient information to assess and document the following as appropriate:

- General site and building conditions at the time of the inspection
- Verification of the continued presence of appropriate signage in the building and for the soil gas venting system piping and fan with current Designated Contact information
- Verification that the green indicator light is connected to the fan which remains on as long as the fan is running
- An evaluation of the condition and continued effectiveness and protectiveness of the EC
- Confirmation that site records are up to date and specifically, the SMP, the Consent Order and the prior monthly inspection forms
- The need to perform any corrective actions, including any maintenance and repair activities

Inspections will be conducted and documented as required, regardless of the frequency of the Periodic Review Report.

In the case an event, such as a natural disaster or an unforeseen failure of any of the ECs occurs, which reduces or has the potential to reduce the effectiveness of ECs in place at the Facility, verbal notice to NYSDEC must be given by noon of the following day after the conclusion of the event. The Designated Contact shall be responsible for the notification. In addition, an inspection of the Facility will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the Facility by a Qualified Environmental Professional, as determined by NYSDEC. Written confirmation must be provided to NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the public and the environment.

Inspections will continue until demolition of Building 130 occurs as required by the Consent Order.

4.4 Post-Remediation Sampling

As noted in Section 4.1, post-remediation sampling will be performed in accordance with one or more NYSDEC-approved Work Plans. These Work Plans will be prepared in accordance with the Consent Order at some yet undefined time in the future upon the demolition of Buildings 96 and 130.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

Operation and maintenance is required for the two inaccessible SWMUs consistent with the requirements of the Deed Notice and the Consent Order.

This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the ECs for the Facility. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the Facility to maintain the buildings and the buildings slabs for Buildings 96 and 130 and to operate and maintain the soil gas venting system in Building 130.
- Will be need to be updated periodically to reflect changes in Facility conditions or the manner in which these ECs are operated and maintained.

A separate Operation and Maintenance Manual is not required for these ECs. Specifications for the fan for the soil gas venting system are provided in Appendix F of this SMP. This Operation and Maintenance Plan described below is not to be used as a stand-alone document, but as a component document of this SMP.

5.2 Engineering Control Performance Criteria

5.2.1 Building and Building Slabs

Performance criteria for the building and building slabs are as follows:

- No significant deterioration of the building shall be observed that could compromise the integrity and continued protectiveness of the building slab.
- No deterioration of the slabs shall be observed over time and upon inspection.
- No significant deep cracks, holes, settlement or other defects in the surface of the slabs shall be present the could result in either direct contact with the residual impacted soils present below the slabs, allow for a pathway for soil vapor intrusion into the building or permit the infiltration of any water or spilled material in the subsurface.
- Floors covering the impacted areas shall be marked and signage in place with current Designated Contact information.

5.2.2 Soil Gas Venting System

Performance criteria for the soil gas venting system are as follows:

- The fan shall remain in continuous operation to prevent the potential for exposure to soil vapor in Building 130.
- The fan shall continue to operate in accordance with the manufacturer's specification included in Appendix F.

- Soil gas venting piping shall not be cracked or otherwise damaged, and joints shall remain sealed.
- Soil gas venting piping shall be marked and signage in place with current Designated Contact information.
- The soil gas venting system discharge point shall be in operation and unobstructed with its grated cap in place with the exhaust being discharged in a downward direction.

5.3 EC Routine and Non-Routine Operation and Maintenance

5.3.1 Building and Building Slabs

As part of the inspections described in Section 4.2 above, Facility personnel shall observe and report any defects in the building or slab that may compromise the integrity and continued protectiveness of the building slab to the Designated Contact named on the signage. The Designated Contact will be responsible for coordinating any repairs that need to be made.

5.3.2 Soil Gas Venting System

In the event that the green indicator light for the fan is observed to be out during the inspections described in Section 4.3 above or at another time, Facility personnel shall contact the Designated Contact named on the signage. The Designated Contact will be responsible for coordinating any repairs that need to be made and for the re-startup of the fan.

If over the course of the soil gas system lifetime, the fan becomes permanently inoperable, the fan will be replaced with a similar model plan or equivalent and the soil gas system will be re-started.

5.4 Operation and Maintenance Reporting

The operating condition of the ECs will be documented using the Inspection Form included in Appendix G. Routine and non-routine operation and maintenance activities will be noted in the Periodic Review Report as presented in Section 7.0.

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 General

Periodic assessments and evaluations will be performed addressing climate change vulnerability, green remediation options and remedial systems optimization in accordance with the Consent Order as warranted. Any periodic assessments and evaluations will be included in the Periodic Review Report (PRR) as described in Section 7.0.

6.2 Climate Change Vulnerability

Global warming climate changes, including increased severity and frequency of storms/weather events, increasing sea level elevations with accompanying flooding impacts and shifting precipitation patterns have the potential to impact the performance, effectiveness and protectiveness of remedial systems installed at a site. Vulnerability assessments permit the evaluation of the potential effects of climate change on remedial systems so that mitigative measures can be implemented

An evaluation of the climate change vulnerability for the ECs at the Facility is as follows:

- **Flooding.** Buildings 96 or 130 are not located within the 100-year flood plain of the nearest surface water body, Muddy Brook or Cherry Creek (FEMA, 2014). Neither building was flooded during Hurricane Sandy in 2012 or is subject to flooding during severe rainfall events.
- **Site Drainage and Stormwater Management.** Adequate site drainage and stormwater management is present at the Facility. Stormwater is collected by a network of catch basins that discharge to the storm water sewer system. The storm water sewer system is connected to a series of retention ponds and discharge to Muddy Brook. The storm water ponds include Finlay Pond, Reed Pond, and the Northern Retention Basin. Storm water also discharges by sheet flow towards either Muddy Brook or Cherry Creek. Site drainage and the associated stormwater management system components in the vicinity of Buildings 96 and 130 are considered adequate to protect the ECs during severe rainfall events.
- **Erosion.** Buildings 96 and 130, and in particular, the impacted soils remaining beneath the building slabs, are not considered highly susceptible to erosion during severe rainfall events. Appropriate erosion and sedimentation controls will be included in any Work Plans prepared for removal of impacted soils beneath the concrete slabs following building demolition.
- **High Wind.** Buildings 96 and 130 are not considered highly susceptible to high winds. No overhead site utilities or trees are present that could fall on the buildings or disrupt the operation of the soil gas venting system.
- **Electrical Outages.** The fan associated with the soil gas venting system is the only element of the ECs which could experience a power outage during a storm event and is not connected to any emergency generator system that services Building 130. However it is anticipated that any disruption in operation due to electrical outage would be infrequent and temporary in nature, and would not impact the protectiveness of the EC.

- **Spill/Contaminant Releases.** No hazardous materials are stored in the vicinity of the ECs that could result in spills or contaminant releases due flooding, erosion, high winds or loss of power.

Re-evaluation of the potential for climate change vulnerability will be performed as part of the Periodic Review Report (PRR) as described in Section 7.0

6.3 Green Remediation Evaluation

NYSDEC DER-31 "Green Remediation" Program Policy (NYSDEC, 2011) requires that green remediation concepts and techniques be considered during all stages of the remedial program, including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology.

Green remediation options will be considered as part of any Work Plans that are prepared as required by the Consent Order. Consideration will be given the following items, consistent with DER-31, as applicable:

- Waste generation and reduction
- Energy usage
- Air and dust emission reductions
- Water use
- Minimization of potential land use and/or ecosystem disruptions

6.4 Remedial System Optimization

The ICs/ECs for Buildings 96 and 130 will remain in effect and may be revised in the future depending on the remedial activities that may be performed once the buildings are demolished in accordance with NYSDEC-approved Work Plans. The ECs will be operated properly considering the current Facility conditions to conserve materials and resources to the greatest extent possible.

As currently designed, the ECs for Building 96 include the building and the building concrete slab which prohibit human exposure by direct contact with any mercury-impacted soils. Direct contact with VOC-impacted soils and the potential for exposure to soil vapor in Building 130 are controlled by ECs that include the building, the building concrete slab and soil gas venting system.

Optimization of the ECs will be considered as part of the Periodic Review Report (PRR) as described in Section 7.0

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All SMP-related inspection events will be recorded on the Inspection Form provided in Appendix G. This form is subject to NYSDEC revision.

All applicable inspection forms and other records, including system maintenance reports, generated for the Facility during each reporting period will be provided in electronic format to NYSDEC in accordance with the following schedule and summarized in the Periodic Review Report (PRR):

- Monthly Inspections Forms – Inspections will be performed monthly with the forms kept onsite and available for review by NYSDEC. Copies of the forms will be included in the PRR.
- Periodic Review Report – Biennially, including certification of the ICs/ECs as required by the Consent Order.

The Inspection Form will include the following information:

- Date of event or reporting period
- Name, company, and position of person(s) conducting monitoring/inspection activities
- Descriptions of the condition of the ECs and any routine or non-routine maintenance, system modifications or repair activities performed for either the buildings, the building slabs or the soil gas venting system.
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted included either on the Inspection Form or on an attached sheet.
- Any observations, conclusions, or recommendations
- A determination as to whether the EC conditions have changed since the last reporting event.

7.2 Periodic Review Report

A PRR will be submitted by the Respondent or its successor in title to NYSDEC beginning two years after the effective date of the Consent Order will include the required biennial certification. After submittal of the initial Periodic Review Report, the next PRR shall be submitted to the NYSDEC every two years or at another frequency as may be required by NYSDEC. In the event that the Facility is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Facility as described in the Deed Notice or Consent Order, as appropriate.

The PRR will be prepared under the direction of a NYS Registered Professional Engineer as defined in 6 NYCRR Part 375 and in accordance with the applicable requirements of NYSDEC DER-10. The PRR will be submitted within 30 days of the end of each certification period and will include the following information:

- Identification, assessment and certification by a NYS Registered Professional Engineer of all ICs/ECs required by the Consent Order for the Facility.
- Results of the required monitoring, annual Facility inspection specifically conducted for the preparation of the PRR and any severe condition inspections, if applicable.
- All applicable SMP forms and other records generated for the Facility during the reporting period in NYSDEC-approved electronic format, if not previously submitted.
- Results of any periodic assessments and evaluations for climate change vulnerability, green remediation options and/or remedial system optimization for the ICs/ECs at the Facility as applicable.
- Results and findings for the evaluation period, including the following:
    - The compliance of the ECs with the requirements of the Deed Notice and the Consent Order.
    - The operation and the effectiveness of all ECs, including identification of any needed repairs or modifications. For the soil gas venting system, a description of any breakdowns and/or repairs will be provided along with an explanation for any significant downtime and the resolution of any operational issues, as warranted.
    - Any new conclusions or observations regarding Facility impacts based on inspections performed.
    - Recommendations regarding any necessary changes to the ECs and/or SMP.
    - The overall performance and effectiveness of the ECs.
    - Conclusions and recommendations.

Upon the demolition of the inaccessible SWMUs, media sampling results will also be incorporated into the PRR and will include the following information, as appropriate:

- Data summary tables and graphical representations of contaminants of concern by environmental media, including a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. This information will include a presentation of past data as part of an evaluation of contaminant concentration trends to demonstrate compliance with the applicable 6 NYCRR SCOs for commercial or industrial uses.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected will be submitted in digital format required by NYSDEC.

In the event the demolition is completed prior to the end of the next biennial reporting period, the results for the post-excavation and disposal sampling activities for either Building 96 and/or 130 will be provided in the FER and the FER will be appropriately referenced and summarized in the next PRR.

The PRR will be issued until the demolition of either or both buildings occurs as required by the Consent Order.

The PRR will be submitted in electronic format to the Project Manager for the NYSDEC identified in Section XVI (A) of the Consent Order or his/her successor.

7.2.1 Certification of Institutional and Engineering Controls

Certification of ICs/ECs will be included in PRR and prepared by a NYS Registered Professional Engineer. The following certification will apply to the Facility:

"*For each institutional or engineering control identified for the Facility, I certify that all of the following statements are true:*

- *The inspection of the Facility to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and engineering controls employed at this Facility are unchanged from the date the control was put in place, or last approved by NYSDEC;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any Facility Management Plan for this control;*
- *Access to the Facility will continue to be provided to NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the Facility, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the Facility is compliant with the Deed Notice, and the Consent Order;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Facility remedial program and generally accepted engineering practices; and*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative] (and if the Facility consists of multiple properties): *[I have been authorized and designated by all Facility owners/remedial parties to sign this certification] for the Facility."*

The signed certification will be included in the PRR until the demolition of either or both buildings occurs as required by the Consent Order. Once demolition is completed, the signed certification will be provided as a stand-alone document specifically for any remaining ICs.

7.3 Corrective Measures Work Plan

If any component of the EC is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC or EC, a Corrective Measures Work Plan will be submitted to NYSDEC for approval.

This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by NYSDEC.

8.0 REFERENCES

AT Kearney, Final RCRA Facility Assessment Report, 1992.

Federal Emergency Management Agency, Firm Flood Insurance Rate Map, Town of Orangetown (Community No. 360686) and Town of Clarkstown (Community No. 360679), Map Number 36087C0159G, Panel 159 of 207, effective date March 3, 2014.

Golder Associates, Level 1 Environmental Site Assessment, Pfizer Pearl River Complex, Pearl River, NY, USA, and January, 2011.

HydroQual, RCRA Corrective Action Program Solid Waste Management Unit Summary Report for Wyeth Pearl River Facility, Pearl River, New York, November 2005.

HydroQual, RCRA Interim Corrective Measures Final Report, Building 96 Soil Excavation, Wyeth Pearl River Facility, Pearl River, New York, May 2008.

KS Engineers, Wyeth Building B96 Soils Excavation, Structural Inspection and Excavation Procedures, August 9, 2007.

New York State Department of Environmental Conservation, Final Corrective Measures for Solid Waste Management Units, October 14, 2005.

New York State Department of Environmental Conservation, Green Remediation, DER-31, January 2011.

New York State Department of Environmental Conservation, Order on Consent, Index No. CO 3-20150325-33, July 21. 2015.New York State Department of Environmental Conservation, Technical Guidance for Site Investigation and Remediation, DER-10, May 2010.

6 NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

Parsons Engineering Science, Lederle Industrial Sewer System Assessment Report, Wyeth-Ayerst Laboratories, Pearl River, New York, September 1997.

Parsons, Building 130 Soil Venting System Installation Certification Report, Wyeth Pharmaceuticals, Pearl River, New York, February 2005.

TABLES

Table 1
Notifications

Responsible Entity	Name	Address	Contact	Phone Number	E-mail Address
NYSDEC DER Contact	NYSDEC Division of Environmental	625 Broadway, 11th Floor Albany, NY 12233-7044	Keith Gronwald	(518) 402-9662	keith.gronwald@dec.ny.gov

Table 2
Building 96 Remaining Soil Sample Results

Results of Total Mercury Analysis for Post-Excavation Soils

Sample ID	Post Excavation 1	Post Excavation 2		Post Excavation 3		Post Excavation 4	Post Excavation 5	Post Excavation 5 (Duplicate)
Lab Sampling No.	888192	888193		888194		888195	888196	888197
Sampling Date	12/22/2007	12/22/2007		12/22/2007		12/22/2007	12/23/2007	12/23/2007
Matrix	Solid	Solid		Solid		Solid	Solid	Solid
Dilution Factor								
Units	mg/kg	mg/kg		mg/kg		mg/kg	mg/kg	mg/kg
Metals								
Mercury (Total)	18.1	0.14		0.42		38.4	1	2.2

Results of TCLP Mercury Analysis for Post-Excavation Soils

Sample ID	Post Excavation 1	Post Excavation 2		Post Excavation 3		Post Excavation 4	Post Excavation 5
Lab Sampling No.	888192	888193		888194		888195	888196
Sampling Date	12/22/2007	12/22/2007		12/22/2007		12/22/2007	12/23/2007
Matrix	Solid	Solid		Solid		Solid	Solid
Dilution Factor							
Units	mg/l	mg/l		mg/l		mg/l	mg/l
TCLP Metals							
Mercury	0.004	0.0001	U	0.0001	U	0.16	0.001

Source: HydroQual, RCRA Interim Corrective Measures Final Report, Building 96 Soil Excavation, Wyeth Pearl River Facility, Pearl River, New York, May 2008.

Notes:
1. mg/kg = milligrams per kilogram
2. mg/l = milligram per liter
3. U - The analyte was not detected above the method detection limit (MDL).

Table 3
Building 130 Excavation Sidewall Sample Results

Parameter	Northern Wall	Southern Wall	Eastern Wall	Western Wall
Toluene (mg/kg)	0.29	46.6	0.02	56.30
Chlorobenzene (mg/kg)	0.02	3.05	0.09	5.70
Acetone (mg/kg)	<0.03	2.70	<0.012	<3.36
Trichloroethene (mg/kg)	<0.006	<0.65	0.01	<0.67
M&P - Xylenes (mg/kg)	<0.012	<1.30	0.004	<1.34
1, 4-Dichlorobenzene (mg/kg)	<0.03	<3.26	0.005	<3.36

Source: Parsons Engineering Science, Lederle Industrial Sewer System Assessment Report, Wyeth-Ayerst Laboratories, Pearl River, New York, September 1997.

Notes:
1. All concentrations are in milligrams per kilogram (mg/kg).

Table 4

Building 130 Soil Vapor Sample Results Summary (1997-2001)

Soil Gas Monitoring Point	Sampling Date	Acetone	Trichloroethene	Toluene	Chlorobenzene	M&P Xylenes	1,4-Dichlorobenzene	Total VOCs
SV-1	12/23/1997	80	ND	1000	13	50	ND	1143
SV-1	3/17/1998	36	<2.9	320	180	92	ND	630.9
SV-1	7/7/1998	28	ND	230	120	34	ND	412
SV-1	10/7/1998	ND	ND	100	160	26	ND	286
SV-10 (SV-1 dup.)	10/7/1998	ND	ND	110	190	30	ND	330
SV-1	1/19/2000	64	<5.5	>635	442	38.7	<5.5	1190.7
SV-1	5/4/2000	18	18	260	390	75	4.1	765.1
SV-1	8/23/2000	68	20	238	622	43	<5.7	996.7
SV-1	1/9/2001	15	17	44	350	20	<2.2	448.2
SV-2	12/23/1997	61	3.7	91	33	25	<1.5	215.2
SV-2	3/17/1998	180	<3.9	63	57	26	ND	329.9
SV-10 (SV-2 dup.)	3/17/1998	170	4.1	74	53	23	ND	324.1
SV-2	7/7/1998	130	30	380	350	41	ND	931
SV-2	10/7/1998	160	4.3	570	51	5.9	ND	791.2
SV-2	1/19/2000	168	11	>374	129	16.7	5.7	708.4
SV-2	5/4/2000	80	13	>600	190	84.0	<4.0	971.0
SV-2	8/23/2000	101	44	1656	405	55.0	<4.6	2265.6
SV-2	1/9/2001	220	26	150	260	26.0	<2	684.0
SV-3	12/23/1997	11	7.8	48	2.0	61	ND	129.8
SV-10 (SV-3 dup.)	12/23/1997	46	7.2	54	<2.0	59	ND	168.2
SV-10(1)	12/23/1997	46	7.4	54	<2.0	59	ND	168.4
SV-3	3/17/1998	2.7	1.1	6.0	6.5	7.3	ND	23.6
SV-3	7/7/1998	6.2	3.6	20	7.6	5.3	ND	42.7
SV-3 lab dup.	7/8/1998	6.2	3.6	19	7.4	5.3	ND	41.5
SV-3	10/7/1998	4.4	3.8	7.6	7.6	3.4	ND	26.8
SV-3	1/19/2000	56	28	111	<5.1	6.6	<5.1	211.8
SV-3	5/4/2000	31	29	33	41	51	<4.1	189.1
SV-3	8/23/2000	70	36	120	29	12	<5.0	272
SV-3	1/9/2001	8.5	98	6.5	<4.1	<4.1	<4.1	125.3
SV-30 (SV-3 dup.)	1/9/2001	9	84	5.3	<4.1	<4.1	6.6	113.1

Golder Associates

Table 4

Building 130 Soil Vapor Sample Results Summary (1997-2001)

Soil Gas Monitoring Point	Sampling Date	Acetone	Trichloroethene	Toluene	Chlorobenzene	M&P Xylenes	1,4-Dichlorobenzene	Total VOCs
SV-4	12/23/1997	26	2.1	130	2.4	19	ND	179.5
SV-4	3/17/1998	<81	ND	930	ND	200	ND	230
SV-4	7/7/1998	450	33	2000	43	90	ND	2616
SV-10 (SV-4 dup.)	7/7/1998	440	30	2000	30	64	ND	2564
SV-4	10/7/1998	110	22	450	32	95	ND	709
SV-4 lab dup.	10/7/1998	120	21	440	33	95	ND	709
SV-40 (SV-4 dup.)	1/19/2000	241	111	512	235	156.6	<6.0	1261.6
SV-4	1/19/2000	237	158	375	176	112.4	4.3	1062.7
SV-40 (SV-4 dup.)	5/4/2000	260	26	240	110	92	<4.4	732.4
SV-4	5/4/2000	86	43	170	99	92	6.6	496.6
SV-4	8/23/2000	352	294	535	210	98	<4.5	1493.5
SV-40 (SV-4 dup.)	8/23/2000	452	385	622	255	124	<5.7	1843.7
SV-4	1/9/2001	140	170	380	380	250	<2.2	1322.2
SV-5	12/23/1997	5.5	130	19	<1.4	59	ND	214.9
SV-5	3/17/1998	<3.4	55	4.2	2.5	3.2	ND	68.3
SV-5 lab dup.	3/17/1998	<3.3	56	4.1	2.6	3.3	ND	69.3
SV-5	7/7/1998	9.1	140	17	4.8	4.4	ND	175.3
SV-5	10/7/1998	4.4	130	7.6	4.2	2.4	ND	148.6
SV-5	1/19/2000	46	337	111	10	8.3	<4.0	516.3
SV-5	5/4/2000	110	250	30	14	41	<5.4	450.4
SV-5	8/23/2000	64	591	118	9.8	11	<4.9	798.7
SV-5	1/9/2001	9.9	570	7.4	5.7	3.8	<2.1	598.9

Source: Parsons Engineering Science, Lederle Industrial Sewer System Assessment Report, Wyeth-Ayerst Laboratories, Pearl River, New York, September 1997.

Notes:
1. All concentration are in micrograms per cubic meter ($\mu g/m^3$).
2. ND = Concentration of the analyte tested was either not detected or below the practical quantitation level (PQL).
3. < = Concentration found below PQL.
4. > = Concentration found above PQL.

FIGURES

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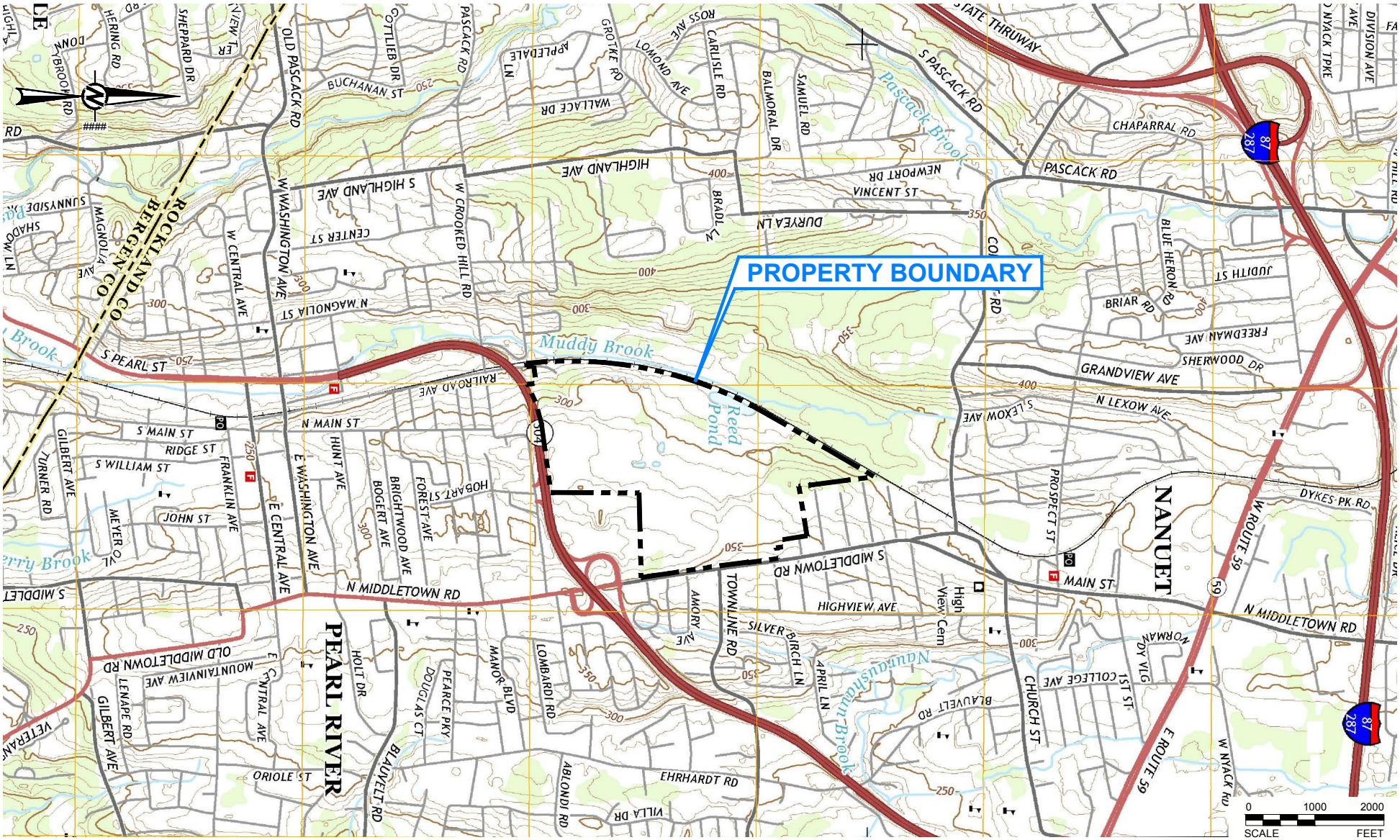

LEGEND

PROPERTY BOUNDARY

REFERENCE

1. MAP FROM U.S.G.S. 7.5 MINUTE QUADRANGLE OF PARK RIDGE, NJ-NY, DATED 2014.

CLIENT
WYETH HOLDINGS LLC
PEARL RIVER, NEW YORK

CONSULTANT
Golder Associates

YYYY-MM-DD	2015-10-26
PREPARED	AM
DESIGN	AS
REVIEW	GPH
APPROVED	AS

PROJECT
SITE MANAGEMENT PLAN

TITLE
SITE LOCATION MAP

PROJECT No.	CONTROL	Rev.	FIGURE
15-35318	1535318A001	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
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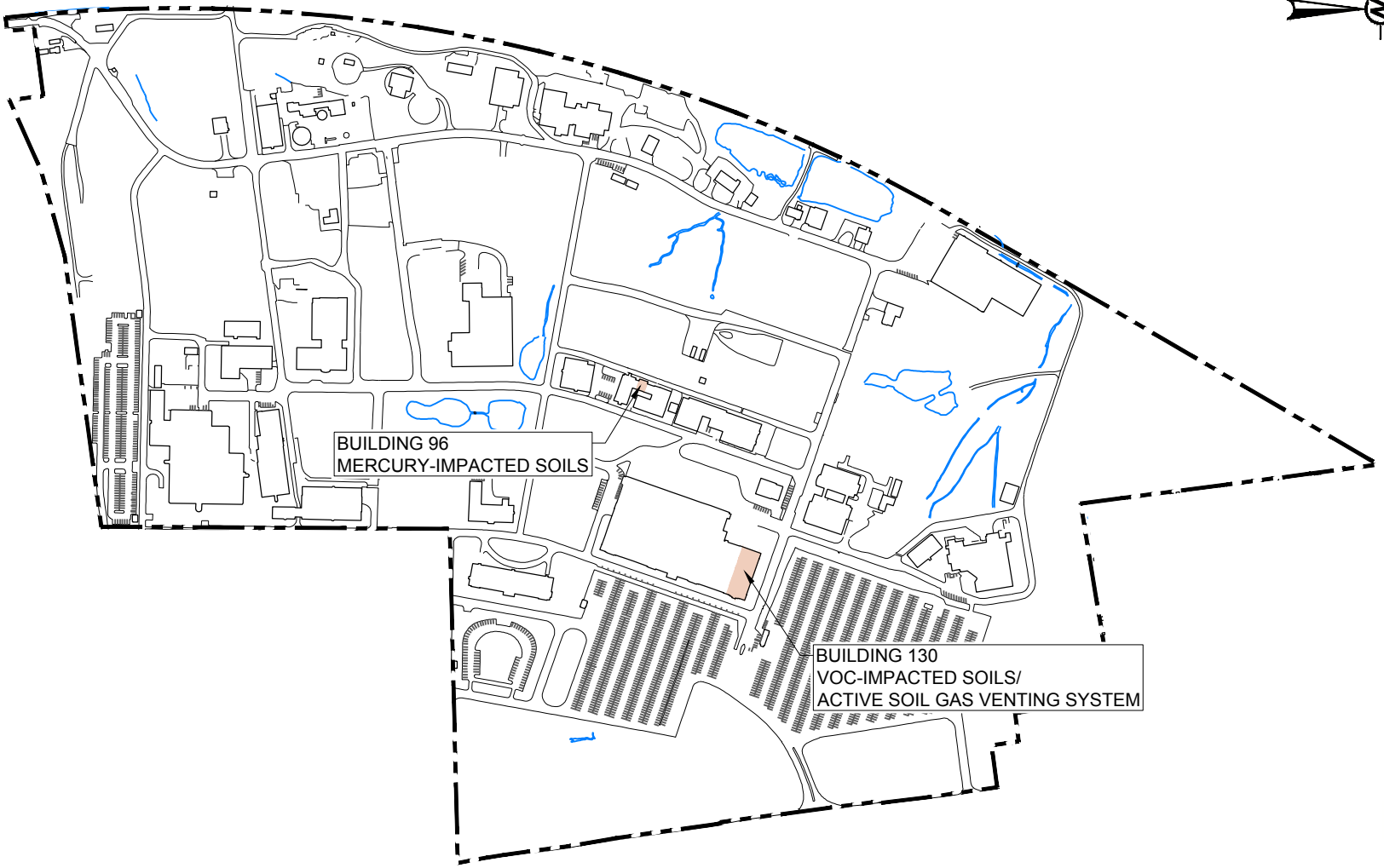

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SCALE FEET

LEGEND

PROPERTY BOUNDARY

WATER

REFERENCE

1. BASE MAP FROM DIGITAL CAD FILE PFIZER 2014 (NAD83 NAVD88) FINAL ALTA (CLIENT).DWG, ENTITLED " ALTA/ACSM LAND TITLE SURVEY," DATED APRIL 21, 2014, PREPARED BY EDWARD T. GANNON, P.L.S.

CLIENT
WYETH HOLDINGS LLC
PEARL RIVER, NEW YORK

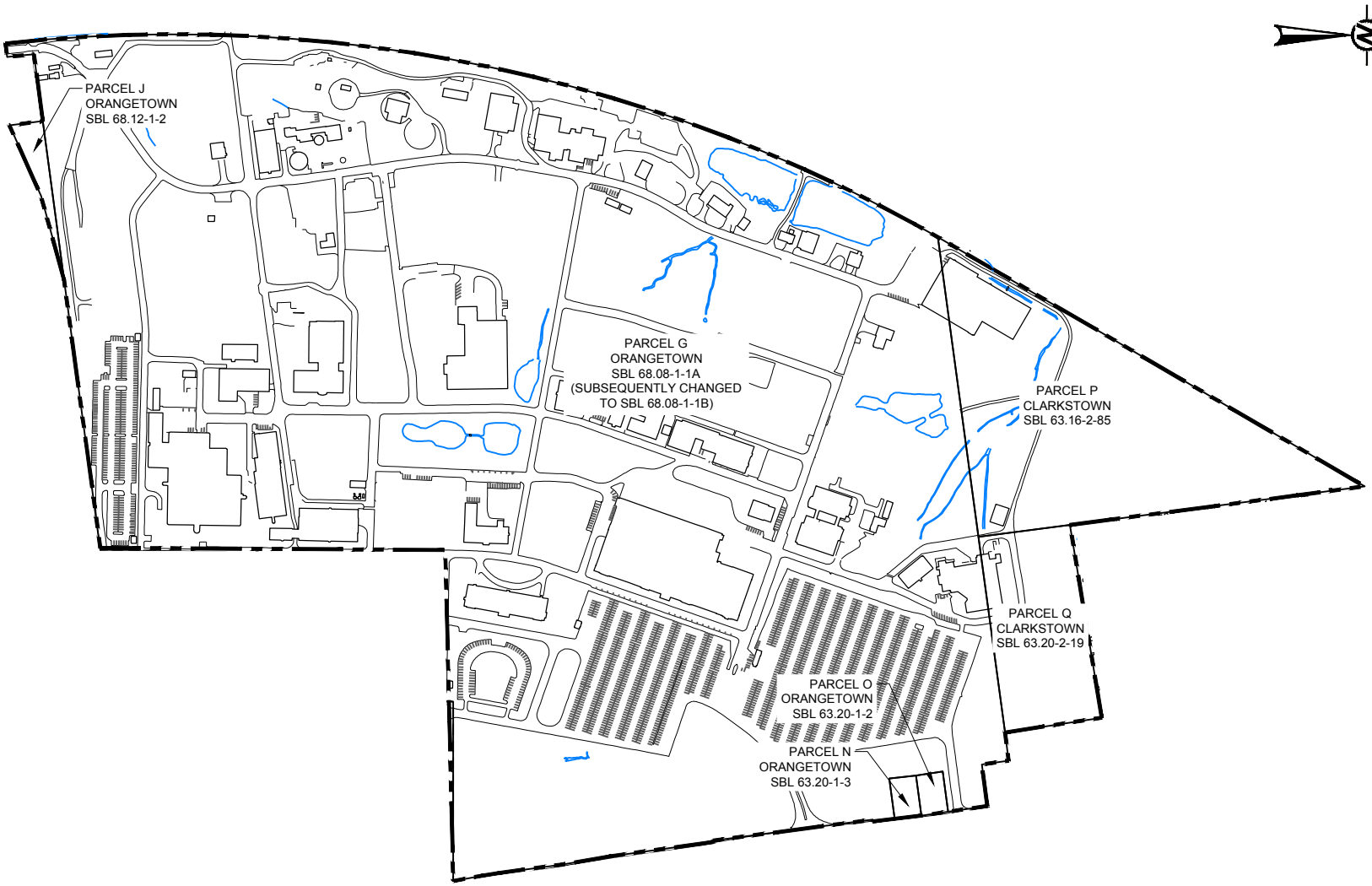
CONSULTANT
Golder Associates

YYYY-MM-DD	2015-10-26
PREPARED	AM
DESIGN	AS
REVIEW	GPH
APPROVED	AS

PROJECT
SITE MANAGEMENT PLAN

TITLE
INACCESSIBLE SWMU LOCATION MAP

PROJECT No.	CONTROL	Rev.	FIGURE
15-35318	1535318A002	0	2



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SCALE FEET

LEGEND

PROPERTY BOUNDARY

WATER

REFERENCE

1. BASE MAP FROM DIGITAL CAD FILE PFIZER 2014 (NAD83 NAVD88) FINAL ALTA (CLIENT).DWG, ENTITLED " ALTA/ACSM LAND TITLE SURVEY," DATED APRIL 21, 2014, PREPARED BY EDWARD T. GANNON, P.L.S.

CLIENT
WYETH HOLDINGS LLC
PEARL RIVER, NEW YORK

CONSULTANT
Golder Associates

YYYY-MM-DD	2015-10-26
PREPARED	AM
DESIGN	AS
REVIEW	GPH
APPROVED	AS

PROJECT
SITE MANAGEMENT PLAN

TITLE
SITE TAX MAP

PROJECT No.	CONTROL	Rev.	FIGURE
15-35318	1535318A004	0	3

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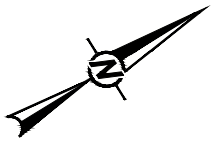

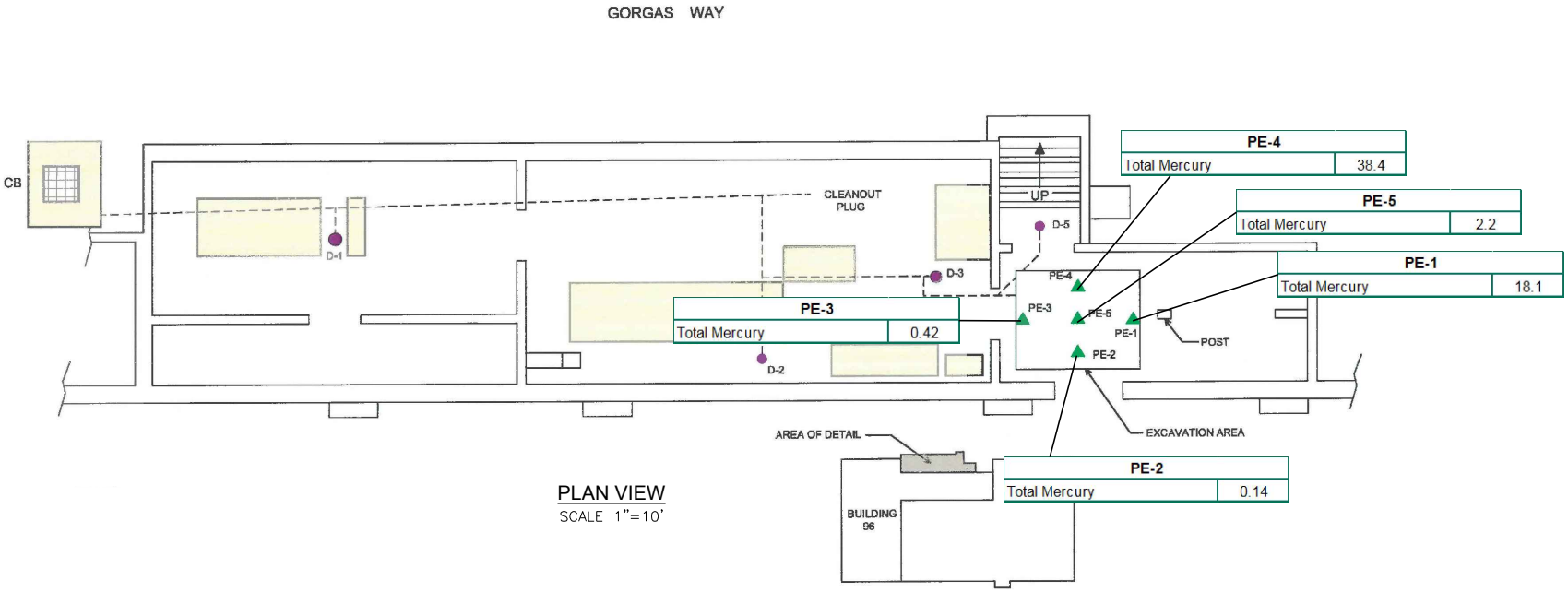

PLAN VIEW
SCALE 1"=10'

KEY MAP
SCALE N.T.S.

LEGEND

- SLAB
- D-1 — DRAIN
- CB — CATCH BASIN
- SUB-SLAB DRAIN PIPE
- PE-2 — LOCATION OF POST-EXCAVATION SOIL SAMPLE (COMPOSITE ALONG FACES)

NOTE

1. ALL SOIL SAMPLE RESULTS ARE IN MILLIGRAMS/KILOGRAM (MG/KG).

REFERENCE

1. BASE MAP FROM FIGURE 2-2, ENTITLED "LOCATION OF POST-EXCAVATION SOIL SAMPLES," INCLUDED IN THE REPORT ENTITLED "RCRA INTERIM CORRECTIVE MEASURES FINAL REPORT, BUILDING 96 SOIL EXCAVATION, WYETH PEARL RIVER FACILITY, PEARL RIVER, NEW YORK, DATED MAY 2008," PREPARED BY HYDROQUAL.

0 5 10
SCALE FEET

CLIENT
WYETH HOLDINGS LLC
PEARL RIVER, NEW YORK

CONSULTANT
Golder Associates

YYYY-MM-DD	2015-10-26
PREPARED	AM
DESIGN	AS
REVIEW	GPH
APPROVED	AS

PROJECT
SITE MANAGEMENT PLAN

TITLE
BUILDING 96
IC/EC BOUNDARY AND LOCATION MAP

PROJECT No.	CONTROL	Rev.	FIGURE
15-35318	1535318A005	0	4

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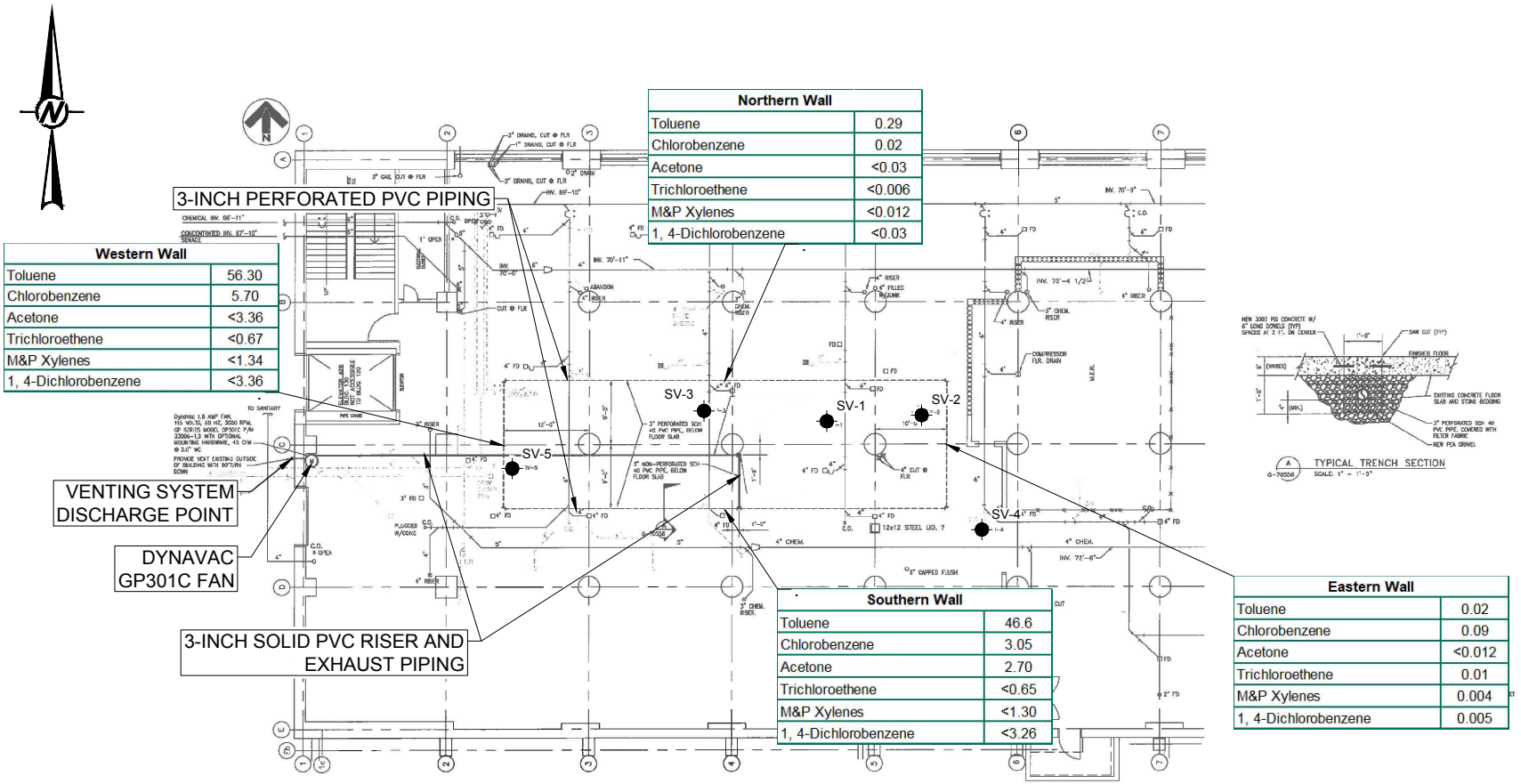

Northern Wall	
Toluene	0.29
Chlorobenzene	0.02
Acetone	<0.03
Trichloroethene	<0.006
M&P Xylenes	<0.012
1, 4-Dichlorobenzene	<0.03

Western Wall	
Toluene	56.30
Chlorobenzene	5.70
Acetone	<3.36
Trichloroethene	<0.67
M&P Xylenes	<1.34
1, 4-Dichlorobenzene	<3.36

Southern Wall	
Toluene	46.6
Chlorobenzene	3.05
Acetone	2.70
Trichloroethene	<0.65
M&P Xylenes	<1.30
1, 4-Dichlorobenzene	<3.26

Eastern Wall	
Toluene	0.02
Chlorobenzene	0.09
Acetone	<0.012
Trichloroethene	0.01
M&P Xylenes	0.004
1, 4-Dichlorobenzene	0.005

1ST FLOOR PARTIAL PLAN
SCALE 1/2'' = 1'-0''

LEGEND

FORMER SOIL GAS MONITORING POINT

NOTES

1. ALL EXCAVATION SIDEWALL SAMPLE LOCATIONS ARE APPROXIMATE.
2. ALL SOIL SAMPLE RESULTS ARE IN MILLIGRAMS/KILOGRAM (MG/KG).

REFERENCE

1. BASE MAP FROM WYETH AYERST DRAWING NO. G-70963, "BUILDING 130 FIRST FLOOR SOIL VENTING SYSTEM MECHANICAL," INCLUDED IN THE REPORT ENTITLED "ACTIVE SOIL VENTING SYSTEM INSTALLATION AND CERTIFICATION," DATED FEBRUARY 25, 2005 PREPARED BY PARSONS.

CLIENT
WYETH HOLDINGS LLC
PEARL RIVER, NEW YORK

CONSULTANT
Golder Associates

YYYY-MM-DD	2015-10-26
PREPARED	AM
DESIGN	AS
REVIEW	GPH
APPROVED	AS

PROJECT
SITE MANAGEMENT PLAN

TITLE
BUILDING 130
IC/EC BOUNDARY LOCATION MAP

PROJECT No.	CONTROL	Rev.	FIGURE
15-35318	1535318A006	0	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
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APPENDICES

APPENDIX A

ORDER ON CONSET

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Office of the General Counsel
625 Broadway, 14th Floor, Albany, New York 12233-1500
P: (518) 402-9185 | F: (518) 402-9018
www.dec.ny.gov

July 22, 2015

SENT VIA FIRST CLASS MAIL and E-MAIL

Michael T. Knotaxis, P.E.
Wyeth Pharmaceuticals
401 North Middletown Rd.
Pearl River, NY 10965-1299
Michael.kontaxis@pfizer.com

Merrill E. Fliederbaum
Pfizer, Inc.
235 East 42nd Street
New York, NY 10017
Ronald.schott@pfizer.com

Steven C. Russo
Greeenberg Traurig, LLP
200 Park Avenue
New York, NY 10166
Russos@gtlaw.com

RE: Order on Consent
DEC Site Name: Lederle Lab
DEC Site No.: 344003
Index No.: CO 3-20150325-33

Dear Messer's.:

Enclosed for your files is a copy of the fully executed Order on Consent referencing the Lederle Lab site and Wyeth Pharmaceuticals facility located at 401 Middletown Road, Town of Orangetown, County of Rockland, New York.

If you have any further questions or concerns relating to this matter, please contact our office at 518-402-9510.

Sincerely,

Maria Mastroianni
Legal Assistant
Bureau of Remediation, Section A
Office of General Counsel

Enclosure

ec: A. Guglielmi, Esq.
D. Crosby
K. Gronwald
G. Heitzman
E. Armater

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of the Development and Implementation of an Industrial Waste Management Program under under Article 27, Title 9 and 13 and Article 71 of the Environmental Conservation Law.

ORDER ON CONSENT

Index No.: CO 3-20150325-33

By

Wyeth Holdings LLC.
f/k/a American Cyanamid Company
a/k/a Lederle Lab
401 North Middletown Road
Pearl River, NY 10965

DEC Site No.: 344003
EPA RCRA ID #: NYD054065909
DEC ID #:3-3924-00025/00107-0

Respondent.

I. PARTIES AND JURISDICTION

A) The New York State Department of Environmental Conservation ("Department") with an address at 625 Broadway, Albany, New York 12233, is responsible for administering and enforcing the Resource Conservation and Recovery Act Program ("RCRA" a/k/a the "Industrial Hazardous Waste Management Program") in the State of New York pursuant to Article 27, Titles 9 and 13 of the Environmental Conservation Law ("ECL") and Parts 370 – 376 of Title 6 of the Official Compilation of Codes, Rules and Regulations ("6 NYCRR").

B) The Department carries out the policy of the State of New York to conserve, improve and protect its natural resources and environment and control water, land, and air pollution consistent with the authority granted to the Department and the Commissioner by Article 1, Title 3 of the ECL.

C) Wyeth Holdings LLC ("Wyeth") is a limited liability company authorized to do business in the State of New York, operating as a subsidiary of Pfizer Inc. Wyeth, currently a life sciences company, engages in the discovery, development, manufacture, and marketing of medicinal and pharmaceutical products. Wyeth and any successor in title to any portion of the facility that is the subject of this Order shall collectively be referred to and defined herein as "Respondent."

D) Respondent owns and or operates a pharmaceutical research, development and manufacturing facility known as Wyeth Pharmaceuticals ("Facility") in the Town of Orangetown, County of Rockland, New York. For the purposes of this Order (as defined below), the Facility consists of those portions of parcels shown on Exhibit A and more particularly described on Exhibit A-1. The Facility was formerly known as Lederle Laboratories, a division of American Cyanamid Company.

E) The Department issues this Order on Consent ("Order" or "Consent Order") pursuant to its authority under, *inter alia*, ECL Article 27, Title 9 and 13, and ECL § 71-2727 and ECL § 3-0301. This Order supersedes and terminates the Facility's RCRA Permit, as defined below. Activities taken by Respondent at the Facility pursuant to this Order will be subject to the terms and provisions of this Order and will be taken pursuant to the Site Management Plan and any applicable Work Plan, both as referenced below.

F) The primary goal of this Order is to establish how certain inaccessible Solid Waste Management Units, as defined below, at the Facility will be addressed to minimize or eliminate risk to public health and the environment through the implementation of corrective measures to the extent feasible.

G) Respondent consents to the issuance of this Order without (i) any admission or finding of liability, fault, wrongdoing, or violation of any law, regulation, permit, order, requirement or standard of care of any kind whatsoever; (ii) any acknowledgment that there has been a release or threatened release of hazardous waste at or from the "Facility"; and/or (iii) any acknowledgment that a release or threatened release of hazardous waste at or from the Facility constitutes a significant threat to the public health or the environment.

H) Solely regarding the matters set forth in this Order, Respondent hereby waives any right to a hearing as may be provided by law, consents to the issuance and entry of this Order, and agrees to be bound by its terms. Respondent consents to and agrees not to contest the authority or jurisdiction of the Department to issue or enforce this Order, and agrees not to contest the validity of this Order or its terms or the validity of data submitted to the Department by Respondent pursuant to this Order.

NOW, having considered this matter and being duly advised, it is **ORDERED THAT**:

II. RCRA FACILITY

A) Historic Facility operations have resulted in the generation of hazardous wastes (primarily spent solvents) that were treated and stored on the property prior to removal for off-site disposal. Certain of these wastes were stored at the Facility in eight aboveground storage tanks. On September 29, 1993 the Department issued to the Facility a permit for the Treatment, Storage and Disposal of hazardous waste ("RCRA Permit") in accordance with Part 373, Title 6 of the NYCRR. The RCRA Permit has been assigned EPA RCRA ID No. NYD054065909. A minor permit modification application for the RCRA Permit to remove a 92-acre portion of the Facility known as Northern Parcel was submitted to the Department on August 7, 2007 and was approved on October 16, 2009.

B) Module III of the RCRA Permit identified a total of sixty-three SWMUs and two areas of concern ("AOC"), of which, following a RCRA Facility Assessment, twenty-one (21) SWMUs and one (1) AOC were identified as requiring investigation and/or remediation with the Department finding that the remaining SWMUs and AOCs required no further action. Respondent submitted work plans for all proposed activities, which were carried out following approval by the Department. Field, analytical and closure activities were performed in accordance with the approved work plans. At the conclusion of a significant portion of the corrective action activities, a three-year Corrective Measure Study (CMS) was performed at the direction of the Department. The objectives of the CMS were to monitor volatile organic compounds (VOCs) in groundwater downgradient of (i) Landfills 1 and 2, (ii) the SWMUs on the active side of the Facility, including the Facility's combined process/sanitary sewer, and (iii) the former wastewater treatment plant.

C) By correspondence dated October 15, 2012, the Department determined that the Respondent properly closed the Building 107 permitted storage facility and that Building 107 is authorized to operate as a less than 90 day exempt storage facility.

Groundwater

D) Following completion of the CMS, Respondent requested, in an August 10, 2005 letter to the Department, that a "No Further Remedial Action" (NFA) determination be issued for the SMWUs and AOC that had required additional investigation and assessment. The NFA request included a proposal for a groundwater-monitoring plan for two wells with concentrations for one or more VOCs above NYS Class GA Ground Water Quality Standards (GWQS). On October 14, 2005, the Department approved a reduced long-term monitoring schedule for the two wells. Respondent submitted a "RCRA Corrective Action Program, Solid Waste Management Units, Work-Plan for Long-Term Monitoring Program" in December 2005. This work plan set forth the scope of work for implementing the long-term monitoring program for wells MW-96-13 and MW-99B. Well MW-96-13 is downgradient of the former wastewater treatment plant and is identified on the tax map as Section 68.08, Block 1, Lot 1. Well MW-99B is downgradient of Landfills 1 and 2 and is identified on the tax map as Section 68.07, Block 2, Lot 17. A map illustrating the location of the two wells is attached hereto as Exhibit B.

The objective of the long term monitoring program was to continue to evaluate the attenuation of VOCs in the groundwater at the two well locations. The monitoring program was originally to be performed for a period of five years, or until the reported concentrations fell below their respective GWQS for four consecutive events. Analytical results for groundwater sampling in 2012 indicated that three VOCs were detected above GWQS during two sampling periods. Trichloroethene was detected above GWQS in MW-96-13, and vinyl chloride and 1, 2-Dichloroethane were detected above GWQS in MW-99B. As of December 2014, both wells showed an overall declining trend with respect to all contaminants of concern and, therefore, Respondent is permitted to discontinue the long-term groundwater monitoring program at these two wells at this

time.

Soil

E) During the course of normal operations, the Facility discovered, and reported to the Department, two breaks in the combined process/sanitary sewer that occurred under manufacturing buildings. These breaks resulted in releases to adjacent soils. In each case the discovery was followed by clean-up actions under Department approved work plans. As the clean-ups could not be completed without jeopardizing the structural integrity of the overlying buildings, these areas have come to be classified as the Inaccessible SWMUs, which underlie each building. These Inaccessible SWMUs are also known as Buildings 96 and 130, on Section 68.08, Block 1, Lot 1 and are subject to further remediation in the event of demolition.

F) Building 96 is located on Section 68.08, Block 1, Lot 1 of the tax map. It is bounded on the north by a line parallel to and 625ft ± south of the current center line of Pasteur Road, on the east by a line parallel to and 60ft ± east of the current center line of Gorgas Way, on the south by line parallel to and 700ft ± south of the center line of Pasteur Road and on the west by a line parallel to and 35ft ± east of the center line of Gorgas Way. Exhibit C contains an illustration of the location of Building 96 at the Facility. Mercury was detected in soil under the vestibule area of the Building 96 basement. The concentrations of the composited excavated soil samples ranged from 4.7mg/kg to 113mg/kg total mercury. The TCLP concentration ranges from 0.001 mg/1 to 0.02 mg/1. Soil borings completed in the roadway just outside the vestibule area confirmed that mercury was undetected in the soil beyond the building itself. The mercury remaining in the soil cannot be excavated without causing damage to Building 96.

G) Building 130 is located on Section 68.08, Block 1, Lot 1 of the tax map. It is bounded on the north by a line parallel to and 55ft ± south of the current center line of Pasteur Road, on the east by a line parallel to and 50ft ± west of the current center line of Gorgas Way, on the south by a line parallel to and 138ft ± south of the current center line of Pasteur Road and on the west by a line parallel to and 233ft ± west of the current center line of Draper Way. Exhibit C contains an illustration of the location of the building on the Facility. VOC impacted soil was discovered under Building 130 and Respondent installed an active soil gas venting system to apply a slight vacuum to exhaust soil vapors outdoors.

H) Respondent filed, or caused to be filed, a Deed Notice for the parcels containing Building 96 and Building 130 (collectively, the "Inaccessible SWMUs") in the office of the Rockland County Clerk on March 30, 2009.

III. WORK TO BE PERFORMED/WORK PLANS

A) All activities required by this Consent Order to be performed at the Facility shall be conducted in accordance with DER-10 and conducted pursuant to one or more Department-approved work plans ("Work Plan" or "Work Plans"). This Order and all

activities shall also be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300, as required under CERCLA, 42 U.S.C. § 9600 *et seq.* and, where applicable, United States Environmental Protection Agency ("USEPA") guidance regarding RCRA Facility Investigations/Corrective Measures Studies. The Work Plan(s) under this Order shall address both on-Site and off-Site conditions, to the extent applicable, and shall be developed and implemented in accordance with 6 NYCRR 375-1.6(a), to the extent applicable. All Department-approved Work Plans shall be incorporated into and become enforceable parts of this Order. Upon approval of a Work Plan by the Department, Respondent shall implement such Work Plan in accordance with the schedule contained therein. Notwithstanding any of the provisions above, nothing in this Subparagraph shall mandate that any particular Work Plan be submitted. Work performed pursuant to a Department-approved Work Plan shall be deemed to comply with DER-10, the NCP and, where applicable, USEPA guidance regarding Facility Investigations/Corrective Measures Studies.

B) The Department and Respondent agree that the general scope of corrective measures to be implemented at the Facility are set forth in this Order ("Corrective Measures"). Design specifics and other details related to such Corrective Measures will be supplied by Respondent in the future pursuant to a Corrective Measure Work Plan as set forth below.

C) Upon demolition of Building 96 at some as yet undefined time in the future, if ever, Respondent will remove the concrete floor overlying the previous excavation, as well as the gravel backfill, and continue the previous excavation by removing solids to at least a depth of three feet below the bottom of the previous excavation. Post-excavation soil samples and samples of removed soils will be analyzed for mercury and comply with applicable standards for commercial/industrial use. Upon confirmation that mercury impacted soils within this SWMU have been removed, the excavated area will be backfilled with clean soil. In no event is this subparagraph (C) intended to obligate Respondent to demolish Building 96 at any time in the future.

D) Upon demolition of Building 130 at some as yet undefined time in the future, if ever, Respondent will cut and remove the concrete floor overlying the area encompassing the active soil gas venting system, remove the piping of the active soil gas venting system and excavate the soils to at least a depth of six feet. Upon confirmation that VOC impacted soils within this SWMU have been remediated consistent with applicable standards for commercial/industrial use, the excavated area will be backfilled with clean soils. In no event is this subparagraph (D) intended to obligate Respondent to demolish Building 130, at any time in the future.

E) 1. To the extent required, and consistent with applicable law, Respondent shall submit to the Department detailed design plans for Corrective Measures at the Inaccessible SWMUs in accordance with an agreed upon schedule.

2. The Department shall review and respond to the design plans in accordance with Section III.H. of this Order.

3. Respondent or its successor in title shall implement the Corrective Measures in accordance with the design plans, including the implementation schedules made a part of those plans, upon the Department's written approval pursuant to Section III.H(2) of this Order.

F.) In addition to the Site Management Plan outlined in Section VI below and the Corrective Measures Plan discussed in this Subparagraph, Respondent or its successor in title may submit other work plans under this Order to fulfill the requirements of Titles 9 and 13 of Article 27 of the ECL, including but not limited to: a Site Characterization Work Plan, RCRA Facility Investigation Work Plan, a Corrective Measures Study or Corrective Measures Implementation Plan, an Interim Corrective Measures Plan, or a Closure of Post-Closure Plan.

G) 1. In accordance with the schedule contained in each plan, Respondent shall submit a final report as provided at 6 NYCRR 375-1.6(b) and upon closure of the Facility, a final engineering report (FER) as provided at 6 NYCRR 375-1.6(c).

2. Any final report that includes construction activities shall include "as built" drawings showing any changes made to the Corrective Measure design.

3. Within sixty (60) days after Respondent's or its successor in title's receipt of the Department's approval of a final report, Respondent shall submit the final report, as well as all data gathered and drawings and submittals made pursuant to each design plan, in an electronic format acceptable to the Department. If any document cannot be converted into electronic format, Respondent shall submit such document in an alternative format acceptable to the Department.

H) 1. The Department shall respond in writing to each submittal Respondent makes pursuant to this Order within sixty (60) days of receipt. If the Department does not respond to a submittal within 60 days, Respondent shall not be responsible for the delay or responsible for any consequence because of the delay. The Department's response shall include, as provided at 6 NYCRR 375-1.6(d) and as applicable, an approval, modification request, conditional approval, or disapproval of the submittal, in whole or in part.

2. Upon the Department's written approval of a plan, such Department approved design plan shall be deemed to be incorporated into and made a part of this Order and shall be implemented in accordance with the schedule contained therein.

3. If the Department modifies, requests modifications to, or conditionally approves a submittal, the Department shall specify the reasons for the

modification(s). Within fifteen (15) days after the date of Respondent's receipt of the Department's written notice that Respondent's submittal has been requested to be modified, Respondent shall notify the Department of its election as provided at 6 NYCRR 375-1.6(d)(3). If Respondent elects to modify or accept the Department's modifications to the submittal, Respondent shall, within thirty (30) days after such election, or such longer time as the parties may agree, make a revised submittal based on the Department's modifications to the first submittal. In the event that Respondent's revised submittal is disapproved, the Department shall set forth its reasons for such disapproval in writing and Respondent may invoke dispute resolution pursuant to Section XVII. Failure to make an election or failure to comply with the election is a violation of this Order.

4. If the Department disapproves a submittal, the Department shall specify the reasons for its disapproval. Within fifteen (15) days after the date of the Respondent's receipt of the Department's written notice that Respondent's submittal has been disapproved, Respondent shall notify the Department of its election as provided at 6 NYCRR 375-1.6(d)(4). If Respondent elects to modify the submittal, Respondent shall, within thirty (30) days after such election, or such longer time as the parties might agree, make a revised submittal that addresses all of the Department's stated reasons for disapproving the first submittal. In the event that Respondent's revised submittal is disapproved, the Department shall set forth its reasons for such disapproval in writing and Respondent shall be in violation of this Order unless it invokes dispute resolution pursuant to Section XVII. Failure to make an election or failure to comply with the election is a violation of this Order.

5. a. The Department shall notify Respondent in writing if the Department determines that any element of a Department-approved Work Plan needs to be modified in order to achieve the objectives of the Work Plan or to ensure that the Work Plan otherwise protects human health and the environment. Upon receipt of such notification, Respondent shall, subject to dispute resolution pursuant to Section XVII, modify the Work Plan.

b. The Department may request, subject to dispute resolution pursuant to Section XVII, that Respondent submit additional or supplemental Work Plans for the Site, within thirty (30) Days after the Department's written request.

IV. RELEASE AND COVENANT NOT TO SUE

A) Upon approval of the final engineering report submitted pursuant to Section III. G. of this Order an assignable release and covenant not to sue letter shall be issued to Respondent and to the property owner of the Facility, if such property owner is not Respondent, from the Department in a form similar to Exhibit D. Such a release and covenant not to sue will be subject to the limitations, rights and obligations set forth therein and in this Order.

B) After completion of all work with respect to the Inaccessible SWMUs, the property owner or Respondent on behalf of the property owner may request a letter from the Department stating that no further action will be required on that property as part of the RCRA corrective action or Inactive Hazardous Waste Site remedial program for the Facility and other affected areas. The Department will grant a letter to that effect unless the Department notifies the Respondent that further action will be required on that property.

C) Successors in title and assigns of Respondent who duly execute and deliver the Consent of Additional Signatory form attached hereto as Exhibit E to the Department along with proof that the person executing such form is authorized to bind the party on whose behalf he/she is signing are entitled to the benefits of this Order including the Release and Covenant Not to Sue described in this Section.

V. INSTITUTIONAL AND ENGINEERING CONTROLS

A) The use of groundwater as a source of potable water underlying the property (Section 68.08, Block 1, Lot 1 and Section 68.07, Block 2, Lot 17) is prohibited.

B) The Corrective Measures for the Facility may rely upon institutional and/or engineering controls. In such case, Respondent (or the owner of the Facility) shall submit to the Department for approval an Environmental Easement to run with the land in favor of the State which complies with the requirements of ECL Article 71, Title 36, and 6 NYCRR 375-1.8(h)(2). The easement shall be submitted within sixty (60) days of the imposition of the institutional or engineering controls and shall include a brief description of the individual institutional and/or engineering controls contained in this Order. Upon acceptance of the Environmental Easement by the State, Respondent (or the owner of the Facility) shall comply with the requirements of 6 NYCRR 375-1.8(h)(2).

C) Unless prior written approval by the Department is first obtained, where impacts remain at the Facility subject to the provisions of the Site Management Plan ("SMP") to be prepared pursuant to Article VI, there shall be no construction, use or occupancy of the Facility that results in the disturbance or excavation of the Facility which threatens the integrity of the engineering controls or which results in unacceptable human exposure to the Inaccessible SWMUs.

D) No owner of the Facility shall disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of required engineering controls which may be described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department.

E) Any owner of the Facility shall provide biennial certifications, prepared and submitted by a professional engineer or environmental professional acceptable to the Department, which will certify that the institutional and engineering controls put in place under the SMP are unchanged from the previous certification, comply with the SMP, and have not been impaired.

VI. SITE MANAGEMENT PLAN

Within 90 days of the effective date of this Order, the Respondent shall submit for Department approval a Site Management Plan ("SMP") prepared in accordance with DER-10 as applicable to the Inaccessible SWMUs that sets forth the institutional and engineering controls required to be maintained at the Facility. Department approval of the SMP shall not be unreasonably withheld.

VII. ENTRY UPON SITE

A) Respondent hereby consents, upon reasonable notice under the circumstances presented, to entry upon the Facility (or areas in the vicinity of the Facility which may be under the control of Respondent) by any duly designated officer or employee of the Department or any State agency having jurisdiction with respect to matters addressed pursuant to this Order, and by any agent, consultant, contractor, or other person so authorized by the Commissioner, all of which shall abide by the health and safety rules in effect for the Facility, for inspecting, sampling, copying records related to the work to be performed under this Order, testing, and any other activities necessary to ensure Respondents' compliance with this Order. Upon request, Respondent shall (i) provide the Department with suitable work space at the Facility, including access to a telephone, to the extent available, and (ii) permit the Department full access to all non-privileged records relating to matters addressed by this Order. Raw data is not considered privileged and that portion of any privileged document containing raw data must be provided to the Department on a continuing basis within ninety (90) days of receipt of the data from the lab. In the event Respondent is unable to obtain any authorization from third-party property owners necessary to perform its obligations under this Order, the Department may, consistent with its legal authority, assist in obtaining such authorizations.

B) The Department shall have the right to take its own samples and scientific measurements and the Department and Respondent each shall have the right to obtain split samples, duplicate samples, or both, of all substances and materials sampled. The Department shall make the results of any such sampling and scientific measurements available to Respondent.

VIII. PAYMENT OF STATE COSTS

A) Within forty-five (45) days after receipt of an itemized invoice from the Department, Respondent shall pay to the Department a sum of money which shall represent reimbursement for State Costs for work performed at or in connection with the Facility through and including the Termination Date, as provided in 6 NYCRR 375-1.5(b)(3).

B) Personal service costs shall be documented as provided by 6 NYCRR

375-1.5(b)(3(ii). The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with, Article 6 of the Public Officers Law.

C) Such invoice shall be sent to Respondent at the following address:

Attn: Michael T. Kontaxis, P.E.
Wyeth Pharmaceuticals
401 North Middletown Road
Pearl River, NY 10965-1299
Michael.Kontaxis@pfizer.com

D) Each such payment shall be made payable to the Department of Environmental Conservation and shall be sent to:

Bureau of Program Management
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7010

E) Each party shall provide written notification to the other within ninety (90) Days of any change in the foregoing addresses.

F) Respondent may contest invoiced costs as provided at 6 NYCRR 375-1.5(b)(3)(v) and (vi).

IX. RESERVATION OF RIGHTS

A) Nothing contained in this Order shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights or authorities, including, but not limited to, the right to require performance of further investigations and/or response action(s), to recover natural resource damages, and/or to exercise any summary abatement powers with respect to any person, including Respondent.

B) The Department expressly reserves all rights and defenses that it may have, including the right to disapprove of work that may be performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or perform work disapproved by the Department.

C) Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with any other applicable local and/or state laws and regulations.

D) The signing of this Consent Order and Respondent's consent to comply shall not limit or otherwise preclude the Department from taking additional enforcement action pursuant to any applicable local and/or state laws and regulations.

E) This Consent Order is not intended to be, nor shall it be construed as, a permit. This Consent Order does not relieve Respondent of any obligation to comply with any local, state, or federal permit or approval.

F) This Order does not relieve Respondent of any responsibility for any future release from any SWMU at the Facility. In the event of a future release, Respondent or a successor in title must submit work plans as described in Section III in order to investigate and remediate such a release.

G) Except as otherwise provided in this Order, Respondent specifically reserves all rights and defenses under applicable law respecting any Departmental assertion of remedial liability and/or natural resource damages against Respondent, and further reserves all rights respecting the enforcement of this Order, including the rights to notice, to be heard, to appeal, and to any other due process.

H) The existence of this Order or Respondent's compliance with it shall not be construed as an admission of liability, fault, wrongdoing, or breach of standard of care by Respondent, and shall not give rise to any presumption of law or finding of fact, or create any rights, or grant any cause of action, which shall inure the benefit of any third party. Further, Respondent reserves such rights as it may have to seek and obtain contribution, indemnification, and/or any other form of recovery from its insurers and from other potentially responsible parties or their insurers for past or future response and/or cleanup costs of such other costs or damages arising from the contamination at the Facility as may be provided by law, including but not limited to rights of contribution under Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

X. OTHER CLAIMS

Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation, or other entity for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, solid wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XI. INDEMNIFICATION

Respondent shall indemnify and hold the Department, the State of New York, the Trustee of the State's natural resources, and their representatives and employees harmless for all claims, suits, actions, damages and costs resulting from the acts and/or omissions of Respondent, intentional, negligent, or otherwise, of every nature and

description, arising out of or resulting from the compliance or attempted compliance with the provisions of this Order by Respondent or its employees, servants, agents, successor or assigns, unless said claims, suits, actions, damages or costs arise out the gross negligence or willful misconduct of the Department, the State of New York, the Trustee of the State' natural resources, or their representatives and employees.

XII. CHANGE OF USE

The owner of the Facility shall notify the Department at least sixty (60) days in advance of any change of use of the Inaccessible SWMU parcels, or within sixty (60) days after becoming aware of such change of use, which is proposed for the Inaccessible SWMUs, in accordance with the provisions of 6 NYCRR 375-1.11(d). Change of use shall include, but is not limited to, the destruction of any structure at the Inaccessible SWMUs, the creation of a park or other recreational facility at the Inaccessible SWMUs, or any activity that is likely to disrupt or expose contamination or increase direct human or environmental exposure. Where such change of use results in a change in ownership or responsibility for the ongoing remedial program such notice shall certify that the prospective purchaser has been provided a copy of this Order and within fifteen (15) days of the transfer of all or part of the Inaccessible SWMU parcels, or within fifteen (15) days after becoming aware of the transfer of all or part of any Inaccessible SWMU parcel, an additional notice shall be submitted to the Department which includes but is not limited to the name of the new owner and the new owner's contact information, including a contact representative and the contact information for such representative.

XIII. BINDING EFFECT/TRANSFERS

A) This Order applies to and binds the Department and the Respondent and any present or future owner of the Facility. With respect to the specific obligations of the Respondent, it shall apply to, and be binding upon, the Respondent's officers, directors, employees, agents, trustees, receivers, successors, assigns, and all other persons, including, but not limited to contractors or consultants acting under or on behalf of the Respondent or any owner of the Facility.

B) In the case of a voluntary transfer through a bankruptcy, the Respondent shall notify the Department within twenty-four (24) hours of the decision to transfer property. Further, the Respondent shall notify the Department of any involuntary transfers within twenty-four (24) hours upon initial receipt of notice of any involuntary transfer. No later than three (3) days after the transfer, the Respondent shall submit copies of the transfer documents to the Department.

C) No change in the ownership of property covered by this Order, or the corporate or partnership status of Respondent, shall in any way alter, diminish, or otherwise affect the Respondent's obligations under this Order.

D) Respondent shall be responsible and liable for all of the activities required and/or prohibited of it pursuant to this Order, regardless of whether there has been a transfer of ownership or control of the property or whether said activities are to be performed by employees, agents, contractors or consultants of the Respondent. If Respondent proposes to transfer by sale or lease the whole or any part of Respondent's interest in the Facility, or becomes aware of such transfer, Respondent shall, not fewer than forty-five (45) days before the date of transfer, or within forty-five (45) days after becoming aware of such conveyance, notify the Department in writing of the identity of the transferee and of the nature and proposed or actual date of the conveyance, and shall notify the transferee in writing, with a copy to the Department, of the applicability of this Order. However, such obligation shall not extend to a conveyance by means of a corporate reorganization or merger or the granting of any rights under any mortgage, deed, trust, assignment, judgment, lien, pledge, security agreement, lease, or any other right accruing to a person not affiliated with Respondent to secure the repayment of money or the performance of a duty or obligation

E) This Order is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Facility, and shall provide that the owner and its successors and assigns consent to the enforcement by the Department of the prohibitions provided herein.

F) Respondent may, upon approval of the Department, transfer its obligations under this Order to any future owner of the Facility. In such event, the term Respondent shall mean the transferee in any such transfer. Any transferee shall have the same right to transfer its obligations under this Order, in all cases subject to the approval of the Department.

XIV. FINANCIAL ASSURANCE

A) Within sixty (60) days of the effective date of this Order, Respondent shall submit, or shall cause to be submitted, to the Department the necessary documentation to demonstrate financial responsibility for the above referenced remedial activities, including closure and corrective action, pursuant to the requirements of 6 NYCRR 373-2 and this Order. After the Department has accepted such documentation, the Respondent shall request a release letter authorizing the termination of the current Letter of Credit. For corrective action financial assurance, Respondent shall add, or cause to be added, the words "and/or corrective action" wherever the words "closure/post-closure" appear in the Trust Agreement, if such agreement is proposed by Respondent, but shall not otherwise deviate from the wording set forth in 6 NYCRR 373-2.8(d) and 373-2.8(j)(1). Respondent or such party that Respondent has caused to submit the Financial Assurance, shall have the right to demonstrate financial responsibility for the above referenced remedial activities via a letter of credit or such other form of financial assurance as is permitted by the Department under this Order.

B) While this Order remains in effect, the financial assurance will be subject to adjustments for inflation as set forth in 6 NYCRR 373-2.8(d). Respondent shall

remain responsible for posting, or causing to be posted, adequate financial assurance and, as applicable, adjusting the financial assurance to account for inflation or newly discovered releases during closure and/or corrective action on an annual basis and shall remain obligated notwithstanding the conveyance of any portion of the Facility to another party.

C) If Respondent or owner, as the case may be, fails to perform, or fails to cause to be performed, the Corrective Measures as set forth in this Order, then, pursuant to the requirements of applicable law and this Order, the Department may contract to have such Corrective Measures performed and obtain reimbursement from the established financial assurance.

XV. FORCE MAJEURE

(A) "Force Majeure" shall mean any acts, events, or occurrences caused by any third parties that are not caused by the negligence or willful misconduct nor within the direct reasonable control of the party affected, but only if and to the extent that: (i) such circumstance, despite the exercise of reasonable diligence, cannot be prevented, avoided or removed by such party by the exercise of such reasonable diligence, (ii) such circumstance prevents, impairs or delays such party from performing its obligations under this Agreement in the manner and within the time period contemplated hereby, (iii) such party has taken all reasonable precautions, due care and reasonable alternative measures in order to avoid the effect of such circumstance on such party's ability to perform its obligations under this Agreement or to mitigate the consequences thereof, and (iv) such circumstance is not the direct result of the failure of such party to perform any of its obligations under this Agreement.

Force Majeure shall include, but shall not be limited to, the following circumstances: earthquake, flood, hurricane, tornado, or other natural calamity; explosions, chemical or radioactive contamination; governmental action or inaction not occasioned by the direct fault or negligence of the party affected thereby, including delays or failure to issue permits and authorizations despite a party's diligent efforts to obtain the same; acts of war, whether declared or not, acts of terrorism, sabotage, insurrection or civil strife, rebellion, demonstrations or riot; fire or explosions, except to the extent caused by the fault or negligence of the party affected. In the event of a Force Majeure circumstance, Respondent shall not be held responsible for complying with the obligations of this Order to the extent those obligations have become impossible due to said Force Majeure circumstance.

XVI. COMMUNICATION

A) All written communications required by this Order shall be transmitted by United States Postal Service, by electronic transmission including email or facsimile, by private courier service, or hand delivered as follows:

1. Communications from Respondent shall be sent to:

Attn: Andrew O. Guglielmi, Esq.
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-1500
andrew.guglielmi@dec.ny.gov

Attn: David Crosby
Chief Remedial Section B, Remedial Bureau C
Division of Environmental Remediation
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-7014
david.crosby@dec.ny.gov

Attn: Keith Gronwald
Engineering Geologist Project Manager
NYS Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway
Albany, New York 12233-7014
keith.gronwald@dec.ny.gov

Maureen Schuck
Regional Section Chief
Bureau of Environmental Exposure Investigation
Empire State Plaza
Corning Tower, Room 1787
Albany, NY 12237
maureen.schuck@dec.ny.gov

2. Communications to be made from the Department to Respondent shall be sent to:

Attn: Michael T. Kontaxis, P.E.
Wyeth Pharmaceuticals
401 North Middletown Road
Pearl River, NY 10965-1299
Michael.Kontaxis@pfizer.com

Attn: Merrill E. Fliederbaum,
Pfizer Inc.
235 East 42nd Street

New York, NY 10017
Ronald.Schott@pfizer.com

Attn: Steven C. Russo.
Shareholder
Greenberg Traurig, LLP
200 Park Avenue
New York,NY 10166
russos@gtlaw.com

B) The Department and Respondent reserve the right to designate additional or different addresses for communication upon written notice to the other party. Additionally, the Department reserves the right to request that Respondent provide more than one paper copy of any work plan or report.

C) Each party shall notify the other promptly after any change in the addresses in this Paragraph.

D) The Department has implemented an Environmental Information Management System (EIMS). The EIMS requires that electronic data be provided in specific formats. In an effort to better manage environmental data, the Department is requiring that all data submissions be in a Department-approved Electronic Data Deliverable (EDD) format. All work plans and reports (including attachments and appendices) shall be submitted in print as well as electronic format which is acceptable to the Department.

XVII. DISPUTE RESOLUTION

A) In the event disputes arise under this Order, Respondent may, within fifteen (15) days after Respondent knew or should have known of the facts which are the basis of the dispute, initiate dispute resolution in accordance with 6 NYCRR 375-1.5(b)(2).

B) In the event the Department prevails in any dispute, all costs incurred by the Department associated with dispute resolution are State costs subject to reimbursement pursuant to this Order.

C) Nothing contained in this Order shall be construed to authorize Respondent to invoke dispute resolution with respect to the remedy selected by the Department in this Order or any element of such remedy, nor to impair any right of Respondent to seek judicial review of the Department's selection of any further or additional remedy.

XVIII. TERMINATION OF ORDER

This Order will terminate upon the Department's written determination that Respondent has completed all phases of the environmental remediation of Buildings 96 and 130, in which event the termination shall be effective on the Fifth Day after the date of the Department's approval of the final report relating to the final phase of the remediation.

XIX. MISCELLANEOUS

A) This Order may be executed for the convenience of the parties hereto, individually or in combination, in one or more counterparts, each of which shall be deemed to have the status of an executed original and all of which shall together constitute one and the same.

B) The effective date of this Order is the 10th day after it is signed by the Commissioner or the Commissioner's designee.

DATED:

JUL 21 2015

JOSEPH J. MARTENS
COMMISSIONER
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

By: _____

Robert W. Schick, P.E., Director
Division of Environmental Remediation

ACKNOWLEDGMENT

State of New York)
County of ALBANY) ss.:

On the 21st day of July in the year 2015 before me, the undersigned personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____

Signature and Office of individual
taking acknowledgment

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2016

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of this Order, waives its right to a hearing herein as provided by law, and agrees to be bound by this Order.

Wyeth Holdings LLC

By: Kerrin Mahaffey

Printed

Name: Kerrin Mahaffey

Title: Site Leader

Date: 7-2-2015

ACKNOWLEDGMENT

State of New York)
County of Rockland) ss.:

)

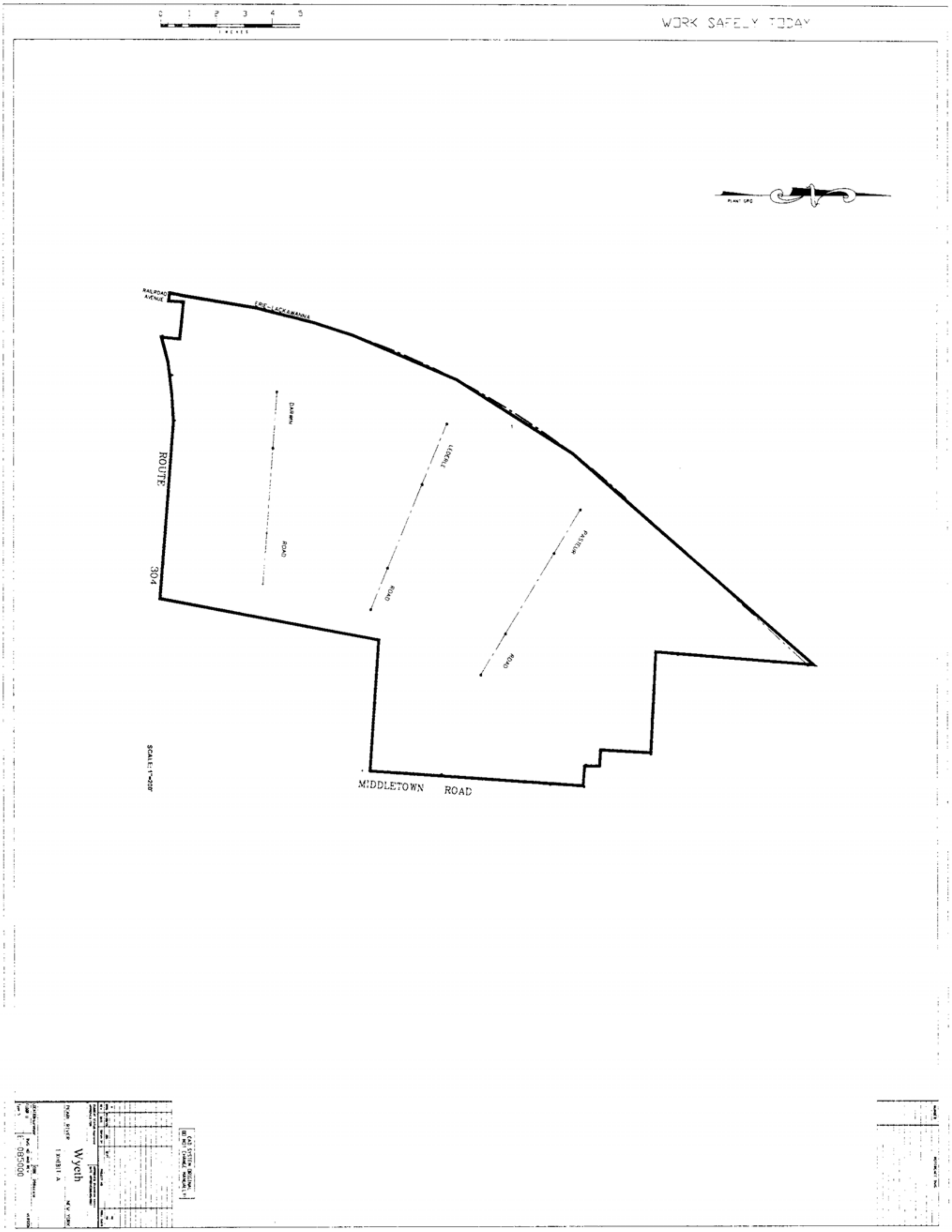
On the 2nd day of July in the year 2015, before me, the undersigned, personally appeared Kerrin Mahaffey (full name) personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Karen M. Albert
Signature and Office of individual taking acknowledgment

Karen M Albert
Registration No. 01AL6206687
Valid from 05/26/2013 to 05/26/2017
State of New York Department of State
Rockland County

EXHIBIT "A"

Facility Map



WORK SAFELY TODAY
INCHES
RAILROAD AVENUE
ERIE-LACKAWANNA
DARWIN ROAD
LEDERLE ROAD
PASTEUR ROAD
ROUTE 304
MIDDLETOWN ROAD
SCALE: 1"=200'
CAD SYSTEM ORIGINAL DO NOT CHANGE MANUALLY
Wyeth
PEARL RIVER
NEW YORK
EXHIBIT A
E-085000

Exhibit "A-1"

Metes and Bounds Description of Facility

EXHIBIT A-1

LEGAL DESCRIPTION

Parcel G (P_O) - Orangetown - SBL 63.20-1-1a

All that certain piece or parcel of land lying and being in the Town of Orangetown, County of Rockland and State of New York and being more particularly bounded and described as follows:

Beginning at a point on the westerly side of South Middletown Road at the South East corner of TAX LOT 63.20-1-1;

- thence along the Westerly side of South Middletown Road SOUTH 08°18'44" EAST a distance of 147.00' to a point at the Northeast corner of lands of now or formerly of Pfizer Pharmaceuticals;
- thence along the of lands of now or formerly Pfizer Pharmaceuticals SOUTH 82°27'12" WEST a distance of 150.00';
- thence continuing along the lands of now or formerly of Pfizer Pharmaceuticals SOUTH 08°15'26" EAST a distance of 100.00' to a point;
- thence still the lands of now or formerly of Pfizer Pharmaceuticals SOUTH 06°50'10" EAST a distance of 100.00' to a point;
- thence continuing along the lands of now or formerly Pfizer Pharmaceuticals NORTH 82°27'12" EAST a distance of 150.00' to a point at the Westerly side of South Middletown Road;

thence along South Middletown Road the following 9 courses and distances:

1. SOUTH 06°50'10" EAST a distance of 80.62';
2. thence SOUTH 82°35'42" WEST a distance of 6.56';
3. thence SOUTH 07°28'13" EAST a distance of 595.54';
4. thence NORTH 83°03'34" EAST a distance of 5.18';
5. thence SOUTH 07°53'27" EAST a distance of 383.83';
6. thence SOUTH 09°44'05" EAST a distance of 183.81';
7. thence SOUTH 07°41'36" EAST a distance of 233.23';
8. thence SOUTH 08°45'12" EAST a distance of 64.30';
9. thence SOUTH 10°40'21" EAST a distance of 109.45' to a point at the proposed division line of Pfizer Pharmaceuticals

thence though the lands of now or formerly Pfizer Pharmaceuticals the following 12 courses and distances:

1. SOUTH 89°58'17" WEST a distance of 664.42';
2. thence SOUTH 01°20'37" WEST a distance of 350.21';
3. thence NORTH 88°39'23" WEST a distance of 77.26';
4. thence NORTH 00°44'28" EAST a distance of 66.80';
5. thence NORTH 89°15'32" WEST a distance of 39.66';
6. thence NORTH 01°18'37" EAST a distance of 87.71';
7. thence NORTH 88°28'15" WEST a distance of 94.56';
8. thence SOUTH 02°23'21" WEST a distance of 29.96';
9. thence NORTH 89°19'41" WEST a distance of 118.43';
10. thence SOUTH 02°01'50" WEST a distance of 118.27';
11. thence NORTH 88°30'56" WEST a distance of 198.06';
12. thence SOUTH 01°19'24" WEST a distance of 974.70' to a point at the Northerly side of New York State Route 304;

thence along the Northerly side of New York State Route 304 SOUTH 82°21'23" WEST a distance of 1009.44' to a point at the Northerly bounds of lands of now or formerly Pfizer Pharmaceuticals;
thence along the Northerly bounds of lands of now or formerly Pfizer Pharmaceuticals SOUTH 82°24'59" WEST a distance of 593.35' to a point at the Northeast corner of lands of now or formerly Orange and Rockland Utilities;
thence along the lands of now or formerly Orange and Rockland Utilities SOUTH 82°24'59" WEST a distance of 249.98' to a point;
thence continuing along the lands of now or formerly Orange and Rockland Utilities SOUTH 05°31'03" EAST a distance of 50.00' to a point;
thence still along the lands of now or formerly Orange and Rockland Utilities SOUTH 06°01'28" EAST a distance of 50.00';
thence SOUTH 83°43'20" WEST a distance of 50.00' to a point at the Easterly side of New Jersey Transit authority;
thence along the Easterly side of New Jersey Transit Authority with a curve turning to the right with a radius of 5703.15', and an arc length of 3584.94' to a point;
thence NORTH 82°17'01" EAST a distance of 1851.27' to the Southwest corner of lands of now or formerly Hogan;
thence along the lands of now or formerly Hogan NORTH 82°36'02" EAST a distance of 104.87' to a point at the Northwest corner of lands of now or formerly Kennedy ;
thence along the lands of now or formerly Kennedy SOUTH 08°18'44" EAST a distance of 99.91' to a point;
thence continuing along the lands of now or formerly Kennedy NORTH 82°36'02" EAST a distance of 154.85' to a point which is the point of beginning,

having an area of 180.6 acres
Subject to any easements or rights of way that may or may not be on record

Parcel J – Orangetown SBL 68.12-1-2

All that certain piece or parcel of land lying and being in the Town of Orangetown, County of Rockland and State of New York and being more particularly bounded and described as follows:

Beginning at a point on the northerly side of New York State Route 304 at the South East corner of lands now or formerly Orange and Rockland Utilities (TAX LOT 68.12-1-1);

- thence along the Easterly bounds of lands of now or formerly Orange and Rockland Utilities North 07°22'18" West a distance of 124.82' to a point at the Southerly bounds of lands of now or Pfizer Pharmaceuticals
- thence along the Southerly bounds of lands of now or formerly Pfizer Pharmaceuticals North 82°24'59" East a distance of 593.35' to a point at the Northerly side of new York State Route 304;
- thence along the Northerly side of New York State Route 304 South 74°39'25" West a distance of 321.52' to a point;
- thence continuing along the northerly bounds of New York State Route 304 South 65°56'18" West a distance of 287.02' which is the point or place of beginning,

having an area of 0.69 acres
Subject to any easements or rights of way that may or may not be on record

Parcel N - Orangetown - SBL 63.20-1-3

All that certain piece or parcel of land lying and being in the Town of Orangetown, County of Rockland and State of New York and being more particularly bounded and described as follows:

beginning at a point at the Westerly side of Middletown Road and the Southeast corner of lands of now or formerly Pfizer Pharmaceuticals (tax lot 63.20-1-2) ;
said point lies SOUTH 08°18'44" EAST a distance of 243.27' and thence SOUTH 06°50'10" EAST a distance of 3.73' from the westerly side of South Middletown Road at the South East corner of lands of now or formerly Kennedy (tax lot 63.20-1-1);

- thence along the Westerly side of Middletown road SOUTH 06°50'10" EAST a distance of 100.00' to a point at the lands of now or formerly Pfizer Pharmaceuticals;
- thence along the lands of now or formerly Pfizer Pharmaceuticals SOUTH 82°27'12" WEST a distance of 150.00' to a point;
- thence continuing along the lands of now or formerly Pfizer Pharmaceuticals NORTH 06°50'10" WEST a distance of 100.00' to a point;
- thence still along the lands of now or formerly Pfizer Pharmaceuticals NORTH 82°27'12" EAST a distance of 150.00' to the Westerly side of Middletown Road which is the point of beginning,

having an area of, 0.34 acres
Subject to any easements or rights of way that may or may not be on record

Parcel O - Orangetown - SBL 63.20-1-2

All that certain piece or parcel of land lying and being in the Town of Orangetown, County of Rockland and State of New York and being more particularly bounded and described as follows:

beginning at a point at the Westerly side of Middletown Road said point lies SOUTH 08°18'44" EAST a distance of 147.00' from the westerly side of South Middletown Road at the South East corner of lands of now or formerly Kennedy (tax lot 63.20-1-1);

- thence along the Westerly side of Middletown Road SOUTH 08°18'44" EAST a distance of 96.27' to a point;
- thence Continuing along the Westerly side of Middletown Road SOUTH 06°50'10" EAST a distance of 3.73' to a point at the lands of now or formerly Pfizer Pharmaceuticals;
- thence along the lands of now or formerly Pfizer Pharmaceuticals SOUTH 82°27'12" WEST a distance of 150.00' to a point;
- thence continuing along the lands of now or formerly Pfizer Pharmaceuticals NORTH 08°15'26" WEST a distance of 100.00';
- thence still along the lands of now or formerly Pfizer Pharmaceuticals NORTH 82°27'12" EAST a distance of 150.00' to the Westerly side of Middletown Road which is the point of beginning,

having an area of 0.34 acres
Subject to any easements or rights of way that may or may not be on record

Parcel P - Clarkstown - SBL 63.16-2-85

All that certain piece or parcel of land lying and being in the Town of Clarkstown, County of Rockland and State of New York and being more particularly bounded and described as follows:

beginning at the Southerly side of Palisades Avenue at the North West corner of lands of now or formerly McCarthy (tax lot 63.2-2-1);

- thence along the lands of now or formerly McCarthy and the lands of now or formerly Pfizer Pharmaceuticals SOUTH 07°23'54" EAST a distance of 502.20' to a point;
- thence along the lands of now or formerly Pfizer Pharmaceuticals SOUTH 82°17'01" WEST a distance of 1119.87' to a point at the Easterly bounds of now or formerly New Jersey Transit;
- thence along the Easterly bounds of now or formerly New Jersey Transit with a curve turning to the right with a radius of 5703.15', and an arc length of 55.89' to a point,;
- thence continuing along the Easterly bounds of now or formerly New Jersey Transit NORTH 30°17'57" EAST a distance of 1774.37' to a point;
- thence SOUTH 07°35'56" EAST a distance of 250.44' to a point;
- thence SOUTH 07°23'56" EAST a distance of 689.50' to a point which is the point of beginning,

having an area of 18.55 acres
Subject to any easements or rights of way that may or may not be on record

Parcel Q - Clarkstown - SBL 63.20-2-19

All that certain piece or parcel of land lying and being in the Town of Clarkstown, County of Rockland and State of New York and being more particularly bounded and described as follows:

Beginning at the Southwest corner of lands of now or formerly McCarthy (tax lot 63.2-2-1);
said point lies SOUTH 07°23'54" EAST a distance of 150.13' from the Southerly side of Palisades Avenue and at the Northwest corner of lands of now or formerly McCarthy (tax lot 63.2-2-1);

thence along the lands of now or formerly McCarthy, Loghini, Bohlke, Watzka, U.S. Bank National Association, O'Connor, Payea, Jackson, Stefanae and Jorgensen NORTH 80°38'45" EAST a distance of 723.33' to a point at the Northwest corner of lands of now or formerly Liebwein;
thence along the lands of now or formerly Liebwein and Hogan SOUTH 08°44'21" EAST a distance of 362.24' to a point at the bounds of lands of now or formerly Pfizer Pharmaceuticals;
thence along the lands of now or formerly Pfizer Pharmaceuticals SOUTH 82°17'01" WEST a distance of 731.40' to a point;
thence continuing along the lands of now or formerly Pfizer Pharmaceuticals NORTH 07°23'54" WEST a distance of 341.51' to a point which is the point of beginning,

having an area of 5.87 acres
Subject to any easements or rights of way that may or may not be on record

Exhibit "B"

MW-96-13 MW-99B LOCATION MAP

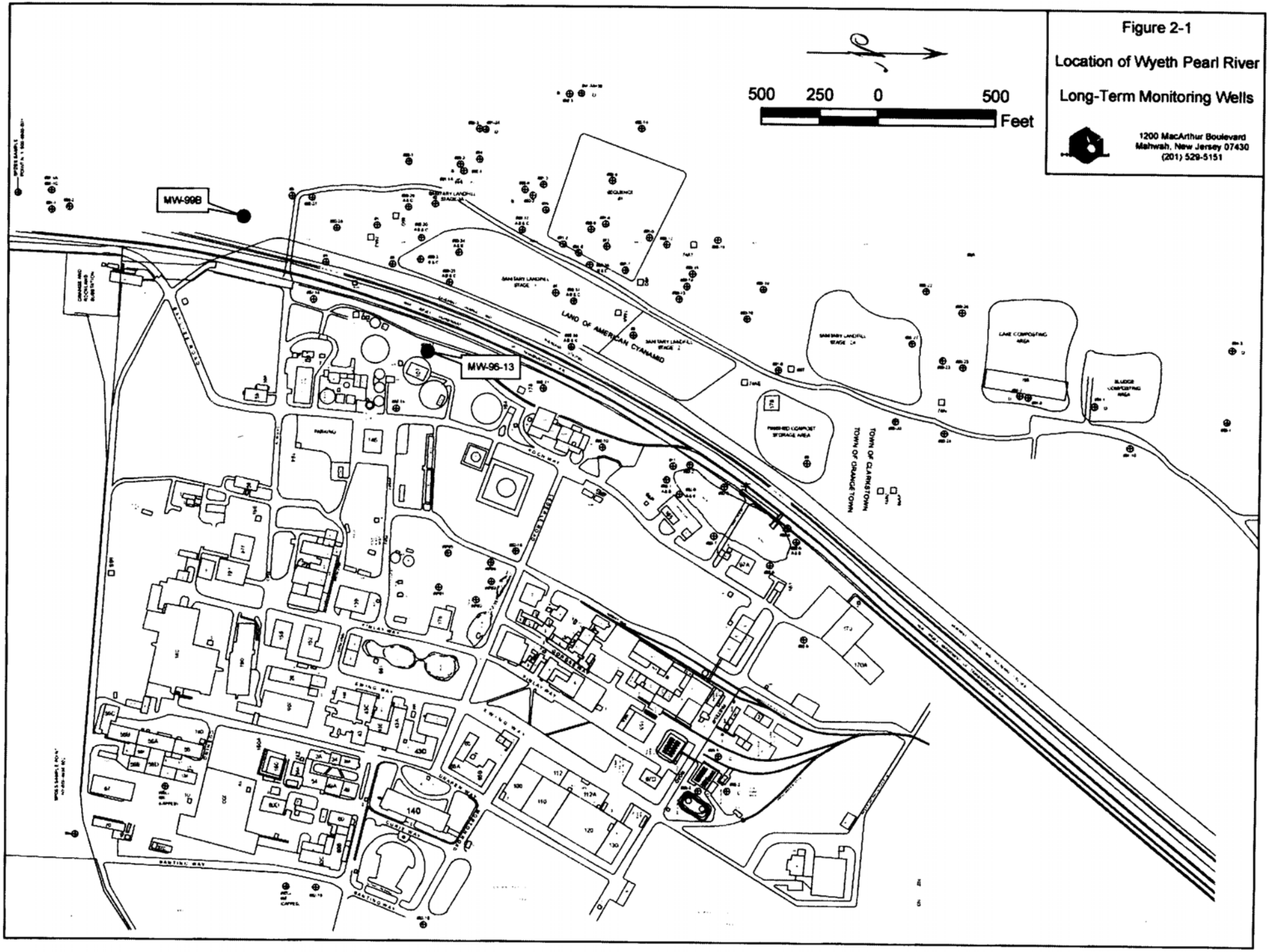


Figure 2-1
Location of Wyeth Pearl River
Long-Term Monitoring Wells
1200 MacArthur Boulevard
Mahwah, New Jersey 07430
(201) 529-5151
500 250 0 500
Feet
MW-99B
MW-96-13
LAND OF AMERICAN CYANAMID
TOWN OF CLARKSTOWN
TOWN OF ORANGETOWN
140

Exhibit "C"

Building 96 and 130 LOCATION MAP

0 1 2 3 4 5
INCHES
WORK SAFELY TODAY
ADDISON ROAD
GRAY ROAD
HARVEY WAY
SCALE: 1" = 300'
LEGEND
VOC CONTAMINATION
Hg CONTAMINATION
CAD SYSTEM ORIGINAL
DO NOT CHANGE MANUALLY!
Wyeth
NEW YORK
EXHIBIT "A"
PORTION 1 VOC CONTAMINATION
PORTION 2 Hg CONTAMINATION
C-080346
-2

Exhibit "D"

Dear Sir or Madam:

Unless otherwise specified in this letter, all terms used in this letter shall have the meaning assigned to them under the terms of the Order on Consent entered into between the New York State Department of Environmental Conservation (the "Department") and Wyeth Holdings LLC ("Respondent"), Index No. CO 3-20150325-33 (the "Order").

The Department is pleased to report that the Department is satisfied that the Order's Work Plan(s) relative to the Facility have been successfully implemented.

The Department, therefore, hereby releases and covenants not to sue, and shall forbear from bringing any action, proceeding, or suit pursuant to the Environmental Conservation Law, the Navigation Law or the State Finance Law, and from referring to the Attorney General any claim for recovery of costs incurred by the Department, against Respondent and Respondent's lessees and sublessees, grantees, successors in title, and assigns, and their respective secured creditors, for the further investigation, corrective action and remediation of the Site, based upon the release or threatened release of hazardous substances, provided that (a) timely payments of the amounts specified in Paragraph VIII of the Agreement continue to be or have been made to the Department, (b) appropriate deed restrictions and/or environmental easements remain enforceable, and (c) Respondent and/or its' lessees, grantees, sublessees, successors in title, or assigns promptly commence and continue to implement the Site Management Plan, Closure Plan, or Post-Closure Plan, if any. Nonetheless, the Department hereby reserves all of its rights concerning, and such release and covenant not to sue shall not extend to natural resource damages or to any further investigation or remedial action the Department deems necessary:

- due to migration off-Site of contaminants resulting in impacts that are not inconsequential to environmental resources, to human health, or to other biota and to off-Site migration of petroleum;

- due to environmental conditions or information related to the Facility which were unknown at the time this Release and Covenant Not to Sue was issued and which indicate that the Contemplated Use cannot be implemented with sufficient protection of human health and the environment;

- due to Respondent's failure to implement the Order to the Department's satisfaction; or

- due to fraud committed by Respondent in entering into or implementing the Order.

Additionally, the Department hereby reserves all of its rights concerning, and any such release and covenant not to sue shall not extend to Respondent nor to any of Respondent's lessees, sublessees, successors in title, or assigns who cause or allow a release or threat of release at the Facility of any hazardous substance (as that term is defined at 42 USC 9601 [14]) or petroleum (as that term is defined in Navigation Law §

172[15]), other than known existing contamination; or cause or allow the use of the Facility to change to one requiring a lower level of residual contamination before that use can be implemented with sufficient protection of human health and the environment; nor to any of Respondent's lessees, sublessees, successors in title, or assigns who are otherwise responsible under law for the remediation of existing contamination at the Facility, independent of any obligation that party may have respecting same resulting solely from the Order's execution.

Notwithstanding the above, however, with respect to any claim or cause of action asserted by the Department, the one seeking the benefit of this release and covenant not to sue shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable solely to known existing contamination.

Notwithstanding any other provision in this release, covenant not to sue, and forbearance,

- if with respect to the Facility there exists or may exist a claim of any kind or nature on the part of the New York State Environmental Protection and Spill Compensation Fund against any party, nothing in this letter shall be construed or deemed to preclude the State of New York from recovering such claim.

- except as provided in this letter and in the Order, nothing contained in the Order or in this letter shall be construed as barring, diminishing, adjudicating, or in any way affecting any of the Department's rights (including, but not limited to, the right to recover natural resources damages) with respect to any party, including Respondent.

- nothing contained in this letter shall prejudice any rights of the Department to take any investigatory or remedial action it deems necessary if Respondent fails to comply with the Order or if contamination other than known existing contamination is encountered at the Site.

- nothing contained in this letter shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.

- nothing contained in this letter shall be construed to affect the Department's right to terminate the Order under the terms of the Order at any time during its implementation if Respondent fails to comply substantially with the Order's terms and conditions.

In conclusion, the Department is pleased to be part of this effort to return the Site to productive use of benefit to the entire community.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

By: _____

Exhibit "E"

The party executing this form, _[name of party]_____, hereby consents to being added as a Respondent to the Administrative Order on Consent, Index # _____ regarding Site # 344003 and further consents to the issuing and entering of the referenced Order, waives Respondent's right to a hearing herein as provided by law, and agrees to be bound by this Order.

By: _____

Title: _____

Date: _____

STATE OF NEW YORK)
) s.s.:
COUNTY OF)

On the _____ day of _____, in the year 20 __, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Signature and Office of individual
taking acknowledgment

APPENDIX B

DEED NOTICE

FILED

MAR 30 2009 -9902

ROCKLAND COUNTY
CLERK'S OFFICE

STATE OF NEW YORK

: SS:

COUNTY OF ROCKLAND

NOTICE OF CONTAMINATED SITE

KNOW ALL MEN BY THESE PRESENTS THAT:

Pursuant to the requirements of the New York State Department of Environmental Conservation ("NYSDEC"), this Notice of Contaminated Site ("Notice") is hereby filed in the Rockland County Clerk's Office in Liber of Deeds of Rockland County, New York solely for the purpose described in this Notice.

This Notice pertains to those portions of land (hereafter the "Portions") identified in the area illustrated on the map attached hereto as Exhibit "A," which is incorporated herein. The Portions are located in the areas bounded as follows:

> For Portion 1: Bounded on the north by a line parallel to and 55 ft± south of the center line of Pasteur Road, on the east by a line parallel to and 50ft ± west of the center line of Draper Way, on the south by a line parallel to and 138ft± south of the center line of Pasteur Road and on the west by a line parallel to and 233ft± west of the center line of Draper Way.
>
> For Portion 2: Bounded on the north by a line parallel to and 625ft± south of the center line of Pasteur Road, on the east by a line parallel to and 60ft± east of the center line of Gorgas Way, on the south by a line parallel to and 700ft± south of the center line of Pasteur Road and on the west by a line parallel to and 35ft± east of the center line of Gorgas Way.

each of the foregoing located in the Town of Orangetown, Rockland County, New York, and consists of those portions of the parcels identified by the following Tax Map Parcel Numbers: Section 63.2 Block 2, Lot 19. As of the date of this filing, the Portions are part of a manufacturing facility, the historic operations of which might have resulted in certain releases of hazardous substances into the soil. Residual subsurface contamination remains at the Portions.

The requirement for this Notice is set forth in the September 30, 2008 statement of basis issued by the NYSDEC. The statement of basis requires that unauthorized access to the Portions be prevented unless and until the contaminated soils are remediated.

The statement of basis for the Portions reduces the risks to meet protection requirements for the site conditions at the time of this filing. Persons who might conduct subsurface construction activities such as, but not limited to, the excavation of soils, installation or repair of subsurface utilities, installation of foundation piers, groundwater extraction, or

other such activity may encounter soils or soil vapors that might have been impacted. The owner of the Portions at the time of any future subsurface construction activities in or around the Portions must comply with all environmental, worker protection and other laws, rules and regulations then applicable to those activities.

The current owner and operator of the Portions, and the facilities thereon, is Wyeth Holdings Corporation, with an address at 5 Giralda Farms, Madison, New Jersey 07940. More specific information regarding the condition of the Portions may be obtained from the agents or assigns of Wyeth Holdings Corporation.

This Notice is not a representation or warranty by the NYSDEC as to the suitability of the Portions for any particular use or purpose, nor does it constitute any guarantee by the NYSDEC that additional remediation will not be required in the future. Further information concerning this matter may be found in files and reports that are kept on file by the NYSDEC for public inspection at its office located at 50 Wolf Road, Albany, New York 12233.

EXECUTED this 5th day of March 2009.

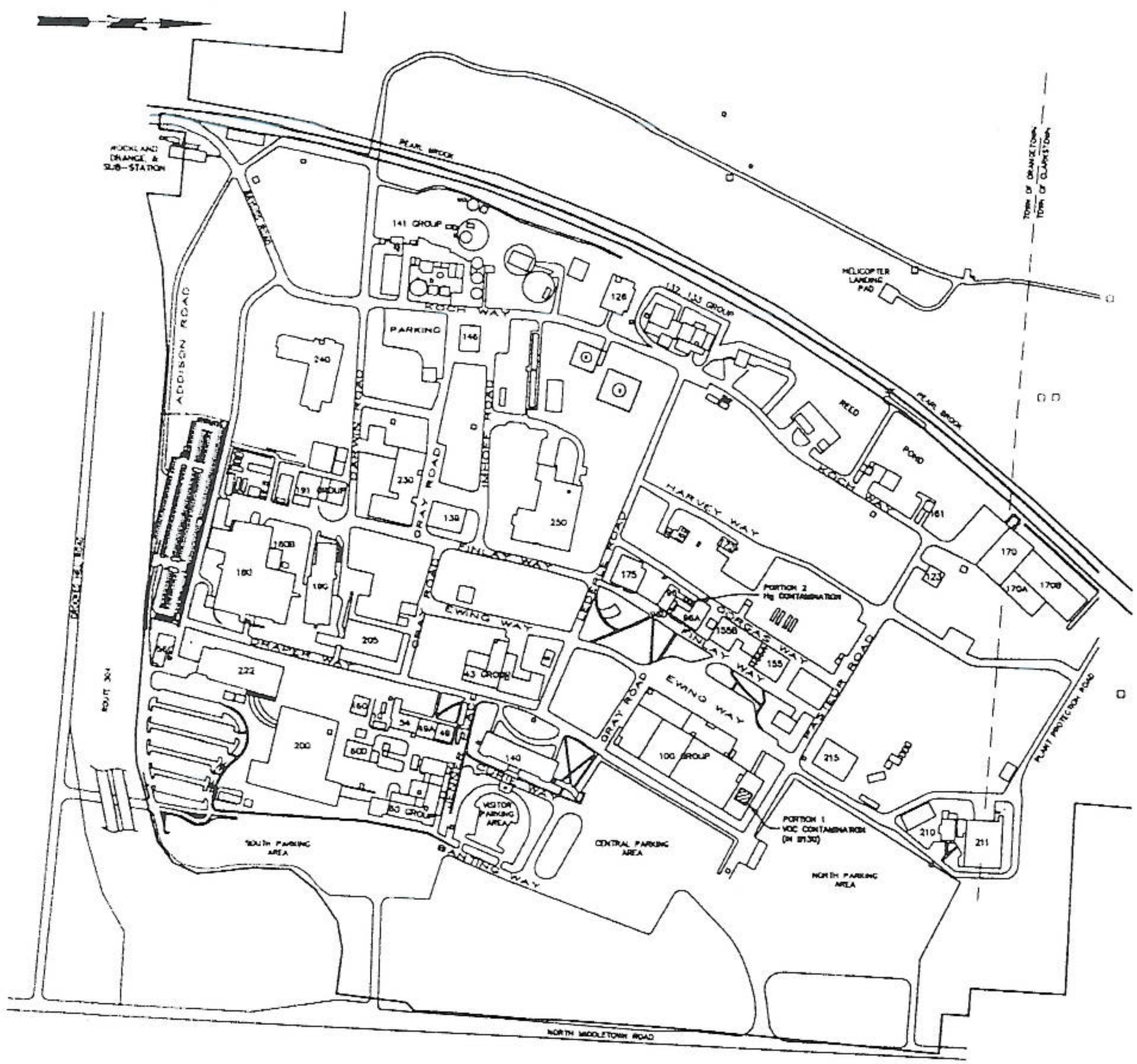
WYETH HOLDINGS CORPORATION

By: Giraldini A. Smith

Its: Vice President, Environmental, Health + Safety + Associate General Counsel

WORK SAFELY TODAY

INCHES 0 1 2 3 4 5



LEGEND
- VOC CONTAMINATION
- Hg CONTAMINATION

SCALE: 1" = 300'

CAD SYSTEM ORIGINAL
DO NOT CHANGE MANUALLY!

Wyeth

PEARL RIVER NEW YORK

EXHIBIT 'A'
PORTION 1 VOC CONTAMINATION
PORTION 2 Hg CONTAMINATION

LOCATION PLANT | CODE 040
FLOOR II | DWG. NO. AND REV. C-080346_ | VERSION -2
Type 5

STATE OF NEW JERSEY

COUNTY OF MORRIS

On the 5th day of March in the year 2009 before me, the undersigned, a Notary Public in and for the said state, personally appeared Geraldine A. Smith, personally known to me or proven to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual or the person on behalf of which the individual acted, executed the instrument.

Dana M Bailey

NOTARY PUBLIC

DANA M. BAILEY
NOTARY PUBLIC OF NEW JERSEY
ID #2356799
MY COMMISSION EXPIRES MAR. 5, 2012

APPENDIX C

LIST OF SITE CONTACTS

APPENDIX C
LIST OF FACILITY CONTACTS
Site Management Plan
Pearl River Campus, LLC
(former Wyeth Pharmaceutucals Facility)

Responsible Entity	Name	Address	Contact	Phone Number	E-mail Address
Facility Owner	Pearl River Campus, LLC	401 North Middletown Road, Pearl River, NY 10965-1299	Justin Lichter, Environmental Manager	(805) 207-1830	jlichter@irgra.com
Respondent	Wyeth Holdings LLC	401 North Middletown Road, Pearl River, NY 10965-1299	Michael T. Kontaxis, P.E.	845-602-2500	michael.kontaxis@pfizer.com
Designated Contact	Respondent or Successor in Title	401 North Middletown Road, Pearl River, NY 10965-1299	Michael T. Kontaxis, P.E.	845-602-2500	michael.kontaxis@pfizer.com
Qualified Environmental Professional	Golder Associates, Inc.	744 Broad Street Newark, NJ 07102	Anthony Savino	973-645-1922	asavino@golder.com
NYSDEC DER Contact	NYSDEC Division of Environmental Remediation	625 Broadway, 11th floor Albany, NY 12233-7014	Keith Gronwald	(518) 402-9662	keith.gronwald@dec.ny.gov

APPENDIX D

EXCAVATION WORK PLAN

APPENDIX D
EXCAVATION WORK PLAN

D-1 GENERAL

This Excavation Work Plan (EWP) is intended to outline the general procedures required to be implemented in the event that certain activities are performed relating to specific areas of environmental impact remaining at the Wyeth Pharmaceuticals Facility (Facility). These areas are further defined in Section II (F) and (G) of the Order on Consent Index No. CO 3-20150325-33 between Wyeth Holdings LLC (Respondent) and the New York State Department of Environmental Conservation (NYSDEC) effective July 31, 2015 ("Consent Order"), the Site Management Plan for the Facility (SMP), and below.

The SMP specifically addresses the following:

- Management of residual impacts associated with two inaccessible Solid Waste Management Units (SWMUs) that remain after the completion and New York State Department of Environmental Conservation (NYSDEC) approval of the RCRA Corrective Action Program for the Facility. The continued management of these SWMUs is required in accordance with the Consent Order included in Appendix A of the SMP.
- Continued implementation of Institutional and Engineering Controls (ICs and ECs) which prevent direct contact with impacted soils, the potential for exposure to soil vapor and prohibit the use of groundwater underlying the Facility as a source of potable water.

The two inaccessible SMWUs are depicted in Figure 2 of the SMP and include:

- An area of soil with residual mercury-impacts that remains beneath Building 96.
- An area of soil with residual volatile organic compound (VOC) impacts that remains beneath Building 130.

These locations will require further remedial activities upon the demolition of both buildings at some as yet undefined time in the future. ICs/ECs were implemented as part of the completed RCRA Corrective Action Program for these two inaccessible SWMUs to control exposure to remaining impacts to ensure protection of public health and the environment.

Pursuant to NYSDEC requirements, an IC that includes a Deed Notice was granted to the NYSDEC and recorded with the Rockland County Clerk on March 5, 2009. This Deed Notice, included in Appendix B of the SMP, requires that unauthorized access to these inaccessible SWMUs be prevented unless and until the impacted soils are remediated. The Respondent or its successor in title at the time any future subsurface construction activities are performed is required to comply with all environmental and worker health and safety requirements that are applicable to the construction activities.

This EWP outlines the general procedures required to be implemented in the event the building slab is breached, penetrated or temporarily removed, and any underlying remaining impacted soils are disturbed prior to the demolition of the building as specified in the Consent Order. The procedures described in this EWP shall be incorporated into project-specific Work Plans as required pursuant to Section III of the Consent Order. Any work conducted pursuant to the EWP must also be performed in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared specifically for the work when required.

Plans developed to address the remaining impacts at Building 96 and Building 130 at the time of demolition are considered to be beyond the scope of this EWP, and will be the subject of specific Corrective Measures Plans.

D-2 Excavation Work Plan Requirements

A project-specific Work Plan is required for the following conditions, prior to the demolition of Buildings 96 and 130:

- Any planned or emergency subsurface activities, that are required within or in the vicinity of these inaccessible SMWUs that may result in the potential for exposure to remaining impacts present beneath the buildings slabs in either Buildings 96 and 130 or may result in the temporary or permanent disruption of the operation of the soil gas venting system in Building 130. These activities include, but are not limited to, the activities noted in the Deed Notice.
- If the building slab in either building is breached, penetrated or temporarily removed with underlying remaining impacts exposed.
- If significant deep cracks, holes settlement or other defects in the surface of the building slabs are observed as part of routine or non-routine operation and maintenance activities that require repair to avoid either direct contact with the residual impacted soils present below the slabs, prevent a pathway for soil vapor intrusion into the building or prohibit the infiltration of any water or spilled material into the subsurface.

The project-specific Work Plan will incorporate the applicable items presented in this Appendix that will be prepared at the time the work is required.

The Respondent or its successor in title and its contractors will be responsible for the performance of all excavation work may be required by the project-specific Work Plan.

D-3 Notification

At least 15 days prior to the start of any activity that is anticipated to encounter remaining impacts associated with the inaccessible SWMUs, the Designated Contact will notify NYSDEC. Appendix C of the

SMP includes contact information for this notification. The information in this Appendix will be updated as necessary to provide accurate contact information.

This notification will include the following information as applicable:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed in the vicinity or below the building slabs, estimated volumes of contaminated soil to be excavated and any work that may impact the ECs.
- A summary of environmental conditions anticipated to be encountered in the work area, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling.
- A schedule for the work, detailing the start and completion of all intrusive work.
- A summary of the applicable components of this EWP.
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.
- A copy of the project-specific HASP and CAMP in electronic format.
- Identification of disposal facilities proposed for the management of any potential waste streams.
- Identification of sources of any anticipated backfill with all required chemical testing results.

D-4 Soil Screening Methods

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a Qualified Environmental Professional (as defined in the NYSDEC “Technical Guidance for Site Investigation and Remediation” [DER-10], dated May 2010) during all excavations within or in the vicinity of remaining impacts associated with the two inaccessible SWMUs. Soil screening will be conducted when excavation and invasive work is performed for any of the conditions noted in Section D-1, including any planned or emergency activities or for routine or non-routine slab maintenance repairs

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing if the project-specific Work Plan proposes that the material may be reused on-site beneath the building slab as backfill. Soils proposed for reuse must meet the 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) for commercial, industrial or a more restrictive use. Further requirements for of off-site disposal of materials and on-site reuse are provided in Sections D-7 and D-8, respectively.

D-5 Soil Staging Methods

Soil stockpiles will be managed as required, including the use of appropriate erosion and sedimentation controls to minimize the potential for stormwater runoff-related impacts. Soil stockpiles will be encircled with a berm and/or silt fence. Hay bales will be used near catch basins, surface waters and other potential discharge points as needed.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Facility and available for inspection by NYSDEC.

D-6 Materials Excavation and Load-Out

A Qualified Environmental Professional will oversee all invasive work and the excavation and load-out of all excavated materials.

The presence of utilities and easements at the Facility will be determined by the Qualified Environmental Professional to determine if a risk or impediment to the performance of the excavation work exists due to the presence of utilities or easements within or in the vicinity of the inaccessible SWMUs. Appropriate protective measures will be employed as necessary.

Loaded vehicles leaving the Facility will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local regulations, including New York State Department of Transportation (NYSDOT) requirements.

Use of a truck wash may be necessary. The Qualified Environmental Professional will be responsible for determining if outbound trucks will require washing before leaving the Facility. Any water generated from truck washing will be collected and disposed off-site in an appropriate manner.

Locations where vehicles enter or exit the Facility shall be inspected daily for evidence of off-site soil tracking.

The Qualified Environmental Professional will be responsible for determining that all egress points for truck and equipment transport from the Facility are clean of dirt and other materials derived from the Facility during intrusive excavation activities. Cleaning of the adjacent streets will be performed to maintain a clean condition with respect to Facility-derived materials as needed.

D-7 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate Federal, State and local regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Facility will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks loaded with Facility materials will exit the Facility using only approved truck routes established as part of the project-specific Work Plan. Truck routes will be selected in consideration of the following:

- Limiting transport through residential areas and past sensitive sites
- Use of city-mapped truck routes
- Limiting total distance to major highways
- Promoting overall safety and community awareness when accessing highways and during material transport

In addition, the following additional procedures will be followed:

- Trucks will be prohibited from stopping and idling in the neighborhood outside the Facility.
- Egress points for truck and equipment transport from the Facility will be kept clean of dirt and other materials during the performance of any excavation work.
- Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

D-8 Materials Disposal Off-Site

All material excavated and removed from within or in the vicinity of remaining impacts associated with the two inaccessible SWMUs will be treated as contaminated and regulated material and transported and disposed in accordance with appropriate Federal, State and local regulations, including 6 NYCRR Part 360. If disposal of material from within or in the vicinity of remaining impacts associated with the two inaccessible SWMUs is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be submitted to NYSDEC. Unregulated off-site management of materials from within or in the vicinity of remaining impacts associated with the two inaccessible SWMUs may not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in accordance with the notification requirements presented in Section D-3. The notification will include estimated quantities and a

breakdown by types of facilities proposed for disposal as appropriate. Actual disposal quantities and associated documentation will be reported to NYSDEC in the Periodic Review Report, including waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2. Material that does not meet 6 NYCRR Part 375 Soil SCOs for unrestricted use is prohibited from being taken to a New York State recycling facility as per 6 NYCRR Part 360-16 Registration Facility.

D-9 Materials Reuse On-Site

The Qualified Environmental Professional will determine that procedures for materials reuse as required in DER-10 are followed during the performance of any excavation work required by the project-specific Work Plan. Impacted material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below a demarcation layer or an impervious surface and clearly identified using orange snow fencing, polypropylene or an equivalent. Impacted material will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

The following materials will not be reused onsite:

- Demolition debris
- Crushed concrete
- Organic matter, including wood, roots, stumps, etc.
- Solid waste derived from clearing and grubbing

D-10 Fluids Management

All liquids generated during the performance of any excavation work required by the project-specific Work Plan will be removed from the Facility, including liquids resulting from excavation dewatering and decontamination activities. All liquids will be handled, transported and disposed in accordance with applicable Federal, State, and local regulations. No excavation or decontamination liquids will be recharged back to the land surface or subsurface of the Facility. These liquids will be disposed off-site, unless prior approval is obtained from NYSDEC.

D-11 Cover System Restoration

After the completion of soil removal and any other intrusive activities presented in the project-specific Work Plan, the cover system (i.e., the existing building slabs.) will be restored to pre-excavation

conditions, or similar. Any demarcation or signage as defined in the SMP that is disturbed during the implementation of the project-specific Work Plan shall be restored or replaced. If the type of cover system changes from that which exists prior to the excavation (i.e., new permanent building slab penetrations will remain), this change will constitute a modification of the cover system. A figure showing the modified cover system will be included in the subsequent Periodic Review Report and in an updated SMP.

D-12 Backfill from Off-Site Sources

All materials proposed for import onto the Facility as part of a project-specific Work Plan will be approved by the Qualified Environmental Professional and in compliance with imported soil requirements included in the project-specific Work Plan. Unless otherwise approved by NYSDEC, only certified clean fill material will be used for backfill and cover soil for any excavations and will meet the standards established in be 6 NYCRR 375-6.7(d), "Soil Covers and Backfill."

The following materials will not be imported to the Facility as part of a project-specific Work Plan:

- Solid waste or construction and demolition debris of any kind
- Soils that meet "exempt" fill requirements under 6 NYCRR Part 360
- Material from industrial sites, spill sites, other environmental remediation sites or potentially contaminated sites

A Request to Import/Reuse Fill or Soil as part of a project-specific Work Plan will be prepared and submitted to NYSDEC prior to accepting any imported materials at the Facility. The form required for this requests is found at http://www.dec.ny.gov/regulations/67386.html. A minimum of 5 business days is required for NYSDEC review and approval.

Trucks entering the Facility with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

D-13 Stormwater Pollution Prevention

All excavations as part of a project-specific Work Plan will require the implementation of appropriate procedures for stormwater pollution prevention. Procedures will be included in the project-specific Work Plan that will conform to the requirements of the NYSDEC Division of Water regulations and guidelines. A separate Stormwater Pollution Prevention Plan (SWPPP) may be included as an attachment to the project–specific Work Plan. Erosion and sediment control measures identified in the SWPPP will be observed to confirm the controls are operating correctly. Where discharge locations or points are

accessible, the controls will be inspected to ascertain the erosion control measures are effective in preventing significant impacts to receiving waters.

The following procedures will be included in the SWPPP as part of a project-specific Work Plan:

- Silt fencing or hay bales will be installed around the entire perimeter of the construction area. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.
- Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Facility and available for inspection by NYSDEC. All necessary repairs will be made promptly.
- Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.
- All undercutting or erosion of the silt fence toe anchor will be repaired promptly with appropriate backfill materials.

D-14 Excavation Contingency Plan

The procedures will be followed upon discovery of an unknown source of impacts that may require remediation (i.e., USTs, stained soil, drums, etc.) for any excavation work as part of a project-specific Work Plan:

- If underground tanks or other previously unidentified contaminant sources are found during subsurface excavations, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.
- Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method.
- Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the Facility history and previous sampling results provide a sufficient justification to limit the list of analytes. If a reduced list of analytes is proposed, NYSDEC approval will be required prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during excavation as part of a project-specific Work Plan will be promptly communicated by phone to NYSDEC. Reportable quantities of petroleum product will be reported to the NYSDEC Spills Hotline. These findings will be also included in the Periodic Review Report.

D-15 Community Air Monitoring Plan

A CAMP will be prepared as part of the project-specific Work Plan in accordance with the requirements of NYSDEC DER-10, and specifically with Appendix 1A, Generic Community Air Monitoring Plan and

Appendix 1B, Fugitive Dust and Particulate Monitoring. The CAMP will include the following components as applicable:

- Perimeter air monitoring requirements
- Action levels
- Air monitoring methods and instrumentation to be used
- Analytes proposed for measurement
- A figure of the locations of all air monitoring instrumentation, including at least one upwind and downwind monitoring location

Monitoring stations will be located based on generally prevailing wind conditions. The locations will be monitored on a daily or more frequent basis and relocated based on changes in wind direction. Consideration will also be given to the present of onsite and offsite sensitive receptors (i.e., a school, day care center or a residential area).

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and New York State Department of Health (NYSDOH).

D-16 Odor Control Plan

The control of nuisance odors will be included in the project-specific Work Plan. Specific odor control methods will be employed on a routine basis as applicable. If nuisance odors are identified at the Facility boundary, or if odor complaints are received, work will be halted and the source of odors identified and corrected. Work will not resume until the nuisance odors have been abated.

The following odor control methods will be followed as appropriate:

- Limiting the area of open excavations and size of soil stockpiles
- Shrouding open excavations with tarps and other covers
- Using foaming agents (e.g. Biosolve) to cover exposed odorous soils
- Direct load out of soils to trucks for off-site disposal

NYSDEC and NYSDOH will be notified of all odor events and of any other complaints during the performance of the excavation work as part of a project-specific Work Plan. Any odor control measures that are implemented will be presented in the Periodic Review Report.

D-17 Dust Control Plan

Dust management procedures will be included in the project-specific Work Plan. The following dust management methods will be followed as appropriate:

- Dust suppression will be achieved through the use of wetting with potable water or other methods suitable for the work being undertaken.

D-18 Other Nuisances

The project-specific Work Plan will include procedures for limiting the potential for elevated noise levels during the performance of the excavation work as part of a project-specific Work Plan. All work will be performed in accordance with local noise control regulations.

APPENDIX E

SOIL GAS VENTING SYSTEM INSTALLATION AND CERTIFICATION REPORT

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Radiation & Hazardous Site Management, 9th Floor
625 Broadway, Albany, New York 12233-7255
Phone: (518) 402-8594 • **FAX:** (518) 402-8646
Website: www.dec.state.ny.us

4300
4330

Denise M. Sheehan
Commissioner

RECEIVED
OCT 20 2005
MICHAEL T. KONTAXIS

October 13, 2005

Mr. Michael T. Kontaxis
Environmental Technology Department
Lederle - Wyeth Ayerst
401 North Middletown Road
Pearl River, NY 10965-1299

Dear Mr. Kontaxis:

Re: Construction Completed Report for Building B130
Indoor Air Abatement System March 3, 2005

The report detailing the installation of the active soil gas venting system for building B130 has been reviewed by this office. The construction meets the design criteria we agreed upon in our earlier correspondence, and no further testing of the air in the building is required as long as this system is performing as designed.

Please note that this Interim Corrective Measure applies only to the potential indoor air problem in the building and not to any contamination under the building.

If you have any questions, please contact me at (518) 402-8602.

Sincerely,

Paul Patel

Paul Patel, P.E.
Environmental Engineer
Eastern Engineering Section

cc: J. Reidy, EPA 2
K. Gronwald
K. Grzyb, Reg. 3

Lederle

File Reg 3

WYETH PHARMACEUTICALS
401 NORTH. MIDDLETOWN ROAD
PEARL RIVER,NY 10965-1299
(845) 602-5000

Lederle or Wyeth

Wyeth

February 25, 2005

Certified Mail/Return Receipt

Mr. P. Patel, P.E.
Environmental Engineer
Bureau of Radiation & Hazardous Site Management, 8th Floor
Division of Solid and Hazardous Materials
New York State Department of Environmental Conservation
625 Broadway, Albany, New York 1223-7255

Re: Active Soil Venting System
Installation & Certification

Dear Mr. Patel:

Enclosed is a copy of the report detailing the installation of an active soil gas venting system in B130. The system was installed as per design approved by the Agency. Following installation a test was performed which demonstrated the ability of the system to perform as intended and designed.

A certification statement by a New York State licensed professional engineer is also included as part of the report.

Should you have any questions, please contact me at (845) 602-2500.

Sincerely,

Michael T. Kontaxis, P.E.
Manager, Environmental
Technology

MTK:lc
M022505-1

PARSONS

290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax: (315) 451-9570 • www.parsons.com

February 11, 2005

Mr. Michael Kontaxis, P.E.
Wyeth Pharmaceuticals
North Middletown Road
Pearl River, New York 10965

RE: Building 130 Soil Venting System Installation

Subject: Certification Report

Dear Mr. Kontaxis:

Parsons has completed the installation of a soil vapor venting system for Building 130 at Wyeth's Pearl River, New York facility. Parsons provided engineering and construction services for the soil venting system. Installation of the soil venting system was completed in December 2004. This Certification Report documents the activities associated with the Building 130 Soil Venting System installation. A Certification Statement has been included as Attachment A of this report.

PROJECT BACKGROUND

Wyeth asked Parsons to assist with the determining the best method for best method for closure of the existing soil vapor monitoring wells on the first floor of Building 130. Wyeth wanted to close these wells to allow for expansion of offices or production area into the floor space containing the wells. The soil vapor monitoring data is presented in a separate report, previously submitted to Wyeth.

A number of options for closing the monitoring wells were considered, including real time confirmatory sampling, Suma canister indoor air quality sampling, and installation of a soil venting system. Wyeth presented all of the options to the New York State Department of Environmental Conservation (NYSDEC). The NYSDEC contacted the New York State Department of Health (NYSDOH) to verify that all indoor air quality issues would be properly addressed by the options presented. The NYSDOH accepted the indoor air quality sampling and the soil venting system. However, the NYDOH indicated that the indoor air quality sampling would need to be repeated on a potentially annual basis to confirm no impact to the indoor air quality. Due to the on-going indoor air quality-sampling requirement, Wyeth elected to pursue installation of a soil venting system.

SOIL VENT SYSTEM DESIGN

Wyeth requested that Parsons developed a design for the installation of the soil venting system. The basis of the design was to apply a slight vacuum on the soil surrounding the existing soil vent wells and exhaust the soil vapor outdoors. A trench was cut into the floor surrounding the existing monitoring wells to establish a ventilation loop. The soil venting system included a

perforated PVC pipe system installed in the trench, approximately one foot below the bottom of the existing concrete flooring. The perforated piping transitioned to a solid pipe system and mounted overhead to an in-line low flow blower unit exhausting to through an exterior wall penetration on the building.

The soil venting system included a testing port located at one location along the trench for confirming vacuum as part of the system commissioning. Adequate vacuum was to be demonstrated when the smoke or dust was observed being drawn into the ventilation loop. Wyeth submitted a Work Plan to the NYSDEC based upon Parsons design. NYSDEC and NYSDOH approved the Work Plan and Parsons was directed to complete the installation. A copy of the Work Plan and NYSDEC approvals has been included as Attachment B to this report.

SOIL VENT SYSTEM INSTALLATION

Upon approval from Wyeth, Par Environmental, Inc. (PAR) was selected as the contractor to perform the construction phase of the project under Parsons management. The following section of this report documents the installation of the soil venting system. The installation activities have been separated into four phases.

The four phases of the system construction are described below:

1) Job Site Isolation, Containment and Air Monitoring

Under Parsons direction, PAR constructed a negative pressure poly containment surrounding the work area. The calculated air exchange frequency inside the containment area was 14 exchanges per hour. All containment ventilation passed though HEPA filters during the continuous air circulation of work area. The containment was maintained until the end of the site restoration phase.

Carbon Monoxide sensors were temporality mounted inside the containment area on north and south side of the work area. Then sensors were cleaned, calibrated and maintained until the end of the site restoration phase.

2) System Installation, Start-up and Testing

System construction included the installation of 158 lineal feet of 4-inch diameter perforated PVC piping enclosing an area around the existing monitoring points of approximately 2,000 square feet. The piping was placed in the new saw cut trench that was excavated to 12 inches below the existing concrete slab depth. The perforated PVC vent piping was installed in the trench. The vent piping was placed on a bedding of approximately four inches of pea gravel in the trench, covered with a four-inch layer of pea gravel, and finally covered with a new concrete cover slab. All of the perforated piping was connected to a single solid PVC pipe, which transitioned to a soild four-inch PVC riser pipe at column 4-C.

The riser pipe transitioned to an overhead line that ran along the ceiling height on the first floor to an in-line low flow blower unit. The piping to the blower unit was installed with a slight slope back to the riser to account for the collection of condensate. Four inch PVC exhaust piping continued from the blower at ceiling height through the exterior wall. A grated cap was place over the end of the exhaust pipe just outside the exterior wall for safety. An internal Commissioning Report for low flow blower, which in includes blower specifications, has been included as Attachment C to this report.

Once the system was operational a smoke test was conducted on vapor monitoring point SV-2. The test indicated that the soil vapor system imparted vacuum on monitoring point SV-2. Thereby, confirming the soil venting system was operating as planned.

3) Vapor Well Closure

After the smoke test had been successfully conducted, all five soil vapor monitoring points were permanently grouted in place. A concrete cap was placed in void space left by removal of the monitoring point cover, in preparation for the final floor restoration.

4) Site Restoration

The floor restoration included installation of a new steel reinforced concrete cover slab over the vent loop trench and the application of a final epoxy coating. The new concrete cover slab was given approximately three weeks to cure before the final epoxy layer applied. The epoxy coating used was an exact match of the existing floor coating throughout the first floor of Building 130. The epoxy was given four days to fully cure. Once the final restoration activities were completed, PAR was instructed to dismantle the isolation barrier and remove remaining equipment. In addition, the vent piping was labeled and a lockable switch cover was installed on the blower unit.

Parsons is pleased to be a part this important project. If you have any questions or need any additional information, please contact Mathew McGowan or Calvin Smith at (315) 451-9560.

Sincerely,

PARSONS

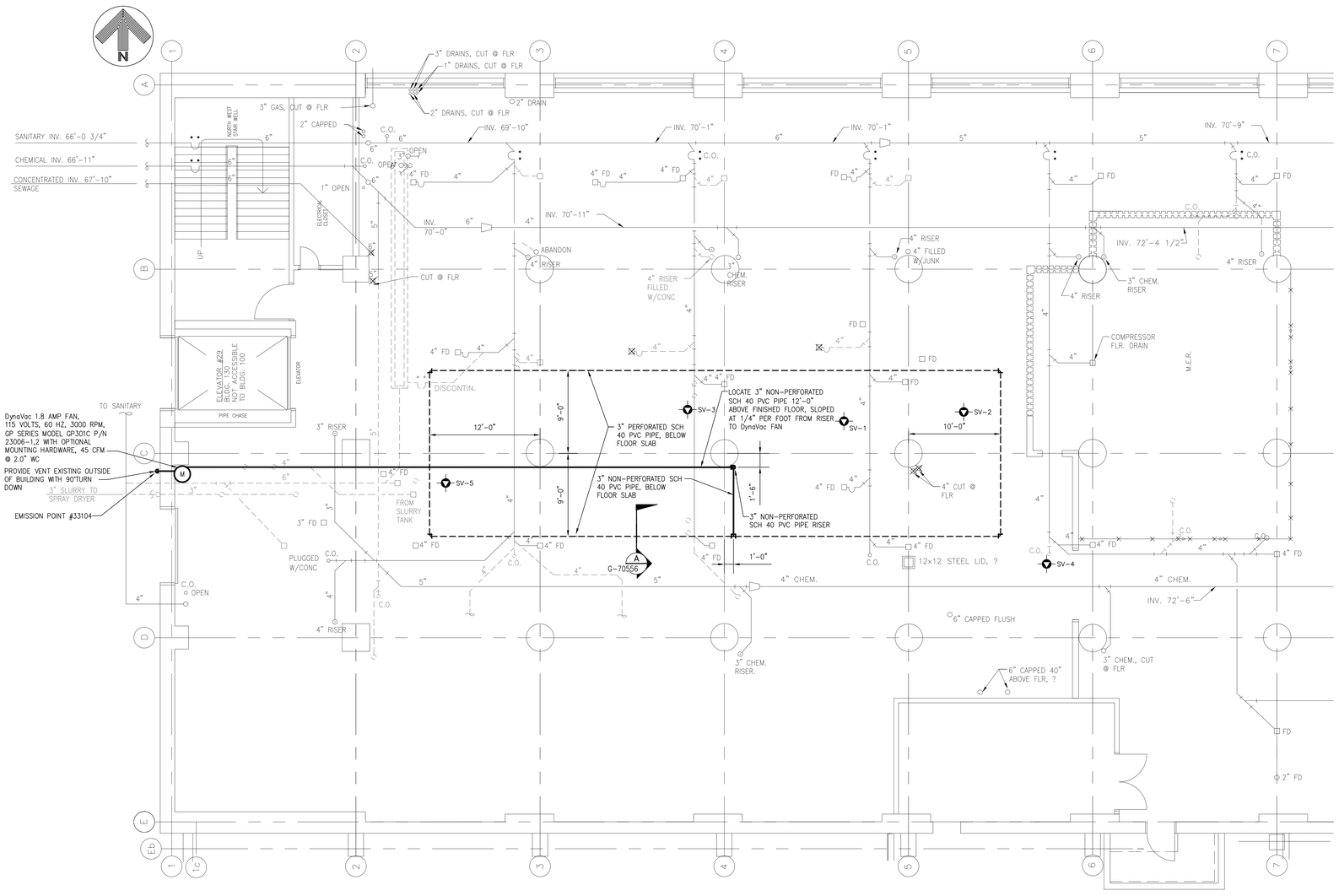
Matthew McGowan
Project Manager

Attachments:

A) Certification Statement
B) NYSDEC Work Plan
C) Blower Commissioning Field Report

CC: Heather Hawkins-Wyeth

WORK SAFELY TODAY



1ST FLOOR PARTIAL PLAN

SCALE: 3/16" = 1'-0"

NUMBER	REFERENCE DWG.
G-44200	UNDERGROUND PIPING PLAN
G-44201	1ST FLOOR PLAN
B-68274	APPLIANCE PANEL SCHEDULE PANEL "G"
G-71017	SOIL VENTING SYSTEM ELECTRICAL LAYOUT

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH WYETH, PEARL RIVER STANDARD SPECIFICATIONS.

2. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE START OF WORK.

3. NO WORK SHALL START UNTIL CLEARANCE IS RECEIVED FROM WYETH ENGINEERING (ENGINEER).

4. CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO THE START OF WORK.

5. ALL MATERIALS TO BE REMOVED ARE TO BE LEGALLY DISPOSED OF, OFF SITE, EACH DAY EXCEPT WHERE OTHERWISE NOTED. EXTREME CARE IS TO BE TAKEN TO AVOID SPILLAGE OF DEBRIS.

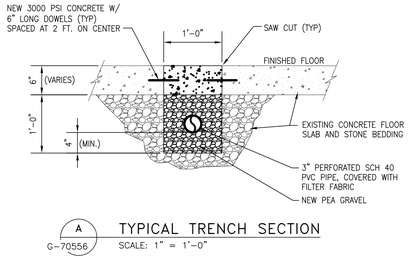
6. THIS WORK IS TO BE PERFORMED TO PROTECT ADJOINING AREAS, EQUIPMENT, AND OCCUPANTS FROM DAMAGE AND HARM AND TO PRODUCE MINIMUM DISTURBANCE TO OPERATIONS. PROVIDE ALL PROTECTIVE METHODS AND SCHEDULE WORK WITH OWNER.

7. ANY CONSTRUCTION TO BE LEFT IN PLACE THAT IS WEAKENED OR DAMAGED SHALL BE RESTORED TO THE CONDITION WHICH EXISTED PRIOR TO SUCH DAMAGE.

8. CONSTRUCTION THAT IS TO BE REPLACED AFTER REMOVAL WORK SHALL BE REPLACED WITH CONSTRUCTION OF EQUAL STRENGTH AND DESIGN.

9. IT SHALL BE ASSUMED THAT THE EXISTING UTILITIES IN AND ADJACENT TO THE CONSTRUCTION WORK ARE PRESENTLY IN PERFECT WORKING ORDER. IN THE EVENT OF UTILITY BREAKDOWNS IN THE AREA, WHICH ARE NOT LOCATED IN ACCORDANCE WITH THE PROCEDURES PROVIDED IN THE SPECIFICATION DOCUMENTS, THE CONTRACTOR WILL MAKE IMMEDIATE REPAIRS WITHOUT COST TO THE OWNER.

10. LABEL ALL SYSTEM PIPING WITH SYSTEM NAME, FLOW DIRECTION ARROWS, AND LINE COLOR CODE IN ACCORDANCE WITH WYETH ENGINEERING STANDARD 15054.



A G-70556 TYPICAL TRENCH SECTION

SCALE: 1" = 1'-0"

ABBREVIATIONS

CHEM	CHEMICAL
CO	CLEAN OUT
CONC	CONCRETE
FLR	FLOOR
FD	FLOOR DRAIN
INV	INVERT ELEVATION OF PIPE
SAN	SANITARY
SEW	SEWAGE

LEGEND

- 3" — NEW PERFORATED VENT PIPING
- 3" — NEW NON-PERFORATED VENT PIPE
- EXISTING PIPING
- 4" — DISCONNECTED OR ABANDON PIPING
- SV-2 — SOIL VAPOR MONITORING POINT
- PLUGGED FLOOR PENETRATION OR INLET
- PLUGGED FLOOR DRAIN

4 2 0 4 8

SCALE: 3/16"=1'-0"

INDICATES ITEM NUMBER

CAD SYSTEM ORIGINAL
DO NOT CHANGE MANUALLY!

ISSUE	SIGN	DATE
P-5		
P-4		
P-3		
P-2		
P-1		

NAME	DATE
DEPARTMENT APPROVAL	

DATE				
DATE				
DATE				
DATE				
DATE				
ORIG.	PAR	1061330	HH	
DATE	10/09/04		10/05/04	
ISSUE	DWN. BY	JOB NO.	PROJ. ENG'R.	SR. ENG'R. MGR DGN.
			APPROVALS	

WYETH AYERST PEARL RIVER NEW YORK

Lederle

BUILDING 130 FIRST FLOOR
SOIL VENTING SYSTEM
MECHANICAL

BLDG. NO. 130	FLOOR 01	AREA
TYPE		DWG. NO.
033		G- 70963

ORG.		
ISSUE	YES	NO

PARSONS
200 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

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No XREFs

AM-WORKFLOW ID#

ATTACHMENT A

CERTIFICATION STATEMENT

Certification Statement

I certify that I have reviewed documentation regarding the installation of the soil venting system and the closure of the vapor monitoring points at Building 130 on the Wyeth Pharmaceutical Facility in Pearl River, New York. This documentation indicates that the work performed was conducted in accordance with the goals of the Wyeth Pharmaceuticals and the NYSDEC approved Work Plan.

Feb 11, 2005

Leslie Cordone, P.E.

New York State Professional Engineer # 070902

ATTACHMENT B

WORK PLAN

FILE B130 SOIL VENT
M. KATT

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Radiation & Hazardous Site Management, 8th Floor
625 Broadway, Albany, New York 12233-7255
Phone: (518) 402-8594 • FAX: (518) 402-9025
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

RECEIVED
DEC 10
MICHAEL T. KONTAXIS

December 5, 2003

Mr. Michael T. Kontaxis
Environmental Technology Department
Lederle - Wyeth Ayerst
401 North Middletown Road
Pearl River, NY 10965-1299

Dear Mr. Kontaxis:

Re; Soil Venting Proposal for Soil Vapor Under Building 130
Revised - 11/20/03.

This office has reviewed your letter of November 5, 2003 and attached diagram (Figure 1) and the supplemental information (Soil venting proposal, smoke test information and Figure G-1) you sent us on November 20, 2003.

The proposal is acceptable and you may implement it as soon as possible.

If you have any questions, please contact me at (518) 402-8602.

Sincerely,

Paul Patel

Paul Patel, P.E.
Environmental Engineer
Eastern Engineering Section

cc: J. Reidy, EPA 2
K. Gronwald

Post-it® Fax Note 7671

To MATT McGREW		Date	# of pages ▶
Co./Dept.		From M T KONTAXIS	
Phone #		Co.	
Fax #		Phone #	
		Fax #	

* * * COMMUNICATION RESULT REPORT (NOV. 5.2003 3:22PM) * * *

FAX HEADER: SAFETY&ENV SERVICES

FILE MODE	OPTION	ADDRESS (GROUP)	RESULT	PAGE
148 MEMORY TX		915184028646	OK	P. 3/3

REASON FOR ERROR
E-1) HANG UP OR LINE FAIL
E-2) BUSY
E-3) NO ANSWER
E-4) NO FACSIMILE CONNECTION

WYETH

ENVIRONMENTAL SERVICES
PEARL RIVER, NY

FACSIMILE TRANSMITTAL SHEET

TO: P. PATEL & W. WEBER
FROM: MICHAEL T. KOSTAXIS
COMPANY: NYSDEC
DATE: 11/5/03
FAX NUMBER: 518 402-8046
TOTAL NO. OF PAGES INCLUDING COVER: 3
PHONE NUMBER:
SENDER'S PHONE NUMBER: (845) 602-7520
RE:
SENDER'S FAX NUMBER: (845) 602-5711

☒ URGENT ☐ FOR REVIEW ☒ PLEASE COMMENT ☒ PLEASE REPLY ☐ FYI

NOTES/COMMENTS:

AS PER OUR CONVERSATION WITH

WYETH PHARMACEUTICALS
401 NORTH. MIDDLETOWN ROAD
PEARL RIVER,NY 10965-1299
(845) 602-5000

Wyeth

November 20, 2003

Certified Mail/Return Receipt

Mr. P. Patel, P.E.
Environmental Engineer
Bureau of Radiation & Hazardous Site Management, 8th Floor
Division of Solid and Hazardous Materials
New York State Department of Environmental Conservation
625 Broadway, Albany, New York 1223-7255

Re: Soil Venting Proposal
Soil Vapor Under Building 130(B130)

Dear Mr. Patel:

The purpose of this letter is to integrate and consolidate all the information about this project transmitted to your office previously. The intent of this project is to install an active soil venting system under the floor of B130 to remove the soil vapors. The system is designed to meet the requirements of a remediation action for controlling contaminated soil vapors. As such, it eliminates restrictions on the occupancy of the first floor of B130 and the need for present or future ambient air sampling. The attached drawings show the details of the system and its location in relation to the entire floor of B 130.

Drawing G-46678-H shows the area outlined by the proposed soil venting installation within the entire floor of B130 The spacing of the columns is 20 ft and the area enclosed by the venting system is about 8% of the total floor area,(14,400sq ft), of B130.

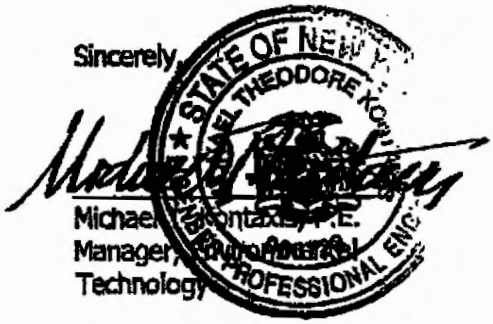
As shown in drawing G-1, a one-foot deep trench will be created on the floor by either sawcutting or jackhamering the concrete slab along the dashed lines and the non-perforated pipe section at column 4C. The trench will be partially filled with new pea gravel, as per detail, and a 3" perforated PVC SCH40 pipe will be placed in the trench and it will be totally surrounded with new pea gravel. The piping will be continuous and at the location of column 4C, a non-perforated 3" PVC SCH40 will be connected to an above ground riser that will run up the column to above the ceiling and then to the exterior of the building. The fan specified in the drawing is typical for Radon installation for soils similar to those under B130. The concrete at all disturbances will be restored; the vapor wells 1-5 will be closed by removing the screen, grouting the annular space and restoring the concrete. After the installation is complete, two one-inch holes will be drilled through the concrete floor and a "smoke" test will be preformed to verify that a field of negative pressure, created by the fan, exists around the perforated pipe. The holes will be drilled inside the area enclosed by the venting system and near vapor wells SV-5 and SV-2. After the successful completion of the

Wyeth

test, the test holes will be grouted and the entire floor of B130 will be finished to Pharmaceutical specifications including several sealers.

The system, following Agency's approval, will be constructed as described above. Your expeditious response is greatly appreciated, and should you require additional information, please contact me at (845) 602-2500.

Sincerely,



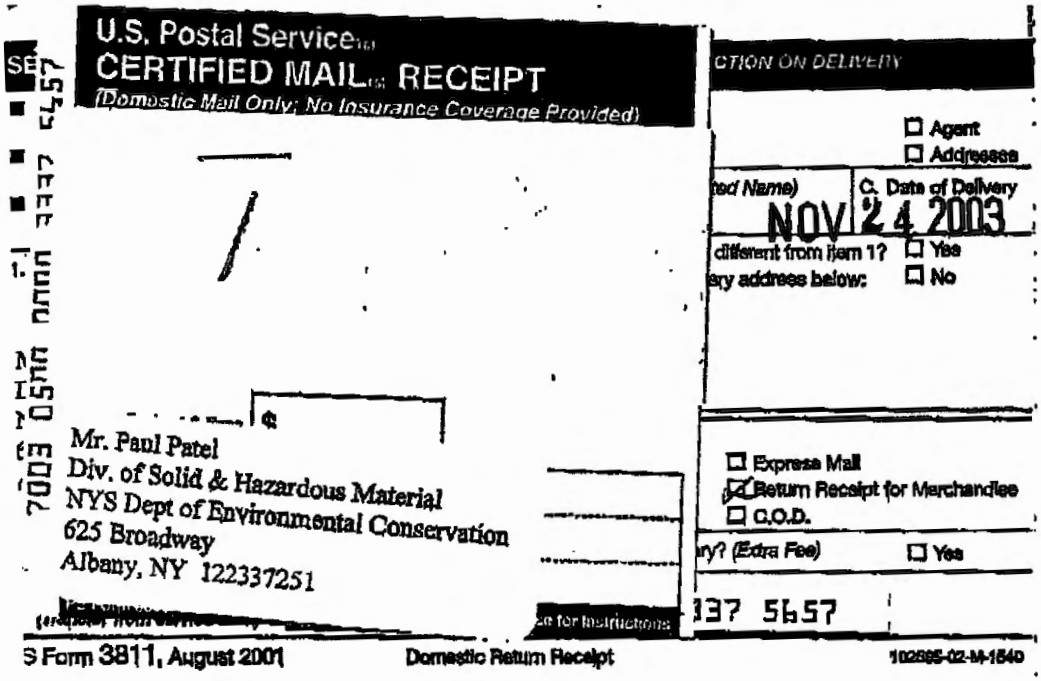
Michael [illegible], P.E.
Manager, [illegible]
Technology

MTK:mk
B130FINPROP.doc

Wyeth

bcc: P Alexandro*
M. Katz*
File 4335 (B130 FINPROP)

* *letter only*



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(Domestic Mail Only; No Insurance Coverage Provided)

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☐ Addressee

C. Date of Delivery
NOV 24 2003

different from item 1? ☐ Yes
ery address below: ☐ No

☐ Express Mail
☑ Return Receipt for Merchandise
☐ C.O.D.

ry? (Extra Fee) ☐ Yes

137 5457

Mr. Paul Patel
Div. of Solid & Hazardous Material
NYS Dept of Environmental Conservation
625 Broadway
Albany, NY 122337251

7003 0500 0001 3137 5457

S Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Radiation & Hazardous Site Management, 8th Floor
625 Broadway, Albany, New York 12233-7255
Phone: (518) 402-8594 • FAX: (518) 402-9025
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

November 6, 2003

Mr. Michael T. Kontaxis
Environmental Technology Department
Lederle - Wyeth Ayerst
401 North Middletown Road
Pearl River, NY 10965-1299

Dear Mr. Kontaxis:

Re: Soil Venting Proposal for Soil Vapor Under Building 130

This office has reviewed your letter of November 5, 2003 and attached diagram (figure 1). After further conversations with you to clarify some parts of the marked-up drawing, this office has approved the general plan for soil vapor venting you have submitted.

Though more details of the plan must be described and submitted for further review, if a soil venting system is installed in this building, no indoor air tests will need to be conducted due to the contaminated soil under Building 130.

Please submit a more detailed work plan for the proposed soil venting system to this office within fourteen (14) days.

If you have any questions, please contact me at (518) 402-8602.

Sincerely,

Paul Patel, P.E.
Environmental Engineer
Eastern Engineering Section

cc: J. Reidy, EPA 2
K. Gronwald

WYETH PHARMACEUTICALS
401 NORTH MIDDLETOWN ROAD
PEARL RIVER,NY 10965-1299
(845) 602-5000

Wyeth

November 10, 2003

OVER NIGHT DELIVERY

Mr. Paul Patel, P.E.
Environmental Engineer
Bureau of Hazardous Waste Facilities
Division of Solid and Hazardous Materials
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12235-7251

RE: Soil Venting System
Building 130, First Floor

Dear Mr. Patel:

Attached to this letter is a work plan containing the details of an Active Soil Venting System, (ASVS), to be installed in first floor in building 130. The purpose of the ASVS is to remove the vapor pathway between the low level contaminated soils under the building and the working space of the first floor. The existing soil vapor wells will be closed and sealed. The layout of the ASVS, as shown on the attached drawing, will draw vapors from an area of 2000 sq feet that includes the area characterized by the wells. The collected vapors will be conducted, under negative pressure, to the outside of the building. The fan providing the negative pressure is of the type that is typically installed in Radon venting systems. All underground pipes will be perforated all above ground pipes will be solid and all connections will be air tight. The sizes and materials to be used exceed the Federally recommended sizes and schedules and the layout is consistent with those used in Radon venting systems. This installation of the ASVS obviates the need of indoor air sampling.

Wyeth acknowledges your cooperation and guidance in this effort. Your expeditious review of this plan is appreciated as there is a pressing need to occupy the first floor of this building and should you have any questions or need additional information or clarifications, please contact me at (845) 602-2500.

Sincerely,

Michael T. Kontaxis, P.E.
Manager, Environmental
Technology

cc: T. Killeen, P.E.

Wyeth

bcc:
P. Alexandro
M. Katz
File 433S(B130 First Floor)

⊠ PLUGGED FLOOR DRAIN

CAD SYSTEM ORIGINAL
DO NOT CHANGE MANUALLY!

DATE						
DATE						
DATE						
DATE						
DATE						
DRG.	PAR					
DATE	11-7-03					
ISSUE	DWN. BY	CHK'D. BY	JOB NO.	PROJ. ENG'R.	SR. ENG'R.	MGR.DGN.
				APPROVALS		

WYETH AYERST

Lederle

PEARL RIVER NEW YORK

2 0 4 8

SCALE: 3/16"=1'-0"

BUILDING 130 FIRST FLOOR SOIL VENTING PERMIT PLAN

BLDG. NO. 130	FLOOR 01	AREA

ORIG.		
ISSUE	YES	NO

TYPE	DWG. NO.
036	G-1

NS
D, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560

INDICATES ITEM NUMBER

AM-WORKFLOW ID#

PARSONS

290 Elwood Davis Road, Suite 312 – Liverpool, New York 13088 – (315) 451-9560 – Fax (315)451-9570 – www.parsons.com

MEMORANDUM

November 7, 2003

To: Michael Kontaxis, PE – Wyeth

From: Matthew McGowan – Parsons

Subject: Soil Vapor Venting System for Building 130

As per you request, Parsons has prepared a plan for the installation of a soil vapor venting system to replace the vapor monitoring points located in the first floor of Building 130. Wyeth has indicated that they wish to close the existing vapor monitoring points so that the area can be used for expansion of pharmaceutical production. Based upon conversations between Wyeth and NYSDEC, it has been determined that a soil vapor monitoring system is the best way to close the monitoring points and to prevent the potential for indoor air quality concerns resulting from the impacted soil.

Parsons has prepared a Soil Vapor Venting Plan for the first floor of Building 130. The plan is depicted on drawing number; G-1 "Building 130 First Floor Soil Venting Permit Plan". The plan includes the installation of 158 lineal feet of 3-inch diameter perforated PVC piping enclosing an area around the existing monitoring points of approximately 2000 square feet. The piping will be placed in a new saw cut trench that is excavated to 12 inches below the existing concrete slab depth. The perforated PVC vent piping will be installed in the trench. The vent piping will be placed on a bedding of approximately four inches of pea gravel in the trench, covered with a four-inch layer of pea gravel, and covered with a new concrete cover slab. All of the perforated piping will be connected to a single solid PVC pipe, which will transition to three inch PVC riser pipe at column 4-C.

The riser pipe will transition to an overhead line that will run above the ceiling height on the first floor and pass though the north exterior wall. The overhead piping will be installed with a slight slope back to the riser to account for any collected condensate. On the exterior wall of the building a low flow blower unit will be installed capable of 45 cfm flow and 2 inches wc vacuum. The system will operate automatically and continuously.

If you have any questions please contact Matthew McGowan at on-site at extension 21596.

cc: L Cordone
File

Paul and Bill,

Following my conversation with Paul this morning, below is a description of our concept to install a vapor venting system under the slab of B130 to eliminate the potential pathway for the soil vapors to enter the working space. Attached is also a marked-up drawing that was initially submitted as part of the work plan to install the five Soil Vapor, (SV), wells. Please not that as part of the demolition and plans to occupy the area, the "bubbled" items have been already removed and the area shown in dashed line is area were the original excavation took place. The layout of the piping is such that it will encompass the area around the soil vapor wells. The intent of this concept is to install a soil venting system that will eliminate the need for present and future ambient air sampling since this system satisfies the requirements of a remediation action for such a situation.

We propose to proceed as follows:
We will close the soil vapor wells 1-5, by removing the screen grouting the annular space and sealing the by restoring the concrete at those locations. We will then jackhammer the existing slab to create the trench as shown in the drawing. The trench, to a depth of about 1 ft will be dug. Pea gravel will be used to surround the 2" diameter perforated SCH40 PVC pipe as shown in the detail of the cross section. The piping will be continuous and at the location of the column 4-C, solid piping sections will manifold the two long sections of the perforated piping into a single above ground riser that will run up to the ceiling along the column and then it will run to, above the ceiling, the exterior of the building. The concrete will be restored along all the area of the trench and the manifolding near column 4-C. After the installation of the soil venting system the entire floor will be finished to Pharmaceutical specification including terrazzo and several sealers.

Schedule.
We would greatly appreciate a response from you as early as possible that this plan eliminates the need for ambient air sampling now and in the future. This is extremely important for us since it would allow us to do some cement and sealing work in another section of this large floor. Such work would affect the ambient air sampling. Could you provide a response to this question by Monday Nov. 10?
Earlier this morning I misspoke on the timing. I should have said that by Dec1 we would like to have completed the installation. That would in turn means that we would like to have the review of this plan decided by November 21. There are significant internal people and funding pressures that bear on the completion of this work in this tight schedule.

Your cooperation is, as always greatly appreciated. Please do not hesitate to call for any additional information or comment.

Thank you,
Michael T Kontaxis 11/5/2003

PACIL 1'
518 402 8602

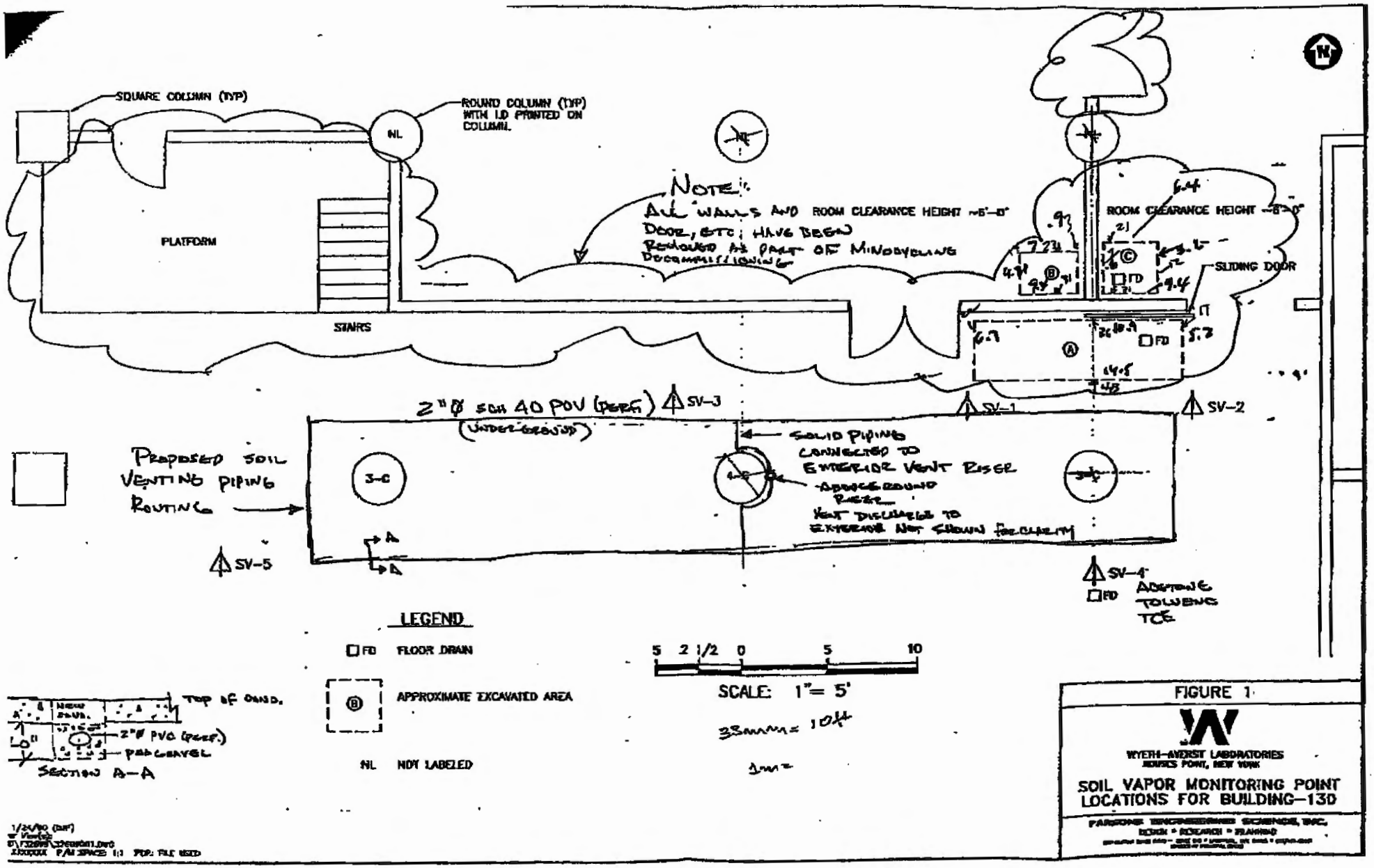


FIGURE 1

WYETH-AYERST LABORATORIES
RAMAPO POINT, NEW YORK

SOIL VAPOR MONITORING POINT LOCATIONS FOR BUILDING-130

PARSONS ENGINEERING SCIENCE, INC.

FEB. 10. 2005 7:42PM SAFETY&ENV SERVICES

ATTACHMENT C
COMMISSIONING REPORT

Wyeth Pharmaceuticals
Pearl River, New York
Soil Vent System Project (Building 130 - 1st Floor)

INSTRUMENT/ EQUIPMENT COMMISSIONING CHECKLIST

SUPPLIER	Par Environmental
ITEM TYPE	Motor/Blower
MANUFACTURER	DYNAVAC
MODEL NUMBER	GP301C

DESCRIPTION	SPEC	ECTORS INIT	DATE
Vapor Extraction Fan	45CFM	CLS	12/16/2004

NOTES:

Equipment operation has been field tested. DYNVAC Blower complies with design specifications

Commissioning Engineer

Plant Representative

APPENDIX F

SOIL GAS VENTING SYSTEM FAN SPECIFICATIONS

RadonAway Ward Hill, MA IN014 Rev F

XP/GP/XR Series Fan Installation Instructions

Please Read And Save These Instructions.

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

1. **WARNING!** Do not use fan in hazardous environments where fan electrical system could provide ignition to combustible of flammable materials.

2. **WARNING!** Do not use fan to pump explosive or corrosive gases.

3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.

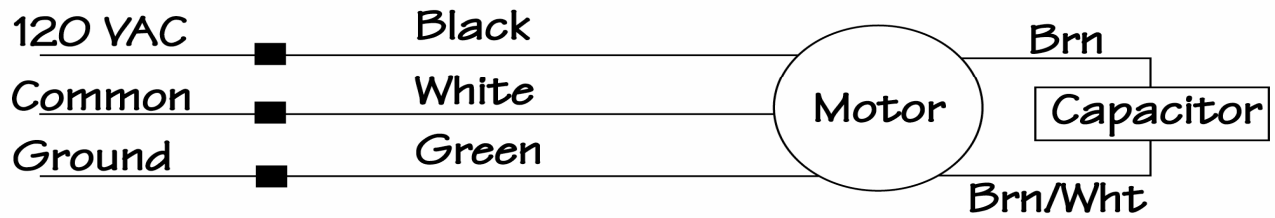
4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.

5. **NOTICE!** There are no user serviceable parts located inside the fan unit. **Do NOT attempt to open.** Return unit to the factory for service.

6. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician.

7. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.

DynaVac GP/XP/XR/RP Series Fan Wiring Diagram



DynaVac - XP/XR Series		DynaVac - GP Series	
XP101	p/n 23008-1,-2	GP201	p/n 23007-1
XP151	p/n 23010-1,-2	GP301	p/n 23006-1,-2
XP201	p/n 23011-1,-2	GP401	p/n 23009-1
XR161	p/n 23018-1,-2	GP501	p/n 23005-1,-2
XR261	p/n 23019-1,-2		

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The DynaVac GP/XP/XR Series Radon Fans are intended for use by trained, professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of a DynaVac Fan. This instruction should be considered as a supplement to EPA standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

1.2 ENVIRONMENTALS

The GP/XP/XR Series Fans are designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the fan should be stored in an area where the temperature is never less than 32 degrees F. or more than 100 degrees F.

1.3 ACOUSTICS

The GP/XP/XR Series Fan, when installed properly, operates with little or no noticeable noise to the building occupants. The velocity of the outgoing air should be considered in the overall system design. In some cases the "rushing" sound of the outlet air may be disturbing. In these instances, the use of a RadonAway Exhaust Muffler is recommended.

1.4 GROUND WATER

In the event that a temporary high water table results in water at or above slab level, water may be drawn into the riser pipes thus blocking air flow to the GP/XP/XR Series Fan. The lack of cooling air may result in the fan cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the fan be turned off until the water recedes allowing for return to normal operation.

1.5 SLAB COVERAGE

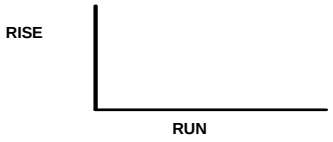
The GP/XP/XR Series Fan can provide coverage up to 2000+ sq. ft. per slab penetration. This will primarily depend on the sub-slab material in any particular installation. In general, the tighter the material, the smaller the area covered per penetration. Appropriate selection of the GP/XP/XR Series Fan best suited for the sub-slab material can improve the slab coverage. The GP & XP series have a wide range of models to choose from to cover a wide range of subslab material. The higher static suction fans are generally used for tighter subslab materials. The XR Series is specifically designed for high flow applications such as stone/gravel and drain tile. Additional suction points can be added as required. It is recommended that a small pit (5 to 10 gallons in size) be created below the slab at each suction hole.

1.6 CONDENSATION & DRAINAGE

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation. The GP/XP/XR Series Fan **MUST** be mounted vertically plumb and level, with the outlet pointing up for proper drainage through the fan. Avoid mounting the fan in any orientation that will allow water to accumulate inside the fan housing. The GP/XP/XR Series Fans are **NOT** suitable for underground burial.

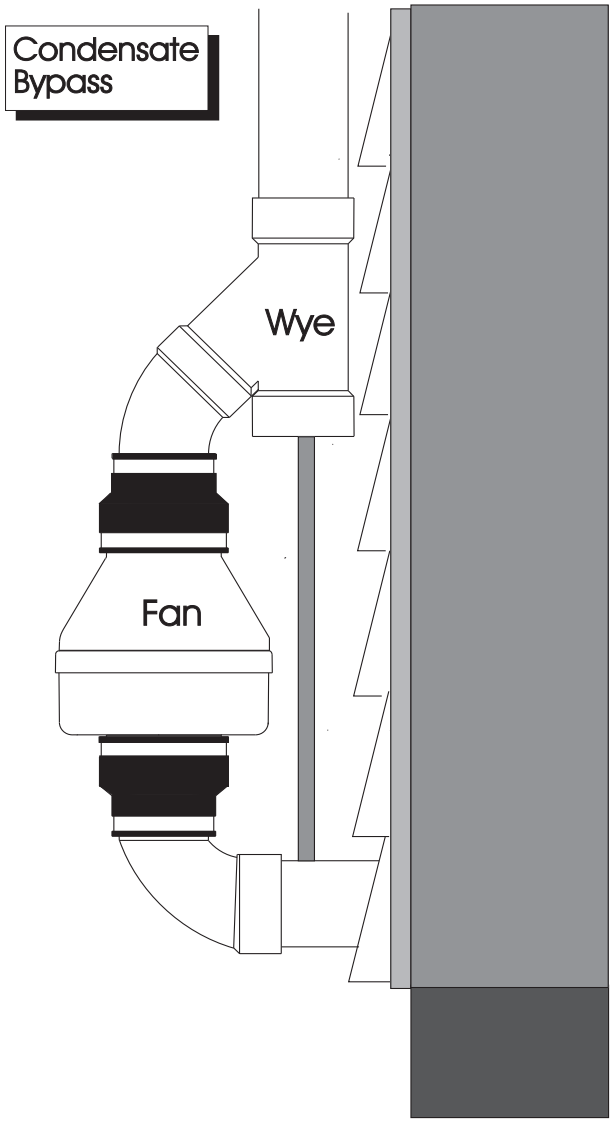
For GP/XP/XR Series Fan piping, the following table provides the minimum recommended pipe diameter and pitch under several system conditions.

Pipe Dia.	Minimum Rise per Foot of Run* @25 CFM	@50 CFM	@100 CFM
4″	1/8″	1/4″	3/8″
3"	1/4"	3/8"	1 1/2"



*Typical GP/XP/XR Series Fan operational flow rate is 25 - 90 CFM. (For more precision, determine flow rate by using the chart in the addendum.)

Under some circumstances in an outdoor installation a condensate bypass should be installed in the outlet ducting as shown. This may be particularly true in cold climate installations which require long lengths of outlet ducting or where the outlet ducting is likely to produce large amounts of condensation because of high soil moisture or outlet duct material. Schedule 20 piping and other thin-walled plastic ducting and Aluminum downspout will normally produce much more condensation than Schedule 40 piping.



The bypass is constructed with a 45 degree Wye fitting at the bottom of the outlet stack. The bottom of the Wye is capped and fitted with a tube that connects to the inlet piping or other drain. The condensation produced in the outlet stack is collected in the Wye fitting and drained through the bypass tube. The bypass tubing may be insulated to prevent freezing.

1.7 "SYSTEM ON" INDICATOR

A properly designed system should incorporate a "System On" Indicator for affirmation of system operation. A manometer, such as a U-Tube, or a vacuum alarm is recommended for this purpose.

1.8 ELECTRICAL WIRING

The GP/XP/XR Series Fans operate on standard 120V 60 Hz. AC. All wiring must be performed in accordance with the National Fire Protection

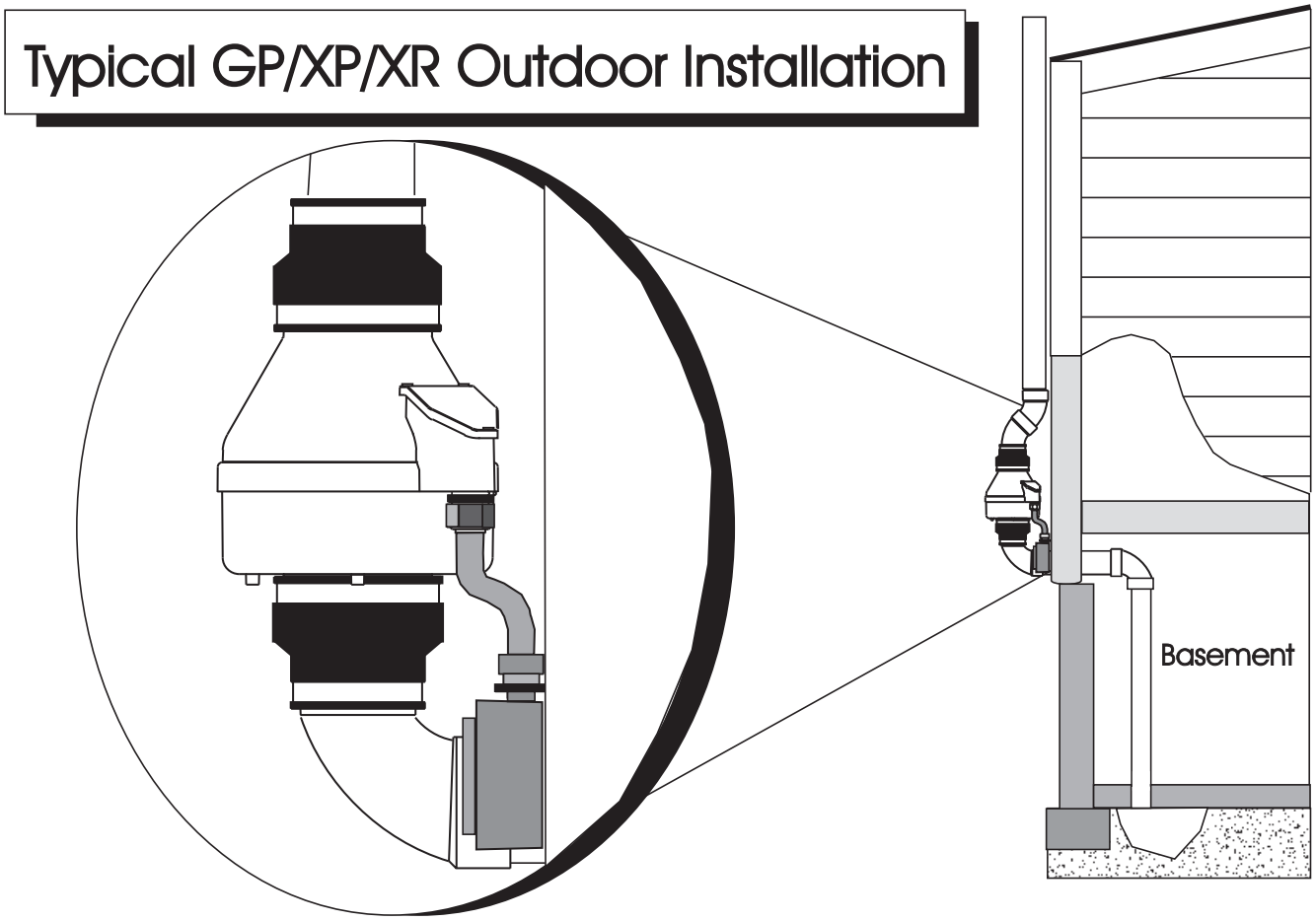
Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit.

1.9 SPEED CONTROLS

The GP/XP/XR Series Fans are rated for use with electronic speed controls ,however, they are generally not recommended.

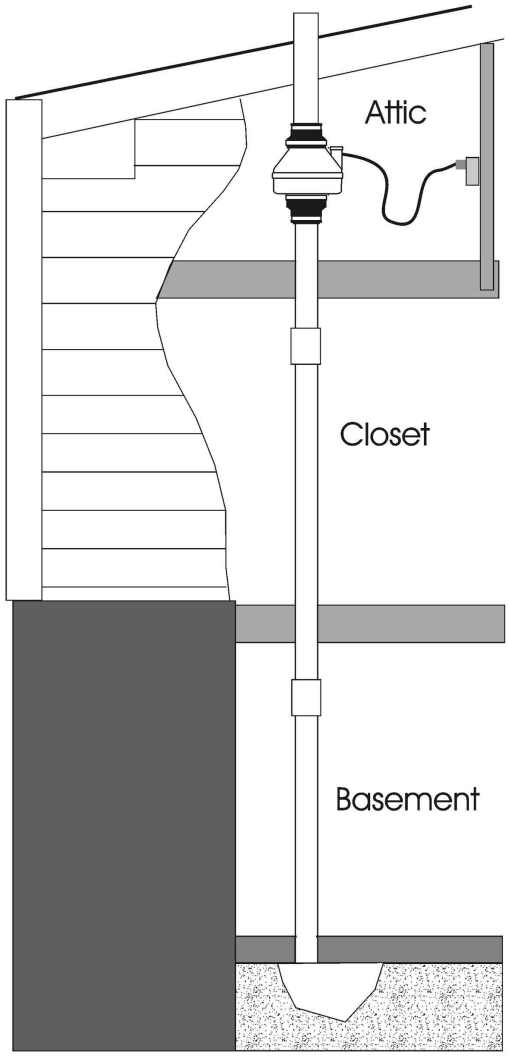
2.0 INSTALLATION

The GP/XP/XR Series Fan can be mounted indoors or outdoors. (It is suggested that EPA recommendations be followed in choosing the fan location.) The GP/XP/XR Series Fan may be mounted directly on the system piping or fastened to a supporting structure by means of optional mounting bracket.



2.1 MOUNTING

Mount the GP/XP/XR Series Fan vertically with outlet up. Insure the unit is plumb and level. When mounting directly on the system piping assure that the fan does not contact any building surface to avoid vibration noise.



2.2 MOUNTING BRACKET (optional)

The GP/XP/XR Series fan may be optionally secured with the integral mounting bracket on the GP Series fan or with RadonAway P/N 25007-2 mounting bracket for an XP/XR Series fan. Foam or rubber grommets may also be used between the bracket and mounting surface for vibration isolation.

2.3 SYSTEM PIPING

Complete piping run, using flexible couplings as means of disconnect for servicing the unit and vibration isolation.

2.4 ELECTRICAL CONNECTION

Connect wiring with wire nuts provided, observing proper connections:

Fan Wire	Connection
Green	Ground
Black	AC Hot
White	AC Common

2.5 VENT MUFFLER (optional)

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed at the end of the vent pipe.

2.6 OPERATION CHECKS

_____ **Verify** all connections are tight and **leak-free**.

_____ **Insure** the GP/XP/XR Series Fan and all ducting is secure and vibration-free.

_____ **Verify** system vacuum pressure with manometer. **Insure** vacuum pressure is **less than** maximum recommended operating pressure

(Based on sea-level operation, at higher altitudes reduce by about 4% per 1000 Feet.)
(Further reduce Maximum Operating Pressure by 10% for High Temperature environments)
See Product Specifications. If this is exceeded, increase the number of suction points.

_____ **Verify Radon levels by testing to EPA protocol.**

XP/XR SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the XP & XR Series Fan:

Typical CFM Vs Static Suction "WC									
	0"	.25"	.5"	.75"	1.0"	1.25"	1.5"	1.75"	2.0"
XP101	125	118	90	56	5	-	-	-	-
XP151	180	162	140	117	78	46	10	-	-
XP201	150	130	110	93	74	57	38	20	-
XR161	215	175	145	105	75	45	15	-	-
XR261	250	215	185	150	115	80	50	20	-

Maximum Recommended Operating Pressure*		
XP101	0.9" W.C.	(Sea Level Operation)**
XP151	1.3" W.C.	(Sea Level Operation)**
XP201	1.7" W.C.	(Sea Level Operation)**
XR161	1.3" W.C.	(Sea Level Operation)**
XR261	1.6" W.C.	(Sea Level Operation)**

**Reduce by 10% for High Temperature Operation*
***Reduce by 4% per 1000 feet of altitude*

Power Consumption @ 120 VAC	
XP101	40 - 49 watts
XP151	45 - 60 watts
XP201	45 - 66 watts
XR161	48 - 75 watts
XR261	65 - 105 watts

XP Series Inlet/Outlet: 4.5" OD (4.0" PVC Sched 40 size compatible)

XR Series Inlet/Outlet: 5.875" OD

Mounting: Mount on the duct pipe or with optional mounting bracket.

Recommended ducting: 3" or 4" Schedule 20/40 PVC Pipe

Storage temperature range: 32 - 100 degrees F.

Normal operating temperature range: -20 - 120 degrees F.

Maximum inlet air temperature: 80 degrees F.

Size: 9.5H" x 8.5" Dia. **Weight**: 6 lbs. (XR261 - 7 lbs)

Continuous Duty **Thermally protected**

Class B Insulation **3000 RPM**

Residential Use Only **Rated for Indoor or Outdoor use**

LISTED Electric Fan ETL® Tested to UL Std. 507

77728

GP SERIES PRODUCT SPECIFICATIONS

The following chart shows fan performance for the GPx01 Series Fan:

Typical CFM Vs Static Suction "WC	1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"
GP501	95	87	80	70	57	30	5
GP401	93	82	60	38	12	-	-
GP301	92	77	45	10	-	-	-
GP201	82	58	5	-	-	-	-

Maximum Recommended Operating Pressure*		
GP501	3.8" W.C.	(Sea Level Operation)**
GP401	3.0" W.C.	(Sea Level Operation)**
GP301	2.4" W.C.	(Sea Level Operation)**
GP201	1.8" W.C.	(Sea Level Operation)**

**Reduce by 10% for High Temperature Operation*

***Reduce by 4% per 1000 feet of altitude*

Power Consumption @ 120 VAC	
GP501	70 - 140 watts
GP401	60 - 110 watts
GP301	55 - 90 watts
GP201	40 - 60 watts

Inlet/Outlet: 3.5" OD (3.0" PVC Sched 40 size compatible)

Mounting: Fan may be mounted on the duct pipe or with integral flanges.

Weight: 12 lbs.

Size: 13H" x 12.5" x 12.5"

Recommended ducting: 3″ or 4" Schedule 20/40 PVC Pipe

Storage temperature range: 32 - 100 degrees F.

Normal operating temperature range: -20 - 120 degrees F.

Maximum inlet air temperature: 80 degrees F.

Continuous Duty

Class B Insulation

3000 RPM

Thermally protected

Rated for Indoor or Outdoor Use

GP301C / GP501C Rated for Commercial Use

LISTED Electric Fan ETL® Tested to UL Std. 507

77728

IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the GPx01/XP/XR Series Fan for shipping damage within 15 days of receipt. Notify RadonAway of any damages immediately. Radonaway is not responsible for damages incurred during shipping. However, for your benefit, Radonaway does insure shipments.

There are no user serviceable parts inside the fan. **Do not attempt to open.** Return unit to factory for service.

Install the GPx01/XP/XR Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

WARRANTY

Subject to any applicable consumer protection legislation, RadonAway warrants that the GPX01/XP/XR/RP Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of 90 days from the date of purchase (the "Warranty Term").

RadonAway will replace any Fan which fails due to defects in materials or workmanship. The Fan must be returned (at Owner's cost) to the RadonAway factory. Any Fan returned to the factory will be discarded unless the Owner provides specific instructions along with the Fan when it is returned regardless of whether or not the Fan is actually replaced under this warranty. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not cover damage in shipment unless the damage is due to the negligence of RadonAway.

5 YEAR EXTENDED WARRANTY WITH PROFESSIONAL INSTALLATION.

RadonAway will extend the Warranty Term of the fan to 5 years from date of manufacture if the Fan is installed in a professionally designed and professionally installed radon system or installed as a replacement fan in a professionally designed and professionally installed radon system. Proof of purchase and/or proof of professional installation may be required for service under this warranty. Outside the Continental United States and Canada the extended Warranty Term is limited to one (1) year from the date of manufacture.

RadonAway is not responsible for installation, removal or delivery costs associated with this Warranty.

EXCEPT AS STATED ABOVE, THE GPx01/XP/XR/RP SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping cost to and from factory.

RadonAway
3 Saber Way
Ward Hill, MA 01835
TEL. (978) 521-3703
FAX (978) 521-3964

Record the following information for your records:

Serial No._____
Purchase Date_____

APPENDIX G

INSPECTION FORM

INACCESSIBLE SWMU ENGINEERING CONTROL INSPECTION FORM

Site Management Plan
Order on Consent No. CO 3-20150325-33
401 North Middletown Road, Pearl River, New York
Updated: October 2015

Inspector	
Affiliation/Company	
Date	
Time	
Inspection (Routine Monthly or Severe Weather/Emergency)	

INSTRUCTIONS

1. Fill in each tem with either a "Y" for Yes; "N" for No; or "NA" for Not Applicable.
2. Provide details of observations or actions where indicated below.
3. Advise Designated Contact of need to perform any Corrective Actions for Engineering Controls (ECs)
4. Attach Supplemental Information, including photographs to document observed conditions as appropriate.

	Building 96 Inaccessible SWMU	**Building 130 Inaccessible SWMU**
General Building Conditions		
Does the area surrounding the building show any signs of significant disruptions such as subsidence, excavation, drilling, construction, or demolition?		
Is there any evidence of significant building deterioration observed, such as foundation, wall or ceiling cracks, or falling masonry?		
Has there been any substantive change in the type of building use from the prior inspection?		
Building Slab		
Are the impacted areas outlined in yellow paint as shown on Figure A (Building 96) and in orange paint as shown on Figures B and C (Building 130)?		
Is the signage present as shown on Figures D and E (Building 96) and Figure F (Building 130)?		
Is the identified Designated Contact information on the signage current?		
Is any slab deterioration observed such as deep cracks, holes, settlement, etc.?		
Are there any obvious visible new floor penetrations observed inside the delineated area or within 10 feet of the outline?		
Soil Gas Venting System		
Is the soil gas vent piping marked as shown on Figures G and H?	NA	
Is the signage present as shown on Figure F?	NA	
Is the identified Designated Contact information on the signage current?	NA	
Is the green indicator light on?	NA	
Is there any other indication that the fan is not operating properly such as visible damage to the fan housing, damaged wiring, or other visual indicator?	NA	
Is the external grated exhaust cap in-place and pointed downward as shown in Figure I?	NA	
Is the exhaust point free of obstructions that could limit flow?	NA	
General Engineering Control Inspection Observations		
Are copies of the following documents available in the site file:		
Site Management Plan (SMP)		
Order on Consent No. CO 3-20150325-33		
Prior Monthly Inspection Forms		
Inspection Conclusions		
Were any conditions encountered that impacted the ability to complete the monthly inspection?		
Were any building conditions noted that require further evaluation to verify the continued effectiveness and protectiveness of the Engineering Control?		
Were any building conditions or slab observations noted that do not meet the Performance Criteria in Section 5.2.1 of the SMP?		
Were any Soil Gas Venting System observations noted that do not meet the Performance Criteria in Section 5.2.2 of the SMP?		
Were any maintenance, repair, or other corrective actions identified as part of the prior monthly inspection?		
Were the identified maintenance, repair, or other corrective actions completed as of this inspection?		
Were any new maintenance, repair, or other corrective actions identified during this inspection?		
Is notification of the New York State Department of Environmental Conservation (NYSDEC) by the Designated Contact required? (See Section 4.2 of the SMP for issues requiring notification).		
Are additional pages attached to this form by the inspector?		

Other Observations (describe as necessary):

Need for Any Corrective Actions (if required, describe as necessary):

Designated Contact Informed		
Date		
Time		

Corrective Action Schedule (include responsible party, data and time work to be performed):

Corrective Action Completed (include responsible party, data and time work completed):

Project Title: Site Management Plan

FIGURE A

Building 96
Impacted Area
Floor Marking

FIGURE B

Building 130
Impacted Area
Floor Marking

Project Title: Site Management Plan

FIGURE C

Building 130
Impacted Area
Marking

FIGURE D

Building 96
Impacted Area
Signage

Project Title: Site Management Plan

FIGURE E

Building 96
Impacted Area
Signage

FIGURE F

Building 130
Signage
Impacted Area

Project Title: Site Management Plan

FIGURE G

Building 130
Soil Gas Venting System
Piping Marking

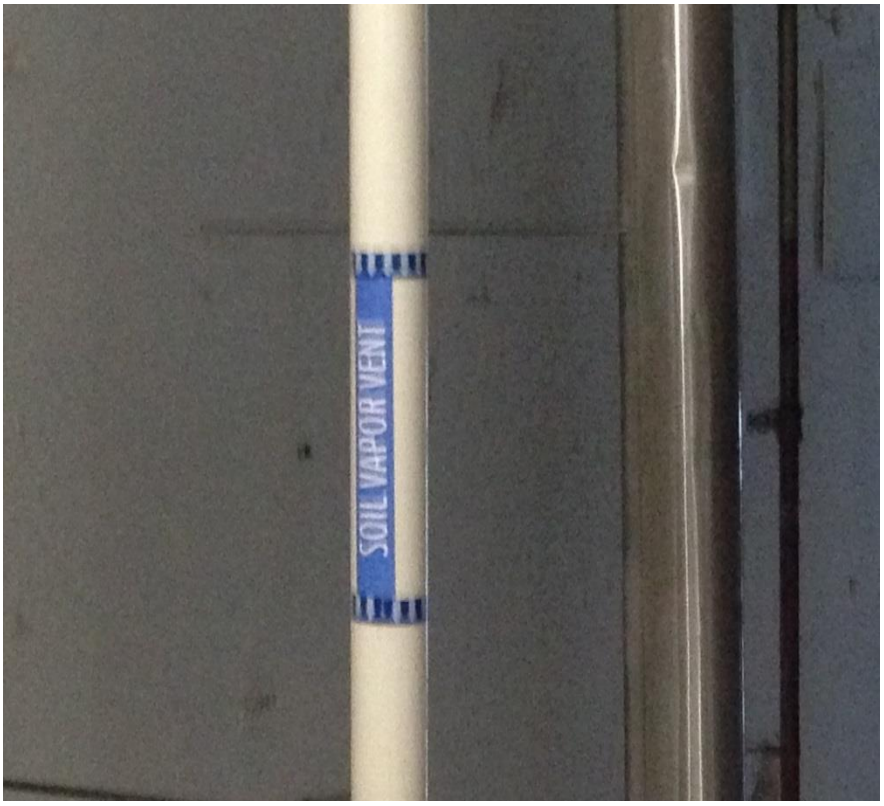


FIGURE H

Building 130
Soil Gas Venting System
Piping Marking

Project Title: Site Management Plan

FIGURE I

Building 130
Grated Exhaust Cap

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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