SITE INVESTIGATION REPORT
FOR THE
AKZO NOBEL CHEMICALS INC. PILOT PLANT
ARDSLEY, NEW YORK

November 4, 2009

Prepared For:

Akzo Nobel Inc.
120 White Plains Road
Suite 300
Tarrytown, New York 10591

Prepared By:

Sovereign Consulting Inc.
100 Dobbs Lane
Suite 212
Cherry Hill, New Jersey 08034

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1 INTRODUCTION

Akzo Nobel Chemicals Inc. (Akzo Nobel) is planning to divest the "Ardsley Pilot Plant" property in the Village of Ardsley, New York. The property is zoned for commercial/industrial use.

Between October 2006 and June 2009, Akzo Nobel conducted a thorough investigation to determine if soil and groundwater quality at the property had been adversely affected by historical operations. The sampling was performed in two phases – prior to demolition and after demolition. The first phase included sampling of those areas [e.g., north end parking lot, less than 90-day hazardous waste storage area & solvent shed, pilot plant scrubber, area north of maintenance shop, green lawn at the south end (former Potash Building) of the real estate , etc.] that were accessible to the sampling rigs. The 2nd phase of sampling was performed following the removal of underground storage tanks, etc. The demolition was delayed for about eight months because of the bureaucratic proceedings of the Town of Greenburgh in procuring the Wetland and Demolition permits.

Background investigation activities, including interviews with the current site owner, review of historical facility plans, and performance of a site reconnaissance, were conducted in general compliance with the American Society for Testing and Materials (ASTM) E1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The field investigation, including soil, sediment, surface water, and groundwater sampling, was conducted in general compliance with ASTM E1903-97 (Reapproved 2002) Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process. The investigation included the following activities:

1. Meeting with Akzo Nobel representatives and performance of a site inspection to identify areas where hazardous materials/substances were potentially used, handled, or stored;
2. Review of historical maps (i.e. plot plans, historical aerial photographs, etc.) of the facility to identify hazardous materials use/handling/storage areas;
3. Performance of a geophysical survey including ground penetrating radar (GPR) and electromagnetic (EM) surveys to identify potential buried debris, drums, tanks, etc.;
4. Identification of areas of concern;

5. Collection and analysis of soil samples from borings installed with all-terrain, track-mounted, and truck mounted GeoProbe rigs;
6. Collection and analysis of soil samples from test pits excavated by a backhoe;
7. Collection and analysis of sediment and surface water samples from an off-site location upstream of the pilot plant;
8. Installation of groundwater monitoring wells via hollow-stem auger drilling techniques; and
9. Collection and analysis of groundwater samples from the monitoring wells;

In addition to these activities, a site assessment was also conducted relative to the removal of underground storage tanks (USTs) in the summer and fall of 2008. This work included remediation of petroleum-impacted soil by excavation and off-site disposal at two UST locations. The results of the site assessment conducted relative to removal of USTs are summarized in the *UST Closure Report,* dated March 13, 2009 (Appendix N). The Westchester County Department of Health issued a No Further Action letter dated April 27, 2009 to Akzo Nobel relative to the UST Closure project.

2 SITE DESCRIPTION

The former Akzo Nobel Pilot Plant property is located on Lawrence Street in the Village of Ardsley, New York. The property is located in the Saw Mill River valley between Saw Mill River Parkway to the west and Saw Mill River Road to the east. Lawrence Street borders the property to the south and undeveloped land borders the property to the north. A branch of the Saw Mill River flows in a general easterly direction in the northern portion of the property and then in a southerly direction across the site within the property's eastern boundary. A Site Location Map is included as Figure 1.

Topography in the plant area slopes gently toward the east from the former main pilot plant building to a branch of the Saw Mill River. The elevation of the property ranges from approximately 132 feet near the southwest corner of the main Pilot Plant building to approximately 118 feet near the western bank of the Saw Mill River, although most of the topographic relief occurs along the bank of the river. On the eastern side of the Saw Mill River (i.e. across from the developed portion of the property), topography rises to approximately 126 ft. near the eastern property boundary.

The site is 10.3 acres in area and most recently contained seven freestanding structures and a guard house (building No. 12) which were demolished in the fall and winter of 2008-2009. At the time of demolition, the main site structures included offices (building No. 2), Whey Building (No. 3), Pilot Plant (attached building Nos. 4, 5, 6, and 10), the White House (building No. 7.), Solvent Shed (building No. 8), Maintenance Shop (building No. 9), and Boiler House (building No. 11).

With the exception of an area of undeveloped land north of the main parking lot in the northern portion of the property, most of the property was historically covered by impervious surfaces (buildings and pavement). The Pilot Plant facility was demolished during the end of 2008 and the beginning of 2009. Presently, the building slabs remain visible and the remainder of the site is covered by asphalt parking areas, landscaped areas, and clean brick and concrete rubble which was used to grade the site following demolition activities.

3 SITE HISTORY

The property was initially developed by Stauffer Chemical Company (Stauffer) in the 1920s. Products manufactured at the facility by Stauffer included citric acid (not manufactured in the Pilot Plant portion of the property) from the 1920s to the 1940s, potash from the 1930s to 1973, and carbon disulfide and insoluble sulfur from the 1930s through the 1950s. In addition, a variety of biocides and pesticides were produced at the site through 1984, when chemical manufacturing at the facility was ceased entirely. Research and development (R&D) operations, which began in the 1950s, continued after cessation of the manufacturing activities.

In the mid-1980s, a Phase I Site Assessment was completed for Stauffer at the subject property. Two significant findings were identified through the Phase I Assessment process. Firstly, a former plant manager indicated that approximately fifteen tons of insoluble sulfur was landfilled at the site between 1950 and 1969. This claim was investigated via a test-pitting operation conducted in October 2006 and no indications of landfilling operations were observed (see Section 5.6.6). Secondly, laboratory analysis conducted on the plant's effluent to the Saw Mill River in October 1983 revealed elevated concentrations of 1,1,1-trichloroethane. The elevated 1,1,1-trichloroethane effluent concentration was traced to groundwater from a deep well (approximately 1,200 feet in depth) on the property which was utilized as a source for the plant's non-contact cooling water. As Stauffer did not use nor produce 1,1,1-trichloroethane, the source of the groundwater impact was unknown.

The NYSDEC required Stauffer to cease discharge of contaminated effluent to the Saw Mill River and the deep well was subsequently sealed. In a NYSDEC memorandum dated November 30, 1983 (from Richard Bissonette, Division of Water, Region 3, White Plains to Peter Doshna, Division of Water, Region 3, White Plains) about a Stauffer Chemical Company Inspection, Mr. Bissonnette clarifies that the Stauffer facility does not use or manufacture 1,1,1-Trichloroethane. It further states that the well contamination problem in Armonk and Bedford that was publicized in the newspapers in 1983 may be a starting point in determining the source of this problem in Ardsley.

Akzo Nobel acquired Stauffer in 1987 and initially continued Stauffer's R&D operations. Eventually, Akzo Nobel converted the R&D operations away from the Stauffer processes towards Akzo's process products. Changes to the pilot systems during the conversion

generally involved modifications of equipment to facilitate R&D and pilot scale production of various chemical products for R&D. The R&D operations continued exclusively at the site until January 2006, at which time all site operations ceased.

During the fall of 2008 and the winter of 2008-09, site demolition activities were conducted at the property. Prior to demolition, electrical equipment (i.e. fluorescent light ballasts, transformers, switches, thermostats, etc.) potentially containing polychlorinated biphenyls (PCBs) and/or mercury, were removed intact, isolated, and packed properly for off-site disposal in a very careful manner to prevent impacts to the site. Prior to demolition activities and demolition of the site buildings, all asbestos containing materials were removed properly in accordance with OSHA requirements.

In addition, on September 24, 2008, the demolition contractor collected representative samples of building materials and structures for laboratory analysis for lead and other contaminants following the demolition activities. These materials were found to be free of potential contaminants; therefore, some of the building materials (bricks, concrete, etc.) were used to grade the property following site demolition. The remaining building materials were handled and disposed of off-site by a licensed contractor. A copy of the laboratory analytical results for the demolition material is included as Appendix A.

Due to the extensive use of the site as a chemical manufacturing and R&D facility, a comprehensive list of raw materials is not known. However, information obtained from historical documents and Akzo Nobel personnel indicate that some of the raw materials used at the Pilot Plant facility include carbon disulfide, monomethylamines, bromomethane, dimethyl sulfoxide, biocides, sulfur, organophosphorous compounds, oroganomettalics, fatty amines, ethylene oxide, methyl chloride, and ammonia. R&D and pilot process areas, along with other areas of investigation, are discussed in further detail in Section 5 – Site Investigation.

4 BACKGROUND INVESTIGATION/RECORDS REVIEW

Sovereign conducted a background investigation and records review for the Site in accordance with ASTM 1527-05. As part of the records review, Sovereign retained Environmental Data Resources, Inc. (EDR) to perform an environmental database search and provide historic aerial photographs, topographic maps, and Sanborn Fire Insurance maps for the subject property and general vicinity.

EDR reviewed local, state, and federal regulatory agency databases for environmental information pertaining to the Site and surrounding properties. The EDR *Radius Map with Geocheck Report®* indicated that the subject property was listed on the following federal, state, or local government databases:

Owner/Operator:	**Physical Address:**	**Databases:**	**Comments:**
Akzo Nobel Chemicals Inc.	Lawrence St./North Side, Ardsley, NY	MANIFEST	
Stauffer Chemical Company	Lawrence St., Ardsley, NY	DEL SHWS	
Akzo Chemicals Inc. – Pilot Plant	Lawrence St., N. Side; SHT 47 P37	CERCLIS, RCRA-LQG, CORRACTS	NYD056301104
Akzo Nobel Chemical	1 Lawrence St., Dobbs Ferry, NY	HIST L TANKS	Date Closed: 4/4/01
Akzo Chemicals Inc.	Livingston Ave. (Lawrence St.), Dobbs Ferry (Greenburgh), NY	NYSDEC PBS (CBS AST, CBS)	
Akzo Nobel Chemical	1 Lawrence St., Dobbs Ferry, NY	NY SPILLS	Date Closed: 4/4/01
Akzo Nobel Chemicals Inc – Ardsley	Lawrence St. – N. Side	FINDS	
Akzo Nobel – Chemical Pilot Plant	1 Lawrence Street, Ardsley, NY	NY SPILLS	Date Closed: 5/5/09

Findings of the EDR records search for the Site and properties within a one-mile radius of the Site are summarized in the following sections, sorted by databases searched.

Facility location maps with the identified locations of environmental record, registration, releases, environmental investigations, or incidents of non-compliant activities within one mile of the Site are included in the EDR Report presented as Appendix B.

4.1 Standard Environmental Record Sources

Standard Environmental Record Sources, as defined by *ASTM 1527-05*, were searched by EDR. Results of the Standard Environmental Record Source search are detailed in the *Radius Map with Geocheck Report®* and are summarized in the following sections.

4.1.1 National Priority List (NPL)

This database is a subset of CERCLIS and identifies over 1,200 facilities for priority cleanup under the Superfund Program. NPL facilities may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices. No NPL facilities were identified within a one-mile radius of the Site.

4.1.2 Delisted NPL Sites

This database contains sites where no further response is appropriate based on criteria established by the National Oil and Hazardous Substances Pollution Contingency Plan. All sites in this database have been deleted from the NPL. No Delisted NPL facilities were identified within a one-mile radius of the Site.

4.1.3 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)

CERCLIS sites are potential hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and private individuals, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed to be or on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL. The site was listed on the CERCLIS database. No surrounding properties were identified within 0.5-miles of the subject property.

The listing for the site is for the Akzo Chemicals Inc. – Pilot Plant located on the north side of Lawrence Street in Ardsley, New York. The site identification number is

0203229. According to the CERCLIS history, the site was identified on June 14, 1989 and Site Assessment was completed on March 30, 1990 at which time the site was deferred to RCRA. A reassessment was conducted in December 2003 and a priority level of no further Remedial Action planned (NFRAP) was assigned.

4.1.4 CERCLIS NFRAP Sites

A "No Further Remedial Action Planned" (NFRAP) designation is given to CERCLIS sites where, following an initial investigation, no contamination was found, contamination was quickly removed, or contamination is not serious enough to require Federal Superfund action or NPL consideration. According to the EDR report, one CERCLIS-NFRAP facility was identified within one-half mile of the Site.

The CERCLIS-NFRAP listing is for RSA Corporation located at 690 Saw Mill River Road in Ardsley, New York, approximately 2,500-feet northeast of the site. The site identification number is 0203060 and the site is not on the NPL list. According to the CERCLIS history, the site was identified on June 6, 1989 and a Site Assessment was completed on September 18, 1989 at which time a priority level of no further Remedial Action Planned (NFRAP) was assigned. This facility was archived on November 12, 1998; therefore, this facility is not anticipated to have the potential to impact the subject property.

4.1.5 RCRIS Corrective Actions (CORRACTS) and Associated TSD Facilities

Corrective Action Report (CORRACTS) sites are identified by the USEPA as undergoing Resource Conservation and Recovery Information System (RCRIS) Corrective Action Order to address the release of hazardous waste or constituents into the environment from a RCRIS classified hazardous waste facility. According to the EDR report, the subject property is listed on the CORRACTS database. No other CORRACTS sites were identified within one-mile of the Site.

The listing for the site is for the Akzo Chemicals Inc. – Pilot Plant located on the north side of Lawrence Street in Ardsley, New York. The EPA identification number is NYD056301104. According to the CORRACTS listing, the site was assigned a low corrective action priority on September 30, 1996.

4.1.6 RCRA TSD Facilities

TSD facilities transport, store, and dispose of RCRA defined hazardous wastes. No TSD facilities were identified within 0.5-mile of the Site.

4.1.7 RCRA-LQG/SQG/CESQG/NonGen Sites

A RCRA-Large Quantity Generator (LQG) is defined as a facility that generates over 1,000 kilograms (kg) per month of hazardous waste or over 1 kg of acutely hazardous material as defined by the RCRA. A RCRA-Small Quantity Generator (SQG) is defined as a facility that generates between 100 kg and 1,000 kg/month of hazardous material. A RCRA-Conditionally Exempt Small Quantity Generator (CESQG) is defined as a facility that generates less than 100 kg/month of hazardous waste or less than 1 kg/month of acutely hazardous waste. A RCRA-Non-Generator (NonGen) is defined as a facility that does not presently generate hazardous waste. The subject property was identified as a RCRA-LQG. In addition, one LQG and one SQG were identified within 0.25-mile of the Site through the environmental database search.

The listing for the site is for the Akzo Chemicals Inc. – Pilot Plant located on the north side of Lawrence Street in Ardsley, New York. The RCRA-LQG EPA identification number is listed as NYD056301104. According to the listing, the facility has been categorized as a LQG since 1980. Eight generator or TSD violations were reported for the facility between August 1983 and September 2002. The facility was found to be in compliance with all of the listed violations shortly after the date of issue in all cases.

The surrounding LQG within 0.25-mile of the site is listed as Purdue Pharma LP located at 444 Saw Mill River Road in Ardsley, New York, approximately 500 feet north-northeast of the subject property. The RCRA EPA identification number is listed as NYR000053934. Waste products identified for this site include batteries, lamps, pesticides, and thermostats. Specific wastes include ignitable, corrosive, and reactive wastes including heavy metals, VOCs, and halogenated and non-halogenated solvents. This facility has been listed as a LQG since April 1998. No violations are reported for this facility and the wastes are neither generated nor accumulated on-site; therefore, this facility is not anticipated to have the potential to impact the subject property.

The surrounding RCRA-SQG is identified as Supesta US LLC located at 430 Saw Mill River Road (3rd floor) in Ardsley, New York, approximately 386 feet north-northeast of the site. The RCRA EPA identification number is listed as NYR000133454. The facility

has been categorized as a SQG since July 2005. Five violations were issued to the facility during an on-site inspection in August 2007. The violations were promptly complied with. This facility is not anticipated to have the potential to impact the subject property.

4.1.8 Federal Institutional Control/Engineering Control Registries

The Federal Institutional Control database contains sites with administrative measures, including groundwater use restrictions, construction restrictions, property use restrictions, post remediation care requirements, and deed restrictions, which are intended to prevent exposure to contaminants remaining on site. Engineering Control sites utilize various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter the environment or effect human health. No Institutional or Engineering Control sites were identified within 0.5-mile of the subject property.

4.1.9 Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) records and stores information on reported releases of oil and hazardous substances. The subject property was not listed on the ERNS database.

4.1.10 State and Tribal Hazardous Waste Sites (SHWS)

The SHWS database includes all inactive hazardous waste disposal sites in New York state. The Inactive Hazardous Waste Disposal Site Remediation program, referred to as the State Superfund Program, is the cleanup program for inactive hazardous waste sites and hazardous substance sites. According to the EDR report, no SHWS facilities were located within one mile of the Site.

4.1.11 State and Tribal Solid Waste Facility/Landfill Directory (SWF/LF)

The Solid Waste Facility/Landfill Directory (SWF/LF) type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending upon the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D, Section 4004 criteria for solid waste landfills or disposal sites. The New York State SWF/LF database was last updated by the NYSDEC on June 23, 2009.

No SWF/LF facilities were identified within a 0.5-mile radius of the Site on the current database.

4.1.12 State and Tribal Leaking Underground Storage Tanks (LTANKS)

The LTANKS database contains documented releases from an underground storage tank (UST) or UST system registered on the NYSDEC Spills Information Database between April 1, 1986 and June 9, 2009. According to the EDR report, thirty-nine LTANKS facilities were identified within a 0.5-mile radius of the Site, including seven LTANKS facilities within a 0.125-mile radius of the Site. In addition, EDR searched the Historical (HIST) LTANKS database which is no longer updated or maintained by the NYSDEC. The subject property and fourteen sites within 0.5-mile of the subject property were identified on the HIST LTANKS database. Of the fourteen surrounding sites, the four that are located within 0.25-mile of the subject property are also on LTANKS database. The LTANKS/HIST LTANKS listings for the subject property and sites within 0.125-mile are detailed below.

The HIST LTANKS listing for the subject property is for Akzo Nobel Chemical located at 1 Lawrence Street in Dobbs Ferry, New York. According to the listing, on August 1, 2000, petroleum contaminated soil was encountered during the removal of a 2,000-gallon #2 fuel oil UST. A tank closure report was subsequently submitted and the Westchester County Department of Health required No Further Action in correspondence date April 4, 2001.

Information pertaining to the seven LTANKS/HIST LTANKS sites located within 0.25-mile of the subject property is provided below.

Owner/Operator:	Physical Address:	Databases:	Comments:
Residence	25 Winding Farm Road (~500 feet ESE)	LTANKS/ HIST LTANKS	Date closed: August 31, 1994
CIBA GEIGY Corporation	444 Saw Mill River Road (~500 feet NNE)	LTANKS/ HIST LTANKS	Date closed: February 12, 2005
Akzo Chemicals	1 Livingston Avenue (~600 feet WNW)	LTANKS	Date closed: August 26, 2005

Sekaer Residence	63 Livingston Avenue (~612 feet WNW)	LTANKS	Date closed: February 11, 2005
559 Almena Avenue	559 Almena Avenue (~765 feet NE)	LTANKS	Date closed: December 19, 2002
Not Listed	110 Ridge Road (~1,125 feet ENE)	LTANKS/ HIST LTANKS	Date closed: December 7, 2004
Ardsley Acres Motel	560 Sawmill River Road (~ 1,257 feet NNE)	LTANKS/ HIST LTANKS	Free product on groundwater as of December 10, 2008; may be new release

Sites that have been closed by NYSDEC are not anticipated to have the potential to impact the subject property.

The Ardsley Acres Motel facility is the only LTANKS/HIST LTANKS site located within 0.25-mile of the subject property that remains open. According to the listing for this facility, two tanks were removed from the site in November 1998 following tank test failure. Petroleum contaminated soil was excavated and soil and groundwater sampling was completed. Based on groundwater levels above the state standards, groundwater monitoring continued and in December 2008, free product was detected in a site monitoring well. The NYSDEC indicated that this may be a new release. Depending on the extent of groundwater contamination at this facility, it may have the potential to impact the subject property.

4.1.13 State and Tribal Underground Storage Tank Data (UST)

The NYSDEC Petroleum Bulk Storage database includes listings of registered USTs and aboveground storage tanks. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act. In addition to the NYSDEC database, the Chemical Bulk Storage (CBS) and Major Oil Storage Facility databases were also searched by EDR. According to the EDR Report, the subject property was identified on the CBS database. In addition, three facilities within 0.25-mile of the Site were identified on the NYSDEC PBS database.

The listing for the subject property is for Akzo Chemicals Inc. located at Livingston Avenue (Lawrence Street) in Dobbs Ferry (Greenburgh), New York. According to the CBS database, this is an active facility with one 500-gallon sodium hydroxide AST and one 3,000-gallon sulfuric acid AST. Based on the address listed, it is unknown whether this listing is for the Lawrence Street or Livingston Avenue Akzo facility.

Information pertaining to the three UST database sites located within 0.25-mile of the subject property are provided below.

Owner/Operator:	Physical Address:	Databases:	Comments:
Ardsley Park	410 Saw Mill River Road (~ 222 feet NE)	NYSDEC PBS	Multiple ASTs, active facility
G&G Building	466 Saw Mill River Road (~692 feet NNE)	NYSDEC PBS	One 5,000-gallon fuel oil UST
Selecto Products Company Inc.	2 Lawrence Street (~ 40 feet SE)	NYSDEC PBS	Date closed: August 26, 2005

No violations or releases are reported for the above UST facilities; therefore, it is not anticipated that they have the potential to impact the environmental quality of the subject property.

4.1.14 State and Tribal Institutional Control/Engineering Control Registries

State Engineering and Institutional Control sites are remediation sites with engineering or institutional controls in place which limit the use of a contaminated property. Such sites are included in the NYSDEC Registry of Institutional Controls, Registry of Engineering Controls, or Restrictive Declaration Listings. According to the EDR Report, neither the subject property nor any surrounding sites within a 0.5-mile radius were identified on state or tribal Institutional/Engineering Control sites or Restrictive Declaration databases.

4.1.15 State and Tribal Voluntary Cleanup Program (VCP) Sites

New York State's VCP program was established to address the environmental, legal, and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The program enhances private sector cleanup of Brownfields by enabling parties to remediate sites using private rather than public funds and to reduce pressure on

development of Greenfield sites. Neither the subject property nor any sites within a 0.5-mile radius were identified on the VCP database.

4.1.16 State and Tribal Brownfield Sites

Brownfields are former or current commercial or industrial use sites that are presently vacant or underutilized and on which there is suspected to have been a discharge to soil or groundwater at concentrations greater than the applicable cleanup criteria. The New York State Environmental Restoration Program (ERP) was established to spur the redevelopment and cleanup of Brownfield sites. No Brownfield or ERP sites were identified within a 0.5-mile radius of the Site.

4.2 Additional Environmental Record Sources

The EDR search included several federal, state, and tribal databases in addition to the Standard Environmental Record Sources as identified in ASTM 1527-05. The additional databases searched and results are detailed in the *Radius Map with Geocheck Report®* and summarized in the following sections.

4.2.1 Local Brownfield Lists

No local Brownfield sites were identified within 0.5-mile of the subject property.

4.2.2 Local Lists of Landfill/Solid Waste Disposal Sites

EDR searched local databases, including DEBRIS US Region 9, Open Dump Inventory (ODI), Registered Waste Tire and Storage Facility (SWTIRE), Registered Recycling Facilities (SWRCY), and Indian ODI, for local landfill or sold waste disposal sites. No facilities were identified within 0.5-mile of the subject property on any of these databases.

4.2.3 Local Lists of Hazardous Waste/Contaminated Sites

EDR searched the local Clandestine Drug Lab (CDL) and Delisted Hazardous Waste Disposal Site (DEL SHWS) databases. The subject property was not identified on the CDL database; however, it was identified on the DEL SHWS database. No other sites within one mile of the subject property were identified on the DEL SHWS database.

The DEL SHWS listing for the subject property is for Stauffer Chemical Company located on Lawrence Street in Ardsley, New York. The listing indicates that the site is potentially a former landfill and that a preliminary assessment is in progress.

4.2.4 Local Lists of Registered Storage Tanks

Neither the subject property nor any surrounding sites within 0.25-mile were identified on the local storage tanks databases searched by EDR.

4.2.5 Local Land Records

EDR searched the LIENS 2 database, which contains federal CERCLA liens, and the Land Use Control Information System (LUCIS) database which contains records of land use control information relating to the former Navy base realignment and closure. The subject property was not identified on either database. No sites within 0.5-mile were identified on the LUCIS database.

4.2.6 Local Records of Emergency Release Reports

EDR searched the NY SPILLS and HIST NY SPILLS databases for site with records of chemical or petroleum spills. Five sites were identified on the NY SPILLS and/or HIST NY SPILLS databases. The sites are identified in the following table.

Owner/Operator:	Physical Address:	Databases:
OT Delivery Systems	1 Lawrence Street	NY SPILLS
Purdue Pharmaceuticals/CIBA GEIGY Corp.	444 Saw Mill River Road	NY SPILLS/HIST NY SPILLS
Homeowner	2 Colonie Street	NY SPILLS
Akzo (also misspelled ABSCO) Chemical	Livingston Ave. or 1 Livingston Avenue	NY SPILLS/HIST NY SPILLS
Not reported	5 Livingston Avenue	NY SPILLS/HIST NY SPILLS

4.2.7 Former Manufactured Gas (Coal Gas) Sites

Along with the production of large volumes of gas from coke, manufactured gas plants (MGPs) also yielded large quantities of by-products during their operation from 1816 to 1950s, including complex mixtures of coal tars, sludges, oils and other chemicals. Coal tar was the principal by-product of the gasification process. Coal tar and other waste products from the gasification plants were frequently disposed on such sites in unlined pits or in some cases injected underground through injection wells. These practices have left behind subsurface coal tar contamination at many former MGP facilities. Coal tar is the primary waste at MGP facilities. No MGP facilities were identified within one mile of the Site.

4.3 Physical Setting Source(s)

The *USGS White Plains, N.Y. 7.5-Minute Topographic Map (1994)* was reviewed by Sovereign. The subject property lies at approximately 120 to 130 feet above MSL. Topography is relatively level across the Site. The Saw Mill River flows east and southwest across the undeveloped northern portion of the Site and southward within the property's eastern boundary. A copy of the *USGS White Plains, N.Y. 7.5-Minute Topographic Map (1981)* is included with the historic topographic maps in Appendix C.

4.4 Historical Use Information on the Property

Historical property use information was compiled by Sovereign using records obtained from EDR (historical aerial photographs, historical topographic maps, and city directories).

4.4.1 Review of Aerial Photographs

A search conducted by EDR of their historical aerial photograph collection revealed aerial photographs for the years 1953, 1954, 1964, 1966, 1974, 1976, 1985, 1989, 1994, and 2006. Presented below are the dates of the aerial photographs and a summary of all discernable features in each photograph. Copies of the aerial photographs are included in Appendix D.

June 3, 1953

The southern portion of the site is developed with approximately six or seven main structures. Several smaller structures are observed but their use cannot be determined due to the scale of the photograph. A rail spur entered the site from the northwest and

terminated near the center of the developed southern portion of the site. The Saw Mill River is observed in the undeveloped northern portion of the site and along the eastern property boundary.

Rail lines, a wooded corridor, and a roadway border the site to the west. Lawrence Street borders the site to the south followed by a cleared property with one large rectangular structure. Saw Mill River Road and mostly undeveloped land border the site to the east and northeast.

April 20, 1954

No major changes are observed to the site or surrounding properties in comparison to the 1953 aerial photograph.

March 23, 1964

Two or three ASTs may be present in the center portion of the developed plant area. Two additional structures are observed to the north and northeast of the main Pilot Plant in comparison to the 1953 aerial photograph; one near the location of the former office building and the other near the location of a former solvent shed. Several objects are observed in a cleared area in the southeast corner of the site to the east of the Saw Mill River; however, neither these objects nor the activities in that portion of the site can be identified. Additional clearing is observed in the northernmost area of the site on the north and east side of the Saw Mill River; however, the purpose of the clearing is unknown.

Several structures are observed to the east of the site across Saw Mill River Road. In addition, two smaller buildings have been constructed adjacent to the main building at the property immediately south of Lawrence Street. No other changes to the site or surrounding properties are observed on the 1964 aerial photograph in comparison to the 1953-54 aerial photographs.

January 12, 1966

It appears that additional site clearing has occurred in the central portion of the site in the area that is presently the northern parking area. One additional structure, potentially the "storage shed", is observed in the northeast portion of the plant area. No other changes are observed to the site or surrounding properties in comparison to the 1964 aerial photograph.

October 24, 1974

No major changes are observed to the site or surrounding properties on the 1974 aerial photograph in comparison to the 1966 aerial photograph.

October 29, 1976

Due to the poor quality of the 1976 aerial photograph, site-specific features cannot be adequately compared to the 1974 aerial photograph.

March 16, 1985

Due to the poor quality of the 1985 aerial photograph, site-specific features cannot be adequately compared to the 1974 or 1976 aerial photographs.

April 20, 1989

The paved parking area north of the plant area is observed in the 1989 aerial photograph. To the north of the "storage shed" in the northeast plant area, one additional structure is observed. This structure is located near the location of the former Whey Building. No other major changes are observed to the Site or surrounding properties in comparison to the previous aerial photographs.

April 8, 1994

Due to the poor quality of the 1994 aerial photograph, site-specific features cannot be adequately compared to the 1989 aerial photograph.

2006

The structure (Potash Plant) immediately north of Lawrence Street has been removed in the 2006 aerial photograph. This structure has been replaced with a landscaped area. The remainder of the site appears similar to pre-demolition conditions. No other changes are observed to the Site or surrounding properties in comparison to the 1994 aerial photograph.

4.4.2 Sanborn Fire Insurance Maps

A search conducted by EDR of their historical Sanborn Fire Insurance Map collection revealed fire insurance map coverage for the years 1924, 1942, 1950, and 1970. Presented below are the dates of the Sanborn Fire Insurance Maps and a summary of all discernable features from each map. Copies of the fire insurance maps are included in Appendix E.

1924

The site is depicted as Stauffer Chemical Company facility and indicates that admittance and plans were refused. Three structures are depicted on the subject property; at the main Pilot Plant, former Potash Plant, and boiler house. Two tanks (one marked "chemical tank") are located near the southeast corner of the main Pilot Plant building. A double hydrant is located to the south of the main Pilot Plant building. The structure located near the former location of the Potash Plant is labeled as "Main Hall". The boiler room structure is labeled as "Power". The Saw Mill River is observed within the undeveloped north and east potions of the site. A roadway connecting Saw Mill River Road to the east to Eastern Ave to the northwest crosses the northern portion of the property but is labeled as "Not Open".

Rail lines are observed to the west of the subject property followed by Western Avenue and a residential neighborhood. A roadway borders the site to the south (presently Lawrence Street) followed by a structure labeled as "warehouses". Saw Mill River Road and vacant property borders the site to the east and northeast.

1942

The subject property is identified as "Chemical Co. Inc." and it appears that "Stauffer" and the western portion of the site may possibly have been cut off on this map. Seven structures are present in the southwest portion of the subject property; however, none of the buildings are identified. Two rectangular features identified as "reservoirs" are located in the eastern portion of the developed "plant area". It appears that a rail spur entered the northwest site boundary and terminated within the developed portion of the site. The unopened roadway observed in the undeveloped northern portion of the site on the 1924 Sanborn Map is identified as Danforth Avenue on this map.

Lawrence Street is identified bordering the site to the south. No structures are depicted on the property immediately south of Lawrence Street. A rail line and residential area remains to the west of the site. Saw Mill River Road borders the site to the east and northeast.

1950

The subject property is identified as "Stauffer Chemical Company – Manufacturers of Nitrate of Soda and Borax". The map indicates that the facility utilizes gas and steam for heat and electric for power and lights. Seven structures are depicted in the developed

southern portion of the property. Four of the buildings are identified as "Manufacturing", "Nitrate Building", "Power", and "Manufacturing and Storage". The other three buildings are not identified. The two tanks and double hydrant observed on the 1924 map are also depicted on the 1950 map. The rail spur observed on the 1942 map is clearly defined and extends to two areas in the developed plant area.

Lawrence Street borders the site to the south. A double hydrant and six-inch water pipe are observed within Lawrence Street. Beyond Lawrence Street to the south is a single structure identified as "Manufacturing" and "Warehouse". Rail lines, a roadway, and residential area are observed to the west of the site. Saw Mill River Road and several residential dwellings are observed to the east and northeast of the site.

1970

One additional on-site structure is observed adjacent to the north of the main Pilot Plant building. This structure is depicted near the location of the building most recently utilized as offices. No other changes to the site or surrounding properties are observed on the 1970 Sanborn® Map in comparison to the 1950 map.

4.4.3 Review of Historic USGS Topographic Maps

A search conducted by EDR of their historic USGS Topographic Map collection revealed topographic map coverage for the years 1902, 1938, 1967, 1979, and 1994. Presented below are the dates of the USGS Topographic Maps and a summary of all discernable features on each map. Copies of the topographic maps are included in Appendix C.

1902 (Tarrytown)

No development is observed on the subject property. The Saw Mill River flows through the north and east portions of the site. The New York Central Railroad is observed to the west of the subject property.

1938 (White Plains)

The site is developed with two structures, one at the former location of the main Pilot Plant and the other at the location of the former Potash Plant. A single structure is observed to the south of the subject property across the roadway presently known as Lawrence Street which appears on the 1938 map. No other changes are observed to the site in comparison to the 1902 topographic map.

1967 (White Plains)

The southern (plant) portion of the subject property is developed with eight structures. A rail spur is observed entering the northwest site boundary and terminating near the center of the plant area to the east of the main Pilot Plant. No other changes are observed to the site or surrounding properties in comparison to the 1938 topographic map.

1979 (White Plains)

Two additional buildings are observed in the developed (plant) portion of the subject property. No other changes are observed to the site or surrounding properties in comparison to the 1967 topographic map.

1994 (White Plains)

No development is observed on the subject property in the 1994 topographic map. However, site structures were present during this time period and were not demolished until 2008.

4.4.4 Local Street Directories

A search conducted by EDR of all available business directories, cross reference directories, and telephone directories, revealed that 1 Lawrence Street was identified on the 2007 directory as Aspin Wall Worldwide and OT Deliver Inc. The only surrounding property listed was 2 Lawrence Street which was identified as The Wine Enthusiast in the 1997 and 2001 directories. The site and surrounding properties were not listed in any of the sources from 1971 to 1992. A copy of EDR's City Directory Abstract Report is included in Appendix F.

5 SITE INVESTIGATION

5.1 Introduction/Report Organization

The objective of the site investigation was to identify areas of concern and evaluate potential impacts to soil and groundwater quality in those areas. The site investigation focused on areas identified through discussions with Akzo Nobel representatives familiar with the site; performance of a site inspection to identify areas where hazardous materials/substances were potentially used, handled or stored; and review of historical maps of the facility to identify hazardous materials use/handling/storage areas. Preliminary investigative tasks included an inspection of the undeveloped land for the potential presence of stressed ecologic receptors (Section 5.4) and a geophysical survey including GPR and EM surveys to identify potential buried debris, drums, tanks, etc. (Section 5.5). The following areas of investigation were identified through this process and are detailed in Sections 5.6.1 through 5.6.14:

- Pilot Plant Sumps, Drains, and Underground Piping
- Waste Water Treatment Pits
- White House Building/Carbon Disulfide Vaults
- UST Areas
- Hazardous Waste Storage Pad (operated by a large quantity generator) only as a <90 day storage area and Solvent Sheds
- Former Potash Plant
- Former Railcar Loading Area
- Former Septic System
- Pre-Sanitary Sewer Collection Pit
- Former Coal Storage Areas
- Outdoor Equipment Storage Pad
- Debris Pile
- Other Magnetic Anomalies
- Historic Fill/Background Metals

Soil sample location maps and soil quality data tables have been divided into shallow (0-4') and deep (> 4') zones to enable an overview of soil quality. All soil samples collected from inside the former main Pilot Plant structure were shallow and all were collected to

assess soil quality around sumps, drains, and piping beneath the floor of the building. If a soil sample did not contain a contaminant in a concentration that exceeded NYSDEC criteria, the soil boring from which the sample was collected is colored green on the attached maps. If a sample had a contaminant concentration that exceeded its respective NYSDEC criteria, its corresponding soil boring is colored magenta.

Figures

An overview of all soil sampling locations is provided on Figure 2. Soil sampling locations organized by targeted contaminant and color-coded as described above are depicted on the following Figures:

- Figure 3 – Volatile Organic Compound (VOC) Sampling Locations – Shallow Soil Samples (Pilot Plant Building Interior)
- Figure 4 – VOC Sampling Locations – Shallow Soil Samples
- Figure 5 – VOC Sampling Locations – Deep Soil Samples
- Figure 6 – Semi-Volatile Organic Compound (SVOC) Sampling Locations – Shallow Soil Samples (Pilot Plant Building Interior)
- Figure 7 – SVOC Sampling Locations – Shallow Soil Samples
- Figure 8 – SVOC Sampling Locations – Deep Soil Samples
- Figure 9 – Inorganic Sampling Locations – Shallow Soil Samples (Pilot Plant Building Interior)
- Figure 10 – Inorganic Sampling Locations – Shallow Soil Samples
- Figure 11 – Inorganic Sampling Locations – Deep Soil Samples
- Figure 12 – PCB/Pesticides Sampling Locations – Shallow Soil Samples (Pilot Plant Building Interior)
- Figure 13 – PCB/Pesticides Sampling Locations – Shallow Soil Samples
- Figure 14 – PCB/Pesticides Sampling Locations – Deep Soil Samples

A Sediment and Surface Water Sampling Location Map is included as Figure 15. Groundwater Contour Maps for the June 11, 2009 gauging event and June 29, 2009 groundwater sampling event are included as Figures 16 and 17, respectively.

Tables

Soil sample analysis results organized by targeted contaminant are summarized on the following Tables:

- Table 1 – VOCs – Shallow

- Table 2 – SVOCs – Shallow
- Table 3 – Inorganics – Shallow
- Table 4 – Pesticides/PCBs – Shallow
- Table 5 – VOCs – Deep
- Table 6 – SVOCs and Total Petroleum Hydrocarbons (TPH) – Deep
- Table 7 – Inorganics – Deep
- Table 8 – Pesticides/PCBs – Deep

Sediment sample analytical results are included on Table 9. Surface water and groundwater sampling data are included on Tables 10 and 11, respectively.

5.2 Sampling Rationale

Sampling rationale was based on the identified area of concern's potential to affect shallow and/or deep soil. Shallow soil samples consist of those collected from the 0 to 4-foot depth interval. Such samples were collected from a variety of locations where potential soil impact would result from a surface or near-surface release. Examples of such areas include the drum storage areas, drains and piping, historical coal storage areas, etc. Deep soil samples consist of those collected from depths greater than 4 feet below ground surface (bgs). Such samples were collected from locations where potential soil impact would result from a subsurface release. Examples of such areas include wastewater collection pits, wastewater treatment pits, former USTs, former and current UST vaults, and buried debris areas (as indicated by GPR/EM surveys).

Soil sample analytical procedures were generally selected based on the potential contaminants in a given area. For instance, soil samples collected from the former carbon disulfide USTs areas were analyzed for VOCs. However, based on the historic use of the site as a research and development facility and the lack of a comprehensive record of all hazardous materials used, stored, or generated at the property, some of the samples were analyzed for the full range of priority pollutants (PP+40). The PP+40 analyses includes VOCs, SVOCs, priority pollutant metals (including mercury), pesticides, and PCBs.

5.3 Evaluation Criteria

Soil sample analysis results were compared to NYSDEC's Recommended Soil Cleanup Objectives found in Technical and Administrative Guidance Memorandum (TAGM) #4046. The recommended soil cleanup criteria for VOCs are based on protection of groundwater. Cleanup criteria for SVOCs, PCBs and pesticides are health based standards. Cleanup criteria for inorganics (priority pollutant metals) are also health based with allowance for site or state background concentrations. Determination of site background concentrations of priority pollutant metals is required to enable evaluation of the results of analysis of the site investigation soil samples that were analyzed for priority pollutant metals.

Upstream sediment analysis results were compared to the Sediment Criteria for Metals and the Non-Polar Compounds Levels of Protection found in the NYSDEC – Technical Guidance for Screening Contaminated Sediment (1999). The NYSDEC Surface Water Standards were used to evaluate the upstream surface water analysis results. Groundwater data was compared to the New York State Ambient Water Quality Standards and Guidance Values.

5.4 Undeveloped Land Reconnaissance

Land to north and west of the northern parking lot and along the eastern property boundary is heavily vegetated/wooded. An area to the north of the parking area was historically utilized by facility employees as a garden; however none of these areas were ever developed or utilized in plant operations. A branch of the Saw Mill River flows eastward across the northern undeveloped portion of the site and continues southward along the eastern property boundary. The Saw Mill River received permitted discharges and stormwater runoff from the site during its operational history.

In September 2006, Sovereign conducted an inspection of the undeveloped areas of the site. This survey included the visual inspection of the wooded land areas and the surface waters and surrounding floodplain of the Saw Mill River. The NYSDEC defines these areas as "fish and wildlife resource" or "surface water" areas of concern. The inspection focused on the potential presence of wastes and/or any indicators of environmental stress due to unauthorized waste disposal, including stressed vegetation, stained/discolored soil areas, and disturbed/filled areas.

No indications of environmental stress were observed in the undeveloped areas of the site during the September 2006 inspections; therefore, no additional action was taken in regards to these locations.

5.5 Geophysical Survey

A geophysical survey was conducted to inspect for the presence of buried objects (i.e. drums and tanks) and buried wastes/debris areas in September 2006. The geophysical survey included both GPR and EM survey techniques in order to identify both metallic and non-metallic objects and disturbed/filled areas. Specific areas targeted by the survey included the buried railcar (to confirm location and orientation); a suspected subsurface disposal area (sulfur) on the eastern side of the former Potash Plant; the former rail spur; the undeveloped land area and parking lot in the northern portion of the property; and the Hazardous Waste Storage (less than 90 day) Pad (to determine the location and orientation of sanitary sewer and storm water drain lines beneath the pad).

Nine test pits were subsequently excavated at the site based on visual observations and the results of the geophysical survey. The test pit activities were completed on October 12 and 13, 2006.

- Test pits TP-1 through TP-3 were excavated in the parking lot north of the developed portion of the site based on magnetic anomalies detected during the geophysical survey. Sampling details for these test pits are included in Section 5.6.13.
- Test pits TP-4 and TP-5 were excavated near the southeast corner of the former Pilot Plant in order to confirm the location of several of the USTs described in section 5.6.4. Tank T-1 (former registration ID A-9) was encountered in TP-4. This tank was full of sand because it was previously abandoned (circa 1986). Competent concrete was encountered beneath the asphalt surface at test pit TP-5; excavation of a test pit at this location could not be completed.
- Test pit TP-6 was excavated from within the former carbon disulfide UST vault located in the southeast portion of the site adjacent to the north of the former maintenance building. Soil sampling related to this test pit is detailed in Section 5.6.4.1.

- Test pits TP-7 and TP-9 were excavated in the landscaped area located in the southern portion of the subject property. These test pits, completed at the former location of the Potash Plant and a suspected landfill area, are detailed in Section 5.6.6.
- Test pit TP-8 was completed within the elevated former Railcar Loading area in order to visually inspect the material used to build the structure. Details of the test pit activities and associated soil sampling are included in Section 5.6.7.

5.6 Soil Sampling and Analysis

As detailed earlier in this report, the soil investigation was completed in several phases between 2006 and 2009. Soil samples were collected from borings advanced using the direct push (i.e. GeoProbe) sampling technique. During advancement of the borings, soil was logged using the Unified Soil Classification System, visually inspected for the potential presence of contamination and screened for the presence of organic vapors using a photoionization detector (PID) fitted with an 11.7 eV lamp. Soil samples collected from the borings were biased toward the interval indicating the highest PID reading or other indications of contamination (i.e. staining, odors, etc.) if no organic vapors were detected. When no indications of contamination were observed, samples were collected from the base of the boring. If elevated concentrations of organic vapors were detected, the boring was deepened to allow collection of a contingency vertical delineation soil sample. The contingency vertical delineation samples were collected from depths where there was limited potential for contaminants based on field screening results. The contingency samples were placed on hold at the laboratory and were analyzed only if the shallower sample contained concentrations of targeted contaminants in excess of NYSDEC soil cleanup criteria. Upon completion of sampling, soil cuttings were returned to their respective borings and the borings were resurfaced to match pre-existing conditions.

Soil boring logs detailing lithology, field screening readings, and sampling intervals are included as Appendix G. Laboratory analytical data reports for the soil sampling are included as Appendices H through M.

The following sections describe the areas of concern and associated soil sampling and analysis.

5.6.1 Pilot Plant Sumps, Drains, and Underground Piping

With regard to the investigation within the main Pilot Plant, housekeeping and maintenance in these areas appeared to have been very good. Aside from only minor staining in a few areas, there was no indication of significant releases of hazardous materials/substances. Therefore, the primary focus of the investigation of these areas was wastewater collection points such as floor drains, catch basins and collection sumps and cracked and/or deteriorated concrete in hazardous materials handling areas. The actual frequency of soil sampling within the Pilot Plant building was based on review of process waste piping plans and a detailed inventory of drains/basins/sumps during the preliminary reconnaissance.

Pilot Plant building details and sampling locations are depicted on the VOC, SVOC, Inorganic, PCB/Pesticides Sampling Location maps, included as Figures 3, 6, 9, and 12, respectively.

5.6.1.1 Area Scrubber

The Area Scrubber was located outdoors near the northwest corner of the main Pilot Plant building as depicted on Figure 3. The scrubber was a caustic-based counter current flow system that handled primarily particulates and srubbable VOCs, although virtually all pilot processes utilized the scrubber. Scrubber effluent was collected in a sump which pumped to the wastewater pre-treatment pits prior to discharge to the sanitary sewer.

One soil boring (SB-11) was installed adjacent to the sump using the direct push (i.e. GeoProbe) sampling technique to a depth of 8 feet below ground surface. This depth correlated with the actual depth of the sump as determined in the field prior to commencement of soil sampling. In addition, three borings (SB-22 through SB-24) were advanced at locations from the unpaved area on the west side of this unit; these sampling locations were along the adjacent/off-site railroad tracks. Soil samples were collected from the 0.5 to 1-foot depth interval at these three locations in order to evaluate for potential shallow soil contamination from scrubber air emissions. Subsurface soil sample SB-11 was analyzed for PP+40 while samples SB-22 through SB-24 were analyzed for SVOCs and priority pollutant metals.

Laboratory analytical results indicated that no targeted VOCs, SVOCs, pesticides or PCBs were detected at concentrations exceeding the laboratory method detection limits

(MDLs) at SB-11. However, several metals, including chromium, nickel, and zinc, were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives at this location. SB-11 analytical results are included on Tables 5 through 8.

At borings SB-22 through SB-24, elevated concentrations of SVOCs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. The inorganic compounds beryllium, chromium, copper, lead, mercury, nickel, selenium, and/or zinc were also detected in one or more of these samples at concentrations above the NYSDEC standards. Laboratory analytical results for samples SB-22 through SB-24 are included on Tables 2 and 3.

5.6.1.2 Mini Lab

The Mini Lab was located in the northern end of the main Pilot Plant building as depicted on Figure 3. The lab had a floor drain near the center of the room and trench drains beneath the fume hoods.

Two soil borings were installed in the Mini Lab on October 5, 2006. One boring (SB-57) was advanced near the sump pit within the Mini Lab analytical lab area. The second boring (SB-58) was advanced adjacent to the sump pit in the main Mini Lab area. Soil samples were collected from 0 to 2 feet bgs at each boring location and submitted for VOCs, SVOCs, priority pollutant metals, pesticides, and PCBs analyses.

No VOCs were detected in either sample at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Several SVOCs, including benzo(a)anthracene, benzo(a)pyrene, chrysene, and/or dibenzo(a,h)anthracene were detected at SB-57 and SB-58 at concentrations exceeding the NYSDEC standards. In addition, numerous priority pollutant metals at both sampling locations, the PCB Aroclor 1242 (5.25 mg/kg) at SB-57, and the pesticide dieldrin (4.56 mg/kg) at SB-58 were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Laboratory analytical results for samples SB-57 and SB-58 are included on Tables 1 through 4.

5.6.1.3 Catalyst Pilot Plant

The Catalyst Pilot Plant, formerly known as the "organic module", was located adjacent to the Mini Lab in the northern portion of the main Pilot Plant building as depicted on Figure 3. In addition to trench drains throughout the area, several areas of concrete floor repairs were observed.
Three soil borings (SB-59 through SB-61) were installed in the Catalyst Pilot Plant on October 5, 2006. The borings were biased towards the three floor drains located within this area. Shallow samples (0 to 0.5 feet bgs) were collected from borings SB-59 and SB-60 and were submitted for SVOCs and priority pollutant metals analyses. At boring SB-61, samples were collected from the 0 to 2-foot depth interval and were analyzed for VOCs, SVOCs, priority pollutant metals, pesticides, and PCBs.

Numerous SVOCs and metals were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives in all three samples with the highest concentrations exhibited at SB-59. No VOCs or pesticides were detected at concentrations exceeding the NYSDEC standards at SB-61. The PCB Aroclor 1254 was detected at a concentration of 1.94 mg/kg at SB-61. This concentration exceeds the NYSDEC standard of 1 mg/kg for Aroclor 1254.

Laboratory analytical results for samples SB-59 and 60 are included on Tables 2 and 3. SB-61 analytical results are presented on Tables 1 through 4.

5.6.1.4 MPPP (Multi-Purpose Pilot Plant)

The MPPP was located in the northwest corner of the main Pilot Plant building as depicted on Figure 3. All chemicals made at the facility during Akzo Nobel's operations were handled in this room. A floor drain was observed near the approximate center of the MPPP.

One soil boring (SB-62) was installed adjacent to the floor drain in the MPPP on October 5, 2006. A subsurface soil sample was collected from the 0 to 2-foot depth interval and was submitted for analysis for VOCs, SVOCs, priority pollutant metals, pesticides, and PCBs.

No VOCs, SVOCs, PCBs, or pesticides were detected at SB-62 at concentrations exceeding the NYSDEC Soil Cleanup Objectives. However, several priority pollutant

metals, including cadmium, chromium, copper, mercury, nickel, and zinc were detected at levels above the state standards. Laboratory analytical results for sample SB-62 are presented on Tables 1 through 4.

5.6.1.5 FAPP (Fatty Amines Pilot Plant)

The FAPP was located near the Catalyst Pilot Plant in the northern portion of the main Pilot Plant building as depicted on Figure 3. The FAPP was built in 1992 and was used for pilot manufacturing of surfactants and other organic nitrogen compounds. The FAPP had two floor drains. The yard area of the FAPP contained a scrubber, trenches, and a collection sump which routed waste water to the adjacent waste water treatment pits.

Three soil borings (SB-65 through SB-67) were installed in the FAPP area on October 5, 2006. Two of the borings (SB-65 and SB-67) were installed adjacent to the floor drains inside the FAPP. Subsurface soil samples were collected from each boring from the 0 to 2-foot depth interval and submitted for VOCs and SVOCs analyses. The third boring (SB-66) was installed near the collection sump near the southeast corner of the FAPP yard. This boring was extended to a depth of approximately 2 feet bgs; however, no soil was recovered upon retrieval of the sampling equipment due to an obstruction in the sample retrieval device. Therefore, no samples were collected from boring SB-66.

No VOCs were detected at either SB-65 or SB-67 at concentrations exceeding the NYSDEC Soil Cleanup Objectives. However, the SVOCs benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene were detected at both locations at concentrations exceeding the state standards. Laboratory analytical results for samples SB-65 and SB-67 are included on Tables 1 and 2.

5.6.1.6 MFED (Multi-Function Engine Detergents) Lab

The MFED lab was located in the southeast corner of the main Pilot Plant building as depicted on Figure 3. Three floor drains and a small amount of hazardous material storage were observed in this area during the site inspection.

Three soil borings (SB-82 through SB-84) were installed in the MFED area on May 28, 2009. The borings were located adjacent to each of the three floor drains and were extended to approximately 8 to 10 feet bgs. Shallow samples (SB-82A through SB-84A)

were collected from beneath the concrete pad at a depth of 1 to 1.5 feet bgs and were submitted for SVOCs analysis. Additionally, samples SB-82B through SB-84B were collected from depths of 2.5 to 4 feet bgs, approximately 18 to 24 inches below the floor drains, and were submitted for VOCs analysis.

The SVOCs benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene were detected at SB-82A and SB84A at concentrations exceeding the state standards. Only benzo(a)pyrene exceeded the NYSCDEC Soil Cleanup Objectives at SB-83A. No VOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives in samples SB-82B through SB-84B. Samples SB-82 through SB-84 laboratory analytical results are included on Tables 1 and 2.

5.6.1.7 Inorganics Area/Propylene Module

The Propylene Module, also known as the Polytest Area, was located in the southwest corner of the main Pilot Plant building as depicted on Figure 3. A pit was located in room 4-9-2 in this area. In addition, several floor drains were located in this area near the entrance to room 4G and to the east of room 4G.

Two soil borings (SB-85 and SB-86) were installed adjacent to the floor drains described above on May 28, 2009. In addition, one soil boring (SB-87) was advanced adjacent to the pit in this area. The borings were extended to approximately 8 to 10 feet below ground surface. Samples SB-85A through SB-87A were collected from shallow depths beneath the concrete pad (0.5 to 1.5 feet bgs) and were submitted for SVOC analysis. Samples SB-85B through SB-87B were collected from all three borings at depths ranging from 2.5 to 4 feet bgs, approximately 18 to 24 inches below the drains/pit.

No VOCs or SVOCs were detected in samples SB-85 through SB-87 at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Laboratory analytical results for samples SB-85 through SB-87 are included on Tables 1 and 2.

5.6.1.8 Polymer Module

The Polymer Module was located in the central portion of the main Pilot Plant building north of the Propylene Module and south of the MPPP as depicted on Figure 3. Various

organic compounds including acrylonitrile, styrene, and carbon tetrachloride were handled in this area.

On October 5, 2006, three soil borings (SB-68 through SB-70) were installed adjacent to the floor drains observed in this area. Based on field screening with a PID and visual observations, samples were only collected from boring SB-70. Soil samples collected from 0 to 2 feet bgs at this location were submitted for SVOCs and VOCs laboratory analyses.

No VOCs were detected at SB-70 at concentrations exceeding the NYSDEC Soil Cleanup Objectives. However, the SVOCs benzo(a)anthracene, benzo(a)pyrene, and dibenzo(a,h)anthracene were detected at SB-70 at concentrations exceeding the state standards. Laboratory analytical results for sample SB-70 are included on Tables 1 and 2.

5.6.1.9 Crystex Module/Maintenance Shop

The Crystex Module was located along the eastern wall of the main Pilot Plant building as depicted on Figure 3. The Crystex Module was active from the late 1970s through the mid 1980s. Carbon disulfide and process oil were formerly used in this area.

On October 6, 2006, one soil boring (SB-71) was installed adjacent to a floor drain clean out located in the eastern portion of the maintenance shop. This shop was located adjacent to the Crystex Module and the boring was completed near the intersection of the floor drains that served both the Crystex Module and maintenance shop. Subsurface soil samples were collected from 0 to 2 feet bgs at SB-71 and submitted for SVOCs and VOCs laboratory analyses.

The results of the laboratory analyses indicated that no VOCs or SVOCs were detected in sample SB-71 at concentrations exceeding the NYSDEC Soil Cleanup Objectives (See Tables 1 and 2).

5.6.1.10 Mini Lab Sump

A sump was located adjacent to the analytical lab located at the northern end of the former Pilot Plant. This sump collected waste from the former Mini Lab and analytical lab.

On October 2, 2006, one soil boring (SB-10) was completed adjacent to the slop tank sump. Subsurface soil samples were collected from approximately 7 to 8 feet bgs and submitted for laboratory analysis for PP+40.

Results of the laboratory analysis indicated that no VOCs were detected at SB-10 at concentrations exceeding the laboratory MDLs. Benzo(a)pyrene was the only SVOC detected at SB-10 at a concentration exceeding the NYSDEC Soil Cleanup Objectives. In addition, several metals, including arsenic, chromium, mercury, selenium, and zinc were also detected above the NYSDEC standards. Most notably, the pesticides dieldrin (6.47 mg/kg), 4,4'-DDE (7.06 mg/kg), and 4,4'-DDT (35.5 mg/kg) were detected at levels above the NYSDEC Soil Cleanup Objectives of 0.044 mg/kg, 2.1 mg/kg, and 2.1 mg/kg, respectively for these compounds. Laboratory analytical results for sample SB-10 are presented on Tables 5 through 8.

Based on these results, five borings (SB-10A and SB-77 through SB-80) were completed on May 27, 2009 to delineate the vertical and horizontal extents of the elevated pesticide concentrations observed in boring SB-10. One boring was completed at the location of the original SB-10 and was extended to a depth of 20 feet bgs. Sample SB-10A was collected from a depth of 12-12.5 feet bgs and a contingency sample, SB-10B, was collected at 18-18.5 feet bgs. Both samples were submitted for dieldrin, 4,4'-DDE, and 4,4'-DDT analysis. Dieldrin, 4,4'-DDE and 4,4'-DDT were detected in sample SB-10A but the concentrations were all below the NYSDEC Soil Cleanup Objectives for these compounds. Therefore, vertical delineation of the pesticides at SB-10 was completed at 12 to 12.5 feet bgs and subsequently, contingency sample SB-10B was not analyzed. Table 8 includes the complete laboratory analytical results for sample SB-10A.

In order to accomplish horizontal delineation, borings SB-77 (west), SB-78 (east), SB-79 (north), and SB-80 (south) were installed approximately 12 to 15 feet from boring SB-10 in the direction indicated. Boring SB-77 was extended to 20 feet bgs while borings SB-78 through SB-80 were completed at 8 feet bgs. One sample was collected from each boring at 7.5 to 8 feet bgs and submitted for analysis for dieldrin, 4,4'-DDE, and 4,4'-DDT.

The laboratory analytical results indicated that dieldrin was detected at SB-77, SB-79, and SB-80 at concentrations below the NYSDEC Soil Cleanup Objectives. Dieldrin was not detected above the laboratory MDLs at SB-78. 4,4'-DDE and 4,4'-DDT were only

detected in sample SB-79; however, the concentrations of these compounds at this location were below the NYSDEC Soil Cleanup Objectives. Based on these results, horizontal delineation of the elevated pesticide concentrations at SB-10 has been completed. The laboratory analytical results for samples SB-77 through SB-80 are included on Table 8.

5.6.1.11 Powder Materials Room

The powder materials room was located in the eastern portion of the former Pilot Plant. Wastes collected in this room were directed by a floor drain to a sump just outside of the powder room.

On October 6, 2006, one boring (SB-72) was completed adjacent to the floor drain collection area in the former powder room. The boring was extended to a depth of 2 feet bgs and subsurface soil samples were collected from the 0 to 2-foot depth interval. The samples were submitted for PP+40 analyses.

The laboratory analytical results indicated that no VOCs or SVOCs were detected in sample SB-72 at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Several priority pollutant metals, including cadmium, chromium, copper, lead, nickel, and zinc, were detected at concentrations above the state standards. The only pesticide detected in sample SB-72 was toxaphene which was detected at a concentration of 1.3 mg/kg. PCBs were not detected in sample SB-72. Complete laboratory analytical results for sample SB-72 are included on Tables 1 through 4.

5.6.1.12 AutoClave Module 5 Area

AutoClave Module 5 was located in the eastern portion of the former Pilot Plant between the powder room and the waste water treatment pits.

One boring (SB-73) was completed within the AutoClave Module 5 room on October 6, 2006. The boring was completed to a depth of 2 feet and subsurface soil samples were collected from the 0 to 2-foot depth interval. Samples were collected for VOCs, SVOCs, and priority pollutant metals analyses.

Laboratory analytical results indicate that no VOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. However, several SVOCs (benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene) and mercury were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Sample SB-73 laboratory analytical results are included on Tables 1 through 3.

5.6.2 Waste Water Treatment Pits

The Waste Water Treatment Pits were located on the eastern side of the main Pilot Plant building between the FAPP yard and Crystex Module as depicted on Figure 3. This feature originally held water for fire suppression purposes. The pits were later retrofitted to collect and treat (pH adjust) waste water from various plant processes prior to discharge to the sanitary sewer system. Visual inspection of the walls of the pits revealed no obvious breaches of integrity such as cracks, penetrations, or deterioration/spalling.

On October 3, 2006, three soil borings, SB-37 through SB-39, were installed adjacent to the east, south, and west sides of the wastewater pits (formerly referred to as Fire Pits), respectively. The borings were completed to a depth of 12 feet bgs, the approximate depth of the pits. Subsurface soil samples were collected from the 9 to 10-foot depth interval at boring SB-37 and at the 11 to 12-foot depth interval at borings SB-38 and SB-39. Sample depths were biased to the only indication of potential contamination - a sewage odor was noted at the sampling depths in each boring. The samples were submitted for laboratory analysis for PP+40.

Tetrachloroethene was detected at a concentration of 7.83 mg/kg in sample SB-38, exceeding the NYSDEC Soil Cleanup Objective of 1.4 mg/kg for this compound. No other VOCs were detected at concentrations exceeding the state standards at SB-37 through SB-39. Benzo(a)pyrene and dibenzo(a,h)anthracene were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives at SB-39. No other SVOCs were detected at concentrations above the state standards at these boring locations. Numerous metals were detected in each of the Waste Water Treatment Pit borings exceeding the NYSDEC Soil Cleanup Objectives. No PCBs or pesticides were detected above the laboratory MDLs at SB-37 or SB-39. Dieldrin, 4,4'-DDE, and endrin were detected at SB-38 but only the concentration of dieldrin (0.451 mg/kg) exceeded the

state standard (0.044 mg/kg for dieldrin). Laboratory analytical results for samples SB-37 through SB-39 are included on Tables 5 through 8.

5.6.3 White House Building/Carbon Disulfide Vaults

Historical facility plans and Sanborn maps indicated that a concrete vault containing carbon disulfide tanks was originally located near the southeast corner of the main Pilot Plant building as depicted on Figure 1. The carbon disulfide tanks were apparently removed, the vault was backfilled, and a structure referred to as the White House Building was erected at this location, possibly using the vault walls as the building foundation. The White House Building was used for storage of maintenance supplies, equipment, and some chemicals. A pit was observed along the eastern wall of the building. The floor of the building was in disrepair and there was evidence of petroleum staining.

One soil boring (SB-49) was installed in the stained area within the footprint of the former White House building on October 4, 2006. This boring was advanced to the depth of refusal, 5.5 feet bgs. Shallow samples (SB-49A) were collected from the 0 to 4-foot depth interval and submitted for laboratory analysis for VOCs, SVOCs, priority pollutant metals, and PCBs. One sample (SB-49B) was collected at a depth of 5 to 5.5 feet bgs from boring SB-49 and was submitted for VOCs analysis.

In addition, eight borings (SB-43 through SB-48, SB-55, and SB-56) were installed around the perimeter of the White House Building to determine whether potential impacts detected within the building footprint were contained by the former carbon disulfide tank concrete vault beneath the building. The perimeter borings were extended to a depth of 16 feet bgs. Soil samples were collected from these borings at depths ranging from 12.5 to 16 feet bgs and were submitted for laboratory analysis for VOCs.

The laboratory analytical results indicated VOC impacts within the White House building footprint associated with sample SB-49B. At this location, benzene (1.46 mg/kg), carbon disulfide (1,150 mg/kg), tetrachloroethene (23.9 mg/kg), toluene (3.68 mg/kg), and xylenes (173 mg/kg) were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality. At the perimeter borings, one or more of the VOCs carbon disulfide, methylene chloride, and/or tetrachloroethene were detected at seven of the eight locations; however, none of the concentrations of these

compounds exceeded the NYSDEC Soil Cleanup Objectives. These results indicated that VOC-impacted soil within the former carbon disulfide vault is contained therein. Laboratory analytical results for sample SB-49A are included on Tables 1 through 4. Results for samples SB-43 through SB-48, SB-49B, SB-55, and SB-56 are presented on Table 5.

5.6.4 UST Areas

USTs at the former pilot plant were investigated in two separate phases. Soil borings were installed around several abandoned-in-place USTs and former UST areas in October 2006 to investigate for potential impacts resulting from these UST systems. In July and August of 2008, several USTs were removed at the site during site demolition activities. Tanks A-1 through A-4 and A-6 were closed under a Petroleum Bulk Storage Permit (PBS Number 3-800132) issued by the Westchester County Department of Health. In addition, three previously abandoned-in-place USTs (A-5, A-8, and A-9) were removed at this time. An additional UST encountered during demolition activities (Tank A-8), was also removed during this time period. Details of the investigations are provided in the following sections.

5.6.4.1 Fuel Oil/Carbon Disulfide UST Areas (Tanks A-1 through A-4)

Four 10,000 gallon heating oil (#6) USTs (tanks A-1 through A-4) were formerly located in the eastern portion of the property to the north of the former maintenance shop. The UST system was still in service as of 2006. Akzo indicated that these tanks historically stored carbon disulfide and were converted for fuel oil storage during plant operation. The tanks were located within a concrete vault which was inspected by the Westchester County Health Department on July 16, 2008. The Westchester County Health Department deemed the vaults competent and indicated that sampling was not required during the UST removal process for these tanks. In addition, historic facility plans indicate a second vault directly adjacent to the north of the maintenance shop which reportedly contained three 20,000-gallon carbon disulfide tanks during historic site operations.

Nine soil borings (SB-28 through SB-36) were installed around the perimeters and between the two vault areas on October 3, 2006. The borings were extended to depths equivalent to the depth of the existing UST inverts which varied given grade changes in

the area. Subsurface soil samples were collected from SB-28 through SB-36 at depths ranging from 11.5 to 16 feet bgs. Soil samples SB-29, SB-30, and SB32 through SB-34 were submitted for laboratory analysis for VOCs only. Samples SB-35 and SB-36 were analyzed for VOCs, SVOCs, and TPH. The samples collected from borings SB-28 and SB-31 were not analyzed based on field screening measurements and visual observations which did not indicate the potential presence of contamination.

The laboratory analytical results indicated that acetone was detected at SB-29 (0.284 mg/kg) and SB-34 (0.132 mg/kg) at concentrations exceeding the NYSDEC Soil Cleanup Objective to Protect Groundwater Quality of 0.11 mg/kg for acetone. No other VOCs were detected at concentrations exceeding the state standards for this area. At borings SB-35 and SB-36, one or more SVOCs including benzo(a)anthracene, benzo(a)pyrene, and/or dibenzo(a,h)anthracene were detected at concentrations exceeding the state standards. TPH was detected at borings SB-35 and SB-36 at respective concentrations of 52.5 mg/kg and 261 mg/kg. Laboratory analytical results for samples SB-29, SB-30, and SB32 through SB-34 are included on Table 5. Results for samples SB-35 and SB-36 are presented on Tables 5 and 6.

The vault immediately north of the former maintenance building had previously been backfilled. On October 13, 2006, one test pit (TP-6) was excavated from within the vault in order to inspect the backfill material. Samples were collected from 8 to 8.5 feet bgs from TP-6 and submitted for PP+40 laboratory analysis. Analytical results indicated that only SVOCs and priority pollutant metals were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Most notably, lead was detected at a concentration of 10,200 mg/kg. Laboratory analytical results for samples TP-6 are included on Tables 5 through 8.

On May 27, 2009, one soil boring (SB-81) was installed adjacent to the southeast corner outside of the former UST vault. Samples were collected from 2.5 to 3 feet bgs (SB-81A) and 7.5 to 8 feet bgs (SB-81B) at this location and were submitted for lead analysis. Lead was detected in samples SB-81A and SB-81B at concentrations of 9.6 mg/kg and 38.5 mg/kg, respectively (See Tables 3 and 7, respectively). These concentrations are similar to the background concentrations observed in sample SB-76; therefore, it appears that the elevated lead concentrations observed at test pit location TP-6 are localized within the vault area.

5.6.4.2 Former 2,000-Gallon Fuel Oil UST (Tank A-9)

A 2,000-gallon fuel oil UST was formerly located in the southern end of the site adjacent to the northwest corner of the former boiler house. This tank was historically registered as tank A-9 and is referred to as tank T-1 in the March 13, 2009 UST Closure Report prepared by Sovereign (Appendix N).

One soil boring (SB-40) was installed at this location on October 3, 2006. Subsurface samples were collected from 10 to 12 feet bgs and submitted for VOCs, SVOCs, and petroleum hydrocarbons analyses. No VOCs or SVOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Petroleum hydrocarbons were detected at a concentration of 83.2 mg/kg. Laboratory analytical results for sample SB-40 are included on Tables 5 and 6.

In July 2008, UST T-1 (a.k.a. A-9) was emptied, cleaned, and removed by AAA Environmental during site demolitions activities. Sovereign collected three tank centerline samples and a composite excavation sidewall sample from the T-1 UST pit on July 18, 2008. The samples were submitted for laboratory analysis for PAHs. Results of the analyses indicated PAH concentrations above the NYSDEC TAGM #4046 direct contact Recommended Soil Cleanup Objective and the Soil Cleanup Objective to Protect Groundwater in the samples collected from the eastern portion of the tank excavation.

Based on these results, soil from the eastern portion of the UST T-1 excavation was removed and stockpiled for subsequent off-site disposal on August 19, 2008. Three post-remediation soil samples were collected and submitted for PAH analysis in accordance with the NYSDEC Petroleum-Contaminated Soil Guidance Policy, (STARS) Memo #1. Results of the post-remediation sampling indicated that no PAHs were detected at concentrations exceeding the NYSDEC TAGM #4046 direct contact Recommended Soil Cleanup Objective or the Soil Cleanup Objective to Protect Groundwater; therefore, no further remediation was conducted.

Details of the sampling and remediation activities for UST T-1 are included in the March 13, 2009 UST Closure Report, included as Appendix I. The April 27, 2009 Westchester County Department of Health correspondence, indicating that no further action is required for this location, is included as Appendix O.

5.6.4.3 Former 5,000-Gallon Fuel Oil UST (Tank A-5)

A 5,000-gallon fuel oil UST was historically located in the center portion of the site along the rail spur to the east of the main pilot plant. This tank was historically registered as tank A-5 and is referred to as tank T-2 in the March 13, 2009 UST Closure Report prepared by Sovereign.

Two soil borings (SB-20 and SB-21) were installed at this location on October 2, 2006. Subsurface soil samples were collected from 8.5 to 11 feet bgs at SB-20 and 11.5 to 12 feet bgs at SB-21. These samples were submitted for SVOCs and petroleum hydrocarbons analyses. Laboratory analytical results indicated that benzo(a)pyrene at SB-20 and naphthalene at SB-21 were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. In addition, petroleum hydrocarbons were detected at concentrations of 11,900 mg/kg and 20,800 mg/kg at SB-20 and SB-21, respectively. Laboratory analytical results for samples SB-20 and SB-21 are included on Table 6.

In July 2008, UST T-2 was emptied, cleaned, and removed by AAA Environmental during site demolitions activities. Petroleum-stained soil and organic vapors were observed in the southern end of the excavation, therefore, the excavation was enlarged toward the south prior to post-excavation sampling. Due to perched water present in the bottom of the tank excavation, eight soil samples were collected from the base of the excavation sidewalls (two per sidewall). The samples were submitted for laboratory analysis for PAHs in accordance with the NYSDEC STARS guidance. Results of the analyses indicated PAH concentrations above the NYSDEC TAGM #4046 direct contact Recommended Soil Cleanup Objective and the Soil Cleanup Objective to Protect Groundwater in the samples collected from the southern portion of the tank excavation.

Based on these results, additional soil from the southern portion of the UST T-2 excavation was removed and stockpiled for subsequent off-site disposal on August 19, 2008. Two post-remediation soil samples were collected and submitted for PAH analysis. Results of the post-remediation sampling indicated that no PAHs were detected at concentrations exceeding the NYSDEC TAGM #4046 direct contact Recommended Soil Cleanup Objective or the Soil Cleanup Objective to Protect Groundwater; therefore, no further remediation was conducted at this location.

Details of the sampling and remediation activities for UST T-2 are included in the March 13, 2009 UST Closure Report, included as Appendix I. The April 27, 2009 Westchester

County Department of Health correspondence, indicating that no further action is required for this location, is included as Appendix O.

Based on the TPH concentrations detected in the October 2006 samples from this area, vertical delineation samples SB-20A and SB-21A were collected from these locations on May 27, 2009. The subsurface soil samples were collected from a depth of 15.5 to 16 feet bgs and were submitted for petroleum hydrocarbons analysis. Results of the analyses indicated that petroleum hydrocarbons were not detected at concentrations exceeding the laboratory MDLs in the vertical delineation samples (see Table 6).

5.6.4.4 Former Buried Railcar (Tank A-6)

A buried railcar was discovered by Akzo during installation of a nitrogen tank near the northeast corner of the main Pilot Plant building. This tank was historically registered as tank A-6 as is referred to as tank T-3 in the March 13, 2009 UST Closure Report prepared by Sovereign. Given its proximity to the main Pilot Plant building, it was filled with sand and left in place in the 1980s.

During the geophysical survey, the location and orientation of the railcar were confirmed. Two soil borings (SB-53 and SB-54) were installed adjacent to the railcar on October 5, 2006. Boring SB-53 was advanced on the west side of the railcar closest to the former Pilot Plant while SB-54 was installed adjacent to the east of the tank. Subsurface soil samples were collected from depths of 12 to 14 feet bgs, the approximate invert depth of the railcar, and were submitted for petroleum hydrocarbons and PP+40 analyses.

Results of the laboratory analyses indicated that the VOCs benzene and xylenes and the metals chromium, nickel, and zinc were detected at concentrations exceeding their respective NYSDEC Soil Cleanup Objectives in both samples. Petroleum hydrocarbons were detected at SB-53 and SB-54 at respective concentrations of 39.7 mg/kg and 73.7 mg/kg. No SVOCs, PCBs, or pesticides were detected at either location at concentrations above the NYSDEC Soil Cleanup Objectives. The full laboratory analytical results for samples SB-53 and SB-54 are included on Tables 5 through 8.

In July 2008, UST T-3 (a.k.a. A-6) was emptied, cleaned, and removed by AAA Environmental during site demolitions activities. Based on visual observations and field screening readings, over-excavation was conducted to the furthest extent possible without impairing the structural integrity of the surrounding structures. Six post-remediation

sidewall samples and one composite floor sample were collected from the base of the resultant excavation. The samples were submitted for laboratory analysis for PAHs in accordance with the NYSDEC STARS guidance. Results of the analyses indicated concentrations of several PAHs above the NYSDEC TAGM #4046 direct contact Recommended Soil Cleanup Objective at six of the seven post-excavation sampling locations. In addition, benzo(b)fluoranthene and chrysene were detected at concentrations slightly above the NYSDEC Soil Cleanup Objective to Protect Groundwater in one or more samples. However, in accordance with TAGM #4046, the sum of the detected PAH concentrations in all samples was less than 500 mg/kg and all individual PAH concentrations were less than 50 mg/kg.

Details of the sampling and remediation activities for UST T-3 are included in the March 13, 2009 UST Closure Report, included as Appendix I. The April 27, 2009 Westchester County Department of Health correspondence, indicating that no further action is required for this location, is included as Appendix O.

5.6.4.5 Former 550-Gallon Gasoline UST

A 550-gallon gasoline UST was historically located near the former loading dock in the southwestern portion of the site. Two borings (SB-50 and SB-51) were installed at this location on October 4, 2006. Both samples were collected from a depth of 11 to 11.5 feet bgs and were submitted for VOCs analysis.

Results of the analyses indicated that ethylbenzene and xylenes were detected at both SB-50 and SB-51 at concentrations exceeding the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality. Laboratory analytical results for samples SB-50 and SB-51 are included on Table 5.

5.6.4.6 Former 2,000-Gallon Fuel Oil UST (Tank A-8)

On August 19, 2008, a 2,000-gallon fuel oil UST was discovered during soil remediation (excavation) activities relative to UST T-1 (A-9). This tank was historically registered as tank A-8 and is referred to as tank T-4 in the March 13, 2009 UST Closure Report prepared by Sovereign (Appendix N).

On August 27, 2008, UST T-4 was removed from the ground by AAA Environmental. The tank appeared to have been previously abandoned-in-place as it was filled with sand. The tank, which was constructed of steel, appeared to be in good condition; no holes were observed.

Three post-excavation tank centerline samples and a composite sidewall sample were collected from the UST pit. The samples were submitted for laboratory analysis for PAHs in accordance with the NYSDEC STARS guidance. Results of the analyses indicated that the post-excavation centerline samples did not contain concentrations of PAHs above the NYSDEC Soil Cleanup Objective to Protect Groundwater. However, benzo(a)pyrene was detected in one centerline sample at a concentrations exceeding the NYSDEC direct contact Recommended Soil Cleanup Objective. In addition, several PAH compounds were detected in the composite sidewall sample at concentrations exceeding the NYSDEC direct contact Recommended Soil Cleanup Objective and Soil Cleanup Objective to Protect Groundwater. However, in accordance with TAGM #4046, the sum of the detected PAH concentrations in all samples was less than 500 mg/kg and all individual PAH concentrations were less than 50 mg/kg.

Details of the tank removal and sampling activities for UST T-4 are included in the March 13, 2009 UST Closure Report, included as Appendix I. The April 27, 2009 Westchester County Department of Health correspondence, indicating that no further action is required for this location, is included as Appendix O.

5.6.5 RCRA Storage Pad and Solvent Sheds

Historic site drawings indicated the existence of a former 30 foot by 16 foot solvent storage shed located in the central portion of the site northeast of the main Pilot Plant. On October 2, 2006, three soil borings (SB-6 through SB-8) were installed at this location. Subsurface soils samples were collected from each boring from depths ranging from 2 to 3 feet bgs and were submitted for VOCs analysis. Results of the laboratory analysis indicated that no VOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives at the former solvent shed location (see Table 1).

The original solvent shed was removed during plant operations and replaced with the more recent RCRA Storage Pad/Solvent Shed. The RCRA Storage Pad and adjoining Solvent Shed were formerly located in the east/central portion of the property. The

storage pad was covered by a relatively new roof structure which was constructed within the last several years. The concrete pad and berm were also relatively new. Two large diameter manholes were observed in the storage pad area. A county sewer line traverses this area and one of the manholes is associated with the sewer system. The second manhole is believed to be a collection point for stormwater which formerly drained to the Waste Water Treatment Pits for treatment.

The perimeter of the RCRA Storage Pad and Solvent Shed area was assessed by installing two or three borings along the north, west, and south sides of the pad/shed area (eight borings total, SB-12 through SB-19). The eastern side of the pad/shed area abutted the steep-sloped and wooded perimeter of the plant and could not be accessed for sampling. The borings were spaced along each side as depicted on Figure 3. The objective of the perimeter borings was to collect soil samples to determine whether soil was adversely affected by pad runoff prior to construction of the roof and new concrete berm. In addition, one soil boring (SB-52) was installed adjacent to a sump in the storage pad area and two borings (SB-74 and SB-75) were installed near cracks in the storage shed floor.

The perimeter soil samples, SB-12 through SB-19, were collected from depths ranging from 1 to 4 feet bgs and were submitted for VOCs analysis. At boring SB-16, installed along the west side of the former storage pad, tetrachloroethene was detected at a concentration of 98.8 mg/kg which exceeds the NYSDEC Soil Cleanup Objective to Protect Groundwater Quality of 1.4 mg/kg for this compound. No other VOCs were detected at concentrations exceeding the state standards from the perimeter soil borings. Laboratory analytical results for samples SB-12 through SB-19 are included on Table 1.

Adjacent to the former pad sump, sample SB-52 was collected from a depth of 6.5 to 7 feet bgs and was submitted for VOCs analysis. Low levels of chloroform, methylene chloride, and tetrachloroethene were detected at SB-52, but none of the concentrations exceeded the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality (see Table 5).

Samples SB-74 and SB-75, collected from adjacent to floor cracks observed in the RCRA shed, were submitted for laboratory analysis for PP+40. No VOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives at this location. Several SVOCs, including benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene, were detected at SB-74 and/or SB-75 at concentrations above the

state standards. In addition, several metals at both locations, the PCB aroclor 1254 at SB-74, and the pesticide dieldrin at SB-75 were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives. Sample SB-74 and SB-75 laboratory analytical results are included on Tables 1 through 4.

5.6.6 Former Potash Plant

The former Potash Plant was located in the southern portion of the site which is currently a landscaped area. A former landfill/disposal area was suspected to be located in this area prior to construction of the Potash Plant. A geophysical survey was completed in October 2006 in order to detect any subsurface anomalies associated with a possible landfill/disposal area. Several anomalies were detected and were investigated through the excavation of test pits TP-7 and TP-9 in those areas. No indications of historic waste disposal were observed during the test pit operation; however, subsurface soil samples were collected from approximately 7.5 to 8 feet bgs at both locations and submitted for SVOCs and priority pollutant metals analyses.

Laboratory analytical results indicated that the SVOCs benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene were detected at both locations at concentrations exceeding the NYSDEC Soil Cleanup Objectives. The metals chromium, copper, mercury, nickel, and zinc were detected at concentrations exceeding the state standards at one or both of the test pit sampling locations. Laboratory analytical results for samples TP-7 and TP-9 are included on Tables 6 and 7.

5.6.7 Former Railcar Loading

A former Railcar Loading area is located south of the Outside Storage area in the central portion of the property as depicted on Figure 1. This feature is elevated compared to surrounding grade. As the origin of fill material used to create this structure was unknown, a test pit and several soil borings were conducted in order to investigate the area for potential contamination.

Three soil borings (SB-25 through SB-27) were installed along the length of the rail car loading area on October 3, 2006. Samples SB-25 and SB-26 were collected from a depth of 7.5 to 8 feet bgs while a shallower sample (2.8 to 4 feet bgs) was collected at SB-27.

All three samples were submitted for laboratory analysis for PP+40. In addition, test pit TP-8 was excavated into the raised Railcar Loading area on October 13, 2006. One soil sample was collected and submitted for laboratory analysis for PP+40.

No VOCs were detected at any of the four samples at concentrations exceeding the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality. One or more SVOCs and metals were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives in all of the samples collected from this location. The SVOCs exceeding the state standards generally included benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene with the highest concentrations being from sample TP-8. Mercury was the only metal detected above state standards at SB-25 and SB-26 while samples SB-27 and TP-8 contained numerous metals at concentrations exceeding the NYSDEC Soil Cleanup Objectives. No PCBs or pesticides were detected above the state standards at SB-25, SB-26, or TP-8; however, the pesticide toxaphene (5.42 mg/kg) was detected at SB-27 at a concentration exceeding the most conservative EPA standard of 2 mg/kg for migration to groundwater for that compound.

Laboratory analytical results for shallow sample SB-27 are included on Tables 1 through 4. Sample results for SB-25, SB-26, and TP-8 are included on Tables 5 through 8.

5.6.8 Former Septic System

A septic system was historically utilized at the site for the disposal of sanitary wastes prior to connection to the sanitary sewer system. As part of the site investigation, soil borings were completed at two pits suspected to be part of the former system and at the suspected location of the former septic disposal (tile) field. Details of the sampling completed at these two locations are provided in the following sections.

5.6.8.1 Former Septic System Collection Pits

Two pits were suspected to be located in the northwest portion of the property near the former guard house. These pits were believed to be collection pits for the facility's former septic system. Boring SB-4 was installed near the suspected location of the smaller of the two pits and SB-5 was installed near the suspected location of the larger

pit. Based on visual observations and field screening PID readings, no samples were collected from either boring since no evidence of former septic pits was observed.

5.6.8.2 Former Septic System Tile Field

On October 5, 2006, one boring (SB-9) was advanced in the area of the former septic system disposal field. One sample was collected from this boring at a depth of 6.5 to 7 feet bgs. Sample SB-9 was submitted for laboratory analysis for VOCs

Low concentrations of carbon disulfide, chloroform, methylene chloride, and tetrachloroethene were detected at SB-9; however, none of the concentrations exceeded the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality (see Table 5).

5.6.9 Pre-Sanitary Sewer Collection Pit

A sanitary sewer collection pit was formerly located in the south-central portion of the site. Sanitary sewage was collected by the pit prior to discharge to the county sewer system. Two soil borings (SB-41 and SB-42) were advanced in the area of the pre-sanitary sewer collection pit on October 4, 2006. Samples were collected from each boring at depth ranging from 6 to 8 feet bgs and were submitted for laboratory analysis for VOCs and SVOCs.

Laboratory analytical results indicated that no VOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality at either sampling location. Several SVOCs, including benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and dibenzo(a,h)anthracene at SB-41 and benzo(a)pyrene and dibenzo(a,h)anthracene at SB-42, were detected at concentrations exceeding the state standards. Laboratory analytical results for samples SB-41 and SB-42 are included on Tables 5 and 6.

5.6.10 Former Coal Storage Areas

Drawings provided by Akzo depicted several areas of coal piles historically located in the northeast portion of the site. Three soil borings (SB-1 through SB-3) were installed at the location of these piles on October 2, 2006. Subsurface soil samples were collected from

each of the borings from depths ranging from 0.5 to 2 feet bgs and were submitted for SVOCs and priority pollutant metals analysis.

Laboratory analytical results indicated that several SVOCs, including benzo(a)anthracene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene, were detected at one or more of the former coal pile storage areas at concentrations exceeding the NYSDEC Soil Cleanup Objectives. In addition, several metals were detected at SB-1 through SB-3 at concentrations exceeding the state standards. Laboratory analytical results for samples SB-1 through SB-3 are included on Tables 2 and 3.

5.6.11 Outdoor Equipment Storage Pad

On October 5, 2006, two soil borings (SB-63 and SB-64) were advanced in the area of the former outdoor equipment storage pad. Subsurface samples were collected from beneath the pad at a depth of 0 to 1.5 feet bgs. Both samples were submitted for PP+40 laboratory analysis. Laboratory analytical results indicated that no VOCs were detected at concentrations exceeding the NYSDEC Soil Cleanup Objectives to Protect Groundwater Quality. Several SVOCs, including phenol, benzo(a)anthracene, benzo(a)pyrene, chrysene, and dibenzo(a,h)anthracene, were detected at both samples at concentrations exceeding the state standards. Numerous metals were also detected at both locations at concentrations above the NYSDEC standards with concentrations at SB-63 being the highest of any of the shallow samples collected at the site. In addition, the concentrations of the pesticide dieldrin at SB-63 and the PCB aroclor 1254 at SB-64 exceeded the state standards for these compounds. Sample SB-63 and SB-64 analytical results are presented on Tables 1 through 4.

5.6.12 Debris Pile

A pile of debris (several cubic yards) was located north of the plant parking lot in the undeveloped portion of the property. The debris pile was inspected and appeared to consist mainly of bricks, asphalt, stone block and concrete possibly associated with building demolition; therefore, no samples were collected for laboratory analysis.

5.6.13 Other Magnetic Anomalies

Several magnetic anomalies unrelated to current or former site structures or activities were encountered during performance of the geophysical survey in October 2006. These anomalies were located in the paved parking area in the northern portion of the site. On October 12, 2006, three test pits, TP-1 through TP-3, were excavated at the locations of the anomalies.

Other than a steel vessel (possible boiler) at TP-3, no materials of consequence were observed. Subsurface soil samples were collected from each test pit and were submitted for laboratory analysis for PP+40. Results of the analyses indicated that no VOCs or PCBs were detected in samples TP-1 through TP-3 at concentrations exceeding the respective NYSDEC Soil Cleanup Objectives. Several SVOCs, including benzo(a)anthracene, benzo(a)pyrene, and dibenzo(a,h)anthracene were detected in sample TP-1 at concentrations over the state criteria. SVOC concentrations at TP-2 and TP-3 were below the New York state standards. All three samples contained concentrations of three or more priority pollutant metals at concentrations exceeding the NYSDEC Soil Cleanup Criteria. The pesticide toxaphene was detected at a concentration of 22.2 mg/kg in sample TP-1, which is above the most conservative EPA standard of 2 mg/kg for migration to groundwater. Laboratory analytical results for samples TP-1 through TP-3 are included on Tables 5 through 8.

On May 27, 2009, one soil boring (SB-TP1) was completed adjacent to the west edge of test pit TP-1 in order to vertically delineate the toxaphene concentration detected in the test pit sample. Boring SB-TP1 was extended to a depth of 12 feet bgs. One sample was collected from 7.5 to 8 feet bgs (TP-1A) and a contingency sample was collected from 11.5 to 12 feet bgs (TP-1B). The samples were submitted for analysis for toxaphene. Laboratory analytical results indicated that toxaphene was not detected at a concentration exceeding the laboratory MDLs in sample TP-1A (see Table 8); therefore, contingency sample TP-1B was not analyzed.

5.6.14 Historic Fill/Background Metals

On May 27, 2009, one boring (SB-76) was installed to the north of the asphalt parking area in the undeveloped portion of the site. Subsurface soil samples SB-76A (2 to 2.5 feet bgs) and SB-76B (10-10.5 feet bgs) were collected to establish baseline metals

concentrations at the subject property. Both samples were submitted for priority pollutant metals analysis.

Laboratory analytical results indicated that both shallow sample SB-76A and deep sample SB-76B contained concentrations of chromium, nickel, and zinc exceeding the NYSDEC Soil Cleanup Objectives (see Tables 3 and 7, respectively).

5.7 Baseline Sediment and Surface Water Sampling and Analysis

On September 7, 2006, sediment and surface water samples were collected from an offsite, upstream location on a branch of the Saw Mill River. Downstream from the sampling location, the Saw Mill River flows east across the undeveloped northern portion of the subject property and south along the eastern side of the site. These samples were collected in order to establish baseline sediment and surface water concentrations for the Saw Mill River in the vicinity of the site. Sediment sample SED1 was collected from 0 to 0.5 feet bgs and was submitted for SVOCs, total organic carbon, and metals analyses. Surface water sample SW1 was submitted for VOCs, BNs, and metals analyses.

Surface water sample SW1 did not contain any VOCs, BNs, or metals at concentrations exceeding the NYSDEC Class A Surface Water Standards. Laboratory analytical results indicated that one SVOC, benzo(a)anthracene, was detected at a concentration of 69.07 micrograms per gram (µg/g) of organic carbon (OC) in sediment sample SED1. This concentration exceeds the NYSDEC Benthic Aquatic Life Chronic Toxicity Sediment Criteria of 12 µg/g OC for benzo(a)anthracene. In addition, the metals copper, lead, mercury, nickel, and zinc were detected at concentrations exceeding the NYSDEC Sediment Criteria for Metals – Lowest Effect Levels for these compounds in the sediment sample.

The sediment/surface water sampling location is depicted on Figure 15. Laboratory analytical results for the sediment sample SED1 are located on Table 9. Results for surface water sample SW1 are located on Table 10. The laboratory analytical data packages for the sediment and surface water sample is included as Appendix P.

5.8 Groundwater Monitoring, Sampling, and Analysis

On May 26, 2009, three groundwater monitoring wells (MW-1 through MW-3) were installed at the site using hollow stem auger drilling techniques. Monitoring well MW-1 was installed to a depth of 23 feet bgs in the parking area in the northern most developed portion of the site. Well MW-2 was installed to a depth of 25 feet bgs in an asphalt area to the south of the former pilot plant. Monitoring well MW-3 is located in the southeast portion of the site and was installed to a depth of 20 feet bgs. All three wells were completed with locking water-tight gripper plugs and bolt-down flushmount manholes. Monitoring well locations are depicted on the June 11 and June 29, 2009 Groundwater Contour Maps, included as Figures 16 and 17, respectively. Monitoring well logs are included in Appendix Q.

Following installation, all three well were developed using submersible pumps. Approximately 55 gallons of water was purged from each well to drums for off-site disposal.

On June 11, the three monitoring wells were surveyed for location and vertical elevation by licensed land surveyors, DPK Consulting, LLC of Middlesex, New Jersey. Additionally on this day, water level measurements were collected from the three monitoring wells. Depth to water below the top of well casings was recorded as 4.79 feet at MW1, 12.03 feet at MW2, and 5.01 feet at MW3. A Groundwater Contour Map for June 11, 2009, indicating groundwater flow to the south-southeast across the site, is included as Figure 16.

On June 29, 2009, groundwater samples were collected from monitoring wells MW1 through MW3. Prior to sample collection, water level measurements were recorded and 6 to 8 gallons of water was purged from each well. Depth to water below the top of well casings was 4.46 feet at MW-1, 10.91 feet at MW-2, and 4.83 feet at MW-3. Groundwater samples were submitted for PP+40 analyses.

Laboratory analytical results indicated that no targeted compounds were detected at concentrations exceeding the NY State Ambient Water Quality Standards/Guidance Values at MW1. At MW2, the VOC tetrachloroethene was detected at a concentration of 7.4 micrograms per liter (µg/l) which slightly exceeds state standard of 5 µg/l for principal organic compounds. At MW-3, cis-1,2-dichloroethene (5.6 µg/l), vinyl chloride (5.4 µg/l), and bis(2-ethylhexyl)phthalate (29.0 µg/l) were detected at concentrations

above the NY State Ambient Water Quality Standards/Guidance Values for these compounds. No other targeted compounds were detected above the state standards at MW2 or MW3.

A Groundwater Contour Map for the June 29, 2009 sampling event, indicating groundwater flow to the south-southeast across the site, is included as Figure 17. Laboratory analytical results for the groundwater samples are included on Table 11. The laboratory analytical data package for the groundwater samples collected on June 29, 2009 is included as Appendix R.

6 SUMMARY

Based on a review of historical site records, the subject property may potentially be listed on the NYSDEC Petroleum Bulk Storage database. This database contained a listing for Akzo Chemicals Inc. located at Livingston Avenue (Lawrence Street) in Dobbs Ferry (Greenburgh), New York. According to the PBS database, this is an active facility with one 500-gallon sodium hydroxide AST and one 3,000-gallon sulfuric acid AST. Based on the address listed, it is unknown whether this listing is for the Lawrence Street or Livingston Avenue Akzo facility. AkzoNobel has provided clarification that the 500-gallon sodium hydroxide AST and 3,000-gallon sulfuric acid AST were removed from the Pilot Plant facility (the subject site on Lawrence Street, not the Livingstone Avenue property) approximate 10 years ago. A request should be submitted to the NYSDEC to amend the Petroleum Bulk Storage facility database as no tanks are located at the site.

One surrounding facility was identified through the database search that may have the potential to impact the subject property. The Ardsley Acres Motel facility is located within 0.25-mile of the subject property and has a continuing leaking UST investigation. According to the listing for the motel, two tanks were removed from the site in November 1998 following tank test failure. Petroleum contaminated soil was excavated and soil and groundwater sampling was completed. Based on groundwater levels above the state standards, groundwater monitoring continued and in December 2008, free product was detected in a site monitoring well. The NYSDEC indicated that this may be a new release. Depending on the extent of groundwater contamination at this facility, it may have the potential to impact the subject property. If further information regarding this site is required, a file review with the NYSDEC may be necessary.

Environmental conditions at the site are summarized by environmental media in the following sections.

Soil

SVOCs, specifically polynuclear aromatic hydrocarbons (PAHs), were observed at concentrations that exceed the NYSDEC Soil Cleanup Objectives in many of the samples analyzed during this investigation. Generally, low level PAH exceedances were observed within both the shallow and deep sampling zones in the developed/plant portion of the site. With a few exceptions (i.e. former UST excavations that were recently remediated), the widespread distribution of similar PAHs, at similar low-level concentrations does not

indicate the presence of a point source. Rather, the findings suggest that the presence of PAHs is likely the result of the fill material used to grade the site during development. This is supported by the lab results indicating elevated concentrations of PAHs in samples collected from unpaved areas, from beneath paved surfaces, from offsite sampling locations (SB-22, 23 and 24) and from beneath the Pilot Plant building and by the observation of non-native material (i.e. fill including cinders, coal, and debris) in many of the borings and test pits performed in the developed/plant portion of the property. Historic fill, such as that which was observed during the investigation, commonly contain low levels of PAHs.

Similarly, priority pollutant metals were detected at concentrations slightly exceeding the NYSDEC Soil Cleanup Objectives both in the plant area and background/undeveloped area, including unpaved areas, in soil beneath pavement, and in soil beneath the concrete floor of the Pilot Plant building. Low level metals exceedances were observed within both the shallow and deep sampling zone. The presence of the inorganics is likely attributable to historic fill, the historic storage of coal in piles, and naturally occurring metals. As illustrated by NYSDEC TAGM #4046 – Table 4 Heavy Metals, many of the inorganic compounds detected at the site occur naturally at concentrations ranges described as "Eastern USA Background". Many of the upper limits of the "Eastern USA Background" concentration ranges exceed the NYSDEC Soil Cleanup Objectives for metals.

In order to compare the observed metals concentrations and "Eastern USA Background" ranges to site background, one boring, SB-76, was installed in the wooded area to the north and upgradient of the developed portion of the site. Chromium, copper, lead, nickel, and zinc were detected in both the shallow and deep potions of sample SB-76 and the concentrations of chromium, nickel, and zinc exceeded the NYSDEC Soil Cleanup Objectives (see Tables 3 and 7). The inorganic concentrations observed at SB-76 mostly fall within or slightly above the "Eastern USA Background" ranges provided on TAGM 4#4046 – Table 4. Therefore, with a few exceptions (i.e. lead in samples SB-22, SB23, SB-63, and TP-6, which is likely attributable to historic fill), the priority pollutant metals concentrations observed at the site fall within or slightly above the range of "Eastern USA" or site background concentrations. It is important to note that the background evaluation for metals was limited in scope. More extensive background evaluation may reveal that the background concentration of lead in the site area is also elevated.

Tetrachloroethene at SB-16 was the only VOC detected in the shallow zone at a concentration that exceeds the NYSDEC Soil Cleanup Objective. Several deep zone soil samples contained VOCs exceeding the NYSDEC Soil Cleanup Objectives. Most notably, sample SB-49B contained benzene, carbon disulfide, tetrachloroethene, toluene, and xylenes at concentration above the state standards. However, this sample was collected from within the vault located beneath the former White House building. Samples collected from the perimeter of the White House building (SB-43 through SB-48, SB-55, and SB-56, outside of the vault), did not exhibit any VOC concentrations above the NYSDEC Soil Cleanup Criteria.

The most heavily impacted pesticide/PCB location at the site, SB-10 (MiniLab sump), was vertically and horizontally delineated during the 2009 sampling event. Based on the delineation borings, the pesticide/PCB impacts at this location are localized in this area.

Given the somewhat widespread presence of low concentrations of contaminants - some of which are attributable to historic fill (i.e. lead, PAHs) and some which may be naturally occurring (i.e. metals) - remedial action does not appear to be warranted. In a commercial/industrial continued use scenario, a more appropriate alternative may be to implement institutional controls (i.e. Deed Notice/Restriction) and engineering controls (i.e. clean fill cover, impervious surfaces, etc.).

Sediment/Surface Water

During the September 2006 site inspection, no indications of environmental stress were observed to the on-site or nearby portions of the Saw Mill River. Upstream sediment and surface water samples were collected to establish baseline concentrations for these strata. Laboratory analytical results indicated that one PAH was detected in the sediment sample at a concentration exceeding the NYSDEC Benthic Aquatic Life Chronic Toxicity Sediment Criteria. In addition, the metals copper, lead, mercury, nickel, and zinc were detected at concentrations exceeding the NYSDEC Sediment Criteria for Metals – Lowest Effect Levels for these compounds in the sediment sample. No targeted compounds were detected in the upstream surface water samples at concentrations exceeding the applicable NYSDEC standards.

Anthropogenic PAHs may reach an aquatic environment as a result of both industrial and domestic effluents, deposition of airborne particles, surface runoff and oil spillage from roads and highways. Having a relatively low water solubility and high affinity to adsorb to the suspended particulate matter, most of the PAHs introduced to the aquatic

environment tend to accumulate in bottom sediments. Trace metals, especially arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc frequently are detected in aqueous sediment samples. Trace metals may have local geologic sources, but all of these elements (and others) occur as constituents of runoff and atmospheric deposition as a consequence of release from fossil fuel combustion, metals processing, tire wear, and incinerator emissions. Based on this information, the PAH and metals concentrations detected in sediment sample SED1 are considered baseline/background concentrations and are not resultant from the Pilot Plant operations.

Groundwater

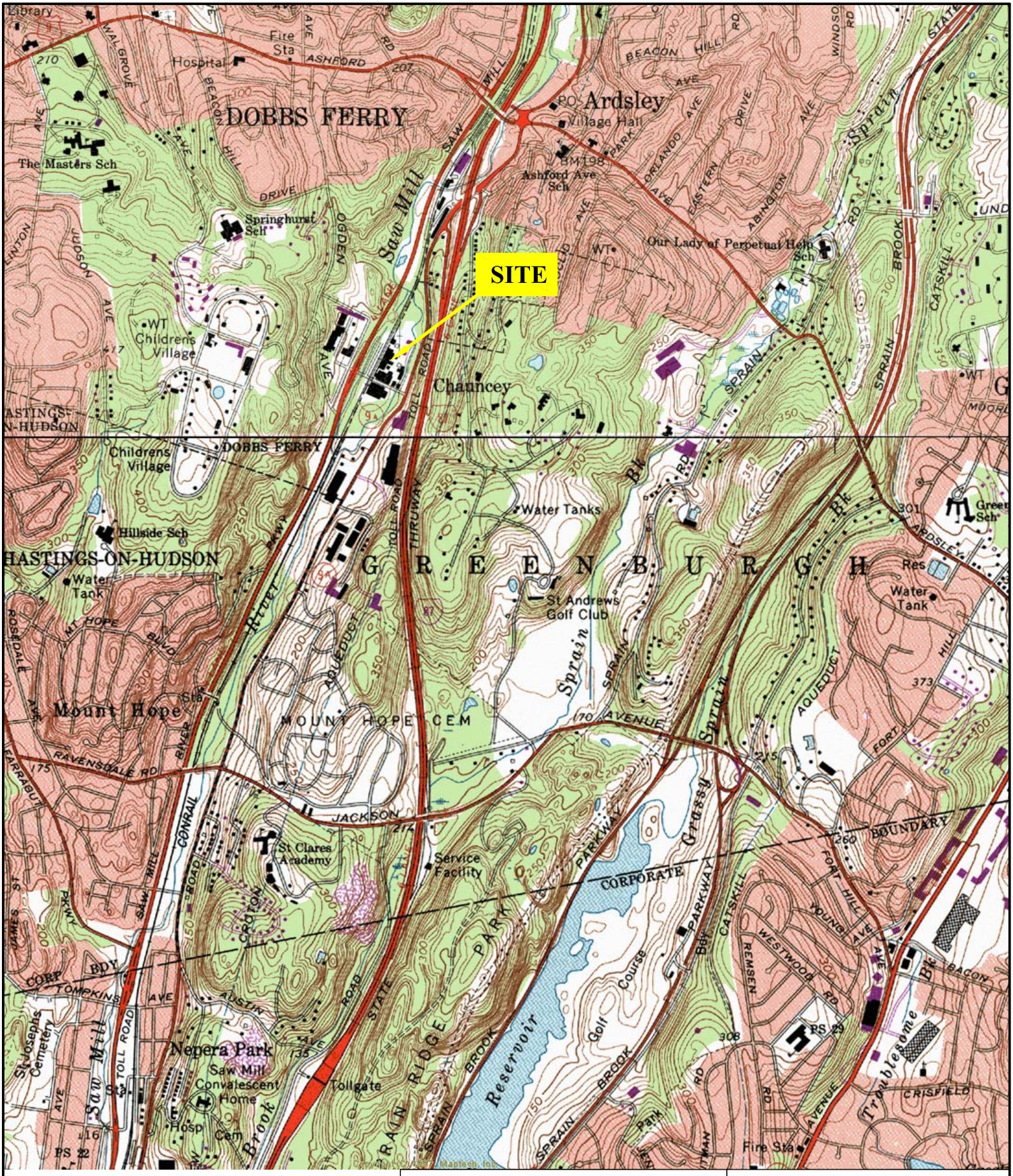
Both filtered and unfiltered groundwater samples were collected from the on-site monitoring wells. The unfiltered samples were submitted for PP+40 analyses while the filtered samples were analyzed for priority pollutant metals only.

Priority pollutant metals were not detected in the filtered groundwater samples at concentrations exceeding the NYSDEC Ambient Water Quality Standards and Guidance Values. The metals concentrations from the unfiltered samples were generally higher and the detected compounds were similar as those detected throughout the site soils. Only the unfiltered sample from MW-3 contained several metals concentrations (arsenic, chromium, and lead) at concentrations slightly above the state standards.

VOC and/or SVOC groundwater impacts at concentrations marginally above the NYSDEC Ambient Water Quality Standards and Guidance Values were detected at monitoring wells MW2 and MW3. Specifically, tetrachloroethene at MW-2 and cis-1,2-dichloroethene, vinyl chloride, and bis(2-ethylhexyl)phthalate at MW-3 were slightly above the state standards. These wells are located in the southern portion of the site, downgradient of historic site structures and operations. The VOC impacts (tetrachloroethene and its daughter compounds cis-1,2-dichloroethene and vinyl chloride) may be attributable to the tetrachloroethene soil impacts observed at upgradient borings SB-16, SB-38, and SB-49. However, bis(2-ethylhexyl)phthalate was not detected in soil at concentrations above the NYSDEC Soil Cleanup Objectives; therefore the source of the concentration of this compound in groundwater at MW-3 is unknown.

The groundwater impacts above the state standards are relatively low. As previously mentioned, regional groundwater contamination is present in the site area. This condition likely caused the 1983 shutdown of the plant's non-contact cooling water supply well due

to the presence of 1,1,1-TCA in concentrations that exceeded NYSDEC standards. Further groundwater monitoring at the site may be considered.



Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

Project: AN016 File: AKZO\TOPO.dwg Date: 10\24\08

FIGURE 1
SITE LOCATION MAP

AKZO NOBEL - PILOT PLANT
1 LAWRENCE STREET
ARDSLEY, NEW YORK

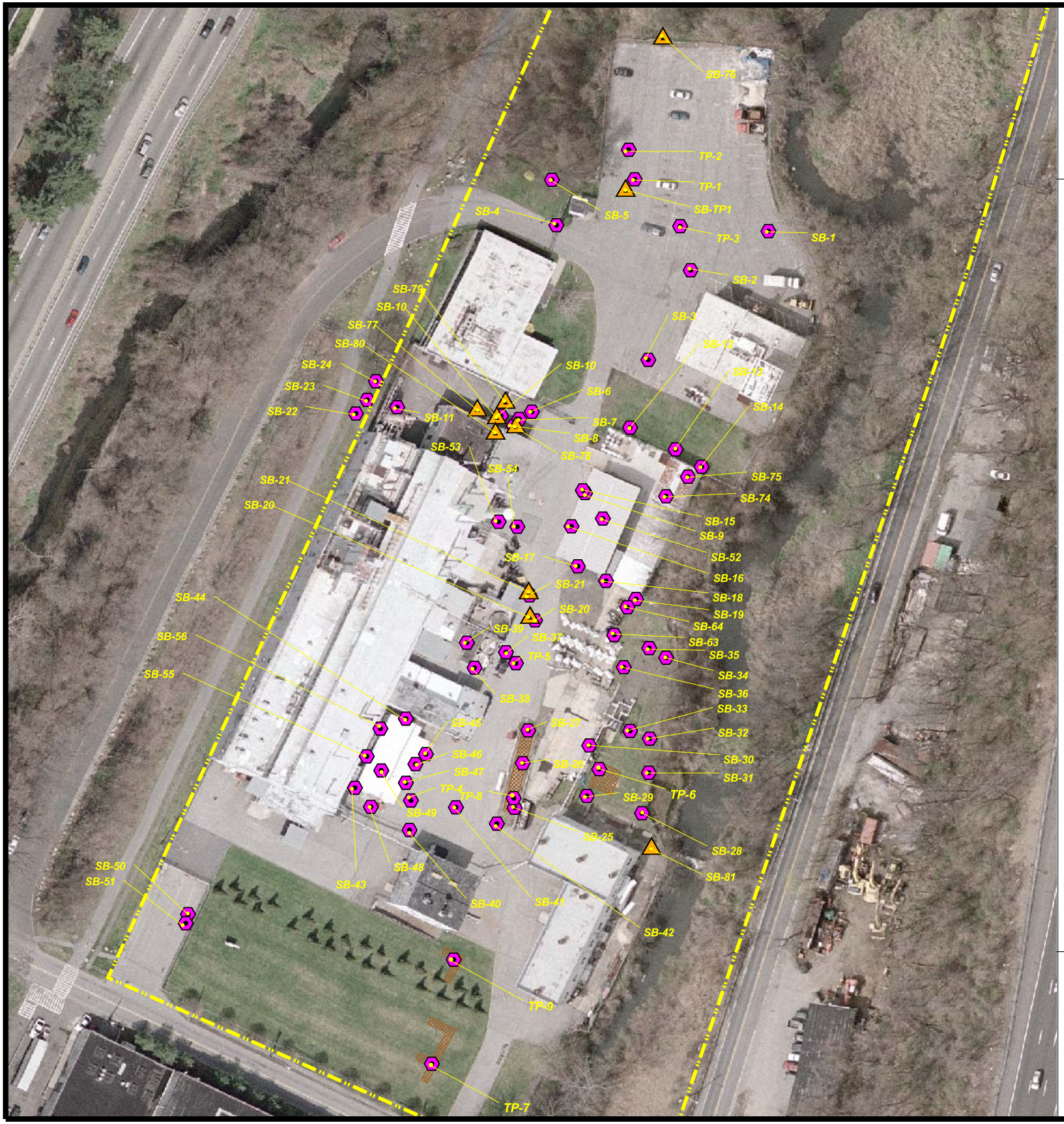


Figure 2 - Soil Sample / Boring Locations 2006 & 2009 (Excluding Pilot Plant Building Interior) Akzo Pilot Plant Dobbs Ferry, New York

Legend

- Site Boundary (Approximate)
- Soil Boring - 2009
- Soil Boring - 2006
- Test Pit Location

N

Scale

50 0 50 Feet

Notes:

NYS Office of Cyber Security & Critical Infrastructure Coordination - Westchester County 6-inch Resolution Natural Color Orthoimagery - Spring 2004

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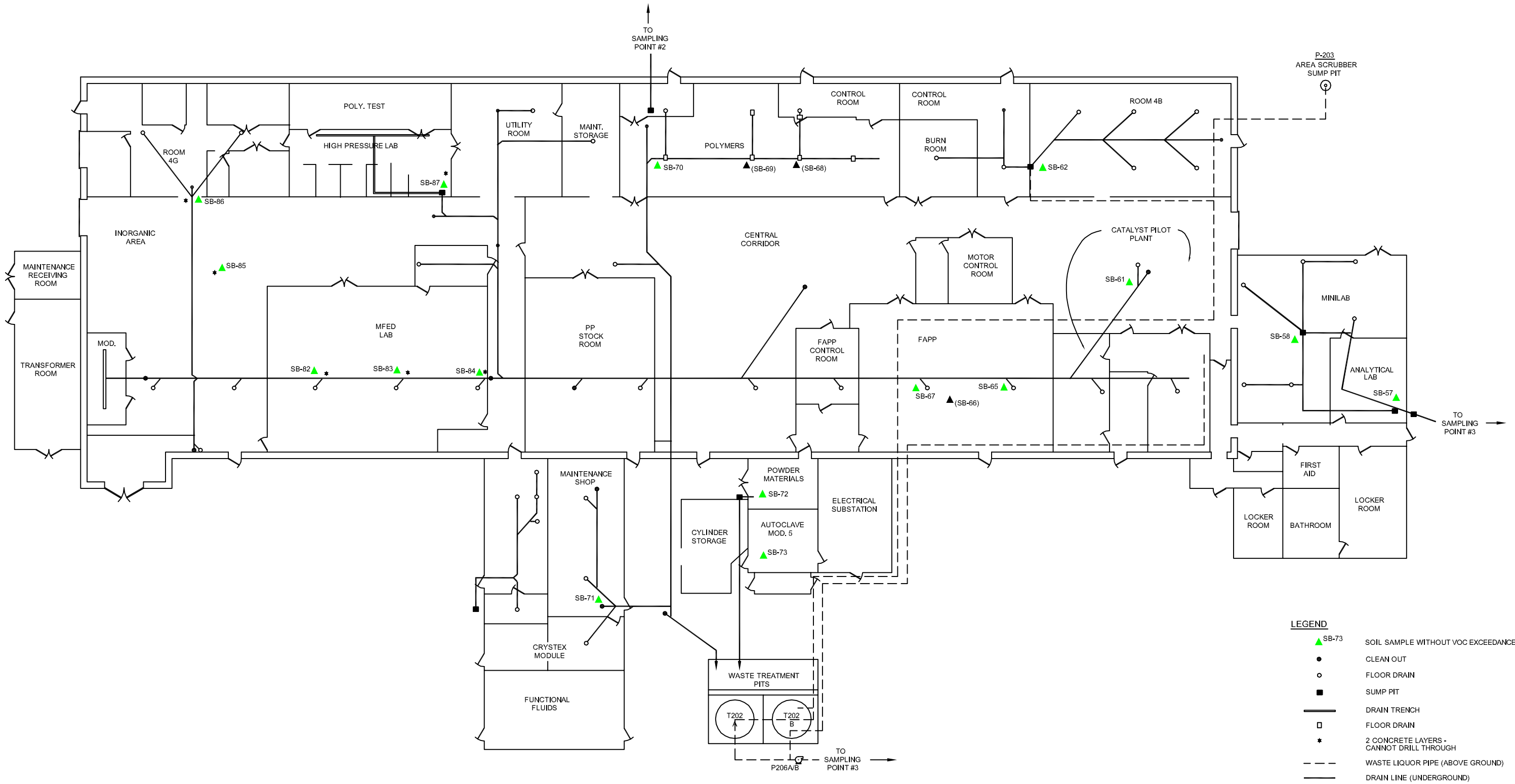
Fax: (609) 259-8288



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

0 12
APPROXIMATE SCALE IN FEET

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Robbinsville, NJ 08691
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Project No. AN017-001-02 File: Potentmap/DW-Fig3-VOCs.dwg Date: 08/31/09

VOC SAMPLING LOCATIONS
SHALLOW SOIL SAMPLES

AKZO NOBEL CHEMICALS INC.
ARDSLEY (DOBBS FERRY), NEW YORK

FIGURE 3

Figure 4
VOC Sampling Locations
Shallow Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample w/ VOC Exceedance
- Soil Sample w/o VOC Exceedance

N

Scale

70 0 70 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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Fax: (609) 259-8288

Figure 5
VOC Sampling Locations
Deep Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Side Boundary
- Soil Sample Location w/ VOC Exceedance
- Soil Sample w/o VOC Exceedance

N

Scale

70 0 70 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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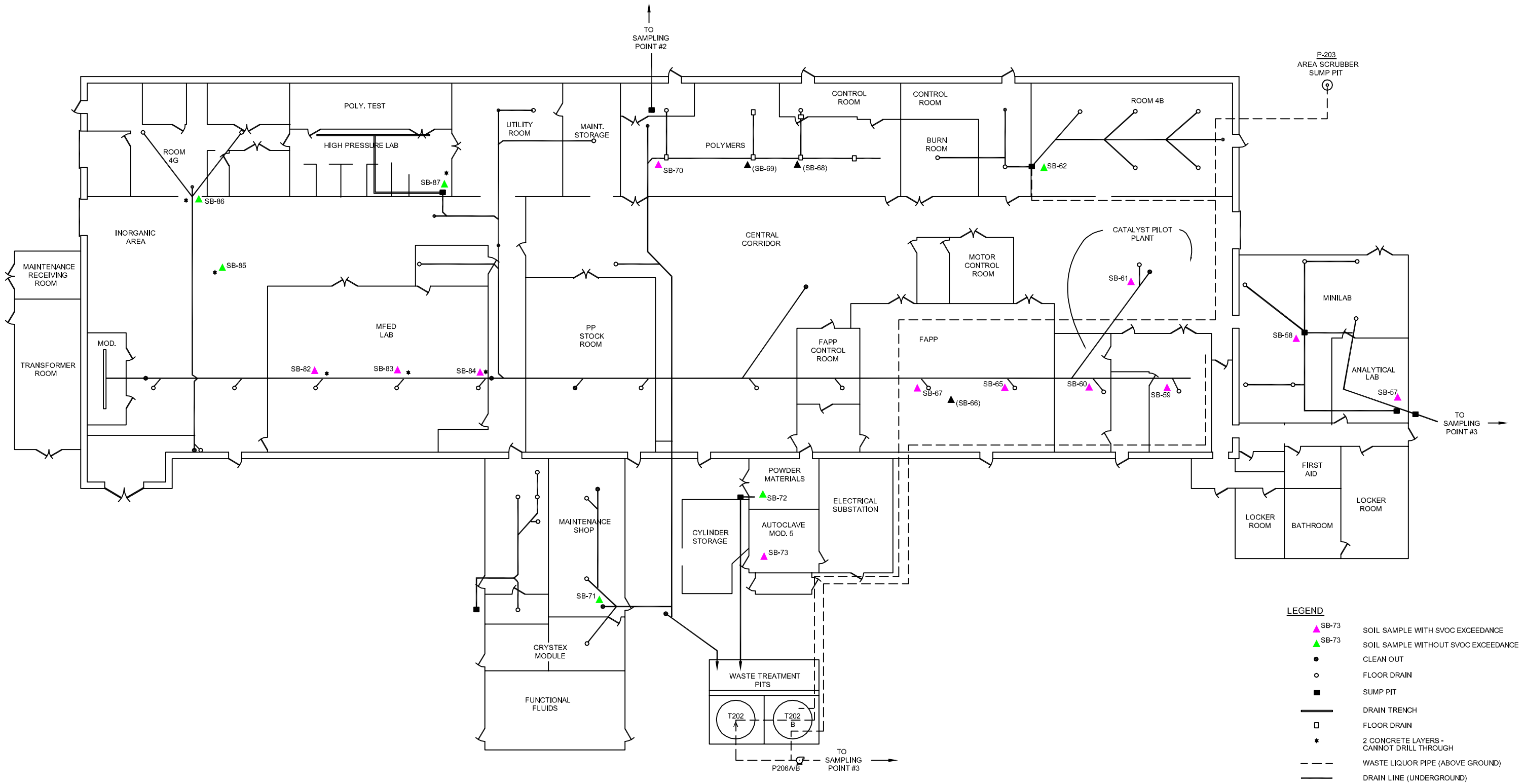

LEGEND

- SB-73 — SOIL SAMPLE WITH SVOC EXCEEDANCE
- SB-73 — SOIL SAMPLE WITHOUT SVOC 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

0 12
APPROXIMATE SCALE IN FEET

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111-A North Gold Drive
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Project No. AN017-001-02 File: Pointmap/DP-High-SVOCs.dwg Date: 08/31/09

SVOC SAMPLING LOCATIONS
SHALLOW SOIL SAMPLES

AKZO NOBEL CHEMICALS INC.
ARDSLEY (DOBBS FERRY), NEW YORK

FIGURE 6

Figure 7
SVOC Sampling Locations
Shallow Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample w/o SVOC Exceedance
- Soil Sample Location w/ SVOC Exceedance

N

Scale

50 0 50 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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Robbinsville, New Jersey 08691
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Fax: (609) 259-8288

Figure 8
SVOC Sampling Locations
Deep Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample Location w/ SVOC Exceedance
- Soil Sample w/o SVOC Exceedance

N

Scale

60 0 60 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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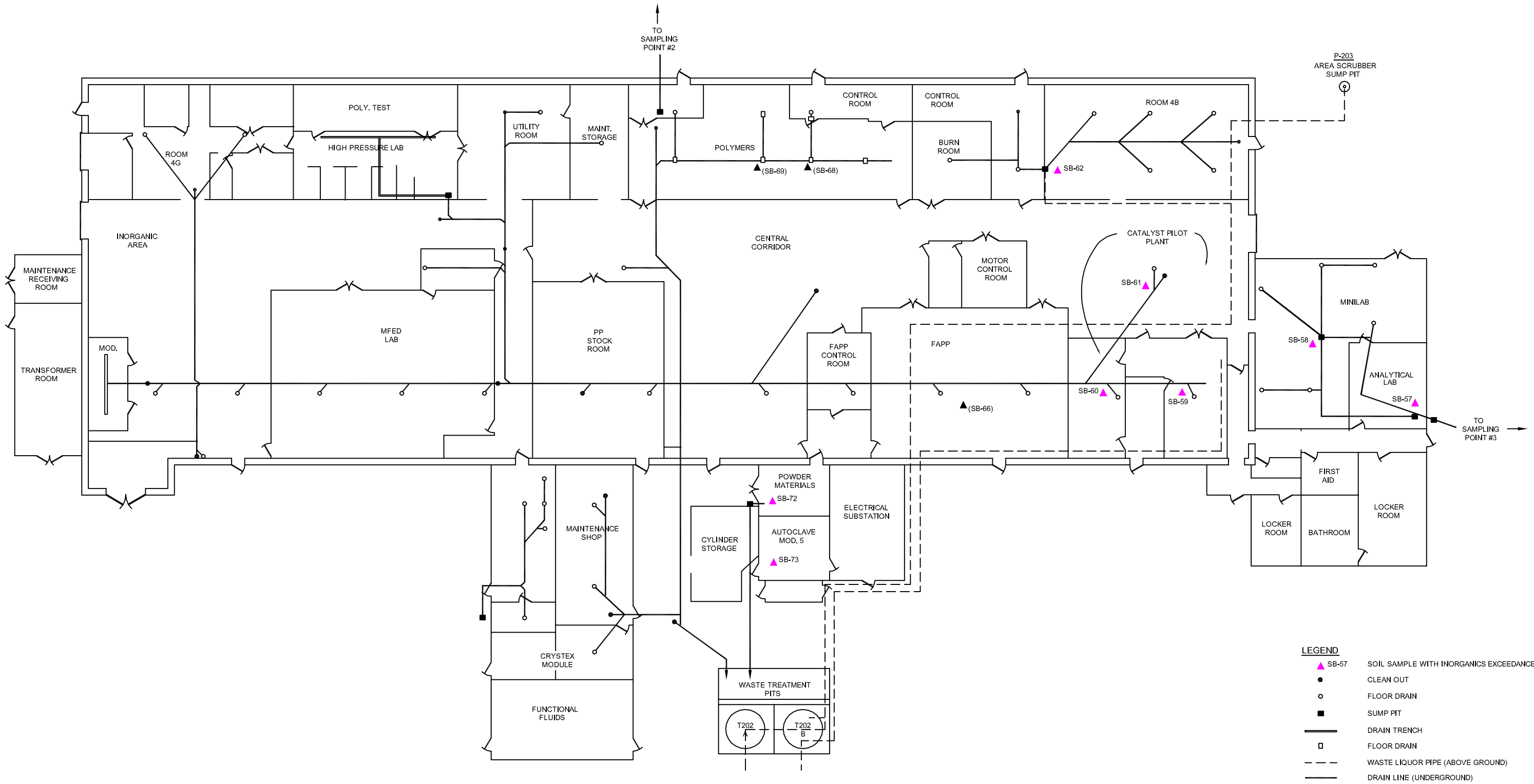

LEGEND

▲ SB-57	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

0 12
APPROXIMATE SCALE IN FEET

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111-A North Gold Drive
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(609) 259-8200 Fax (609) 259-8288

Project No. AN017-001-02 File: Pointmap/DW-Fig9-3D.dwg Date: 08/31/09

INORGANICS SAMPLING LOCATIONS
SHALLOW SOIL SAMPLES

AKZO NOBEL CHEMICALS INC.
ARDSLEY (DOBBS FERRY), NEW YORK

FIGURE 9

Figure 10
Inorganic Sampling Locations
Shallow Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample Location w/ Inorganic Exceedance
- Sample Location w/o Inorganic Exceedance

N

Scale

60 0 60 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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Robbinsville, New Jersey 08691
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Fax: (609) 259-8288

Figure 11
Inorganic Sampling Locations
Deep Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample w/ Inorganic Exceedance
- Soil Sample w/o Inorganic Exceedance

N

Scale

90 0 90 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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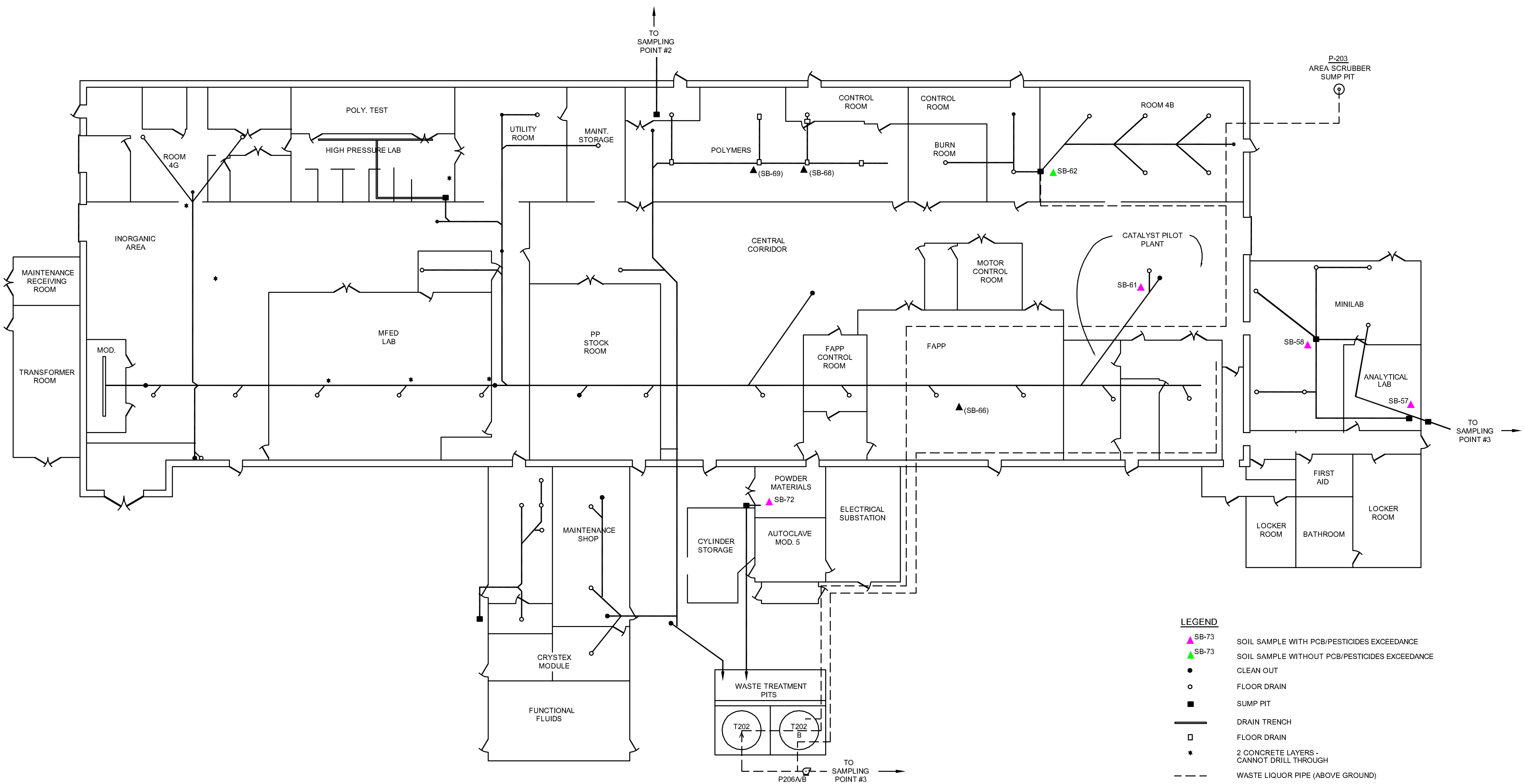

LEGEND

▲ SB-73 (magenta)	SOIL SAMPLE WITH PCB/PESTICIDES EXCEEDANCE
▲ SB-73 (green)	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

0 12
APPROXIMATE SCALE IN FEET

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111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

Project No. AN017-001-02 File: Pointmap/DF-Fig12-PCB.dwg Date: 08/31/09

PCB/PESTICIDES SAMPLING LOCATIONS
SHALLOW SOIL SAMPLES

AKZO NOBEL CHEMICALS INC.
ARDSLEY (DOBBS FERRY), NEW YORK

FIGURE 12

Figure 13
PCB/Pesticide Sampling Locations
Shallow Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample w/ PCB/Pesticide Exceedance
- Soil Sample w/o PCB/Pesticide Exceedance

N

Scale

40 0 40 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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Figure 14
PCB/Pesticide Sampling Locations
Deep Soil Samples
Akzo Pilot Plant
Dobbs Ferry, New York

Legend

- Site Boundary
- Soil Sample w/ PCB/Pesticide Exceedance
- Soil Sample w/o PCB/Pesticide Exceedance

N

Scale

70 0 70 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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111-A North Gold Drive
Robbinsville, New Jersey 08691
Telephone: (609) 259-8200
Fax: (609) 259-8288

Figure 15 - Background Sediment/ Surface Water Sample Location 7 September 2006 Akzo Pilot Plant Dobbs Ferry, New York

Legend

- Site Boundary
- Sediment Sample

N

Scale

100 0 100 Feet

Notes:

Base Map Source: Westchester County 6-inch Resolution Natural Color Orthoimagery 2004

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NY STATE PLANE COORDINATE GRID NAD 1983

SAW MILL RIVER PARKWAY

LAWRENCE STREET

SAW MILL RIVER ROAD

MW-1

MW-2

MW-3

GRAVEL AREA

ASPHALT PAVEMENT

CONC.

EDGE OF PAVEMENT

FENCE

119.0

118.8

118.6

118.4

118.2

118.0

117.8

LEGEND

- INLET
- MANHOLE
- MONITORING WELL
- FENCE
- GROUNDWATER CONTOUR

SCALE
1 INCH = 33 FEET

NOTES:

1. VERTICAL DATUM NAVD 1988.
2. FIELD WORK PERFORMED ON JUNE 11, 2009.

Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

Project No. AN016.001 File: AKZO\GWEC.dwg Date: 8/11/09

FIGURE 16
GROUNDWATER CONTOUR MAP
JUNE 11, 2009

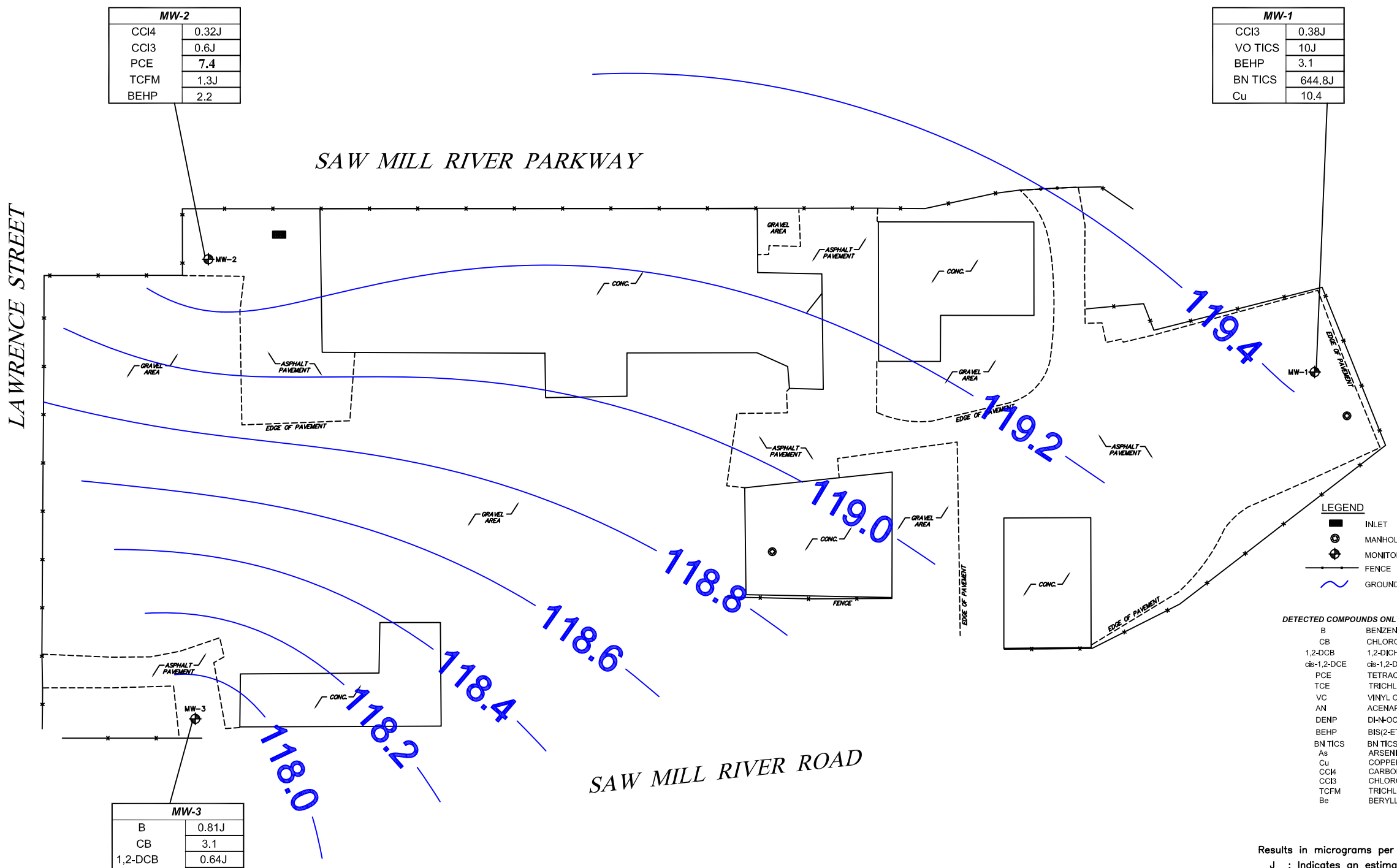
AKZO NOBEL CHEMICALS INC. PILOT PLANT
1 LAWRENCE STREET
ARDSLEY(DOBBS FERRY), NEW YORK

NY BASE STATE PLANE COORDINATE GRID AND TRUE NORTH

MW-2	
CCl4	0.32J
CCl3	0.6J
PCE	**7.4**
TCFM	1.3J
BEHP	2.2

MW-1	
CCl3	0.38J
VO TICS	10J
BEHP	3.1
BN TICS	644.8J
Cu	10.4

MW-3	
B	0.81J
CB	3.1
1,2-DCB	0.64J
cis-1,2-DCE	**5.6**
PCE	1.6
TCE	2.1
VC	**5.4**
AN	0.55J
DENP	7.6
BEHP	**29.0**
BN TICS	9.4J
As	4.1
Be	1.1



LEGEND

- INLET
- MANHOLE
- MONITORING WELL
- FENCE
- GROUNDWATER CONTOUR

DETECTED COMPOUNDS ONLY

B	BENZENE
CB	CHLOROBENZENE
1,2-DCB	1,2-DICHLOROBENZNE
cis-1,2-DCE	cis-1,2-DICHLOROETHENE
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE
VC	VINYL CHLORIDE
AN	ACENAPTHENE
DENP	DI-N-OCTYLPHTHALATE
BEHP	BIS(2-ETHYLHEXYL) PHTHALATE
BN TICS	BN TICS
As	ARSENIC
Cu	COPPER
CCl4	CARBON TETRACHLORIDE
CCl3	CHLOROFORM
TCFM	TRICHLOROFLUOROMETHANE
Be	BERYLLIUM

Results in micrograms per liter (ug/L)
J : Indicates an estimated value
BOLD: Results exceed New York state ambient water quality standards/guidance values

SCALE
1 INCH = 33 FEET

NOTES:

1. VERTICAL DATUM NAVD 1988.
2. FIELD WORK PERFORMED ON JUNE 29, 2009.

Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

Project No. AN016.001 File: AKZO\GWEC.dwg Date: 9/16/09

FIGURE 17
GROUNDWATER CONTOUR MAP
JUNE 29, 2009

AKZO NOBEL CHEMICALS INC. PILOT PLANT
1 LAWRENCE STREET
ARDSLEY(DOBBS FERRY), NEW YORK

TABLES

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

SAMPLE ID	NYSDEC	SB-6	SB-7	SB-8	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18	SB-19
LAB ID	Soil Cleanup	J42667-4	J42667-5	J42667-6	J42667-8	J42667-9	J42667-10	J42667-11	J42667-12	J42667-13	J42667-14	J42667-15
DEPTH (FEET)	Objectives	2.5-3	2-2.5	2-2.5	1.5-4	3-4	1-4	3-4	2.5-4	1.5-4	2-4	2-4
SAMPLE DATE	(ppm)	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06
VOCs (ppm)												
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	0.0025 J	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**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	**2.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	**0.6**	ND	0.0027 J	ND	ND	ND	ND	0.0013 J	ND	0.0036 J	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	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	**0.30**	ND	0.003 J	0.0023 J	0.0223	0.0075 J	ND	0.002 J	0.0024 J	0.0029 J	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	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	0.0011 J	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	ND	ND	ND	ND
2-Hexanone	**NS**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone(MIBK)	**1.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	**0.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	**NS**	ND	ND	ND	ND	ND	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**	0.0066	0.0027 J	0.014	0.228	0.0021 J	ND	0.159	98.8	1.02	0.0051 J	0.0332
Toluene	**1.5**	ND	ND	ND	ND	ND	ND	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	0.0017 J	0.0027 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
TOTAL VOCs (ppm)	**10**	0.0066	0.0084	0.0163	0.2539	0.0096	0	0.1623	98.804	1.0292	0.0051	0.0332
VOC TICs (ppm)		0	0	0	0	0	0	0	0	0	0	0

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

SAMPLE ID	NYSDEC	SB-27	SB-49A	SB-57	SB-58	SB-61	SB-62	SB-63	SB-64	SB-65	SB-67	SB-70
LAB ID	Soil Cleanup	J42758-3	J43018-28	J43018-10	J43018-12	J43018-15	J43018-16	J43018-17	J43018-18	J43018-19	J43194-1	J43194-2
DEPTH (FEET)	Objectives	2.8-4	0-4	0-2	0-2	0-2	0-2	0-1.5	0-1.5	0-2	0-2	0-2
SAMPLE DATE	(ppm)	10/3/06	10/4/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06
VOCs (ppm)												
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
TOTAL VOCs (ppm)	10	0.0649	0.0045	0.067	0.0205	0.0154	0.0105	0	0.002	0.1252	0.009	0.0263
VOC TICs (ppm)		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	NYSDEC	SB-71	SB-72	SB-73	SB-74	SB-75	SB-82B	SB-83B	SB-84B	SB-85B	SB-86B	SB-87B
LAB ID	Soil Cleanup	J43194-3	J43194-4	J43194-5	J43194-6	J43194-7	JA19809-17	JA19809-19	JA19809-21	JA19809-23	JA19809-25	JA19809-27
DEPTH (FEET)	Objectives	0-2	0-2	0-2	0-2	0-2	3.5-4	2.5-3	2.5-3	3.5-4	2.5-3	2.5-3
SAMPLE DATE	(ppm)	10/6/06	10/6/06	10/6/06	10/6/06	10/6/06	5/28/09	5/28/09	5/28/09	5/28/09	5/28/09	5/28/09
VOCs (ppm)												
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
TOTAL VOCs (ppm)	10	0.0045	0.0029	0.0244	0.0118	0.0156	ND	0.001	0.00585	0.0103	ND	0.00489
VOC TICs (ppm)		0	0	0.0072 J	0	0	NA	NA	NA	NA	NA	NA

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

SAMPLE ID	NYSDEC	SB-1	SB-2	SB-3	SB-22	SB-23	SB-24	SB-27	SB-49A	SB-57	SB-58
LAB ID	Soil Cleanup	J42667-1	J42667-2	J42667-3	J42667-18	J42667-19	J42667-20	J42758-3	J43018-28	J43018-10	J43018-12
DEPTH (FEET)	Objectives	.5-1	1.5-2	.5-2	.5-1	.5-1	.5-1	2.8-4	0-4	0-2	0-2
SAMPLE DATE	(ppm)	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/3/06	10/4/06	10/5/06	10/5/06
SVOCs (ppm)											
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

* TAGM 4046 Standard for Individual SVOCs

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
SVOCs (ppm)											
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

* TAGM 4046 Standard for Individual SVOCs

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

SAMPLE ID	NYSDEC	SB-72	SB-73	SB-74	SB-75	SB-82A	SB-83A	SB-84A	SB-85A	SB-86A	SB-87A
LAB ID	Soil Cleanup	J43194-4	J43194-5	J43194-6	J43194-7	JA19809-17	JA19809-19	JA19809-21	JA19809-23	JA19809-25	JA19809-27
DEPTH (FEET)	Objectives	0-2	0-2	0-2	0-2	1-1.5	1-1.5	1-1.5	0.5-1	1-1.5	1-1.5
SAMPLE DATE	(ppm)	10/6/06	10/6/06	10/6/06	10/6/06	5/28/2009	5/28/2009	5/28/2009	5/28/2009	5/28/2009	5/28/2009
SVOCs (ppm)											
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

* TAGM 4046 Standard for Individual SVOCs

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

SAMPLE ID	NYSDEC	SB-1	SB-2	SB-3	SB-22	SB-23	SB-24	SB-27	SB-49A	SB-57	SB-58	SB-59	SB-60	SB-61	SB-62	SB-63	SB-64	SB-72
LAB ID	Soil Cleanup	J42667-1	J42667-2	J42667-3	J42667-18	J42667-19	J42667-20	J42758-3	J43018-28	J43018-10	J43018-12	J43018-13	J43018-14	J43018-15	J43018-16	J43018-17	J43018-18	J43194-4
DEPTH (FEET)	Objectives	.5-1	1.5-2	.5-2	.5-1	.5-1	.5-1	2.8-4	0-4	0-2	0-2	0-0.5	0-0.5	0-2	0-2	0-1.5	0-1.5	0-2
SAMPLE DATE	(mg/kg)	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/2/06	10/3/06	10/4/06	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
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	1.0	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	494	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	NYSDEC	SB-73	SB-74	SB-75	SB-76A	SB-81A
LAB ID	Soil Cleanup	J43194-5	J43194-6	J43194-7	JA19809-1	JA19809-15
DEPTH (FEET)	Objectives	0-2	0-2	0-2	2-2.5	2.5-3
SAMPLE DATE	(mg/kg)	10/6/06	10/6/06	10/6/06	5/27/09	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

SB - Site Background

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

SAMPLE ID	NYSDEC	SB-27	SB-49A	SB-57	SB-58	SB-61	SB-62	SB-63	SB-64	SB-72	SB-74	SB-75
LAB ID	Soil Cleanup	J42758-3	J43018-28	J43018-10	J43018-12	J43018-15	J43018-16	J43018-17	J43018-18	J43194-4	J43194-6	J43194-7
DEPTH (FEET)	Objectives	2.8-4	0-4	0-2	0-2	0-2	0-2	0-1.5	0-1.5	0-2	0-2	0-2
SAMPLE DATE	(ppm)	10/3/06	10/4/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/5/06	10/6/06	10/6/06	10/6/06
Pesticides/PCBs (ppm)												
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	4.56	ND	ND	0.107	ND	ND	ND	0.0532
4,4'-DDD	**2.9**	ND	ND	ND	0.178	ND	ND	ND	ND	ND	ND	0.129
4,4'-DDE	**2.1**	ND	ND	ND	0.315	ND	ND	ND	ND	ND	ND	0.109
4,4'-DDT	**2.1**	ND	ND	ND	0.569	ND	ND	0.135	0.13	ND	ND	0.367
Endrin	**0.10**	ND	ND	ND	0.036	ND	ND	ND	ND	ND	ND	ND
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	1.3	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	5.25	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	1.94	0.271	0.997	1.68	ND	3.44	ND
Aroclor 1260	**1.0***	ND	ND	ND	ND	ND	ND	0.755	ND	ND	ND	ND
TOTAL Pest./PCBs (ppm)		5.42	0	5.25	5.658	1.94	0.271	1.994	1.81	1.3	3.44	0.6582

* TAGM 4046 Standard for surface PCBs

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

SAMPLE ID	NYSDEC	SB-9	SB-10	SB-11	SB-25	SB-26	SB-29	SB-30	SB-32	SB-33	SB-34	SB-35
LAB ID	Soil Cleanup	J43018-4	J42667-7	J43018-3	J42758-1	J42758-2	J42758-5	J42758-9	J42758-7	J42758-8	J42758-10	J42758-11
DEPTH (FEET)	Objectives	6.5-7	7-8	7-8	7-8	7.5-8	11.5-12	12.5-13	11.5-12	12.5-13	13-13.5	14-16
SAMPLE DATE	(ppm)	10/5/06	10/2/06	10/5/06	10/3/06	10/3/06	10/3/06	10/3/06	10/3/06	10/3/06	10/3/06	10/3/06
VOCs (ppm)												
Acetone	**0.11**	NA	NA	NA	NA	NA	0.284	0.0446	0.0616	0.0317	0.132	ND
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	0.00085 J	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	0.0372	ND	ND	ND	0.0186	ND
Carbon disulfide	**2.7**	0.0037 J	ND	ND	ND	ND	0.0023 J	0.035	0.009	0.0351	0.0108	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	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	**0.30**	0.0025 J	ND	ND	ND	ND	ND	ND	ND	0.0011 J	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	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	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	ND	ND	ND	ND
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**	0.0069	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**	0.0927	ND	ND	0.0136	0.0015 J	ND	0.0036 J	ND	0.0156	ND	ND
Toluene	**1.5**	ND	ND	ND	ND	ND	ND	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	**0.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	**NS**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
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
TOTAL VOCs (ppm)	**10**	0.1058	0	0	0.0136	0.0015 J	0.3235	0.0832	0.0706	0.08435	0.1614	0
VOC TICs (ppm)		0	0	0	0	0	0	0	0	0	0	0

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

SAMPLE ID	NYSDEC	SB-36	SB-37	SB-38	SB-39	SB-40	SB-41	SB-42	SB-43	SB-44	SB-45
LAB ID	Soil Cleanup	J42758-12	J42758-13	J42758-14	J42758-15	J42758-16	J43018-21	J43018-20	J43018-22	J43018-23	J43018-24
DEPTH (FEET)	Objectives	13-16	9-10	11-12	9-10	10-12	6.5-8	6-8	15-15.5	12.5-13	13-13.5
SAMPLE DATE	(ppm)	10/3/06	10/3/06	10/3/06	10/3/06	10/3/06	10/4/06	10/4/06	10/4/06	10/4/06	10/4/06
VOCs (ppm)											
Acetone	**0.11**	ND	NA	NA	NA	ND	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	0.0192	0.0032	0.0099	ND	ND	ND	ND	ND	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**	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Carbon disulfide	**2.7**	0.0044 J	0.0755	0.708 J	0.179	0.0011 J	0.137	0.113	ND	0.106	0.0194
Carbon tetrachloride	**0.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	**1.7**	ND	0.0291	0.0594	0.0352	ND	ND	ND	ND	ND	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**	0.00087 J	0.0019 J	ND	ND	ND	ND	ND	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	0.0129	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**1.55**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	**8.5**	ND	ND	0.0093	ND	ND	ND	ND	ND	ND	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	0.0352	0.0956	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	**0.3**	ND	0.0027 J	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	0.0059	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	**NS**	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
4-Methyl-2-pentanone(MIBK)	**1.0**	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Methylene chloride	**0.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	**NS**	ND	NA	NA	NA	ND	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**	0.0082	0.0261	7.83	0.0051 J	ND	ND	ND	ND	0.0012 J	ND
Toluene	**1.5**	ND	0.0024	0.0071	0.0015 J	ND	ND	ND	ND	ND	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	0.0249	0.192	0.0013 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	0.0166	0.0017 J	ND	ND	ND	ND	ND	ND
TOTAL VOCs (ppm)	**10**	0.01347	0.217	8.94	0.2337	0.0011	0.137	0.113	0	0.1072	0.0194
VOC TICs (ppm)		0	0.0015 J	0.195 J	0.27 J	0	0.0029 J	0	0	0.0021 J	0

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
VOCs (ppm)											
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
TOTAL VOCs (ppm)	**10**	0.0235	0.103	0.0017	1,355.35	59.841	215.213	0.0928	4.7785	3.9506	0.0075
VOC TICs (ppm)		0.0381 J	0.0021 J	0	619 J	231 J	535 J	0	66.2 J	58.7 J	0.0038 J

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
VOCs (ppm)							
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
TOTAL VOCs (ppm)	**10**	0.1201	0	0	0.0014	0.0226	0.0011
VOC TICs (ppm)		0	0	0	0	0	0

Table 6
SVOCs/TPH - Deep
Akzo Nobel Chemicals, Inc. Pilot Plant
Ardsley (Dobbs Ferry), New York

SAMPLE ID	NYSDEC	SB-10	SB-11	SB-20	SB-20A	SB-21	SB-21A	SB-25	SB-26	SB-35	SB-36
LAB ID	Soil Cleanup	J42667-7	J43018-3	J42667-16	JA19809-13	J42667-17	JA19809-11	J42758-1	J42758-2	J42758-11	J42758-12
DEPTH (FEET)	Objectives	7-8	7-8	8-11.5	15.5-16	11.5-12	15.5-16	7-8	7.5-8	14-16	13-16
SAMPLE DATE	(ppm)	10/2/06	10/5/06	10/2/06	5/27/09	10/2/06	5/27/09	10/3/06	10/3/06	10/3/06	10/3/06
SVOCs (ppm)											
2-Chlorophenol	0.8	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
4-Chloro-3-methyl phenol	0.240	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
2,4-Dichlorophenol	0.4	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
2,4-Dimethylphenol	50*	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
2,4-Dinitrophenol	0.2	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
4,6-Dinitro-o-cresol	50*	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
2-Nitrophenol	0.330	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
4-Nitrophenol	0.100	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
Pentachlorophenol	1.0	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
Phenol	0.03	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
2,4,6-Trichlorophenol	50*	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
Acenaphthene	50.0	ND	ND	ND	NA	9.82	NA	0.0299 J	0.0807 J	ND	ND
Acenaphthylene	41.0	ND	ND	ND	NA	ND	NA	0.417	0.119	ND	0.0324 J
Anthracene	50.0	ND	ND	ND	NA	2.02	NA	0.639	0.230	0.0324 J	0.0414 J
Benzidine	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Benzo(a)anthracene	0.224	0.0844	ND	0.168 J	NA	0.169 J	NA	2.22	0.673	0.0781 J	0.242
Benzo(a)pyrene	0.061	0.0718 J	ND	0.135 J	NA	ND	NA	1.70	0.604	0.076 J	0.217
Benzo(b)fluoranthene	1.1	0.0941	ND	0.295 J	NA	0.225 J	NA	2.30	0.741	0.091	0.276
Benzo(g,h,i)perylene	50.0	0.0338 J	ND	ND	NA	ND	NA	1.43	0.393	0.0612 J	0.174
Benzo(k)fluoranthene	1.1	0.0844	ND	0.208 J	NA	ND	NA	1.680	0.418	0.0666 J	0.199
4-Bromophenyl phenyl ether	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Butyl benzyl phthalate	50.0	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
2-Chloronaphthalene	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
4-Chloroaniline	0.220	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Carbazole	50*	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.0182 J
Chrysene	0.4	0.114	ND	0.255 J	NA	0.192 J	NA	2.63	0.823	0.0996	0.276
bis(2-Chloroethoxy)methane	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
bis(2-Chloroethyl)ether	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
1,2-Dichlorobenzene	7.9	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
1,2-Diphenylhydrazine	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
1,3-Dichlorobenzene	1.6	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
1,4-Dichlorobenzene	8.5	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
2,4-Dinitrotoluene	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
2,6-Dinitrotoluene	1.0	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
3,3'-Dichlorobenzidine	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.014	ND	ND	ND	NA	ND	NA	0.477	0.12	ND	0.0595 J
Dibenzofuran	6.2	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.0264 J
Di-n-butyl phthalate	8.1	ND	ND	ND	NA	ND	NA	ND	ND	ND	0.0634 J
Di-n-octyl phthalate	50.0	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Diethyl phthalate	7.1	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Dimethyl phthalate	2.0	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50.0	ND	ND	ND	NA	ND	NA	ND	ND	ND	1.43
Fluoranthene	50.0	0.149	ND	0.238 J	NA	1.01	NA	3.56	1.670	0.134	0.296
Fluorene	50.0	ND	ND	ND	NA	8.61	NA	0.0475 J	0.0888	ND	ND
Hexachlorobenzene	0.41	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Hexachlorobutadiene	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Hexachlorocyclopentadiene	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Hexachloroethane	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	3.2	0.0361 J	ND	ND	NA	ND	NA	1.43	0.383	0.0577 J	0.165
Isophorone	4.40	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
2-Methylnaphthalene	36.4	NA	NA	NA	NA	NA	NA	NA	NA	0.0503 J	0.0672 J
2-Nitroaniline	0.430	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
3-Nitroaniline	0.500	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
4-Nitroaniline	50*	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Naphthalene	13.0	ND	ND	ND	NA	36.4	NA	ND	0.122	0.0274 J	0.0435 J
Nitrobenzene	0.200	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
n-Nitrosodimethylamine	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
N-Nitrosodiphenylamine	50*	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
Phenanthrene	50.0	0.0809	ND	0.375 J	NA	16.4	NA	1.23	1.03	0.125	0.175
Pyrene	50.0	0.128	ND	0.366 J	NA	0.888	NA	3.55	1.51	0.122	0.26
1,2,4-Trichlorobenzene	3.4	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND
TOTAL SVOCs (ppm)	500	0.8765	0	2.04	NA	64.531	NA	23.34	9.01	1.02	4.062
SVOC TICs (ppm)		10.7 J	0	99.6 J	NA	925 J	NA	139.5 J	7.76J	123..5 J	8.7 J
TPH (ppm)		NA	NA	11,900	ND	20,800	ND	NA	NA	52.5	261

* TAGM 4046 Standard for Individual SVOCs

Table 6
SVOCs/TPH - Deep
Akzo Nobel Chemicals, Inc. Pilot Plant
Ardsley (Dobbs Ferry), New York

SAMPLE ID	NYSDEC	SB-37	SB-38	SB-39	SB-40	SB-41	SB-42	SB-53	SB-54	TP-1
LAB ID	Soil Cleanup	J42758-13	J42758-14	J42758-15	J42758-16	J43018-21	J43018-20	J43018-6	J43018-7	J43750-1
DEPTH (FEET)	Objectives	9-10	11-12	11-12	10-12	6.5-8	6-8	13-14	12-14	6.5-7
SAMPLE DATE	(ppm)	10/3/06	10/3/06	10/3/06	10/3/06	10/4/06	10/4/06	10/5/06	10/5/06	10/12/06
SVOCs (ppm)										
2-Chlorophenol	**0.8**	ND	ND	ND	NA	ND	ND	ND	ND	ND
4-Chloro-3-methyl phenol	**0.240**	ND	ND	ND	NA	ND	ND	ND	ND	ND
2,4-Dichlorophenol	**0.4**	ND	ND	ND	NA	ND	ND	ND	ND	ND
2,4-Dimethylphenol	**50***	ND	ND	ND	NA	ND	ND	ND	ND	ND
2,4-Dinitrophenol	**0.2**	ND	ND	ND	NA	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	**50***	ND	ND	ND	NA	ND	ND	ND	ND	ND
2-Nitrophenol	**0.330**	ND	ND	ND	NA	ND	ND	ND	ND	ND
4-Nitrophenol	**0.100**	ND	ND	ND	NA	ND	ND	ND	ND	ND
Pentachlorophenol	**1.0**	ND	ND	ND	NA	ND	ND	ND	ND	ND
Phenol	**0.03**	ND	ND	ND	NA	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	**50***	ND	ND	ND	NA	ND	ND	ND	ND	ND
Acenaphthene	**50.0**	ND	ND	ND	ND	0.78	ND	ND	ND	0.0338 J
Acenaphthylene	**41.0**	ND	ND	0.0294 J	ND	0.599	ND	ND	ND	0.0277 J
Anthracene	**50.0**	ND	ND	0.0335 J	ND	2.700	0.0635 J	ND	ND	0.0842
Benzidine	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	**0.224**	ND	ND	0.125	ND	7.780	0.161	ND	ND	0.366
Benzo(a)pyrene	**0.061**	0.0167 J	ND	0.117	ND	7.460	0.139	ND	ND	0.33
Benzo(b)fluoranthene	**1.1**	0.0269 J	0.0246 J	0.137	ND	6.510	0.277	ND	ND	0.433
Benzo(g,h,i)perylene	**50.0**	ND	ND	0.111	ND	2.100	0.0941	ND	ND	0.107
Benzo(k)fluoranthene	**1.1**	ND	ND	0.0952	ND	3.770	0.174	ND	ND	0.43
4-Bromophenyl phenyl ether	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	**50.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	**0.220**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	**50***	NA	NA	NA	ND	NA	NA	NA	NA	NA
Chrysene	**0.4**	0.025 J	0.0363 J	0.163	ND	7.510	0.215	ND	ND	0.397
bis(2-Chloroethoxy)methane	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	**7.9**	ND	ND	0.256	ND	ND	0.0506 J	ND	ND	ND
1,2-Diphenylhydrazine	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**1.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	**8.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	**1.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	**0.014**	ND	ND	0.0403 J	ND	0.727	0.0393 J	ND	ND	0.044 J
Dibenzofuran	**6.2**	NA	NA	NA	ND	NA	NA	NA	NA	NA
Di-n-butyl phthalate	**8.1**	ND	ND	ND	ND	ND	0.0559 J	ND	ND	ND
Di-n-octyl phthalate	**50.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	**7.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	**2.0**	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	**50.0**	ND	ND	0.111	ND	ND	1.62	ND	ND	ND
Fluoranthene	**50.0**	0.0202 J	0.0727 J	0.225	ND	16.2	0.288	ND	ND	0.577
Fluorene	**50.0**	ND	ND	ND	ND	1.37	0.114	ND	ND	0.0358 J
Hexachlorobenzene	**0.41**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	**3.2**	ND	ND	0.0997	ND	2.200	0.0931	ND	ND	0.134
Isophorone	**4.40**	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	**36.4**	NA	NA	NA	ND	NA	NA	NA	NA	NA
2-Nitroaniline	**0.430**	NA	NA	NA	ND	NA	NA	NA	NA	NA
3-Nitroaniline	**0.500**	NA	NA	NA	ND	NA	NA	NA	NA	NA
4-Nitroaniline	**50***	NA	NA	NA	ND	NA	NA	NA	NA	NA
Naphthalene	**13.0**	ND	ND	0.0424 J	ND	0.0378 J	0.129	ND	ND	0.0596 J
Nitrobenzene	**0.200**	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	**50***	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	**50.0**	ND	0.0365 J	0.122	ND	13.8	0.418	0.0194 J	ND	0.35
Pyrene	**50.0**	ND	0.0486 J	0.166	ND	14.3	0.275	ND	ND	0.538
1,2,4-Trichlorobenzene	**3.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL SVOCs (ppm)	**500**	0.0888	0.2187	1.8735	0	87.844	4.2065	0.0194	0	3.9471
SVOC TICs (ppm)		5.8 J	107.71 J	220.08 J	2.48 J	14.0 J	35.05 J	1.41 J	0.19 J	2.17 J
TPH (ppm)		NA	NA	NA	83.2	NA	NA	39.7	73.7	NA

* TAGM 4046 Standard for Individual SVOCs

Table 6
SVOCs/TPH - Deep
Akzo Nobel Chemicals, Inc. Pilot Plant
Ardsley (Dobbs Ferry), New York

SAMPLE ID	NYSDEC	TP-2	TP-3	TP-6	TP-7	TP-8	TP-9
LAB ID	Soil Cleanup	J43750-2	J43750-3	J43750-4	J43750-6	J43750-7	J43750-8
DEPTH (FEET)	Objectives	6.5-7		8-8.5	7.5-8	8.5-9	7.5-8
SAMPLE DATE	(ppm)	10/12/06	10/12/06	10/13/06	10/13/06	10/13/06	10/13/06
SVOCs (ppm)							
2-Chlorophenol	**0.8**	ND	ND	ND	NA	ND	NA
4-Chloro-3-methyl phenol	**0.240**	ND	ND	ND	NA	ND	NA
2,4-Dichlorophenol	**0.4**	ND	ND	ND	NA	ND	NA
2,4-Dimethylphenol	**50***	ND	ND	ND	NA	ND	NA
2,4-Dinitrophenol	**0.2**	ND	ND	ND	NA	ND	NA
4,6-Dinitro-o-cresol	**50***	ND	ND	ND	NA	ND	NA
2-Nitrophenol	**0.330**	ND	ND	ND	NA	ND	NA
4-Nitrophenol	**0.100**	ND	ND	ND	NA	ND	NA
Pentachlorophenol	**1.0**	ND	ND	ND	NA	ND	NA
Phenol	**0.03**	ND	ND	ND	NA	ND	NA
2,4,6-Trichlorophenol	**50***	ND	ND	ND	NA	ND	NA
Acenaphthene	**50.0**	ND	ND	0.0899	0.0848	1.59 J	0.306 J
Acenaphthylene	**41.0**	ND	ND	0.0544 J	0.0825	ND	0.355 J
Anthracene	**50.0**	ND	ND	0.21	0.303	4.59	1.06
Benzidine	**50***	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	**0.224**	ND	0.0578 J	0.603	1.240	15.4	4.95
Benzo(a)pyrene	**0.061**	ND	0.0473 J	0.525	1.390	14.5	5.73
Benzo(b)fluoranthene	**1.1**	ND	0.0477 J	0.626	1.330	12.8	5.62
Benzo(g,h,i)perylene	**50.0**	ND	0.0294 J	0.185	0.506	5.24	2.67
Benzo(k)fluoranthene	**1.1**	ND	0.0638 J	0.701	1.340	15.4	4.9
4-Bromophenyl phenyl ether	**50***	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	**50.0**	ND	ND	0.341	ND	ND	ND
2-Chloronaphthalene	**50***	ND	ND	ND	ND	ND	ND
4-Chloroaniline	**0.220**	ND	ND	ND	ND	ND	ND
Carbazole	**50***	NA	NA	NA	NA	NA	NA
Chrysene	**0.4**	ND	0.0662 J	0.629	1.220	14.9	4.83
bis(2-Chloroethoxy)methane	**50***	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	**50***	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	**50***	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	**50***	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	**7.9**	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	**50***	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**1.6**	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	**8.5**	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	**50***	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	**1.0**	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	**50***	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	**0.014**	ND	ND	0.0809	0.166	2.1	0.802
Dibenzofuran	**6.2**	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	**8.1**	ND	ND	0.218	ND	ND	ND
Di-n-octyl phthalate	**50.0**	ND	ND	ND	ND	ND	ND
Diethyl phthalate	**7.1**	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	**2.0**	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	**50.0**	ND	ND	0.684	0.0512 J	ND	ND
Fluoranthene	**50.0**	ND	0.123	1.09	2.00	30.6	8.06
Fluorene	**50.0**	ND	ND	0.0884	0.0735 J	1.04 J	0.207 J
Hexachlorobenzene	**0.41**	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	**50***	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	**50***	ND	ND	ND	ND	ND	ND
Hexachloroethane	**50***	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	**3.2**	ND	0.0287 J	0.201	0.506	5.05	2.53
Isophorone	**4.40**	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	**36.4**	NA	NA	NA	NA	NA	NA
2-Nitroaniline	**0.430**	NA	NA	NA	NA	NA	NA
3-Nitroaniline	**0.500**	NA	NA	NA	NA	NA	NA
4-Nitroaniline	**50***	NA	NA	NA	NA	NA	NA
Naphthalene	**13.0**	ND	ND	0.0501 J	ND	ND	ND
Nitrobenzene	**0.200**	ND	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	**50***	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	**50***	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	**50***	ND	ND	ND	ND	ND	ND
Phenanthrene	**50.0**	ND	0.0444 J	0.714	0.895	14.1	3.16
Pyrene	**50.0**	ND	0.0862	1.21	2.53	31.3	9.55
1,2,4-Trichlorobenzene	**3.4**	ND	ND	ND	ND	ND	ND
TOTAL SVOCs (ppm)	**500**	0	0.5945	8.3007	13.718	168.61	54.73
SVOC TICs (ppm)		0.27 J	0	4.12 J	6.74 J	36.1 J	28.96 J
TPH (ppm)		NA	NA	NA	NA	NA	NA

* TAGM 4046 Standard for Individual SVOCs

Table 7
Inorganics - Deep
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-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
Inorganics (ppm)																
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	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
Inorganics (ppm)				
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	26.0	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

SB - Site Background

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
Pest./PCBs (ppm)															
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	ND	NA	NA	NA	NA
4,4'-DDE	**2.1**	7.06	0.0021	ND	ND	ND	ND	0.0871	ND	ND	0.0089	ND	ND	0.0078	ND
4,4'-DDT	**2.1**	35.5	0.0129	ND	ND	0.0194	ND	ND	ND	ND	0.0043	ND	ND	0.0146	ND
Endrin	**0.10**	ND	NA	ND	ND	ND	ND	0.043	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
TOTAL (ppm)		52.226	0.0185	0	0.0077	0.030	0	0.5811	0	0	0.0371	0.0228	0	0.1514	0.0191

* TAGM 4046 Standard for Subsurface PCBs

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

SAMPLE ID	NYSDEC	TP-1	SB-TP1	TP-2	TP-3	TP-6	TP-8
LAB ID	Soil Cleanup	J43750-1	JA19809-3	J43750-2	J43750-3	J43750-4	J43750-7
DEPTH (FEET)	Objectives	6.5-7	7.5-8	6.5-7		8-8.5	8.5-9
SAMPLE DATE	(ppm)	10/12/06	5/27/09	10/12/06	10/12/06	10/13/06	10/13/06
Pest./PCBs (ppm)							
Aldrin	**0.041**	ND	NA	ND	ND	ND	ND
alpha-BHC	**0.11**	ND	NA	ND	ND	ND	ND
beta-BHC	**0.2**	ND	NA	ND	ND	ND	ND
delta-BHC	**0.3**	ND	NA	ND	ND	ND	ND
gamma-BHC (Lindane)	**0.06**	ND	NA	ND	ND	ND	ND
Chlordane	**0.54**	ND	NA	ND	ND	ND	ND
Dieldrin	**0.044**	ND	NA	ND	0.0155	0.0044	ND
4,4'-DDD	**2.9**	ND	NA	0.0019	0.0058	ND	ND
4,4'-DDE	**2.1**	ND	NA	ND	0.0142	ND	ND
4,4'-DDT	**2.1**	ND	NA	ND	0.0371	0.0121	ND
Endrin	**0.10**	ND	NA	ND	ND	ND	ND
Endosulfan sulfate	**1.0**	ND	NA	ND	ND	ND	0.0535
Endrin aldehyde	**NS**	ND	NA	ND	ND	ND	ND
Endosulfan-I	**0.9**	ND	NA	ND	ND	ND	ND
Endosulfan-II	**0.9**	ND	NA	ND	ND	ND	ND
Heptachlor	**0.10**	ND	NA	ND	ND	ND	ND
Heptachlor epoxide	**0.02**	ND	NA	ND	ND	ND	ND
Methoxychlor	**10**	ND	NA	ND	ND	ND	ND
Toxaphene	**NS**	22.2	ND	ND	0.307	ND	ND
Aroclor 1016	**10***	ND	NA	ND	ND	ND	ND
Aroclor 1221	**10***	ND	NA	ND	ND	ND	ND
Aroclor 1232	**10***	ND	NA	ND	ND	ND	ND
Aroclor 1242	**10***	ND	NA	ND	ND	ND	ND
Aroclor 1248	**10***	ND	NA	ND	ND	ND	ND
Aroclor 1254	**10***	ND	NA	ND	ND	ND	ND
Aroclor 1260	**10***	ND	NA	ND	ND	ND	ND
TOTAL (ppm)		22.2	0	0.0019	0.3796	0.0165	0.0535

* TAGM 4046 Standard for Subsurface PCBs

TABLE 9
SEDIMENT SAMPLING ANALYTICAL SUMMARY DATA
Akzo Nobel Chemicals Inc. Pilot Plant
Ardsley (Dobbs Ferry), New York

SAMPLE ID	SED1		Levels of Protection - Non-Polar Organic Compounds [1]		
LAB ID	J40542-2		Benthic Aquatic Life Acute Toxicity Sediment Criteria	Benthic Aquatic Life Chronic Toxicity Sediment Criteria	Wildlife Bioaccumulation Sediment Criteria
SAMPLE DEPTH (FEET)	0-0.5				
SAMPLE DATE	9/7/2006				
	µg/kg	µg/gOC	µg/gOC	µg/gOC	µg/gOC
Semi-Volatile Compounds (µg/Kg)					
Acenaphthene	31.4J	2.93	--	140	--
Acenaphthylene	80.0J	7.48	--	--	--
Anthracene	192	17.94	986	107	--
Benzo(a)anthracene	**739**	**69.07**	94	12	--
Benzo(a)pyrene	657	61.40	--	--	--
Benzo(b)fluoranthene	681	63.64	--	--	--
Benzo(g,h,i)perylene	423	39.53	--	--	--
Benzo(k)fluoranthene	568	53.08	--	--	--
Carbazole	66.0J	6.17	--	--	--
Chrysene	906	84.67	--	--	--
Dibenzo(a,h)anthracene	149	13.93	--	--	--
Diethyl phthalate	137B	12.80	--	--	--
bis(2-Ethylhexyl)phthalate	1,170	109.35	--	199.5	--
Fluoranthene	1,400	130.84	--	1,020	--
Fluorene	46.4J	4.34	73	8	--
Indeno(1,2,3-cd)pyrene	415	38.79	--	--	--
Phenanthrene	649	60.65	--	120	--
Pyrene	1,690	157.94	8,775	961	--
General Chemistry (ppm)					
Total Organic Carbon	10,700	--	--	--	--

SAMPLE ID	SED1	Sediment Criteria for Metals [1]	
LAB ID	J40542-2	Lowest Effect Level	Severe Effect Level
SAMPLE DEPTH (FEET)	0-0.5		
SAMPLE DATE	9/7/2006		
	(µg/g)	µg/g	µg/g
Metals (µg/g)			
Chromium	25.9	26	110
Copper	**36.9**	16	110
Lead	**67.5**	31	110
Mercury	**0.24**	0.15	1.3
Nickel	**19.7**	16	50
Zinc	**162**	120	270

Notes:
[1] = New York State Department of Environmental Conservation. 1999. *Technical Guidance for Screening Contaminated Sediment.*
µg/g = micrograms per gram.
µg/gOC = micrograms per gram of Organic Carbon
µg/kg = micrograms per kilogram
ppm = parts per million
-- = Criterea not published in NYDEC *Technical Guidance for Screening Contaminated Sediment.*

TABLE 10
SURFACE WATER SAMPLING ANALYTICAL SUMMARY DATA
Akzo Nobel Chemicals Inc. Pilot Plant
Ardsley (Dobbs Ferry), New York

Sample ID: Lab Sample ID: Date Sampled:	SW1 J40542-1 9/7/2006	NYSDEC Surface Water Standard µg/l Class A
Volatile Organic Compounds (µg/l)		
Benzene	0.21ND	0.7
Ethylbenzene	0.20ND	--
Tetrachloroethene	0.28ND	--
Toluene	0.20ND	--
Trichloroethene	0.29ND	--
Total Xylenes	0.31ND	--
Base Neutral Compounds (µg/l)		
Acenaphthene	0.35ND	20
Anthracene	0.40ND	--
Benzo(a)anthracene	0.36ND	--
Benzo(a)pyrene	0.37ND	--
Benzo(b)fluoranthene	0.59ND	--
Benzo(k)fluoranthene	0.42ND	--
Chrysene	0.25ND	--
Diethy phthalate	3.7 B	--
Fluoranthene	0.25ND	--
Fluorene	0.45ND	--
Indeno(1,2,3-cd)pyrene	0.30ND	--
Naphthalene	0.32ND	10
Phenanthrene	0.36ND	--
Pyrene	0.34ND	--
Metals (µg/l)		
Antimony	<6.0	--
Arsenic	<8.0	50
Beryllium	<1.0	11*
Cadmium	<4.0	10
Chromium	<10	50
Copper	<25	200
Lead	<3.0	50
Mercury	<0.2	2
Selenium	<10	10
Silver	<10	50
Thallium	<10	8
Zinc	<20	300

Notes:
[1] = New York State Department of Environmental Conservation. 1994. *Water Quality Regulatio Surface Water and Groundwater Classifications and Standards.*
B = Compound also detected in method blank
#ND = Not detected at method detection limit indicated
* = when hardness is <= 75 ppm
µg/l = micrograms per liter
-- = Criteria not published in NYDEC *Water Quality Regulations - Surface Water and Groundwater Classifications and Standards.*

TABLE 11

GROUNDWATER ANALYTICAL SUMMARY DATA

Akzo Nobel Chemicals Inc. Pilot Plant

Ardsley (Dobbs Ferry), New York

Client ID:	New York State	MW-1			MW-2			MW-3		
Sample Depth:	Ambient Water	N/A			N/A			N/A		
Lab ID:	Quality Standards/	JA22109-1			JA22109-2			JA22109-3		
Date Sampled:	Guidance Value	06/29/2009			06/29/2009			06/29/2009		
Matrix:	(June 1998)	Aqueous			Aqueous			Aqueous		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Volatiles (ppb)										
Acrolein	5*	ND		6.3	ND		6.3	ND		6.3
Acrylonitrile	5*	ND		5.3	ND		5.3	ND		5.3
Benzene	1	ND		0.15	ND		0.15	0.81	J	0.15
Bromodichloromethane	50	ND		0.18	ND		0.18	ND		0.18
Bromoform	50	ND		0.26	ND		0.26	ND		0.26
Bromomethane	5*	ND		0.43	ND		0.43	ND		0.43
Carbon tetrachloride	5	ND		0.18	0.32	J	0.18	ND		0.18
Chlorobenzene	5*	ND		0.21	ND		0.21	3.1		0.21
Chloroethane	5*	ND		0.48	ND		0.48	ND		0.48
2-Chloroethyl vinyl ether	NS	ND		0.65	ND		0.65	ND		0.65
Chloroform	7	0.38	J	0.18	0.60	J	0.18	ND		0.18
Chloromethane	5*	ND		0.34	ND		0.34	ND		0.34
Dibromochloromethane	50	ND		0.26	ND		0.26	ND		0.26
1,2-Dichlorobenzene	3	ND		0.57	ND		0.57	0.64	J	0.57
1,3-Dichlorobenzene	3	ND		0.26	ND		0.26	ND		0.26
1,4-Dichlorobenzene	3	ND		0.32	ND		0.32	ND		0.32
Dichlorodifluoromethane	5*	ND		1.3	ND		1.3	ND		1.3
1,1-Dichloroethane	5*	ND		0.26	ND		0.26	ND		0.26
1,2-Dichloroethane	0.6	ND		0.43	ND		0.43	ND		0.43
1,1-Dichloroethene	5*	ND		0.38	ND		0.38	ND		0.38
cis-1,2-Dichloroethene	5*	ND		0.22	ND		0.22	5.6		0.22
trans-1,2-Dichloroethene	5*	ND		0.20	ND		0.20	ND		0.20
1,2-Dichloropropane	1	ND		0.40	ND		0.40	ND		0.40
cis-1,3-Dichloropropene	0.4	ND		0.20	ND		0.20	ND		0.20
trans-1,3-Dichloropropene	0.4	ND		0.31	ND		0.31	ND		0.31
Ethylbenzene	5*	ND		0.15	ND		0.15	ND		0.15
Methylene Chloride	5*	ND		0.30	ND		0.30	ND		0.30
1,1,2,2-Tetrachloroethane	5*	ND		0.13	ND		0.13	ND		0.13
Tetrachloroethene	5*	ND		0.18	7.4		0.18	1.6		0.18
Toluene	5*	ND		0.19	ND		0.19	ND		0.19
1,1,1-Trichloroethane	5*	ND		0.21	ND		0.21	ND		0.21
1,1,2-Trichloroethane	1	ND		0.46	ND		0.46	ND		0.46
Trichloroethene	5*	ND		0.14	ND		0.14	2.1		0.14
Trichlorofluoromethane	5*	ND		0.46	1.3	J	0.46	ND		0.46
Vinyl chloride	2	ND		0.21	ND		0.21	5.4		0.21
Xylenes (total)	5*	ND		0.27	ND		0.27	ND		0.27
TOTAL VOs:		0.38	J		9.62	J		19.25	J	
TOTAL TICs:		10	J		0			0		
TOTAL VOs & TICs:		10.38	J		9.62	J		19.25	J	

TABLE 11
GROUNDWATER ANALYTICAL SUMMARY DATA
Akzo Nobel Chemicals Inc. Pilot Plant
Ardsley (Dobbs Ferry), New York

Client ID:	New York State	MW-1			MW-2			MW-3		
Sample Depth:	Ambient Water	N/A			N/A			N/A		
Lab ID:	Quality Standards/	JA22109-1			JA22109-2			JA22109-3		
Date Sampled:	Guidance Value	06/29/2009			06/29/2009			06/29/2009		
Matrix:	(June 1998)	Aqueous			Aqueous			Aqueous		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Semivolatiles - BNs (ppb)										
2-Chlorophenol	**	ND		1.0	ND		0.95	ND		0.97
4-Chloro-3-methyl phenol	**	ND		1.3	ND		1.2	ND		1.2
2,4-Dichlorophenol	**	ND		1.7	ND		1.6	ND		1.6
2,4-Dimethylphenol	**	ND		1.8	ND		1.6	ND		1.7
2,4-Dinitrophenol	**	ND		0.97	ND		0.89	ND		0.91
4,6-Dinitro-o-cresol	**	ND		0.78	ND		0.72	ND		0.74
2-Nitrophenol	**	ND		2.0	ND		1.8	ND		1.8
4-Nitrophenol	**	ND		0.92	ND		0.84	ND		0.86
Pentachlorophenol	**	ND		2.1	ND		1.9	ND		1.9
Phenol	**	ND		0.54	ND		0.50	ND		0.51
2,4,6-Trichlorophenol	**	ND		1.4	ND		1.3	ND		1.3
Acenapthene	20	ND		0.38	ND		0.35	0.55	J	0.36
Acenapthylene	NS	ND		0.41	ND		0.38	ND		0.39
Anthracene	50	ND		0.43	ND		0.40	ND		0.41
Benzidine	5*	ND		0.30	ND		0.28	ND		0.29
Benzo(a)anthracene	0.002	ND		0.39	ND		0.36	ND		0.36
Benzo(a)pyrene	ND	ND		0.40	ND		0.37	ND		0.37
Benzo(b)fluoranthene	0.002	ND		0.64	ND		0.59	ND		0.60
Benzo(g,h,i)perylene	NS	ND		0.46	ND		0.42	ND		0.43
Benzo(k)fluoranthene	0.002	ND		0.46	ND		0.42	ND		0.43
4-Bromophenyl phenyl ether	NS	ND		0.33	ND		0.30	ND		0.31
Butyl benzyl phthalate	50	ND		0.64	ND		0.59	ND		0.61
2-Chloronaphthalene	10	ND		1.1	ND		0.98	ND		1.0
4-Chloroaniline	5*	ND		0.43	ND		0.40	ND		0.41
Chrysene	0.002	ND		0.27	ND		0.25	ND		0.26
bis(2-Chloroethoxy)methane	5*	ND		0.71	ND		0.65	ND		0.67
bis(2-Chloroethyl)ether	1	ND		0.58	ND		0.53	ND		0.54
bis(2-Chloroisopropyl)ether	5*	ND		0.80	ND		0.74	ND		0.75
4-Chlorophenyl phenyl ether	NS	ND		0.47	ND		0.43	ND		0.44
1,2-Dichlorobenzene	3	ND		0.23	ND		0.21	ND		0.21
1,2-Diphenylhydrazine	ND	ND		0.49	ND		0.45	ND		0.46
1,3-Dichlorobenzene	3	ND		0.17	ND		0.16	ND		0.16
1,4-Dichlorobenzene	3	ND		0.20	ND		0.18	ND		0.18
2,4-Dinitrotoluene	5*	ND		0.93	ND		0.86	ND		0.88
2,6-Dinitrotoluene	5*	ND		0.61	ND		0.56	ND		0.57
3,3'-Dichlorobenzidine	5*	ND		1.3	ND		1.2	ND		1.2
Dibenzo(a,h)anthracene	NS	ND		0.59	ND		0.54	ND		0.56
Di-n-butyl phthalate	50	ND		0.64	ND		0.59	ND		0.60
Di-n-octyl phthalate	50	ND		0.62	ND		0.57	7.6		0.58
Diethyl phthalate	50	ND		0.42	ND		0.39	ND		0.40

TABLE 11

GROUNDWATER ANALYTICAL SUMMARY DATA

Akzo Nobel Chemicals Inc. Pilot Plant

Ardsley (Dobbs Ferry), New York

Client ID:	New York State	MW-1			MW-2			MW-3		
Sample Depth:	Ambient Water	N/A			N/A			N/A		
Lab ID:	Quality Standards/	JA22109-1			JA22109-2			JA22109-3		
Date Sampled:	Guidance Value	06/29/2009			06/29/2009			06/29/2009		
Matrix:	(June 1998)	Aqueous			Aqueous			Aqueous		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Dimethyl phthalate	50	ND		0.36	ND		0.33	ND		0.33
Bis(2-ethylhexyl) phthalate	5	3.1		0.72	2.2		0.66	29.0		0.67
Fluoranthene	50	ND		0.27	ND		0.25	ND		0.25
Fluorene	50	ND		0.49	ND		0.45	ND		0.46
Hexachlorobenzene	0.04	ND		0.58	ND		0.54	ND		0.55
Hexachlorobutadiene	0.5	ND		0.19	ND		0.18	ND		0.18
Hexachlorocyclopentadiene	5*	ND		0.44	ND		0.41	ND		0.42
Hexachloroethane	5*	ND		0.31	ND		0.28	ND		0.29
Indeno[1,2,3-cd]pyrene	0.002	ND		0.33	ND		0.30	ND		0.31
Isophorone	50	ND		0.64	ND		0.59	ND		0.60
Naphthalene	10	ND		0.35	ND		0.32	ND		0.33
Nitrobenzene	0.4	ND		0.46	ND		0.42	ND		0.43
n-Nitrosodimethylamine	50	ND		0.50	ND		0.46	ND		0.47
N-Nitroso-di-n-propylamine	NS	ND		0.51	ND		0.47	ND		0.48
N-Nitrosodiphenylamine	50	ND		0.56	ND		0.52	ND		0.53
Phenanthrene	50	ND		0.39	ND		0.36	ND		0.37
Pyrene	50	ND		0.36	ND		0.34	ND		0.34
1,2,4-Trichlorobenzene	5*	ND		0.37	ND		0.34	ND		0.35
TOTAL BNs:		3.1			2.2			37.15	J	
TOTAL TICs:		644.8	J		0			9.4	J	
TOTAL BNs & TICs:		647.9	J		2.2			46.55	J	

TABLE 11

GROUNDWATER ANALYTICAL SUMMARY DATA

Akzo Nobel Chemicals Inc. Pilot Plant

Ardsley (Dobbs Ferry), New York

Client ID:	New York State	MW-1			MW-2			MW-3		
Sample Depth:	Ambient Water	N/A			N/A			N/A		
Lab ID:	Quality Standards/	JA22109-1			JA22109-2			JA22109-3		
Date Sampled:	Guidance Value	06/29/2009			06/29/2009			06/29/2009		
Matrix:	(June 1998)	Aqueous			Aqueous			Aqueous		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
PCBs (ppb)										
Aroclor-1016	***	ND		0.094	ND		0.094	ND		0.094
Aroclor-1221	***	ND		0.47	ND		0.47	ND		0.47
Aroclor-1232	***	ND		0.39	ND		0.39	ND		0.39
Aroclor-1242	***	ND		0.16	ND		0.16	ND		0.16
Aroclor-1248	***	ND		0.15	ND		0.15	ND		0.15
Aroclor-1254	***	ND		0.11	ND		0.11	ND		0.11
Aroclor-1260	***	ND		0.12	ND		0.12	ND		0.12
TOTAL PCBs:	0.09	ND			ND			ND		
Pesticides (ppb)										
Aldrin	ND	ND		0.0033	ND		0.0033	ND		0.0033
alpha-BHC	0.01	ND		0.0026	ND		0.0026	ND		0.0026
beta - BHC	0.04	ND		0.0062	ND		0.0062	ND		0.0062
delta - BHC	0.04	ND		0.0031	ND		0.0031	ND		0.0031
gamma - BHC (Lindane)	0.05	ND		0.0017	ND		0.0017	ND		0.0017
Chlordane	0.05	ND		0.067	ND		0.067	ND		0.067
Dieldrin	0.004	ND		0.0017	ND		0.0017	ND		0.0017
4,4'-DDD	0.3	ND		0.0024	ND		0.0024	ND		0.0024
4,4'-DDE	0.2	ND		0.0017	ND		0.0017	ND		0.0017
4,4'-DDT	0.2	ND		0.0049	ND		0.0049	ND		0.0049
Endrin	ND	ND		0.003	ND		0.003	ND		0.003
Endosulfan sulfate	NS	ND		0.0046	ND		0.0046	ND		0.0046
Endrin aldehyde	5*	ND		0.0064	ND		0.0064	ND		0.0064
Endosulfan-I	NS	ND		0.0021	ND		0.0021	ND		0.0021
Endosulfan-II	NS	ND		0.0032	ND		0.0032	ND		0.0032
Heptachlor	0.04	ND		0.0026	ND		0.0026	ND		0.0026
Heptachlor epoxide	0.03	ND		0.0015	ND		0.0015	ND		0.0015
Methoxychlor	35	ND		0.0068	ND		0.0068	ND		0.0068
Toxaphene	0.06	ND		0.094	ND		0.094	ND		0.094

TABLE 11

GROUNDWATER ANALYTICAL SUMMARY DATA

Akzo Nobel Chemicals Inc. Pilot Plant

Ardsley (Dobbs Ferry), New York

Client ID:	New York State	MW-1			MW-2			MW-3		
Sample Depth:	Ambient Water	N/A			N/A			N/A		
Lab ID:	Quality Standards/	JA22109-1			JA22109-2			JA22109-3		
Date Sampled:	Guidance Value	06/29/2009			06/29/2009			06/29/2009		
Matrix:	(June 1998)	Aqueous			Aqueous			Aqueous		
		Conc	Q	MDL	Conc	Q	MDL	Conc	Q	MDL
Metals (ppb)[1]										
Antimony	**3**	ND		6.0	ND		6.0	ND		6.0
Arsenic	**25**	ND		3.0	ND		3.0	4.1		3.0
Beryllium	**3**	ND		1.0	ND		1.0	1.1		1.0
Cadmium	**5**	ND		3.0	ND		3.0	ND		3.0
Chromium	**50**	ND		10	ND		10	ND		10
Copper	**200**	10.4		10	ND		10	ND		10
Lead	**25**	ND		3.0	ND		3.0	ND		3.0
Mercury	**0.7**	ND		0.20	ND		0.20	ND		0.20
Nickel	**100**	ND		10	ND		10	ND		10
Selenium	**10**	ND		10	ND		10	ND		10
Silver	**50**	ND		10	ND		10	ND		10
Thallium	**0.5**	ND		2.0	ND		2.0	ND		2.0
Zinc	**2,000**	ND		20	ND		20	ND		20

Notes:

NYSDEC = New York State Department of Environmental Conservation

N/A = Not Applicable

MDL = Method Detection Limit

NS = No Standard available

ND = Analyzed for but Not Detected at the MDL

J = Estimated concentration

[1] = Metals results from filtered samples

* = Principal Organic Contaminant standard for groundwater.

** = No individual standard. Total phenolic compound standard (1.0 ppb) applies to the sum of these compounds.

*** = No individual standard. Total PCB standard (0.09 ppb) applies to the sum of these substances.

APPENDIX A

LABORATORY ANALYSIS REPORT #JA1627

BUILDING MATERIAL SAMPLES – SEPTEMBER 24, 2008

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
Method:	SW846 8260B	Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G114221.D	1	10/01/08	SJM	n/a	n/a	VG5502
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	2.4	ug/kg	
71-43-2	Benzene	0.50	1.1	0.40	ug/kg	J
75-27-4	Bromodichloromethane	ND	5.7	0.29	ug/kg	
75-25-2	Bromoform	ND	5.7	0.38	ug/kg	
74-83-9	Bromomethane	ND	5.7	1.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.57	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.7	1.1	ug/kg	
108-90-7	Chlorobenzene	ND	5.7	0.34	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.77	ug/kg	
67-66-3	Chloroform	ND	5.7	0.53	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.80	ug/kg	
124-48-1	Dibromochloromethane	ND	5.7	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.7	0.44	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.48	ug/kg	
75-35-4	1,1-Dichloroethene	ND	5.7	0.59	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.7	0.41	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.7	0.36	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	5.7	0.36	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.7	0.44	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.7	0.28	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.7	0.28	ug/kg	
100-41-4	Ethylbenzene	1.1	1.1	0.46	ug/kg	
591-78-6	2-Hexanone	ND	5.7	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.7	2.7	ug/kg	
75-09-2	Methylene chloride	1.6	5.7	0.33	ug/kg	J
100-42-5	Styrene	ND	5.7	0.33	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.7	0.29	ug/kg	
127-18-4	Tetrachloroethene	ND	5.7	0.53	ug/kg	
108-88-3	Toluene	3.6	1.1	0.37	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.7	0.60	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.7	0.29	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
Method:	SW846 8260B	Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	0.53	5.7	0.33	ug/kg	J
75-01-4	Vinyl chloride	ND	5.7	0.72	ug/kg	
1330-20-7	Xylene (total)	6.2	2.3	0.34	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		67-125%
17060-07-0	1,2-Dichloroethane-D4	96%		64-131%
2037-26-5	Toluene-D8	104%		73-124%
460-00-4	4-Bromofluorobenzene	100%		61-136%

ND = Not detected MDL - Method Detection Limit
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E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
Method:	SW846 8270C SW846 3550B	Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2M18340.D	1	10/14/08	VN	09/30/08	OP34977	E2M750
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	170	28	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	41	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	41	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	670	360	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	670	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	36	ug/kg	
	3&4-Methylphenol	ND	67	45	ug/kg	
88-75-5	2-Nitrophenol	ND	170	35	ug/kg	
100-02-7	4-Nitrophenol	ND	340	43	ug/kg	
87-86-5	Pentachlorophenol	ND	340	43	ug/kg	
108-95-2	Phenol	ND	67	25	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	36	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	45	ug/kg	
83-32-9	Acenaphthene	ND	34	18	ug/kg	
208-96-8	Acenaphthylene	ND	34	14	ug/kg	
120-12-7	Anthracene	ND	34	15	ug/kg	
56-55-3	Benzo(a)anthracene	25	34	20	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	34	14	ug/kg	
205-99-2	Benzo(b)fluoranthene	25	34	18	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	34	16	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	34	17	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	18	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	17	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	15	ug/kg	
106-47-8	4-Chloroaniline	ND	170	14	ug/kg	
86-74-8	Carbazole	ND	67	14	ug/kg	
218-01-9	Chrysene	30	34	16	ug/kg	J
111-91-1	bis(2-Chloroethoxy)methane	ND	67	17	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	16	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	67	17	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	22	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
Method:	SW846 8270C SW846 3550B	Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	67	18	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	67	14	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	67	13	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	67	18	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	67	15	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	58	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	34	16	ug/kg	
132-64-9	Dibenzofuran	ND	67	16	ug/kg	
84-74-2	Di-n-butyl phthalate	36	67	21	ug/kg	J
117-84-0	Di-n-octyl phthalate	ND	67	15	ug/kg	
84-66-2	Diethyl phthalate	ND	67	15	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	16	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	48	67	18	ug/kg	J
206-44-0	Fluoranthene	37.4	34	15	ug/kg	
86-73-7	Fluorene	ND	34	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	19	ug/kg	
87-68-3	Hexachlorobutadiene	ND	67	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	670	32	ug/kg	
67-72-1	Hexachloroethane	ND	170	22	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	34	12	ug/kg	
78-59-1	Isophorone	ND	67	30	ug/kg	
91-57-6	2-Methylnaphthalene	ND	67	15	ug/kg	
88-74-4	2-Nitroaniline	ND	170	25	ug/kg	
99-09-2	3-Nitroaniline	ND	170	14	ug/kg	
100-01-6	4-Nitroaniline	ND	170	21	ug/kg	
91-20-3	Naphthalene	ND	34	15	ug/kg	
98-95-3	Nitrobenzene	ND	67	15	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	21	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	23	ug/kg	
85-01-8	Phenanthrene	23.2	34	17	ug/kg	J
129-00-0	Pyrene	32.5	34	15	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	67	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	63%		29-114%
4165-62-2	Phenol-d5	62%		31-111%
118-79-6	2,4,6-Tribromophenol	58%		27-133%
4165-60-0	Nitrobenzene-d5	82%		36-116%
321-60-8	2-Fluorobiphenyl	79%		44-111%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
Method:	SW846 8270C SW846 3550B	Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	77%		37-131%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
Method:	SW846 8082 SW846 3545	Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	WW76943.D	1	10/08/08	OPM	09/29/08	OP34954	GWW2591
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	6.4	ug/kg	
11104-28-2	Aroclor 1221	ND	34	20	ug/kg	
11141-16-5	Aroclor 1232	ND	34	18	ug/kg	
53469-21-9	Aroclor 1242	ND	34	11	ug/kg	
12672-29-6	Aroclor 1248	ND	34	12	ug/kg	
11097-69-1	Aroclor 1254	ND	34	16	ug/kg	
11096-82-5	Aroclor 1260	ND	34	6.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		44-139%
877-09-8	Tetrachloro-m-xylene	97%		44-139%
2051-24-3	Decachlorobiphenyl	104%		39-147%
2051-24-3	Decachlorobiphenyl	104%		39-147%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
		Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	<2.0	2.0	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]
Barium	20	20	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]
Cadmium	<0.49	0.49	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]
Chromium	6.0	0.99	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]
Lead	7.8	2.0	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]
Mercury	0.040	0.034	mg/kg	1	10/15/08	10/15/08	JW	SW846 7471A [1]	SW846 7471A [4]
Selenium	<2.0	2.0	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]
Silver	2.6	0.99	mg/kg	1	10/15/08	10/17/08	ND	SW846 6010B [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA21612
(2) Instrument QC Batch: MA21620
(3) Prep QC Batch: MP45642
(4) Prep QC Batch: MP45648

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MASONRY PILE		
Lab Sample ID:	JA1627-3	Date Sampled:	09/24/08
Matrix:	SO - Soil	Date Received:	09/26/08
		Percent Solids:	98.1
Project:	Akzo Nobel, 1 Lawrence Street, Ardsley, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	98.1		%	1	10/08/08	MS	EPA 160.3 M
Total Organic Carbon	2310	1000	mg/kg	1	10/07/08 13:35	SJG	CORP ENG 81M/SW9060M

RL = Reporting Limit

APPENDIX B (ENCLOSED CD)

EDR RADIUS MAP WITH GEOCHECK

(AUGUST 12, 2009)

APPENDIX C

EDR HISTORICAL TOPOGRAPHIC MAP REPORT

(AUGUST 12, 2009)

Akzo Nobel Chemicals Inc. Pilot Plant
1 Lawrence Street
Ardsley, NY 10502

Inquiry Number: 2562685.4
August 12, 2009

The EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

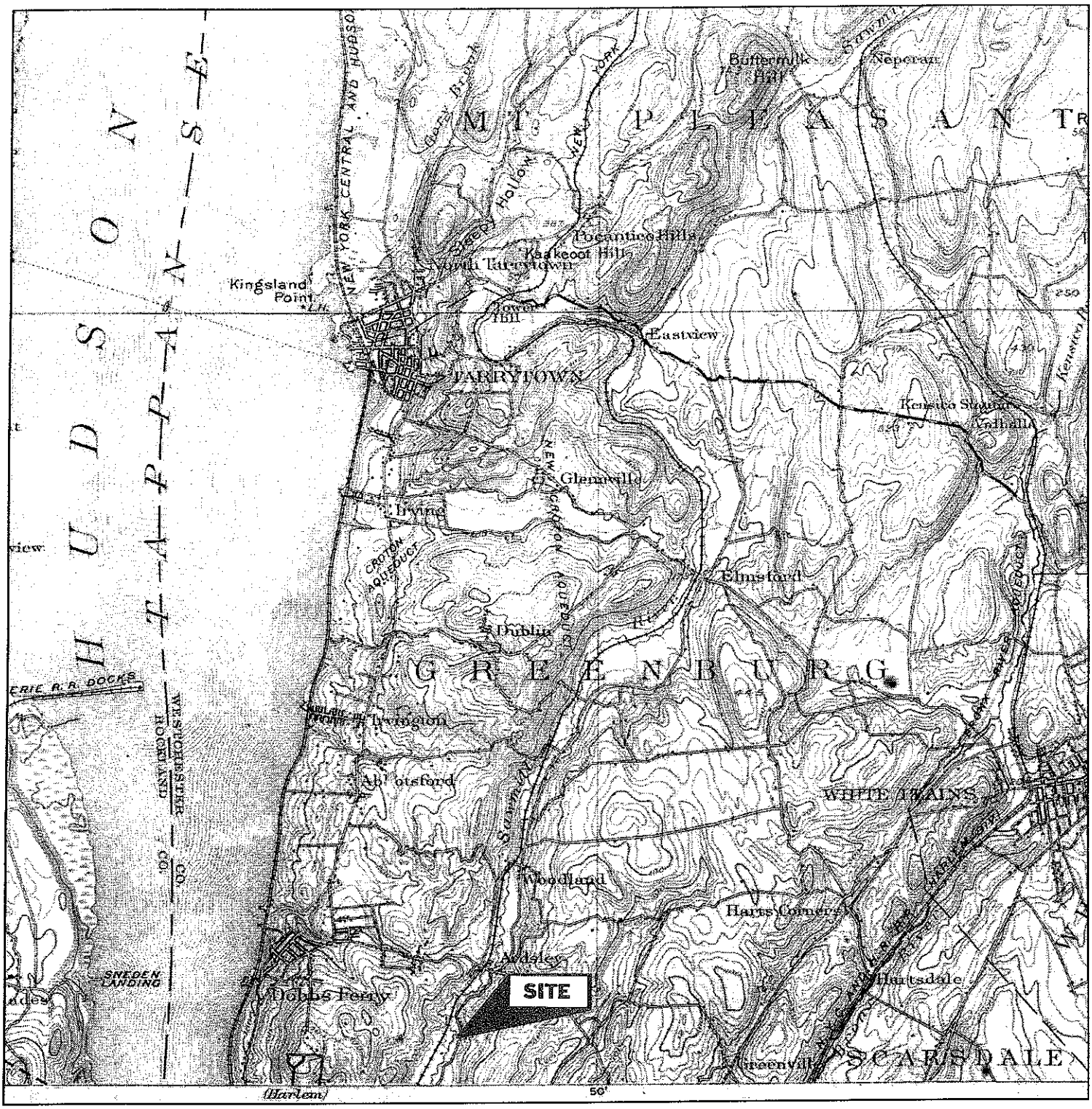
440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

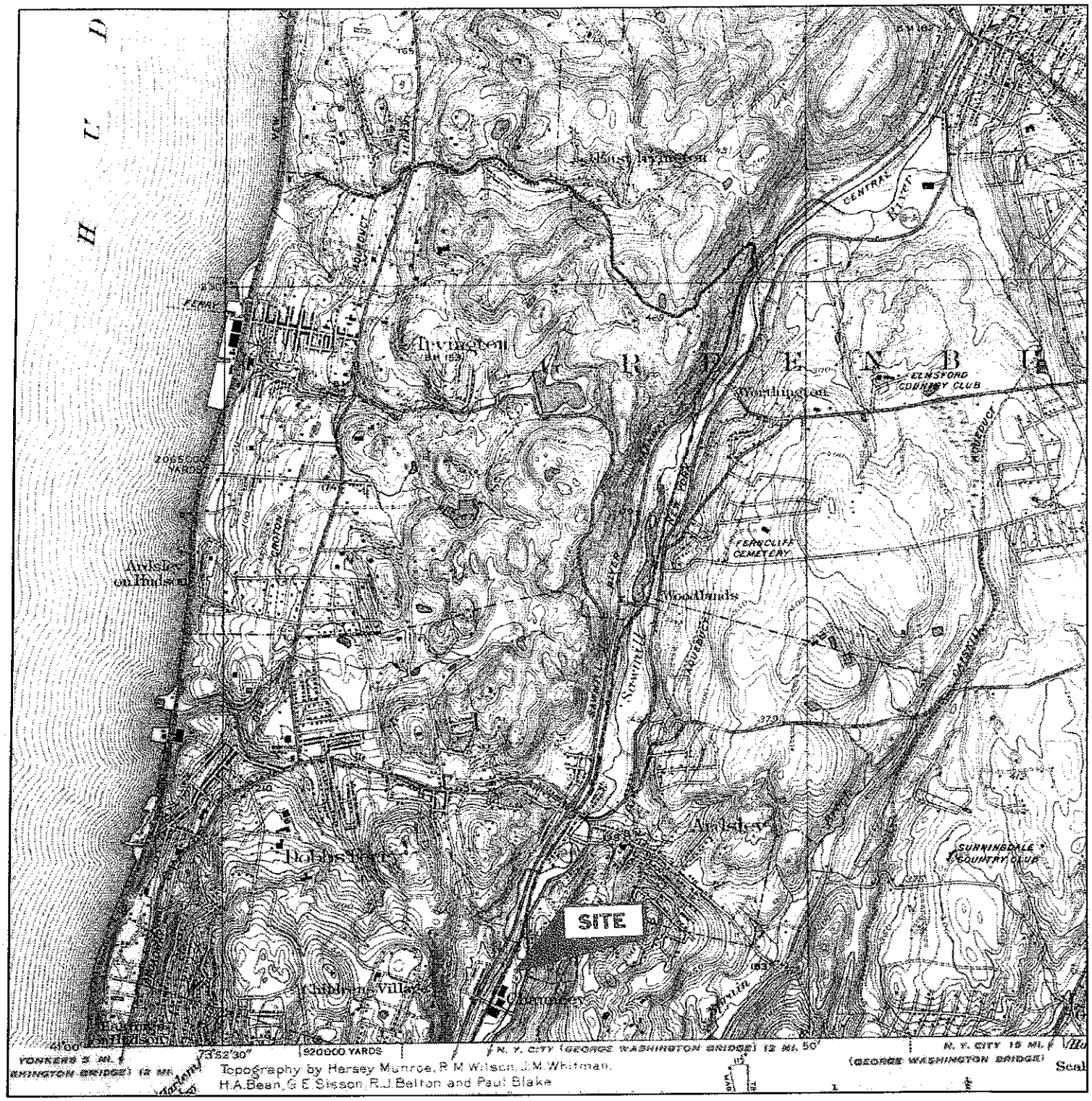
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Historical Topographic Map



N	TARGET QUAD NAME: TARRYTOWN MAP YEAR: 1902 SERIES: 15 SCALE: 1:62500	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map



N	TARGET QUAD NAME: WHITE PLAINS MAP YEAR: 1938 SERIES: 7.5 SCALE: 1:31680	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map

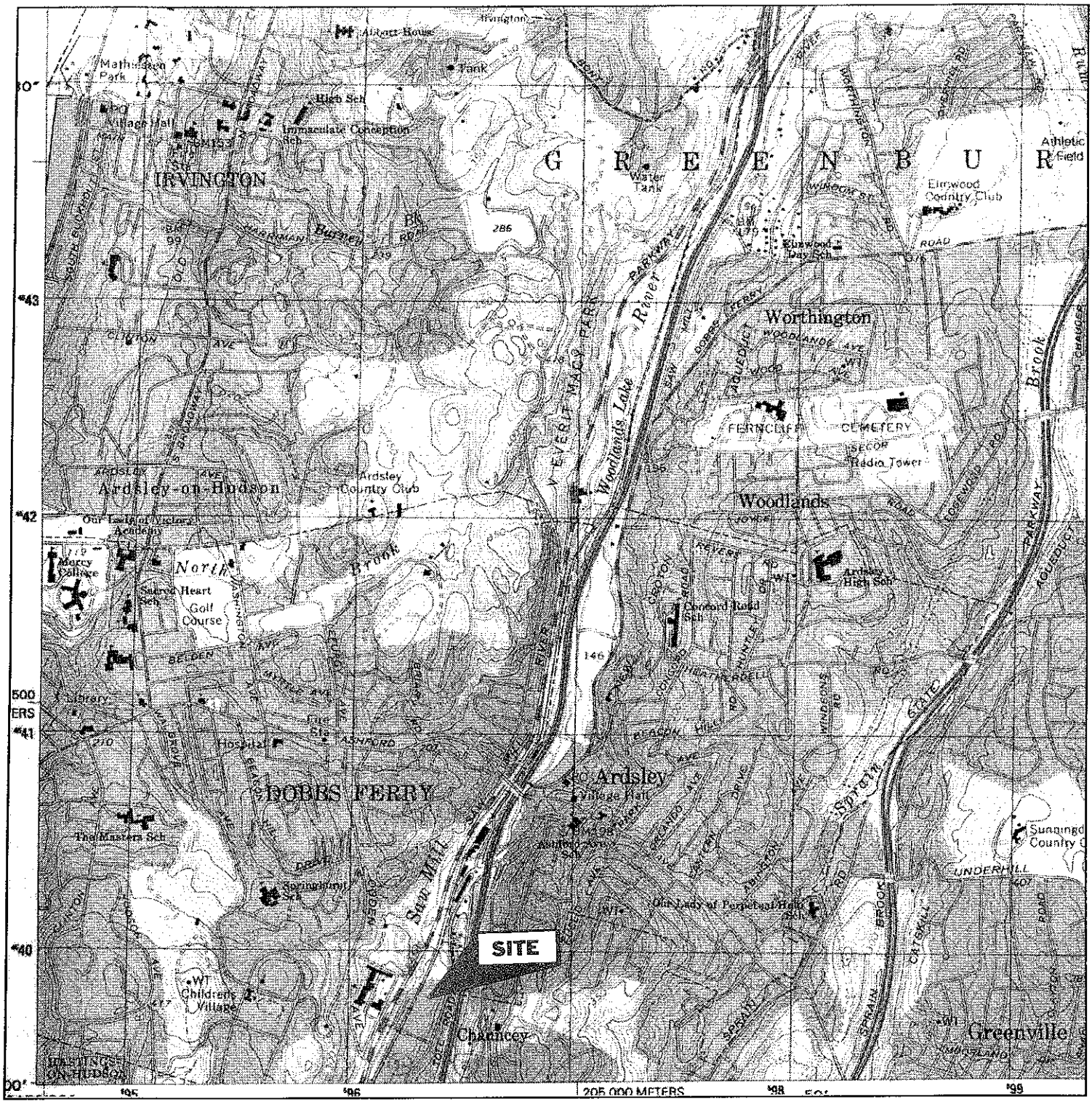
N	TARGET QUAD NAME: WHITE PLAINS MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map

ped, edited, and published by the Geological Survey

N	TARGET QUAD NAME: WHITE PLAINS MAP YEAR: 1979 PHOTOREVISED FROM:1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map



N	TARGET QUAD NAME: WHITE PLAINS MAP YEAR: 1994 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

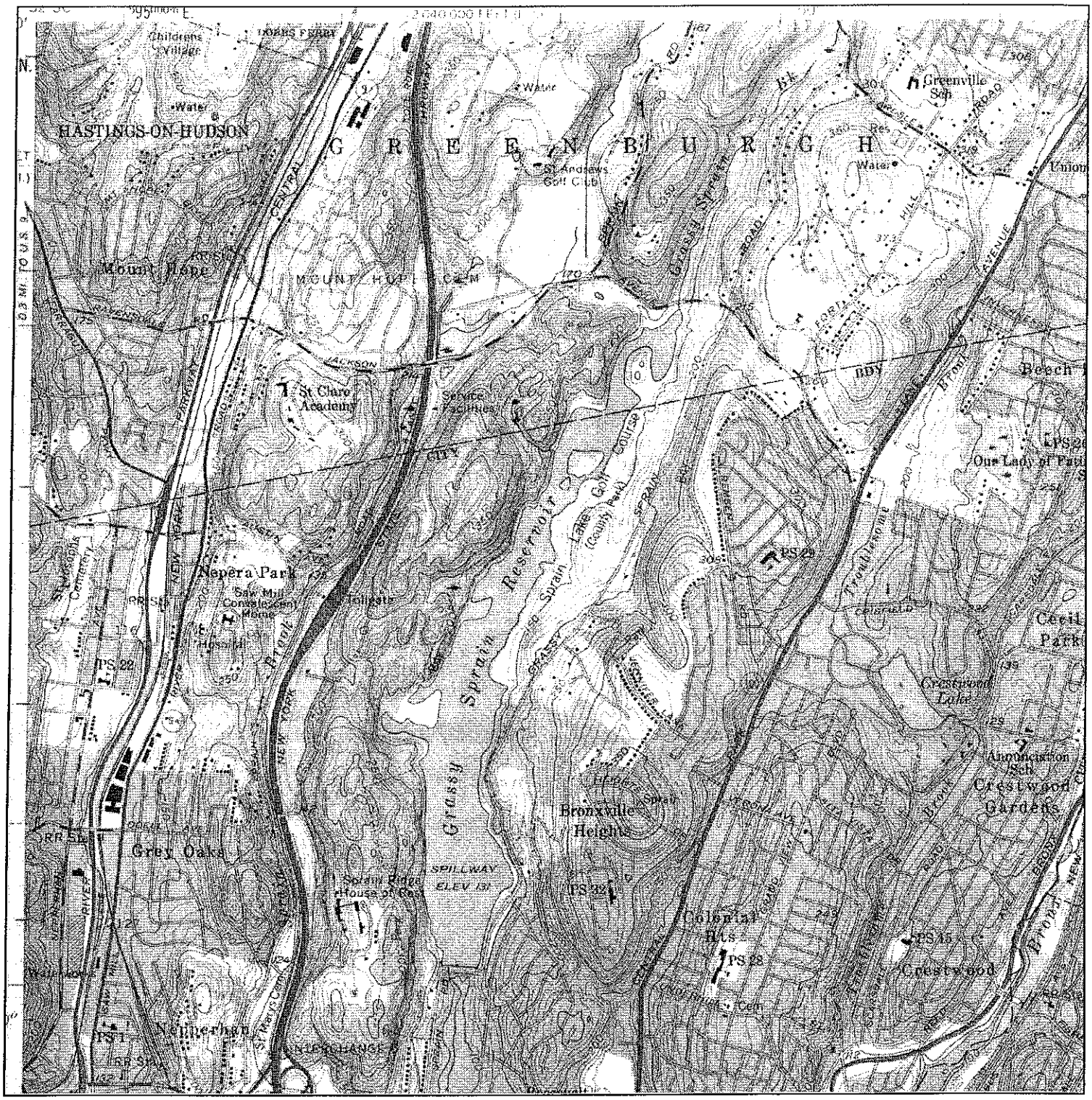
Historical Topographic Map

N	ADJOINING QUAD NAME: HARLEM MAP YEAR: 1897 SERIES: 15 SCALE: 1:62500	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map

N	ADJOINING QUAD NAME: MOUNT VERNON MAP YEAR: 1947 SERIES: 7.5 SCALE: 1:25000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map



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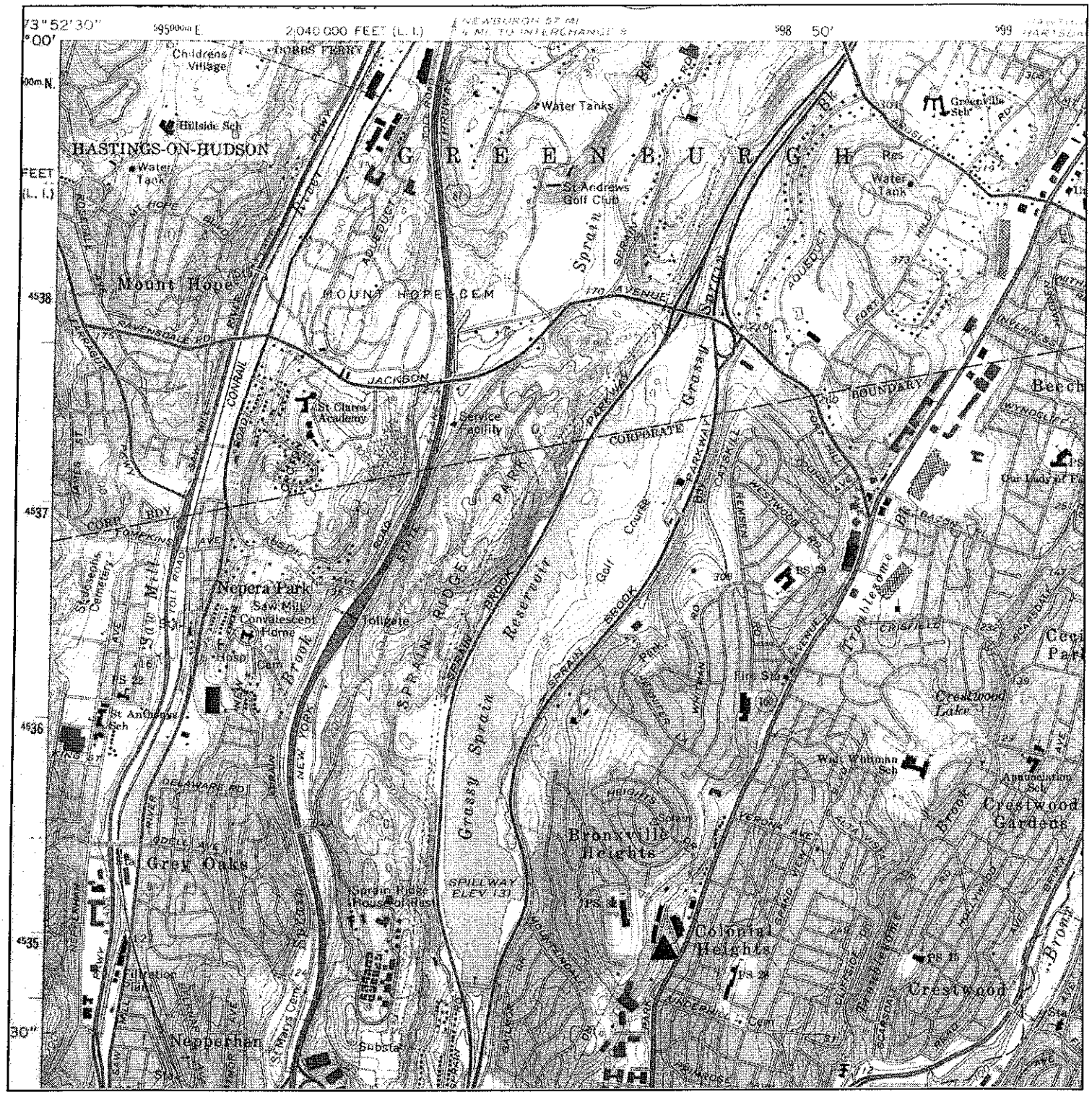
Historical Topographic Map

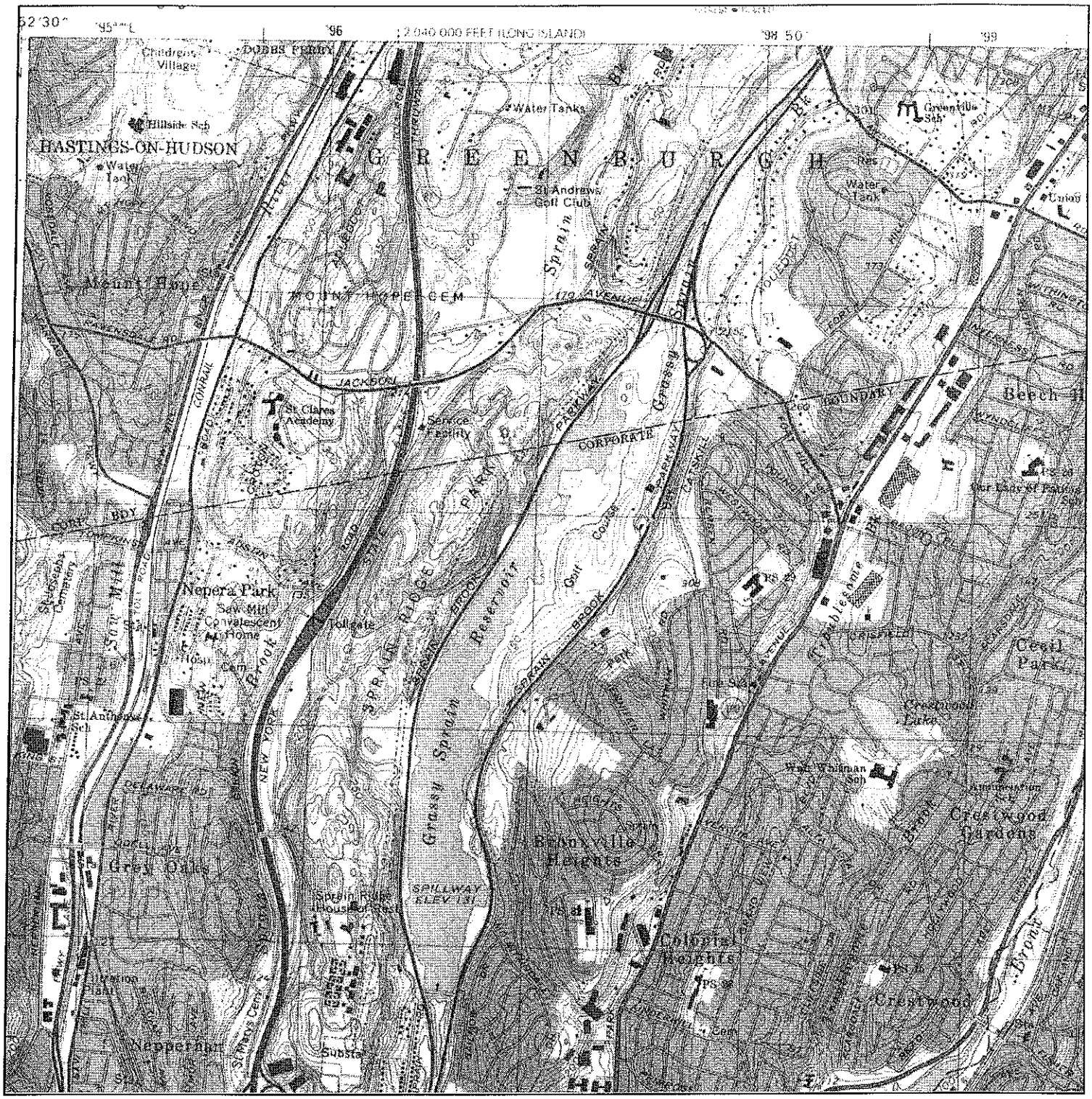
N	ADJOINING QUAD NAME: MOUNT VERNON MAP YEAR: 1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map



N	ADJOINING QUAD NAME: MOUNT VERNON MAP YEAR: 1979 PHOTOREVISED FROM:1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

Historical Topographic Map



N	ADJOINING QUAD NAME: MOUNT VERNON MAP YEAR: 1995 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Akzo Nobel Chemicals Inc. Pilot Plant ADDRESS: 1 Lawrence Street Ardsley, NY 10502 LAT/LONG: 41.003 / 73.8546	CLIENT: Sovereign Consulting Inc. CONTACT: Brad Smyth INQUIRY#: 2562685.4 RESEARCH DATE: 08/12/2009

APPENDIX D

EDR AERIAL PHOTO DECADE PACKAGE

(AUGUST 12, 2009)

Akzo Nobel Chemicals Inc. Pilot Plant
1 Lawrence Street
Ardsley, NY 10502

Inquiry Number: 2562685.5
August 12, 2009

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

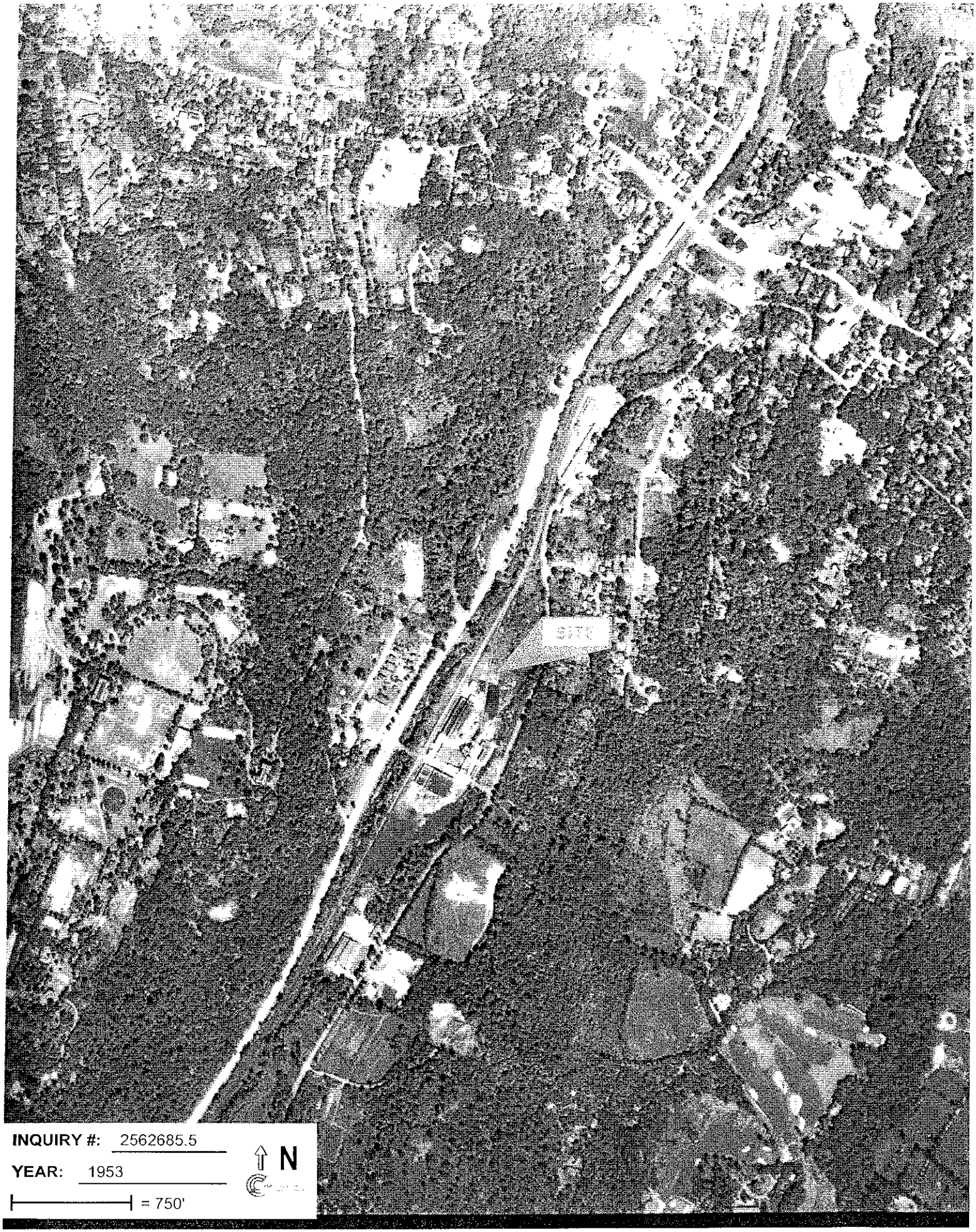
Aerial Photography August 12, 2009

Target Property:

1 Lawrence Street

Ardsley, NY 10502

Year	*Scale*	*Details*	*Source*
1953	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: June 03, 1953	EDR
1954	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: April 20, 1954	EDR
1964	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: March 23, 1964	EDR
1966	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: January 12, 1966	EDR
1974	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: October 24, 1974	EDR
1976	Aerial Photograph. Scale: 1"=1000'	Panel #: 2441073-A7/Flight Date: October 29, 1976	EDR
1985	Aerial Photograph. Scale: 1"=1000'	Panel #: 2441073-A7/Flight Date: March 16, 1985	EDR
1989	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: April 20, 1989	EDR
1994	Aerial Photograph. Scale: 1"=750'	Panel #: 2441073-A7/Flight Date: April 08, 1994	EDR
2006	Aerial Photograph. 1" = 604'	Flight Year: 2006	EDR



INQUIRY #: 2562685.5

YEAR: 1953

= 750'

N

INQUIRY #: 2562685.5

YEAR: 1954

= 750'

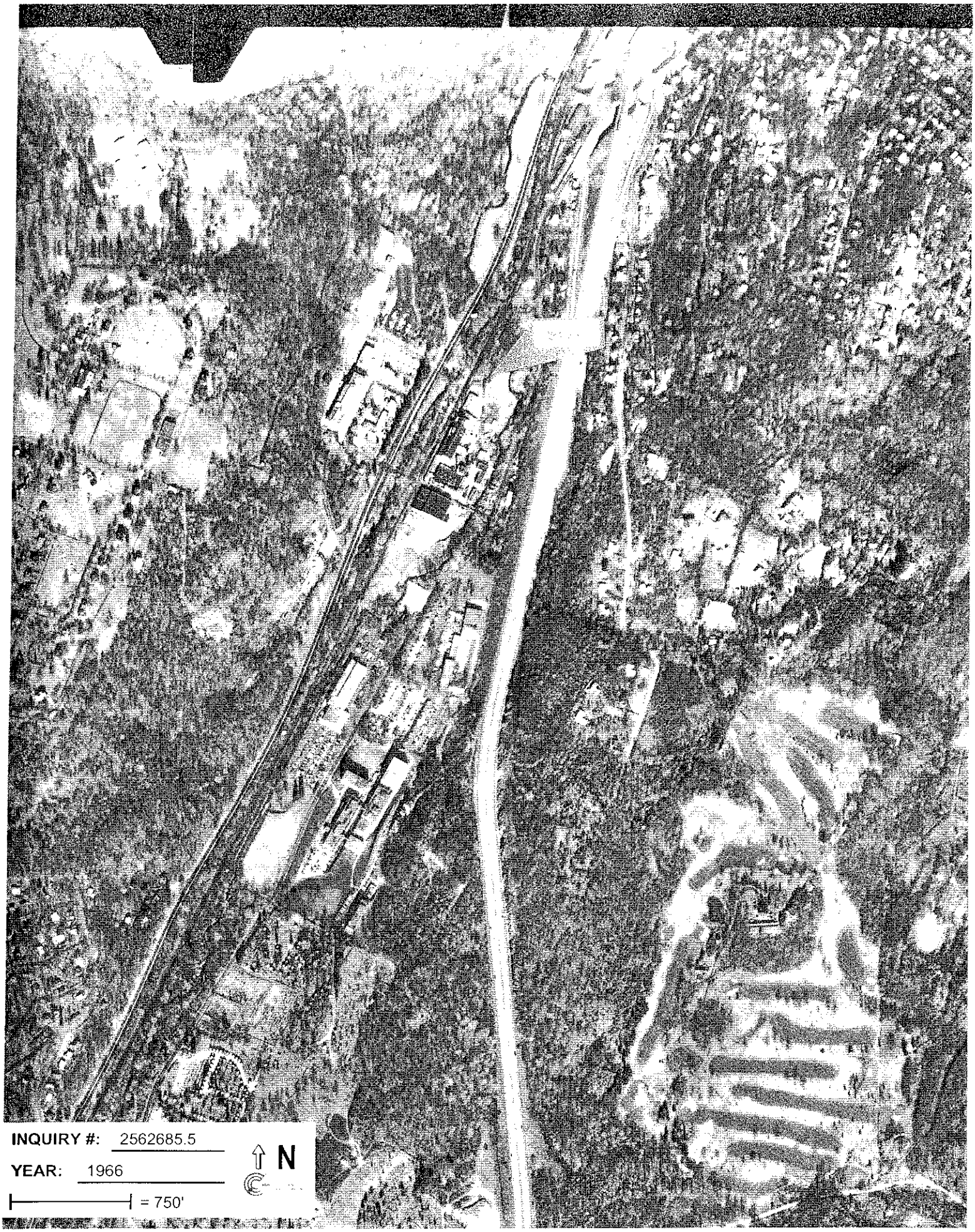
N

INQUIRY #: 2562685.5

YEAR: 1964

= 750'

N



INQUIRY #: 2562685.5

YEAR: 1966

= 750'

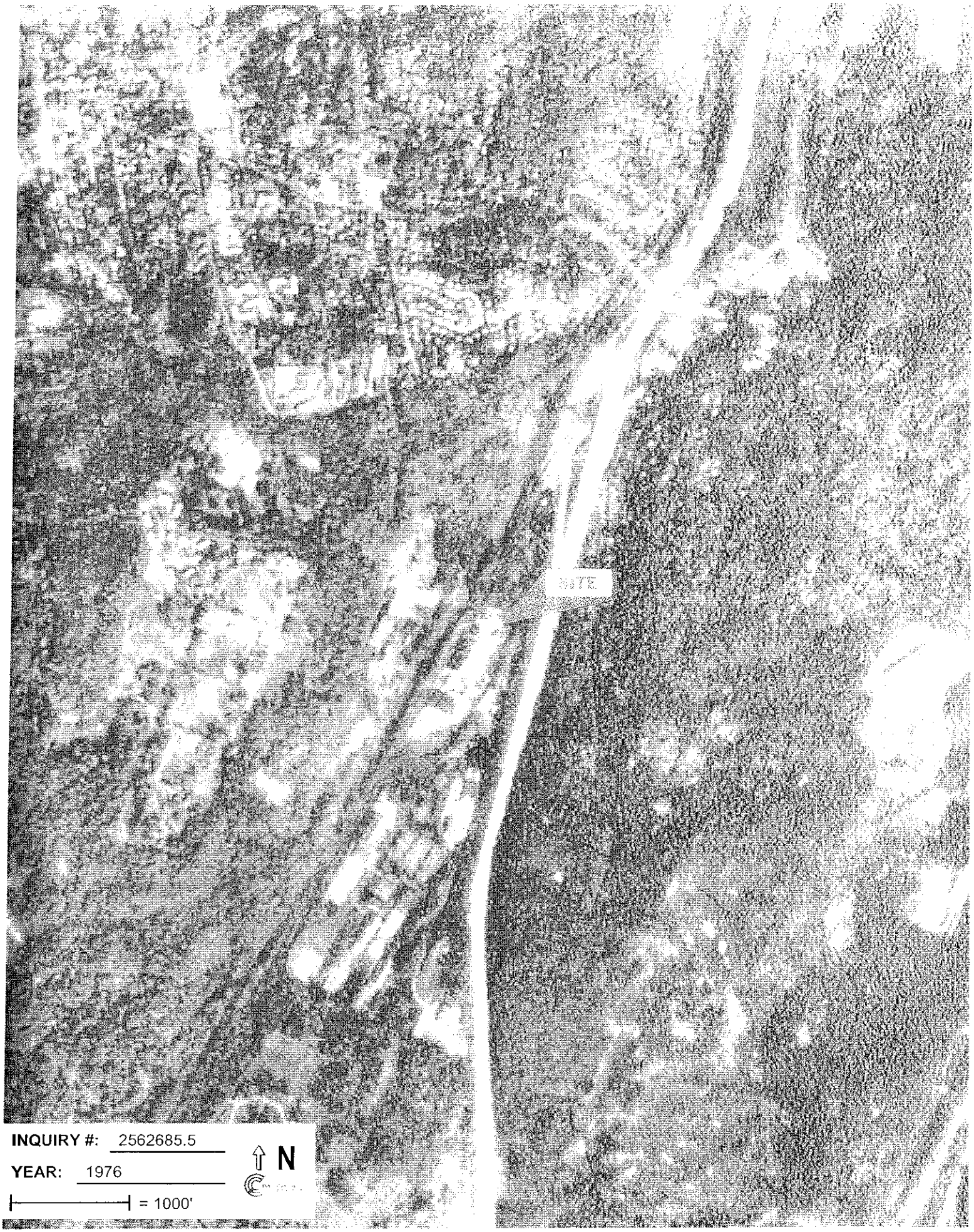
N

INQUIRY #: 2562685.5

YEAR: 1974

= 750'

N



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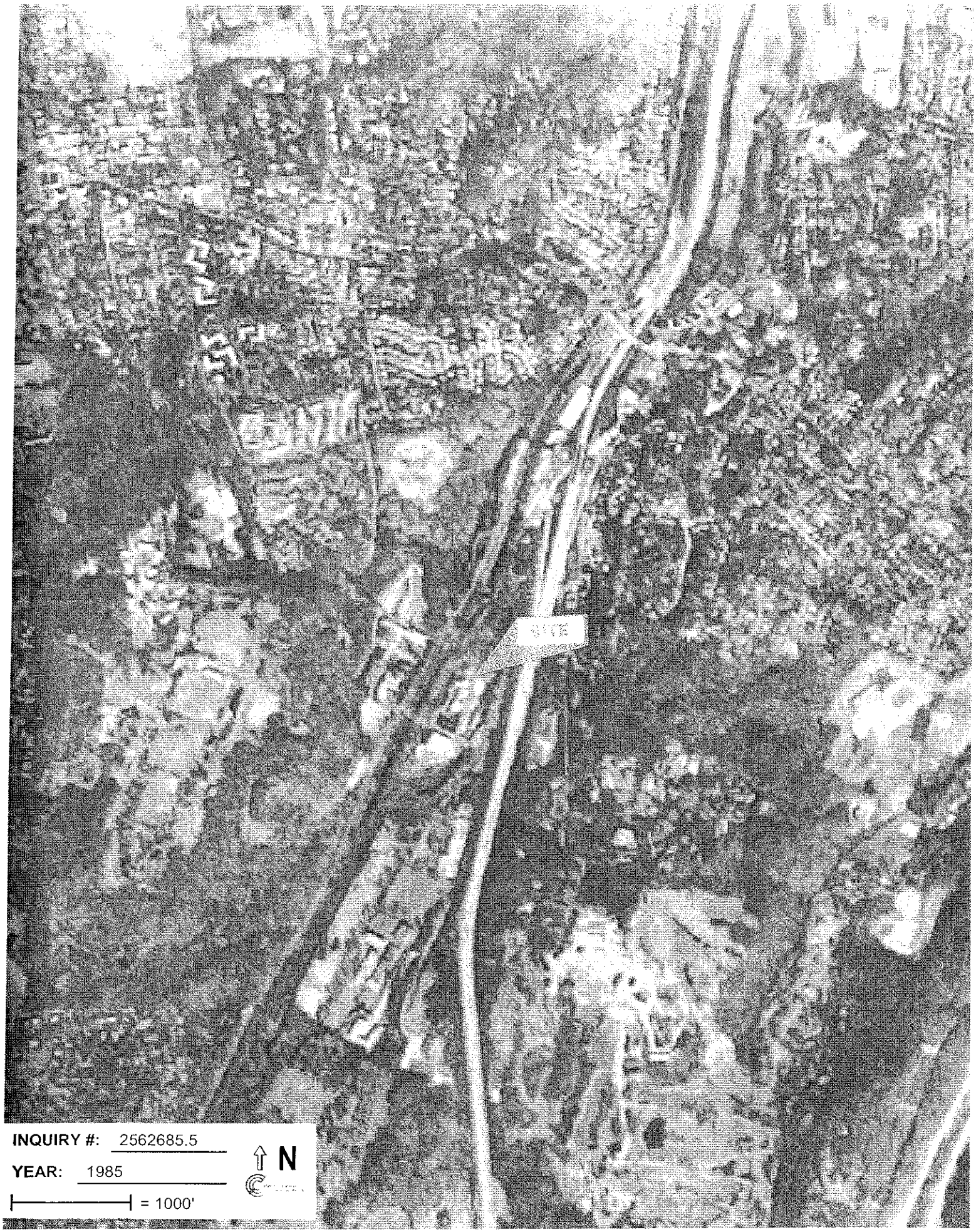
YEAR: 1976

= 1000'

N



INQUIRY #: 2562685.5

YEAR: 1985

= 1000'

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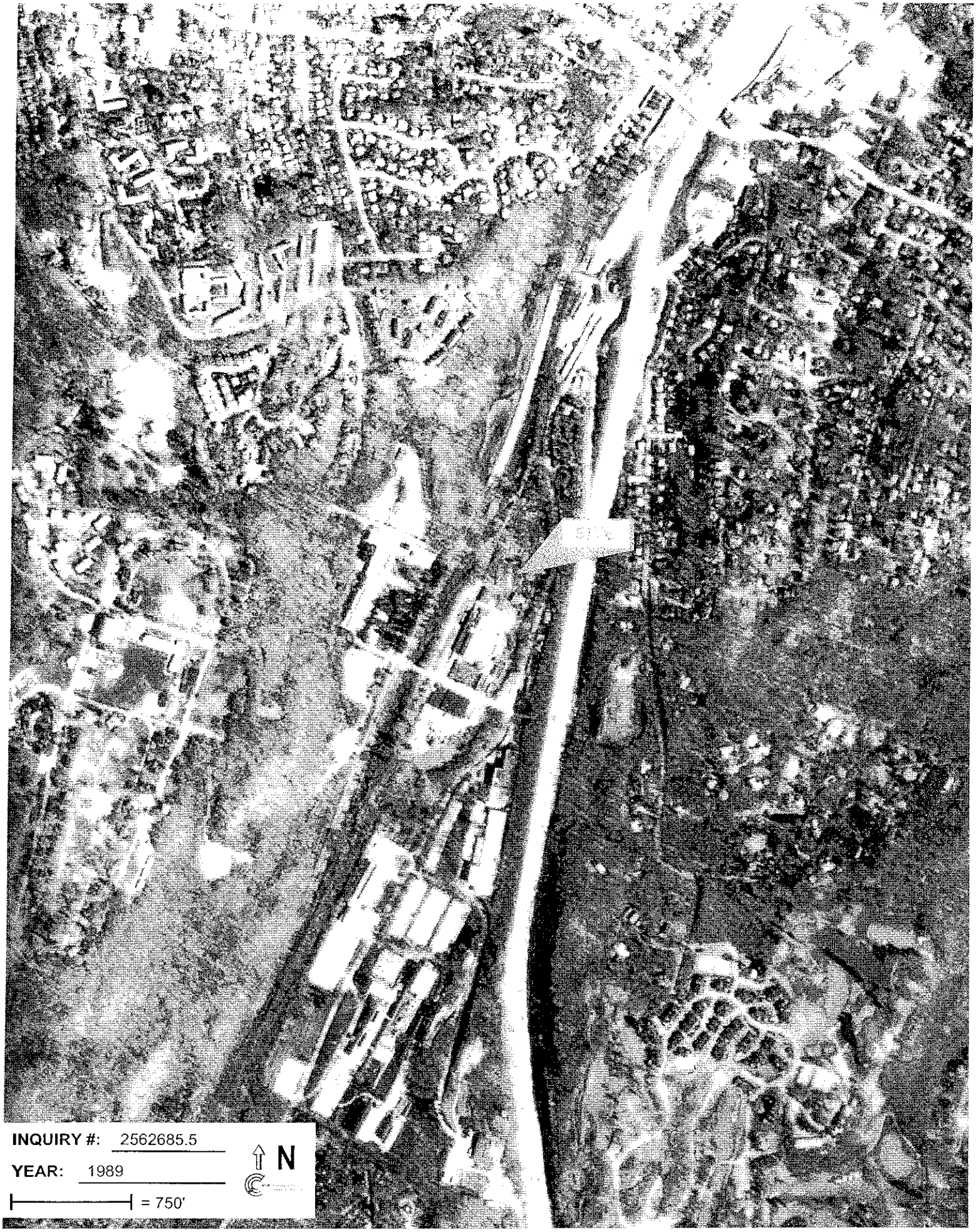
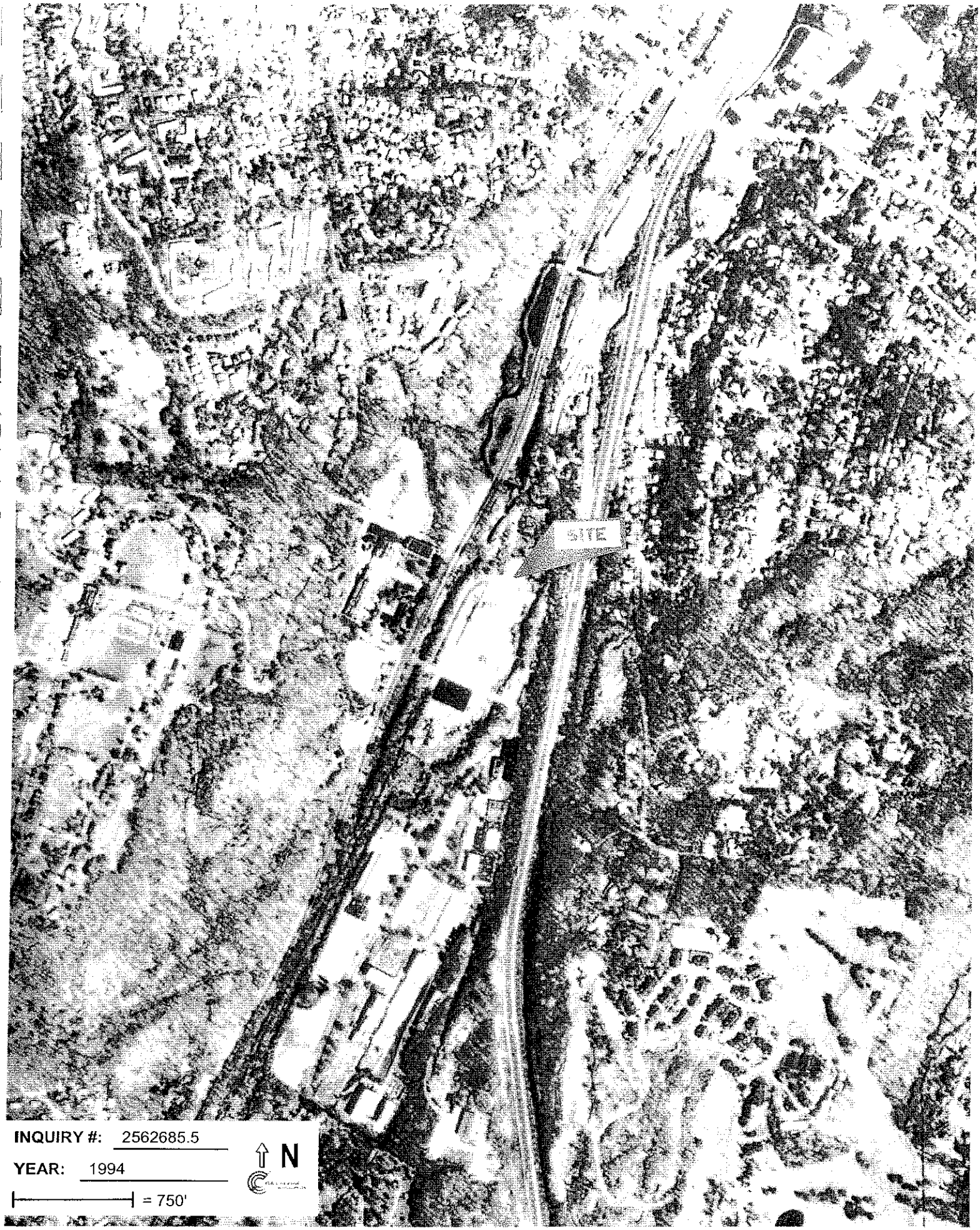


INQUIRY #: 2562685.5

YEAR: 1989

= 750'

N

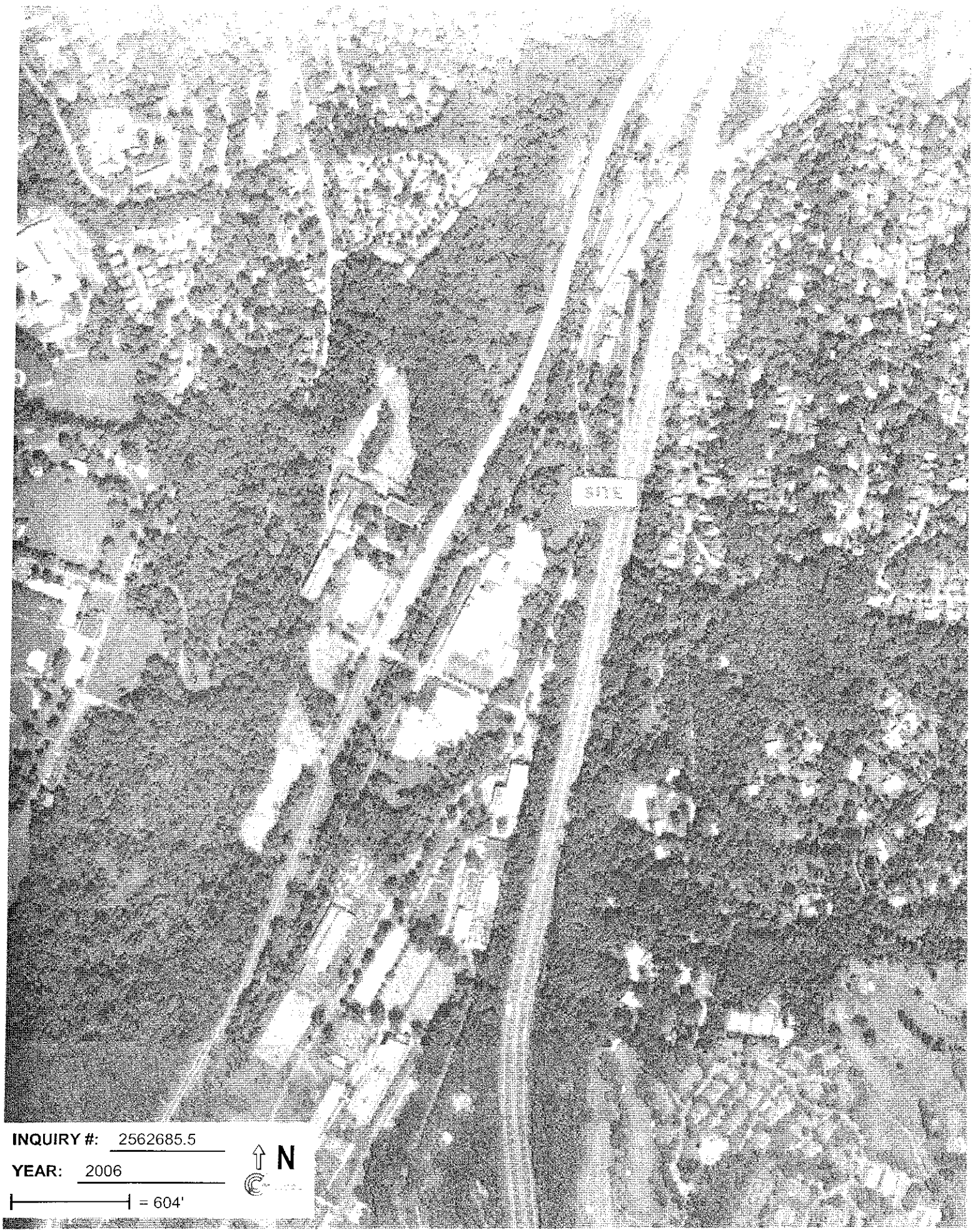


INQUIRY #: 2562685.5

YEAR: 1994

= 750'

N



INQUIRY #: 2562685.5

YEAR: 2006

= 604'

N

APPENDIX E

CERTIFIED SANBORN® MAP REPORT

(AUGUST 12, 2009)

Akzo Nobel Chemicals Inc. Pilot Plant
1 Lawrence Street
Ardsley, NY 10502

Inquiry Number: 2562685.3
August 12, 2009

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

8/12/09

Site Name:
Akzo Nobel Chemicals Inc. Pilot
1 Lawrence Street
Ardsley, NY 10502

Client Name:
Sovereign Consulting Inc.
111 A North Gold Drive
Robbinsville, NJ 08691

EDR® Environmental Data Resources Inc

EDR Inquiry # 2562685.3

Contact: Brad Smyth

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Sovereign Consulting Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Akzo Nobel Chemicals Inc. Pilot Plant
Address: 1 Lawrence Street
City, State, Zip: Ardsley, NY 10502
Cross Street:
P.O. # AN016.001.07
Project: Akzo Nobel Ards
Certification # D471-4665-A7E8

Sanborn® Library search results
Certification # D471-4665-A7E8

Maps Provided:

1924
1942
1950
1970

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

Limited Permission To Make Copies

Sovereign Consulting Inc. (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Certified Sanborn® Map Report Enhancements for 2009

The accompanying Certified Sanborn Map Report reflects a number of enhancements that make it easier for you to review these historical maps. EDR has digitally joined together the more than one million fire insurance maps from the Sanborn Library collection so that your target property is centered, making it easier for you to review adjoining properties. Here is a list of the new features:

· Your target property is centered on each map. You can quickly locate your target property and view adjoining properties. Plus, adjoining properties are included more often, reducing your need to refer to additional maps.

· All maps are now displayed at a uniform scale. This makes it easier for you to view changes to the property over time.

· We've increased coverage by adding thousands of new maps from 40 cities for years 1994-2007.

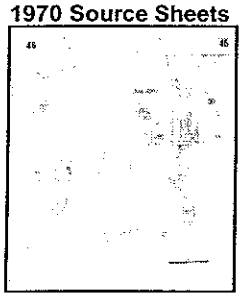
· A new Map Key and Sheet Thumbnails let you reference sheet numbers, year and volume of original Sanborn Map panels used for this report.

For more information about the new enhancements to the Certified Sanborn Map Report, contact your EDR representative at 800-352-0050.

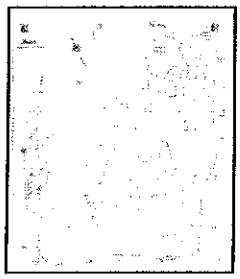
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

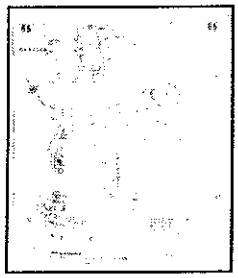
1970 Source Sheets



Volume 1, Sheet 46

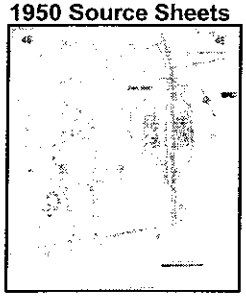


Volume 1, Sheet 61



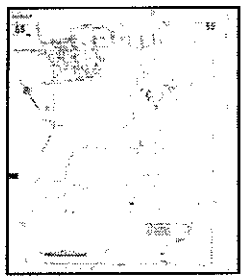
Volume 1, Sheet 65

1950 Source Sheets



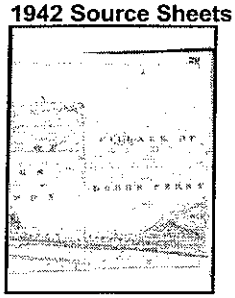
Volume 1, Sheet 46

Volume 1, Sheet 61

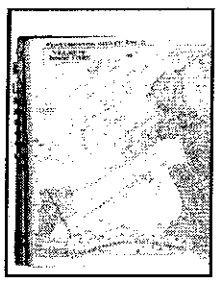


Volume 1, Sheet 65

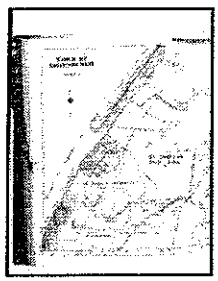
1942 Source Sheets



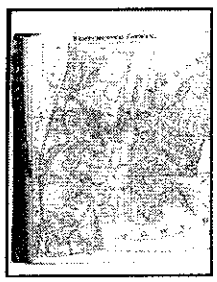
Volume 3, Sheet 29



Volume 3, Sheet 31

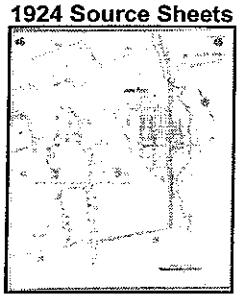


Volume 2, Sheet XXX

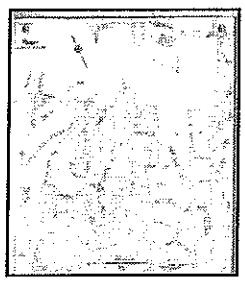


Volume 2, Sheet XXXX

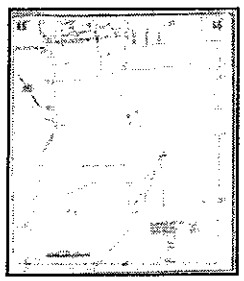
1924 Source Sheets



Volume 1, Sheet 46



Volume 1, Sheet 61



Volume 1, Sheet 65

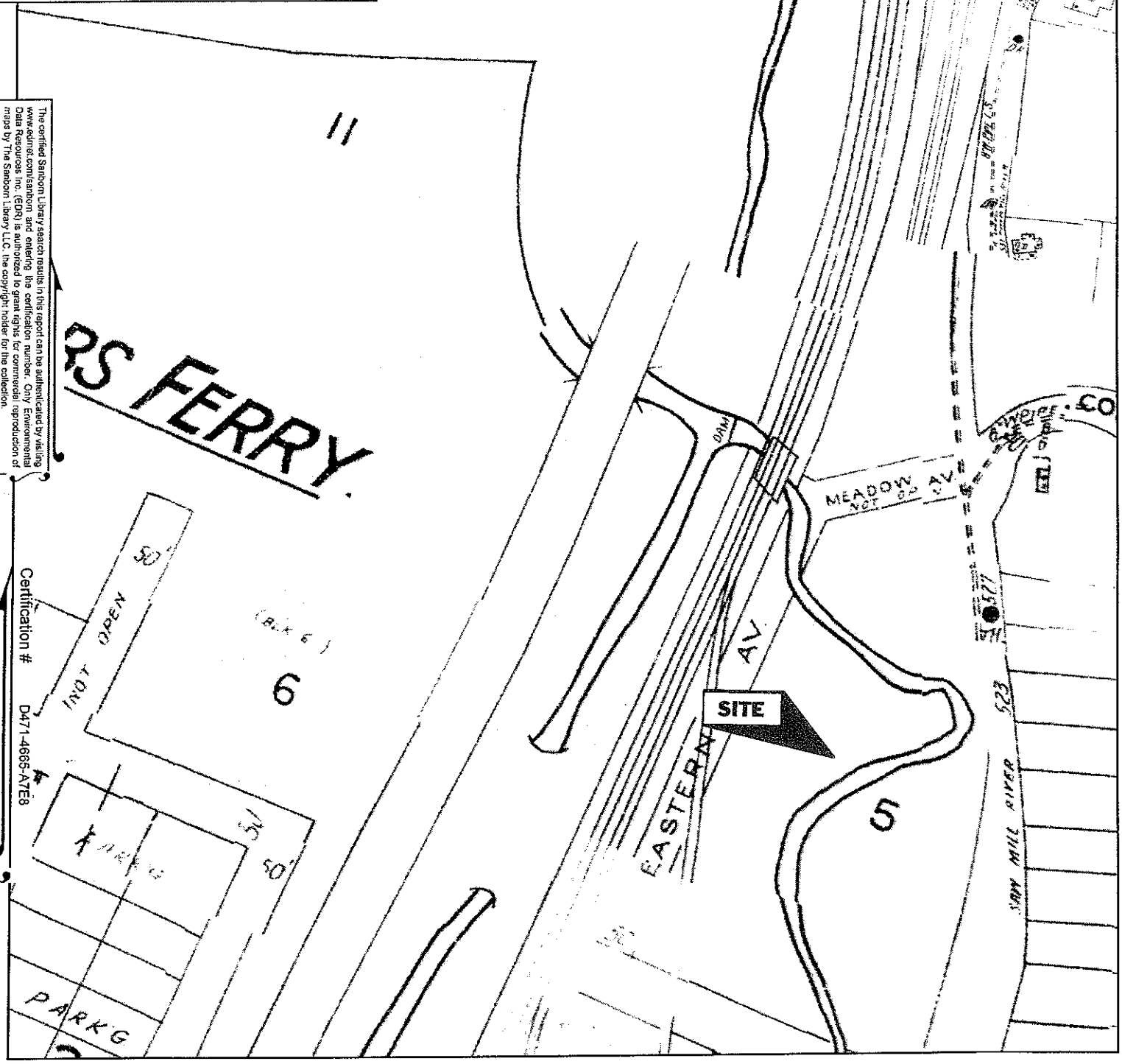
1970 Certified Sanborn Map

Site Name: Akzo Nobel Chemicals Inc Pilot Plant
Address: 1 Lawrence Street
City, ST, ZIP: Ardsley NY 10502

Client: Sovereign Consulting Inc
EDR Inquiry: 2562685.3
Order Date: 8/12/2009 4:10:04 PM
Certification #: D471-4665-A7E8

Copyright: 1970

Certification # D471-4665-A7E8



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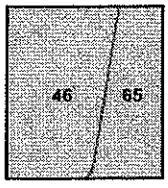


Volume 1, Sheet 46
Volume 1, Sheet 61
Volume 1, Sheet 65

0 Feet 150 300 600

N

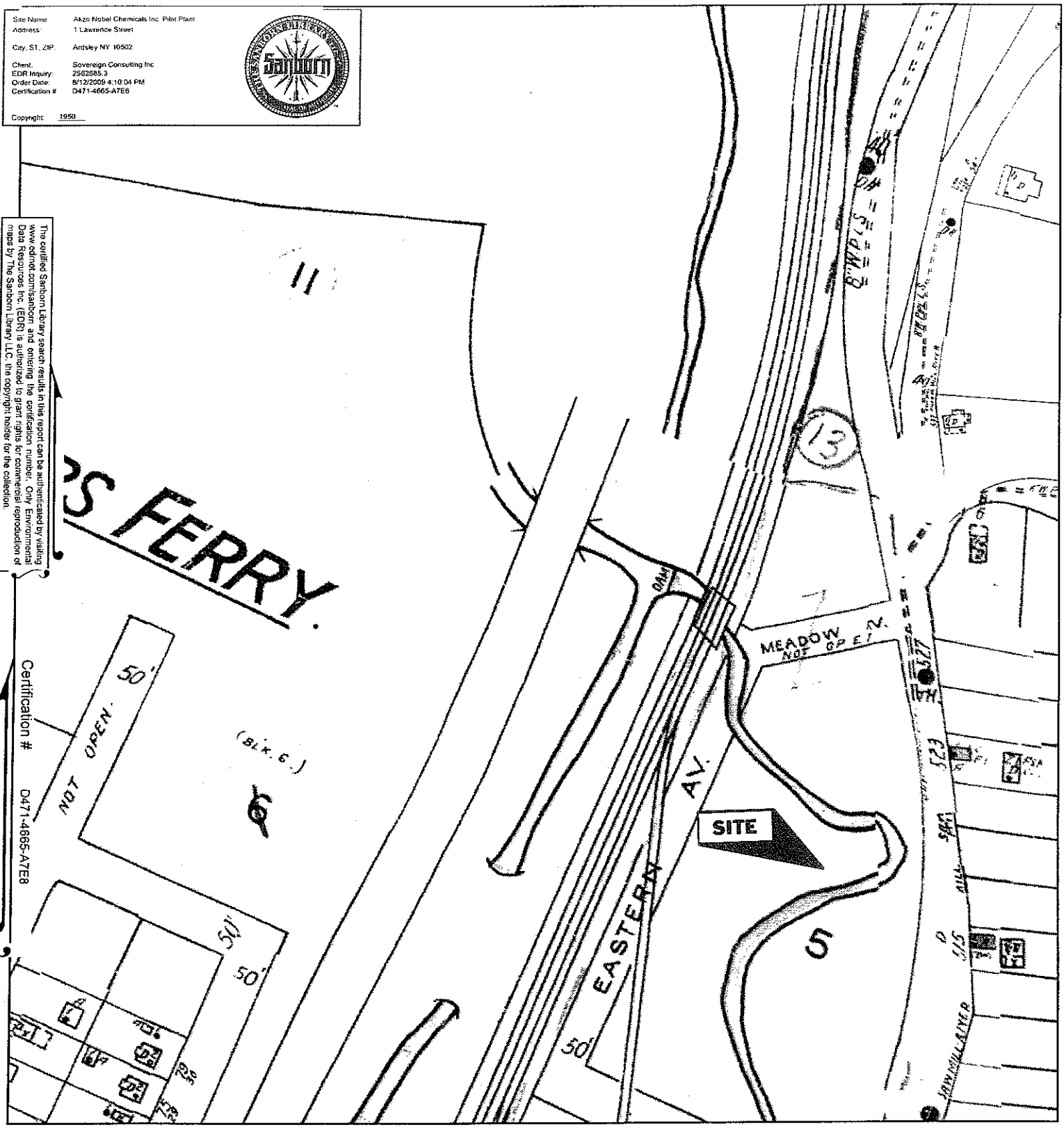
1950 Certified Sanborn Map

Site Name: Akzo Nobel Chemicals Inc Pilot Plant
Address: 1 Lawrence Street
City, ST, ZIP: Ardsley NY 10502

Client: Sovereign Consulting Inc
EDR Inquiry: 2562685.3
Order Date: 8/12/2009 4:10:04 PM
Certification #: D471-4665-A7E8

Copyright: 1950

Certification # D471-4665-A7E8



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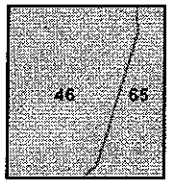


Volume 1, Sheet 46
Volume 1, Sheet 61
Volume 1, Sheet 65

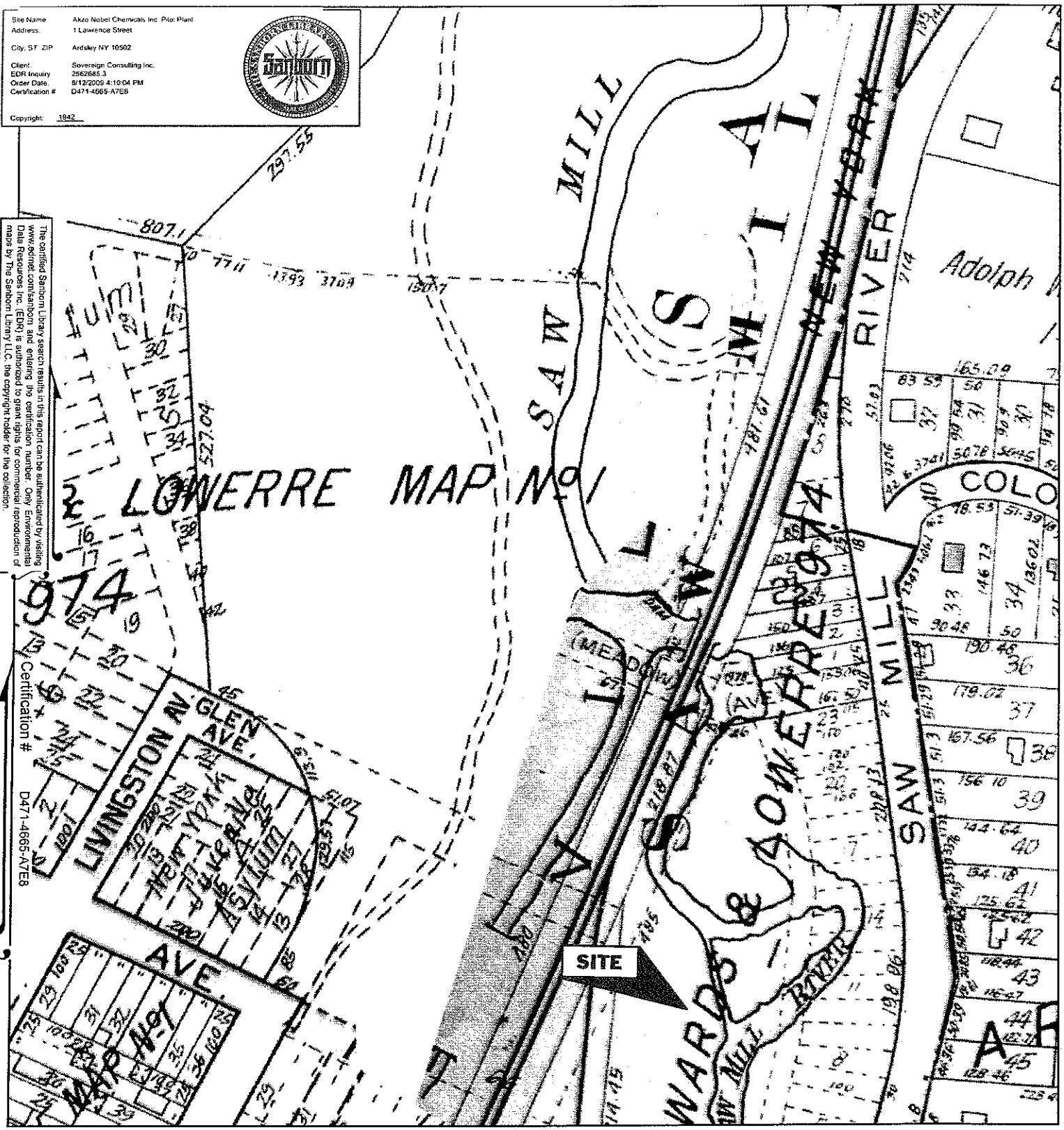
0 Feet 150 300 600

N

1942 Certified Sanborn Map

Site Name: Akzo Nobel Chemicals Inc Pitc Plant
Address: 1 Lawrence Street
City, ST, ZIP: Ardsley NY 10502
Client: Sovereign Consulting Inc.
EDR Inquiry: 2562685.3
Order Date: 8/12/2009 4:10:04 PM
Certification #: D471-4665-A7E8
Copyright: 1942

Certification # D471-4665-A7E8



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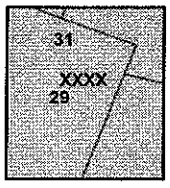


Volume 3, Sheet 29
Volume 3, Sheet 31
Volume 2, Sheet XXX
Volume 2, Sheet XXXX

0 Feet 150 300 600

N

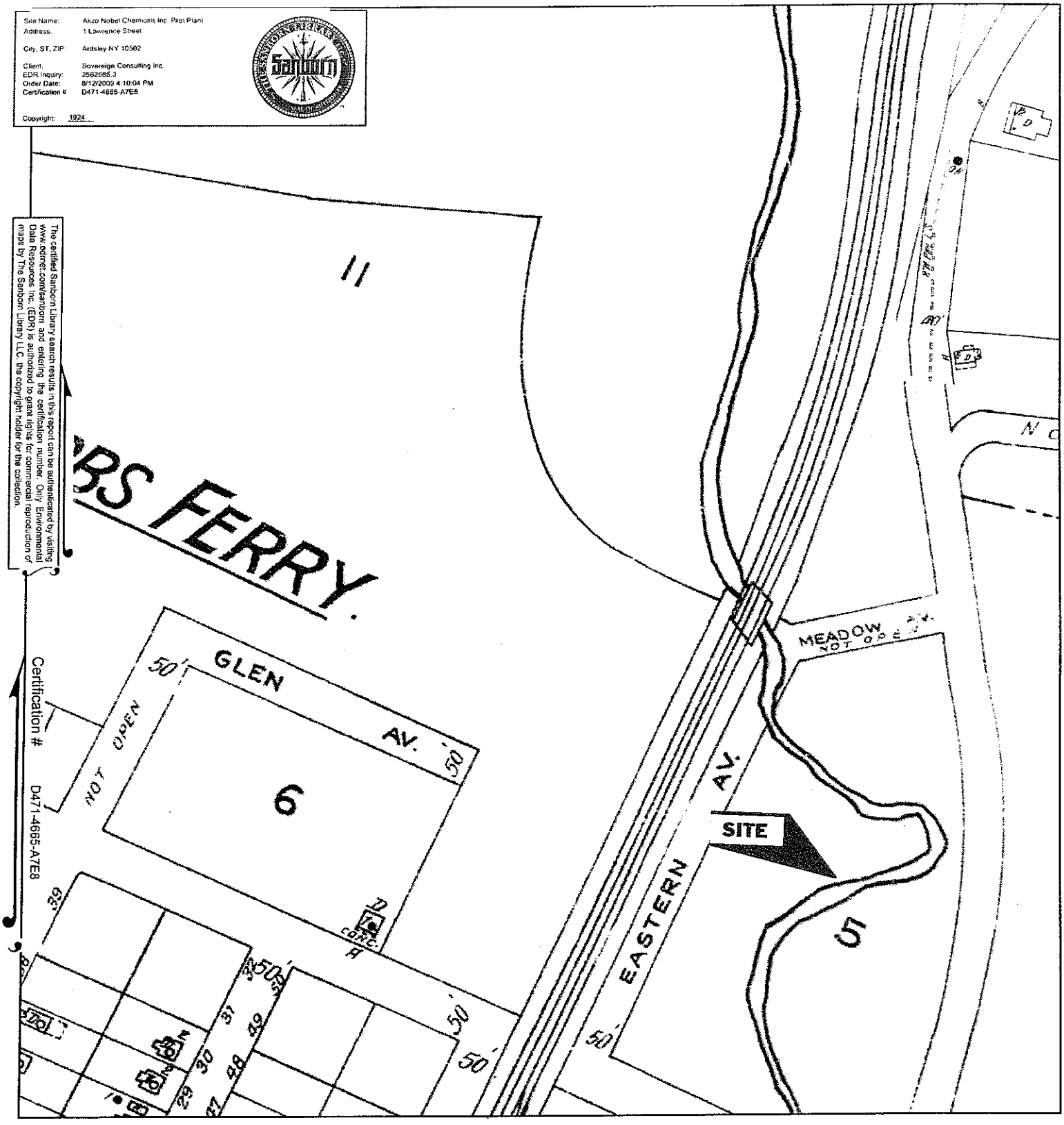
1924 Certified Sanborn Map

Site Name: Akzo Nobel Chemicals Inc. Pilot Plant
Address: 1 Lawrence Street
City, ST, ZIP: Ardsley NY 10502

Client: Sovereign Consulting Inc.
EDR Inquiry: 2562685.3
Order Date: 8/12/2009 4:10:04 PM
Certification #: D471-4665-A7E8

Copyright: 1924

Certification # D471-4665-A7E8



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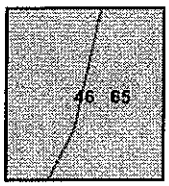

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Volume 1, Sheet 65

0 Feet 150 300 600

N

Akzo Nobel Chemicals Inc. Pilot Plant
1 Lawrence Street
Ardsley, NY 10502

Inquiry Number: 2562685.3
August 12, 2009

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

8/12/09

Site Name:
Akzo Nobel Chemicals Inc. Pilot
1 Lawrence Street
Ardsley, NY 10502

Client Name:
Sovereign Consulting Inc.
111 A North Gold Drive
Robbinsville, NJ 08691

EDR® Environmental Data Resources Inc

EDR Inquiry # 2562685.3

Contact: Brad Smyth

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Sovereign Consulting Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Akzo Nobel Chemicals Inc. Pilot Plant
Address: 1 Lawrence Street
City, State, Zip: Ardsley, NY 10502
Cross Street:
P.O. # AN016.001.07
Project: Akzo Nobel Ards
Certification # D471-4665-A7E8

Sanborn® Library search results
Certification # D471-4665-A7E8

Maps Provided:

1924
1942
1950
1970

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

Limited Permission To Make Copies

Sovereign Consulting Inc. (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Certified Sanborn® Map Report Enhancements for 2009

The accompanying Certified Sanborn Map Report reflects a number of enhancements that make it easier for you to review these historical maps. EDR has digitally joined together the more than one million fire insurance maps from the Sanborn Library collection so that your target property is centered, making it easier for you to review adjoining properties. Here is a list of the new features:

· Your target property is centered on each map. You can quickly locate your target property and view adjoining properties. Plus, adjoining properties are included more often, reducing your need to refer to additional maps.

· All maps are now displayed at a uniform scale. This makes it easier for you to view changes to the property over time.

· We've increased coverage by adding thousands of new maps from 40 cities for years 1994-2007.

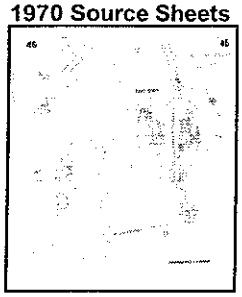
· A new Map Key and Sheet Thumbnails let you reference sheet numbers, year and volume of original Sanborn Map panels used for this report.

For more information about the new enhancements to the Certified Sanborn Map Report, contact your EDR representative at 800-352-0050.

Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1970 Source Sheets



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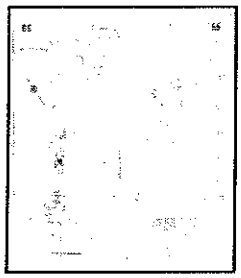
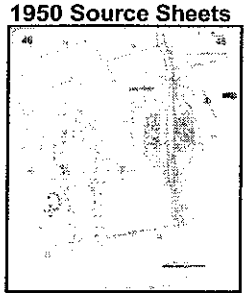
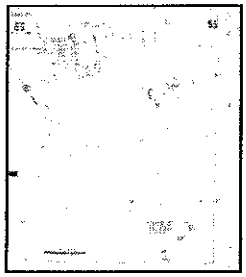


Volume 1, Sheet 65

1950 Source Sheets

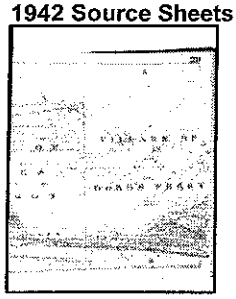


Volume 1, Sheet 46

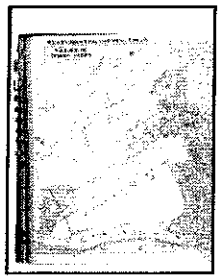


Volume 1, Sheet 65

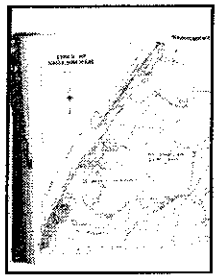
1942 Source Sheets



Volume 3, Sheet 29



Volume 3, Sheet 31



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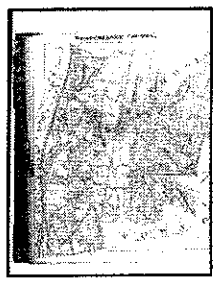

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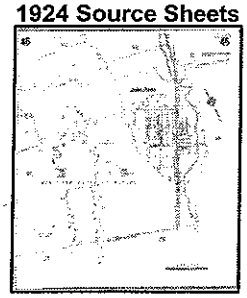
1924 Source Sheets



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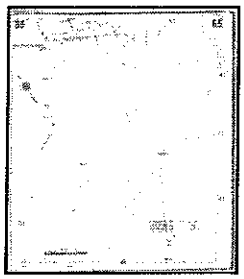


Volume 1, Sheet 65

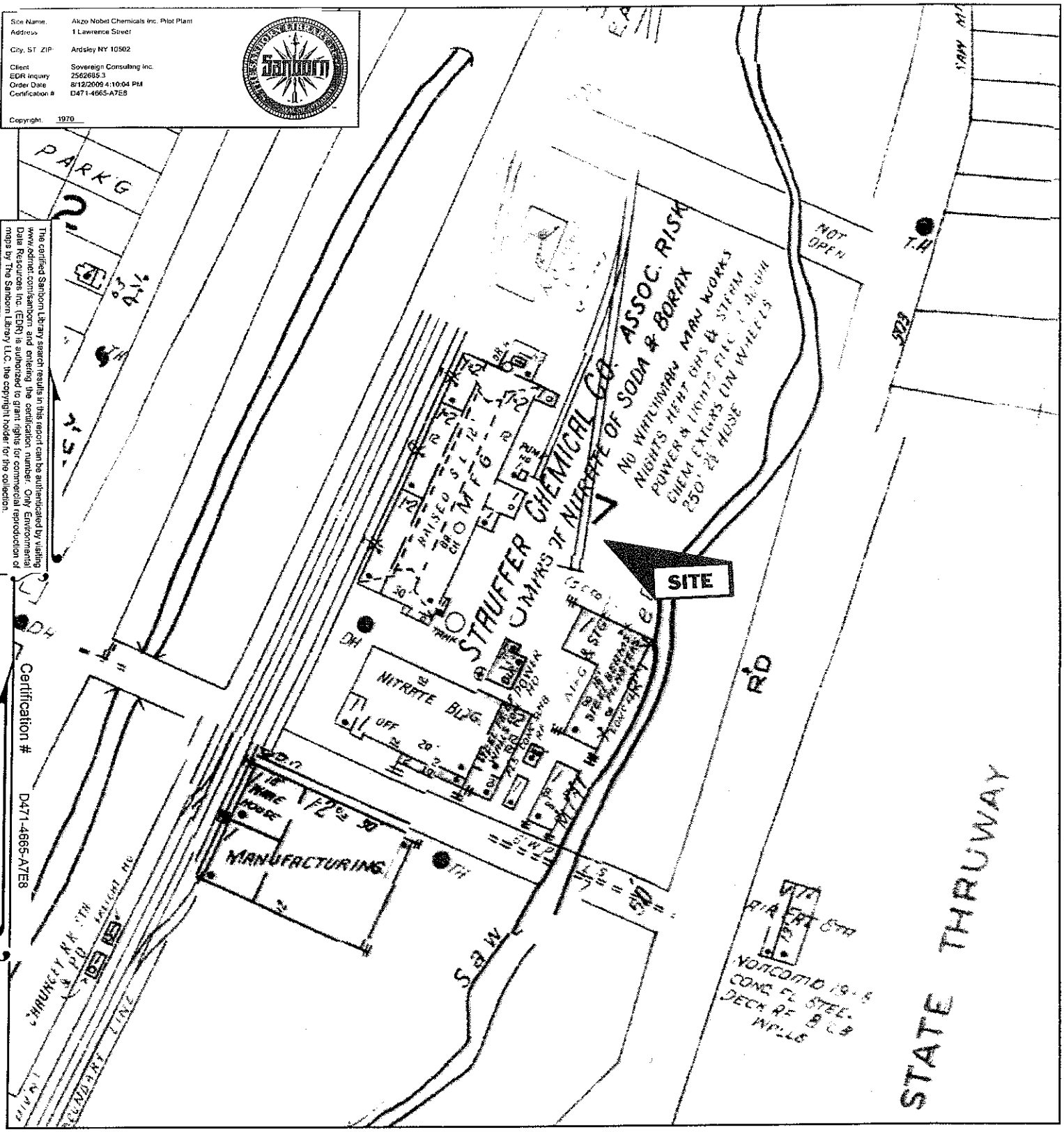
1970 Certified Sanborn Map

Site Name: Akzo Nobel Chemicals Inc. Pilot Plant
Address: 1 Lawrence Street
City, ST, ZIP: Ardsley NY 10502

Client: Sovereign Consulting Inc.
EDR Inquiry: 2562685.3
Order Date: 8/12/2009 4:10:04 PM
Certification #: D471-4665-A7E8

Copyright: 1970

Certification # D471-4665-A7E8



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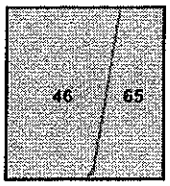


Volume 1, Sheet 46
Volume 1, Sheet 65

0 Feet 150 300 600

N

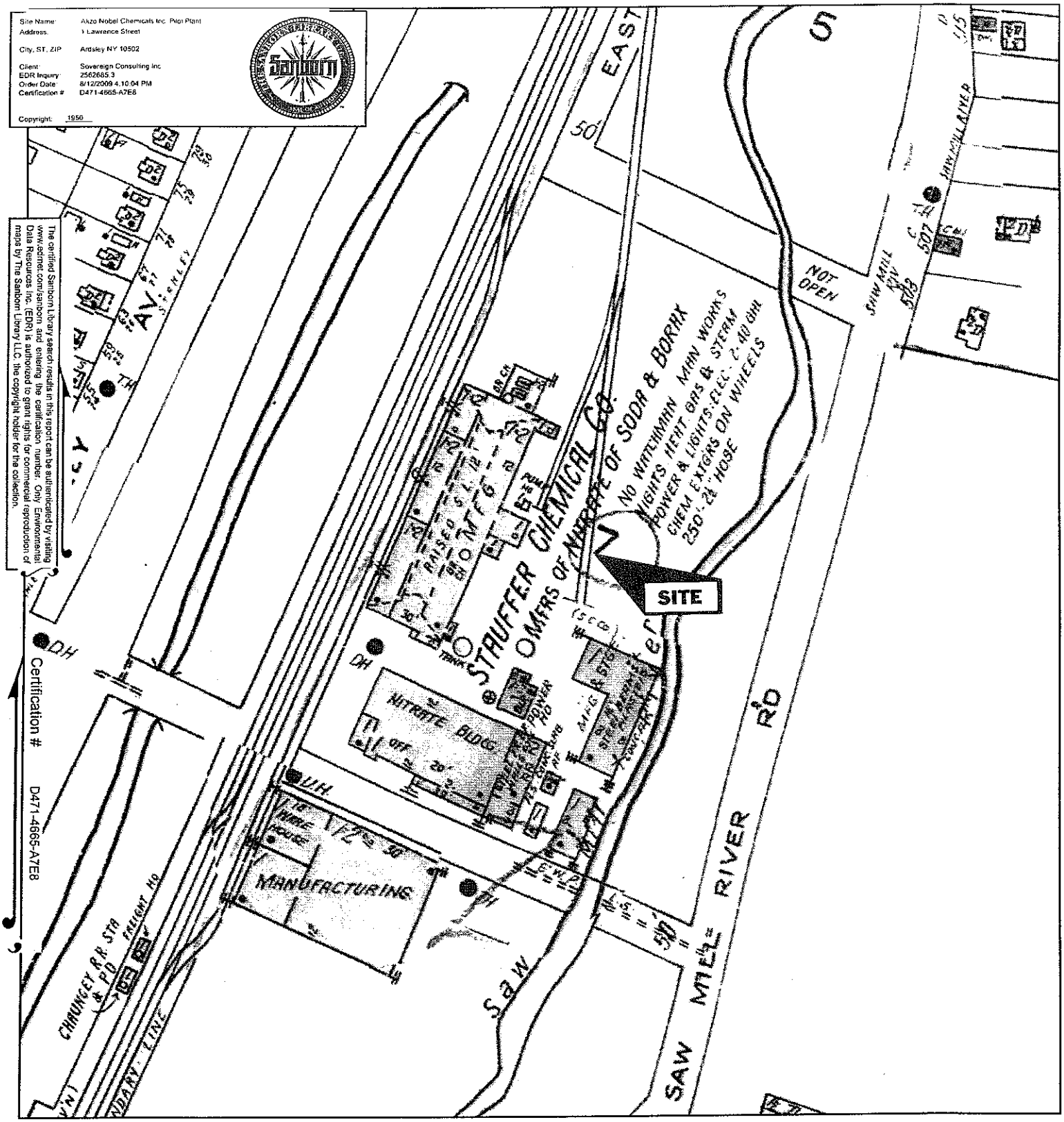
1950 Certified Sanborn Map

Site Name: Akzo Nobel Chemicals Inc. Pilot Plant
Address: 1 Lawrence Street
City, ST, ZIP: Ardsley NY 10502

Client: Sovereign Consulting Inc
EDR Inquiry: 2562685.3
Order Date: 8/12/2009 4:10:04 PM
Certification #: D471-4665-A7E8

Copyright: 1950

Certification # D471-4665-A7E8



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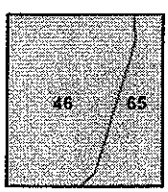

Volume 1, Sheet 46
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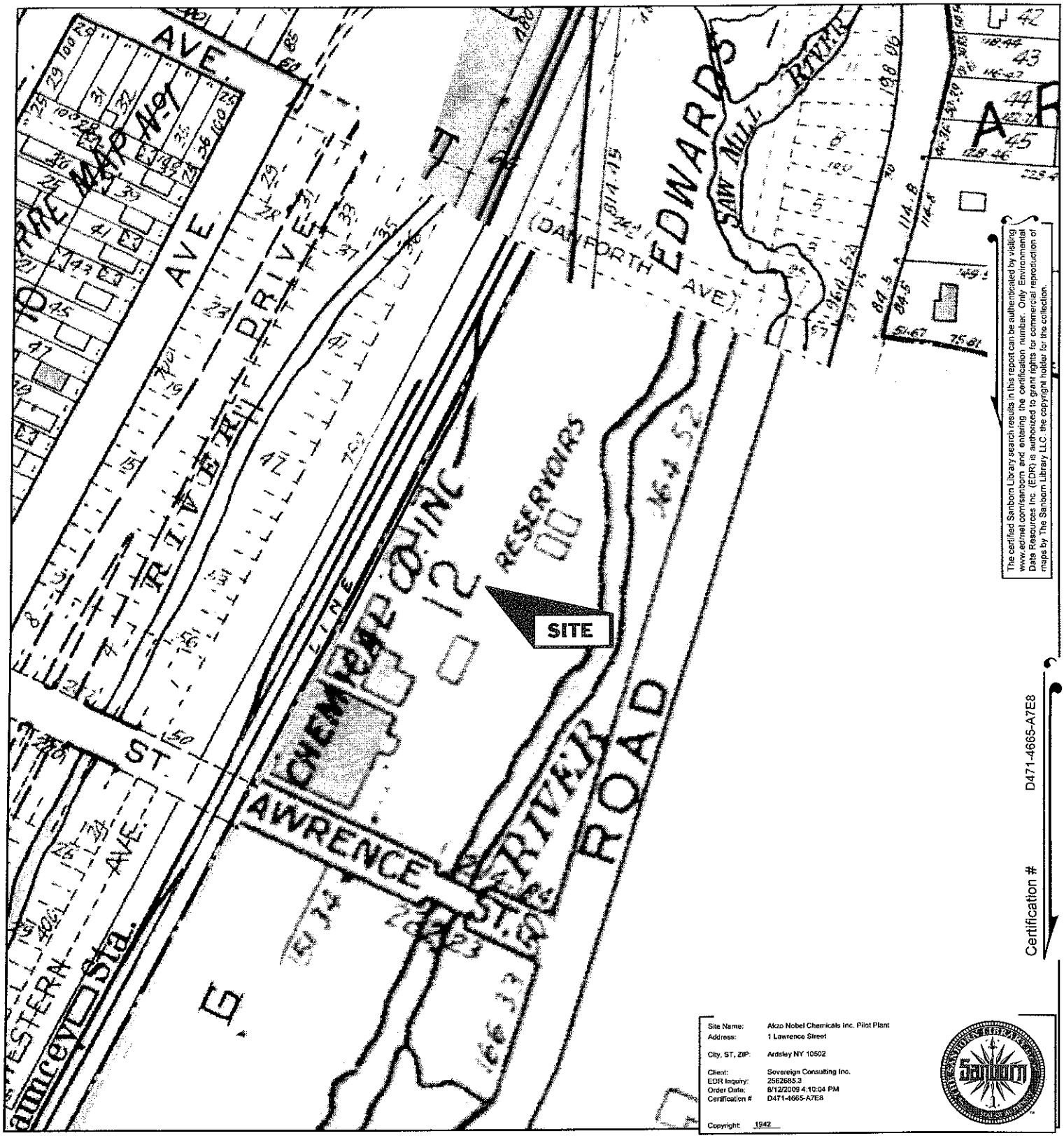
0 Feet 150 300 600

N

1942 Certified Sanborn Map



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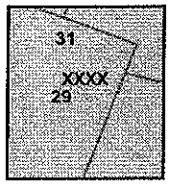

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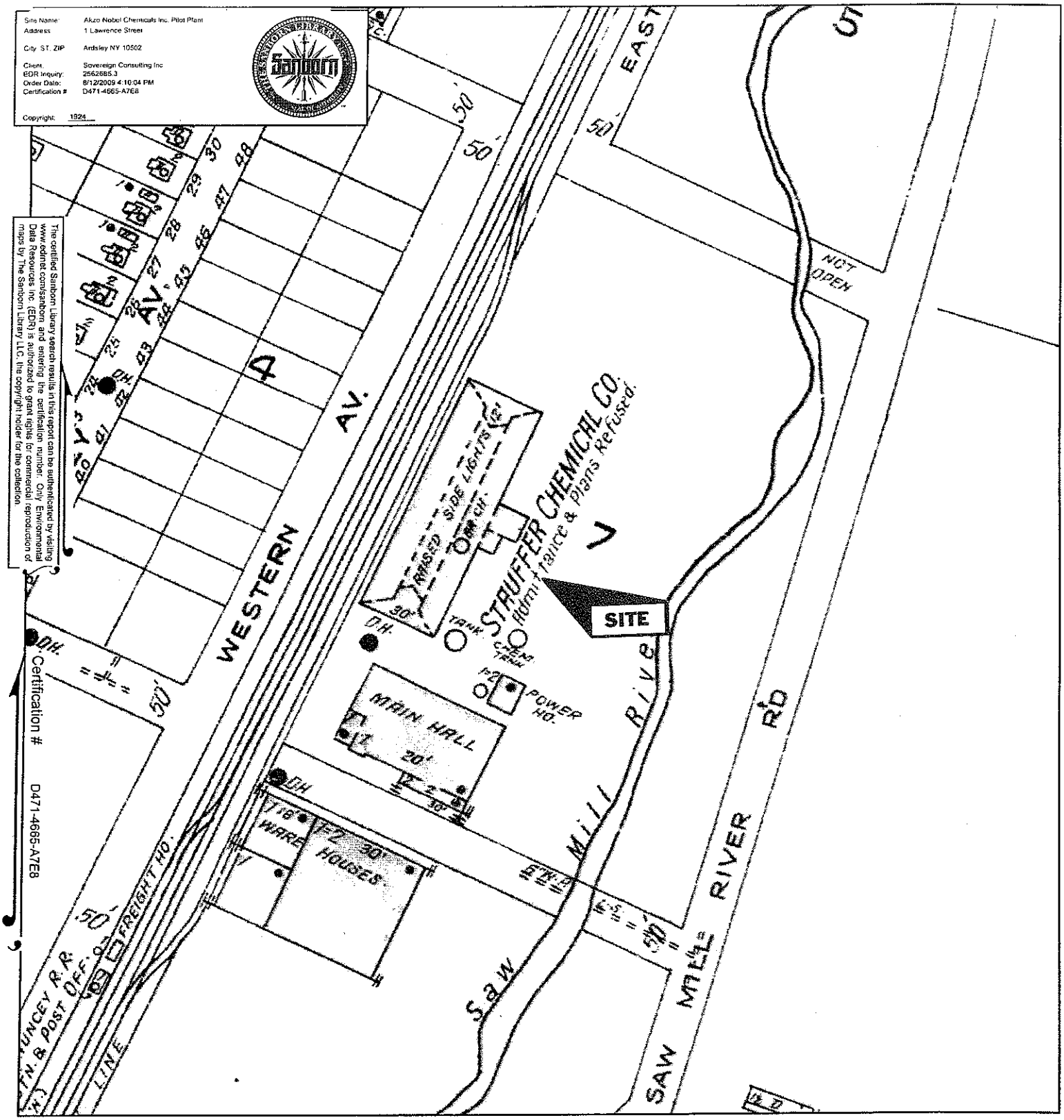
Volume 3, Sheet 31
Volume 2, Sheet XXX
Volume 2, Sheet XXXX

1924 Certified Sanborn Map



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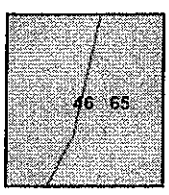

Volume 1, Sheet 46
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0 Feet 150 300 600

N

APPENDIX F

EDR CITY CIRECTORY ABSTRACT

(AUGUST 12, 2009)

Akzo Nobel Chemicals Inc. Pilot Plant
1 Lawrence Street
Ardsley, NY 10502

Inquiry Number: 2562685.6
August 13, 2009

The EDR-City Directory Abstract

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

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SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

City Directory Report. Three important enhancements have been made to the EDR City Directory Abstract:

1. *Executive Summary.* The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.

2. *Page Images.* Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.

3. *Findings Listed by Location.* Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

Options for Selecting Adjoining Properties. Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

1. *You Select Addresses and EDR Selects Addresses.* Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.

2. *EDR Selects Addresses.* Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.

3. *You Select Addresses.* Use this method for research based solely on the addresses you select or enter into the system.

4. *Hold City Directory Research Option.* If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit www.edrnet.com/2009enhancements

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2007	Cole Criss-Cross Directory	X	-	X	-
2001	Cole Criss-Cross Directory	-	X	X	-
1997	Cole Criss-Cross Directory	-	X	X	-
1992	Cole Criss-Cross Directory	-	X	X	-
1987	Cole Criss-Cross Directory	-	X	X	-
1982	Cole Criss-Cross Directory	-	X	X	-
1976	Cole Criss-Cross Directory	-	X	X	-
1971	Cole Criss-Cross Directory	-	X	X	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1 Lawrence Street
Ardsley, NY 10502

FINDINGS DETAIL

Target Property research detail.

Year	*Uses*	*Source*
2007	Aspin Wall Worldwide	Cole Criss-Cross Directory
	O T Delivery Inc	Cole Criss-Cross Directory

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

Lawrence Street

Lawrence Street

Year	*Uses*	*Source*
2001	No other addresses listed on Lawrence St	Cole Criss-Cross Directory
1997	No other addresses listed on Lawrence St	Cole Criss-Cross Directory
1992	No other addresses listed on Lawrence St	Cole Criss-Cross Directory
1987	No other addresses listed on Lawrence St	Cole Criss-Cross Directory
1982	No other addresses listed on Lawrence St	Cole Criss-Cross Directory
1976	No other addresses listed on Lawrence St	Cole Criss-Cross Directory
1971	No other addresses listed on Lawrence St	Cole Criss-Cross Directory

2 Lawrence Street

Year	*Uses*	*Source*
2001	The Wine Enthsst	Cole Criss-Cross Directory
1997	The Wine Enthsst	Cole Criss-Cross Directory

FINDINGS

TARGET PROPERTY: ADDRESS NOT LISTED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not listed in the research source.

Address Researched	Address Not Listed in Research Source
1 Lawrence Street	2001, 1997, 1992, 1987, 1982, 1976, 1971

ADJOINING PROPERTY: ADDRESSES NOT LISTED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not listed in research source.

Address Researched	Address Not Listed in Research Source
Lawrence Street	2007
2 Lawrence Street	1992, 1987, 1982, 1976, 1971

APPENDIX G (ENCLOSED CD)
TEST PIT AND SOIL BORING LOGS

APPENDIX H (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #J42667

SOIL SAMPLES – OCTOBER 2, 2006

APPENDIX I (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #J42758

SOIL SAMPLES – OCTOBER 3, 2006

APPENDIX J (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #J43018

SOIL SAMPLES – OCTOBER 5, 2006

APPENDIX K (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #J43194

SOIL SAMPLES – OCTOBER 6, 2006

APPENDIX L (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #J43750

SOIL SAMPLES – OCTOBER 12 and 13, 2006

APPENDIX M (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #JA19809

SOIL SAMPLES – MAY 27 and 28, 2009

APPENDIX N

UST CLOSURE REPORT

MARCH 13, 2009

UST Closure Report

Former AkzoNobel Inc. Pilot Plant Facility
1 Lawrence Street
Ardsley, Westchester County, New York

March 13, 2009

Prepared For:

AkzoNobel Inc.
120 White Plains Road
Suite 300
Tarrytown, New York 10591

Prepared By:

Sovereign Consulting Inc.
100 Dobbs Lane
Suite 212
Cherry Hill, New Jersey 08034

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TABLES:

FIGURES:

APPENDICES:

1.0 Introduction

Sovereign Consulting, Inc. (Sovereign) was retained by AkzoNobel Inc. to evaluate soil quality in underground storage tank (UST) excavations at the former Pilot Plant facility located at 1 Lawrence Street in Ardsley, Westchester County, New York. The site's location is depicted on Figure 1. USTs were removed during the months of July and August 2008 during plant demolition activities. USTs were removed by the plant demolition contractor (AAA Environmental of Syracuse, New York) under a Petroleum Bulk Storage Work Permit (PBS Number 3-800132) issued by the Westchester County Department of Health.

Work Permit PBS 3-800132 pertained to removal of tanks A-1, A-2, A-3, A-4 and A-6. Tanks A-1 through A-4 were located in a concrete vault in the eastern portion of the property. On July 16, 2008 Westchester County Department of Health Representative Stefan Goreau inspected the concrete vault and noted "no contamination observed" in the Inspection Report. Given that tanks A-1 through A-4 were located in a concrete vault, no soil sampling was required.

This report presents the results of a site assessment and remedial action conducted relative to tank A-6 as well as previously abandoned USTs that were closed during facility demolition including tanks A-5, A-8 and A-9.

2.0 Site Description

The former Pilot Plant site is located in the Saw Mill River valley and is bounded to the north by undeveloped land, to the south by Lawrence Street, to the west by a railroad easement and to the east by Saw Mill River Road. The main channel of the Saw Mill River flows in a southerly direction through the eastern portion of the property. Land across the Saw Mill River (between the river and Saw Mill River Road) is undeveloped. A branch of the Saw Mill River also flows in a southerly direction west of the site (the river bifurcates north of the site). Land use in the site area is mixed industrial and commercial.

Site topography is generally flat in the immediate vicinity of former plant buildings, but generally slopes gently toward to the east and the Saw Mill River. Filling was likely conducted during initial site development in the early 1900s to provide level ground on which to build. Filling generally occurred along the central portion of the plant property. As a result, the grade is fairly steep along the west bank of the main channel of the Saw Mill River.

Four USTs were located at the site, all of which were closed in-place in the 1980s by filling with sand. These four USTs are in addition to USTs A-1 through A-4 which were located in the concrete vault discussed in Section 1.0. The USTs that are the subject of this report include:

- Tank 1 (T-1): former 2,000 gallon #4 Fuel Oil; located near the southeast corner of the main pilot plant building; former UST registration ID A-9
- Tank 2 (T-2): former 5,000 gallon #4/#6 Fuel Oil; located east of the main pilot plant building; former UST registration ID A-5
- Tank 3 (T-3): former 13,000 gallon #6 Fuel Oil, which was an old railcar; located near the northeast corner of the main pilot plant building; former UST registration ID A-6; and,
- Tank 4 (T-4): former 2,000 gallon #4 Fuel Oil; located adjacent to Tank 1; discovered during soil remediation relative to Tank 1; former UST registration ID A-8.

There was no piping associated with any of the USTs.

3.0 Site History

The former pilot plant was used by AkzoNobel and its predecessors for research and development of various products. Plant operations date back to the 1920s. AkzoNobel's operations at the site commenced in the late 1980s and ceased in January 2006. AkzoNobel's pilot processes included development of catalysts, polymers, carbon disulfide, engine detergents, fatty amines and Crystex. Numerous buildings were located at the site, some of which were razed or in the process of the being razed, during the July/August 2008 UST removal work. All site buildings have been demolished as the property is being prepared for divestment and commercial/industrial redevelopment.

4.0 FIELD ACTIVITIES / RESULTS

The field activities associated with the assessment of USTs listed above included:

- July 18, 2008: collection of post-excavation soil samples from excavations T-1 (A-9), T-2 (A-5) and T-3 (A-6) after removal of USTs by others;
- August 11, 2008: collection of waste classification soil samples from stockpiles of potentially-contaminated soil;
- August 19, 2008: remediation (via excavation) of petroleum impacted soil from excavations T-1 (A-9) and T-2 (A-5) and collection of post-remediation soil samples; Tank T-4 (A-8) was discovered during soil excavation at the former location of tank T-1;
- August 27, 2008: collection of post-excavation soil samples from excavation T-4 after UST removal by others and collection of additional waste classification samples for evaluation of alternative soil disposal facilities; and.
- September 16-19, 2008: loading, transportation and disposal of petroleum contaminated soil.

Soil sampling was performed in accordance with the NYSDEC Petroleum-Contaminated Soil Guidance Policy, (STARS) Memo #1.

4.1 Post-Excavation Soil Sampling – USTs T-1, T-2, T-3 and T-4

Tank T-1 (a.k.a. A-9, 2,000 gallon #4 fuel oil UST), Tank T-2 (a.k.a. A-5, 5,000 gallon #4/#6 fuel oil UST) and Tank T-3 (a.k.a. A-6, 13,000 gallon #6 fuel oil UST/old railcar) were removed by AAA Environmental of Syracuse, New York. As indicated above, these tanks were previously abandoned in-place. Tanks T-1, T-2 and T-3 were already emptied, cleaned and removed from the ground upon Sovereign's arrival on-site on July 18, 2008. Sand previously used to abandon the USTs in-place was stockpiled along with potentially contaminated soil encountered during UST removal.

Tank T-4 (a.k.a. A-8, 2,000 gallon #4 fuel oil UST) was also previously abandoned in-place. Upon arrival on-site on August 27, 2008, T-4 was already out of the ground. The tank was partially filled with sand and also contained a residual amount of #4 fuel oil. T-4 was constructed of steel and appeared to be in good condition; no holes were observed.

4.1.1 UST T-1: 2,000 Gallon #4 Fuel Oil (former registration ID A-9)

Three soil samples (T-1-1, T-1-2 and T-1-3) were collected from the floor of the excavation along the approximate centerline of the UST from a depth of 7.0-7.5 ft. below grade. Additionally, four sidewall samples were collected and field-composited to form sample T-1-Comp. The composite sidewall samples were also collected from 7.0-7.5 ft. below grade. The locations of soil samples collected from the T-1 excavation are depicted on Figure 2. Organic vapors were not detected (0.0 ppm) at any of the sampling locations during screening with a photoionization detector (PID). Additionally, no hydrocarbon staining was observed and no hydrocarbon odors were detected. After sample collection, the excavation was partially backfilled for safety purposes since the site was in the process of being demolished.

Since the UST formerly contained #4 fuel oil, the post-excavation soil samples were analyzed for STARS list polynuclear aromatic hydrocarbons (PAHs) by USEPA method 8270C. Sample analyses were provided by Accutest Laboratories of Dayton, NJ (NY Certification #10983). The results of analysis are summarized in Table 1. A copy of the laboratory analysis report is provided in Appendix A. As indicated in Table 1, sample T-1-1 and T-1-Comp contained elevated concentrations of several PAHs that exceeded both the direct contact Recommended Soil Cleanup Objective and the Soil Cleanup Objective to Protect Groundwater Quality found in NYSDEC's Technical and Administrative Guidance Manual (TAGM) #4046. However, in accordance with TAGM 4046, the sum of the detected PAH concentrations is less than 500 mg/kg and all individual PAH concentrations are less than 50 mg/kg. Noting the low to non-detectable concentrations of PAHs in samples T-1-2 and T-1-3, the elevated concentrations of PAHs detected in samples T-1-Comp appear to be affected by soil in the western portion of the

excavation (i.e. near sample T-1-1). As discussed later in this report, soil remediation was conducted at this location.

4.1.2 UST T-2: 5,000 Gallon #4/#6 Fuel Oil (former registration ID A-5)

Perched water was present in the bottom of the T-2 excavation. Therefore, excavation floor samples were not collected. Instead, eight soil samples were collected from the base of the excavation's sidewalls (two per sidewall) at a depth of 8.0 ft. below grade. Post-excavation sampling locations are depicted on Figure 2. Organic vapors were detected at a concentration of 138 ppm at the southern end of the excavation. Additionally, petroleum stained soil and a petroleum odor were noted in the southern portion of the excavation. Therefore, prior to the collection of post-excavation soil samples, the excavation was enlarged toward the south and excavated soil was stockpiled in the area of the excavation. At the time of sample collection, no organic vapors were detected sampling locations T-2-1, T-2-2, T-2-6, T-2-7 and T-2-8. Low concentrations of organic vapors were detected at the following locations (T-2-3 = 75 ppm; T-2-4 = 159 pp, and T-2-5 = 19 ppm). Additional excavation of potentially contaminated soil at locations T-2-3, T-2-4 and T-2-5 could not be conducted due to the excavation's proximity to the plant's water main, waste water treatment pits (west of T-2 excavation) and a rail siding and debris stockpile (east of T-2 excavation). No hydrocarbon staining was observed on the isolated pools/puddles of water in the excavation. After sample collection, the excavation was partially backfilled for safety purposes since the site was in the process of being demolished.

Since the UST formerly contained #4 and #6 fuel oils, the post-excavation soil samples were analyzed for STARS list polynuclear aromatic hydrocarbons (PAHs) by USEPA method 8270C. Sample analyses were provided by Accutest Laboratories of Dayton, NJ. The results of analysis are summarized in Table 2. A copy of the laboratory analysis report is provided in Appendix A. As indicated in Table 2, sample T-2-1 contained elevated concentrations of several PAHs that exceeded both the direct contact Recommended Soil Cleanup Objective and the Soil Cleanup Objective to Protect Groundwater Quality. However, in accordance with TAGM 4046, the sum of the detected PAH concentrations is less than 500 mg/kg and all individual PAH concentrations are less than 50 mg/kg. PAHs were not detected in sample T-2-2. Low concentrations of PAHs were detected in the remaining samples, however, with the exception of a low concentration of chrysene in samples T-2-5 (which barely exceeded the protection of groundwater objective), no PAHs were detected in concentrations that exceeded protection of groundwater soil cleanup objectives. As discussed later in this report, soil remediation was conducted at the location of sample T-2-1.

4.1.3 UST T-3: 13,000 Gallon #6 Fuel Oil (former registration ID A-6)

During removal of UST T-3, a fire water main adjacent to the excavation was broken causing water to enter the excavation. An official from the Westchester County Department of Health inspected the excavation on July 16, 2008 and assumed that the presence of water in the excavation was perched groundwater. In reality, the water in the excavation originated from the broken fire water main. The water was inspected for a sheen (none was observed, as noted on the inspection report). The water in the excavation quickly percolated into the ground. Water ("perched groundwater" or other water) was not observed in the excavation upon Sovereign's arrival at the site on July 18, 2008.

Six soil samples (T-3-1 through T-3-6) were collected from the base of the excavation sidewalls at a depth of approximately 9.5-10.0 ft. below grade. Additionally, two excavation floor samples (F-1 and F-2) were collected from the bottom of the excavation at an approximate depth of 9.5-10.0 ft. below grade. The floor samples were composited in the lab for analysis as a single sample (T-3-F1/F2 Comp). The locations of soil samples collected from the T-3 excavation are depicted on Figure 2. Organic vapors were detected at only three of the eight sampling locations (T-3-1 = 13 ppm, T-3-3 = 50 ppm and F1 = 10 ppm). Additionally, no hydrocarbon staining was observed and no hydrocarbon odors were detected. After sample collection, the excavation was partially backfilled for safety purposes since the site was in the process of being demolished.

Since the UST formerly contained #6 fuel oil, the post-excavation soil samples were analyzed for STARS list polynuclear aromatic hydrocarbons (PAHs) by USEPA method 8270C. Sample analyses were provided by Accutest Laboratories of Dayton, NJ. The results of analysis are summarized in Table 3. A copy of the laboratory analysis report is provided in Appendix A. As indicated in Table 3, six out of the seven post-excavation soil samples contained elevated concentrations of several PAHs that exceeded the direct contact Recommended Soil Cleanup Objective. Benzo(b)fluoranthene was detected a concentration slightly above the protection of groundwater objective in sample T-3-6. Chrysene was detected at concentrations slightly above the protection of groundwater objective in samples (T-3-2, T-3-6 and T-3-F1/F2 Comp). However, in accordance with TAGM 4046, the sum of the detected PAH concentrations in all samples is less than 500 mg/kg and all individual PAH concentrations are less than 50 mg/kg.

4.1.4 UST T-4: 2,000 Gallon #4 Fuel Oil (former registration ID A-8)

UST T-4 was discovered during soil remediation (excavation) activities relative to UST T-1 (A-9) on August 19, 2008. Site assessment activities relative to UST T-4 were conducted on August 27, 2008. Three soil samples (T-4-1, T-4-2 and T-4-3) were collected from the floor of the excavation along the approximate centerline of the UST from a depth of 7.5-8.0 ft. below grade. Additionally,

three sidewall samples (T-4-Comp A, B and C) were collected and composited in the lab to form sample T4-Comp. The composite sidewall samples were collected from 7.0-7.5 ft. below grade. The locations of soil samples collected from the T-4 excavation are depicted on Figure 2. As indicated on Figure 2, tank T-4 was adjacent to tank T-1. Organic vapors were not detected (0.0 ppm) at UST centerline sampling locations T-4-1, T-4-2 and T-4-3 and at composite sidewall sampling location T-4-Comp A during screening with a PID. Very low concentrations of organic vapors were detected at location T-4-Comp B (0.7 ppm) and T-4-Comp C (0.2 ppm). Additionally, no hydrocarbon staining was observed and no hydrocarbon odors were detected. Sample T-4-Comp C was collected from adjacent to a remnant foundation wall which formed the eastern boundary of the tank T-4 excavation. After sample collection, the excavation was partially backfilled for safety purposes since the site was in the process of being demolished.

Since UST T-4 formerly contained #4 fuel oil, the post-excavation soil samples were analyzed for STARS list polynuclear aromatic hydrocarbons (PAHs) by USEPA method 8270C. Sample analyses were provided by Accutest Laboratories of Dayton, NJ. The results of analysis are summarized in Table 4. A copy of the laboratory analysis report is provided in Appendix B. As indicated in Table 4, the samples collected from beneath the UST (centerline samples T-4-1, T-4-2 and T-4-3 did not contain PAHs in concentrations that exceeded Soil Cleanup Objectives to Protect Groundwater Quality. Additionally, only one compound (Benzo(a)pyrene) was detected in one sample (T-4-3) at a concentration that marginally exceeded the direct contact recommended soil cleanup objective. Composite sidewall sample T4-Comp contained several PAH compounds in concentrations that exceeded the recommended soil cleanup objective and the protection of groundwater soil cleanup However, in accordance with TAGM 4046, the sum of the detected PAH concentrations is less than 500 mg/kg and all individual PAH concentrations are less than 50 mg/kg.

4.2 Soil Remediation – USTs T-1 and T-2

On August 19, 2008, soil remediation was conducted at the T-1 and T-2 UST excavations. Soil that contained PAHs in excess of the soil cleanup objectives to protect groundwater in these UST excavations was excavated and sent off-site for disposal (recycling). The following sections provide the details of this remedial action.

4.2.1 Post-Remediation Soil Sampling – UST T-1

Analysis of soil samples collected from the UST T-1 excavation in July 2008 indicated the presence of elevated concentrations of PAHs in the eastern portion of the excavation. On August 19, 2008 soil in the eastern portion of the excavation was excavated and stockpiled for subsequent off-site disposal. Post-remediation soil samples T-1-4, T-1-5 and T-1-6 were

collected from the limits of the excavation at depths ranging from 7.0 to 8.5 ft. below grade. Post-remediation sampling locations are depicted on Figure 2. The post-remediation soil samples were analyzed for STARS list PAHs by USEPA method 8270C by Accutest of Dayton, NJ. The results of analysis of post-remediation samples are provided in Table 1A and copy of the laboratory analysis report is provided in Appendix C.

As indicated in Table 1A, none of the post-remediation soil samples contained PAHs in excess of the either the direct contact recommended soil cleanup objective or the protection of groundwater recommended soil cleanup objective.

4.2.2 Post-Remediation Soil Sampling – UST-T-2

Analysis of soil samples collected from the UST T-2 excavation in July 2008 indicated the presence of elevated concentrations of PAHs in the southern portion of the excavation. On August 19, 2008, soil in the southern portion of the excavation was removed and stockpiled for subsequent off-site disposal. Post-remediation soil samples T-2-9 and T-2-10 were collected from the limits of the excavation at a depth of 8.0 ft. below grade. Post-remediation sampling locations are depicted on Figure 2. The post-remediation soil samples were analyzed for STARS list PAHs by USEPA method 8270C by Accutest of Dayton, NJ. The results of analysis of post-remediation samples are provided in Table 2A and copy of the laboratory analysis report is provided in Appendix C.

As indicated in Table 2A, none of the post-remediation soil samples contained PAHs in excess of the either the direct contact recommended soil cleanup objective or the protection of groundwater recommended soil cleanup objective. With the exception of a very low concentration of pyrene in sample T-2-9, no PAHs were detected in the UST T-2 post remediation soil samples.

4.3 Soil Disposal and Disposal Documentation

Sand that was used to fill/close each UST in the 1980s was removed from each UST and stockpiled for subsequent off-site disposal. Additionally, potentially contaminated soil that was encountered during removal of USTs T-1, T-2 and T-3 was stockpiled for subsequent disposal. Lastly, soil that was excavated during remediation of the eastern portion of UST excavation T-1 and the southern portion of UST-T-2 was stockpiled for subsequent disposal.

Analysis of waste classification samples collected from the soil stockpiles indicated that the soil was a non-hazardous petroleum-contaminated waste. After completion of a waste profile, the soil was approved by Soil Safe, Inc. for treatment at its Bridgeport (Logan Township), New Jersey facility. Soil Safe's Logan Township facility utilizes a stabilization/solidification process to treat

soil. The treated soil is then graded at the site for subsequent capping. At the end of the facility's life expectancy, Soil Safe's Logan Township property will be redeveloped for light/heavy industrial use.

During the period September 16-19, 2008, a total of 499.79 tons of soil was transported to Soil Safe's Logan Township, NJ facility for treatment. Copies of soil disposal documentation are provided in Appendix D.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The assessment of UST excavations at the former Pilot Plant facility indicates the following:

- Petroleum stained soil, petroleum odors and low concentrations of organic vapors were observed in the UST T-2 and UST-T-3 excavations.
- Evidence of a release (i.e. petroleum staining, petroleum odors, and organic vapors) was not detected in the UST T-1 and T-4 excavations.
- Despite the absence of field screening results to suggest that a release from UST T-1 occurred, elevated concentrations of PAHs were detected in samples T-1-1 and T-1Comp. Soil remediation (excavation and disposal) was conducted in the eastern portion of the UST T-1 excavation. The results of analysis of post-remediation soil samples indicate compliance with NYSDEC recommended soil cleanup objectives. No further action is recommended for the UST T-1 (A-9) excavation.
- Soil remediation (excavation and disposal) was conducted in the southern portion of the UST T-2 excavation where field screening and the results of analysis of sample T-2-1 indicated the potential presence of petroleum impacted soil. The results of analysis of post-remediation soil samples indicate compliance with NYSDEC recommended soil cleanup objectives. No further action is recommended for the UST T-2 (A-5) excavation.
- After removal of UST T-3, soil remediation (excavation and disposal) was conducted before collecting post-excavation soil samples. Six of the seven post-excavation soil samples contained very low concentrations of several PAHs in concentrations that exceeded the recommended soil cleanup objective. Benzo(b)fluoranthene (T-3-6) and chrysene (T-3-6 and T-3-F1/F2 Comp) were detected at low concentrations that exceeded the protection of groundwater recommended soil cleanup objective for these compounds. Additional soil excavation could not be conducted due the excavation's proximity to the main pilot plant building which had not yet been demolished. No further action is recommended for UST T-3 based on the following rationale:
    1. Noting the absence of petroleum odors, stains or sheens on the water, the low concentrations of PAHs detected UST T-3 soil samples appear to be related to historic fill that was used to grade the site during development in early 1900s.

2. None of the PAH concentrations detected in post-excavation soil samples exceeded the 500 mg/kg total SVOC criteria or the 50 mg/kg individual SVOC criteria.
3. No sheen was observed on the surface of water in the excavation during the Westchester County Health Department's inspection on July 16, 2008.
4. The site will be redeveloped for commercial/industrial use. The land use scenario (non-residential) combined with the depth at which PAHs were detected indicate that the recommended soil cleanup objectives are not relevant to the site.

- Field screening results and the results of analysis of post-excavation soil samples collected from the floor of the UST T-4 excavation indicate that a release from this UST did not occur. Elevated concentrations of PAHs detected in the sidewall composite sample appear to be related to historic fill. No further action is recommended for UST excavation T-4 based on the rationale provided above.

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
FORMER 2,000 GAL. #4 FUEL OIL UST
July 18, 2008
Akzo Nobel Pilot Plant
Dobbs Ferry, New York

SAMPLE ID LAB ID DEPTH INTERVAL, ft.	T-1-1 J95970-1 7.0-7.5	T-1-2 J95970-2 7.0-7.5	T-1-3 J95970-3 7.0-7.5	T-1-Comp J95970-4 7.0-7.5	Rec. Soil Cleanup Objective (ppm)	Soil cleanup objectives to protect GW quality (ppm)
Targeted SVOCs (mg/kg)						
Acenaphthene	0.040 J	0.0257 J	ND	0.525	50	90
Anthracene	0.436	0.121	ND	0.909	50	700
Benzo(a)anthracene	**2.360**	**0.520**	ND	**1.800**	0.224	3
Benzo(a)pyrene	**3.130**	**0.588**	ND	**1.560**	0.061	11
Benzo(b)flouranthene	**3.250**	0.592	ND	**1.630**	1.1	1.1
Benzo(g,h,i)perylene	2.670	0.527	ND	1.120	50	800
Benzo(k)flouranthene	**1.390**	0.370	ND	0.898	1.1	1.1
Chrysene	**2.430**	**0.559**	ND	**1.720**	0.4	0.4
Dibenzo(a,h)anthracene	**0.719**	**0.169**	ND	**0.357**	0.014	165000
Flouranthene	3.320	0.891	ND	3.840	50	1900
Flourene	.0486 J	.0245 J	ND	0.397	50	350
Indeno(1,2,3-cd)pyrene	2.300	0.441	ND	1.030	3.2	3.2
Naphthalene	ND	ND	ND	0.341	13	13
Phenanthrene	0.729	0.312	ND	3.440	50	220
Pyrene	3.550	0.842	ND	3.380	50	665

NOTE:
Recommended Soil Cleanup Objectives per NYDEC TAGM #4046 for SVOCs
shaded cells/bold values indicate that detection concentration exceeds one of the soil cleanup objectives
J - indicates compound was detected below the PQL, concentration is estimated
ND - Not Detected.

TABLE 1A
POST-REMEDIATION SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
FORMER 2,000 GAL. #4 FUEL OIL UST
August 19, 2008
Akzo Nobel Pilot Plant
Dobbs Ferry, New York

SAMPLE ID LAB ID DEPTH INTERVAL, ft.	T-1-1* J95970-1 7.0-7.5	T-1-Comp* J95970-4 7.0-7.5	T-1-4 J98537-1 8.0-8.5	T-1-5 J98537-2 7.0-7.5	T-1-6 J98537-3 7.0-7.5	Rec. Soil Cleanup Objective (ppm)	Soil cleanup objectives to protect GW quality (ppm)
Targeted SVOCs (mg/kg)							
Acenaphthene	0.040 J	0.525	ND	ND	ND	50	90
Anthracene	0.436	0.909	ND	ND	ND	50	700
Benzo(a)anthracene	**2.360**	**1.800**	ND	ND	ND	0.224	3
Benzo(a)pyrene	**3.130**	**1.560**	ND	ND	0.0196J	0.061	11
Benzo(b)flouranthene	**3.250**	**1.630**	ND	ND	0.0267J	1.1	1.1
Benzo(g,h,i)perylene	2.670	1.120	ND	ND	0.0226J	50	800.0
Benzo(k)flouranthene	**1.390**	0.898	ND	ND	ND	1.1	1.1
Chrysene	**2.430**	**1.720**	ND	ND	ND	0.4	0.4
Dibenzo(a,h)anthracene	**0.719**	**0.357**	ND	ND	ND	0.014	165000
Flouranthene	3.320	3.840	ND	ND	ND	50	1900
Flourene	.0486 J	0.397	ND	ND	ND	50	350
Indeno(1,2,3-cd)pyrene	2.300	1.030	ND	ND	0.0242J	3.2	3.2
Naphthalene	ND	0.341	ND	ND	ND	13	13
Phenanthrene	0.729	3.440	ND	ND	ND	50	220
Pyrene	3.550	3.380	ND	ND	0.0181J	50	665

NOTE:
* - samples T-1-1 and T-1-Comp were collected on July 18, 2008
Recommended Soil Cleanup Objectives per NYDEC TAGM #4046 for SVOCs
shaded cells/bold values indicate that detection concentration exceeds one of the soil cleanup objectives
J - indicates compound was detected below the PQL, concentration is estimated
ND - Not Detected.

TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
FORMER 5,000 GAL. #4/#6 FUEL OIL UST
July 18, 2008
Akzo Nobel Pilot Plant
Dobbs Ferry, New York

SAMPLE ID LAB ID DEPTH INTERVAL, ft.	T-2-1 J95970-5 8.0	T-2-2 J95970-6 8.0	T-2-3 J95970-7 8.0	T-2-4 J95970-8 8.0	T-2-5 J95970-9 8.0	T-2-6 J95970-10 8.0	T-2-7 J95970-11 8.0	T-2-8 J95970-12 8.0	Rec. Soil Cleanup Objective (ppm)	Soil cleanup objectives to protect GW quality (ppm)
Targeted SVOCs (mg/kg)										
Acenaphthene	ND	ND	ND	0.296	ND	ND	ND	ND	50	90
Anthracene	0.881	ND	0.246	ND	0.073	ND	0.0379 J	0.0258 J	50	700
Benzo(a)anthracene	**6.570**	ND	0.105	0.194	**0.372**	0.0322 J	0.180	0.091	0.224	3
Benzo(a)pyrene	**5.160**	ND	**0.411**	**0.176**	**0.230**	**0.0626 J**	**0.246**	**0.091**	0.061	11
Benzo(b)flouranthene	**8.640**	ND	0.570	0.372	0.397	0.136	0.330	0.234	1.1	1.1
Benzo(g,h,i)perylene	6.320	ND	0.709	0.217	0.193	0.568 J	0.222	0.146	50	800
Benzo(k)flouranthene	**2.970**	ND	0.190	0.143	0.243	0.03 J	0.120	0.137	1.1	1.1
Chrysene	**5.810**	ND	0.144	0.253	**0.476**	0.0424 J	0.212	0.127	0.4	0.4
Dibenzo(a,h)anthracene	**1.800**	ND	**0.236**	**0.100**	**0.093**	ND	**0.087**	**0.0441 J**	0.014	165000
Flouranthene	9.110	ND	0.0739 J	0.336	0.891	0.035 J	0.214	0.099	50	1900
Flourene	0.0406 J	ND	ND	0.423	0.0601 J	ND	ND	ND	50	350
Indeno(1,2,3-cd)pyrene	**5.040**	ND	0.588	0.223	0.192	0.0633 J	0.205	0.148	3.2	3.2
Naphthalene	0.0287 J	ND	0.0376 J	0.535	0.0605 J	ND	ND	ND	13	13
Phenanthrene	0.565	ND	0.330	1.410	0.580	ND	0.0425 J	0.0405 J	50	220
Pyrene	8.710	ND	0.207	0.330	0.733	0.0242 J	0.191	0.0759 J	50	665

NOTE:
Recommended Soil Cleanup Objectives per NYSDEC TAGM #4046 for SVOCs
shaded cells/bold values indicate that detection concentration exceeds one of the soil cleanup objectives
J - indicates compound was detected below the PQL, concentration is estimated
ND - Not detected.

TABLE 2A
POST-REMEDIATION SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
FORMER 5,000 GAL. #4/#6 FUEL OIL UST
August 19, 2008
Akzo Nobel Pilot Plant
Dobbs Ferry, New York

SAMPLE ID LAB ID DEPTH INTERVAL, ft.	T-2-1* J95970-5 8.0	T-2-9 J98537-4 8.0	T-2-10 J99537-5 8.0	Rec. Soil Cleanup Objective (ppm)	Soil cleanup objectives to protect GW quality (ppm)
Targeted SVOCs (mg/kg)					
Acenaphthene	ND	ND	ND	50	90
Anthracene	0.881	ND	ND	50	700
Benzo(a)anthracene	**6.570**	ND	ND	0.224	3
Benzo(a)pyrene	**5.160**	ND	ND	0.061	11
Benzo(b)flouranthene	**8.640**	ND	ND	1.1	1.1
Benzo(g,h,i)perylene	6.320	ND	ND	50	800
Benzo(k)flouranthene	**2.970**	ND	ND	1.1	1.1
Chrysene	**5.810**	ND	ND	0.4	0.4
Dibenzo(a,h)anthracene	**1.800**	ND	ND	0.014	165000
Flouranthene	9.110	ND	ND	50	1900
Flourene	0.0406 J	ND	ND	50	350
Indeno(1,2,3-cd)pyrene	**5.040**	ND	ND	3.2	3.2
Naphthalene	0.0287 J	ND	ND	13	13
Phenanthrene	0.565	ND	ND	50	220
Pyrene	8.710	0.0207J	ND	50	665

NOTE:
* - Sample T-2-1 was collected on July 18, 2008
Recommended Soil Cleanup Objectives per NYSDEC TAGM #4046 for SVOCs
shaded cells/bold values indicate that detection concentration exceeds one of the soil cleanup objectives
J - indicates compound was detected below the PQL, concentration is estimated
ND - Not detected.

TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
FORMER 13,000 GAL. #6 FUEL OIL UST (a.k.a. RAILCAR)
July 18, 2008
Akzo Nobel Pilot Plant
Dobbs Ferry, New York

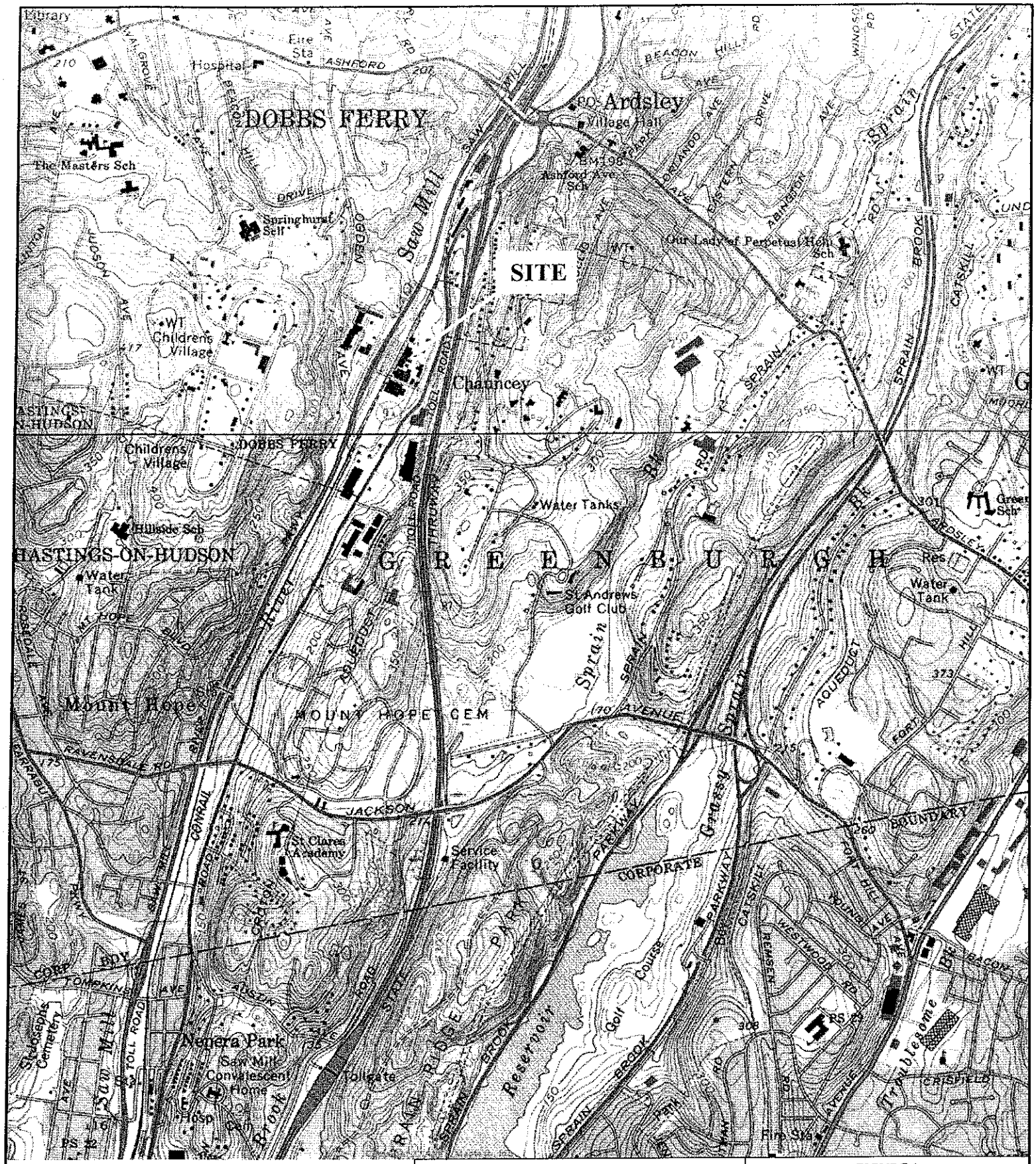
SAMPLE ID LAB ID DEPTH INTERVAL, ft.	T-3-1 J95970-15 9.5-10.0	T-3-2 J95970-13 9.5-10.0	T-3-3 J95970-16 9.5-10.0	T-3-4 J95970-17 9.5-10.0	T-3-5 J95970-18 9.5-10.0	T-3-6 J95970-19 9.5-10.0	T-3-F1/F2 Comp J95970-14 9.5-10.0	Rec. Soil Cleanup Objective (ppm)	Soil cleanup objectives to protect GW quality (ppm)
Targeted SVOCs (mg/kg)									
Acenaphthene	ND	0.0295 J	0.169	ND	ND	0.144	0.056 J	50	90
Anthracene	0.0471 J	0.245	0.178	ND	0.092	0.680	0.117	50	700
Benzo(a)anthracene	0.181	**0.858**	**0.255**	0.0381 J	**0.248**	**1.370**	**0.544**	0.224	3
Benzo(a)pyrene	**0.153**	**0.689**	**0.166**	0.0392 J	**0.223**	**0.924**	**0.473**	0.061	11
Benzo(b)flouranthene	0.162	0.995	0.157	0.0332 J	0.272	**1.240**	0.487	1.1	1.1
Benzo(g,h,i)perylene	0.122	0.490	0.132	0.0337 J	0.175	0.556	0.284	50	800
Benzo(k)flouranthene	0.117	0.784	0.138	ND	0.273	1.070	0.485	1.1	1.1
Chrysene	0.257	**0.783**	0.320	0.0727 J	0.231	**1.150**	**0.648**	0.4	0.4
Dibenzo(a,h)anthracene	**0.0386 J**	**0.207**	**0.0442 J**	ND	**0.029 J**	**0.261**	**0.096**	0.014	165000
Flouranthene	0.186	1.020	0.255	ND	0.459	1.970	0.830	50	1900
Flourene	0.0453 J	0.0264 J	0.278	ND	0.0175 J	0.303	0.062 J	50	350
Indeno(1,2,3-cd)pyrene	0.778	0.522	0.096	ND	0.191	0.623	0.257	3.2	3.2
Naphthalene	0.0233 J	ND	0.497	ND	ND	0.0486 J	0.0394 J	13	13
Phenanthrene	0.170	0.504	0.983	ND	0.229	1.420	0.498	50	220
Pyrene	0.369	0.875	0.553	0.166	0.352	1.580	0.749	50	665

NOTE:
Recommended Soil Cleanup Objectives per NYSDEC TAGM #4046 for SVOCs
shaded cells/bold values indicate that detection concentration exceeds one of the soil cleanup objectives
J - indicates compound was detected below the PQL, concentration is estimated
ND - Not detected.

TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS SUMMARY
FORMER 2,000 GAL. #4 FUEL OIL UST
August 27, 2008
Akzo Nobel Pilot Plant
Dobbs Ferry, New York

SAMPLE ID LAB ID DEPTH INTERVAL, ft.	T-4-1 J99190-2 7.5-8.0	T-4-2 J99190-3 7.5-8.0	T-4-3 J99190-4 7.5-8.0	T4-Comp J99190-1 7.0-7.5	Rec. Soil Cleanup Objective (ppm)	Soil cleanup objectives to protect GW quality (ppm)
Targeted SVOCs (mg/kg)						
Acenaphthene	ND	ND	ND	1.52	50	90
Anthracene	ND	ND	0.0296J	3.25	50	700
Benzo(a)anthracene	ND	0.045	0.060	**4.05**	0.224	3
Benzo(a)pyrene	ND	0.0325J	**0.065**	**3.61**	0.061	11
Benzo(b)flouranthene	0.099	0.119	0.143	**3.63**	1.1	1.1
Benzo(g,h,i)perylene	0.0192J	0.055	0.053	2.65	50	800
Benzo(k)flouranthene	0.0204J	0.025J	0.045	**2.08**	1.1	1.1
Chrysene	ND	ND	0.0179J	**4.74**	0.4	0.4
Dibenzo(a,h)anthracene	ND	ND	ND	**0.822**	0.014	165000
Flouranthene	0.020J	0.070	0.144	11.9	50	1900
Flourene	ND	ND	ND	1.71	50	350
Indeno(1,2,3-cd)pyrene	0.0131J	0.038	0.040	2.24	3.2	3.2
Naphthalene	ND	ND	ND	1.98	13	13
Phenanthrene	ND	ND	0.117	14.1	50	220
Pyrene	0.0207J	0.067	0.130	11.3	50	665

NOTE:
Recommended Soil Cleanup Objectives per NYDEC TAGM #4046 for SVOCs
shaded cells/bold values indicate that detection concentration exceeds one of the soil cleanup objectives
J - indicates compound was detected below the PQL, concentration is estimated
ND - Not Detected.



Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

Project: AN016 File: AKZO\TOPO.dwg Date: 10 24 08

FIGURE 1
SITE LOCATION MAP

AKZO NOBEL - PILOT PLANT
1 LAWRENCE STREET
ARDSLEY, NEW YORK

TO SAMPLING POINT #2

P-203 AREA SCRUBBER SUMP PIT

POLY. TEST

HIGH PRESSURE LAB

ROOM 4G

UTILITY ROOM

MAINT. STORAGE

POLYMERS

CONTROL ROOM

CONTROL ROOM

BURN ROOM

ROOM 4B

INORGANIC AREA

MAINTENANCE RECEIVING ROOM

TRANSFORMER ROOM

MOD.

MFED LAB

PP STOCK ROOM

CENTRAL CORRIDOR

MOTOR CONTROL ROOM

CATALYST PILOT PLANT

FAPP CONTROL ROOM

FAPP

MINILAB

ANALYTICAL LAB

TO SAMPLING POINT #3

POWDER MATERIALS

ELECTRICAL SUBSTATION

FIRST AID

LOCKER ROOM

BATHROOM

LOCKER ROOM

MAINTENANCE SHOP

CYLINDER STORAGE

AUTOCLAVE MOD 5

CRYSTEX MODULE

FUNCTIONAL FLUIDS

WASTE TREATMENT PITS

T202 A

T202 B

T-1-COMP (1 of 4)

T-4-COMP A

T-4-COMP B

T-4-COMP C

T-1-3

T-1-2

T-1-4

T-1-1

T-1-5

T-1-6

T-4-1

T-4-2

T-4-3

T-2-10

T-2-9

T-2-1

T-2-5

T-2-6

T-2-7

T-2-2

T-2-3

T-2-4

T-2-8

T-3-3

T-3-5

T-3-2

F1

F2

T-3-6

T-3-1

T-3-4

LEGEND

- CLEAN OUT
- FLOOR DRAIN
- SUMP PIT
- DRAIN TRENCH
- FLOOR DRAIN
- WASTE LIQUOR PIPE (ABOVE GROUND)
- DRAIN LINE (UNDERGROUND)
- POST-EXCAVATION SOIL SAMPLE
- T-1-COMP (COMPOSITE SIDEWALL SAMPLE)
- POST-REMEDIATION SOIL SAMPLE
- AREA OF OVER-EXCAVATION

0 12

APPROXIMATE SCALE IN FEET

Sovereign Consulting Inc.
111-A North Gold Drive
Robbinsville, NJ 08691
(609) 259-8200 Fax (609) 259-8288

UST CLOSURE POST-EXCAVATION SOIL SAMPLE LOCATIONS

AKZO NOBEL CHEMICALS INC.
ARDSLEY (DOBBS FERRY), NEW YORK

FIGURE 2

APPENDIX O

WESTCHESTER COUNTY DEPARTMENT OF HEALTH

CORRESPONDENCE – APRIL 27, 2009

Westchester gov.com

RECEIVED

Andrew J. Spano
County Executive

Department of Health

Joshua Lipsman, M.D., J.D., M.P.H.
Commissioner

April 27, 2009

Akzo-Nobel Inc
120 White Plains Road
Suite 300
Tarrytown, NY 10591

re: Akzo-Nobel, 1 Lawrence Street, Ardsley
PBS# 3-800132
DEC Spill # 0804121

Dear Sir/Madam:

The closure report, for the removal of the petroleum storage tanks at the above referenced site was received and reviewed by this Department:

Although residual semi-volatile organic compound (SVOC) contamination exceeding guidelines was detected in each of the four excavations, the results of the soil samples taken were generally satisfactory when compared with the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum #4046. The remaining SVOC contamination may be attributable to the historic fill material used at the site.

At this time, this Department requires **no further action** as per the Westchester County Sanitary Code.

Information regarding this spill is being forwarded to the New York State Department of Environmental Conservation (NYSDEC) for appropriate action. Please note that in order to address and resolve this open spill case:
1) This Department acts pursuant to the Westchester County Sanitary Code,
2) The NYSDEC will act pursuant to New York State Laws and regulations (Article 12 of the Navigation Law/Environmental Conservation Law and implementing regulations).

If you have any further questions, please call me at (914) 813-5168.

Sincerely,

Stefan Goreau

Stefan Goreau
Sanitarian
Office of Environmental Health Risk Control
shg1@westchestergov.com

cc: File, WCDOH
J. O'Dee, NYSDEC
Sovereign Consulting Inc

Don't waste a drop!
Save water

APPENDIX P

LABORATORY ANALYSIS REPORT #J40542

SEDIMENT/SURFACE WATER SAMPLES - SEPTEMBER 7, 2006

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	Date Sampled:	09/07/06
Matrix:	AQ - Surface Water	Date Received:	09/08/06
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Akzo, Dobbs Ferry		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S92940.D	1	09/14/06	NDJ	n/a	n/a	VS3572
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.4	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.17	ug/l	
75-25-2	Bromoform	ND	4.0	0.54	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.21	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
74-87-3	Chloromethane	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.19	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.18	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.42	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.3	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
100-42-5	Styrene	ND	5.0	0.16	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.28	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.29	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	**Date Sampled:**	09/07/06
Matrix:	AQ - Surface Water	**Date Received:**	09/08/06
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Akzo, Dobbs Ferry		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.29	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		77-121%
17060-07-0	1,2-Dichloroethane-D4	116%		65-133%
2037-26-5	Toluene-D8	106%		80-117%
460-00-4	4-Bromofluorobenzene	111%		79-124%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	Date Sampled:	09/07/06
Matrix:	AQ - Surface Water	Date Received:	09/08/06
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	Akzo, Dobbs Ferry		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P24572.D	1	09/22/06	MCR	09/09/06	OP24750	EP983
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.95	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	1.6	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	0.89	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	20	0.72	ug/l	
95-48-7	2-Methylphenol	ND	5.0	1.4	ug/l	
	3&4-Methylphenol	ND	5.0	1.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.8	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.84	ug/l	
87-86-5	Pentachlorophenol	ND	20	1.9	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.3	ug/l	
83-32-9	Acenaphthene	ND	2.0	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.38	ug/l	
120-12-7	Anthracene	ND	2.0	0.40	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.36	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.37	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.59	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.42	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.42	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.30	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.40	ug/l	
86-74-8	Carbazole	ND	2.0	0.36	ug/l	
218-01-9	Chrysene	ND	2.0	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.65	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.53	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.74	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.43	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	Date Sampled:	09/07/06
Matrix:	AQ - Surface Water	Date Received:	09/08/06
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	Akzo, Dobbs Ferry		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.21	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.16	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.18	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.0	0.56	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.54	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.34	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.59	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.57	ug/l	
84-66-2	Diethyl phthalate	3.7	2.0	0.39	ug/l	B
131-11-3	Dimethyl phthalate	ND	2.0	0.33	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.66	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.25	ug/l	
86-73-7	Fluorene	ND	2.0	0.45	ug/l	
118-74-1	Hexachlorobenzene	ND	2.0	0.54	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.18	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	20	0.41	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.28	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.30	ug/l	
78-59-1	Isophorone	ND	2.0	0.59	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.41	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	0.66	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	0.72	ug/l	
91-20-3	Naphthalene	ND	2.0	0.32	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.42	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.47	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.52	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.36	ug/l	
129-00-0	Pyrene	ND	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.34	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		12-76%
4165-62-2	Phenol-d5	22%		10-59%
118-79-6	2,4,6-Tribromophenol	66%		42-128%
4165-60-0	Nitrobenzene-d5	68%		30-122%
321-60-8	2-Fluorobiphenyl	0%		34-113%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	**Date Sampled:**	09/07/06
Matrix:	AQ - Surface Water	**Date Received:**	09/08/06
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	Akzo, Dobbs Ferry		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	92%		42-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	**Date Sampled:**	09/07/06
Matrix:	AQ - Surface Water	**Date Received:**	09/08/06
		Percent Solids:	n/a
Project:	Akzo, Dobbs Ferry		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	<6.0	6.0	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Arsenic	<8.0	8.0	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Beryllium	<1.0	1.0	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Cadmium	<4.0	4.0	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Chromium	<10	10	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Copper	<25	25	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Lead	<3.0	3.0	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Mercury	<0.20	0.20	ug/l	1	09/27/06	09/28/06	YL	SW846 7470A [2]	SW846 7470A [4]
Nickel	<40	40	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Selenium	<10	10	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Silver	<10	10	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Thallium	<10	10	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]
Zinc	<20	20	ug/l	1	09/22/06	09/25/06	LH	SW846 6010B [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA18109
(2) Instrument QC Batch: MA18121
(3) Prep QC Batch: MP36017
(4) Prep QC Batch: MP36093

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SW1		
Lab Sample ID:	J40542-1	**Date Sampled:**	09/07/06
Matrix:	AQ - Surface Water	**Date Received:**	09/08/06
		Percent Solids:	n/a
Project:	Akzo, Dobbs Ferry		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Total Organic Carbon	3.4	1.0	mg/l	1	09/20/06 00:43	SJG	415.1/9060 M/5310B M

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	**Date Sampled:**	09/07/06
Matrix:	SO - Sediment	**Date Received:**	09/08/06
Method:	SW846 8260B	**Percent Solids:**	69.3
Project:	Akzo, Dobbs Ferry		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V61674.D	1	09/18/06	RMS	n/a	n/a	VV2384
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	4.1	ug/kg	
71-43-2	Benzene	ND	1.4	0.69	ug/kg	
75-27-4	Bromodichloromethane	ND	7.2	0.66	ug/kg	
75-25-2	Bromoform	ND	7.2	0.63	ug/kg	
74-83-9	Bromomethane	ND	7.2	0.53	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	3.9	ug/kg	
75-15-0	Carbon disulfide	ND	7.2	0.80	ug/kg	
56-23-5	Carbon tetrachloride	ND	7.2	1.4	ug/kg	
108-90-7	Chlorobenzene	ND	7.2	0.62	ug/kg	
75-00-3	Chloroethane	ND	7.2	2.5	ug/kg	
67-66-3	Chloroform	ND	7.2	0.84	ug/kg	
74-87-3	Chloromethane	ND	7.2	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	7.2	0.79	ug/kg	
75-34-3	1,1-Dichloroethane	ND	7.2	0.69	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.78	ug/kg	
75-35-4	1,1-Dichloroethene	ND	7.2	0.99	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	7.2	0.97	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	7.2	0.99	ug/kg	
78-87-5	1,2-Dichloropropane	ND	7.2	0.80	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	7.2	0.60	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	7.2	0.57	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.65	ug/kg	
591-78-6	2-Hexanone	ND	7.2	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.2	2.9	ug/kg	
75-09-2	Methylene chloride	ND	7.2	1.0	ug/kg	
100-42-5	Styrene	ND	7.2	0.47	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.2	0.83	ug/kg	
127-18-4	Tetrachloroethene	ND	7.2	1.2	ug/kg	
108-88-3	Toluene	ND	1.4	0.78	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	7.2	0.85	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	7.2	0.77	ug/kg	
79-01-6	Trichloroethene	ND	7.2	0.75	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	**Date Sampled:**	09/07/06
Matrix:	SO - Sediment	**Date Received:**	09/08/06
Method:	SW846 8260B	**Percent Solids:**	69.3
Project:	Akzo, Dobbs Ferry		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	7.2	0.93	ug/kg	
1330-20-7	Xylene (total)	ND	2.9	0.71	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-120%
17060-07-0	1,2-Dichloroethane-D4	94%		61-133%
2037-26-5	Toluene-D8	91%		75-123%
460-00-4	4-Bromofluorobenzene	79%		65-142%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	Date Sampled:	09/07/06
Matrix:	SO - Sediment	Date Received:	09/08/06
Method:	SW846 8270C SW846 3550B	Percent Solids:	69.3
Project:	Akzo, Dobbs Ferry		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P24752.D	1	09/29/06	MCR	09/09/06	OP24746	EP988
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	240	41	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	240	60	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	240	80	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	240	120	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	950	72	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	950	41	ug/kg	
95-48-7	2-Methylphenol	ND	240	47	ug/kg	
	3&4-Methylphenol	ND	240	68	ug/kg	
88-75-5	2-Nitrophenol	ND	240	59	ug/kg	
100-02-7	4-Nitrophenol	ND	950	65	ug/kg	
87-86-5	Pentachlorophenol	ND	950	53	ug/kg	
108-95-2	Phenol	ND	240	59	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	240	71	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	240	40	ug/kg	
83-32-9	Acenaphthene	31.4	95	24	ug/kg	J
208-96-8	Acenaphthylene	80.0	95	19	ug/kg	J
120-12-7	Anthracene	192	95	18	ug/kg	
56-55-3	Benzo(a)anthracene	739	95	23	ug/kg	
50-32-8	Benzo(a)pyrene	657	95	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	681	95	22	ug/kg	
191-24-2	Benzo(g,h,i)perylene	423	95	26	ug/kg	
207-08-9	Benzo(k)fluoranthene	568	95	36	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	95	24	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	95	36	ug/kg	
91-58-7	2-Chloronaphthalene	ND	95	67	ug/kg	
106-47-8	4-Chloroaniline	ND	240	30	ug/kg	
86-74-8	Carbazole	66.0	95	19	ug/kg	J
218-01-9	Chrysene	906	95	18	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	95	31	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	95	24	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	95	36	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	95	22	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	Date Sampled:	09/07/06
Matrix:	SO - Sediment	Date Received:	09/08/06
Method:	SW846 8270C SW846 3550B	Percent Solids:	69.3
Project:	Akzo, Dobbs Ferry		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	95	21	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	95	25	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	95	20	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	95	55	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	95	54	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	240	45	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	149	95	25	ug/kg	
132-64-9	Dibenzofuran	ND	95	22	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	95	30	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	95	41	ug/kg	
84-66-2	Diethyl phthalate	137	95	20	ug/kg	B
131-11-3	Dimethyl phthalate	ND	95	20	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	1170	95	61	ug/kg	
206-44-0	Fluoranthene	1400	95	17	ug/kg	
86-73-7	Fluorene	46.4	95	19	ug/kg	J
118-74-1	Hexachlorobenzene	ND	95	27	ug/kg	
87-68-3	Hexachlorobutadiene	ND	95	31	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	950	34	ug/kg	
67-72-1	Hexachloroethane	ND	240	24	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	415	95	30	ug/kg	
78-59-1	Isophorone	ND	95	24	ug/kg	
91-57-6	2-Methylnaphthalene	ND	95	31	ug/kg	
88-74-4	2-Nitroaniline	ND	240	30	ug/kg	
99-09-2	3-Nitroaniline	ND	240	37	ug/kg	
100-01-6	4-Nitroaniline	ND	240	33	ug/kg	
91-20-3	Naphthalene	ND	95	27	ug/kg	
98-95-3	Nitrobenzene	ND	95	33	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	95	31	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	240	20	ug/kg	
85-01-8	Phenanthrene	649	95	21	ug/kg	
129-00-0	Pyrene	1690	95	16	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	95	30	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		33-105%
4165-62-2	Phenol-d5	57%		34-110%
118-79-6	2,4,6-Tribromophenol	71%		33-124%
4165-60-0	Nitrobenzene-d5	73%		26-113%
321-60-8	2-Fluorobiphenyl	79%		40-106%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	**Date Sampled:**	09/07/06
Matrix:	SO - Sediment	**Date Received:**	09/08/06
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	69.3
Project:	Akzo, Dobbs Ferry		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1718-51-0	Terphenyl-d14	88%		35-142%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	**Date Sampled:**	09/07/06
Matrix:	SO - Sediment	**Date Received:**	09/08/06
		Percent Solids:	69.3
Project:	Akzo, Dobbs Ferry		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	69.3		%	1	09/25/06	ESJ	ASTM 4643-00
Total Organic Carbon	10700	1400	mg/kg	1	09/29/06 12:31	ESJ	CORP ENG 81M/SW9060M

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SED1		
Lab Sample ID:	J40542-2	**Date Sampled:**	09/07/06
Matrix:	SO - Sediment	**Date Received:**	09/08/06
		Percent Solids:	69.3
Project:	Akzo, Dobbs Ferry		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	<2.8	2.8	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Arsenic	<2.8	2.8	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Beryllium	<0.70	0.70	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Cadmium	<0.70	0.70	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Chromium	25.9	1.4	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Copper	36.9	3.5	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Lead	67.5	2.8	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Mercury	0.24	0.042	mg/kg	1	09/22/06	09/23/06	YL	SW846 7471A [1]	SW846 7471A [3]
Nickel	19.7	5.6	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Selenium	<2.8	2.8	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Silver	<1.4	1.4	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Thallium	<1.4	1.4	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]
Zinc	162	2.8	mg/kg	1	09/26/06	09/26/06	KL	SW846 6010B [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA18099
(2) Instrument QC Batch: MA18115
(3) Prep QC Batch: MP36023
(4) Prep QC Batch: MP36070

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	J40542-3	**Date Sampled:**	09/07/06
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/08/06
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Akzo, Dobbs Ferry		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	S92941.D	1	09/14/06	NDJ	n/a	n/a	VS3572
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.4	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.17	ug/l	
75-25-2	Bromoform	ND	4.0	0.54	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.21	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.29	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.56	ug/l	
67-66-3	Chloroform	ND	1.0	0.22	ug/l	
74-87-3	Chloromethane	ND	1.0	0.35	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.19	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.23	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.33	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.18	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.42	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.3	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.27	ug/l	
100-42-5	Styrene	ND	5.0	0.16	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.28	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.29	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	J40542-3	**Date Sampled:**	09/07/06
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/08/06
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Akzo, Dobbs Ferry		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	ND	1.0	0.29	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		77-121%
17060-07-0	1,2-Dichloroethane-D4	120%		65-133%
2037-26-5	Toluene-D8	105%		80-117%
460-00-4	4-Bromofluorobenzene	112%		79-124%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX Q

MONITORING WELL LOGS

MW-1 THROUGH MW-3

MONITORING WELL LOG

Project Name: Akzo Nobel Pilot Plant
Street Address: 1 Lawrence Street, Dobbs Ferry, New York
Tax Map Address:
County: Westchester

Owner: Akzo Nobel, Inc.
Owner's Representative: Mariam Tehrani
Owner's Address: 120 White Plains Road, Tarrytown, New York

Project Manager: Dave Volz
NYSDEC Case Manager: N/A
NYSDEC Case Number: N/A

Driller: Summit Drilling Co., Inc.
Driller's Address: 9W Chimney Rock Road, Bound Brook, NJ
Driller's License Number:

Well Identification: MW1
Well Coordinate Number: NA
Well Permit Number: NA
Casing Elevation: 123.91
Well Depth: 23 feet
Screen Length: 15 feet
Casing Length: 8 feet
Drilling Method: Hollow Stem Auger
Well Diameter: 2.0 inches
Borehole Diameter: 6.0 inches
Sampling Method: Drill cuttings
Static Water Depth: 4.79 feet from top of casing
Logged By: Brad Smyth
Completion Date: May 26, 2009

Depth (feet)	Sample Number	Well Detail	PID (units)	Blow Count Recovery (inches)
surface				
1			0.0	
2			0.0	
3			0.0	
4			0.0	
5			0.0	
6			0.0	
7			0.0	
8			0.0	
9			0.0	
10			0.0	
11			0.0	
12			0.0	
13			0.0	
14			0.0	
15			0.0	
16			0.0	
17			0.0	
18			0.0	
19			0.0	
20			0.0	
21			0.0	
22			0.0	
23			0.0	

Depth (feet)	Lithology/Remarks (Unified Soil Classification System (USCS)- Munsell Color Value)
0-0.7:	Asphalt and subbase.
0.7-3:	Brown, sandy SILT, moist.
3-12:	Olive brown, silty, clayey, SAND, trace fine gravel, mottling present at 10 feet, moist.
12-23:	Olive brown, silty, clayey, SAND, trace fine gravel, wet.
	End of boring at 23 feet.

Key:
- Concrete collar
- Bentonite pellet seal
- Sand/Gravel pack
- Well screen

Well Construction Materials and Completion Details: Schedule 40 PVC, 0.010-inch machine slotted threaded screen and threaded solid casing, Morie #1 sand, bentonite pellet seal. Locking (Master #0210), steel, stick-up casing and water-tight gripper plug.

MONITORING WELL LOG

Project Name: Akzo Nobel Pilot Plant	**Well Identification:** MW2
Street Address: 1 Lawrence Street, Dobbs Ferry, New York	**Well Coordinate Number:** NA
Tax Map Address:	**Well Permit Number:** NA
County: Westchester	**Casing Elevation:** 130.30 feet
Owner: Akzo Nobel, Inc.	**Well Depth:** 25 feet
Owner's Representative: Mariam Tehrani	**Screen Length:** 15 feet
Owner's Address: 120 White Plains Road, Tarrytown, New York	**Casing Length: 10** feet
Project Manager: Dave Volz	**Drilling Method:** Hollow Stem Auger
NYSDEC Case Manager: N/A	**Well Diameter:** 2.0 inches
NYSDEC Case Number: N/A	**Borehole Diameter:** 6.0 inches
	Sampling Method: Drill cuttings
Driller: Summit Drilling Co., Inc.	**Static Water Depth:** 12.03 feet from top of casing
Driller's Address: 9W Chimney Rock Road, Bound Brook, NJ	**Logged By:** Brad Smyth
Driller's License Number:	**Completion Date:** May 26, 2009

Depth (feet)	Sample Number	Well Detail	PID (units)	Blow Count Recovery (inches)	Depth (feet)	Lithology/Remarks (Unified Soil Classification System (USCS)- Munsell Color Value)
surface						
1			0.0		0-0.3:	Asphalt.
					0.3-1:	Concrete.
2			0.0		1-10:	Light brown, fine to medium-grained, clayey SAND, some fine gravel, dry.
3			0.0			
4			0.0			
5			0.0			
6			0.0			
7			0.0			
8			0.0			
9			0.0			
10			0.0		10-14:	Brown, clayey SAND, some fine gravel, moist.
11			0.0			
12			0.0			
13			0.0			
14			0.0		14-20:	Olive brown, clayey, gravelly SAND, wet.
15			0.0			
16			0.0			
17			0.0			
18			0.0			
19			0.0			
20			0.0		20-25:	Olive gray, clayey, silty SAND, wet.
21			0.0			
22			0.0			
23			0.0			
24			0.0			
25						End of boring at 25 feet.

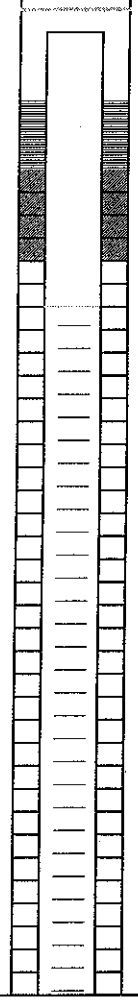
Key:
- Concrete collar
- Bentonite pellet seal
- Sand/Gravel pack
- Well screen

Well Construction Materials and Completion Details: Schedule 40 PVC, 0.010-inch machine slotted threaded screen and threaded solid casing, Morie #1 sand, bentonite pellet seal. Locking (Master #0210), steel, stick-up casing and water-tight gripper plug.

MONITORING WELL LOG

Project Name: Akzo Nobel Pilot Plant	**Well Identification:** MW3
Street Address: 1 Lawrence Street, Dobbs Ferry, New York	**Well Coordinate Number:** NA
Tax Map Address:	**Well Permit Number:** NA
County: Westchester	**Casing Elevation:** 122.63 feet
Owner: Akzo Nobel, Inc.	**Well Depth:** 25 feet
Owner's Representative: Mariam Tehrani	**Screen Length:** 15 feet
Owner's Address: 120 White Plains Road, Tarrytown, New York	**Casing Length: 10** feet
Project Manager: Dave Volz	**Drilling Method:** Hollow Stem Auger
NYSDEC Case Manager: N/A	**Well Diameter:** 2.0 inches
NYSDEC Case Number: N/A	**Borehole Diameter:** 6.0 inches
	Sampling Method: Drill cuttings
Driller: Summit Drilling Co., Inc.	**Static Water Depth:** 5.01 feet from top of casing
Driller's Address: 9W Chimney Rock Road, Bound Brook, NJ	**Logged By:** Brad Smyth
Driller's License Number:	**Completion Date:** May 26, 2009

Depth (feet)	Sample Number	Well Detail	PID (units)	Blow Count Recovery (inches)	Depth (feet)	Lithology/Remarks (Unified Soil Classification System (USCS)- Munsell Color Value)
surface						
			0.0		0-0.2:	Asphalt.
1			0.0		0.2-1:	Concrete.
2			0.0		1-3:	Dark brown, sandy SILT, trace clay and fine gravel, slightly moist.
3			0.0		3-8:	Olive brown, sandy, silty CLAY, trace fine gravel and brick fragments, moist.
4			0.0			
5			0.0			
6			0.0			
7			0.0			
8			0.0		8-10:	Olive gray, silty CLAY, trace fine-grained sand and fine gravel, moist.
9			0.0			
10			0.0		10-12:	Olive gray, silty, sandy, CLAY, trace fine gravel, wet.
11			0.0			
12			0.0		12-20:	Olive gray, sandy, gravelly, CLAY, wet.
13			0.0			
14			0.0			
15			0.0			
16			0.0			
17			0.0			
18			0.0			
19			0.0			
20						End of boring at 20 feet.



Key:
- Concrete collar
- Bentonite pellet seal
- Sand/Gravel pack
- Well screen

Well Construction Materials and Completion Details: Schedule 40 PVC, 0.010-inch machine slotted threaded screen and threaded solid casing, Morie #1 sand, bentonite pellet seal. Locking (Master #0210), steel, stick-up casing and water-tight gripper plug.

APPENDIX R (ENCLOSED CD)

LABORATORY ANALYSIS REPORT #JA22109

GROUNDWATER SAMPLES – JUNE 29, 2009