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May 14, 2019

Mr. Michael Kilmer  
Project Manager  
New York State Department of Environmental Conservation  
21 South Putt Corners Road  
New Paltz, NY 12561

153292

**Subject: Final Supplemental Remedial Investigation Work Plan  
Ardsley, LLC (Former Akzo Nobel Pilot Plant Site), ID #C360146  
Ardsley, New York**

Dear Mr. Kilmer:

Brown and Caldwell Associates (BC) submits this final Supplemental Remedial Investigation Work Plan (SRI Work Plan) describing the scope of work and procedures for conducting additional investigation activities at the Former Akzo Nobel Pilot Plant Site (hereafter referred to as the "Site"). This plan was prepared for EnviroAnalytics Group LLC (EAG) on behalf of Ardsley, LLC. The scope of work for this investigation was initially outlined during a February 22, 2019, conference call with you and representatives of EAG and BC in order to advance Site remediation and obtain a Certificate of Completion (COC) within the 2019 calendar year. The SRI Work Plan was initially submitted on March 12, 2019. This final SRI Work Plan has been prepared in response to DEC's comment letter of April 26, 2019 and follow-up telephone conversations and email correspondence clarifying DEC's requests.

The Site was assigned ID Number C360146 by the NYSDEC. The property was acquired by Ardsley, LLC on May 25, 2017. The Site is being remediated within the NYSDEC's Brownfield Cleanup Program (BCP) pursuant to the Brownfield Cleanup Agreement between the NYSDEC and Ardsley, LLC dated July 10, 2018 (BCA).

The specific objectives of the Supplemental Remedial Investigation are to:

1. Further define the nature and extent of groundwater impacts at the downgradient Site perimeter, including the southern property line and the shoreline of the Saw Mill River.
2. Obtain analytical data to evaluate monitored natural attenuation (MNA) of tetrachloroethene, carbon disulfide, benzene, and other organic substances.
3. Further evaluate the extent of constituents in surface soils above applicable Soil Cleanup Objectives (SCOs) as set forth in 6 NYCRR Subpart 375-6.
4. Evaluate the potential for Site constituents or other residuals to be contributing Volatile Organics Compounds (VOCs) to soil vapor at the property boundary.
5. Evaluate surface water and sediment quality in the Saw Mill River entering and exiting the Site.

Section 1.0 provides a summary of the background, geology and history of the Site. Section 2.0 describes the scope of work, including the technical approach and the

methods and materials to be used in performing the GW data gap investigation scope of work. Section 3.0 provides the anticipated schedule for completion of the investigation activities.

## **1. Background**

The Site location and history described below was previously provided in the “Remedial Investigation Work Plan for the Former Akzo Nobel Pilot Plant, 1 Lawrence Street, Ardsley, New York” (First Environment, 2017). An abridged version is presented herein with slight modifications/additions. Also provided below is a brief summary of the investigation findings to-date associated with the Site.

### **1.1.1 Site Location and Description**

The Site is located at 1 Lawrence Street in the Town of Greenburgh (adjacent to the Village of Ardsley), Westchester County, New York. Latitude and longitude coordinate for the property are approximately 41° 00' 11.91" north latitude and 73° 51' 15.08" west longitude.

The Site consists of approximately 9.62 acres and formerly contained seven freestanding structures, which were demolished circa 2008. Except for an area of undeveloped land to the north, the property is largely covered by impervious surfaces including asphalt parking areas, landscaped areas, and clean brick and concrete rubble, which was used to grade the Site following demolition activities.

The topography of much of the Site is generally flat. The Site is located in the Saw Mill River valley and situated between the Saw Mill River Parkway to the west and a bank of the Saw Mill River to the east. Lawrence Street borders the property to the south and undeveloped land borders the Site to the north. The Saw Mill River is a tributary of the Hudson River, and flows in a general easterly direction along the northern portion of the Site and then in a southerly direction along the Site's eastern boundary. A small water course between the Site and the Saw Mill River Parkway appears to connect with the Saw Mill River approximately 0.2 mile south of the Site. A Site Location Map is included as Figure 1. A Site Plan depicting Site features and existing/proposed monitoring wells is provided as Figure 2.

### **1.1.2 Site History**

The property was initially developed by Stauffer Chemical Company (Stauffer) in the 1920s. Stauffer manufactured citric acid, potash, carbon disulfide and insoluble sulfur and a variety of biocides and pesticides at various times until chemical manufacturing at the facility ceased in 1984. Research and development (R&D) operations began in the 1950s and continued after cessation of the manufacturing activities.

Akzo Nobel acquired Stauffer in 1987 and initially continued Stauffer's R&D operations but eventually converted the R&D operations away from the Stauffer processes towards Akzo's products. R&D operations continued at the Site until January 2006, at which time all site operations ceased.

### **1.1.3 Summary of Previous Site Investigations**

Sovereign Consulting, Inc. (Sovereign) of Cherry Hill, New Jersey conducted a site investigation at the Site from October 2006 through June 2009. The objective of the site investigation was to identify areas of concern (AOCs) and evaluate potential impacts to soil and groundwater quality at each AOC, as well as assess sediment and surface water quality in the adjacent Saw Mill Creek. The investigation identified and addressed 15 AOCs.

The Vertex Companies (Vertex), on behalf of the prior property owner TDI Real Estate, Inc., mobilized to the Site in April 2014 to conduct further remedial investigation (RI) activities. The initial RI was conducted to evaluate subsurface conditions with respect to the specific AOCs identified in the earlier site investigation.

Subsequent site investigation activities have been conducted by First Environment (FE) of Boonton, New Jersey pursuant to the Remedial Investigation (RI) Work Plan prepared by FE in 2017<sup>1</sup>. A report of the RI completed by FE will be submitted under separate cover by EAG.

## **2. Scope of Work**

The Supplemental RI activities are described in the subsections below. Specific methods and procedures associated with these activities will be conducted in accordance with the following plans and guidance documents:

- Health and Safety Plan for Remedial Investigation Activities, Former Akzo Nobel Pilot Plant Site (Brown and Caldwell, March 2019) (referred to as “Health and Safety Plan”).
- DER-10/Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010).

### **2.1 Field Activities**

#### **2.1.1 Utility Mark Outs and Clearance**

Prior to conducting the intrusive activities described below, the planned locations for the monitoring wells will be marked in the field. Dig Safely New York will be contacted to clear subscribed underground utilities, and the Town of Greenburgh and/or the Village of Ardsley will be contacted to clear utilities that they maintain (e.g., sewer and water).

Some of the proposed drilling and sampling locations may be adjusted to provide for adequate clearance from underground and aboveground utilities. The final locations for the monitoring wells will be determined in the field following the mark-out of underground utilities.

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<sup>1</sup> Remedial Investigation Work Plan for the Former Akzo Nobel Pilot Plant, 1 Lawrence Street Ardsley, New York, NYSDEC Project No. C360146; July 21, 2017; First Environment, Inc.

Clearance of subsurface utilities will be confirmed at each drilling location by vacuum soil extraction or hand shoveling to remove the soil at each drilling location to a depth of approximately 5 feet below ground surface (bgs).

### **2.1.2 Overburden Monitoring Well Installation**

Overburden monitoring wells will be installed at four (4) locations (MW-4, MW-5, MW-6 and MW-7) at the approximate positions shown on Figure 2. The actual locations of these borings may be modified based on the utility mark-outs and physical clearance activities. The monitoring well locations were selected to contribute to meeting the following objectives: 1) establishing critical groundwater analytical

conditions (including MNA) at the presumptively downgradient Site perimeter; and 2) further evaluating groundwater flow and hydrogeologic conditions at the Site including potential discharge of groundwater to the Saw Mill River.

Consistent with the existing monitoring wells installed by Sovereign Consulting, the screened interval for each well will be 15 feet in length and straddle the water table. The wells will be constructed of two-inch diameter, Schedule 40 PVC well casing with 0.010-inch slot PVC screens and an appropriately-sized filter pack. The wells will be developed after a minimum period of 12 hours has passed following well installation to allow for the cement/bentonite grout to set.

A Community Air Monitoring Plan (CAMP) will be implemented that meets the requirements of the NYSDOH's Generic CAMP provided in DER-10 during the advancement of the soil borings for the monitoring wells. The soil borings will be drilled using hollow-stem augers and sampled with a two-foot long, two-inch outside diameter (O.D.) split-spoon sampler from ground surface to the top of rock surface. The soil samples will be described in the field to characterize soil type, including grain size, texture, and apparent moisture content. Soil samples will be logged in accordance with a system after Burmister<sup>2</sup> and classified using the Unified Soil Classification System (USCS). The samples will also be field screened for indications of impacts based on appearance, odors or organic vapor concentration measurements using a photoionization detector (PID). Head-space screening with the PID will be conducted by immediately transferring a representative subsample of the soil to a clean glass jar and sealing its lid with a sealable polyethylene plastic bag (e.g., Ziploc®). To allow the sample to equilibrate, it will remain sealed for a period of time (approximately 15 minutes) and then the tip of the PID will be inserted through the plastic bag, and the maximum instrument reading will be recorded.

These wells will be used for establishing critical groundwater analytical conditions (including MNA) at the site perimeter; therefore, it is important to identify any soil impacts adjacent to the well screens. Accordingly, one (1) soil sample from each soil boring will be collected and submitted for analysis of Target Compound List (TCL) Volatile Organic Compounds (VOCs), TCL Semi Volatile Organic Compounds (SVOCs), TCL pesticides, Polychlorinated Biphenyls (PCBs), Target Analyte List (TAL) metals, Per- and

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<sup>2</sup> Burmister, D M; "Principles and Techniques of Soil Identification"; Proceedings of the Twenty-Ninth Annual Meeting of the Highway Research Board Held at Washington, D.C. December 13-16, 1949.

Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane. The depth interval(s) selected for sampling will be based on location within the proposed well screen interval and visual observations/field screening of the soil samples.

Analysis of soil samples will be conducted by a laboratory certified under the NYSDOH Environmental Laboratory Approval Program (ELAP) to provide Analytical Services Protocol (ASP)/Contract Laboratory Program (CLP) deliverables. The analytical results will be provided to the NYSDEC as an Electronic Data Deliverable (EDD) formatted to the NYSDEC's data submission requirements that are detailed on the NYSDEC's website (<http://www.dec.ny.gov/chemical/62440.html>). This will include: 1) populating the NYSDEC EDD with the analytical data; 2) validating the EDD using the database software application EQUiST<sup>™</sup> from EarthSoft®, Inc.; and 3) submitting the validated EDD to the NYSDEC.

### 2.1.3 Groundwater Monitoring and NAPL Gauging

One (1) round of groundwater sampling will be conducted as part of this investigation<sup>3</sup>. Groundwater samples will be collected from the four newly installed monitoring wells specified herein and the three existing monitoring wells. Groundwater sampling will be initiated after at least one week has passed since completion of well development and after water levels in the wells have stabilized.

The depth to water will be measured in each monitoring well and staff gauge prior to groundwater sampling. Additionally, non-aqueous phase liquid (NAPL) gauging will be conducted on each Site monitoring well. In the unlikely event that NAPL is detected in a monitoring well, a groundwater sample will not be collected from that well. Groundwater samples will be collected according to the USEPA low flow sampling protocol.

The groundwater samples from all monitoring wells will be submitted for analysis of TCL VOCs, TCL SVOCs, TCL pesticides, PCBs, and TAL metals. Groundwater samples collected from MW-3 through MW-7 will also be submitted for analysis of PFAS and 1,4-Dioxane. In addition, all groundwater samples will be submitted for analysis of MNA parameters to evaluate the potential for MNA to be a component of the Site remedy. The MNA parameters will consist of the following:

Sample Evaluation	Chemical Test/Analyte Parameter
Field Measurements:	Carbon dioxide (Hach Kit <sup>b</sup> ) Iron (II) (Hach Kit <sup>b</sup> ) Manganese (II) (Hach Kit <sup>b</sup> ) Sulfide (Hach Kit <sup>b</sup> ) Conductivity ORP pH DO

<sup>3</sup> It is recognized that multiple sampling events are necessary to conclusively demonstrate that natural attenuation is active and effective in controlling off-site migration in groundwater; however, it is expected that this single round of sampling will suffice to demonstrate that natural attenuation is possible and that MNA can be a component of the Site remedy.

Sample Evaluation	Chemical Test/Analyte Parameter
Laboratory Analyses:	Temperature
	Turbidity
	Hydrogen Sulfide (Hach Kit <sup>b</sup> )
	Chloride
	Iron (total)
	Manganese (total)
	Aluminum (total)
	Nitrate/nitrite
	Sulfate
	Ethane, ethene, and methane <sup>a</sup>
	VOCs <sup>a</sup>
	Alkalinity (carbonate/bicarbonate)
	Dissolved total organic carbon (TOC)
	Volatile fatty acids <sup>a</sup>
	TPH-DRO

Notes:

<sup>a</sup>Samples to be collected in zero headspace containers to prevent exchange of gases between the samples and the atmosphere.

<sup>b</sup>Method will be per manufacturer's procedures.

Analysis of groundwater samples will be conducted by a laboratory certified under NYSDOH ELAP to provide ASP/CLP deliverables. As described above, the analytical results will be provided to the NYSDEC as an EDD formatted to the NYSDEC's data submission requirements.

#### 2.1.4 Slug Tests

In-situ hydraulic conductivity tests (i.e., slug tests) will be performed on select monitoring wells to evaluate the horizontal hydraulic conductivity of the adjacent formation. Rising and/or falling head slug tests will be conducted and the data generated will be input into AQTESOLV<sup>®</sup> software for hydraulic conductivity calculations using analytical solutions appropriate for the hydrogeologic conditions.

#### 2.1.5 Continuous Water Level Monitoring

Continuous monitoring of water levels will be conducted within select monitoring wells and a staff gauge installed in the adjacent Saw Mill River. The monitoring will be conducted with pressure transducers equipped with automatic data loggers (e.g., In-Situ Level TROLL<sup>®</sup>). The automatic data loggers will be set to record water levels from the pressure transducers every 15 minutes for approximately one week. A manual water level meter will also be used to measure water levels in the monitoring wells and the staff gauge at the beginning and end of continuous monitoring period. Hourly barometric pressure data and precipitation data for the monitoring period will be obtained from the National Oceanic and Atmospheric Administration (NOAA) meteorological measurement station located at Westchester County Airport. This station is located approximately nine miles from the Site and, thus, the data should be generally representative of Site conditions. Additionally, barometric pressure will be measured on-Site every 15 minutes using a pressure transducer and automatic data logger

configured to measure and record barometric pressure (e.g., In-Situ BaroTROLL®). The continuous water level, barometric and precipitation data will be used to evaluate the degree to which changes in groundwater levels (and flow directions) are influenced by changes in the Saw Mill River.

### 2.1.6 Surface Soil Sampling

Surface soil samples (0 to 2-inch BGS) will be collected at fourteen (14) locations (SS-1 through SS-14) as shown on Figure 2. These locations coincide with portions of the Site were not historically covered by asphalt or building foundations. At each of the sample locations, a surface soil sample will be collected from the top 2 inches of soil after the overlying vegetation has been removed.



Each surface soil sample will be collected using a field cleaned stainless steel trowel. The trowel will be decontaminated between sampling stations using Alconox followed by a deionized water rinse.

The surface soil samples will be analyzed for TCL SVOCs, TCL pesticides, PCBs, TAL metals, PFAS and 1,4-Dioxane. Analysis of soil samples will be conducted by a laboratory certified under DOH ELAP to provide ASP/CLP deliverables. As described above, the analytical results will be provided to the NYSDEC as an EDD formatted to the NYSDEC's data submission requirements.

### 2.1.7 Soil Vapor Sampling

Soil vapor sampling will be conducted at the two (2) proposed temporary soil vapor sampling probe locations (SV-1 and SV-2) shown on Figure 2. As mentioned above, the locations of these soil vapor sampling points may be modified based on the utility mark-outs.

Samples of ambient air (outdoor air) will be collected at one (1) upwind location during the soil vapor sampling. Analytical results from the ambient air samples will be used to evaluate background air concentrations and will be compared to the results of the soil vapor samples. The sampling flow rate will be calibrated to collect the ambient air samples over an eight-hour period.

The soil vapor and ambient air samples will be collected in accordance with the NYSDOH's "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (NYSDOH, October 2006),

The soil vapor sampling probes will be installed using a hand-held hammer drill to the target depth of approximately 2 ft. BGS. Each soil vapor sampling point will consist of food grade tubing through which the soil vapor will be drawn. Prior to the collection of soil vapor samples, the potential for ambient air to be introduced into the soil vapor sample will be assessed using a tracer gas (helium) and a field meter capable of detecting the tracer gas.

The soil vapor and ambient air samples will be collected using six (6) liter Summa® passivated stainless steel canisters. The Summa® canisters will be batch certified as clean by the laboratory. Flow controllers will also be provided by the laboratory and will be pre-calibrated for the desired flow rate (approximately 0.2 liters per minute for the soil vapor samples) or duration of sample collection (approximately eight hours for the



ambient air samples). The soil vapor samples will be collected within the timeframe that the ambient air samples are collected. Applicable field data including weather conditions, initial and final vacuum pressures for the Summa® canisters, purge rates and volumes, and the results of the tracer gas evaluation, will be recorded on field forms.

The samples will be analyzed using USEPA Method TO-15, including n-alkanes and tentatively identified compounds (TICs). Analysis of soil vapor samples will be conducted by a laboratory certified under NYSDOH ELAP to provide ASP/CLP deliverables. As described above, the analytical results will be provided to the NYSDEC as an EDD formatted to the NYSDEC's data submission requirements.

## **2.1.8 Sediment and Surface Water Sampling**

### **2.1.8.1 Surface Water Sampling**

Surface water samples will be collected at three (3) locations (SW-1, SW-2 and SW-3) shown on Figure 2. Surface water samples will be collected in a downstream to upstream direction (i.e., in a direction opposite the flow), and prior to co-located sediment samples to minimize the chance of spreading disturbed sediment to unsampled locations.

The following procedure will be used to collect surface water samples directly from the water bodies using sample containers provided by the project laboratory:

- Don a clean pair of latex gloves;
- Estimate sampling depth by visual observation (for shallow samples) or measure depth using a weighted, flexible measuring tape or a rigid gage;
- Invert the laboratory-supplied sample container (without preservatives), insert the sample container into the water to the desired level, and then turn the mouth of the sample container up and towards the upstream direction thus allowing the container to fill;
- Cap sample container while container is still underwater;
- Remove sample container from water body;
- Rinse the exterior of the sample container thoroughly with deionized water and label container;
- Record all appropriate data (including sampling location, sampling depth, time of sampling, and description of sample) in field logbook or the Surface Water Sampling Log.



Surface water samples will be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, PCBs, TAL metals, PFAS and 1,4-Dioxane. Analysis of soil vapor samples will be conducted by a laboratory certified under NYSDOH ELAP to provide ASP/CLP deliverables. As described above, the analytical results will be provided to the NYSDEC as an EDD formatted to the NYSDEC's data submission requirements.

### **2.1.8.2 Sediment Sampling**

Sediment samples will be collected at three (3) locations (SD-1, SD-2 and SD-3) shown on Figure 2. Sampling will be completed to a depth of approximately six inches below



the sediment surface. Sediment samples will be collected in a downstream to upstream direction (i.e., in a direction opposite the flow) to minimize the chance of spreading disturbed sediment to unsampled locations.

Sediment sampling will be conducted using either a dedicated or a decontaminated stainless steel sampling scoop. Sediment samples will be collected with minimum disturbance and exposure to air. Using the dedicated/decontaminated scoop, the sediment will be transferred directly to the laboratory supplied sampling containers. The sampling equipment will be decontaminated between sampling stations using Alconox followed by a deionized water rinse.

Sediment samples will be analyzed for TCL VOCs, TCL SVOCs, TCL pesticides, PCBs, TAL metals, PFAS and 1,4-Dioxane. Analysis of soil vapor samples will be conducted by a laboratory certified under NYSDOH ELAP to provide ASP/CLP deliverables. As described above, the analytical results will be provided to the NYSDEC as an EDD formatted to the NYSDEC's data submission requirements.

### **2.1.9 Survey**

Each of the seven monitoring wells (3 existing, 4 newly installed), the staff gauge, soil vapor, surface soil and sediment/surface water sample locations will be surveyed. The survey will include location coordinates, ground surface elevation, and in the case of the wells, top of casing elevation data. The elevation of a reference point on the staff gauge will also be surveyed. Coordinates will be referenced to the State Plane coordinate system for New York using the North American Datum of 1983 (NAD 1983) in units of feet. Elevations will be referenced to the National Geodetic Vertical Datum (NGVD) of 1929 in units of feet. The survey will be performed by a New York licensed surveyor.

### **2.1.10 Investigation-Derived Waste**

Investigation-derived waste (IDW) generated during the GW data gap investigation activities will include soil cuttings, development water, equipment decontamination water, purge water, disposable sampling equipment, and personal protective equipment (PPE). The waste will be containerized in DOT approved, 55-gallon drums, which will be labeled to identify their contents and temporarily staged on site. The appropriate treatment/disposal will be arranged based on the characterization of the waste streams.

## 2.2 Data Evaluation and Reporting

Laboratory results for the soil and groundwater samples will be forwarded to a qualified data validator for preparation of a Data Usability Summary Report (DUSR) in accordance with DER-10 Appendix 2B, Guidance for Data Deliverables and the Development of Data Usability Summary Reports. The DUSR will present a summary of data usability, including a discussion of qualified and rejected data and provide recommendations for resampling/reanalysis, as applicable.

A report of the Groundwater Data Gap Investigation will be provided to the NYSDEC. The report will include the following:

- Soil boring logs and well construction diagrams for the four newly-installed monitoring wells;
- Data generated during the Groundwater Data Gap Investigation in EQUIS™ compatible format;
- DUSR and tabular and graphic summaries of the analytical results;
- Updated site plan depicting sampling locations and previous investigation locations;
- Figures (hydrographs) presenting the continuous water level monitoring data;
- Maps of groundwater elevations and interpreted flow directions;
- Hydrogeologic cross-sections depicting subsurface conditions;
- Conclusions regarding groundwater conditions at the downgradient Site boundaries;
- Conclusions regarding natural attenuation and the potential for MNA to be a part of the Site remedy;
- Recommendations for continued groundwater monitoring;
- Assessment of routes of exposure and potential human receptors via a qualitative human health exposure assessment in accordance with Section 3.1(C)17 and Appendix 3B of the May 2010 DER-10 Technical Guidance for Site Investigation and Remediation; and
- A determination as to whether or not Steps 1 through 2b of a Fish and Wildlife Resource Impact Analysis (FWRIA) are required based on Appendix 3C of the May 2010 DER 10 Technical Guidance for Site Investigation and Remediation and, if so required, conduct Steps 1 through 2b in accordance with the following DEC guidance documents: 1) Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA); October 1, 1994 (Steps 1 through 2b); and 2) DER 10 Technical Guidance for Site Investigation and Remediation, May 2010.

### 3. Schedule

Following NYSDEC review and approval of this Supplemental Investigation work plan, field activities will be initiated within approximately two weeks. As per comments received on April 26, 2019, monitoring wells MW-4 through MW-7 have already been installed pursuant to this work plan.

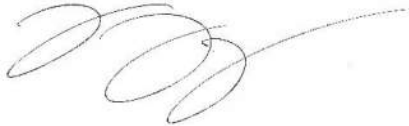
It is anticipated that approximately one month will be required to conduct the field activities described in this work plan through completion of: monitoring well installations; well development; slug testing; continuous water level monitoring; initial round of groundwater sampling; soil vapor sampling; surface soil sampling; surface water sampling; and sediment sampling. Within approximately six (6) to eight (8) weeks of completion of the sediment and surface water sampling, the laboratory analyses and the DUSR are expected to be complete.

A RI report will be submitted approximately 10 weeks after the last DUSR is received from the data validator.

Please contact me to discuss any comments so that we can address them promptly.

Very truly yours,

**Brown and Caldwell Associates**



Brian F. Taylor, P.G.  
Hydrogeologist/Project Manager

cc: D. Dunn, EAG  
F. Williams, BC

#### Attachments (1)

1. Attachment A: Figures 1 and 2
2. Appendix A: Pages from *Site Investigation Report for the Akzo Nobel Chemical Inc. Pilot Plant, Ardsley, New York* (Sovereign Consulting Inc., November 2009)

## Attachment A: Figures 1 and 2

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**FIGURE 1**  
**SITE LOCATION**  
**ENVIROANALYTICS GROUP LLC**  
**FORMER AKZO NOBEL PILOT PLANT**

0 1,400 2,800  
Feet





**FIGURE 2**  
**PROPOSED SUPPLEMENTAL REMEDIAL INVESTIGATION SAMPLE LOCATIONS**  
**ENVIROANALYTICS GROUP LLC**  
**FORMER AKZO NOBEL PILOT PLANT**

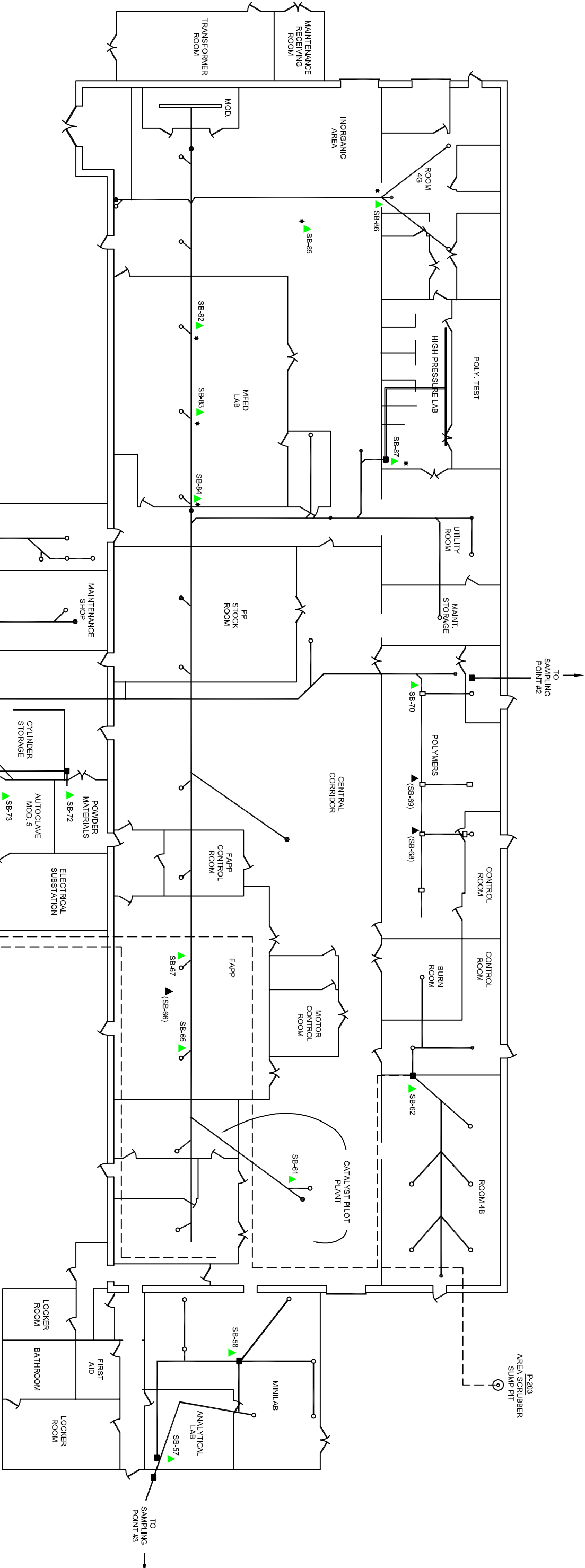


## **Appendix A: Pages from Site Investigation Report for the Akzo Nobel Chemical Inc. Pilot Plant, Ardsley, New York (Sovereign Consulting Inc., November 2009)**

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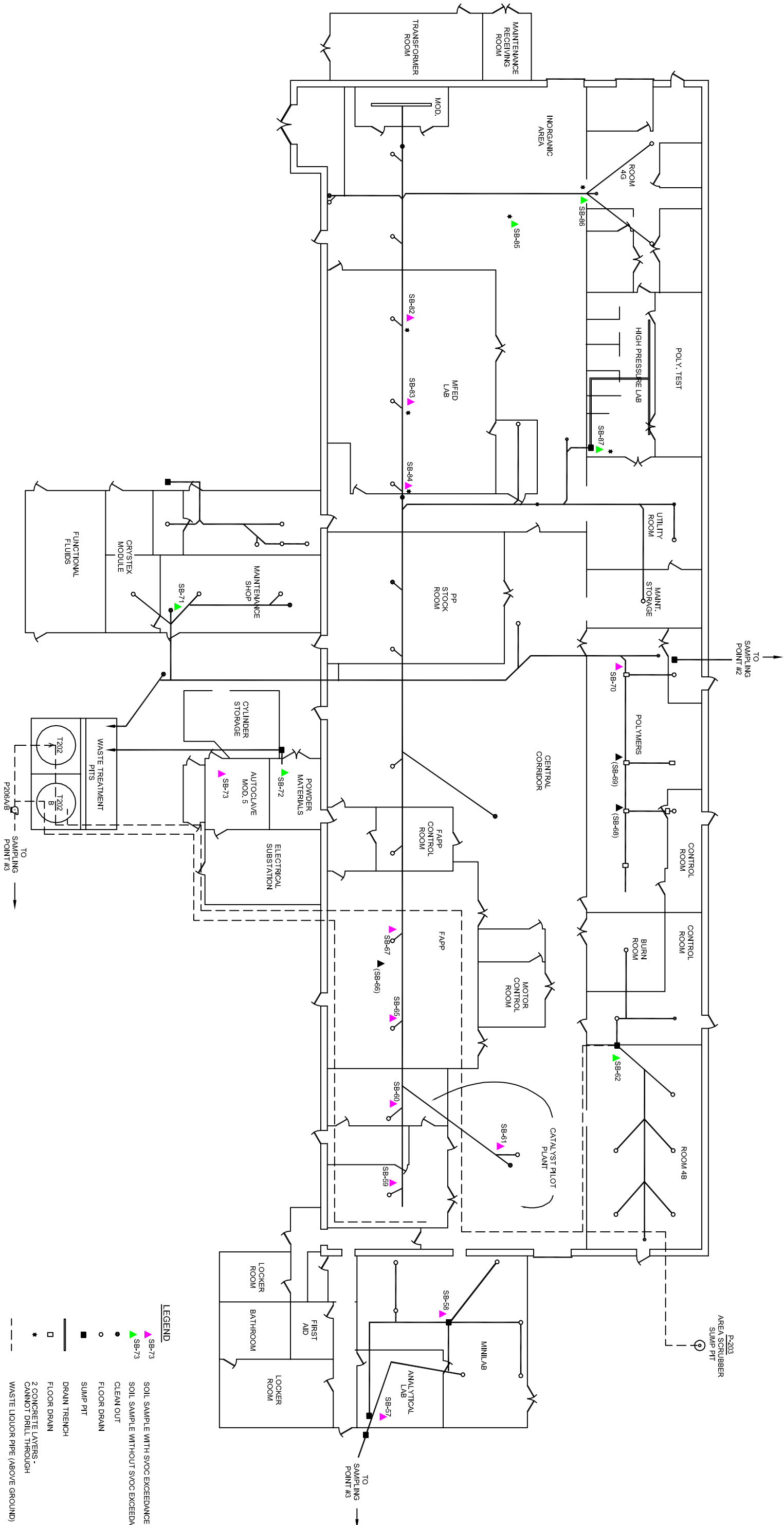




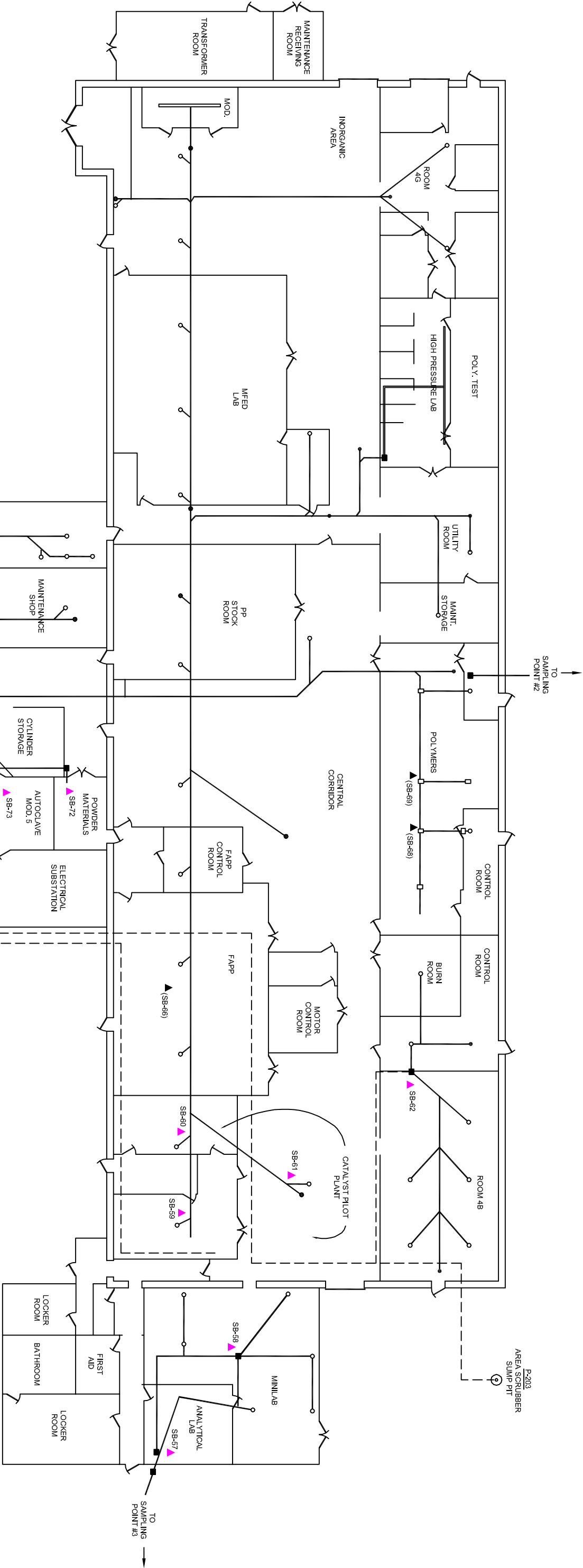
LEGEND

- ▲ SB-73 SOIL SAMPLE WITHOUT VOC EXCEEDANCE
  - CLEAN OUT
  - FLOOR DRAIN
  - SUMP PIT
  - DRAIN TRENCH
  - FLOOR DRAIN
  - \* 2 CONCRETE LAYERS - CANNOT DRILL THROUGH
  - WASTE LIQUOR PIPE (ABOVE GROUND)
  - DRAIN LINE (UNDERGROUND)
- NOTE: (SB-66), (SB-68) & (SB-69) NOT SAMPLED





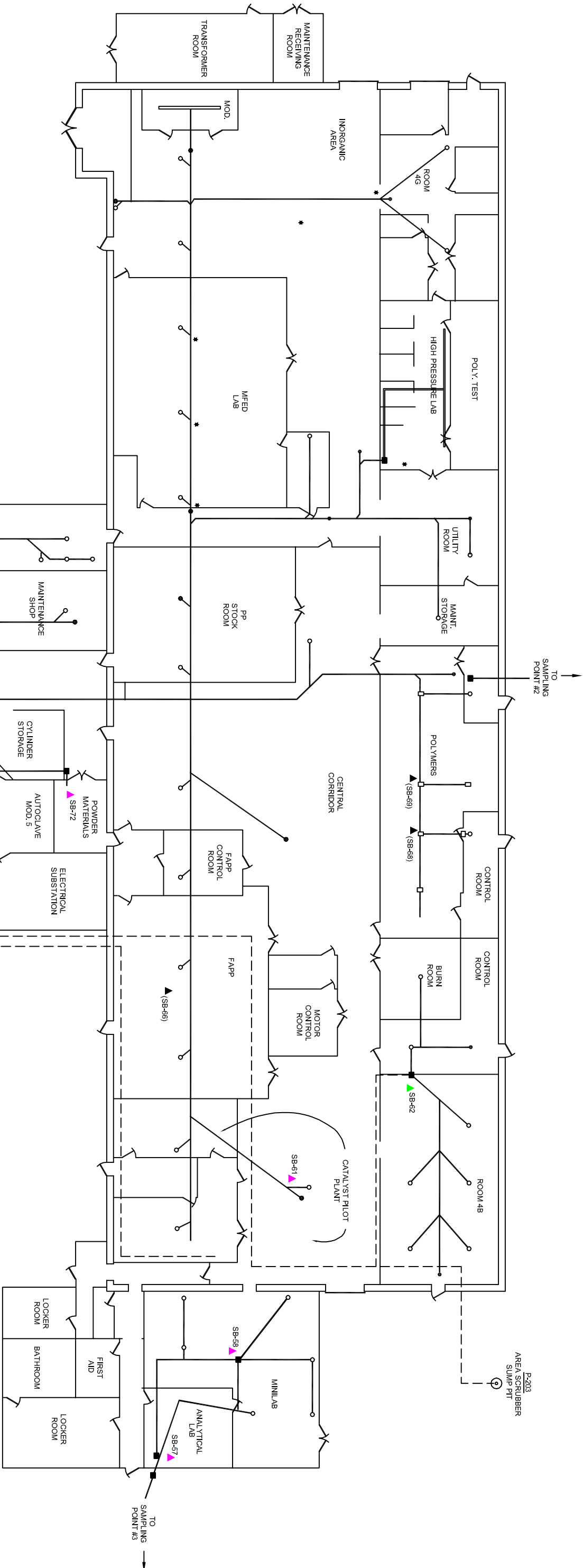
APPROXIMATE SCALE IN FEET



- LEGEND**
- SB-67 SOIL SAMPLE WITH INORGANICS EXCEEDANCE
  - CLEAN OUT
  - FLOOR DRAIN
  - SUMP PIT
  - DRAIN TRENCH
  - FLOOR DRAIN
  - WASTE LIQUOR PIPE (ABOVE GROUND)
  - DRAIN LINE (UNDERGROUND)
- NOTE: (SB-66), (SB-68) & (SB-69) NOT SAMPLED



APPROXIMATE SCALE IN FEET



LEGEND

- SB-73 SOIL SAMPLE WITH PCB/PESTICIDES EXCEEDANCE
  - SB-73 SOIL SAMPLE WITHOUT PCB/PESTICIDES EXCEEDANCE
  - CLEAN OUT
  - FLOOR DRAIN
  - SUMP PIT
  - DRAIN TRENCH
  - FLOOR DRAIN
  - 2 CONCRETE LAYERS - CANNOT DRILL THROUGH
  - WASTE LIQUOR PIPE (ABOVE GROUND)
  - DRAIN LINE (UNDERGROUND)
- NOTE: (SB-66), (SB-68) & (SB-69) NOT SAMPLED



APPROXIMATE SCALE IN FEET

Table 1  
VOCs - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (ppm)	SB-27 J42758-3 2.8-4 10/3/06	SB-49A J43018-28 0-4 10/4/06	SB-57 J43018-10 0-2 10/5/06	SB-58 J43018-12 0-2 10/5/06	SB-61 J43018-15 0-2 10/5/06	SB-62 J43018-16 0-2 10/5/06	SB-63 J43018-17 0-1.5 10/5/06	SB-64 J43018-18 0-1.5 10/5/06	SB-65 J43018-19 0-2 10/5/06	SB-67 J43194-1 0-2 10/5/06	SB-70 J43194-2 0-2 10/5/06
<b>VOCs (ppm)</b>												
Acetone	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	2.7	ND	0.0018 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0155
Chlorobenzene	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.30	ND	ND	0.0041 J	ND	ND	ND	ND	ND	0.0018 J	ND	0.0057
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0019
1,1-Dichloroethene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone(MIBK)	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	0.1	ND	0.0027 J	0.0057 J	0.0052 J	0.0077	0.0078	ND	ND	ND	ND	ND
Styrene	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.4	0.0649	ND	0.0572	0.0153	ND	0.0015 J	ND	0.002 J	0.121	0.009	0.0032 J
Toluene	1.5	ND	ND	ND	ND	0.0077	0.0012	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.70	ND	ND	ND	ND	ND	ND	ND	ND	0.0024 J	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>TOTAL VOCs (ppm)</b>	<b>10</b>	0.0649	0.0045	0.067	0.0205	0.0154	0.0105	0	0.002	0.1252	0.009	0.0263
<b>VOC TICs (ppm)</b>		0	0	0	0	0	0	0	0	0.0014 J	0.006 J	0

Table 1  
VOCs - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (ppm)	SB-71 J43194-3 0-2 10/6/06	SB-72 J43194-4 0-2 10/6/06	SB-73 J43194-5 0-2 10/6/06	SB-74 J43194-6 0-2 10/6/06	SB-75 J43194-7 0-2 10/6/06	SB-82B JA19809-17 3.5-4 5/28/09	SB-83B JA19809-19 2.5-3 5/28/09	SB-84B JA19809-21 2.5-3 5/28/09	SB-85B JA19809-23 3.5-4 5/28/09	SB-86B JA19809-25 2.5-3 5/28/09	SB-87B JA19809-27 2.5-3 5/28/09
<b>VOCs (ppm)</b>												
Acetone	0.11	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Acrolein	NS	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acrylonitrile	NS	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Benzene	0.06	0.0006 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	0.3	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Carbon disulfide	2.7	0.0009 J	0.0012 J	ND	ND	0.0013 J	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	NS	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
Chloroform	0.30	ND	ND	0.0087 J	0.0107	0.0013 J	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	1.55	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.1	ND	ND	0.0016	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.5	ND	ND	ND	ND	ND	ND	ND	0.00094 J	0.0014	ND	0.00049 J
2-Hexanone	NS	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone(MIBK)	1.0	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Methylene chloride	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	NS	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.4	0.0022 J	0.0017 J	0.0065	ND	ND	ND	ND	ND	0.0021 J	ND	ND
Toluene	1.5	0.0008 J	ND	ND	0.0011 J	0.0111	ND	ND	0.00041 J	0.0013 J	ND	ND
1,1,1-Trichloroethane	0.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	0.0076	ND	ND	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1.2	ND	ND	ND	ND	0.0019 J	ND	0.001 J	0.0045	0.0055	ND	0.0044
<b>TOTAL VOCs (ppm)</b>	<b>10</b>	<b>0.0045</b>	<b>0.0029</b>	<b>0.0244</b>	<b>0.0118</b>	<b>0.0156</b>	<b>ND</b>	<b>0.001</b>	<b>0.00585</b>	<b>0.0103</b>	<b>ND</b>	<b>0.00489</b>
<b>VOC TICs (ppm)</b>		<b>0</b>	<b>0</b>	<b>0.0072 J</b>	<b>0</b>	<b>0</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Table 2  
SVOCs - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsey (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (ppm)	SB-1 J42667-1 .5-1 10/2/06	SB-2 J42667-2 1.5-2 10/2/06	SB-3 J42667-3 .5-2 10/2/06	SB-22 J42667-18 .5-1 10/2/06	SB-23 J42667-19 .5-1 10/2/06	SB-24 J42667-20 .5-1 10/2/06	SB-27 J42758-3 2.8-4 10/3/06	SB-49A J43018-28 0-4 10/4/06	SB-57 J43018-10 0-2 10/5/06	SB-58 J43018-12 0-2 10/5/06
<b>SVOCs (ppm)</b>											
2-Chlorophenol	0.8	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
4-Chloro-3-methyl phenol	0.240	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
2,4-Dichlorophenol	0.4	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
2,4-Dinitrophenol	0.200	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
4,6-Dinitro-o-cresol	50*	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
2-Methylphenol	0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3&4-Methylphenol	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	0.330	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
4-Nitrophenol	0.100	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Pentachlorophenol	1.0	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Phenol	0.03	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
2,4,5-Trichlorophenol	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	50*	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
Acenaphthene	50.0	0.0435 J	1.360	0.0419 J	0.0227 J	0.454	ND	ND	ND	ND	0.0343 J
Acenaphthylene	41.0	0.0662 J	0.0197 J	0.0546 J	0.639	6.310	0.111	0.199 J	ND	0.0572 J	0.197
Anthracene	50.0	0.206	1.610	0.14	0.339	4.290	0.0626 J	0.214 J	ND	0.115	0.153
Benzidine	50*	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Benzo(a)anthracene	0.224	0.480	2.470	0.640	0.938	13.30	0.227	0.628	ND	0.574	0.454
Benzo(a)pyrene	0.061	0.299	1.880	0.539	1.060	16.20	0.225	0.644	ND	0.563	0.308
Benzo(b)fluoranthene	1.1	0.338	2.590	0.740	2.180	25.90	0.357	0.767	ND	0.617	0.341
Benzo(g,h,i)perylene	50.0	0.0695 J	0.384	0.139	0.488	7.05	0.111	0.617	ND	0.215	0.0901
Benzo(k)fluoranthene	1.1	0.412	1.720	0.752	1.570	17.9	0.248	0.666	ND	0.572	0.471
4-Bromophenyl phenyl ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.220	ND	ND	ND	0.0372	0.166 J	ND	ND	ND	ND	ND
Carbazole	50*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.4	0.387	2.340	0.592	1.230	16.90	0.296	0.864	ND	0.602	0.369
bis(2-Chloroethoxy)methane	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	ND	ND	ND	ND	ND	0.037 J	ND
1,2-Diphenylhydrazine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.014	0.0475 J	0.235	0.0856	0.206	3.14	0.0458 J	0.199 J	ND	0.0831	0.0509 J
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	7.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50.0	ND	ND	ND	0.167	0.371 J	ND	ND	ND	0.233	0.164
Fluoranthene	50.0	0.698	5.330	0.674	1.250	15.4	0.412	0.991	ND	0.744	0.817
Fluorene	50.0	0.105	0.980	0.0581 J	0.0261 J	1.33	ND	ND	ND	ND	0.0989
Hexachlorobenzene	0.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	3.2	0.110	0.519	0.196	0.585	8.39	0.129	0.630	ND	0.238	0.126
Isophorone	4.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	0.430	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	0.500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	50*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	13.0	0.0313 J	0.522	0.0378 J	0.0527 J	0.478	0.0451 J	ND	ND	ND	ND
Nitrobenzene	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	0.540	5.110	0.376	0.392	9.41	0.119	0.408	ND	0.301	0.558
Pyrene	50.0	0.532	5.140	0.605	1.280	18.10	0.351	0.929	ND	0.737	0.563
1,2,4-Trichlorobenzene	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL SVOCs (ppm)	500	4.365	32.2097	5.72	12.5157	165.089	2.7395	7.76	0	5.6883	4.7952
SVOC TICs (ppm)		3.41 J	9.13 J	4.95 J	14.09 J	63.2 J	0.24 J	7.60	0.97 J	137.2 J	81.83 J



Table 2  
SVOCs - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID	NYSDEC	SB-59	SB-60	SB-61	SB-62	SB-63	SB-64	SB-65	SB-67	SB-70	SB-71
LAB ID	Soil Cleanup	J43018-13	J43018-14	J43018-15	J43018-16	J43018-17	J43018-18	J43018-19	J43194-1	J43194-2	J43194-3
DEPTH (FEET)	Objectives	0-0.5	0-0.5	0-2	0-2	0-1.5	0-1.5	0-2	0-2	0-2	0-2
SAMPLE DATE	(ppm)	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/6/06
<b>SVOCs (ppm)</b>											
2-Chlorophenol	0.8	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4-Chloro-3-methyl phenol	0.240	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
2,4-Dichlorophenol	0.4	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
2,4-Dimethylphenol	50*	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
2,4-Dinitrophenol	0.200	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4,6-Dinitro-o-cresol	50*	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
2-Methylphenol	0.100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,4-Methylphenol	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	0.330	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
4-Nitrophenol	0.100	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Pentachlorophenol	1.0	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Phenol	0.03	0.0587 J	ND	ND	ND	0.232	0.843	ND	NA	NA	NA
2,4,5-Trichlorophenol	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	50*	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
Acenaphthene	50.0	0.304	ND	ND	ND	0.0504 J	0.0233 J	0.0528 J	ND	ND	ND
Acenaphthylene	41.0	1.13	0.0679 J	0.0298 J	ND	0.0444 J	0.0934	0.0938	0.0403 J	0.0631 J	ND
Anthracene	50.0	1.95	0.0846	0.192	ND	0.13	0.107	0.253	0.0829	0.113	ND
Benzidine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.224	8.07	0.554	1.2	ND	0.483	0.425	1.14	0.54	0.244	0.047 J
Benzo(a)pyrene	0.061	7.28	0.559	0.652	0.0155 J	0.487	0.384	1.04	0.484	0.146	0.0501 J
Benzo(b)fluoranthene	1.1	8.32	0.662	0.94	0.0214 J	0.743	0.617	1.01	0.524	0.18	0.0594 J
Benzo(g,h,i)perylene	50.0	2.64	0.261	0.183	ND	0.181	0.16	0.564	0.359	0.0885	0.0408 J
Benzo(k)fluoranthene	1.1	6.47	0.563	0.955	ND	0.613	0.55	0.916	0.432	0.148	0.0578 J
4-Bromophenyl phenyl ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND
2-Chloronaphthalene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	50*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.4	7.61	0.575	1.04	0.0169 J	0.637	0.517	1.17	0.604	0.222	0.0631 J
bis(2-Chloroethoxy)methane	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	0.032 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.014	1.06	0.0986	0.103	ND	0.0688 J	0.0738 J	0.243	0.136	0.0434 J	ND
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	8.1	ND	ND	ND	ND	0.274	0.0536 J	ND	ND	ND	ND
Di-n-octyl phthalate	50.0	ND	ND	ND	ND	0.866	0.0716 J	ND	ND	ND	ND
Diethyl phthalate	7.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	2.0	ND	ND	ND	ND	0.279	0.129	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50.0	0.335	0.0915	ND	ND	2.07	0.37	0.174	0.0944	0.0945	0.0606 J
Fluoranthene	50.0	11.4	0.731	1.46	ND	0.974	0.668	1.62	0.832	0.401	0.109
Fluorene	50.0	0.611	ND	ND	ND	0.0437 J	0.0433 J	0.0537 J	ND	0.0501 J	ND
Hexachlorobenzene	0.41	ND	ND	ND	ND	ND	ND	ND	ND	0.0568 J	ND
Hexachlorobutadiene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	50*	0.0777 J	ND	ND	ND	0.0233 J	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	3.2	2.88	0.302	0.265	ND	0.195	0.201	0.608	0.341	0.101	0.037 J
Isophorone	4.40	ND	ND	ND	ND	0.0208 J	ND	ND	ND	ND	ND
2-Methylnaphthalene	36.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	0.430	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	0.500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	50*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	13.0	0.042 J	ND	ND	ND	0.0739 J	0.054 J	ND	ND	ND	ND
Nitrobenzene	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	7.06	0.238	0.541	ND	0.599	0.378	0.933	0.261	0.327	0.0453 J
Pyrene	50.0	12.6	0.663	1.34	ND	1.13	0.662	1.51	0.751	0.293	0.106
1,2,4-Trichlorobenzene	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL SVOCs (ppm)	500	79.9304	5.4506	8.9008	0.0538	10.2883	6.424	11.3813	5.4816	2.1704	0.6761
SVOC TICs (ppm)		341.3 J	2.32 J	100.5 J	4.43 J	29.12 J	5.58 J	6.77 J	1.51 J	1.28 J	2.43 J

Table 2  
SVOCs - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (ppm)	SB-72 J43194-4 0-2 10/6/06	SB-73 J43194-5 0-2 10/6/06	SB-74 J43194-6 0-2 10/6/06	SB-75 J43194-7 0-2 10/6/06	SB-82A JA19809-17 1-1.5 5/28/2009	SB-83A JA19809-19 1-1.5 5/28/2009	SB-84A JA19809-21 1-1.5 5/28/2009	SB-85A JA19809-23 0.5-1 5/28/2009	SB-86A JA19809-25 1-1.5 5/28/2009	SB-87A JA19809-27 1-1.5 5/28/2009
<b>SVOCs (ppm)</b>											
2-Chlorophenol	0.8	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methyl phenol	0.240	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	0.4	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	0.200	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	50*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	0.100	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
3&4-Methylphenol	0.9	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
2-Nitrophenol	0.330	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	0.100	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.0	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	0.03	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	0.1	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	50*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50.0	ND	ND	ND	0.104	0.0306	ND	ND	ND	ND	ND
Acenaphthylene	41.0	ND	0.0588 J	ND	0.138	0.0519	ND	0.0347 J	ND	ND	ND
Anthracene	50.0	0.015 J	0.0404 J	0.0305 J	0.53	0.125	ND	0.0756	ND	ND	ND
Benzidine	50*	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.224	0.0469 J	0.288	0.145	0.984	0.698	0.043	0.634	ND	ND	ND
Benzo(a)pyrene	0.061	0.0478 J	0.283	0.11	0.692	0.612	0.399	0.746	ND	0.0162 J	ND
Benzo(b)fluoranthene	1.1	0.0468 J	0.443	0.132	0.64	0.674	0.129	0.731	ND	0.114	ND
Benzo(g,h,i)perylene	50.0	0.0294 J	0.26	0.0643 J	0.399	0.465	0.0313 J	0.612	ND	ND	ND
Benzo(k)fluoranthene	1.1	0.0324 J	0.308	0.12	0.623	0.562	0.0222 J	0.579	ND	ND	ND
4-Bromophenyl phenyl ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	0.220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	50*	NA	NA	NA	NA	0.0786	ND	0.0499 J	ND	ND	ND
Chrysene	0.4	0.0469 J	0.448	0.148	0.924	0.73	0.0382	0.659	ND	ND	ND
bis(2-Chloroethoxy)methane	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	50*	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.014	ND	0.1	ND	0.0459	0.17	ND	0.212	ND	ND	ND
Dibenzofuran	6.2	NA	NA	NA	NA	0.0391 J	ND	ND	ND	ND	ND
Di-n-butyl phthalate	8.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	7.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50.0	ND	0.17	0.178	0.122	0.0518 J	0.0696 J	0.0627 J	ND	ND	ND
Fluoranthene	50.0	0.0839	0.542	0.145	2.26	1.12 J	0.0633	0.814	ND	0.0181 J	ND
Fluorene	50.0	ND	ND	ND	0.157	0.0755	ND	ND	ND	ND	ND
Hexachlorobenzene	0.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	3.2	0.0281 J	0.278	0.0749 J	0.401	0.471	0.0294 J	0.6	ND	ND	ND
Isophorone	4.40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	36.4	NA	NA	NA	NA	0.0459 J	ND	ND	ND	ND	ND
2-Nitroaniline	0.430	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
3-Nitroaniline	0.500	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
4-Nitroaniline	50*	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
Naphthalene	13.0	ND	0.0318 J	0.0519 J	0.0918	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	50*	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50.0	0.0455 J	0.2	0.167	2.17	0.49	0.0403	0.17	ND	ND	ND
Pyrene	50.0	0.0693 J	0.38	0.12	1.68	0.838	0.0489	0.682	ND	ND	ND
1,2,4-Trichlorobenzene	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL SVOCs (ppm)	500	0.492	3.831	1.4866	11.9617	7.3284	0.9142	6.6619	ND	0.1483	ND
SVOC TICs (ppm)		7.24 J	2.08 J	6.39 J	6.11 J	NA	NA	NA	NA	NA	NA

Table 3  
Inorganics - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (mg/kg)	SB-1 J42667-1 5-1 10/2/06	SB-2 J42667-2 1.5-2 10/2/06	SB-3 J42667-3 5-2 10/2/06	SB-22 J42667-18 5-1 10/2/06	SB-23 J42667-19 5-1 10/2/06	SB-24 J42667-20 5-1 10/2/06	SB-27 J42758-3 2.8-4 10/3/06	SB-49A J43018-28 0-4 10/4/06	SB-57 J43018-10 0-2 10/5/06	SB-58 J43018-12 0-2 10/5/06	SB-59 J43018-13 0-0.5 10/5/06	SB-60 J43018-14 0-0.5 10/5/06	SB-61 J43018-15 0-2 10/5/06	SB-62 J43018-16 0-2 10/5/06	SB-63 J43018-17 0-1.5 10/5/06	SB-64 J43018-18 0-1.5 10/5/06	SB-72 J43194-4 0-2 10/6/06
Inorganics (ppm)																		
Antimony	SB	ND	ND	ND	5.5	9.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	29.5	ND	ND
Arsenic	7.5	4.9	7.7	8.0	2.6	2.4	2.3	8.5	ND	9.4	15.5	7.8	3.6	ND	ND	37.0	12.3	4.5
Beryllium	0.16	ND	ND	ND	1.2	5.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	1	ND	ND	ND	ND	0.64	ND	ND	ND	1.1	0.95	ND	0.76	ND	ND	21.8	3.2	1.3
Chromium	10	31.3	7.2	16.9	58.9	189	34.6	14.6	25.2	25.8	15.3	26.4	25.4	10.9	25.1	511	60.9	50.8
Copper	25	39.0	17.9	58.2	295	842	48.9	44.7	26.7	74.3	35.9	36.3	32.1	11.6	32.9	393	72.1	43.1
Lead	SB	31.4	44.3	45.0	172	584	28.5	90.6	2.7	62.1	10.9	281	136	14.9	37.0	1450	106	108
Mercury	0.1	0.34	1.5	0.48	1.6	9.0	0.088	1.1	ND	1.9	2.6	0.72	0.51	0.17	0.35	39.5	0.23	0.064
Nickel	13	38.4	ND	13.2	160	484	27.0	7.9	17.8	21.6	11.3	20.3	21.5	8.5	15.1	135	27.5	96.5
Selenium	2	ND	ND	ND	2.9	4.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	SB	ND	ND	ND	ND	1.6	ND	ND	ND	11.0	ND	ND	ND	ND	ND	ND	ND	3.2
Thallium	SB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	20	113	26.1	42.5	509	1970	101	30.6	39.9	136	131	197	144	33.1	157	1190	295	130
Cyanide	SB	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	0.52	0.40	ND

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (mg/kg)	SB-73 J43194-5 0-2 10/6/06	SB-74 J43194-6 0-2 10/6/06	SB-75 J43194-7 0-2 10/6/06	SB-76A JA19809-1 2-2.5 5/27/09	SB-81A JA19809-1E 2.5-3 5/27/09
Inorganics (ppm)						
Antimony	SB	ND	ND	ND	ND	NA
Arsenic	7.5	3.4	5.5	24.2	4.4	NA
Beryllium	0.16	ND	ND	ND	ND	NA
Cadmium	1	ND	ND	ND	ND	NA
Chromium	10	7.6	10.5	15.1	30.3	NA
Copper	25	11.4	18.8	28.3	18.7	NA
Lead	SB	39.8	17.8	13.7	8.8	9.6
Mercury	0.1	0.21	0.18	0.47	ND	NA
Nickel	13	ND	10.5	13.7	26.0	NA
Selenium	2	ND	ND	ND	ND	NA
Silver	SB	ND	ND	ND	ND	NA
Thallium	SB	ND	ND	ND	ND	NA
Zinc	20	10.6	22.6	29.7	48.5	NA
Cyanide	SB	NA	ND	ND	NA	NA

Table 4  
Pesticides, PCBs - Shallow  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	SAMPLE DATE	SB-27 J42758-3 2.8-4 10/3/06	SB-49A J43018-28 0-4 10/4/06	SB-57 J43018-10 0-2 10/5/06	SB-58 J43018-12 0-2 10/5/06	SB-61 J43018-15 0-2 10/5/06	SB-62 J43018-16 0-2 10/5/06	SB-63 J43018-17 0-1.5 10/5/06	SB-64 J43018-18 0-1.5 10/5/06	SB-72 J43194-4 0-2 10/6/06	SB-74 J43194-6 0-2 10/6/06	SB-75 J43194-7 0-2 10/6/06
Pesticides/PCBs (ppm)	NYSDEC Soil Cleanup Objectives (ppm)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	0.041	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
alpha-BHC	0.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	0.044	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0532
4,4'-DDE	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.129
4,4'-DDT	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.109
Endrin	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.367
Endosulfan sulfate	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	NS	5.42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1016	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	1.0*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL Pest./PCBs (ppm)		5.42	0	5.25	5.658	1.94	0.271	0.997	1.68	1.3	3.44	0.6582

Table 5  
VOCs - Deep  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID	NYSDEC	SB-46	SB-47	SB-48	SB-49B	SB-50	SB-51	SB-52	SB-53	SB-54	SB-55
LAB ID	Soil Cleanup	J43018-25	J43018-26	J43018-27	J43018-29	J43018-1	J43018-2	J43018-5	J43018-6	J43018-7	J43018-8
DEPTH (FEET)	Objectives	14-14.5	15-15.5	14-14.5	5-5.5	11-11.5	11-11.5	6.5-7	13-14	12-14	15.5-16
SAMPLE DATE	(ppm)	10/4/06	10/4/06	10/4/06	10/4/06	10/4/06	10/4/06	10/5/06	10/5/06	10/5/06	10/5/06
<b>VOCs (ppm)</b>											
Acetone	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	ND	ND	ND	1.46	ND	ND	ND	0.128	0.0777 J	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	2.7	0.0235	0.103	0.0017 J	1.150 E	ND	ND	ND	1.42	0.0982 J	NA
Carbon tetrachloride	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.7	ND	ND	ND	ND	ND	ND	ND	0.0805 J	0.798	ND
Chloroethane	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.30	ND	ND	ND	ND	ND	ND	0.0137	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	ND	ND	ND	ND	ND	0.0436 J	ND
1,3-Dichlorobenzene	1.55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	ND	ND	ND	0.0788 J	ND
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.5	ND	ND	ND	2.99	6.67	15.2	ND	1.17	0.67	ND
2-Hexanone	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone(MIBK)	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	0.1	ND	ND	ND	ND	ND	ND	0.0044 J	ND	ND	0.0075 J
Styrene	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.4	ND	ND	ND	23.9	0.171 J	0.246 J	0.0747	ND	0.477	ND
Toluene	1.5	ND	ND	ND	3.68	ND	0.767	ND	ND	0.0473 J	ND
1,1,1-Trichloroethane	0.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.7	ND	ND	ND	0.317 J	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1.2	ND	ND	ND	173	53	199	ND	1.98	1.66	ND
<b>TOTAL VOCs (ppm)</b>	<b>10</b>	<b>0.0235</b>	<b>0.103</b>	<b>0.0017</b>	<b>1,355.36</b>	<b>59.841</b>	<b>215.213</b>	<b>0.0928</b>	<b>4.7785</b>	<b>3.9506</b>	<b>0.0075</b>
<b>VOC TICs (ppm)</b>		<b>0.0381 J</b>	<b>0.0021 J</b>	<b>0</b>	<b>619 J</b>	<b>231 J</b>	<b>535 J</b>	<b>0</b>	<b>66.2 J</b>	<b>58.7 J</b>	<b>0.0038 J</b>

Table 5  
VOCs - Deep  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (ppm)	SB-56 J43018-9 14-14.5 10/5/06	TP-1 J43750-1 6.5-7 10/12/06	TP-2 J43750-2 6.5-7 10/12/06	TP-3 J43750-3 10/12/06	TP-6 J43750-4 8-8.5 10/13/06	TP-8 J43750-7 8.5-9 10/13/06
<b>VOCs (ppm)</b>							
Acetone	0.11	NA	NA	NA	NA	NA	NA
Acrolein	NS	ND	ND	ND	ND	ND	ND
Acrylonitrile	NS	ND	ND	ND	ND	ND	ND
Benzene	0.06	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	ND	ND	ND	ND
Bromoform	NS	ND	ND	ND	ND	ND	ND
Bromomethane	NS	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	0.3	NA	NA	NA	NA	NA	NA
Carbon disulfide	2.7	0.114	ND	ND	ND	0.0188	ND
Carbon tetrachloride	0.6	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.7	ND	ND	ND	ND	ND	ND
Chloroethane	1.9	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	NS	ND	ND	ND	ND	ND	ND
Chloroform	0.30	ND	ND	ND	ND	ND	ND
Chloromethane	NS	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NS	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.55	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NS	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.2	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.1	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.4	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.3	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NS	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	ND	ND	ND	ND
Ethylbenzene	5.5	ND	ND	ND	ND	ND	ND
2-Hexanone	NS	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone(MIBK)	1.0	NA	NA	NA	NA	NA	NA
Methylene chloride	0.1	0.0061 J	ND	ND	ND	ND	ND
Styrene	NS	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.6	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.4	ND	ND	ND	0.0014 J	0.0038 J	ND
Toluene	1.5	ND	ND	ND	ND	ND	0.0011
1,1,1-Trichloroethane	0.76	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	ND	ND	ND	ND
Trichloroethene	0.7	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.12	ND	ND	ND	ND	ND	ND
Xylene (total)	1.2	ND	ND	ND	ND	ND	ND
<b>TOTAL VOCs (ppm)</b>	<b>10</b>	<b>0.1201</b>	<b>0</b>	<b>0</b>	<b>0.0014</b>	<b>0.0226</b>	<b>0.0011</b>
<b>VOC TICs (ppm)</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table 7  
Inorganics - Deep  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE Inorganics (ppm)	NYSDEC Soil Cleanup Objectives (mg/kg)	SB-10 J42667-7 7-8 10/2/06	SB-11 J43018-3 7-8 10/5/06	SB-25 J42758-1 7-8 10/3/06	SB-26 J42758-2 7.5-8 10/3/06	SB-37 J42758-13 9-10 10/3/06	SB-38 J42758-14 11-12 10/3/06	SB-39 J42758-15 11-12 10/3/06	SB-53 J43018-6 13-14 10/5/06	SB-54 J43018-7 12-14 10/5/06	SB-76B JA19809-2 10-10.5 5/27/09	SB-81B JA19809-16 7.5-8 5/27/09	TP-1 J43750-1 10/12/06	TP-2 J43750-2 10/12/06	TP-3 J43750-3 10/12/06	TP-6 J43750-4 8-8.5 10/13/06
Antimony	SB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	2.6
Arsenic	7.5	31.5	ND	ND	ND	3.7	ND	19.9	ND	ND	ND	NA	4.8	ND	6.9	11.4
Beryllium	0.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Cadmium	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.75	ND	ND	1.7
Chromium	10	20.8	17.6	3.9	6.3	23.1	42.7	42.8	19.1	20.6	22.4	NA	36.7	19.4	27.4	31.6
Copper	25	22.0	18.1	17.1	11.1	31.5	33.3	72.6	12.8	21.4	18.1	NA	39.9	16.9	30.5	100
Lead	SB	78.3	3.3	12.5	11.0	14.0	21.8	31.0	ND	3.0	4.4	38.5	54.0	9.1	20.2	10,200
Mercury	0.1	0.66	ND	0.15	0.81	0.14	0.17	2.2	ND	ND	ND	NA	0.78	0.084	0.89	0.74
Nickel	13	10.1	13.5	6.2	6.4	15.1	15.0	14.1	24.0	34.5	23.8	NA	40.8	47.5	30.7	44.0
Selenium	2	3.3	ND	ND	ND	ND	ND	8.4	ND	ND	ND	NA	ND	ND	ND	ND
Silver	SB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Thallium	SB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Zinc	20	31.1	36.1	6.1	19.8	85.1	180	170	52.9	83.9	37.0	NA	100	39.6	59.9	287
Cyanide	SB	ND	ND	ND	ND	ND	ND	19.7	ND	ND	NA	NA	ND	ND	ND	ND

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE Inorganics (ppm)	NYSDEC Soil Cleanup Objectives (mg/kg)	TP-7 J43750-6 7.5-8 10/13/06	TP-8 J43750-7 8.5-9 10/13/06	TP-9 J43750-8 7.5-8 10/13/06
Antimony	SB	ND	ND	ND
Arsenic	7.5	2.5	4.8	3.7
Beryllium	0.16	ND	ND	ND
Cadmium	1	0.55	3.2	ND
Chromium	10	23.0	22.6	20.7
Copper	25	23.8	27.0	25.1
Lead	SB	28.1	145	29.3
Mercury	0.1	0.11	1.5	0.065
Nickel	13	16.3	14.4	15.7
Selenium	2	ND	ND	ND
Silver	SB	ND	ND	ND
Thallium	SB	ND	ND	ND
Zinc	20	81.5	216	65.4
Cyanide	SB	NA	0.41	NA



Table 8  
Pesticides, PCBs - Deep  
Akzo Nobel Chemicals, Inc. Pilot Plant  
Ardsley (Dobbs Ferry), New York

SAMPLE ID LAB ID DEPTH (FEET) SAMPLE DATE	NYSDEC Soil Cleanup Objectives (ppm)	SB-10 J42667-7 7-8 10/2/06	SB-10A JA19809-6 12-12.5 5/27/09	SB-11 J43018-3 7-8 10/5/06	SB-25 J42758-1 7-8 10/3/06	SB-26 J42758-2 7-5-8 10/3/06	SB-37 J42758-13 9-10 10/3/06	SB-38 J42758-14 11-12 10/3/06	SB-39 J42758-15 11-12 10/3/06	SB-53 J43018-6 13-14 10/5/06	SB-54 J43018-7 12-14 10/5/06	SB-77 JA19809-5 7-5-8 5/27/09	SB-78 JA19809-8 7-5-8 5/27/09	SB-79 JA19809-9 7-5-8 5/27/09	SB-80 JA19809-10 7-5-8 5/27/09
<b>Post/PCBs (ppm)</b>															
Aldrin	0.041	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
alpha-BHC	0.11	0.0034	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
beta-BHC	0.2	0.0427	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
delta-BHC	0.3	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
gamma-BHC (Lindane)	0.06	0.0044	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Chlordane	0.54	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Dieldrin	0.044	6.47	0.0035	ND	ND	0.0039	ND	0.451	ND	ND	0.0239	0.0228	ND	0.129	0.0191
4,4'-DDD	2.9	1.87	NA	ND	0.0077	0.0067	ND	ND	ND	ND	0.0089	ND	NA	0.0078	ND
4,4'-DDE	2.1	7.06	0.0021	ND	ND	ND	ND	0.0871	ND	ND	0.0043	ND	ND	0.0146	ND
4,4'-DDT	2.1	35.5	0.0129	ND	0.0194	ND	ND	0.043	ND	ND	ND	NA	NA	NA	NA
Endrin	0.10	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Endosulfan sulfate	1.0	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Endrin aldehyde	NS	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Endosulfan-I	0.9	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Endosulfan-II	0.9	0.399	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Heptachlor	0.10	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Heptachlor epoxide	0.02	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Methoxychlor	10	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Toxaphene	NS	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1016	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1221	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1232	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1242	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1248	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1254	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Aroclor 1260	10*	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
<b>TOTAL (ppm)</b>		52.226	0.0185	0	0.0077	0.030	0	0.5811	0	0	0.0371	0.0228	0	0.1514	0.0191