Dexter Chemical

BRONX, NEW YORK

Site Management Plan

NYSDEC VCP Number: V00186-2

Prepared for:
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Volume 1 of 3
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LIST OF ACRONYMS

Acronym	Definition
AS	Air Sparging
DCR	Declaration of Covenants and Restrictions
ECs	Engineering Controls
ECL	Environmental Conservation Law
FER	Final Engineering Report
ICs	Institutional Controls
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	Photo-ionization Detector
RAWP	Remedial Action Workplan
RSCOs	Recommended Soil Cleanup Objectives
SMP	Site Management Plan
SVE	Soil Vapor Extraction
SVOCs	Semi-Volatile Organic Compounds
TAGM	Technical and Administrative Guidance Memorandum
TOGs	Technical and Operational Guidance
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program
VOCs	Volatile Organic Compounds

CERTIFICATION

I, Barry I. Skoultchi, certify that I am currently a NYS Registered Professional Engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

License No. 077149-1
Professional Engineering Seal
State of New York

3/10/15
Date

SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 Introduction

This document is required for fulfillment of Remedial Action at the former Dexter Chemical site located at 819-845 Edgewater Rd. and 810-842 Whittier St., Bronx, NY (the Site) under the New York State Department of Environmental Conservation's (NYSDEC) Voluntary Cleanup Program (VCP). The Site was remediated in accordance with the Voluntary Cleanup Agreement (VCA) Site # V00186-2, Index # W2-0864-03-08, which was executed on December 3, 2003. The Site was sold to Edgewater Realty, L.L.C. (Edgewater Realty) in May 2007.

1.1.1 General

Dexter Chemical, L.L.C. (the Volunteer) entered into a VCA with the NYSDEC to investigate and remediate a 2 acre property located at 819-845 Edgewater Road and 810-842 Whittier St. (the Site) in the Bronx, New York in a mixed commercial/industrial area. This Site Management Plan (SMP) satisfies the requirement for the OM&M Work Plan referenced in, and required under, the VCA for the Site. The VCA required the Volunteer to investigate and remediate contaminated media at the Site. The boundary of the Site is more fully described in Appendix 1 – Metes and Bounds. A map of the Site location is shown in Figure 1. The Site boundary is shown in Figure 2.

After completion of the remedial work described in the Remedial Action Work Plan (RAWP), some contamination was left in the subsurface at this Site, which is hereafter referred to as 'residual contamination.' This SMP was prepared to manage residual contamination at the Site in perpetuity or until extinguishment of the Declaration of Covenants and Restrictions in accordance with the VCA. Construction of the remedial action treatment system on the Site began in October 2006, and was completed in 2009. The system operated continuously since that time through Spring 2012. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by The Whitman Companies Inc. (Whitman), on behalf of the Volunteer, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002, and the guidelines provided by NYSDEC in accordance with the RAWP and Addendum approved by NYSDEC on November 3, 2005. This SMP addresses the means for implementation of Institutional Controls (ICs) and Engineering Controls (ECs), which are required by the Declarations of Covenants and Restrictions (DCR) for the Site. Edgewater Realty (the new owner) has been consulted with, reviewed, and has agreed to be bound by this SMP and Deed Restriction.

1.1.2 Purpose

The Site contains residual contamination left after completion of the Remedial Action performed under the VCP. ECs have been incorporated into the Site remedy to provide proper management of residual contamination in the future to ensure protection of public health and the environment. A Site-specific DCR has been recorded with the NYC Department of Finance – Office of the City Register that provides an enforceable means to ensure the continued and proper management of residual contamination and protection of public health and the environment. It requires strict adherence to all Engineering Controls and all Institutional Controls placed on this Site by NYSDEC by the grantor of the DCR and any and all successors and assigns of the grantor as more particularly set forth in the DCR. ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP includes all methods necessary to ensure compliance with all ECs and ICs required by the DCR for residual contamination at the Site. The SMP has been approved by the NYSDEC, and compliance with this SMP is required by the grantor of the DCR and grantor's successors and assigns. This SMP is subject to revision with agreement of the property owner and/or Volunteer with written concurrence by NYSDEC. Volunteer may utilize the "dispute resolution clause" as provided in the VCA to resolve disagreement with NYSDEC, however the intent of the remediation project is to discuss such potential disagreements and/or any modifications to this SMP with NYSDEC.

Except as expressly provided herein, site management is the last phase of the remedial process and is triggered by the approval of the Final Engineering Report (FER) and issuance of the Release and Covenant Not to Sue for the Site by NYSDEC, pursuant to the VCA. The SMP continues in perpetuity or until extinguished in accordance with the VCA or as more particularly set forth herein, or by applicable law, or in the Declaration of Covenants and Restrictions. It is the responsibility of the Declaration of Covenants and Restrictions grantor, and its successors and assigns to ensure that all Site Management responsibilities under the SMP are performed as more particularly set forth in the DCR.

The SMP provides a detailed description of all procedures required to manage residual contamination at the Site during and following the completion of the Remedial Action in accordance with the VCA with the NYSDEC. This includes: (1) development, implementation, and management of all Engineering and Institutional Controls; (2) development and implementation of monitoring systems and a Monitoring Plan; (3) development of a plan to operate and maintain all treatment, collection, containment, or recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual); (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC; and (5) defining criteria for termination of treatment system operation.

To address these needs, this SMP includes four plans and/or criteria descriptions: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC.

Site Management activities, reporting, and EC/IC certification will be scheduled on a certification period basis. The certification period will be annually.

Important notes regarding this SMP are as follows:

- This SMP defines Site-specific implementation procedures as required by the DCR. The penalty for failure to implement the SMP is revocation of the Release and Covenant Not to Sue.
- The VCA for the Site requires conformance with this SMP, and therefore, serves as a contractual binding authority under which this SMP is to be implemented. The VCA also requires the preparation of a SMP (formerly known as an Operation, Maintenance and Monitoring Plan). The agreements between Dexter and Edgewater Realty, and its successors and assigns, require compliance with the requirements of the VCA, including with this SMP. Therefore, the VCA and agreements between Dexter and the current owner are binding contracts, and the applicable law is statutory authority, under which this SMP is required and is to be implemented.
- The SMP and all Site documents related to Remedial Investigation and Remedial Action are maintained at the NYSDEC Region 2 offices in Long Island City. At the time of SMP original submission, August 2010, the Site documents were placed in the repository established for this project:

Bronx Borough Public Library, Hunts Point Branch
877 Southern Blvd., Bronx, NY 10459
(718) 617-0338
Monday and Thursday 12 – 8 PM
Wednesday 10 AM – 6 PM
Saturday 10 AM – 5 PM

1.2 Site Background

1.2.1 Site Location and Description

The Site is located in the County of Bronx, (New York City), New York and is identified as 819 Edgewater Road, (Section 10, Block 2762, Lot 300) ("819 Edgewater"), 842 Whittier Street, (Section 10, Block 2762, Lot 272) ("842 Whittier"), 845 Edgewater Road,(Section 10, Block 2762, Lot 294) ("845 Edgewater"), 810-820 Whittier Street, (Section 10, Block 2762, Lot 257) ("810-820 Whittier") and 835 Edgewater Road,(Section 10, Block 2762, Lot 299) ("835 Edgewater") on the Bronx, New York City Tax Map.

The Site is an approximately 2-acre area bounded by an industrial/commercial lot to the north, a commercial lot to the south, Edgewater Road to the east, and Whittier Street to the west (see Figure 2). The boundary of the Site is more fully described in Appendix 1 – Metes and Bounds.

1.2.2 Site History

The site is located at 819-845 Edgewater Road and 810-842 Whittier Street, Bronx, New York. The facility consists of six (6) buildings on approximately two (2) acres. The site is now owned by Edgewater Realty, LLC (Edgewater Realty). Dexter remains obligated by agreements with Edgewater Realty to complete the work under the VCA, subject to various obligations of Edgewater Realty under those same agreements.

1.2.2.1 Sanborn Map Review

Review of the 1896 and 1901 Sanborn Maps show that historically the Bronx River ran immediately adjacent to Edgewater Road. Subsequent maps show reclaimed land appearing between Edgewater Road and the River. The use of historic fill materials to raise the topographic elevation of areas near important waterways was a common practice that preceded development. Site soils encountered during the advancement of multiple borings at the Site show the characteristic chemical profile of historic fill materials.

1.2.2.2 Past Operations and Chemical Usage

The site, according to Sanborn Maps, was occupied previously by a paint manufacturing company, metal works, door company and art craft table company in the 1950's. The types of raw materials/chemicals associated with these types of operations include but are not limited to:

- Solvents – Toluene, Xylene, Acetone, Ethyl Benzene, Ketones, Polynuclear Aromatic Hydrocarbons
- Other Paint Thinners – Mineral Spirits, Naphtha, Aliphatic Hydrocarbons and Ethyl Benzene

1.2.2.3 Current Operations and Chemical Usage

The site was operated as an industrial facility by Dexter Chemical L.L.C. (the Volunteer), and formerly operated by its predecessor Dexter Chemical Corporation. For approximately 40 years, until approximately 2004 the Volunteer and Dexter Chemical Corporation manufactured specialty industrial organic chemicals, predominately phosphation and sulfation batches, and various blending operations. A complete chemical inventory is presented in Appendix 2.

The Site is currently owned by Edgewater Realty which leases portions of the site to tenants engaged in the storage of non-chemical materials and construction equipment.

1.2.2.4 Phase I Environmental Site Assessment

Whitman performed a Phase I Environmental Site Assessment/ Preliminary Assessment at the Dexter property in September 1997. During the assessment, Whitman identified several areas of potential environmental concern and recommended further investigation and/or corrective action. A copy of the Phase I Environmental Assessment was previously submitted to the Department.

1.2.2.5 Phase II Environmental Site Investigation

The Phase II Environmental Site Investigation activities were conducted by Whitman on November 18, 1997. Soil and grab ground water samples were collected to investigate the following areas of potential environmental concern (APECs):

1. 819 Edgewater Road Plant Subsurface Contamination
2. 5,000 Gallon No. 4 Heating Oil Underground Storage Tank (UST)
3. Two (2) 3,500 Gallon Isopropyl Alcohol USTs.

The results of the initial investigation indicated the presence of ground water and soil contaminants with Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) including Base/Neutral Extractable Organic Compounds (BNs), and Priority Pollutant Metals (PPM), at concentrations above the NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives and TOGS 1.1.1 Ground Water Standards/Criteria. A copy of the Phase II Environmental Site Investigation was previously submitted to the Department in January 1998.

1.2.2.6 Underground Storage Tanks (USTs)

Whitman reviewed two (2) reports prepared by EnviroSciences, Inc. regarding the removal of two (2) USTs in January 1993 and the removal of six (6) USTs in May 1995. The following is a summary of the tank closure activities:

January 1993:

- Removal of 3,500 Gallon #2 Fuel Oil UST – formerly located in Area E
- Removal of 5,500 Gallon Isopar-M UST – formerly located in Area E

May 1995:

- Removal of 2,500 Gallon Methanol UST–formerly located in Area I
- Removal of 2,000 Gallon Isopropanol UST–formerly located in Area B
- Removal of 1,500 Gallon Varsol UST–formerly located in Area B
- Removal of 550 Gallon Diesel UST-formerly located in Area G (North of Area F)
- Removal of two (2) 550 Gallon Gasoline USTs-formerly located in Area F

1.2.3 Geological Conditions

The Site is located on a flat coastal peninsula. The estimated elevation is approximately 20 feet above mean sea level. The Bronx River, located less than 1,000 feet to the east, is the nearest surface water body. The depth to shallow ground water at the Site varies from 2 to 12 feet below grade across the site. Groundwater typically flows west to east-northeast across the site towards the Bronx River.

The underlying, regional geology in the vicinity of the Site is of Paleozoic Era, Ordovician System consisting of a shale and limestone stratified sequence and Manhattan Formation with undivided pelitic schists and amphibolite.

Site soils encountered during the advancement of multiple borings at the Dexter property show the characteristic profile of historic fill materials. The fill material observed consists of cinders, coal fragments, gravel and assorted debris (concrete, glass, wood and brick fragments) in a sandy silt matrix. A distinct organic layer, identified as "meadow mat" is present at 13 to 18 feet below grade. This layer is indicative of native soils for the area.

Example geologic cross sections for the site (Area I) are shown on Figures 3 and 4. A typical groundwater flow map across the Site is shown in Figure 5.

1.3 Description of Remedial Investigation Findings

The SMP and all Site documents, including the Remedial Investigation Report (RIR) and Remedial Action Work Plan (RAWP), are maintained by the NYSDEC (or successor agency). At the time of publication, these reports could be found at the Region 2 NYSDEC offices in Long Island City, New York. The RAWP for the Site can also be found at the document repository located at the Bronx Borough Public Library, Hunts Point Branch.

1.3.1 Summary of Remedial Investigation Findings

The following is a list of all reports completed for the Site, and submitted to NYSDEC:

- October 1997 – Preliminary Assessment / Phase I Environmental Site Assessment
- January 1998 – Phase II Environmental Site Investigation
- May 1998 – Remedial Investigation
- July 1999 – Site Investigation Work Plan
- March 2002 – Progress Report
- January 2003 – Progress Report
- June 2003 - Summary of Site Investigation and Proposed Remedial Action
- February 2004 – Investigation Workplan: Results of Remedial Investigation at "Area I", Remedial Investigation Workplan, and Workplan for Pilot Test at "Area A"
- June 2004 – Progress Report #1
- October 2004 – Progress Report #2
- January 2005 – Progress Report #3
- April 2005 – Progress Report #4
- May 2005 Remedial Action Workplan for Soil and Ground Water at "Area A" and Area "I"
- July 2005 – Progress Report #5
- October 2005 – Progress Report #6
- January 2006 – Progress Report #7

- April 2006 – Progress Report #8
- July 2006 – Progress Report #9
- October 2006 – Progress Report #10
- January 2007 – Progress Report #11
- April 2007 – Progress Report #12
- July 2007 – Progress Report #13
- October 2007 – Progress Report #14
- January 2008 – Progress Report #15
- March 2008 – Progress Report #16
- July 2008 – Progress Report #17
- October 2008 – Progress Report #18
- January 2009 – Progress Report #19
- April 2009 – Progress Report #20
- July 2009 – Progress Report #21
- January 2010 – Progress Report #22
- April 2010 – Progress Report #23
- July 2010 – Progress Report #24
- October 2011 – Progress Report #25
- April 2012 – Progress Report #26
- July 2012-Progress Report #27
- October 2012-Progress Report #28
- January 2013-Progress Report 29
- April 2013-Progress Report #30
- July 2013-Progress Report #31

Below is a summary of Remedial Investigation findings.

Whitman performed a Phase I Environmental Site Assessment/ Preliminary Assessment at the Dexter property in September 1997. During the assessment, Whitman identified several areas of potential environmental concern and recommended further investigation and/or corrective action.

The Phase II Environmental Site Investigation activities were conducted by Whitman on November 18, 1997. Soil and grab ground water samples were collected to investigate areas of potential environmental concern.

The results of the initial investigation indicated the presence of ground water and soil contaminants with Volatile Organic Compounds (VOCs), Semi-volatile Organic Compounds (SVOCs), and Priority Pollutant Metals (metals), at concentrations above the NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (RSCOs) and TOGS 1.1.1 Ground Water Standards/Criteria (TOGS).

The major Areas of Concern (AOCs) resulting from prior site usage and documented by the remedial investigations include:

- Site-wide SVOCs and metals identified in soil and groundwater, attributable to the historic fill utilized to raise the site from pre-development conditions, detected above NYSDEC RSCO's and TOGS;
- VOCs and select SVOCs beneath the 819 Edgewater Plant (denoted "Area A") detected above NYSDEC RSCO's and TOGS GWS/C; and
- VOCs and select SVOCs beneath the Whittier Street Plant and alleyway (denoted "Area I") detected above NYSDEC RSCOs and TOGS.

1.3.2 Conceptual Model of Contamination

The Volunteer is remediating two AOCs (Areas "A" and "I") using a combined Soil Vapor Extraction/Air Sparging (SVE/AS) treatment system with dewatering (to facilitate SVE due to the shallow groundwater). In addition, a Declaration of Covenants and Restrictions, including ICs and ECs to address residual remaining contamination will be registered. After approval of this SMP and Declarations of Covenants and Restrictions the SVE/AS system will be designated as an EC during its operation until cessation of its operation which occurred in 2012. The facility is constructed on approximately 13 to 18 feet of historic fill material consisting of cinders, coal fragments, gravel and assorted debris. A distinct organic layer, identified as "meadow mat," is present below the man-made fill.

Soil and ground water are contaminated at two major AOCs, known as Area A and Area I (see Figure 2). Area A, which is adjacent to Edgewater Road, is an area beneath the Edgewater Road Plant of approximately 40 feet by 40 feet, and 15 feet deep. Area I, located in an interior section of the facility in the alleyway adjacent to and beneath portions of the Whittier Street Plant, is approximately 50 feet by 75 feet, and is also about 15 feet deep. The primary subsurface contaminants in Area A and Area I are Xylene, Toluene, Ethylbenzene, Naphthalene, and several Chlorobenzene compounds. These VOCs and SVOCs are related to earlier paint manufacturing and other operations on the Site.

The SVE/AS remedy will remove VOCs from ground water and soil beneath building structures comprising Area A and Area I, treating the vapors using Vapor Phase Granular Activated Carbon (VGAC) canister systems. As a result of the remedy, the Volunteer will attain the primary remedial objective by removing as much contamination as practicable with the active remediation systems. All residual contamination remaining after active remediation, including the site-wide historic fill material, will be encapsulated on site and addressed via ICs and ECs.

It should be noted that SVOCs and metals were detected offsite (MW-1) at similar concentrations as those detected in the site-wide historic fill (see below tables). MW-1 is located along Whittier Street, up gradient from the site. These results indicate the historic fill at the site is ubiquitous in this industrial region of the Bronx, as may be expected as a result of the raising of this former swamp area with historic fill during early development of industry in this area.

1.3.2.1 Soil

The following tables display the concentration ranges and/or maximum concentrations for the major classes of soil contaminants detected at the site to date, regional historic fill contamination offsite, and the location (by area) of these soil contaminants, prior to the remedy:

Contaminant	Concentration Ranges and/or Maximum Concentration Detected in Soils (in mg/kg)	Location of Contaminant by AOC/Type
On-Site VOCs:		
Benzene	0.43	Area A – Onsite Historic Operations
Toluene	28	Area A – Onsite Historic Operations
Ethylbenzene	19-58	Area A – Onsite Historic Operations
Total Xylenes	17-450	Area A – Onsite Historic Operations
Chlorobenzene	260	Area A – Onsite Historic Operations
1,3 – Dichlorobenzene	2.3 2.02	Area A – Onsite Historic Operations Area I – Onsite Historic Operations
1,4 – Dichlorobenzene	11 14	Area A – Onsite Historic Operations Area I – Onsite Historic Operations
1,4 – Dichlorobenzene	11 14	Area A – Onsite Historic Operations Area I – Onsite Historic Operations
1,2,4 – Trichlorobenzene	110 110	Area A – Onsite Historic Operations Area I – Onsite Historic Operations
1,2 – Dichlorobenzene	14	Area A – Onsite Historic Operations

Contaminant	Concentration Ranges and/or Maximum Concentration Detected in Soils (in mg/kg)	Location of Contaminant by AOC/Type
On-Site SVOCs:		
Naphthalene	32-160 18	Area A – Onsite Historic Operations Area I – Onsite Historic Operations
Benzo(a)anthracene	0.55-6.8	Site-Wide Historic Fill
Chrysene	0.6-7.7	Site-Wide Historic Fill
Benzo(a)pyrene	0.42-5.7	Site-Wide Historic Fill
Benzo(b)fluoranthene	6.1-7.6	Site-Wide Historic Fill
Benzo(k)fluoranthene	2.5-3	Site-Wide Historic Fill
Dibenzo(a,h)anthracene	0.71-0.83	Site-Wide Historic Fill
On-Site Metals		
Mercury	0.07-1.1	Site-Wide Historic Fill
Chromium	16.1-51.8	Site-Wide Historic Fill
Copper	26-238	Site-Wide Historic Fill
Beryllium	0.47-1.1	Site-Wide Historic Fill
Nickel	14.2-33.4	Site-Wide Historic Fill
Zinc	72.9-771	Site-Wide Historic Fill
Arsenic	14.4-46.7	Site-Wide Historic Fill
Lead	773	Site-Wide Historic Fill

Contaminant	Concentration Ranges and/or Maximum Concentration Detected in Soils (in mg/kg)	Location of Contaminant by AOC/Type
Off-Site SVOCs Fill (Offsite)		
Benzo(a)anthracene	1.2	Offsite (Regional) Historic Fill MW-1
Chrysene	1.5	Offsite (Regional) Historic Fill MW-1
Benzo(a)pyrene	1.0	Offsite (Regional) Historic Fill MW-1
Benzo(b)fluoranthene	1.4	Offsite (Regional) Historic Fill MW-1
Dibenzo(a,h)anthracene	0.13	Offsite (Regional) Historic Fill MW-1
Off-Site Metals		
Chromium	15.3	Offsite (Regional) Historic Fill MW-1
Beryllium	0.67	Offsite (Regional) Historic Fill MW-1
Cadmium	1.8	Offsite (Regional) Historic Fill MW-1
Copper	2,140	Offsite (Regional) Historic Fill MW-1
Selenium	5.1	Offsite (Regional) Historic Fill MW-1
Nickel	19.3	Offsite (Regional) Historic Fill MW-1
Zinc	1,320	Offsite (Regional) Historic Fill MW-1
Arsenic	21	Offsite (Regional) Historic Fill MW-1
Lead	1,840	Offsite (Regional) Historic Fill MW-1

Table 1, attached, shows exceedances from TAGM 4046 RSCOs for all soil/fill at the Site (prior to the remedy). Figure 6 is a spider map that indicates the location(s) of, and summarizes exceedances from TAGM 4046 RSCOs for all soil/fill samples collected at the Site to date (prior to the remedy).

Table 1 and Figure 6 were updated to present soil contaminant concentrations post-remediation, dated September 2012.

1.3.2.2 On-Site and Off-Site Groundwater

The following tables display the concentration ranges and/or maximum concentrations of the major classes of ground water contaminants detected to date at the site, and their locations, prior to the remedy.

Contaminant	Concentration Range and/or Maximum Concentration Detected in Ground Water Detected Above NYSDEC GA Standards (in ug/L)	Location of Contaminant by AOC/Type-Source and Monitoring Well Number, Respectively
VOCs:		
Benzene	6.6-35 0.9-1.7	Area A – Onsite Historic Operations – MW-6, PZ-4 Area I – Onsite Historic Operations – MW-7, MW-3
Toluene	34-73 6.3	Area A – Onsite Historic Operations – MW-6, PZ-4 Area I – Onsite Historic Operations – MW-7
Ethylbenzene	9.58-230 12	Area A – Onsite Historic Operations – MW-6, PZ-4 Area I – Onsite Historic Operations – MW-3
Total Xylenes	37-1,500 15-110	Area A – Onsite Historic Operations – MW-6, PZ-4 Area I – Onsite Historic Operations – MW-3, MW-7
cis-1,2- Dichloroethene	22-38.9	Area A – Onsite Historic Operations – MW-6, PZ-4
1,2 – Dichloropropene	7.17-290	Area A – Onsite Historic Operations – MW-6, PZ-4
Chlorobenzene	35	Area I – Onsite Historic Operations – MW-7
1,4 - Dichlorobenzene	4.6-5.79	Area A – Onsite Historic Operations – MW-6
1,2 - Dichlorobenzene	4.13 - 9.1	Area A – Onsite Historic Operations – MW-6, PZ-4
1,2,4 – Trichlorobenzene	11-24	Area A – Onsite Historic Operations – MW-6

Contaminant	Concentration Range and/or Maximum Concentration in Ground Water Detected Above NYSDEC GA Standards (in ug/L)	Location of Contaminant by AOC/Type-Source and Monitoring Well Number, Respectively
SVOCs		
Naphthalene	30 - 88 20	Area A – Onsite Historic Operations – MW-6, PZ-4 Area I – Onsite Historic Operations – MW-3
Diethyl phthalate	68	Area A – Onsite Historic Operations – MW-6
Benzo(a) anthracene	0.5	PZ-1 – Offsite Downgradient of Area I – Historic Fill
Chrysene	0.5	PZ-1 – Offsite Downgradient of Area I – Historic Fill
Benzo(b) fluoranthene	0.3	PZ-1 – Offsite Downgradient of Area I – Historic Fill
Metals		
Chromium	22-38.9	Area I – MW-3
Lead	78.1 69.2	Area I – MW-7 Central Portion of Site – MW-8

It should be noted that several temporary ground water sampling points were installed and sampled at the site to facilitate placement of the above permanent wells, however, results from those samples are not included herein due to the biased high results resulting from turbid samples collected from them (typical of temporary well points).

Exceedances from GA groundwater standards in monitoring wells prior to the remedy are shown in Table 2. A spider map that indicates the location(s) of and summarizes exceedances from GA groundwater standards prior to the remedy is shown in Figure 7.

1.3.2.3 On-Site and Off-Site Soil Vapor

On January 18, 2005, Whitman supervised the installation of seven (7) soil gas sample points (see Figure 8). The soil vapor samples, SG-1 through SG-7, were collected along the perimeter of the Site at locations discussed with and approved by

representatives of the NYSDEC and NYSDOH. Three samples were collected along Whittier Street on the western property extremity and four samples collected along Edgewater Road on the eastern side of the property. The seven (7) soil vapor sample points were advanced using a direct push Geoprobe operated by Environmental Probing Investigations (EPI) of Cream Ridge, New Jersey. The soil vapor collection technique conducted by Whitman is consistent with the November 2002 EPA document entitled, *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Ground Water and Soils.*

Using the Geoprobe Standard Operating Procedures, an expendable tip was driven to a depth of five (5) feet below grade surface. A small diameter flexible polyethylene tube was then fed down the drilling rods and attached to the expendable tip. The annular space between the borehole and the tubing was sealed with bentonite at the surface to prevent short-circuiting. Prior to sampling, the tubing was purged using a vacuum pump for a minimum of 2 minutes, until all ambient air was purged from the tubing. A 6-liter summa canister was used to collect the soil gas samples at a maximum flow rate of 200 ml/min.

All samples were analyzed in accordance with the "Compendium Method TO-15 Determination of VOCs in Air Collected in Specially Prepared Canister and Analyzed by GC/MS". The summa canisters were analyzed by Severn Trent Laboratories (STL) of Burlington, Vermont using Method TO-15.

Soil Vapor Sampling Results

Soil vapor samples, SG-1 through SG-7, were collected and analyzed for VOCs utilizing Method TO-15. The soil vapor sampling results can be found on Figure 8 and in Table 3. Examination of Figure 8 and Table 3 indicate that numerous volatile organic compounds were detected in all the soil vapor samples.

Over 20 individual compounds were detected in one or more of the soil vapor samples at detectable concentrations (i.e., exceeding the PQL reporting limit).

The soil gas sampling results can be summarized as follows:

Samples	Location	# of Compounds Detected	Compound(s) with Highest Soil Vapor Concentration
SG-1	Whittier Street Southwest corner	2	Methylene Chloride
SG-2	Whittier Street West of Plant	19	Toluene, Chloroform
SG-3	Whittier Street Northwest of Plant	17	Acetone
SG-4	Edgewater Road Southeast corner	20	Cyclohexane, Benzene
SG-5	Edgewater Road East of Area A	20	Acetone, MTBE
SG-6	Edgewater Road East of Plant	9	Isopropyl Alcohol
SG-7	Edgewater Road Northeast corner	6	MTBE

Of the compounds listed as having the highest soil vapor concentrations, only Toluene and Benzene are found in any of the soil and ground water samples. SG-2, where Toluene is the compound of highest concentration, is located a significant distance upgradient from any AOC where the manufacturing or blending of paint has taken place.

Xylene is the volatile organic compound of highest concentration in soil and ground water samples detected in Area A. However, for the soil vapor samples SG-4 and SG-5, located adjacent to Area A, Xylenes are present in lower soil vapor concentrations than such compounds as Acetone, Benzene, Cyclohexane, n-Heptane, n-Hexane, MTBE, PCE and TCE.

Conclusions Regarding Soil Vapor

Evaluation of the seven (7) soil vapor samples taken on the perimeter of the Dexter property indicates that volatile organic compounds are present in soil and groundwater in all seven (7) locations, regardless of whether the samples were taken adjacent to AOCs, or at areas a considerable distance from where any manufacturing has taken place, and regardless of whether they were upgradient or downgradient.

The majority of volatile organic compounds found in the seven (7) soil vapor samples were not found in any soil or ground water samples taken at Dexter. The compound of greatest concern, Xylene(s) is present in six (6) of the seven (7) samples.

Based on the soil vapor sampling results, with the exception of Xylene, it is concluded that there is no correlation of volatile organic compounds in soil vapor and the

concentrations of the same compounds in soil and ground water at and adjacent to the Dexter Chemical site.

A table of soil vapor data collected prior to the remedy is shown in Table 3. A spider map that indicates the location(s) of and summarizes soil vapor data prior to the remedy is shown in Figure 8.

1.3.2.4 Underground Storage Tanks

Whitman reviewed two (2) reports prepared by EnviroSciences, Inc. regarding the removal of two (2) USTs in January 1993 and the removal of six (6) USTs in May 1995. The following is a summary of the tank closure activities:

January 1993:

- Removal of 3,500 Gallon #2 Fuel Oil UST – formerly located in Area E
- Removal of 5,500 Gallon Isopar-M (Isoparaffinic Hydrocarbon, Hydrotreated Light Petroleum Distillates) UST – formerly located in Area E

May 1995:

- Decommissioning of 2,500 Gallon Methanol UST–formerly located in Area I
- Decommissioning of 2,000 Gallon Isopropanol UST–formerly located in Area B
- Decommissioning of 1,500 Gallon Varsol (a.k.a Stoddard Solvent, consisting of 83% C7-C10 saturated hydrocarbons, 17% C8+ aromatics, 4% 1,2,4-trimethylbenzene and 0.1% ethylbenzene) UST–formerly located in Area B
- Decommissioning of 550 Gallon Diesel UST-formerly located in Area G (North of Area F)
- Decommissioning of two (2) 550 Gallon Gasoline USTs-formerly located in Area F

<u>5,000 Gallon No. 4 Heating Oil UST</u>

Background and Description of Sampling

A 5,000 gallon No. 4 heating oil UST in the Area B courtyard was identified during the preliminary assessment of the site. The approximate location of the UST was marked out using a magnetic locator in a conductive trace mode. A metal plug was noted on the concrete surface in the vicinity of the heating oil tank. Plant personnel indicated that they believe the plug was installed as an access point to facilitate integrity testing of

the UST. They also indicated that additional USTs were once located in the 819 Edgewater Road court yard.

Three (3) soil borings were drilled through the asphalt pavement around the 5,000 gallon No. 4 heating oil UST located in the northwest corner of the yard B. A soil sample was collected from each boring and tested for SVOCs. Due to the presence of subsurface fill and concrete, several boring locations met refusal and were relocated to locations where the borings could be advanced. Samples were taken on the north, east, and south sides of the tank. Sample HO-1 was collected from a depth of 3 to 4 feet, HO-2 and HO-3 at a depth of 4 to 6 feet. The character of the fill material was consistent throughout each of the borings. The sample depths were based on field observations and screening of the borings to depths of 12 feet below grade. Water saturated soil was encountered at a depth of approximately 6 to 7 feet below grade.

The PID Field readings from the soils ranged from 0 ppm to 167 ppm. The highest readings for each boring were as follows:

Boring HO-1, 148 ppm at a depth of 3 to 4 feet
Boring HO-2, 143 ppm at a depth of 3.5 to 5.5 feet
Boring HO-3, 167 ppm at a depth of 3 to 6 feet

Analytical Results

The analytical results indicate the presence of the following Base Neutrals compounds in soils: Benzo(a)anthracene (HO-3, 0.380 ppm), Chrysene (HO-3, 0.870 ppm) and Benzo(a)pyrene (HO-2, 0.100 ppm and HO-3, 0.180 ppm). These materials are indicative of historic fill. No BNs were detected in sample HO-1 above the Track 1 SCO.

A library search of TICs was conducted on the three (3) soil samples. The total estimated concentrations of the Base/Neutral Extractable TICs ranged from 226 ppm to 369 ppm, most of which were unknown alkanes.

Conclusions

The analytical results indicate the presence of three (3) historic fill related SVOCs, Benzo(a)anthracene, Chrysene, and Benzo(a)pyrene in the soil. The PID field readings from the soils ranged from 0.0 ppm to 167 ppm at depths between 0 to 9 feet. No free product (heating oil) was observed in the borings.

Analytical results of soil borings in the vicinity of the 5,000 gallon No. 4 heating oil tank, field observations, and PID readings provide evidence that there was no significant leak or discharge from this tank. While borings cannot detect oil which may have discharged directly beneath the tank, the three samples taken from borings adjacent to the tank show no evidence of significant horizontal migration of heating oil. Furthermore, the tank was pressure tested on July 27, 1998, and was found to have passed tightness criteria established by the National Fire Protection Association (NFPA).

Two (2) 3,500 Gallon Isopropyl Alcohol USTs

Background and Description of Sampling

Two (2) 3,500 gallon isopropyl alcohol USTs are located in the 842 Whittier Street yard. Whitman suggested PID screening of the soil in the vicinity of these two (2) USTs to assess whether product leakage occurred.

Three (3) observation borings were drilled around the isopropyl alcohol tanks in the 842 Whittier Street yard. The soil borings were field screened with a PID for the presence of volatile compounds. The soil column from boring ITA-1 was screened from the surface to a depth of 9 feet, and borings ITA-2 and ITA-3 were screened to a depth of 12 feet. Ground water saturated soil was encountered at a depth of approximately 6 to 7 feet below grade.

Field Screening Results

The PID field readings from soil borings ITA-2 and ITA-3 were 0.0 ppm from 0 to 6 feet below grade and ranged from 6.8 ppm to 36 ppm at depths of 6 to 9 feet. The highest readings for each boring were as follows:

Boring ITA-1, 0.0 ppm at depths from 0 to 9 feet

Boring ITA-2, 36 ppm at a depth of 7 to 9 feet

Boring ITA-3, 16.1 ppm at a depth of 6 to 7.5 feet

Conclusions

The PID field readings from two (2) of the three (3) soil borings ranged from 0 ppm to 36 ppm at depths between 0 to 9 feet. The soil boring logs indicate the presence of historic fill. Ground water saturated soil was observed between 6 feet and 7 feet below grade. The presence of VOCs indicated by the PID readings detected near the ground water level may be derived from several potential sources and therefore the sampling data are inconclusive. Such sources may include the isopropyl alcohol tanks but may also include migrating ground water contaminants or historic operations.

Whitman evaluated 1993 sample data collected by EnviroSciences, Inc., from a tank excavation (5,500 gallon Isopar UST and 3,500 gallon #2 fuel oil UST) in the 842 Whittier Street yard. Six (6) soil samples were collected in January 1993 around the excavation site and analyzed for SVOCs. Several SVOCs were detected. The SVOCs detected were similar to those found in the 819 Edgewater yard and included Benzo(a)anthracene, Chrysene, and Benzo(a)pyrene.

There are two (2) remaining underground tanks at the Site. The tanks contain Isopropyl Alcohol, which is not a regulated material under the NYS Petroleum or Chemical Bulk Storage Programs.

1.4. Description of Remedial Actions

The Site was remediated in accordance with the scope of work presented in the NYSDEC-approved Remedial Action Work Plan dated May 2005. A Work Plan Addendum dated September 29, 2005, was subsequently submitted based on initial comments on the RAWP by NYSDEC. The Work Plan Addendum addressed each of the issues raised by NYSDEC.

On November 3, 2005, the NYSDEC approved the May 2005 RAWP and the addendum letter dated September 29, 2005.

Below is a summary of the Remedial Actions required to be implemented at the Site:

1. Treatment of impacted soil and ground water with the NYSDEC approved SVE/AS and dewatering system; (Treatment operations were conducted from 2009 until 2012, with one additional component conducted in 2013. Upon approval from NYSDEC, Dexter initiated the decommissioning of the treatment system equipment and the sealing of air sparging piping and recovery wells.)

2. Maintenance of the existing composite cover consisting of existing asphalt, concrete and building slabs to prevent human exposure to residual contaminated soil/fill remaining at and under the Site;

3. Recording of a Declaration of Covenants and Restrictions (DCR) to prevent or regulate future exposure to any residual contamination remaining at the Site (a copy of the Declaration of Covenants and Restrictions is provided in Appendix 3).

4. Implementation of all Institutional Controls, as detailed below in this SMP;

5. This SMP for long term management of residual contamination as required by the Declaration of Covenants and Restrictions, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and(4) reporting;

6. Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during all intrusive site work, if any;

7. Collection and analysis of end-point samples to evaluate the performance of the remedy with respect to RSCOs,

8. Appropriate off-Site disposal of all future material removed from the Site, if any, in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;

9. Import of materials to be used for backfill and cover, if any, in compliance with: (1) 6NYCRR Part 375-6.8(d) and, (2) compliance with all Federal, State and local rules and regulations in handling and transport of material;

10. All responsibilities associated with the Remedial Action, including permitting requirements and pretreatment requirements, addressed in accordance with all applicable Federal, State and local rules and regulations.

Remedial activities completed at the Site have been conducted in accordance with the NYSDEC-approved RAWP for Dexter, May 2005 and the RAWP Addendum dated September 29, 2005. The approved RAWP and Addendum is included in Appendix 4. All deviations from the RAWP will be noted in the Final Engineering Report.

1.4.1 Removal of Contaminated Materials from the Site

Removal of contaminated soil for the purposes of soil remediation was not proposed for this site under the RAWP. Impacted soil and ground water was addressed through the active in-situ SVE and Air Sparging system, and residual contamination following system operation will be addressed through ICs/ECs. Soil may hereafter be removed for non-remedial purposes (e.g., new construction) and if so, removed materials will be managed in accordance with the requirements of law, this SMP and the DCR, if and as applicable and provided herein.

1.4.2 On-Site SVE/AS and Off-Site Treatment Systems

1.4.2.1 Area A Design

An area plan illustrating the layout of the air sparging, vapor extraction and dewatering points and piping is provided as Figure 9 (Area A) and Figure 10 (Area I).

Due to the shallow water table in Area A, (approximately 4 feet below grade) the treatment system consisted of twelve horizontal SVE laterals HRZ-1A through HRZ-12A installed above the water table. These laterals consist of two inch screened schedule 40 PVC of various lengths (8 to 30 feet long) and configurations (as shown on Figure 9). Each horizontal SVE lateral is then individually piped and connected to solid PVC piping run underground to the manifold area in the northwest portion of the building (see Figure 9 for manifold area location). Each individual above ground riser from each horizontal

SVE lateral is manifolded to a main trunk line which runs to the treatment shed SVE blowers (for vapor phase treatment of extracted vapors). Each riser from each horizontal lateral contained a vacuum gauge, air flow/vacuum control valve and sampling port to allow individual adjustment, operation and monitoring. Each individual riser from each horizontal SVE lateral at the manifold contains a subgrade condensate trap to allow for the removal of moisture buildup within the SVE piping, which could otherwise reduce effective horizontal lateral performance.

Area A includes three shallow six-inch diameter screened PVC sumps (Sump 1 through Sump 3) installed to depths of approximately four feet below grade designed to dewater the horizontal trenches (where the horizontal SVE laterals and subsurface system piping is located) to prevent groundwater buildup which could otherwise reduce effective horizontal SVE lateral performance. Each sump contains a sealed pitless adapter connected to a subsurface water line to allow dewatering. The subsurface water lines from each sump are individually piped and connected to solid PVC piping run underground to the manifold area. Each individual above ground riser was then manifolded to a main trunk line which runs to the treatment shed storage tank (to allow treatment of the dewatered groundwater). Each riser from each sump line contained a pressure gauge, flow control valve and sampling port to allow individual adjustment, operation and monitoring. Submersible ½ hp electric Grundfos pumps were installed in each sump to conduct dewatering. The pumps operate using automatic float controls installed within each sump. If the high water level float is tripped within the sump (increased groundwater level in sump), the pump turns on. Once the pump in each sump dewaters the area, the water level drops, the low level float is tripped, and the pump turns off.

Area A also includes eight four-inch diameter screened PVC dual phase recovery (dewatering and SVE) vertical wells (SVE/RW-1A through SVE/RW-8A) installed to total depths of approximately 14.5-17 feet below grade, each with 10 feet of screen (see Figure 9 for locations). These vertical SVE wells are designed to supplement SVE capture of sparge air and increase removal of subsurface vapors at depth following dewatering of the treatment areas. The dewatering wells are designed to dewater actively treated portions of Area A (as appropriate) to prevent elevated groundwater levels and

mounding which could otherwise reduce effective horizontal lateral and vertical SVE performance (due to the potential for groundwater entrainment in the SVE piping).

Each dual phase extraction well contains a dedicated SVE line (which runs back to the manifold area) and a dedicated water line (installed via sealed pitless adapter connection to the well) which runs back to the manifold area. Each wellhead is sealed with a Campbell seal (an adjustable gripping gasket at the wellhead which seats around pump float and power control wiring) to maximize SVE vacuum seal. The subsurface water lines from each dewatering well are individually piped and connected to solid PVC piping run underground to the manifold area. Each individual above ground water line riser was then manifolded to a main trunk line which runs to the treatment shed storage tank for treatment of the extracted groundwater. Groundwater was treated by granulated activated carbon and then discharged to the sanitary sewer. Each riser from each water line contains a pressure gauge, flow control valve and sampling port to allow individual adjustment, operation and monitoring. Submersible ½ hp electric Grundfos pumps were installed in each dewatering well (as required depending on the portion of the area to be treated) to conduct dewatering. The pumps operate using automatic float controls installed within each well.

Each individual above ground riser from each vertical SVE well line is manifolded to a main trunk line which runs to the treatment shed SVE blowers (for vapor phase treatment of extracted vapors). Each riser from each vertical SVE well contains a vacuum gauge, air flow /vacuum control valve and sampling port to allow individual adjustment, operation and monitoring. Each individual riser from each vertical SVE well at the manifold contains a subgrade condensate trap to allow for the removal of moisture buildup within the SVE piping, which could otherwise reduce effective vertical SVE well performance.

Area A contains fifteen air sparge wells, (AS-1A through AS-15) as shown on Figure 9. The sparge wells are installed to depths of approximately 15 to 20 feet below grade, and constructed of schedule 40 PVC with 3 to 4 feet of screened interval at the bottom of each sparge well. Each sparge well is piped individually underground with ½ inch diameter pressure rated Nylon-11 tubing which is run back to the manifold area.

Each individual above ground air sparge riser is then manifolded to a main trunk line which runs to the treatment shed air sparge compressor (which is the source of sparge air injection into each sparge well). Each riser from each sparge line contains a pressure gauge, flow control valve, air flow gauge, pressure regulator and check valve (to prevent sparge air and groundwater blow-back on shutdown) to allow individual adjustment, operation and monitoring.

Testing and monitoring of the system operation in Area A following the initiation of startup (May 2009) resulted in the following nominal operation:

1. SVE radius of influence performance, operation, capture of sparge air and maximum vapor removal was optimized at vacuum levels that result during treatment of approximately ½ of Area A (and approximately ½ of the treatment points, accordingly) at a time. That is, approximately five to six horizontal SVE laterals, three to four vertical dual phase extractions wells (three to four ½ hp Grundfos pumps operating in the dewatering wells at one time, accordingly), one to three of the dewatering sumps (with one to three ½ hp Grundfos pumps operating in the dewatering sumps at one time, accordingly), and five to seven sparge wells, all operating at one time.

2. As such, treatment of the upgradient (western) half of Area A (and treatment points located in that upgradient half of Area A) was conducted over the last three quarters (May 2009 through December 2009) of 2009. When asymptotic trends in vapor removal rates were identified in December 2009, treatment of the downgradient half of Area A(eastern half) was later initiated in January 2010, and continued through March 2011 .

1.4.2.2 Area I Design

Area A data such as radius of influence, flow rate and contaminant concentrations collected during the Area A pilot test were utilized to develop the remediation design for Area I.

Based upon the soil borings completed in this AOC, groundwater generally occurs at 10 to 12 feet below ground surface. Soil borings also indicate that the soils within this

AOC are generally consistent with those observed in Area A, consisting of fine to medium grained sediment as well as historic fill materials, including, brick, cinders and similar materials underlain at a depth of 17-19 feet by a natural meadow mat stratum. Accordingly, soil vapor extraction and air sparging were designed to be similarly effective in this AOC as compared to Area A. Therefore, a combination SVE/AS injection and dewatering well network was installed to mitigate remaining VOCs within Area I. Because groundwater occurs at greater depth in Area I, conventional vertical vapor extraction wells (only) were utilized (versus the horizontal SVE cells of area A). The design radius of venting influence of 15-20 feet was later determined to be approximately 10 feet through actual operations. Likewise, since remaining soil contamination was observed below the top of the groundwater surface in several borings, air sparging was utilized to liberate VOCs at depth and to provide an oxygen source for enhanced natural biological degradation.

Area I includes four-inch diameter (except SVE/RW-1I which required 2 inch diameter PVC due to large cobbles identified during installation necessitating a smaller diameter drill bit) screened PVC dual phase recovery (dewatering and SVE) vertical wells (SVE/RW-1I through SVE/RW-17I) installed to total depths of approximately 14 to 20 feet below grade, each with 10 feet of screen (see Figure 10 for locations). The dewatering wells were designed to dewater actively treated portions of Area I (as appropriate) to prevent elevated groundwater levels and mounding which could otherwise reduce effective vertical SVE performance (due to the potential for groundwater entrainment in the SVE piping). As is the case for Area A, due to the heterogeneous subsurface layers, (silt, gravel, fill and sand layers), the deep SVE/dewatering well screens installed serve to act as subsurface pressure relief to reduce or eliminate the potential for air injected from the sparging wells to travel horizontally beneath heterogeneous subsurface layers (and be trapped beneath such layers) without being intercepted and captured by SVE (to reduce or prevent fugitive air sparge emissions to the surface).

Each dual phase extraction well contains a dedicated SVE line (which runs back to the manifold area) and a dedicated water line (installed via sealed pitless adapter connection to the well) which runs back to the manifold area (see Figure 10 for manifold

area location). Each wellhead is sealed with a Campbell seal (an adjustable gripping gasket at the wellhead which seats around pump float and power control wiring) to maximize SVE vacuum seal. The subsurface water lines from each dewatering well are individually piped and connected to solid PVC piping run underground to the manifold area. Each individual above ground water line riser is then manifolded to a main trunk line which runs to the treatment shed storage tank (to allow treatment of the dewatered groundwater). Each riser from each water line contains a pressure gauge, flow control valve and sampling port to allow individual adjustment, operation and monitoring. Submersible ½ hp electric Grundfos pumps were installed in each dewatering well (as required depending on the portion of the area to be treated) to conduct dewatering. The pumps operate using automatic float controls installed within each well.

Each individual above ground riser from each vertical SVE well line is manifolded to a main trunk line which runs to the treatment shed SVE blowers (for vapor phase treatment of extracted vapors). Each riser from each vertical SVE well contained a vacuum gauge, air flow /vacuum control valve and sampling port to allow individual adjustment, operation and monitoring. Each individual riser from each vertical SVE well at the manifold contains a subgrade condensate trap to allow for the removal of moisture buildup within the SVE piping, which could otherwise reduce effective vertical SVE well performance.

Area I contains fifteen air sparge wells, (AS-1I through AS-15I) as shown on Figure 10. The sparge wells are installed to depths of approximately 15 to 20 feet below grade, and constructed of schedule 40 PVC with 3 to 5 feet of screened interval at the bottom of each sparge well. Each sparge well is piped individually underground with ½ inch diameter pressure rated Nylon-11 tubing which is run back to the manifold area. Each individual above ground air sparge riser is then manifolded to a main trunk line which runs to the treatment shed air sparge compressor (which is the source of sparge air injection into each sparge well). Each riser from each sparge line contained a pressure gauge, flow control valve, air flow gauge, pressure regulator and check valve (to prevent sparge air and groundwater blow-back on shutdown) to allow individual adjustment, operation and monitoring.

The design radius of influence (ROI) for the SVE and AS wells is 15 to 20 feet, the actual nominal ROI during the operation of the system has been determined to be 10 feet.

The groundwater extraction piping was connected to each SVE wellhead within Area I in the event that a similar approach to that presented for Area A is required to maximize contaminant vapor recovery (i.e. simultaneous SVE/groundwater dewatering).

1.4.2.3 Joint Treatment System

The treatment facility was centrally located to service both areas A and I, and is constructed within the Area B courtyard. This area has adequate electrical power availability and is proximal to the facility's sanitary sewer collector which is needed for discharge of treated groundwater recovered from the remedial system(s).

1.4.2.4 Groundwater Treatment and Final System Design Considerations

Since the enhanced system increased the amount of groundwater to be treated from approximately 5 gpm under the former design to approximately 20 gpm under the enhanced design, more advanced groundwater treatment was required.

A piping and instrumentation diagram for the SVE/AS, groundwater recovery and treatment system is provided as Figure 11. The recovered groundwater stream is first routed to a 300 gallon holding tank. The groundwater is then pumped through four Total Suspended Solids (TSS) filters, and then through three 1,000 pound granular activated carbon (GAC) polishing vessels prior to discharge. The TSS filters reduce the frequency of GAC maintenance and cleaning.

The final system design was submitted to, and approved by, NYSDEC.

The general layout of the SVE unit included a main 7.5 horsepower (hp) blower unit, a moisture separator and an off-gas control device (two 500 pound vapor phase granular activated carbon (VGAC) vessels configured in series flow). An auxiliary 2.5 hp SVE blower is provided to target vapor extraction from the vertical SVE/groundwater recovery wells in Area A, and supplement overall extraction. The SVE blower units create a vacuum which is applied to designated extraction locations. A zone of influence is created around the extraction locations in which air and volatile organic vapors are

drawn away from the soils and into the SVE piping network. The extracted soil vapor/air stream is channeled through the piping network into the moisture separator units. The pressure drop created within the moisture separators allows moisture within the air stream to precipitate out and collect in a reservoir within the separator. The precipitation collected within the moisture separators is discharged by pump into the 300 gallon holding tank. The resultant dry air streams are passed through the blower units and through the off-gas control device(s) with subsequent discharge to the atmosphere.

As illustrated in Figure 11, the SVE equipment includes the following:

1. Two 80 gallon knock-out tanks (one for each SVE blower) with automatic shutdown in the event of condensate pump-out failure
2. Explosion proof (xp) 7.5 hp blower rated at 300 scfm (main SVE blower) and xp 2.5 hp auxiliary blower rated at 60 scfm
3. Explosion proof transfer pumps
4. Off-gas control device (two 500 pound VGAC units in series flow)

The SVE system operated optimally with a vacuum level of 1 to 3 inches Hg at the withdrawal wells. These levels varied through the treatment duration based on soil moisture levels and permeabilities. The system is equipped with operational interlocks which shut down the process machinery if blower temperatures exceed specified limits or if excessive vacuum is produced.

The layout of the air sparging system included an air compressor and associated valves and pressure meters. As illustrated in Figure 11, the AS compressor is a rotary vane 7.5 hp compressor rated at 50 scfm at a pressure of 20 psib. The manifold and piping is constructed of nylon/steel tubing. A pressure relief valve is installed immediately after the compressor to exhaust excess air from the manifold. A pressure regulating valve and a check valve are installed between the manifold and each well to prevent temporary high pressure in the screened interval from forcing air and water back into the manifold system after the system is shut off.

The AS system was also connected to the interlock, which would shut down the system in the event of excessive temperatures or pressures. In the event the SVE blower shuts down, the air sparge also shuts down via the electronic interlock system.

1.4.2.5 System Startup

The startup phase began with the startup of the groundwater recovery system and then the SVE system. This phase included approximately 7-14 days of manifold valve adjustments during the shakedown process. These adjustments were used to optimize contaminant mass removal by increasing vacuum pressure on the wells/horizontal lines producing the highest contaminant concentrations, as appropriate. During this period, flow measurements, vacuum readings and vapor concentrations were recorded daily from the manifold/influent and from the effluent. There are vacuum ports on each of the eight vertical dual phase extraction wells (SVE/RW-1A through SVE/RW-8A) and the three sumps (Sump-1 through Sump-3) at each wellhead plus two monitoring points VM-1 and VM-2 (VM-3 was damaged and was sealed) resulting in a total of thirteen vacuum performance monitoring points for area A.

After the SVE system was optimized, the air sparging system was started. AS startup continued for an additional 7-10 days of valve adjustments. During this period, injection and extraction rates, pressures, depth-to-water and vapor concentrations were monitored hourly at first and then daily. Other startup monitoring included visual observation for water bubbling within the building and surrounding areas, and indoor vapor concentrations measured via PID and olfactory methods.

Based on the pilot study results, initial AS air pressure and flow was introduced at 1 scfm per well at 5 psi. The low initial flow rate was necessitated by the observation of bubbling water and odors at higher flow rates during the pilot study. Since no bubbling or vapors were observed during the start up phase, the air sparge flow rate was increased nominally to approximately 1 to 4 cfm per sparge well at 6 to 10 psib.

1.4.2.6 AS/SVE and Groundwater Recovery System Performance Monitoring

Performance monitoring of the SVE/AS and groundwater recovery system was conducted to assure it was working properly, evaluate vapor and groundwater recovery rate and determine when system shutdown post-remedial sampling should be performed.

The following performance monitoring was conducted on a monthly basis and reported on a quarterly basis to NYSDEC.

1. Air sparging and extraction flow rates. Air sparging and extraction flow rates were measured directly from the dedicated flow meters on each air sparge well leg located at the manifold. SVE flow measurements were recorded from the dedicated rotometers (flow meters) in-line on each of the two SVE blowers.
2. Groundwater extraction and treatment flow rates. Groundwater extraction flow rates were measured directly from the flow meter and totalizer located in-line along the groundwater treatment portion of the system (prior to effluent discharge). Daily flow totals were logged in the data logger and recorded manually. Sparging pressure and vacuum readings from each dedicated SVE well leg and each air sparge leg were recorded at the manifold. In additional total sparging pressure at the sparge blower, and total vacuum at each SVE blower was monitored.
3. Laboratory analysis of the extracted vapor stream and effluent for TO-15 on a monthly/quarterly basis as necessary.
4. Laboratory analysis of the extracted groundwater stream and discharge per the sewer discharge permit.
5. Vapor concentrations in venting monitoring points and effluent discharge as determined by field monitoring equipment.
6. Estimated mass removal rates based on comparison of summa canister lab results to PID data. Response factors were then used to estimate concentrations based on PID data in the absence of summa lab results.
7. Estimated cumulative VOC mass removed.
8. Scaled site plans with vacuum pressures and vapor concentrations from the venting monitoring points.
9. Changes in water table elevation.
10. Estimated zone of influence for SVE, AS and groundwater recovery wells.

Groundwater samples were collected on a quarterly basis from sample points PZ-4, MW-6, PZ-3, SVE/RW-5A and MW-8 in Area A and MW-3, MW-7, MW-11 and

SVE/RW-13I in Area I and analyzed for VO+10. Post-remediation ground water sampling for Area A was completed in July 2012 and reported in Progress Report #29. Post-remediation ground water sampling for Area I was completed in April 2013 and reported in Progress Report #31.

Following the completion of the approved AS/SVE remediation for Area A, NYSDEC requested Dexter to remediate residual contaminants in PZ-4, a monitoring well located on the exterior of the Area A building, installed through the sidewalk. Dexter submitted a remediation plan to NYSDEC that featured a one-time injection of a bioremediation additive TPH ENHANCED that degrades BTEX compounds and other VOCs under the aerobic conditions present at PZ-4. NYSDEC approved the remediation plan for PZ-4.

On April 2, 2013, two temporary well points were installed on the sidewalk at two (2) locations, each approximately 6 feet from PZ-4. Approximately 500 pounds of the additive was injected. The temporary well points were sealed up on the same day. Attachment 1 to Progress Report #31, July 9, 2013 reports on ground water remediation at PZ-4, and provides a record of the laboratory data associated with this event.

1.4.3 Residual Contamination

Table 1 and Figure 6 (spider map) summarize results of all soil samples that have been taken at the Site prior to remedy implementation that exceed the TAGM 4046 RSCOs. This table and map have been updated following post-remedial soil sampling conducted in September 2012 following SVE/AS system operation. It was proposed that all soils and groundwater below the existing impermeable caps of the site are to be treated as contaminated; therefore, no demarcation layer or surveyed elevation of contaminated soil is necessary.

1.4.4 Engineering and Institutional Controls

Since residual contamination will remain following completion of the remedial action at this Site, Engineering Controls and Institutional Controls will be implemented to protect public health and the environment in the future. During operation of the dewatering/ SVE/AS system, that system itself was considered by NYSDEC to be an EC. Thus, the Controlled Property has two (2) primary Engineering Controls. These are: (1) a

composite cover system consisting of asphalt covered roads and areas, concrete covered sidewalks and areas, and concrete building slabs and floors, and (2) the dewatering/SVE/AS system.

A series of Institutional Controls are required to implement, maintain and monitor these Engineering Controls. The Declaration of Covenants and Restrictions requires compliance with these Institutional Controls, which consist of the following:

- All Engineering Controls must be operated and maintained as specified in this SMP;
- All Engineering Controls on the Controlled Property (the Site) must be inspected and certified at a frequency and in a manner defined in this SMP;
- Groundwater, soil vapor, and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management for the Controlled Property must be reported at the frequency and in a manner defined in this SMP (i.e. in the annual Site Management Plan Report);
- On-Site environmental monitoring devices, including but not limited to, groundwater monitor wells and soil vapor probes, must be protected and replaced as necessary to ensure continued functioning in the manner specified in this SMP.

The Controlled Property has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required under the Declaration of Covenants and Restriction. Site restrictions that apply to the Controlled Property are:

- Vegetable gardens and farming on the Controlled Property are prohibited;
- Use of groundwater underlying the Controlled Property, including construction dewatering and building sumps other than for investigation or remediation (i.e. the approved ground water recovery and SVE system), is prohibited without treatment rendering it safe for the intended use;
- All future activities on the Controlled Property that will disturb residual contaminated material (all material beneath the composite cover system serving as

an EC) are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;

- The Controlled Property may be used for industrial or commercial use provided the long-term Engineering and Institutional Controls included in the SMP remain in use.

These EC/ICs should:

- Prevent ingestion of groundwater with contamination levels that exceed drinking water standards;
- Prevent contact with or inhalation of volatiles from contaminated groundwater and soil intruding into occupied buildings;
- Restore groundwater by operation of the SVE/AS system in accordance with the RAWP to pre-disposal/pre-release conditions, to the extent practicable;
- Prevent the discharge of contaminants to surface water by reducing the current concentrations of contaminants in groundwater at the Site, to the extent practicable;
- Remove, by operation of the SVE/AS system in accordance with the RAWP, as practicable, the source of ground or surface water contamination;
- Prevent contaminated groundwater from migrating off-Site by reducing the current concentrations of contaminants in groundwater at the Site, as practicable;
- Prevent ingestion/direct contact with contaminated soil;
- Prevent inhalation of or exposure to contaminants volatilizing from contaminated soil; and
- Prevent migration of contaminants that would result in off-Site groundwater or surface water contamination by reducing the current concentrations of contaminants in groundwater at the Site, as practicable.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 Introduction

2.1.1 General

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved RAWP for Dexter, May 2005. The primary remedial objective for the AS/SVE remedial system was be to remove as much contamination as practicable, and in conjunction with engineering and institutional controls, to ensure that the remediation is protective of human health and the environment. The SVE/AS system was to be operated until TAGM 4046 RSCOs and TOGs groundwater standards are achieved, or until persistent asymptotic levels are observed in mass removal of contaminants. Asymptotic levels in the mass removal of contaminants were observed in both remediation Area A and Area I. With NYSDEC approval, the SVE/AS system was operated until March 2012. Following the completion of the operation of the SVE/AS remedial system, residual contamination is being addressed with other Engineering Controls and Institutional Controls to ensure the continued and proper management of residual contamination and the protection of public health and the environment. A summary of the remedial strategies and EC/ICs implemented at the Site are as follows:

- Operation of the dewatering/SVE/AS system to remove as much contamination as practicable; (completed)
- Maintenance of the existing composite cover system across the site, consisting of asphalt covered roads and areas, concrete covered sidewalks and areas, and concrete building slabs and floors to prevent human exposure to residual contaminated soils remaining under the Site;
- Recordation of a Declaration of Covenants and Restrictions, including Institutional Controls, to prevent or regulate future exposure to any contamination remaining at the Site (a copy of the Declaration of Covenants and Restrictions is provided in Appendix 2).

Since residual contaminated soil, groundwater and soil vapor exists beneath the Site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan

describes the procedures for the implementation and management of all EC/ICs at the Site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

The purpose of this Plan is to provide:

- A description of all EC/ICs on the Site;
- The basic operation and intended role of each implemented EC/IC;
- A description of the key components of the ICs created as stated in the Declaration of Covenants and Restrictions;
- A description of the features that should be evaluated during each annual inspection and compliance certification period;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Soil Management Plan for the safe handling of residual contamination that may be disturbed during maintenance or redevelopment/construction work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the NYSDEC.

2.2 Engineering Control Components

2.2.1 Engineering Control Systems

2.2.1.1 Composite Cover System

Exposure to residual contaminated soil/fill is prevented by the existing composite cover system built on-Site. This composite cover system is comprised of asphalt-covered roads and areas, concrete-covered sidewalks and areas and concrete building slabs and floors. Figure 12 shows the NYSDEC-approved design cross-section for each remedial cover type used on this Site. Figure 13 shows the location of each cover type at the Site (Note that the entire site is covered by one or more impermeable surface). A Soil Management Plan is included in Appendix 5, and outlines the procedures required in the event the composite cover system and underlying residual contamination are disturbed.

The Soil Management Plan is also discussed in greater detail in Section 2.3 of this EC/IC Plan. Issues related to maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

2.2.1.2 Air Sparging/Soil Vapor Extraction System

Conceptual Remedial Approach

The SVE/AS system was designed to:

- Strip VOCs from the impacted subsurface soil and groundwater via AS, then capture the VOCs via SVE; and
- enhance biodegradation of SVOCs through the introduction of air into the subsurface soil and ground water.

System Design and Installation

The detailed system design is presented in Section 1.4.2. As-built drawings of all system components, underground piping and trench locations are presented in Appendix 6 (System Operation and Maintenance Manual).

Procedures for operating and maintaining the SVE/AS system are documented in the Operation and Maintenance Plan. (Section 4 of this SMP and in the System Operation and Maintenance Manual provided in Appendix 6.) Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP and in the System Operation and Maintenance Manual provided in Appendix 6.) The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls and/or system operation at the Site, has occurred.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

2.2.2.1 Composite Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity. The cover system may be disturbed and/or replaced as provided in the Soil Management Plan (Appendix 5).

2.2.2.2 Soil Vapor Extraction/Air Sparging System (SVE/AS System)

The SVE/AS system operation will not be discontinued without written approval by NYSDEC and NYSDOH, which shall be granted once TAGM 4046 RSCOs and TOGs groundwater standards are achieved, or until persistent asymptotic contaminant mass removal rates are identified, as detailed in the RAWP and Addendum, both approved by NYSDEC on November 3, 2005. A proposal to discontinue the system operation may be submitted by the volunteer after operation of the SVE/AS system achieves residual contamination concentrations in groundwater and soil which: (1) achieve levels equal to or below NYSDEC standards, or (2) have become asymptotic over an extended period of time as provided in the RAWP and approved by the NYSDEC and the NYSDOH, or (3) if NYSDEC and NYSDOH hereafter determine that the SVE/AS system otherwise has reached the limit of its effectiveness and/or that operation of the SVE/AS system may be discontinued. This assessment will be based in part on post-remediation contaminant levels in groundwater collected from monitoring wells located throughout the Site. Systems will remain in place and operational until permission to discontinue their use is granted in writing by NYSDEC and NYSDOH. These sampling/monitoring activities will adhere to stipulations outlined in the Monitoring Plan section of the SMP.

The March 2012 Progress Report #26 submitted to the NYSDEC in April 2012 reported that asymptotic conditions were reached in Area A on March 13, 2011, and in Area I on March 27, 2012. The June 2012 Progress Report #27 submitted to the NYDEC in July 2012 proposed to permanently cease treatment based on NYSDEC approved 2005 RAWP.

On August 13, 2013, NYSDEC notified Dexter through Whitman that the July 26, 2013 request to dismantle the SVE/AS system was approved, including all aboveground components of the treatment systems, decommissioning the sparging and vapor extraction wells/recovery wells, and sealing all underground components. As of June 30, 2014, all essential components of the SVE/AS system have been decommissioned and dismantled. Extraction wells and recovery wells have been permanently sealed.

2.3 Institutional Controls Components

2.3.1 Institutional Controls

A series of Institutional Controls are required under the RAWP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent and/or regulate future exposure to residual contamination by controlling disturbances of the subsurface contamination; and, (3) restrict the use of the Site to commercial and industrial uses only. Adherence to these Institutional Controls on the Site (Controlled Property) is required under the DCR and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the DCR by the Grantor and the Grantor's successors and assigns with all elements of this SMP;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- A composite cover system consisting of asphalt covered roads, concrete covered sidewalks, and concrete building slabs must be inspected, certified and maintained as required in this SMP;
- Engineering Controls may not be disturbed or damaged, except as permitted by this SMP, the DCR, or as permitted or required by NYSDEC.
- All Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defined in the SMP.
- Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management for the Controlled Property must be reported to NYSDEC at the frequency and in a manner defined in this SMP;
- All ECs and all on-Site environmental monitoring devices, including but not limited to, groundwater monitoring wells and soil vapor probes, must be protected, maintained, repaired and replaced as necessary to ensure the ECs and devices function in the manner specified in this SMP.
- Engineering Controls may not be removed or otherwise discontinued without an amendment or the extinguishment of the DCR.

The Site (Controlled Property) has a series of Institutional Controls in the form of Site use restrictions. Adherence to these Institutional Controls is required by the DCR. Site restrictions that apply to the Controlled Property are:

- Vegetable gardens and farming on the Controlled Property are prohibited;
- The use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose, except for investigation or remediation;
- All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;
- The Controlled Property may only be used for commercial and industrial use, provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The Controlled Property may not be used for a higher level of use, such as restricted residential use without an amendment or the extinguishment of this Declaration of Covenants and Restrictions.
- Grantor agrees to submit periodically (annually in the Site Management Plan Report) to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitutes a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This certification must be provided by an expert or professional assigned by the then owner of the site, (the "Remedial Engineer") and this annual statement must be certified by an expert that the NYSDEC finds acceptable or is otherwise authorized by applicable law.

NYSDEC is hereby advised that Edgewater Realty, LLC (the current owner and operator of the Site) and Dexter Chemical, LLC (the Volunteer and prior owner of the

Site) have entered into contractual arrangements concerning this SMP and Volunteer's remediation of the Site, as a result of which the current owner has signed the Declaration, now recorded. Under those arrangements, until NYSDEC issuance of the Release under the VCA, the obligation to remove when no longer required, or before that to maintain, operate, repair, inspect or replace, any equipment or wells required under or for this SMP and the associated remediation, and otherwise perform in accordance with, and meet the requirements of, this SMP, shall be performed by or for Dexter Chemical, LLC as the volunteer under the VCA, except only as the parties may have agreed otherwise. Under those arrangements, after NYSDEC issuance of the Release under the VCA these obligations shall be the obligation of either or both the then current owner and/or operator of the Site, except only as the parties may have agreed otherwise. The inclusion of this paragraph advising NYSDEC of those arrangements, and the making of those contractual arrangements, does not hereby constitute a release or waiver by or of NYSDEC of any of its rights under applicable law on, for or after any breach of this SMP, including against either or both the then current owner, the then current operator, the Volunteer or any other person or entity liable under applicable law for or by reason of such breach.

2.3.2 Soil/Materials Management Plan

Any future intrusive work that will disturb the residual contamination and modifications or repairs to the existing composite cover system will be performed in compliance with the Soil Management Plan (SoMP) of Appendix 5, which is included in this SMP. Intrusive construction work (work penetrating the composite cover system and/or disturbing, contacting or removing residual contamination) must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. The Soil Management Plan is presented in Appendix 5 and the CAMP and HASP are presented in Appendix 7 of this SMP. The HASP is the responsibility of the property owner and should be in compliance with DER-10 Technical Guide and 29 CFR 1910 and 1926, and all other applicable Federal, State and local regulations. Any intrusive construction work must be certified as compliant with the SMP and included in the periodic inspection and

certification reports submitted under this SMP's Site Management Reporting Plan (See Section 5).

The requirements of this Section 2.3.2 apply during all future intrusive work or construction, without limitation, that will disturb the residual contamination and modifications or repairs to the existing composite cover system.

2.3.2.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed during any project subject to this Section 2.3.2 by a qualified environmental professional during all remedial and development/construction work penetrating any EC and/or having excavations into areas with known or potentially contaminated material (i.e. potentially all material beneath the asphalt or concrete surfaces at the site). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development or construction, such as excavations for foundations and utility work, after the issuance of the VCA Release.

Screening will be performed by qualified environmental professionals or other experts acceptable to NYSDEC or authorized by applicable law. Resumes will be provided in the Periodic Review Report for all personnel conducting invasive work field screening (i.e. those representing the Remedial Engineer) for unknown contaminant sources during remediation and construction and/or development work.

2.3.2.2 Stockpile Methods

Stockpiles of materials excavated during any project subject to this Section 2.3.2 from areas with known or suspected contamination or from under ECs will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarps covers will be promptly replaced. Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

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

Soil stockpiles will be continuously encircled with silt fences. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

A dedicated water truck equipped with a water cannon will be available on-Site for dust control.

Stockpiles will be properly and timely characterized, removed and disposed in accordance with all applicable laws.

2.3.2.3 Materials Excavation and Load Out

The Remediation Engineer designated by the then owner during any project subject to this Section 2.3.2, or a qualified environmental professional under his/her supervision, as may be required by applicable law, will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the Site and its contractors are solely responsible for safe execution of all invasive and other work performed at the Site and for full compliance with this SMP and the Declaration of Covenants and Restrictions during any project subject to this Section 2.3.2.

Prior to any disturbance, the presence of utilities, SVE/AS system piping and easements on the Site will be investigated by the Remedial Engineer in advance of any project subject to this Section 2.3.2. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities, system piping or easements on the Site.

Loaded vehicles leaving the Site with resulting excavated materials will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-Site during any project subject to this Section 2.3.2, if necessary. Steps shall be taken during any project to contain any and all

contamination such that human health and the environment shall be protected at all times during any project at the site. As delegated by the project owner at the time of each project, the Remediation Engineer will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until all remedial/construction work is complete.

Locations where vehicles enter or exit the Site during any project subject to this Section 2.3.2 shall be inspected daily for evidence of off-Site sediment tracking. Steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site.

The Remedial Engineer will be responsible for ensuring that all egress points for truck and equipment transport from the Site during any project subject to this Section 2.3.2 will be clean of dirt and other materials derived from the Site during Site remediation by excavation and development/construction disturbing areas of contamination or ECs. Steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site.

Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

The Site owner, contractors and parties performing this work and preparing the remedial documents submitted to the State are completely responsible during any project subject to Section 2.3.2 for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings) at and about the Site and for full compliance with this SMP and the Declaration of Covenants and Restrictions.

The Remedial Engineer will ensure that such Site development/construction activities will not interfere with, or otherwise impair or compromise, remedial activities completed under the Remedial Action Work Plan.

Each hotspot and structure to be remediated (USTs, vaults and associated piping, transformers, etc.) will be removed and end-point remedial performance sampling

completed before excavations related to Site development commence proximal to the hotspot or structure.

Mechanical processing of historical fill and contaminated soil on-Site during any project subject to this Section 2.3.2 is prohibited.

All primary contaminant sources (including but not limited to tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. The survey information will be shown on maps to be reported in the Periodic Review Report.

2.3.2.4 Materials Transport Off-Site

Steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site, of which the following provisions may apply:

- All transport of materials generated during any project subject to this Section 2.3.2 will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.
- Truck transport routes with maps are provided in Appendix 8.
- All trucks loaded with such excavated contaminated Site materials will exit the vicinity of the Site using only approved truck routes.

Proposed in-bound and out-bound truck routes to the Site are shown in Appendix 8. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total travel distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input.

Trucks will be prohibited during any project subject to this Section 2.3.2 from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport during any project subject to this Section 2.3.2 from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks during any project subject to this Section 2.3.2 will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

Material transported by trucks exiting the Site during any project subject to this Section 2.3.2 will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks carrying excavated materials during any project subject to this Section 2.3.2 will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

2.3.2.5 Materials Disposal Off-Site

The disposal locations for materials generated during any future project subject to this Section 2.3.2 will be identified and reported to NYSDEC in the Periodic Review Report.

For large projects, the total quantity of material expected to be disposed off-Site will be reported to NYSDEC prior to performance of work. This will include quantity, breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.

All soil/fill/solid waste excavated and removed from the Site during any future project subject to this Section 2.3.2 will be treated as contaminated and regulated material, unless otherwise characterized and demonstrated as clean under all applicable standards, criteria and guidance, and will be disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC's Project

Manager or successor agency at that time. Unregulated off-Site management of materials from this Site is prohibited without formal NYSDEC approval.

Material excavated from the Site during any project subject to this Section 2.3.2 that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

The following documentation will be obtained and reported by the Remedial Engineer for each disposal location used for any future project to fully demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter from the Remedial Engineer or VCP Applicant to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter will state that material to be disposed is contaminated material generated at an environmental remediation site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported; and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material.

Non-hazardous historic fill and contaminated soils taken off-Site during any project subject to this Section 2.3.2 will be handled, at a minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2

Historical fill and contaminated soils generated during any project subject to this Section 2.3.2 from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

Soils that are contaminated but non-hazardous and are being removed from the Site during any project subject to this Section 2.3.2 are considered by the Division of Materials Management (DMM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC Region 2 DMM. This material is prohibited from being sent or redirected to a Part 360-16 Registration Facility. In this case, as dictated by DMM, special procedures will include, at a

minimum, a letter to the C/D facility that provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on- Site or off- Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

The Periodic Review Report will include an accounting of the destination of all material removed from the Site during work performed under this SoMP, including excavated soil, contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the [Annual] Site Management Report.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the Periodic Review Report.

Hazardous wastes generated during any project subject to this Section 2.3.2 will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site during any project subject to this Section 2.3.2 and will be in full compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal of wastes generated during any project subject to this Section 2.3.2 in a manner suitable to the receiving facility and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the FER and/or the Periodic Review Report. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

2.3.2.6 Materials Reuse On-Site

Chemical criteria for on-Site reuse of material will comply with 6NYCRR Part 375-6.7(d). The Remedial Engineer will ensure that procedures defined for materials reuse of materials generated during any project subject to this Section 2.3.2 are followed and that unacceptable material (material that does not meet the Track 1 Unrestricted Use SCO's) will not remain on-Site.

Acceptable demolition material proposed for reuse on-Site, if any, will be sampled for asbestos.

Concrete crushing or processing on-Site is prohibited.

Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site is prohibited for reuse on-Site.

Contaminated on-Site material, including historic fill and contaminated soil, removed for grading or other purposes will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

2.3.2.7 Fluids Management

All liquids to be removed from the Site during any project subject to this Section 2.3.2, including dewatering fluids, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Liquids discharged into the New York City sewer system will be addressed through approval by NYCDEP (a NYCDEP permit is required).

Dewatered fluids will not be recharged back to the land surface or subsurface of the Site. Dewatering fluids will be managed off-Site.

Discharge of water generated during remedial construction to surface waters (i.e. a local pond, stream or river) is prohibited without a SPDES permit.

2.3.2.8 Demarcation

After the completion of any soil removal and any other invasive remedial activities during any project subject to this Section 2.3.2, and prior to backfilling, as necessary, a land survey will be performed by a New York State licensed surveyor. The survey will define the top elevation of residual contaminated soils, after such excavation

is completed. A physical demarcation layer, consisting of orange snow fencing material or equivalent material will be placed on this surface to provide a visual reference. This demarcation layer would then constitute the top of the 'Residuals Management Zone', the zone that requires adherence to special conditions for disturbance of contaminated residual soils defined in this Site Management Plan. The survey will measure the grade covered by the demarcation layer before the placement of cover soils, pavement and sub-soils, structures, or other materials. This survey and the demarcation layer placed on this grade surface will constitute a modification of the physical and written record of the upper surface of the 'Residuals Management Zone' in the Site Management Plan. A map showing the survey results will be included in the Site Management Report and updates to the Site Management Plan.

2.3.2.9 Backfill from Off-Site Sources

All materials proposed for import onto the Site as clean fill for any project subject to this Section 2.3.2 will be approved by the Remedial Engineer and will be in compliance with provisions in this SoMP prior to receipt at the Site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site for use as such fill.

All imported soils for use as such fill will meet NYSDEC approved backfill or cover soil quality objectives for this Site. All imported soils will comply with 6NYCRR Part 375-6.7(d). Non-compliant soils will not be imported onto the Site for use as fill without prior approval by NYSDEC. Nothing in the approved SMP or its approval by NYSDEC should be construed as an approval for this purpose.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site for use as such fill without prior approval by NYSDEC. Nothing in this SMP should be construed as an approval for this purpose.

Solid waste will not be imported onto the Site for use as such fill.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

2.3.2.10 Stormwater Pollution Prevention

Silt fence barriers and hay bale checks will be installed and inspected once a week and after every storm event during any such project subject to this SMP . Steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the remedial or construction/project area.

2.3.2.11 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation, development related construction or other projects, sampling will be performed on contents, free product, sediment and surrounding soils, etc. Chemical analytical work will be for full scan parameters (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs). These analyses will not be limited to STARS parameters where tanks are identified without prior approval by NYSDEC. Analyses will not be otherwise limited without NYSDEC approval.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to

NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

2.3.2.12 Community Air Monitoring Plan (CAMP)

A map showing the location of fixed and mobile sampling stations is shown in Figure 14. The screening locations will be located adjacent to any intrusive work. The CAMP is provided in Appendix 7.

Exceedances observed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

2.3.2.13 Odor, Dust and Nuisance Control Plan

Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors (off-Site and on-Site) generated during any project subject to this Section 2.3.2. Specific odor control methods to be used on a routine basis will include ventilation, covering areas with polyethylene tarps, and cessation of activities. If nuisance odors are identified during any project subject to this Section 2.3.2, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Remediation Engineer, as delegated by the owner, who is responsible for certifying the Periodic Review Report.

All necessary means will be employed to prevent on- and off-Site nuisances during and from any project subject to this Section 2.3.2. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If odor nuisances develop during any such remedial work or construction/development work or any other project onsite and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-Site work subject to this SMP will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-Site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

Other Nuisances

A plan for rodent control will be developed and utilized by the contractor during each project subject to this Section 2.3.2 prior to and during Site clearing and Site grubbing, and during all remedial work.

A noise control plan shall be required for any project at the site, which shall conform, at a minimum, to NYCDEP noise control standards.

2.4 Inspections and Notifications

2.4.1 Inspections

Inspections of all ECs installed on-Site will be conducted at the frequency specified in SMP Monitoring Plan schedule. A comprehensive Site-wide inspection will be conducted annually. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Declaration of Covenants and Restrictions;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Site Management Reporting Plan (Section 5).

If an emergency, such as a natural disaster occurs which could cause interference with the function of ECs, or other unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted to verify the continued effectiveness of the EC/ICs implemented at the Site, or the need for repairs or replacement, by the Remedial Engineer.

2.4.2 Notifications

2.4.2.1 NYSDEC-Acceptable Electronic Database

The following information is presented in Appendix 8 in an electronic database format:

- A Site summary;
- The name of the current Site owner and/or the remedial party implementing the SMP for the Site;
- The location of the Site;
- The current status of Site remedial activity;
- A copy of the Declaration of Covenants and Restrictions; and

- A current contact name and phone number of a person knowledgeable about the Declaration of Covenants and Restrictions requirements, in order for NYSDEC to obtain additional information, as necessary.

This information should be: 1) modified when Site conditions change; (2) included in Appendix 8 of this document; and, (3) submitted to NYSDEC in the Annual Site Monitoring Report. Should the Declaration of Covenants and Restrictions be modified or terminated, the copy of the revised Declaration of Covenants and Restrictions will also be updated in this manner.

2.4.2.2 Non-Routine Notifications

Non-routine notifications are to be submitted by the property owner(s) and/or volunteer to the NYSDEC on an as-needed basis for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are consistent with the terms of the Declaration of Covenants and Restrictions.
- 10-day advance notice of any proposed ground-intrusive activities.
- Notice within 48-hours of discovery of any damage or defect to any EC that reduces, or has the potential to reduce, the effectiveness of that or other Engineering Controls and likewise any action taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such as a fire, flood, or earthquake that reduces or has the likely potential to reduce, the effectiveness of Engineering Controls in place at the Site, including a summary of action taken in response to the reduction or potential and any impacts to the environment and the public from that reduction or potential.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action to preserve or restore the function of the EC, if any, shall be submitted to the NYSDEC within 45 days of the event and shall describe and document actions taken to restore the effectiveness of the ECs.

3.0 MONITORING PLAN

3.1 Introduction

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the implemented ECs in reducing or mitigating contamination at the Site. ECs at the Site include composite cover system, SVE/AS system, and the network of wells for the monitoring of groundwater and soil vapor. This Monitoring Plan is subject to revision by NYSDEC.

3.1.2 Purpose

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Evaluating Site information periodically to confirm that the remedy continues to be effective as per the design; and
- Preparing the necessary reports for the various monitoring activities.
- Assessing compliance with NYSDEC groundwater standards and [Part 375 SCOs] for soil;
- Assessing achievement of the remedial performance criteria.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitor well decommissioning procedures; and

- Annual inspection and certification.

Quarterly ground water monitoring of the performance of the remedy and overall reduction in contamination on-Site and off-site were conducted years during SVE/AS system operations. Post SVE/AS operation frequency thereafter was determined by NYSDEC. Procedures for terminating groundwater monitoring will comply with Section 6.4 of DER-10 (May 2010). Trends in contaminant levels in air, soil, and/or groundwater in the affected areas will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in Table 4 (below).

Table 4: Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
SVE/AS System O&M per OM&M Manual	Weekly for first month of operation, then as needed (i.e. alarm), monthly at a minimum	Air (SVE Effluent Monitoring)	FID – Monthly TO+15 (Summa-Monthly/Quarterly or as necessary)
	As required by NYCDEP Sewer Discharge Permit	Treated Ground Water Discharge	Per NYCDEP Sewer Department Parameters
Groundwater Monitoring Well Sampling	Quarterly during first 2 years of SVE/AS System Operation, Post-Remediation. Semi-annually for two (2) years following SMP approval.	Aqueous (Ground Water)	VO+10 – EPA 624
Soil Vapor Monitoring	Quarterly for first year of SVE/AS System Operation, No further monitoring. Post remediation - one (1) round of sub-slab vapor and indoor/outdoor air sampling.	Soil Vapor	TO+15

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH.

3.2 Engineering control System monitoring

As-built drawings for the SVE/AS system are included in the System Operation and Maintenance Manual provided in Appendix 6.

3.2.1 Monitoring Schedule

Inspection frequency is subject to change by NYSDEC and NYSDOH. Unscheduled inspections and/or sampling by NYSDEC may take place when a suspected failure of the SVE/AS system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. Monitoring deliverables for the SVE/AS system are specified later in this Plan. (Operation of the SVE/AS system has been completed.)

3.2.2 General Equipment Monitoring

A visual inspection of the complete system was conducted during monitoring events. SVE/AS system components monitored include, but were not limited to, the following:

- Compressor discharge pressure, flow and temperature;
- Vacuum blower vacuum, flow and temperature;
- Individual wellhead vacuum for SVE points and pressure for AS points; and
- Effluent concentrations exiting the carbon canisters.

A complete list of the checked components is provided in the Inspection Checklist, presented in Appendix 9. If any equipment readings were not within their typical range, any equipment observed to be malfunctioning, or the system not performing within specifications, maintenance and repair as per the Operation and Maintenance Plan were performed immediately, and the SVE/AS system was then restarted.

3.2.3 System Monitoring Devices and Alarms

The SVE/AS system had various warning devices to indicate that the system was not operating properly, including lights located on the system panels and an autodialer system which contacts the technician in the event of an alarm. As a precaution, the sparge system shut down in the event of an alarm. In the event that the warning device was activated, applicable maintenance and repairs were conducted, as specified in the Operation and Maintenance Plan, and the SVE/AS system was then restarted. Periodic Review Report

3.2.4 Discharge Permit Limit Requirements

Although no formal air permit discharge permit was required for the SVE/AS system pursuant to Section 7.3 and Appendix 7B of the DER-10 guidance document (i.e. air permit exempt), discharge of contaminants from the SVE system were required to meet the substantive technical requirements of Air-Guide-1. These limits for each contaminant are identified in the system OM&M manual, and were measured pursuant to the O&M of the system. If limits were found to be in excess of Air-Guide -1 limits, the system was shut down/carbon changed-out and adjusted until the limits were obtained. At a minimum, vapor phase carbon is changed on a quarterly basis.

3.2.5 System Sampling Event Protocols

Vapor samples were collected as necessary and laboratory analyzed from the SVE system influent and effluent to monitor system performance. Six (6) liter Summa canisters were utilized to collect (and preserve) the system vapor samples, connected directly to dedicated Teflon tubing attached to the sampling ports along the SVE treatment train (i.e. sample ports on influent piping and after the second carbon vessel (effluent)) prior to discharge to the atmosphere via the 30 foot stack. The Summa canisters provided by the laboratory to be filled were certified clean by the laboratory. The sampling tubing was purged with system vapor and then sealed before connection to the Summa canister to ensure only system vapor is introduced into the Summa canister. Thirty minute Summa flow regulators were utilized to achieve collection of the SVE system's vapor at an approximate flow rate of 200 milliliters/ (cubic centimeters) per minute, or less.

The following information was recorded on the chain of custody during each system vapor phase sampling event for both the influent and effluent streams:

- Barometric pressure at the start of Summa sampling (starting) and at the end of Summa sampling (ending) in inches of Mercury (Hg);
- Starting and ending times;
- Canister starting and ending vacuum pressure in inches of Hg;
- Starting and ending temperature;
- Starting and ending system stream pressure (typically 30-40 inches of water pressure on the SVE influent stream due to backpressure from the two carbon vessels and approximately 1 to 2 inches of water backpressure on the effluent stream due to friction losses generated along the 30 foot system effluent stack);
- Summa canister and flow regulator ID number;
- Relinquished by, and received by chain-of-custody signatures with time and date;

Each summa canister was clearly labeled with sampling ID on the dedicated label tag. The custody seal is placed over the Summa canister container. The chain of custody accompanies the Summa canisters throughout the sampling process through to final delivery at the laboratory. Each sample was analyzed for EPA TO-15 target parameters with low level (LL) detection. The vapor samples were analyzed by a qualified laboratory certified by the NYSDOH within the 2-week holding time allowed for preservation via Summa canister.

3.3 Groundwater monitoring Program

Groundwater monitoring was performed on a regular basis to assess the performance of the remedy. Monitoring wells were sampled on a quarterly basis during SVE/AS system operation, with all results reported to NYSDEC in a Progress Report that followed the sampling.

3.3.1 Monitoring System Design

The network of monitoring wells is designed to monitor both up-gradient and down-gradient groundwater conditions at the Site. The network of on-Site and off-Site wells has been located based on the following criteria:

- Figure 5 shows the location of site monitoring wells relative to identified impacted areas (Area A and Area I) and ground water flow direction;
- The wells are screened across the shallow water table, generally less than 4 feet below grade up to more than 12 feet below grade;
- Per the approved RAWP, monitoring wells PZ-4, MW-6 and PZ-3 in Area A, and MW-7 in area I were sampled on a quarterly basis for VO+10 during SVE/AS system operation. In addition, as requested by NYSDEC in 2010, wells MW-8 and SVE/RW-5A in area "A" and wells MW-3, MW-11 and SVE/RW13I have also been added to the quarterly groundwater sampling events.

The monitoring wells were inspected semiannually during the sampling events to ensure they have not been damaged.

3.3.2 Groundwater Well Construction

All ground water monitoring wells were installed using hollow stem auger (HSA) drill rigs. Well construction logs are included in Appendix 10.

3.3.3 Monitoring During SVE/AS System Operation

3.3.3.1 Monitoring Schedule

During SVE/AS operation, ground water was sampled quarterly. NYSDEC agreed that following two years of monitoring ground water, if ground water chemical concentrations were reduced, and/or asymptotic, further monitoring would not be necessary. As the SVE/AS system operation was terminated with NYSDEC concurrence, further ground water monitoring was also terminated.

3.3.3.2 Sampling Event Protocol

The quarterly sampling events included sampling PZ-3, PZ-4, MW-6, MW-8 and SVE/RW-5A in area "A" and MW-3, MW-7, MW-11 and SVE/RW-13I in area "I" for VO+10 analysis via EPA method 624. Analysis was conducted by a NYSDOH certified laboratory.

All site wells were gauged during these sampling events to continue verification of ground water flow direction. Wells were purged and sampled utilizing the low flow sampling procedures outlined in *USEPA's Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA/540/S-95/504, April 1996 or newer version). Wells were sampled from lowest relative concentration to highest relative concentration to minimize the possibility of cross-contamination between wells. Field parameters (including, but not limited to dissolved oxygen, turbidity and temperature) were measured and recorded during all sampling events. Sampling information was recorded on well sampling logs and was submitted with the quarterly reports. A sample well sampling log is presented in Appendix 11.

3.3.4 Post Remediation Monitoring of Ground Water

Ground water will be monitored semi-annually for two years following SMP approval.

The following monitoring wells will be sampled:

- Treatment Area A: PZ-3, PZ-4, MW-6
- Treatment Area I: MW-3, MW-7, MW-11

3.3.4.1 Sampling Event Protocol

Semi-annual ground water monitoring will be conducted by the same protocols as used for monitoring during SVE/AS system operation (Section 3.3.3), as follows:

- Analytical Parameters – laboratory analysis
- Field parameters
- Well gauging
- Purging
- Order of well sampling

Sampling results will be presented to NYSDEC and NYSDOH in the Periodic Review Report.

3.3.4.2 Well Replacement/Repairs and Decommissioning

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance. Well decommissioning, for the purpose of replacement or, if permitted, abandonment, will be reported to NYSDEC prior to performance and in the annual report. Well decommissioning without replacement must receive prior approval by NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC and NYSDOH.

3.4 Soil Vapor Monitoring Program

3.4.1 Monitoring During SVE/AS System Operation Subsurface vapor samples were taken as described in the following sections to monitor the performance of the SVE/AS system. The objective of the subsurface vapor sampling was to monitor for fugitive vapors resulting from air sparging operations that are a function of the operation of the SVE/AS system. All subsurface vapor sampling was conducted in accordance with the final NYSDOH document dated October 2006, entitled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York". Samples will be collected in Summa canisters and analyzed for volatile organics via EPA Method TO-15.

Subsurface vapor samples were collected utilizing two methods in accordance with NYSDEC and NYSDOH procedures.

1. Soil vapor in exterior areas was collected using vapor probes.
2. Sub-slab vapors were collected within building interiors.

No fugitive vapor emissions from air sparging operations were detected.

3.4.1.1 Area "A"

The SVE/AS treatment of Area "A" was initiated in May 2009, prior to the time when NYSDEC specified that subsurface vapor monitoring should be conducted. Hence, no pre-treatment monitoring for vapors at Area A was performed, and Dexter relied on historic subsurface vapor sampling results in this area of the site to be used as "baseline" levels.

Subsurface vapor sampling in Area A commenced in summer/fall 2010 (non-heating season) at the four locations shown on Figure 17 (SV-A1 through SV-A4) and were evaluated, compared and reported in Progress Reports relative to the historic subsurface vapor samples collected and analyzed in January 2005 in this area of the site (former 2005 samples SG-4, SG-5 and SG-6). The locations shown on Figure 17 were chosen based on discussions with NYSDEC where one sample on each side of the treatment area just beyond the estimated influence of the SVE/AS system was desired. One additional round of samples was collected from these four locations during the heating season. Fugitive vapors were not detected, and the results indicate that no additional subsurface vapor sampling is warranted in Area A.

3.4.1.2 Area "I"

Subsurface vapor sampling in Area I commenced (prior to start up of treatment) to establish baseline, current levels) in fall 2010 (non-heating season) at the four locations shown on Figure 18 (SV-I1 through SV-I4) and were evaluated, compared and reported relative to the historic subsurface vapor samples collected and analyzed in January 2005 in this area of the site (former 2005 sample SG-3). The locations shown on Figure 18 were chosen based on discussions with NYSDEC where one sample on each side of the treatment area, just beyond the estimated influence of the SVE/AS system, wasdesired.

Subsurface performance monitoring vapor sampling in Area I during system operation began in June 2011 (non-heating season) at the four locations shown on Figure 18 (SV-I1 through SV-I4) and were evaluated, compared and reported relative to the baseline samples collected prior to system start-up of this area, and the historic subsurface vapor samples collected and analyzed in January 2005 in this area of the site (former 2005 samples SG-3). One additional round of samples was collected from these four locations during the heating season in November 2011. Fugitive vapors were not

detected during the operation of the AS/SVE treatment system, and the results indicate that no additional subsurface vapor sampling is warranted in Area I. Results were reported in Progress Report #27, July 2012.

3.4.2 Post Remediation Monitoring of Vapor

One round of sub-slab vapor and indoor/outdoor air sampling will be conducted during the heating season beginning in November 2014.

The vapor sampling is specific to the two areas of soil/ground water treatment, Area A (819 Edgewater Road) and Area I (842 Whittier Street). These areas can be seen on the attached Dexter Site Plan dated January 2013, Figure 1.

Actual sampling locations can only be determined on the day of the sampling as Area A and I are active leasehold areas in use with material constantly being moved in, out and within Areas A and I.

3.4.2.1 Area A

Two (2) sub-slab samples will be taken within Area A, to the degree possible one will be taken on the south side of the building, the other to the north side. One indoor air sample will be taken within the south side of the building, and one within the north side. One outdoor ambient air sample will be taken at an exterior area located between near Area A.

3.4.2.2 Area I

Two (2) sub-slab samples will be taken within Area I. To the degree possible one will be taken toward the west side of Area I, the other toward the east side. One indoor air sample will be taken within Area I as this building has only one interior space. One ambient air sample will be taken near Area I.

All vapor sampling conducted at Dexter will conform with current NYSDEC protocols as detailed by New York State Department of Health *Guidance for Evaluating Soil vapor Intrusion in the state of New York*.

3.5 Site-Wide Inspection

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections should also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (provided in the inspection checklists of Appendix 9). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that Site records are up to date.

3.6 Monitoring Quality Assurance/Quality Control

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site (Appendix 12). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- Sampling Program:
    - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
    - Sample holding times will be in accordance with the NYSDEC ASP requirements.
    - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;

- Calibration Procedures:
    - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
    - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Data Reduction and Validation:
    - Data validation will be performed in accordance with the USEPA validation guidelines for organic and inorganic data review. Validation will include the following:
        - Verification of 100% of all QC sample results (both qualitative and quantitative);
        - Verification of the identification of 100% of all sample results (both positive hits and non-detects);
        - Recalculation of 10% of all investigative sample results; and
        - A Data Usability Summary Report (DUSR) which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.7 Monitoring Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-Site. All forms, and other relevant reporting formats

used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the [Annual] Site Management Report, as specified in the Reporting Plan of the SMP.

All monitoring results will be reported to NYSDEC on an Annual basis in the Site Management Report. A report or letter will be prepared for submission subsequent to each sampling event. The report (or letter) will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (also to be submitted electronically in the NYSDEC-identified format);
- A copy of the laboratory certification;
- Any observations, conclusions, or recommendations; and
- A determination as to whether plume conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the future monitoring program deliverables are summarized in Table 5 below.

Table 5: Monitoring/Inspection Deliverables

Task	Frequency	Quarterly Reporting Requirement	Annual Reporting Requirement
Site –Wide Inspections, Per Inspection Checklists of Appendix 9	Annually, at a minimum	No	Yes, in Annual SMP Report
SVE/AS System O&M (completed)	completed	Yes, in Quarterly Progress Reports (completed)	N/A
Ground Water Monitoring (Sampling)	Performance Monitoring: completed Post Remediation: Semi-annually for two (2) years following SMP approval.	Quarterly Progress Reports (completed)	Annual SMP Report
Soil Vapor Monitoring	Performance Monitoring: completed Post Remediation: One (1) round of sub-slab and indoor/outdoor air sampling.	Quarterly Progress Reports (completed)	Annual SMP Report

4.0 OPERATION AND MAINTENANCE PLAN

4.1 Introduction

The Operation and Maintenance Plan describes the measures necessary to operate and maintain any mechanical components of the remedy selected for the Site (SVE/AS systems). Note: The Operation and Maintenance Plan remained in effect through 2012 when the SVE/AS system was in operation. The mechanical operations were completed and the SVE/AS system was decommissioned and dismantled. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SVE/AS systems;
- Includes an operation and maintenance contingency plan; and,
- Was updated periodically to reflect changes in Site conditions or the manner in which the SVE/AS systems were operated and maintained.

Information on non-mechanical Engineering Controls (i.e. composite cover) can be found in Section 3 - Engineering and Institutional Control Plan. A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP. The Operation and Management Plan may not be modified without written approval from NYSDEC.

4.2 Engineering Control System Operation and Maintenance

4.2.1 Scope

The following scope presents the start up, testing, operation and maintenance procedures followed during SVE/AS system implementation. (completed).

4.2.2 System Start-Up and Testing

The startup phase began with the startup of the SVE system. This phase included approximately 7-10 days of manifold valve adjustments. These adjustments were used to optimize contaminant mass removal by increasing vacuum pressure on the wells/horizontal lines producing the highest contaminant concentrations while providing

adequate coverage to capture sparged air and protect against vapor intrusion. During this period, flow measurements, vacuum readings and vapor concentrations were recorded daily from the manifold line and from the effluent. Baseline sampling of subsurface pressure, PID readings, water levels and dissolved oxygen (DO) were conducted prior to startup of Area "I." The baseline data are presented in Table 6.

Table 6: SVE/AS Baseline Data

Monitoring Well	Date	Depth To Water	Dissolved Oxygen
PZ-3	10/28/2009	4.92	4.75
PZ-4	10/28/2009	5.09	7.48
MW-6	10/28/2009	5.89	4.25
MW-7	10/28/2009	8.04	4.84

Treatment System Area A Combined Influent on 10/28/2009 was 64 ppmv

After the SVE system was optimized, the air sparging system was started. As startup continued for an additional 7-10 days of valve adjustments. During this period, injection and extraction rates, pressures, depth-to-water and vapor concentrations were monitored hourly at first and then daily. Other startup monitoring included visual observation for water bubbling and indoor vapor concentrations.

Based on the pilot study results, initial AS air pressure and flow was introduced at 1 scfm per well at 5 psi in Area "A". The low flow rate was necessitated by the observation of bubbling water and odors at higher flow rates during the pilot study. If any bubbling was observed in monitoring points or if any noticeable odors or VOC vapors were detected in the ambient air, the air pressure and flow was reduced until the detection effects are eliminated during startup of each area. Since no bubbling or vapors were observed during the start up phase of Area "A", and Area "I" the air sparge flow rate was increased nominally to approximately 1 to 4 cfm per sparge well at 6 to 10 psib.

Once the bulk of t-+he contaminant mass has been treated and asymptotic removal levels was achieved, pulsing was utilized to maximize the removal of practicable contaminant mass units.

Operational Phase

Performance monitoring was conducted on a monthly basis to assure the SVE/AS system was working properly, evaluate the vapor recovery rate, and determine when system shut-down post-remedial sampling should be performed. The following performance indicators were collected monthly:

- Air sparging and extraction flow rates.
- Sparging pressure and vacuum reading from venting monitoring points and manifold.
- Laboratory analysis of the extracted vapor stream for VO+10.
- Field monitoring of vapor concentrations in venting monitoring points and effluent discharge using a Photo Ionization Detector (PID) or a Flame Ionization Detector (FID).

Estimated mass removal rates: Summa canister gas samples of the SVE system's influent and effluent were analyzed on a monthly/quarterly basis. These lab results were compared to the portable PID reading (in ppmv) collected at the time of summa sampling so that a correlation between the two data sets, and correction factor could be developed for the PID readings versus summa results. The correction factor was then used to estimate the concentration of contaminants in the SVE influent gas measured during each portable PID measurements (conducted at least weekly), so the concentrations could be corrected, tracked and plotted to estimate daily contaminant removal rates, and cumulative contaminant mass removed over time.

- Estimated cumulative VOC mass removed.
- Scaled site plans with vacuum pressures and monitoring point vapor concentrations.
- Changes in water table elevations.
- Estimated zone of influence for SVE and AS wells by using vacuum field measurements from the performance monitoring ports on each wellhead. See progress reports for details.

Results of the SVE/AS effectiveness monitoring was reported on a quarterly basis to the NYSDEC.

Endpoint and Shutdown / Final System Optimization Phase

The system monitoring data was reviewed to determine the effectiveness of the AS/SVE system and determine when the system operation should cease. Information reviewed included the system performance monitoring data, VOC removal rates over time and contaminant distribution in vent gas over time. Final system optimization (prior to shutdown) was achieved by evaluating the monthly system performance data. For example, individual PID readings were collected from each SVE extraction point on a monthly basis. Those points that did not show elevated levels via PID were shut off, and focus placed on those SVE points with elevated PID levels conducted to maximize (optimize) contaminant removal rates. In addition, the system was pulsed to remove the final practical mass of contaminant prior to shutdown. When asymptotic behavior was observed in the cumulative mass removal and effluent VOC concentrations, the following actions were undertaken to increase mass removal:

- Adjusting flow and vacuum rates to wells with higher concentrations
- Pulse the air sparge system with periodic shutdowns

When asymptotic behavior persisted for a period of three months following these actions, a proposal to shut the system down was submitted to NYSDEC with the next regularly scheduled progress report. When the SVE/AS system was shut down the conditions were monitored for rebound. No rebound effect was observed and NYSDEC was petitioned to permanently shut down and decommission the treatment system. A sub slab depressurization system (SSDS) was determined to not be necessary at this site beneath the buildings following the conclusion of active remediation via SVE/AS, as evaluated through sub-slab vapor sampling and indoor air sampling following the conclusion of the SVE/AS remediation.

4.2.3 System Operation: Routine Operation Procedures (In effect, 2009-2012)

SVE System

1. Upon arrival the technician would document time, temperature, and weather conditions in the log book.
2. Check gate to ensure site is secure and that emergency contact information is visible.
3. Document in log book if system is running, if not trouble shoot and document why the system shut down.
4. Record SVE vacuum, monitoring point vacuum/pressure and influent/effluent temperatures, and system influent vacuum and carbon vessel psi readings (Carbon Treatment).
5. Collect system effluent cfm reading (Kurz) and influent/effluent concentrations (PID/FID).
6. Bail water traps.
7. Collect influent concentrations and individual riser concentrations (PID/FID)
8. Make adjustments to manifold to maximize system mass removal rates.
9. Collect departure influent concentrations (PID/FID), cfm (Kurz), vacuum readings, and psi (carbon) and temperature readings.
10. Complete system data sheet.

AS Unit

1. Check AS hose integrity.
2. Collect psi readings from gauges at each manifold point.
3. Shut down compressor and remove condensate from collection jars.
4. Restart compressor and ensure all points are functioning (compressor not dead heading at any point).
5. Complete system data sheet.

Ground Water Treatment System

1. Check system for leaks.
2. Ensure all floats and emergency shut offs are properly working.
3. Check discharge outfall for water clarity and any obstructions.

4. Collect psi readings from prior to carbon unit one, after carbon unit 1, and after carbon unit 2. If psi readings are greater than 10 between units backwash the vessels.
5. Document system flow rate and total flow, and make adjustments if necessary.
6. Complete system data sheet.

4.2.4 System Operation: Routine Equipment Maintenance

Inspections and Maintenance

Operating Records

Operating records recorded by the technician for each system O&M site visit were kept in a waterproof sleeve visible at first entrance into the treatment shed. The system operating log included the following:

Liquid Phase

- Ground water discharge rate (gpm) and total flow into carbon
- GAC pressure readings
- Date of last carbon change
- TSS pressure readings before/after change out

SVE/AS

- AS system pressure readings
- SVE system influent cfm reading
- SVE system vacuum at influent port
- Total VOC influent concentration (PID/FID).
- Total Effluent concentration (PID/FID).
- Calculated percent efficiency of off-gas treatment
- System influent/effluent temperatures (including Pre and Post Carbon Units)
- Date of last carbon change (if applicable)
- Test Air Sparge Interlock

In addition, a log book was kept on site which was signed and dated at each visit. The technician described the system's condition on arrival and departure for each O&M visit, weather conditions, service and/or repairs done to the system, and made note of any unusual conditions at the site.

4.2.4.2 Monthly Check List

The monthly check list included all maintenance/site inspection activities listed. The check list was completed, dated and signed by the designated technician. Completed check lists were be stored in a binder on site.

4.2.4.3 Quarterly Check List

The quarterly check list included all activities listed in the monthly check with the addition of the following:

- Service blower as per manufacture's specifications
- Use amperage meter to test draw on blower and adjust system vacuum if necessary
- Test system starter motors by pushing the test button to ensure they trip in the event of an overload
- Check integrity and tightness of all electrical wiring

4.2.4.4 Yearly Check List

The yearly check list included all activities in the quarterly checklist. In addition the technician reviewed all records from that year to ensure that all records are complete and accurate. After review the technician added any necessary activities to the monthly, quarterly, and annual check lists.

4.2.4.5 Preventative Maintenance Schedules

System maintenance was conducted on a monthly basis during the site visit. Any additional maintenance time was scheduled as needed.

4.2.4.6 Disposal of Spent Carbon

Spent carbon from the off-gas treatment and liquid phase treatment systems was removed and sent for recycling at a permitted reactivation facility. Documentation of proper disposal was submitted with the Periodic Review Report.

4.2.4.7 System Operation: Non-Routine Equipment Maintenance

Non-routine equipment maintenance and repair were performed as needed during system operation. Any components that need replacement or repair were completed in a timely fashion.

4.3 Groundwater Monitoring Well maintenance

If biofouling or silt accumulation occurred in the on-Site and/or off-Site monitoring wells, the wells were to be physically agitated/surged and redeveloped. Monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the wells unusable.

4.4 Maintenance Reporting Requirements

Maintenance reports and any other information generated during regular operations at the Site were kept on-file on-Site. All reports, forms, and other relevant information generated were available upon request to the NYSDEC and submitted as part of the Periodic Review Report, as specified in Section 5 of this SMP.

4.4.1 Routine Maintenance Reports

Checklists or forms (see Appendix 9) were completed during each routine maintenance event. Checklists/forms included, but were not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;
- Maintenance activities conducted;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

4.4.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a form was completed which will include, but not be limited to, the following information:

- Date;

- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Presence of leaks;
- Date of leak repair;
- Other repairs or adjustments made to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and,
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

4.5 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

4.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Ira Whitman, P.E. These emergency contact lists must be maintained in an easily accessible location at the Site. These lists may be periodically updated by the Remedial Engineer and revised by notice to the current site owner, the responsible parties and the NYSDEC.

Table 7: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility mark out)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7778

Table 8: Remedial Engineer Contact Numbers

Qualified Environmental Professionals (the "Remedial Engineers") Ira Whitman, P.E.	(732) 390-5858 (office)
Ed Huss	(732) 390-5858 (office) (732) 299-1553 (cell)
NYSDEC Project Manager Nigel Crawford, P.E.	(718) 482-7778

* Note: Contact numbers subject to change and should be updated as necessary

4.5.2 Map and Directions to Nearest Health Facility

The map and direction to the nearest hospital / health facility is provided in the Health and Safety Plan (HASP) for the site, in Appendix 7.

4.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of any such emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 6), above. The list is also posted prominently at the Site and made readily available to all personnel at all times.

- Procedures for spills;

  Procedures for spills include utilizing sorbent booms and pads for small petroleum spills, (with proper disposal) and the onsite shop-vac to vacuum up any small leaks that may occur to the site cap (entire site is capped with pavement or concrete), with proper disposal. Major spills that may occur and enter the environment (such as storm drains, surface water bodies or soil or groundwater, etc.) will be called into NYSDEC and the above emergency (Table 6) hotline numbers, including an emergency response Contractor, contacted immediately,

- Evacuation plans;

  If conditions at this site arise that result in a threat to human health, all onsite individuals will be told to evacuate the site immediately. Evacuation routes are posted on the system building. Individuals will be routed by the emergency

responder beyond the property boundary to a safe distance depending on the condition.

- Amendments to the contingency plan.

  Amendments to the contingency plan can be made at any time based on experience during the course of the project with approval by NYSDEC.

5.0 SITE MANAGEMENT REPORTING PLAN

5.1 Introduction

Periodic Review Report (PRR) will be submitted to NYSDEC beginning eighteen (18) months after issuance of the Release and Covenant Not to Sue and annually thereafter. The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also incorporated into the Periodic Review Report.

This report will include the following:

- Identification of all required EC/ICs required by the Remedial Action Work Plan for the Site;
- An evaluation of the Engineering and Institutional Control Plan and the Monitoring Plan for adequacy in meeting remedial goals;
- Assessment of the continued effectiveness of all Institutional and Engineering Controls for the Site;
- Certification of the EC/ICs;
- Results of the required periodic Site Inspections; and
- All deliverables generated during the reporting period, as specified in Section 2 EC/IC Plan, Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan.

The Site Management Reporting Plan is subject to NYSDEC revision.

5.2 Certification of Engineering and Institutional Controls

Information of EC/ICs can be found in the Engineering and Institutional Control Plan portion of this SMP. Inspection of the EC/ICs will occur at a frequency described in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan. After the last inspection of the reporting period, a Professional Engineer licensed to practice in New York State will sign and certify the document. The document will certify that:

- On-Site ECs/ICs are unchanged from the previous certification;
- They remain in place and effective;

- The systems are performing as designed;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls;
- Access is available to the Site by NYSDEC and NYSDOH to evaluate continued maintenance of such controls; and
- Site usage is compliant with the Declaration of Covenants and Restrictions.

The signed certification will be included in the Site Management Report (see Section 5.3).

5.3 Site Inspections

5.3.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a Site-wide inspection will be conducted:

- Annually;
- When a breakdown of treatment systems has occurred; and
- Whenever an Emergency, the subject of Section 4.5, above, has taken place. These include, but are not limited to, severe conditions such as an erosion or flooding event that may affect the ECs.

5.3.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system (refer to Appendix 9). Additionally, a general Site-wide inspection form will be completed during the Site-wide inspection (see Appendix 9). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records (including all sampling data of any media at the Site and system maintenance reports) generated for the Site during the calendar year will be included in the Periodic Review Report.

5.3.3 Evaluation of Records and Reporting

The results of the inspection and Site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items,
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

5.4 Site Management Report

The Site Management Report will be submitted annually and will be submitted by March 1 of the calendar year following the reporting period. Other activities such as groundwater and soil vapor monitoring reports will be submitted semi-annually for the first year, and as determined by NYSDEC thereafter, with those results also incorporated into the Periodic Review Report. The report will include:

- EC/IC certification;
- All applicable inspection forms and other records generated for the Site during the reporting period;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Cumulative data summary tables and/or graphical representations of contaminants of concern by media [groundwater, soil vapor], which include a listing of all compounds analyzed along with the applicable standards, with all exceedances highlighted;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables required for all points sampled during the calendar year (to be submitted electronically in the NYSDEC-specified format);
- A performance summary for all treatment systems at the Site during the calendar year, including information such as:

- The number of days the system was run for the reporting period;
- The average, high, and low flows per day;
- The contaminant mass removed;
- A description of breakdowns and/or repairs along with an explanation for any significant downtime;
- A summary of the performance and/or effectiveness monitoring;
- Comments, conclusions, and recommendations based on data evaluation; and
- Description of the resolution of performance problems.

- A Site evaluation, which will address the following:
  - The compliance of the remedy with the requirements of the Site-specific RAWP and FER;
  - The performance and effectiveness of the remedy;
  - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored; and
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan.
- A figure showing sampling and well locations, and significant analytical values at sampling locations; and
- Comments, conclusions, and recommendations, based on an evaluation of the information included in the report, regarding EC/ICs at the Site.

The Site Management Report will be submitted, in hard-copy format, to the Region 2 NYSDEC offices, located at 41-40 21st Street, Long Island City, New York, and in electronic format to NYSDEC and NYSDOH.

DEXTER CHEMICAL - SUMMARY OF TAGM 4046 EXCEEDENCES

SUMMARY OF VOLATILE ORGANIC RESULTS ABOVE TAGM RSCO's FOR SOIL

Sample ID	NYDEC TAGM	ISB-1	ISB-3	ISB-3	A-1	A-101	A-102A	A-102B	A-103A	A-104A	A-105A	A-105B	AISB-1B	AISB-3B	AISB-3C	AISB-4C	AISB-9A	AISB-10A	AISB-10B	AISB-14A	AISB-17A	AISB-20A	I-1	I-100	I-104	B-100
Lab Sample Number		32211	32219	33214	48923	218847	218856	218857	218860	218848	218851	218852	07190-002	07190-007	07190-008	07190-011	09114-001	09114-004	09114-005	06044-001	06044-006	10223-001	48947	218839	218863	218842
Sample Date	Soil Cleanup Objective	11/18/97	11/18/97	11/18/97	3/10/96	7/21/07	7/21/00	7/21/00	7/21/00	7/21/00	7/21/00	7/21/00	8/14/03	8/14/03	8/14/03	8/14/03	10/9/03	10/9/03	10/9/03	6/28/04	6/28/04	10/21/04	3/11/98	7/20/00	7/21/00	7/20/00
Sampling Depth (feet)		7-9'	7-8'	3-4'	4-6'	7-8'	7-8'	14-15'	6-7'	7-8'	7-8'	14-15'	10.5-11	9-9.5'	13-13.5'	13.5-14'	7-7.5'	7-7.5'	10.5-11'	7.5-8'	5.5-6'	5.5-6'	7.5-8'	7-8'	7-8'	4-5'
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOLATILE COMPOUNDS																										
Chloromethane	1.9	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.2	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.096 J	ND	0.16 J
Bromomethane	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.9	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.4	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.1	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.3	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.076 J	ND	ND
1,1-Dichloroethane	0.2	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	0.89
Chloroform	0.3	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	0.070 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.8	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.6	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane(EDC)	0.1	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	ND	ND	N/A	**0.43**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.054 J	ND	ND
Trichloroethene	0.7	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	ND	**0.77**
1,2-Dichloropropane	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.5	ND	ND	N/A	0.36	**28**	ND	ND	0.230 J	ND	**15 J**	0.260 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	ND	ND
trans-1,3-Dichloropropene	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.4	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2
Dibromochloromethane	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.7	ND	**260**	N/A	**7.2**	ND	ND	0.390 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48 J	ND	ND
Ethylbenzene	5.5	3.1	**19**	N/A	3.2	**49**	**5.9 J**	0.1 J	2.6	5 J	**58**	0.4 J	1.39	0.559 J	0.514 J	0.231 J	0.173	0.588 J	ND	1.3	4.59	0.944	**8.4**	0.8	1.1	0.49
Total Xylenes	1.2	**26**	**79**	N/A	**25**	**450**	**29**	**2.7**	**12**	**17**	**410**	**3**	**10.5**	**3.57**	**3.14**	**1.39**	**1.37**	**5.17**	**2.93**	**12.2**	**22.6**	**9.79**	**45**	**5.1**	**6.8**	1
Bromoform	NS	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2 - Dichlorobenzene	7.9	4.6	N/A	4.5	N/A	3.5	5.7	2.1	0.65	**14**	ND	ND	2.11	0.329	0.269	ND	0.363	2.61	2.31	0.927	5.31	N/A	N/A	N/A	N/A	N/A
1,3 - Dichlorobenzene	1.6	ND	N/A	1.3	N/A	ND	ND	**2.3**	ND	**2.2**	ND	ND	0.323	0.215	0.234	0.329	0.075	0.454	ND	0.391	**2.02**	N/A	**1.9**	N/A	N/A	N/A
1,4 - Dichlorobenzene	8.5	1.2	N/A	2.8	N/A	ND	3	**11**	0.18	7.5	ND	ND	1.77	1.56	1.33	1	0.287	1.3	1.22	1.67	5.81	N/A	**14**	N/A	N/A	N/A
1,2,4 - Trichlorobenzene	3.4	**13**	N/A	**6.1**	N/A	ND	**43**	0.96	1.1	**110**	ND	ND	**23.4**	1.72	2.5	3.11	2.08	**21.9**	**32.2**	**11.4**	**43.7**	N/A	**110**	N/A	**18**	N/A
1,1,2,2-Tetrachloroethane	0.6	ND	ND	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

12.2 - BOLDED and SHADED ---Detected above NYSDEC TAGM Soil Cleanup Objective
NS - No Standard for Individual Contaminant
ND - None Detected
N/A - Not Analyzed

DEXTER CHEMICAL - SUMMARY OF TAGM 4046 EXCEEDENCES

SUMMARY OF SEMIVOLATILE ORGANIC RESULTS ABOVE TAGM RSCO's FOR SOIL

Sample ID	NYDEC TAGM	ISB-1	HO-2	HO-3	A-101	A-102A	A-104A	A-104B	A-105A	AISB-10A	E-1	E-2	E-4	E-6	I-1	I-1	I-2	I-100	I-101	B-2	B-2	B-3	B-3	B-100	SB-200	MW-1	MW-2	MW-3	MW-3	MW-4	M-1	M-2	M-3	M-4
Lab Sample Number	Program Soil	32211	32217	32218	218847	218856	218848	218849	218851	09114-004	48938	48939	48941	48945	48946	48947	48950	218839	218840	48928	48929	48931	48932	218842	227193	48948	48942	49337	49338	48933	48948	49332	49333	49335
Sampling Date	Cleanup	11/18/97	11/18/97	11/18/97	7/21/07	7/21/00	7/21/00	7/21/00	7/21/00	10/9/03	3/11/98	3/11/98	3/11/98	3/11/98	3/11/98	3/11/98	3/11/98	7/20/00	7/20/00	3/10/98	3/10/98	3/10/98	3/10/98	7/20/00	9/6/00	3/11/98	3/11/98	3/12/98	3/12/98	3/10/98	3/11/98	3/12/98	3/12/98	3/12/98
Sampling Depth (feet)	Objectives	7-9'	4-6'	4-6'	7-8'	7-8'	7-8'	14-15'	7-8'	7-7.5'	2.5-3'	1.5-2'	3-3.5'	3.5-4'	3.5-4'	7.5-8'	9.5-10'	7-8'	5-6'	1-2'	3-4'	1-2'	15-16'	4-5'	4-5'	8-10'	7-7.5'	8-9'	13.5-14'	4.5-5'	8.5-9'	4.5-5'	4.4-5'	4.4-5'
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BASE NEUTRALS																																		
N-Nitrosodimethylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl) ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl) ether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.57	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	4.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13	**28**	0.51	0.62	**160**	**43** J	**32** J	0.29 J	**37**	**14.2**	1.1	1.2	0.16	0.066	0.037	**18**	0.52	ND	0.67 J	0.026	0.06	0.11	0.24	0.3 J	0.26 J	0.056	ND	0.29	0.11	0.69	0.98	ND	ND	0.011
Hexachlorobutadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethylphthalate	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	41	ND	ND	ND	ND	ND	ND	0.34 J	ND	ND	2.5	0.32	0.084	0.044	0.032	0.56	0.12	0.15 J	0.15 J	0.074	0.44	0.12	0.054	0.084 J	ND	0.072	0.02	0.24	ND	0.15	1.2	ND	0.042	ND
2,6-Dinitrotoluene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	50	0.4	ND	0.09 J	ND	ND	ND	0.59 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12	ND	ND	0.038	0.026
2,4-Dinitrotoluene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	0.1	0.14	0.53	ND	0.13 J	0.13 J	0.042	ND	0.034	0.28	0.17 J	0.12 J	0.082	0.011	ND	ND	0.12	ND	ND	ND	ND
Diethylphthalate	7.1	1.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.016
Fluorene	50	0.4	ND	0.19	ND	ND	ND	1.5	ND	ND	2	0.27	0.24	0.096	0.11	0.75	0.068	0.13 J	0.13 J	0.066	0.23	0.044	ND	0.12 J	0.15 J	0.1	0.012	0.26	ND	0.11	0.87	ND	0.045	0.019
N-Nitrosodiphenylamine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50	1.5	0.15	1.1	ND	ND	ND	8	ND	ND	13	1	2	1.3	0.87	3.4	0.45	2.4	1.4	0.77	0.64	0.41	0.16	0.36 J	0.47 J	1.2	0.15	1.2	0.23	0.42	2.1	ND	0.86	0.29
Anthracene	50	.089 J	ND	0.081 J	ND	ND	ND	2.6	ND	ND	3.4	0.063	0.6	0.22	0.18	0.68	0.11	0.62 J	0.31 J	0.23	0.12	0.12	ND	0.08 J	0.13 J	0.4	0.05	0.32	ND	0.13	0.31	ND	0.13	0.046
Di-n-butylphthalate	8.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	0.39	0.19	0.66	ND	ND	ND	10	ND	ND	14	0.47	3.1	1.4	1	1.2	0.56	3.5	2.2	1.5	0.17	0.72	0.2	0.6 J	0.84 J	1.9	0.32	1.4	0.41	0.65	0.37	ND	1.3	0.47
Pyrene	50	0.36	0.22	0.52	ND	ND	ND	10	ND	ND	12	0.43	2.5	1.6	0.96	1.2	0.51	3	2.3	1.2	0.31	0.8	0.23	0.73 J	0.85 J	2.2	0.29	1.2	0.36	0.7	0.32	ND	1.1	0.39
Benzidine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.224	0.21	0.16	**0.38**	ND	ND	ND	**5**	ND	ND	**6.8**	**0.23**	**1.8**	**0.81**	**0.42**	**0.56**	**0.28**	**1.5**	**0.91**	**0.7**	0.089	**0.45**	0.13	**0.29**	ND	**1.2**	0.17	**0.52**	**0.24**	**0.29**	0.16	0.11	**0.55**	0.18
Chrysene	0.4	.11 J	0.12	**0.87**	ND	ND	ND	**5.8**	ND	ND	**7.7**	0.25	**1.9**	**1**	**0.47**	0.22	0.29	**1.7**	**1.2**	**0.79**	0.12	**0.52**	0.13	0.34	ND	**1.5**	0.23	**0.6**	0.21	**0.44**	0.16	0.091	**0.6**	0.24
bis(2-Ethylhexyl)phthalate	50	1.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	0.08	ND	ND	ND	ND	ND	0.14	0.89	ND	ND	ND	ND	ND	ND	0.3
Di-n-octylphthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1.1	ND	0.14	ND	ND	ND	ND	**6.1**	ND	ND	**7.6**	0.22	**1.9**	0.79	0.42	0.24	0.31	**2.1**	**1.3**	0.78	0.075	0.64	0.1	0.48	ND	**1.4**	0.3	0.54	0.26	0.52	0.16	0.1	0.54	0.25
Benzo(k)fluoranthene	1.1	ND	0.066	ND	ND	ND	ND	**2.5**	ND	ND	**3**	0.098	0.88	0.35	0.18	ND	0.16	0.87	0.55	0.35	ND	0.3	ND	0.17	ND	0.53	0.098	0.19	0.13	ND	0.062	0.045	0.21	0.096
Benzo(a)pyrene	0.061	ND	**0.1**	**0.18**	ND	ND	ND	**5**	ND	ND	**5.7**	**0.15**	**1.6**	**0.64**	**0.35**	**0.21**	**0.27**	**1.5**	**1.1**	**0.64**	**0.071**	**0.45**	**0.12**	**0.32**	**0.31** J	**1**	**0.15**	**0.43**	**0.18**	**0.35**	**0.11**	**0.087**	**0.42**	**0.17**
Indeno(1,2,3-cd)pyrene	3.2	ND	0.057	0.15 J	ND	ND	ND	2.1	ND	ND	3	0.086	0.77	0.29	0.15	ND	0.13	0.83	0.65	0.26	0.03	0.17	ND	0.15	ND	0.51	0.12	0.2	ND	0.15	0.068	0.054	0.26	0.13
Dibenz(a,h)anthracene	0.014	ND	ND	ND	ND	ND	ND	**0.71**	ND	ND	**0.83**	ND	**0.21**	**0.093**	**0.048**	ND	**0.036**	**0.24**	**0.16**	**0.083**	ND	ND	ND	ND	ND	**0.13**	**0.033**	**0.051**	ND	ND	ND	ND	ND	**0.026**
Benzo(g,h,i)perylene	50	ND	0.051	0.15 J	ND	ND	ND	1.8	ND	ND	3.1	0.088	0.75	0.32	0.15	ND	0.14	0.69 J	0.64 J	0.21	0.038	0.17	ND	0.12 J	ND	0.52	0.16	0.19	ND	0.14	0.069	0.056	0.26	0.14

0.4 - BOLDED and SHADED --- Detected above NYSDEC TAGM Soil Cleanup Objective
ND - None Detected
NS - No Standard for Individual Contaminant
J - The result is less than detection limit, but greater than zero
N/A - Not Analyzed

Dexter Chemical - Bronx, NY
Summary of Historic Volatile Organic Results for Ground Water

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water (TOGs) Standards/Criteria ug/l	MW-1 51700 3/26/1998 ug/l	MW-1 231797 09/27/00 ug/L	MW-2 51701 3/26/1998 ug/l	MW-2 281798 09/27/00 ug/L	MW-3 51703 3/26/1998 ug/l	MW-3 231799 09/27/00 ug/L	MW-4 51702 3/26/1998 ug/l	MW-4 231800 09/27/00 ug/L	MW-5 51704 3/26/1998 ug/l	MW-5 231801 09/27/00 ug/L	MW-6 51705 3/26/1998 ug/l	MW-6 231802 09/27/00 ug/L	MW-6 328632 1/22/02 ug/l	MW-6 9551-003 12/3/02 ug/l	MW-7 231803 09/27/00 ug/L	MW-8 231804 09/27/00 ug/L	MW-9 9551-001 12/3/02 ug/l	MW-10 9551-002 12/3/02 ug/l	PZ-1 328628 1/22/02 ug/l	PZ-2 328629 1/22/02 ug/l	PZ-3 328630 1/22/02 ug/l	PZ-4 328631 1/22/02 ug/l	PZ-4 9551-004 12/3/02 ug/l
VOLATILE COMPOUNDS																								
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.05
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	ND	ND	1.7	2.1	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**26**	**18**	**26**	3.19	3.5	ND	ND	0.252	ND	ND	ND	**22**	**38.9**
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**38**	**65**	**95**	**7.17**	ND	ND	ND	ND	ND	ND	ND	**280**	**290**
Trichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	2.5	0.488	ND	ND	ND	ND	ND	ND	ND	4	3.8
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	0.5	0.4	0.9	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**35**	**31**	**27**	**7.34**	**1.7**	0.6	ND	ND	ND	ND	ND	**6.6**	**9.75**
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.98
Toluene	5*	ND	ND	ND	ND	**6.3**	0.4	ND	ND	ND	ND	**51**	**34**	**73**	**6.05**	0.5	ND	ND	0.313	ND	ND	ND	**55**	**58.6**
Chlorobenzene	5*	ND	ND	3.6	3.3	ND	0.4	ND	ND	ND	ND	**110**	**39**	**88**	**9.58**	0.8	ND	ND	0.329	ND	ND	ND	**230**	**195**
Ethylbenzene	5*	ND	ND	ND	ND	**12**	1.6	ND	ND	ND	ND	**630**	**180**	**470**	**37**	**15**	1.4	ND	3.17	ND	ND	1.3	**1500**	**1280**
Xylene (Total)	5*	ND	ND	ND	0.8	**110**	**16**	ND	ND	ND	ND	ND	1.6	ND	0.937	1.4	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.4**	**4.6**	**5.79**	2.9	ND	ND	0.34	0.608	ND	ND	ND	**5.1**	**4.13**
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	**7.6**	**9.1**	**2.54**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24**	**14**	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	4.8	3.0	ND	ND	ND	ND	914	396.8	808.4	80.663	60.8	2	0.34	6.442	0	0	1.3	2102.7	1883.903
Total Confident Conc. VOAs (s)		0	0	6.5	6.6	134	23.7	0	0	0	0	3430	1047	1013	209.5	128	36	5	506.6	12	16	526	3180	2764
Total Estimated Conc. VOA TICs (s)		0	0	54	26	620	90	17	12	18	21													

Results above 1998 NYSDEC (TOGs) Ground Water Standards/Criteria

ND None Detected
NS Not Sampled
* The principal organic contaminant standard for ground water applies to this substance.
** Guidance Value only.
\- No Standard
(a) Applies to the sum of cis- and trans- 1,3-dichloropropene

Dexter Chemical - Bronx, NY
Historic Summary of Semi-Volatile Organic Compound Results for Ground Water

Sample ID Lab Sample Number Sampling Date Units	1998 NYS DEC Ground Water Standards/Criteria ug/l	MW-1 51700 3/26/1998 ug/l	MW-1 231797 9/27/2000 ug/L	MW-2 51701 3/26/1998 ug/l	MW-2 231978 9/27/2000 ug/L	MW-3 51703 3/26/1998 ug/l	MW-3 231799 9/27/2000 ug/L	MW-4 51702 3/26/1998 ug/l	MW-4 231800 9/27/2000 ug/L	MW-5 51704 3/26/1998 ug/l	MW-5 231801 9/27/2000 ug/L	MW-6 51705 3/26/1998 ug/l	MW-6 231802 9/27/2000 ug/L	MW-6 328632 1/22/2002 ug/l	MW-6 9551-003 12/3/2002 ug/l	MW-7 231803 9/27/2000 ug/L	MW-8 231804 9/27/2000 ug/L	MW-9 9551-001 12/3/2002 ug/l	MW-10 9551-002 12/3/2002 ug/l	PZ-1 328628 1/22/2002 ug/l	PZ-2 328629 1/22/2002 ug/l	PZ-3 328630 1/22/2002 ug/l	PZ-4 328631 1/22/2002 ug/l	PZ-4 9551-004 12/3/2002 ug/l
BASE NEUTRALS																								
N-Nitrosodimethylamine	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl) ether	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-chloroisopropyl) ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	**20**	ND	ND	ND	ND	ND	**68**	**30**	**41**	3.68	1.1	ND	ND	ND	0.3	ND	0.3	**88**	**44.6**
Hexachlorocyclopentadiene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	10**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethylphthalate	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.497	ND	ND	ND	ND	ND
Acenaphthene	20**	ND	ND	ND	ND	ND	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.41	ND	ND	0.7	ND	0.734
Diethylphthalate	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**68**	39	43	2.23	ND	0.8	0.505	ND	ND	ND	ND	14	7.79
Fluorene	50**	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.15	ND	ND	0.6	ND	ND
N-Nitrosodiphenylamine	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	50**	ND	ND	ND	ND	2	ND	ND	ND	2.9	ND	ND	ND	ND	ND	ND	ND	ND	1.56	0.3	ND	0.7	1	0.489
Anthracene	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	50	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50**	ND	ND	ND	ND	ND	0.9	ND	ND	0.9	ND	ND	ND	ND	ND	ND	ND	ND	0.497	0.6	ND	ND	ND	ND
Pyrene	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.382	0.8	ND	ND	ND	ND
Benzidine	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.5**	ND	ND	ND	ND
Di-n-octylphthalate	50**	ND	ND	ND	ND	ND	**7.7**	ND	ND	ND	ND	ND	**9.7**	ND	ND	ND	ND	ND	ND	**0.5**	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.21	ND	ND	ND	ND	1.41
Benzo(k)fluoranthene	0.002**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.3**	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.3**	ND	ND	ND	ND
Benzo(g,h,i)perylene	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	ND	ND	NS	NS	NS	NS	13.6
Total Confident Conc. BN (s)		0	0	0	0	24.3	10	0	0	3.8	0	136	78.7	84	6.451	1.1	0.8	0.505	8.706	3.6	0	2.3	103	69.612
Total Estimated Conc. BN TICs (s)		86	0	567	306	615	690	0	0	13	0	3068	2331	6110	239.8	597	0	0	347	0	0	33.2	6770	1296

	Results above 1998 NYSDEC Ground Water Standards/Criteria - GA Water Class
ND	None Detected
NS	Not Sampled
*	The principal organic contaminant standard for ground water applies to this substance.
**	Guidance Value only.
-	No Standard

Dexter Chemical - Bronx, NY
Historic Summary of Priority Pollutant Metals Results for Ground Water

Sample ID Lab Sample Number Sampling Date Units		1998 NYSDEC Cleanup Criteria For Ground Water ug/l	MW-1 51700 3/26/1998 ug/l	MW-1 231797 09/27/00 ug/l	MW-2 51701 3/26/1998 ug/l	MW-2 231798 09/27/00 ug/l	MW-3 51703 3/26/1998 ug/l	MW-3 231799 09/27/00 ug/l	MW-4 51702 3/26/1998 ug/l	MW-4 231800 09/27/00 ug/l	MW-5 51704 3/26/1998 ug/l	MW-5 231801 09/27/00 ug/l	MW-6 51705 3/26/1998 ug/l	MW-6 231802 09/27/00 ug/l	MW-7 231803 09/27/00 ug/l	MW-8 231804 09/27/00 ug/l
PRIORITY POLLUTANT METALS																
	Antimony	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	25	ND	ND	3.2	5.4	4.2	ND	ND	ND	ND	ND	5.1	9.1	ND	ND
	Beryllium	3**	ND	ND	ND	ND	0.28	ND	ND	ND	ND	ND	ND	ND	ND	0.3
	Cadmium	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	50	2.1	ND	6.6	ND	**51.9**	ND	1.1	ND	15.4	3.9	26	6.8	8.1	9.2
	Copper	200	ND	10.5	3.9	3.7	17.5	3.7	ND	ND	7.2	5.1	8.8	3.2	30.5	14.6
	Lead	25	ND	ND	4.9	ND	24.6	ND	ND	3.1	10.8	15.9	15	3.1	**78.1**	**69.2**
	Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.63	0.16
	Nickel	100	4.2	7.5	11.7	5.6	40.5	4.4	18.2	20.5	12.5	3.7	43.1	23.4	13.8	9.3
	Selenium	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Silver	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Zinc	2,000**	17.4	69.7	20.2	40.4	52.3	13.1	24.5	42	26.9	30.2	23.5	13.7	112	186

	Results above 1998 NYSDEC Ground Water Standards/Criteria - GA Water Class
ND	None Detected
NS	Not Sampled
*	The principal organic contaminant standard for ground water applies to this substance.
**	Guidance Value only.
-	No Standard

TABLE 3

Dexter Chemical, L.L.C.
Summary of Volatile Organic Results for Soil Gas
January 18, 2005

Sample ID Lab Sample Number Sampling Date Units	Reporting Limit (PQL (ppbv)	SG-1 605874 1/18/2005 (ppbv)	SG-2 605875 1/18/2005 (ppbv)	SG-3 605876 1/18/2005 (ppbv)	SG-4 605877 1/18/2005 (ppbv)	SG-5 605878 1/18/2005 (ppbv)	SG-6 605879 1/18/2005 (ppbv)	SG-7 605880 1/18/2005 (ppbv)
Total Volatile Organics								
Acetone (2-propanone)	3.0	ND	13	6.4	42	26	ND	5.1
Benzene	0.5	0.34	0.97	0.57	49	2.1	0.49	0.46
Bromodichloromethane	0.5	ND	1.7	0.51	ND	ND	ND	ND
Bromoethene	0.5	ND	ND	ND	ND	ND	ND	ND
Bromoform	0.5	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	0.5	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	0.5	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	0.5	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	0.5	ND	2	0.93	ND	3.2	0.55	ND
Carbon tetrachloride	0.5	ND	8.3	0.84	2.2	1.5	ND	ND
Chlorobenzene	0.5	ND	ND	ND	ND	ND	ND	ND
Chloroethane	0.5	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.5	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	0.5	ND	26	8.1	ND	ND	ND	ND
3-Chloropropene (allyl chloride)	0.5	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	0.5	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	0.5	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.5	ND	9.4	2.5	54	7.2	0.82	0.32
1,2-Dibromoethane	0.5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.5	0.92	0.91	0.9	ND	0.8	0.85	0.87
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (cis)	0.5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (trans)	0.5	ND	ND	ND	1.2	ND	ND	ND
1,2-Dichloropropane	0.5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene (cis)	0.5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene (trans)	0.5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorotetrafluoroethane (Freon 114)	0.5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene (p-Ethyltoluene)	0.5	ND	4.2	0.43	4.6	0.69	0.27	0.26
n-Heptane	0.5	ND	0.72	0.22	0.83	0.57	0.22	ND
Hexachlorobutadiene	0.5	ND	15	5.9	24	7.4	1.1	0.44
n-Hexane	0.5	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.5	3.8	9.5	1.6	45	6.3	0.6	0.35
4-Methyl-2-pentanone (MIBK)	0.5	ND	ND	ND	ND	ND	ND	ND
MTBE (Methyl tert-butyl ether)	0.5	ND	1.4	ND	ND	0.76	ND	ND
Styrene	0.5	ND	14	4.4	6.1	16	0.94	2
Tertiary butyl alcohol (TBA)	0.5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.5	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.5	ND	ND	ND	ND	ND	ND	ND
Toluene	0.5	ND	9.9	5.1	9.8	4.9	1.2	ND
1,2,4-Trichlorobenzene	0.5	0.49	38	5.8	7.4	18	2.3	1.2
1,1,1-Trichloroethane	0.5	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	0.64	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	0.5	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.5	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane (Freon 11)	0.5	ND	0.23	0.58	9.8	0.31	ND	ND
1,2,4-Trimethylbenzene	0.5	0.32	0.36	0.36	1.1	0.6	0.32	0.29
1,3,5-Trimethylbenzene	0.5	ND	0.77	0.3	0.89	0.7	0.42	ND
2,2,4-Trimethylpentane	0.5	ND	0.31	ND	ND	0.4	ND	ND
Vinyl Chloride	0.5	ND	ND	ND	ND	ND	ND	ND
Xylene (m&p)	0.5	ND	ND	ND	5.2	ND	ND	ND
Xylene (total)	0.5	ND	13	1.2	2.9	2.4	0.94	0.97
Xylene (o)	0.5	ND	17	1.7	4.2	3.3	1.3	1.3
1,2-Dichloroethene (total)	0.5	ND	3.1	0.42	1.2	0.79	0.33	0.3
Tetrahydrofuran	0.5	ND	ND	ND	1.2	ND	ND	ND
1,4 Dioxane	0.5	ND	ND	ND	ND	ND	ND	ND
2-Hexanone(MBK)	0.5	ND	ND	ND	ND	ND	ND	ND
Isopropyl alcohol	0.5	ND	ND	ND	ND	3.2	ND	ND
Naphthalene	0.5	ND	ND	ND	ND	ND	14	ND

Notes:
3.1 - BOLDED and SHADED - constituent detected at concentration shown
ND - Analyte is not detected at the PQL

TABLE 8

Dexter Chemical - Bronx, NY
System Performance Monitoring Well Network Data -
Comparison Summary (Pre- and Post System Startup) of Historically Detected Volatile Organic Compounds in Ground Water

Sample ID Lab Sample Number Sampling Date Units	1998 NYSDEC Ground Water Standards/Criteria ug/l	MW-6 51705 3/26/1998 ug/l	MW-6 231802 09/27/00 ug/L	MW-6 328632 1/22/02 ug/l	MW-6 9551-003 12/3/02 ug/l	MW-6 460-7298-1 10/28/09 ug/L	MW-6 AC51372-004 04/30/10 ug/L	MW-7 231803 09/27/00 ug/L	MW-7 460-7298-2 10/28/09 ug/L	MW-7 AC51372-003 04/30/10 ug/L	PZ-3 328630 1/22/02 ug/l	PZ-3 460-7298-3 10/28/09 ug/L	PZ-3 AC51372-002 04/30/10 ug/L	PZ-4 328631 1/22/02 ug/l	PZ-4 9551-004 12/3/02 ug/l	PZ-4 460-7298-4 10/28/09 ug/L	PZ-4 AC51372-005 04/30/10 ug/L	SVE-RW-5A AC53199-002 07/26/10 ug/L	SVE-RW-13I AC53199-001 07/26/10 ug/L
TARGETED VOLATILE COMPOUNDS																			
Chloromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.05	ND	ND	ND	ND
Chloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5*	ND	ND	ND	ND	ND	ND	ND	0.24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5*	**26**	**18**	**26**	3.19	**5.7**	3.5	3.5	1	ND	ND	ND	ND	**22**	**38.9**	**15**	**28**	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	**38**	**65**	**95**	**7.17**	**9.7**	**9.7**	ND	ND	ND	ND	ND	ND	**280**	**290**	**91**	**160**	**23**	ND
cis-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5*	ND	1.8	2.5	0.488	0.54	ND	ND	ND	ND	ND	ND	ND	4	3.8	2.3	ND	ND	ND
Dibromochloromethane	50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	**35**	**31**	**27**	**7.34**	**13**	**13**	**1.7**	**3.4**	ND	ND	0.28	ND	**6.6**	**9.75**	**6.2**	**9.6**	**3.8**	ND
trans-1,3-Dichloropropene	0.4 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5*	ND	0.4	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.98	1.4	ND	ND	ND
1,1,2,2-Tetrachloroethane	5*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5*	**51**	**34**	**73**	**6.05**	**14**	**16**	0.5	0.35	ND	ND	0.5	ND	**55**	**58.6**	**22**	**34**	**13**	ND
Chlorobenzene	5*	ND	ND	ND	0.578	1.6	1.2	**35**	**27**	**24**	ND	0.43	ND	ND	ND	0.41	ND	**72**	ND
Ethylbenzene	5*	**110**	**39**	**88**	**9.58**	**20**	**28**	0.8	ND	ND	ND	ND	ND	**230**	**195**	**120**	**210**	**36**	ND
Xylene (Total)	5*	**630**	**180**	**470**	**37**	**150**	**157**	**15**	2.6	ND	1.3	1.3	3.7	**1500**	**1280**	**510**	**760**	**290**	**3700**
1,3-Dichlorobenzene	3	ND	1.6	ND	0.937	NA	ND	1.4	NA	ND	ND	NA	ND	ND	ND	NA	ND	**14**	ND
1,4-Dichlorobenzene	3	ND	**4.4**	**4.6**	**5.79**	NA	**6.6**	2.9	NA	ND	ND	NA	ND	ND	0.693	NA	ND	**42**	ND
1,2-Dichlorobenzene	3	ND	**7.6**	**9.1**	**2.54**	NA	**5.4**	ND	NA	ND	ND	NA	ND	**5.1**	**4.13**	NA	**6.6**	**23**	ND
1,2,4-Trichlorobenzene	5	**24**	**14**	**11**	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	**1200**
Total Confident Conc. Above Targeted VOAs (s)		914	396.8	808.4	80.66	214.54	240.4	60.8	34.59	24	1.3	2.51	3.7	2102.7	1883.903	768.31	1208.2	516.8	4900

MW-6 460-7298-1 10/28/09 Samples Collected Following (After May 2009) SVE/AS System Start-Up (Yellow Highlight)

BOLDED Results above 1998 NYSDEC Ground Water Standards/Criteria (TOGS)

ND None Detected

NS Not Sampled

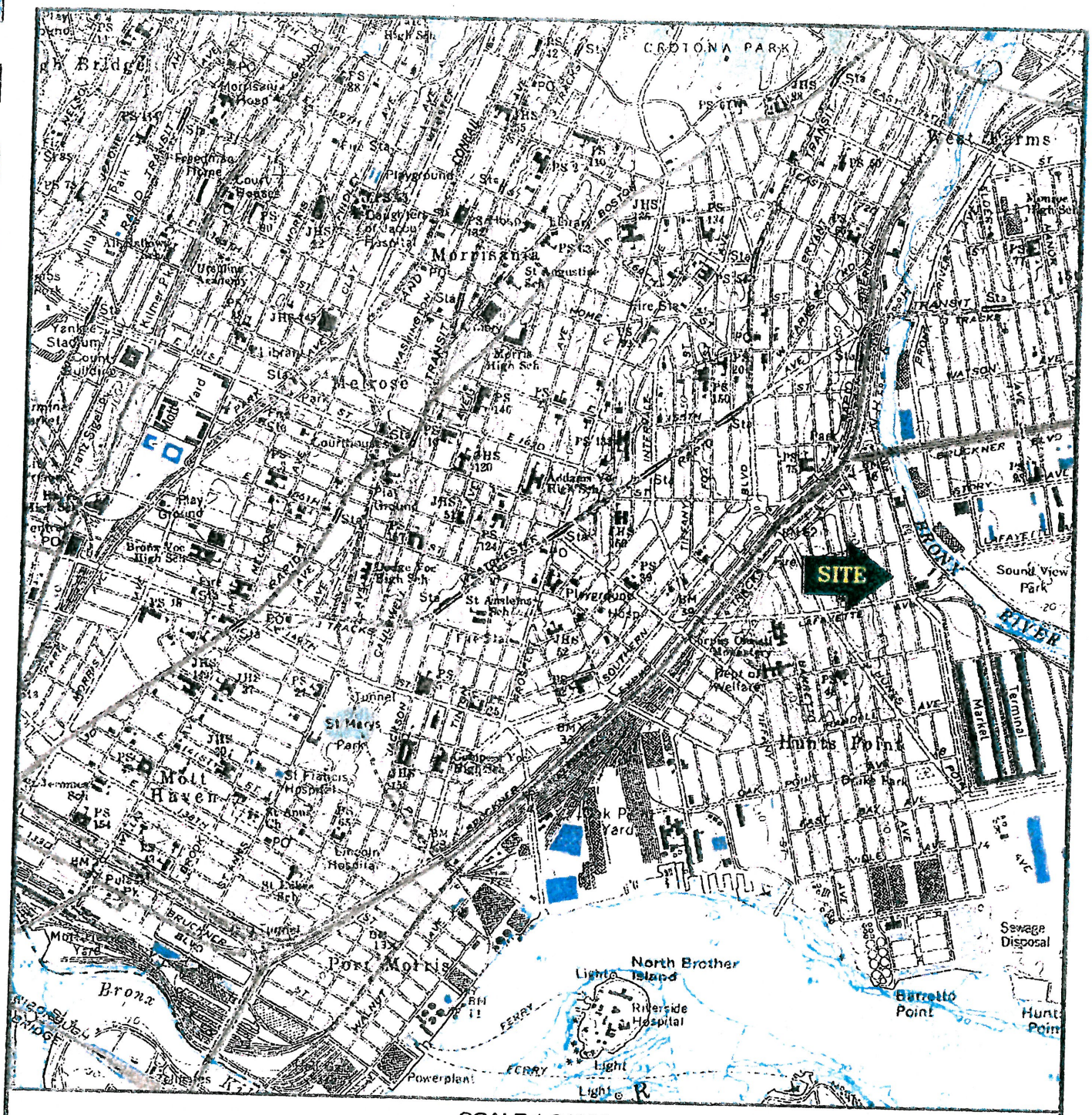
NA Not Analyzed

* The principal organic contaminant standard for ground water applies to this substance.

** Guidance Value only.

\- No Standard

(a) Applies to the sum of cis- and trans- 1,3-dichloropropene



SCALE 1:24000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

.5 .25 0 .5 KILOMETER

MN GN

12° 213 MILS 0°42' 12 MILS

UTM GRID AND 1991 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

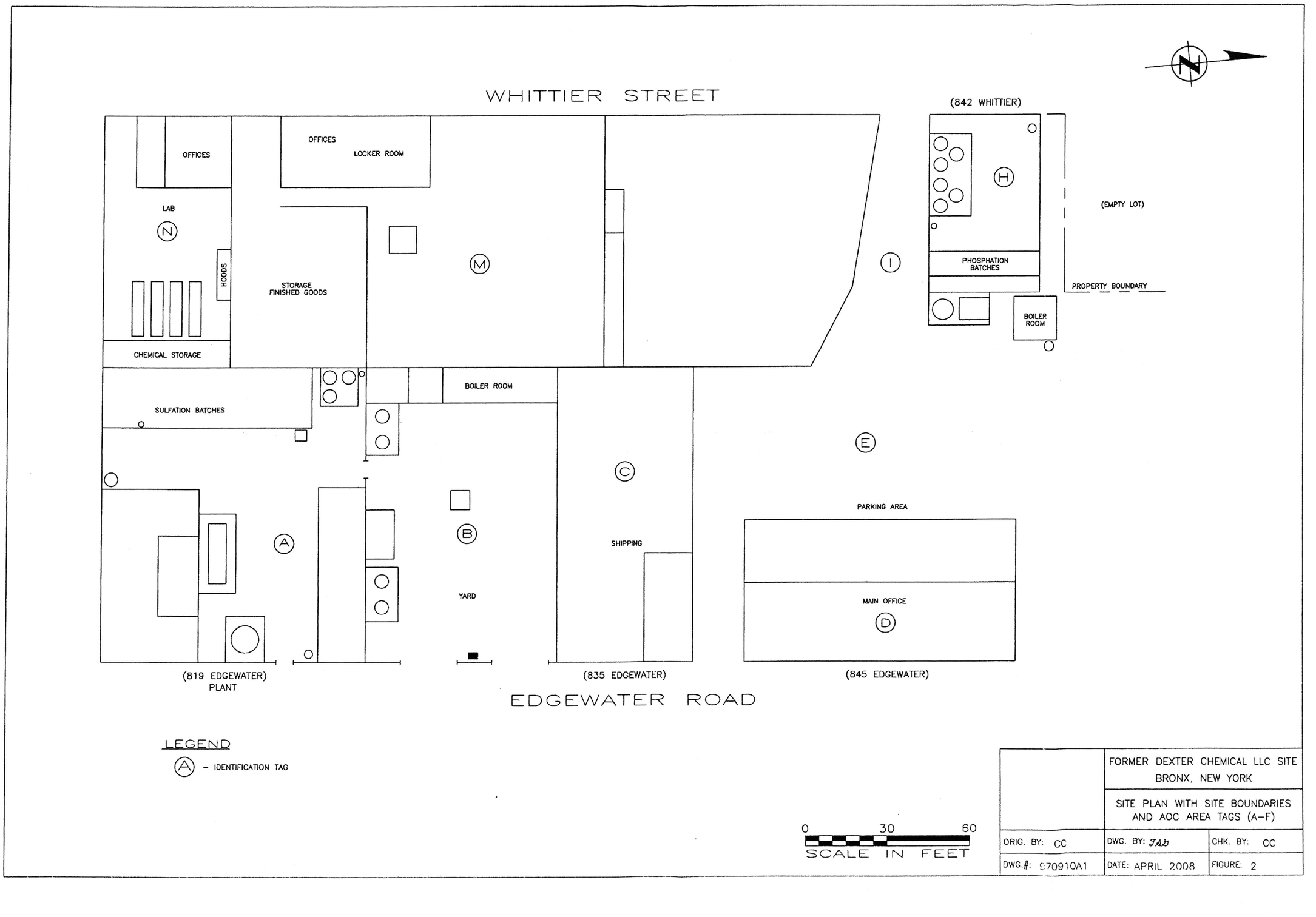
NEW YORK

QUADRANGLE LOCATION

DEXTER CHEMICAL CORPORATION
845 EDGEWATER ROAD
BRONX, NEW YORK

SITE LOCATION ON USGS
CENTRAL PARK, N.Y. QUADRANGLE

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
M.H.	R.R.	970910MAP
CHECKED BY:	DATE:	FIGURE NO:
M.H.	DECEMBER 2005	1



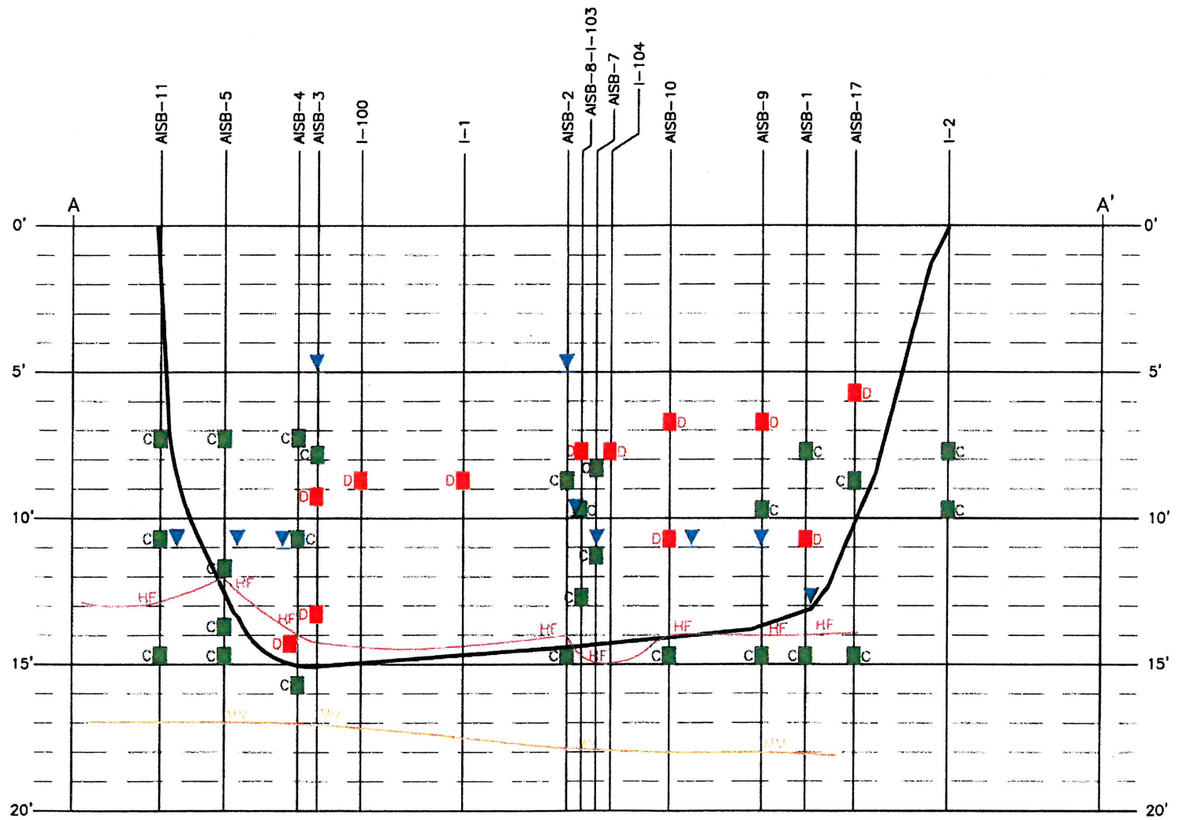
LEGEND

(A) – IDENTIFICATION TAG

0 30 60

SCALE IN FEET

	FORMER DEXTER CHEMICAL LLC SITE BRONX, NEW YORK	
	SITE PLAN WITH SITE BOUNDARIES AND AOC AREA TAGS (A–F)	
ORIG. BY: CC	DWG. BY: TAB	CHK. BY: CC
DWG.#: 070910A1	DATE: APRIL 2008	FIGURE: 2



C - CLEAN SAMPLE

D - DIRTY SAMPLE

NW - NAPL WELL

HF - HISTORIC FILL (HF)

- WATER

- LIMITS OF SOIL EXCEEDING NYSDEC SOIL CLEANUP OBJECTIVE

HORZ. SCALE

0 30'

VERTICAL SCALE

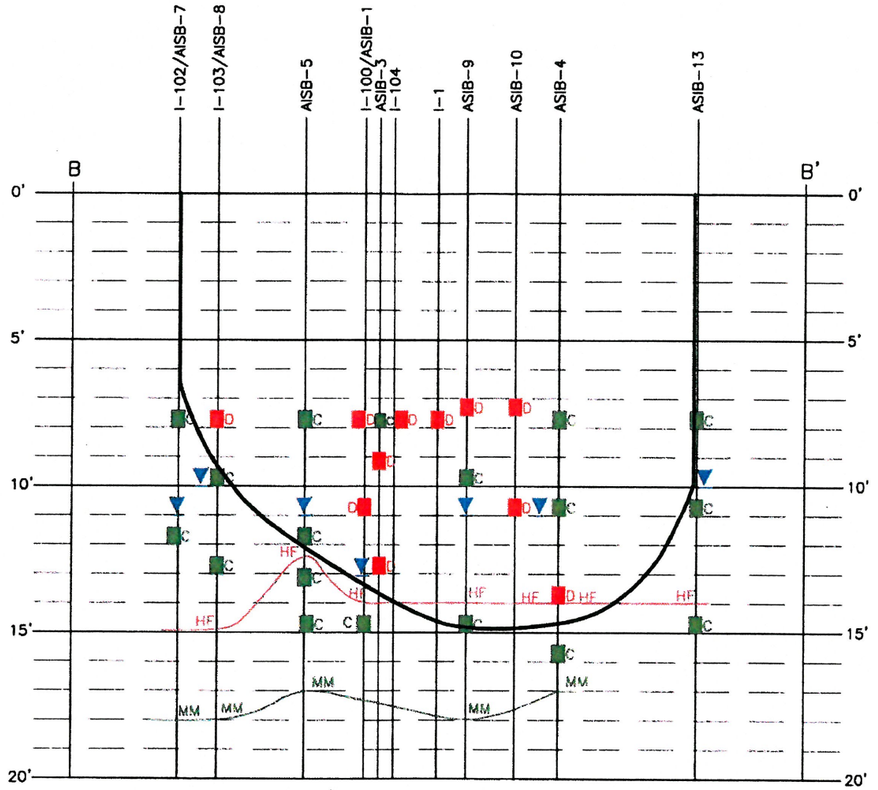
0 5'

DEXTER CHEMICAL LLC

BRONX, NEW YORK

GEOLOGICAL
CROSS SECTION A – A'
AREA I

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
S.B.	B.A.	970910AA-1
CHECKED BY: S.B.	DATE: APRIL 2008	FIGURE NO: 3



C - CLEAN SAMPLE

D - DIRTY SAMPLE

MM - MEADOW MAT (MM)

HF - HISTORIC FILL (HF)

▼ - WATER

- LIMITS OF SOIL EXCEEDING NYSDEC SOIL CLEANUP OBJECTIVE

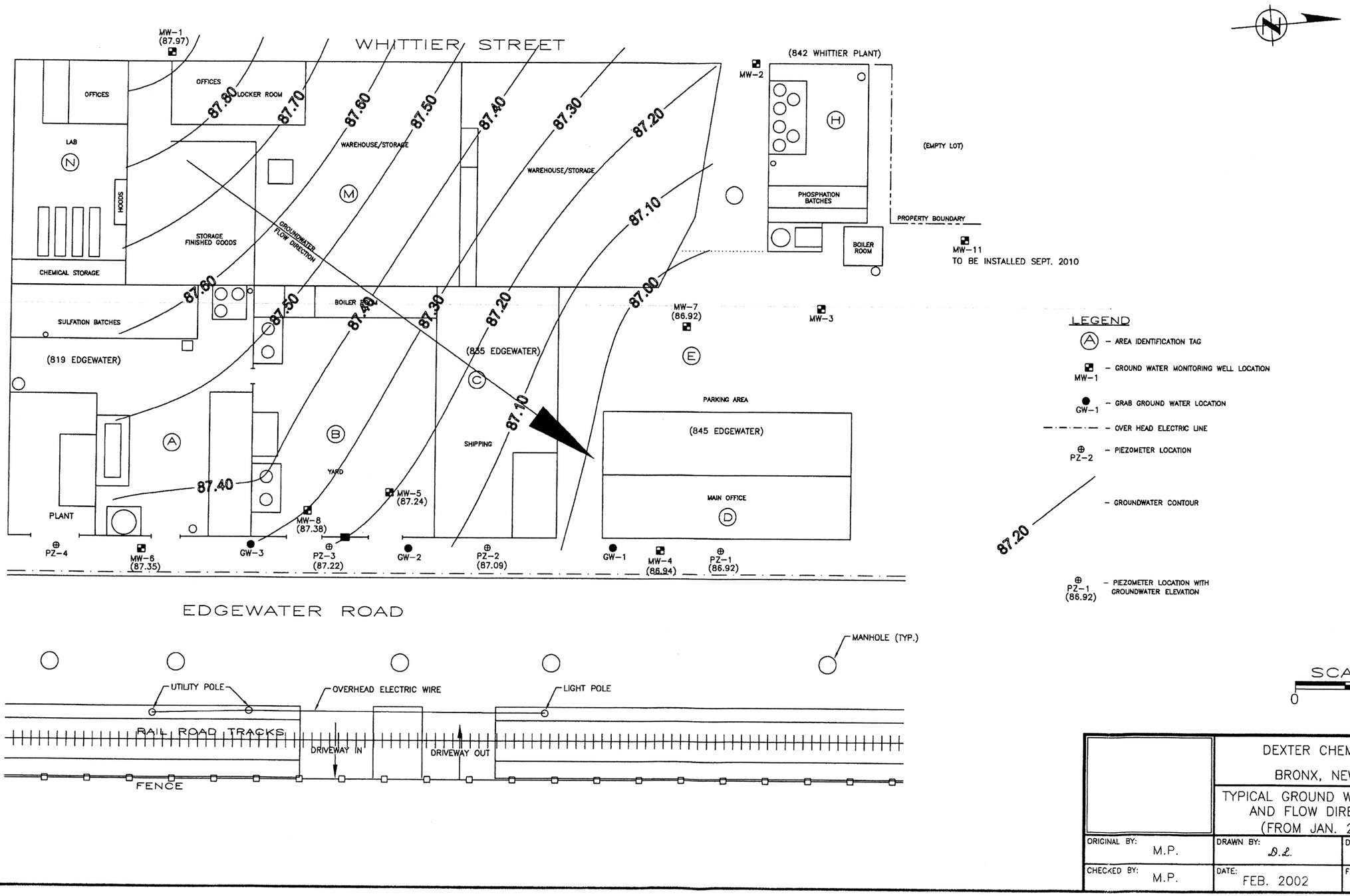
HORZ. SCALE

0 30'

VERTICAL. SCALE

0 5'

	DEXTER CHEMICAL LLC BRONX, NEW YORK	
	AREA I GEOLOGIC CROSS SECTION B-B'	
ORIGINAL BY: M.P.	DRAWN BY: D.L.	DRAWING NO: 970910CROSSBB
CHECKED BY: M.P.	DATE: JAN. 2004	FIGURE NO: 4



LEGEND

- (A) – AREA IDENTIFICATION TAG
- MW-1 – GROUND WATER MONITORING WELL LOCATION
- GW-1 – GRAB GROUND WATER LOCATION
- – OVER HEAD ELECTRIC LINE
- PZ-2 – PIEZOMETER LOCATION
- 87.20 – GROUNDWATER CONTOUR
- PZ-1 (86.92) – PIEZOMETER LOCATION WITH GROUNDWATER ELEVATION

SCALE
0 40'

	DEXTER CHEMICAL LLC BRONX, NEW YORK TYPICAL GROUND WATER CONTOUR AND FLOW DIRECTION MAP (FROM JAN. 22, 2002)	
ORIGINAL BY: M.P.	DRAWN BY: D.L.	DRAWING NO: 970910E4
CHECKED BY: M.P.	DATE: FEB. 2002	FIGURE NO: 5

M-3	(4-4.5')
Benzo(a)anthracene	550
Chrysene	600
Benzo(a)pyrene	420
Beryllium	0.43
Mercury	0.18

M-4	(4.0-4.5')
Benzo(a)pyrene	170
Dibenz(a,h)anthracene	26
Mercury	0.13
M-4	(9.5-10)
Mercury	0.83

MW-1	(8-10')
Benzo(a)anthracene	1,200
Chrysene	1,500
Benzo(b)fluoranthene	1,400
Benzo(a)pyrene	1,000
Dibenz(a,h)anthracene	130
Arsenic	21.0
Copper	2,140
Lead	1,840
Zinc	1,320

AISB-1B	(10.5-11)
Xylene	10,500
1,2,4 Trichlorobenzene	23,400

MW-2	(7-7.5)
Benzo(a)pyrene	150
Dibenz(a,h)Anthracene	33

I-2	(9.5-10)
Benzo(a)anthracene	280
Benzo(a)pyrene	270
Dibenz(a,h)anthracene	36

I-104	(7-8)
Xylene	6,800
1,2,4 Trichlorobenzene	18,000

AISB-20A	(5.5-6')
Xylene	9,790

I-1	(3.5-4')
Benzo(a)anthracene	420
Chrysene	470
Benzo(a)pyrene	350
Dibenz(a,h)anthracene	46

I-1	(7.5-8')
Ethylbenzene	8,400
Xylene	45,000
1,3 Dichlorobenzene	1,900
1,4 Dichlorobenzene	14,000
1,2,4 Trichlorobenzene	110,000
Napthalene	18,000
Benzo(a)anthracene	560
Benzo(a)pyrene	210

ISB-3	(3-4)
1,2,4 Trichlorobenzene	6,100
ISB-3	(7-8')
Chlorobenzene	260,000
Ethylbenzene	19,000
Xylene	79,000
Mercury	0.19

AISB-17A	(5.5-6')
Xylene	22,600
1,3 Dichlorobenzene	2,020
1,2,4 Trichlorobenzene	43,700

AISB-10A	(7-7.5')
Xylene	5,170
1,2,4 Trichlorobenzene	21,900
Napthalene	14,200
AISB-10B	(10.5-11')
Xylene	2,930
1,2,4 Trichlorobenzene	32,200

AISB-9A	(7-7.5')
Xylene	1,370

E-4	(3-3.5)
Benzo(a)anthracene	1,800
Chrysene	1,900
Benzo(a)fluoranthene	1,900
Benzo(a)pyrene	1,600
Dibenz(a,h)anthacene	210

M-1	(8.5-9')
Benzo(a)pyrene	87.0

I-103	(7-8)
1,2,4 Trichlorobenzene	4,300

A-102A	(7-8')
Ethybenzene	5,900J
Xylene	29,000J
Napthalene	43,000
A-102B	(14-15)
Xylene	2,700
1,3 Dichlorobenzene	2,300J
1,4 Dichlorobenzene	11,000J
Mercury	0.16

M-2	(4-4.5')
Benzo(a)pyrene	87.0
M-2	(9.5-10')
Mercury	0.18

A-104A	(7-8')
Xylene	17,000
1,3 Dichlorobenzene	2,200J
1,2 Dichlorobenzene	14,000J
1,2,4 Trichlorobenzene	110,000J
Napthalene	32,000J
Mercury	0.29
A-104B	(14-15)
Benzo(a)anthracene	5,000
Chrysene	5,800
Benzo(b)fluoranthene	6,100
Benzo(k)fluoranthene	2,500
Dibenz(a,h)anthacene	710
Benzo(a)Pyrene	5,000
Mercury	0.16

I-100	(7-8')
Xylene	5,100
Benzo(a)anthracene	1,500
Chrysene	1,700
Benzo(b)fluoranthene	2,100
Benzo(a)pyrene	1,500
Dibenz(a,h)anthacene	240

E-2	(1.5-2')
Benzo(a)anthracene	230
Benzo(a)pyrene	150

HO-2	(4-6')
Benzo(a)pyrene	100

HO-3	(4-6')
Benzo(a)anthracene	380
Chrysene	870
Benzo(a)pyrene	180

AISB-3B	(9-9.5')
Xylene	3,570
AISB-3C	(13-13.5)
Xylene	3,140

AISB-14A	(7.5-8')
Xylene	12,200
1,2,4 Trichlorobenzene	11,400

MW-3	(8-9')
Benzo(a)anthracene	520
Chrysene	600
Benzo(a)pyrene	430
Dibenz(a,h)anthracene	51
MW-3	(13.5-14')
Benzo(a)anthracene	240
Benzo(a)pyrene	180
Lead	878
Mercury	1.2

I-101	(5-6')
Benzo(a)anthracene	910
Chrysene	1,200
Benzo(b)fluoranthene	1,300
Benzo(a)pyrene	1,100
Dibenz(a,h)anthacene	160

AISB-4C	(13.5-14')
Xylene	1,390

B-3	(1-2')
Benzo(a)anthracene	450
Chrysene	520
Benzo(a)pyrene	450
B-3	(15-16)
Benzo(a)pyrene	120

A-101	(7-8')
Toluene	28,000
Ethylbenzene	49,000
Xylene	450,000
Napthalene	160,000
Mercury	1.1

SB-200	(4-5')
Benzo(a)Pyrene	310 J

A-105A	(7-8')
Toluene	15,000J
Ethylbenzene	58,000
Xylene	410,000
Napthalene	37,000
Mercury	0.13
A-105B	(14-15)
Xylene	3,000
Mercury	0.2

B-2	(1-2')
Benzo(a)anthracene	700
Chrysene	790
Benzo(a)pyrene	640
Dibenz(a,h)anthracene	63
B-2	(3-4')
Benzo(a)pyrene	71

A-1	(4-6')
Benzene	430
Chlorobenzene	7,200
Xylene	25,000

B-100	(4-5')
Benzo(a)anthracene	290
Benzo(a)pyrene	320
Benzene	770

E-1	(2.5-3')
Benzo(a)anthracene	6,800
Chrysene	7,700
Benzo(b)fluoranthene	7,600
Benzo(k)fluoranthene	3,000
Benzo(a)pyrene	5,700
Dibenz(a,h)anthracene	830

A-103A	(6-7)
Xylene	12,000
Mercury	0.37

ISB-1	(7-9')
Xylene	26,000
1,2,4 Trichlorobenzene	18,000
Napthalene	28,000

E-6	(3.5-4.0')
Benzo(a)anthracene	810
Chrysene	1,000
Benzo(a)pyrene	640
Dibenz(a,h)Anthracene	93.0
Arsenic	46.7
Antimony	329

MW-4	(4.5-5')
Benzo(a)anthracene	290
Chrysene	440
Benzo(a)Pyrene	330

LEGEND

- (A) – AREA IDENTIFICATION TAG
- ---U – UNKNOWN UTILITY
- ---G – UNDERGROUND GAS LINE
- ---E – ELECTRIC LINE
- ---W – WATER LINE
- ---S – SEWER LINE
- ---T – TELEPHONE LINE
- MW-1 – MONITORING WELL LOCATION (MARCH 1998)
- MW-7 – MONITORING WELL LOCATION (SEPTEMBER 6, 2000)
- MW-9 – MONITORING WELL LOCATION (NOVEMBER 14, 2002)
- ISB-2 – SOIL BORING LOCATION (NOVEMBER 1997)
- B-3 – SOIL BORING LOCATION (MARCH 1998)
- A-103 – SOIL BORING LOCATION (JULY 2000)
- SB-200 – SOIL BORING LOCATION (SEPTEMBER 2000)
- GW-1 – SOIL BORING LOCATION (DECEMBER 2001)
- AISB-1 – SOIL BORING LOCATION (AUGUST 2003)
- AISB-9 – SOIL BORING LOCATION (OCTOBER 2003)
- PZ-2 – PIEZOMETER LOCATION (JANUARY 2002)

NOTE: 1) ALL CONCENTRATIONS FOR SOIL SAMPLE RESULTS ARE DISPLAYED IN MICROGRAMS PER KILOGRAM (ug/kg) EXCEPT FOR METALS WHICH ARE DISPLAYED IN MILLIGRAMS PER KILOGRAM (mg/kg)

2) ONLY RESULTS THAT EXCEED TAGM 4046 STANDARDS ARE DISPLAYED ON MAP ALL OTHER SOIL SAMPLE RESULTS/LOCATIONS COMPLY WITH TAGM

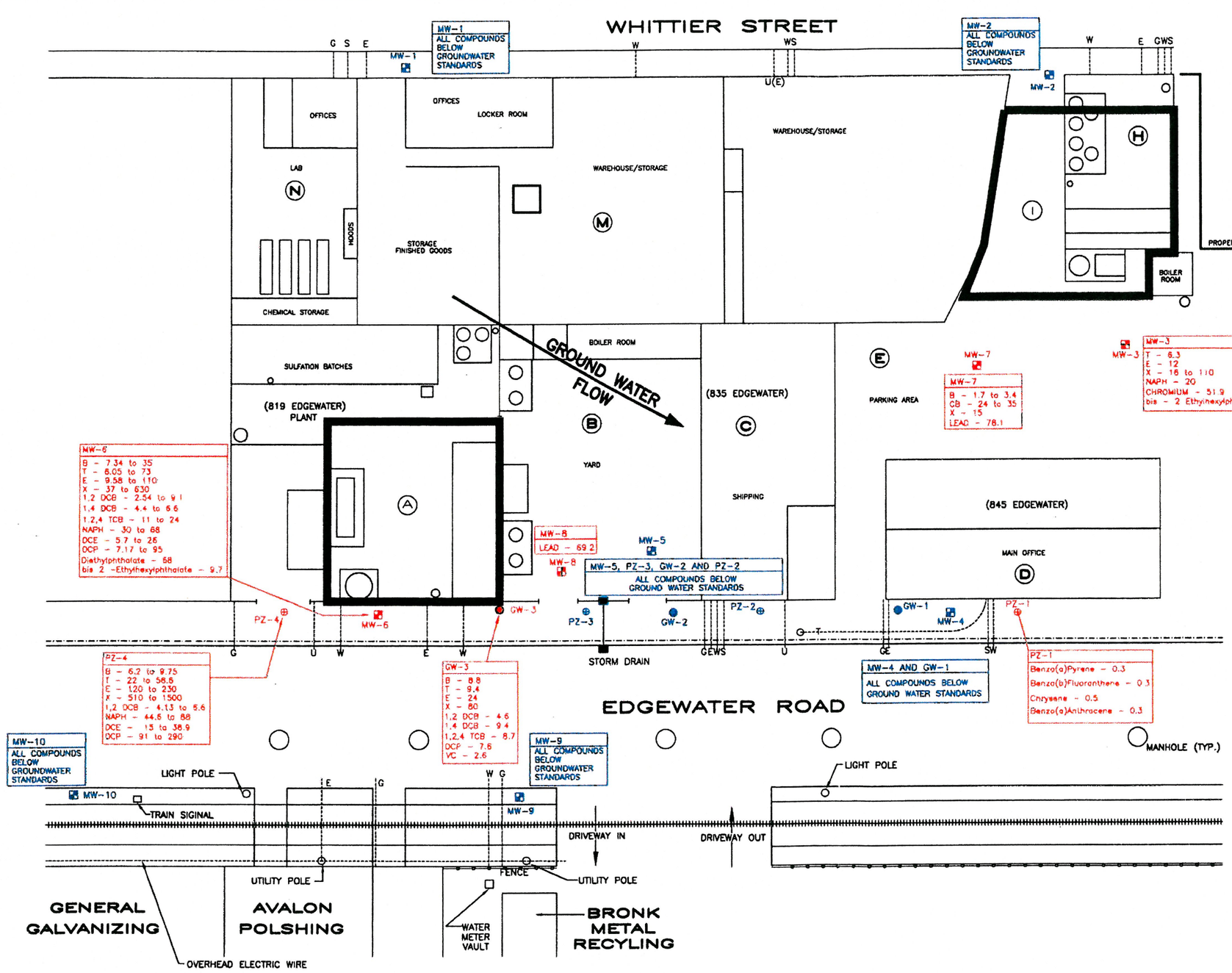
REV.	DATE	DESCRIPTION	DWN BY	CHK BY	APP BY

SOIL SAMPLE LOCATIONS AND RESULTS THAT EXCEED NYSDEC TAGM 4046

DEXTER CHEMICAL CORPORATION
BRONX, NEW YORK

PROJECT MANAGER	MICHELLE HERISHKO	PROJECT NO.	97-09-10

SIZE	DRAWN BY	DATE INITIATED	DRAWING NUMBER	FIGURE NUMBER
E	B.D.	6/11/07	970910L3	6



LEGEND

- (A) – AREA IDENTIFICATION TAG
- MW-1 – GROUND WATER MONITORING WELL LOCATION
- PZ-2 – PIEZOMETER LOCATION
- GW-1 – SOIL BORING/TEMPORARY WELL POINT LOCATION DECEMBER 14, 2001
- ——— – OVER HEAD ELECTRIC LINE
- U – UNKNOWN UTILITY
- G – UNDERGROUND GAS LINE
- E – ELECTRIC LINE
- W – WATER LINE
- S – SEWER LINE
- T – TELEPHONE LINE
- – ESTIMATED AREA OF VOLATILE ORGANIC CONCENTRATIONS ABOVE NYDEC TAGM SOIL CLEANUP OBJECTIVES

- B – BENZENE
- T – TOLUENE
- E – ETHYLBENZENE
- X – TOTAL XYLENES
- 1,2 DCB – 1,2 DICHLOROBENZENE
- 1,3 DCB – 1,3 DICHLOROBENZENE
- 1,4 DCB – 1,4 DICHLOROBENZENE
- 1,2,4 TCB – 1,2,4 TRICHLOROBENZNENE
- NAPH – NAPHTHALENE
- CB – CHLOROBENZENE
- DCE – CIS 1,2 DICHLOROETHENE
- DCP – 1,2 DICHLOROPROPANE
- VC – VINYL CHLORIDE

WELL LOCATIONS/RESULTS IN RED HAD ONE OR MORE COMPOUND WITH AN EXCEEDENCE OF THE GROUND WATER STANDARD

WELL LOCATIONS/RESULTS IN BLUE HAVE NEVER HAD AN EXCEEDENCE OF THE GROUND WATER STANDARD

ONLY COMPOUNDS WITH CONCENTRATIONS/RANGES ABOVE THE GROUNDWATER STANDARDS ARE SHOWN ON THIS MAP

ALL COMPOUND CONCENTRATIONS AND CONCENTRATION RANGES ARE IN ug/L UNLESS OTHERWISE NOTED

SCALE 0 40'

DEXTER CHEMICAL LLC
BRONX, NEW YORK

HISTORIC
GROUND WATER SAMPLE RESULTS
ABOVE NYSDEC TOGS STANDARDS

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
M.P.	R.R.	970910H1
CHECKED BY:	DATE:	FIGURE NO:
R.B.	MAY 2005	7

SG-1
BENZENE – 0.34
DICHLORODIFLUOROMETHANE – 0.92
METHYLENE CHLORIDE – 3.8
TOLUENE – 0.49
TRICHLOROFLUOROMETHANE – 0.32

SG-2			
ACETONE – 13	CYCLOHEXANE – 9.4	4–METHYL–2–PENTANONE – 1.4	1,2,4 TRIMETHYLBENZENE – 0.77
BENZENE – 0.97	DICHLORODIFLUOROMETHANE –0.91	METHYL TERT BUTYL ETHER – 14	1,3,5 TRIMETHYLBENZENE – 0.31
BROMODICHLOROMETHANE – 1.7	ETHYLBENZENE – 4.2	TETRACHLOROETHENE – 9.9	XYLENE (TOTAL) – 33.1
METHYL ETHYL KETONE – 2	4–ETHYLTOLUENE – 0.72	TOLUENE – 38	
CARBON DISULFIDE – 8.3	N–HEPTANE – 15	TRICHLOROETHENE – 0.23	
CHLOROFORM – 28	N–HEXANE – 9.5	TRICHLOROFLUOROMETHANE – 0.36	

SG-3
ACETONE – 8.4
BENZENE – 0.57
BROMODICHLOROMETHANE – 0.51
METHYL ETHYL KETONE – 0.93
CARBON DISULFIDE – 0.64
CHLOROFORM – 8.1
CYCLOHEXANE – 2.5
DICHLORODIFLUOROMETHANE –0.9
ETHYLBENZENE – 0.43
4–ETHYLTOLUENE – 0.22
N–HEPTANE – 5.9
N–HEXANE – 1.8
METHYL TERT BUTYL ETHER – 4.4
TETRACHLOROETHENE – 5.1
TOLUENE – 5.8
1,1,1 TRICHLOROETHENE – 0.64
TRICHLOROETHENE – 0.56
TRICHLOROFLUOROMETHANE – 0.38
1,2,4 TRIMETHYLBENZENE – 0.3
XYLENE (TOTAL) – 3.32

SG-4
ACETONE – 42
BENZENE – 49
CARBON DISULFIDE – 2.2
CYCLOHEXANE – 54
CIS 1,2 DICHLOROETHENE – 1.2
ETHYLBENZENE – 4.8
4–ETHYLTOLUENE – 0.83
N–HEPTANE – 24
N–HEXANE – 45
METHYL TERT BUTYL ETHER – 8.1
TETRACHLOROETHENE – 9.8
TOLUENE – 7.4
TRICHLOROETHENE – 9.8
TRICHLOROFLUOROMETHANE – 1.1
1,2,4 TRIMETHYLBENZENE – 0.89
VINYL CHLORIDE – 5.2
XYLENE (TOTAL) – 8.3

PILOT TEST RESULTS	
B	ND
EB	76.4
T	58
X	221.6
MC	144

SG-5			
ACETONE – 28	DICHLORODIFLUOROMETHANE –0.8	4–METHYL–2–PENTANONE – 0.76	TRICHLOROFLUOROMETHANE – 0.8
BENZENE – 2.1	ETHYLBENZENE – 0.89	METHYL TERT BUTYL ETHER – 16	1,2,4 TRIMETHYLBENZENE – 0.7
METHYL ETHYL KETONE – 3.2	4–ETHYLTOLUENE – 0.57	TETRACHLOROETHENE – 4.9	1,3,5 TRIMETHYLBENZENE – 0.4
CARBON DISULFIDE – 1.5	N–HEPTANE – 7.4	TOLUENE – 18	XYLENE (TOTAL) – 8.49
CYCLOHEXANE – 7.2	N–HEXANE – 3.3	TRICHLOROETHENE – 0.31	2–HEXANONE – 3.2

SG-6		
BENZENE – 0.49	4–ETHYLTOLUENE – 0.22	TOLUENE – 2.3
METHYL ETHYL KETONE – 0.55	N–HEPTANE – 1.1	TRICHLOROFLUOROMETHANE – 0.32
CYCLOHEXANE – 0.82	N–HEXANE – 0.6	1,2,4 TRIMETHYLBENZENE – 0.42
DICHLORODIFLUOROMETHANE –0.85	METHYL TERT BUTYL ETHER – 0.94	XYLENE (TOTAL) – 2.57
ETHYLBENZENE – 0.27	TETRACHLOROETHENE – 1.2	ISOPROPYL ALCOHOL – 14

SG-7
ACETONE – 5.1
BENZENE – 0.46
CYCLOHEXANE – 0.32
DICHLORODIFLUOROMETHANE –0.87
ETHYLBENZENE – 0.28
N–HEPTANE – 0.44
N–HEXANE – 0.35
METHYL TERT BUTYL ETHER – 2
TOLUENE – 1.2
TRICHLOROFLUOROMETHANE – 0.29
XYLENE (TOTAL) – 2.57

WHITTIER STREET

VALENCIA BAKERY

OFFICES

LOCKER ROOM

LAB

WAREHOUSE/STORAGE

HOODS

STORAGE FINISHED GOODS

CHEMICAL STORAGE

SULFATION BATCHES

BOILER ROOM

(819 EDGEWATER) PLANT

(835 EDGEWATER)

YARD

SHIPPING

(842 WHITTIER PLANT)

PHOSPHATION BATCHES

BOILER ROOM

PROPERTY BOUNDARY

PARKING AREA

(845 EDGEWATER)

MAIN OFFICE

EDGEWATER ROAD

MANHOLE (TYP.)

MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9 MW-10

SG-1 SG-2 SG-3 SG-4 SG-5 SG-6 SG-7

PZ-1 PZ-2 PZ-3 PZ-4

GW-1 GW-2 GW-3

STORM DRAIN

TRAIN SIGINAL

LIGHT POLE

UTILITY POLE

FENCE

DRIVEWAY IN

DRIVEWAY OUT

GENERAL GALVANIZING

AVALON POLSHING

BRONK METAL RECYLING

WATER METER VAULT

OVERHEAD ELECTRIC WIRE

LEGEND

- (A) – AREA IDENTIFICATION TAG
- MW-1 – GROUND WATER MONITORING WELL LOCATION
- PZ-2 – PIEZOMETER LOCATION
- GW-1 – SOIL BORING LOCATION
- SG-1 – SOIL GAS SAMPLING LOCATION JANUARY 18, 2005
- – AREA OF VOLATILE ORGANIC CONCENTRATIONS ABOVE NYDEC TAGM SOIL CLEANUP OBJECTIVES
- ---------- – OVER HEAD ELECTRIC LINE
- U – UNKNOWN UTILITY
- G – UNDERGROUND GAS LINE
- E – ELECTRIC LINE
- W – WATER LINE
- S – SEWER LINE
- T – TELEPHONE LINE
- B – BENZENE
- EB – ETHYLBENZENE
- T – TOLUENE
- X – XYLENE
- MC – METHYLENE CHLORIDE

SCALE 0 40'

DEXTER CHEMICAL LLC
BRONX, NEW YORK

SOIL GAS SAMPLING RESULTS MAP

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
M.P.	A.A.	970910Z9
CHECKED BY:	DATE:	FIGURE NO:
R.B.	MARCH 2005	8

EDGEWATER BUILDING

AIR SPARGE MANIFOLD

RECOVERY/GW MANIFOLD

HORIZONTAL SVE MANIFOLD

VERTICAL SVE MANIFOLD

SYSTEM TRUNK LINES AND UNDERGROUND ELECTRICAL TO TREATMENT SYSTEM ENCLOSURES IN COURTYARD

HRZSVE-1A
AS-1A
SVE/RW-1A
SUMP-3
VM-2
AS-3A
HRZSVE-3A
AS-4A
SVE/RW-2A
HRZSVE-2A
AS-2A
HRZSVE-4A
VM-1
HRZSVE-5A
SUMP-1
AS-6A
SVE/RW-3A
AS-5A
SVE/RW-5A
HRZSVE-6A
AS-9A
VM-3
SUMP-2
HRZSVE-7A
AS-7A
AS-8A
SVE/RW-4A
SVE/RW-6A
AS-10A
AS-11A
AS-15A
HRZSVE-8A
HRZSVE-9A
SVE/RW-7A
AS-13A
SVE/RW-8A
AS-14A
HRZSVE-12A
HRZSVE-11A
AS-12A
HRZSVE-10A

TRENCHING BOUNDARIES - TYPICAL APPROXIMATE

OFFICES

EDGEWATER AVENUE

LEGEND

90 OR TEE FOR SLOTTED HORIZONTAL PIPING CONNECTIONS

2" SOLID EXTRACTION PIPING---- RUN BACK TO MANIFOLD AREA - NOT SHOWN ON FIGURE (CONSTRUCT/CONNECT AS NECESSARY)

2" TEE/CROSS CONNECTION FOR SLOTTED TO SOLID EXTRACTION PIPING CELL/RUN

HRZSVE-6A HORIZONTAL SOIL VAPOR EXTRACTION PIPING CELL

2" HORIZONTAL SOIL VAPOR EXTRACTION PIPING (0.010") - 10 slot

PIPING ENCAPS - < 2" SLIP>

VM-2 VAPOR/SVE/OTHER MONITORING POINT (DO NOT TIE IN TO PIPING RUNS)

AS-14A AIR SPARGING WELL LOCATION

SVE/RW-7A GROUNDWATER RECOVERY AND VERTICAL SOIL VAPOR EXTRACTION WELL LOCATION

SUMP-1 SUMP

GW LINES

SVE LINES

AS LINES

UNDERGROUND ELECTRIC POWER/CONTROL CONDUIT/WIRING FROM PUMPS <2 CONDUITS PER LINE>

ALL LOCATIONS SHOWN ARE APPROXIMATE

SCALE--1" = 5 FEET

SCALE
0 5' 10'

DEXTER CHEMICAL LLC
BRONX, NEW YORK

AREA "A" REMEDIAL SYSTEM LAYOUT

ORIGINAL BY: M.P.	DRAWN BY: A.A.	DRAWING NO: as-built a InProg
CHECKED BY: E.S.	DATE: MAY 2005	FIGURE NO: 9

LEGEND

AS WELL LOCATION

SVE/GROUNDWATER RECOVERY WELL LOCATION

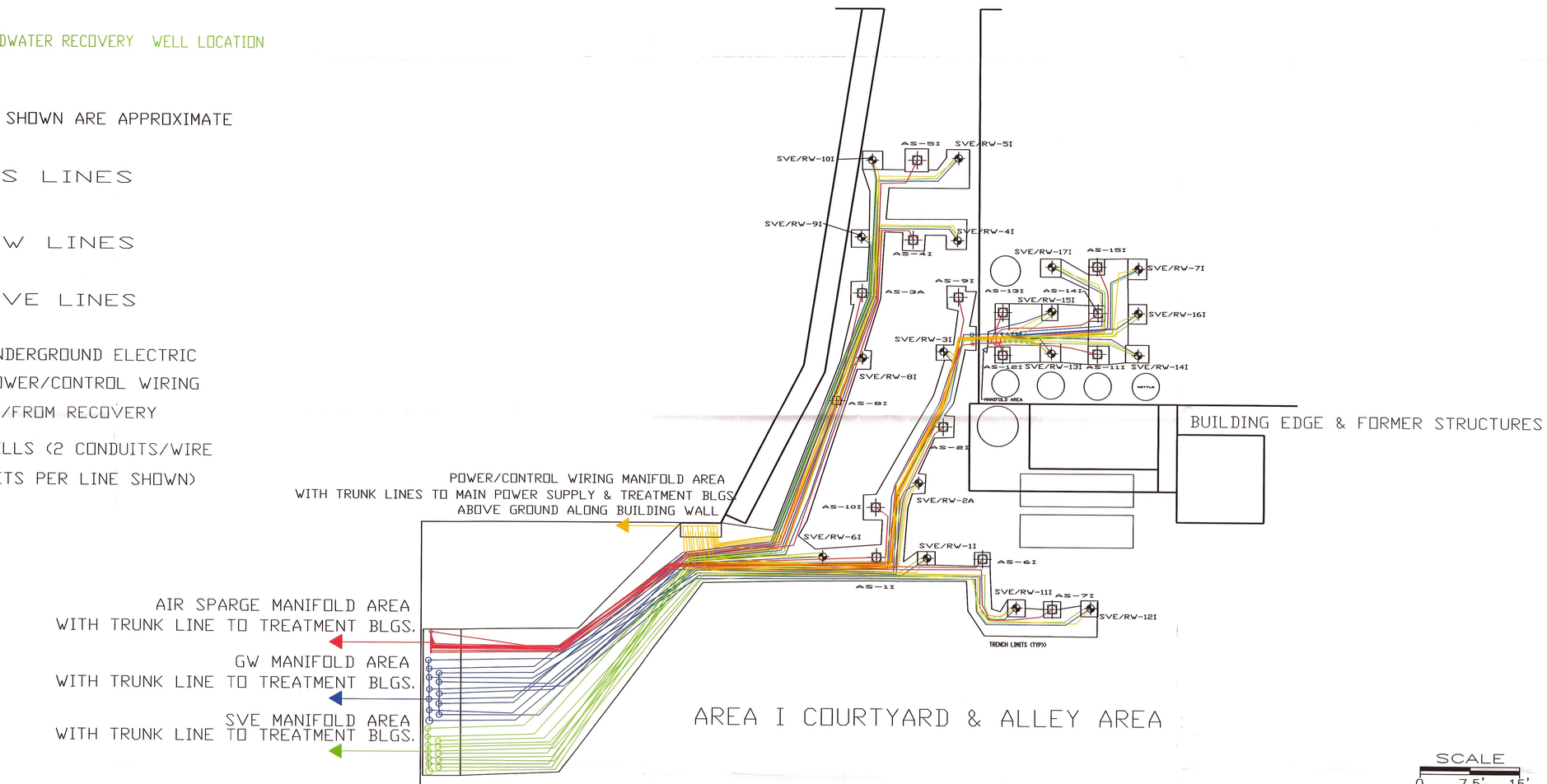
ALL LOCATIONS SHOWN ARE APPROXIMATE

AS LINES

GW LINES

SVE LINES

UNDERGROUND ELECTRIC POWER/CONTROL WIRING TO/FROM RECOVERY WELLS (2 CONDUITS/WIRE SETS PER LINE SHOWN)

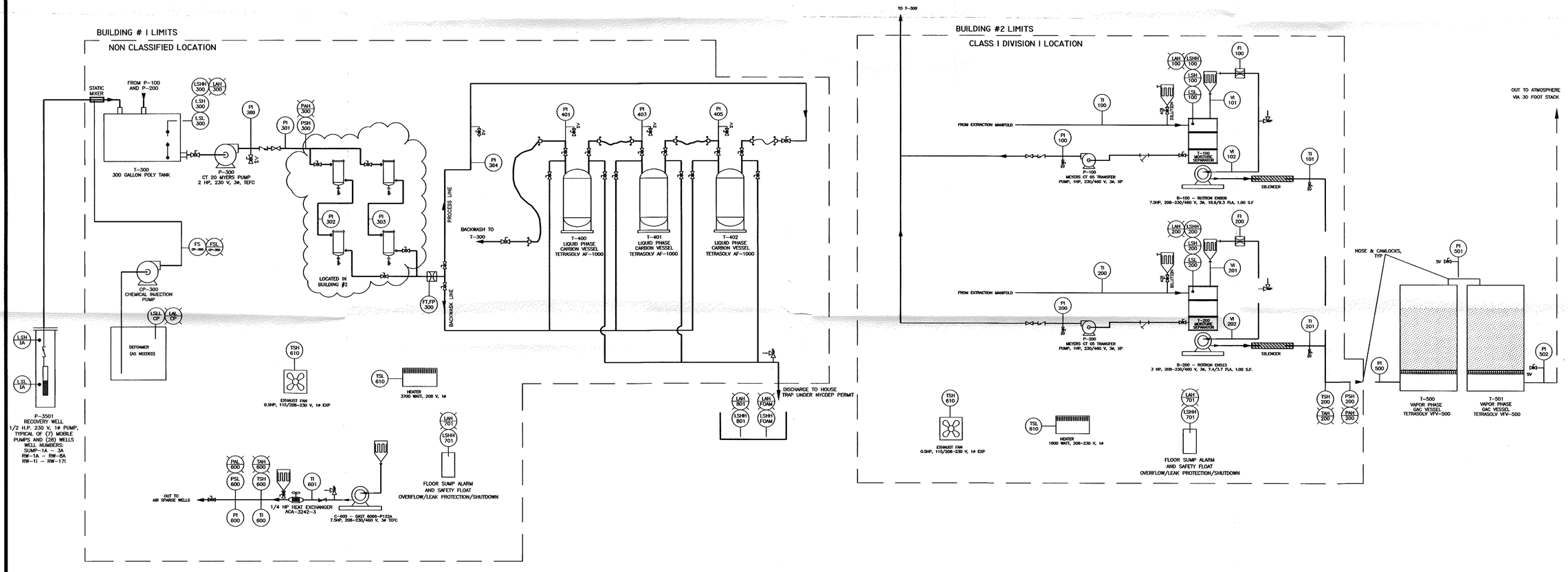


SCALE
0 7.5' 15'

DEXTER CHEMICAL LLC
BRONX, NEW YORK

AREA I REMEDIAL SYSTEM LAYOUT

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
M.P.	M.S.	asbuilt i final
CHECKED BY:	DATE:	FIGURE NO:
E.S.	JUNE 2006	10



KEY

EQUIPMENT

- HS Hand Switch
- BFIN Bag Filter
- SV Sample Valve
- PI Pressure Indicator
- VI Vacuum Indicator
- FI Flow Indicator
- FT Flow transmitter
- FM Flow Meter
- Ball Valve
- Check Valve
- Union
- Y – Strainer
- Camlock hose fitting
- Vacuum Relief Valve
- Gate or Butterfly Valve

ALARM

- LAHH High High Level Alarm
- LAH High Level Alarm
- LAL Low Level Alarm
- FAL Flow Alarm

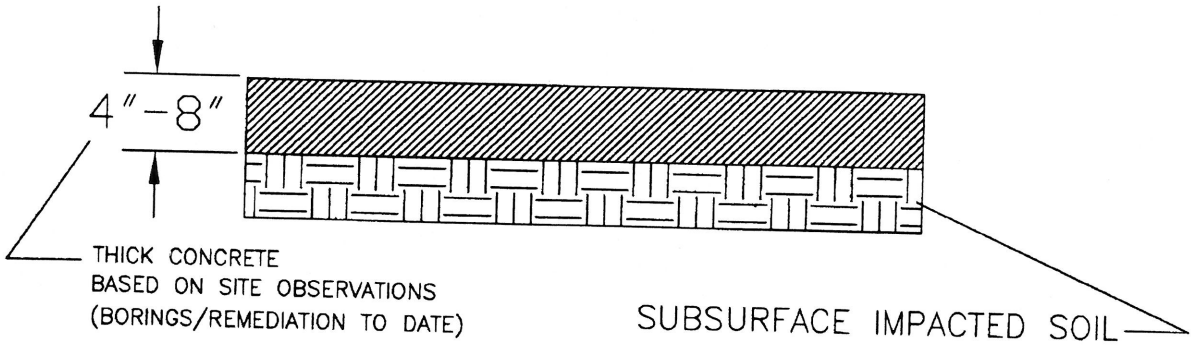
LEVEL

- LSHH High High Level Switch
- LSH High Level Switch
- LSL Low Level Switch
- FSL Flow Switch

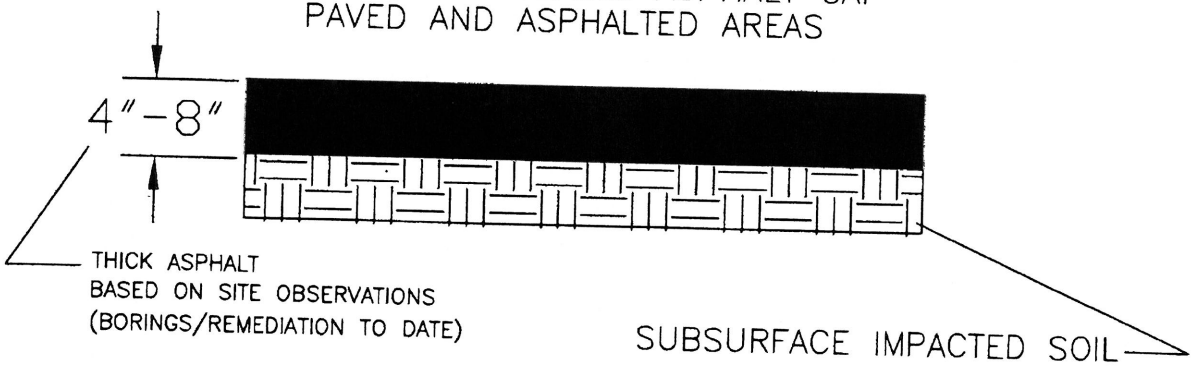
	DEXTER CHEMICAL LLC BRONX, NEW YORK	
	SYSTEM PROCESS & INSTRUMENTATION DIAGRAM (P&ID)	
ORIGINAL BY: EH	DRAWN BY: M.S.	DRAWING NO: Fig 11 – P&ID
CHECKED BY: IW.	DATE: AUGUST 2010	FIGURE NO: 11

EXISTING SITE-WIDE COMPOSITE COVER SYSTEM CROSS SECTIONS

EXISTING IMPERMEABLE CONCRETE CAP
BUILDING FLOOR SLABS, CONCRETED AREAS & SIDEWALKS

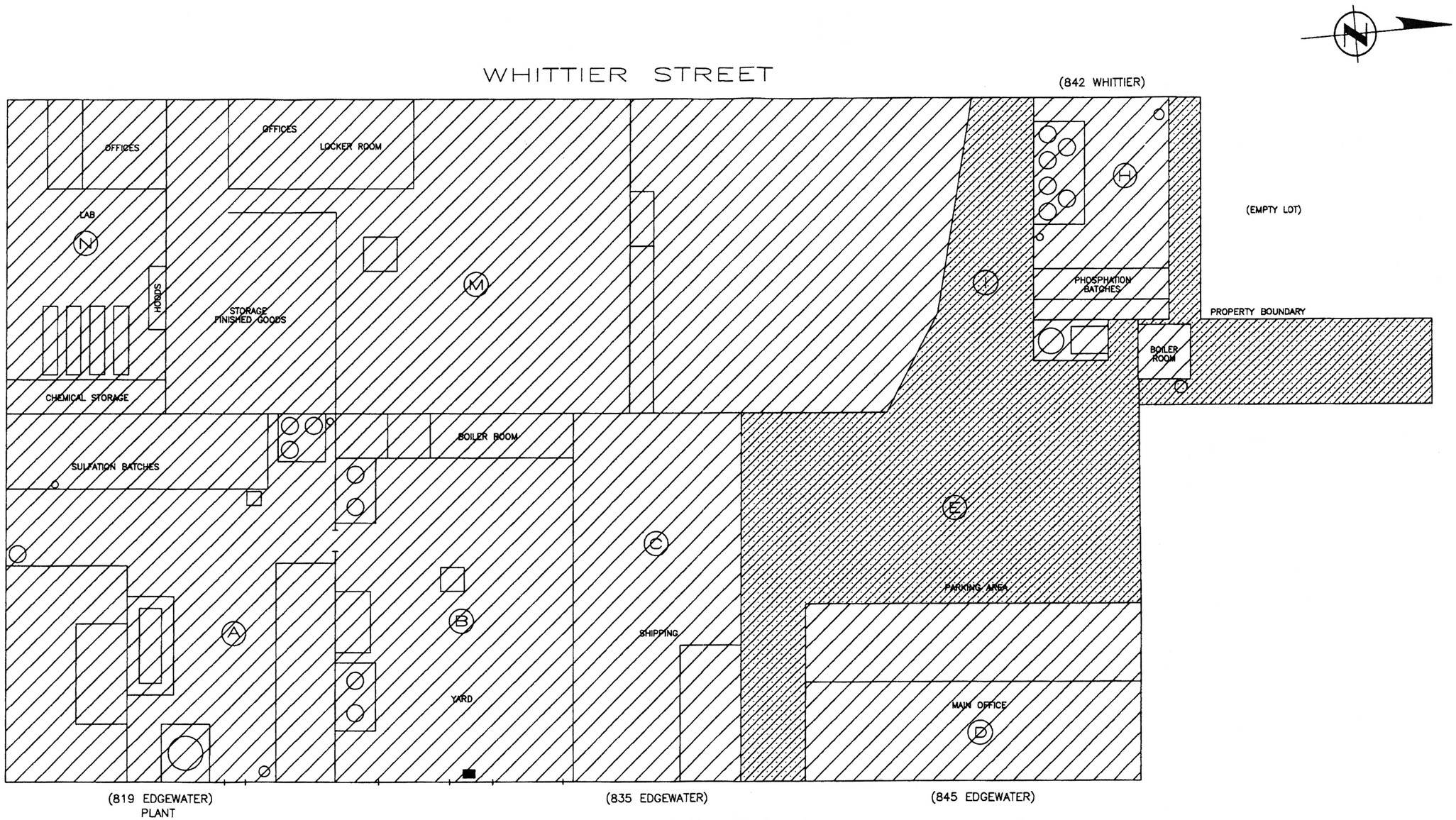


EXISTING IMPERMEABLE ASPHALT CAP
PAVED AND ASPHALTED AREAS



NOT TO SCALE

	DEXTER EDGEWATER DRIVE & WHITTIER ST. BRONX, NEW YORK	
	EXISTING SITE-WIDE COMPOSITE COVER SYSTEM CROSS SECTIONS	
ORIGINAL BY: EH	DRAWN BY: EH.	DRAWING NO: Fig 12 - Composite Cover System Cross - X
CHECKED BY: IW	DATE: AUGUST 2010	FIGURE NO: 12



LEGEND

(A) – IDENTIFICATION TAG

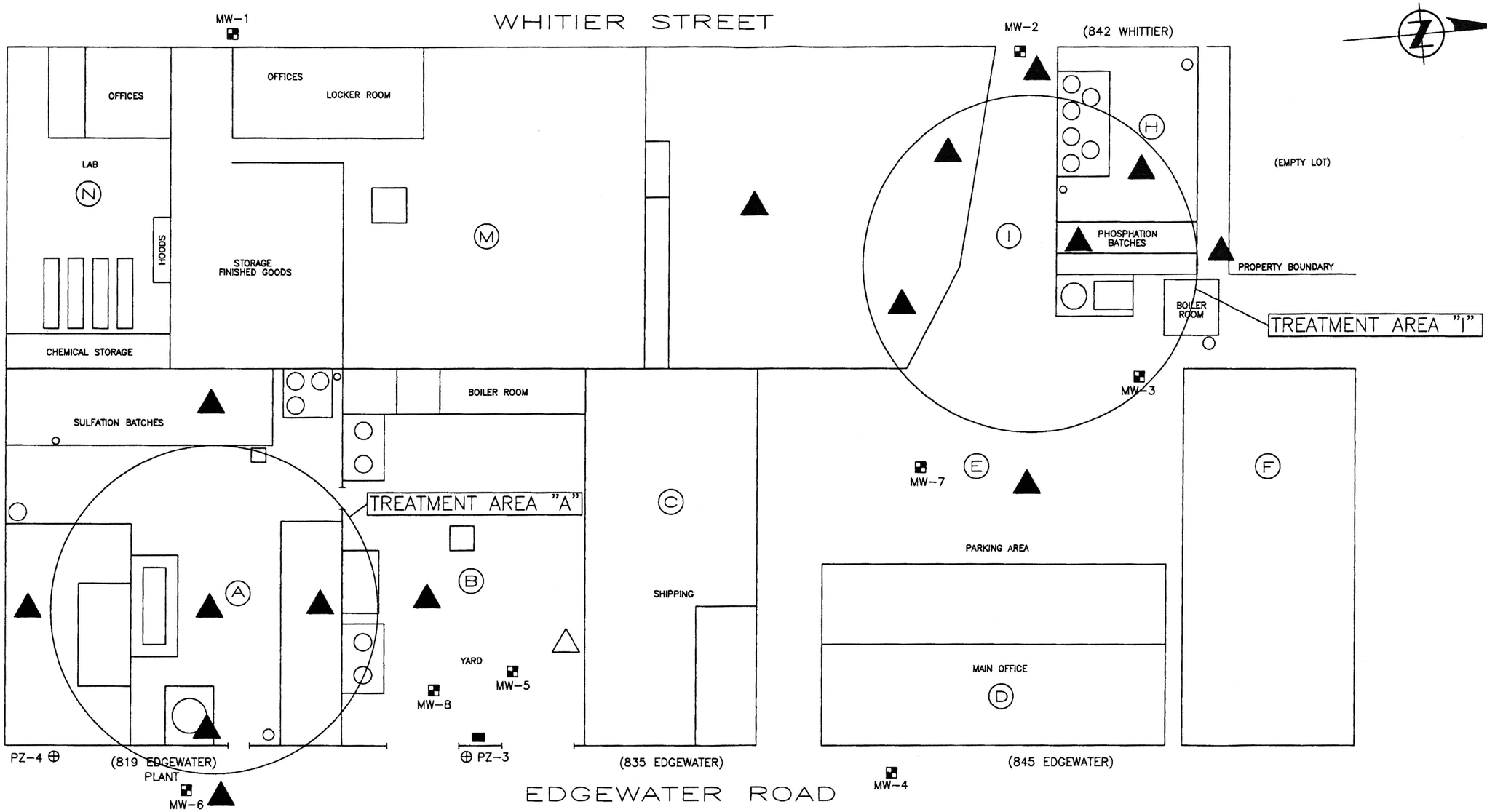
COMPOSITE COVER TYPES – NOTE, ENTIRE SITE IS CAPPED WITH IMPERMEABLE CONCRETE OR ASPHALT

4'– 8" THICK CONCRETE, TYPICAL OF BUILDING SLABS, CONCRETED AREAS AND SIDEWALKS

4'– 8" THICK ASPHALT, TYPICAL OF PAVED AND ASPHALTED AREAS

0 30 60
SCALE IN FEET

	FORMER DEXTER CHEMICAL LLC SITE BRONX, NEW YORK	
	LOCATIONS OF COMPOSITE COVERS ACROSS SITE	
ORIG. BY: EH	DWG. BY: EH	CHK. BY: IW
DWG.#: Fig 1.2 – Loc. Comp. Covers Across Site	DATE: AUGUST 2010	FIGURE: 13



* – NOTE: ADDITIONAL AIR MONITORING LOCATIONS WILL BE USED AS NECESSARY FOR ANY INTRUSIVE SUBSURFACE ACTIVITIES

MW-1 – GROUND WATER MONITORING WELL

PZ-1 – PIEZOMETER LOCATION

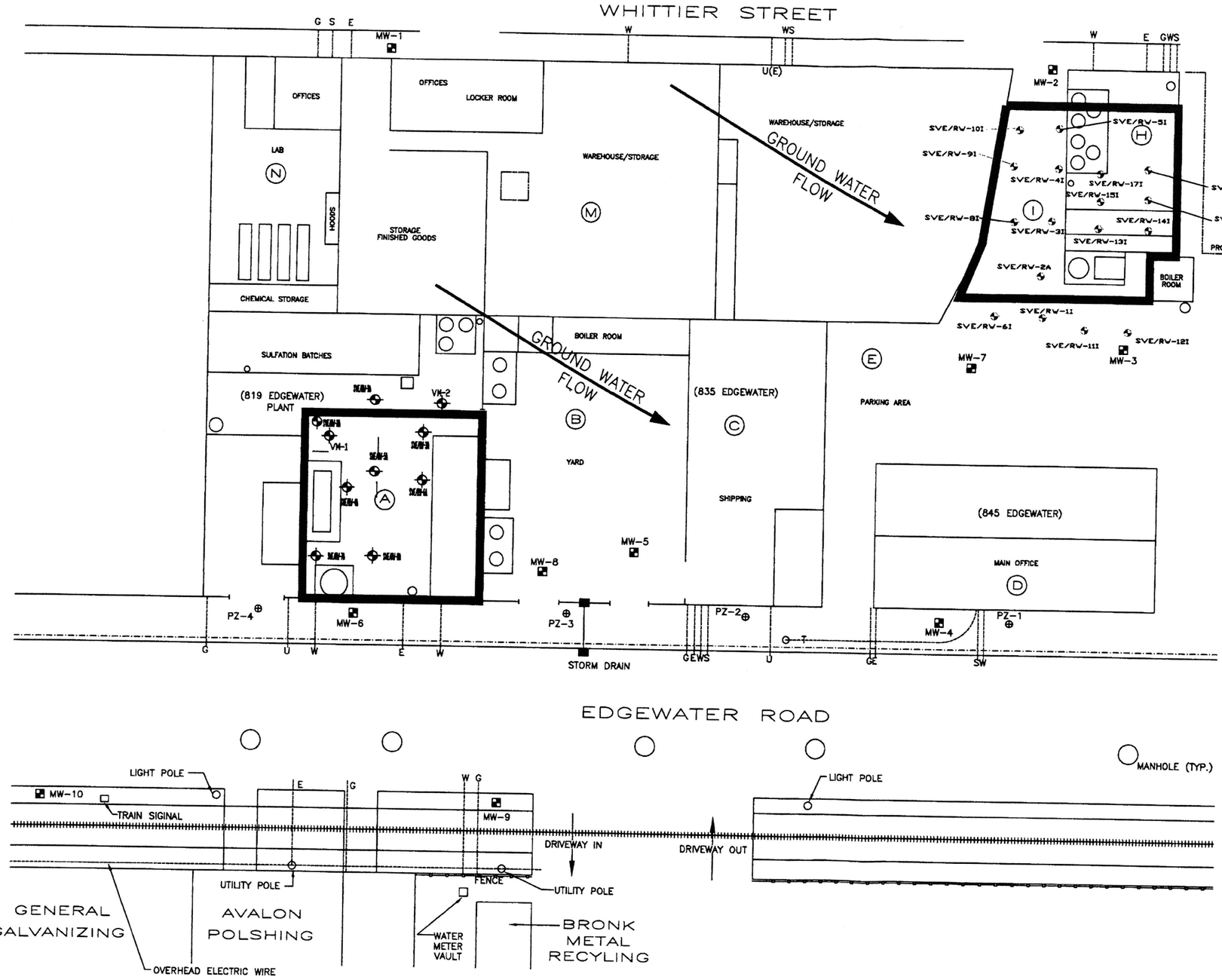
▲ – COMMUNITY AIR MONITORING PLAN (CAMP) MOBILE MONITORING LOCATION DURING SYSTEM OPERATION (OLEFACTORY AND PID)

△ – COMMUNITY AIR MONITORING PLAN (CAMP) PERMANENT MONITORING LOCATION DURING SYSTEM OPERATION (SVE SYSTEM EFFLUENT VIA PID AND SUMMA AIR SAMPLING)

DEXTER CHEMICAL LLC
BRONX, NEW YORK

CAMP MONITORING LOCATIONS

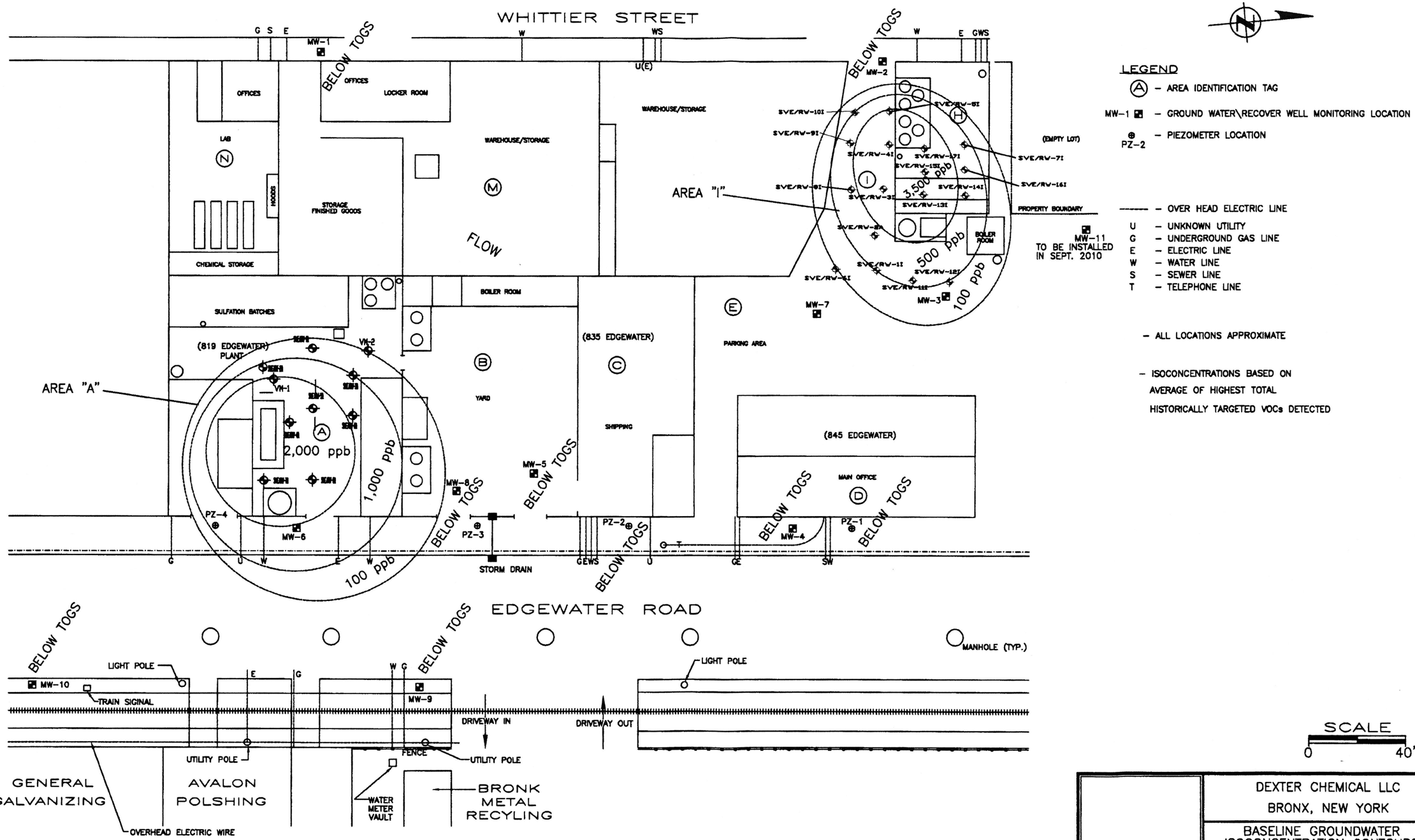
PROJECT MANAGER: EH.	DRAWN BY: EH.	PROJECT NO: Fig 14 – CAMP Monitoring Locations
CHECKED BY: IW.	DATE: AUGUST 2010	FIGURE NO: 14



DEXTER CHEMICAL LLC
BRONX, NEW YORK

SYSTEM MONITORING
WELL NETWORK MAP

ORIGINAL BY:	DRAWN BY:	DRAWING NO:
M.P.	A.A.	970910H1
CHECKED BY:	DATE:	FIGURE NO:
R.B.	SEPT 2010	15



	DEXTER CHEMICAL LLC BRONX, NEW YORK	
	BASELINE GROUNDWATER ISOCONCENTRATION CONTOURS	
ORIGINAL BY: M.P.	DRAWN BY: A.A.	DRAWING NO: 970910H1
CHECKED BY: R.B.	DATE: SEPT 2010	FIGURE NO: 16

LEGEND

90 OR TEE FOR SLOTTED HORIZONTAL PIPING CONNECTIONS

2" SOLID EXTRACTION PIPING---- RUNS BACK TO MANIFOLD AREA - NOT SHOWN ON FIGURE

2" TEE/CROSS CONNECTION FOR SLOTTED TO SOLID EXTRACTION PIPING CELL/RUN

HRZSVE-6A — HORIZONTAL SOIL VAPOR EXTRACTION PIPING CELL

2" HORIZONTAL SOIL VAPOR EXTRACTION PIPING (0.010") - 10 slot

PIPING ENCAPS - (2" SLIP)

* - VM-3 WAS FOUND TO BE UNSUITABLE FOR MONITORING /DAMAGED, AND WAS SEALED

AS-14A — AIR SPARGING WELL LOCATION

SVE/RW-7A — GROUNDWATER RECOVERY AND VERTICAL SOIL VAPOR EXTRACTION WELL LOCATION

SUMP-1 — SUMP

NOTE - EACH VERTICAL SVE/RW AND EACH SUMP HAS A VACUUM MONITORING PORT BUILT INTO THE SEALED WELLBOX

VM-2 — VAPOR/SVE/OTHER MONITORING POINT

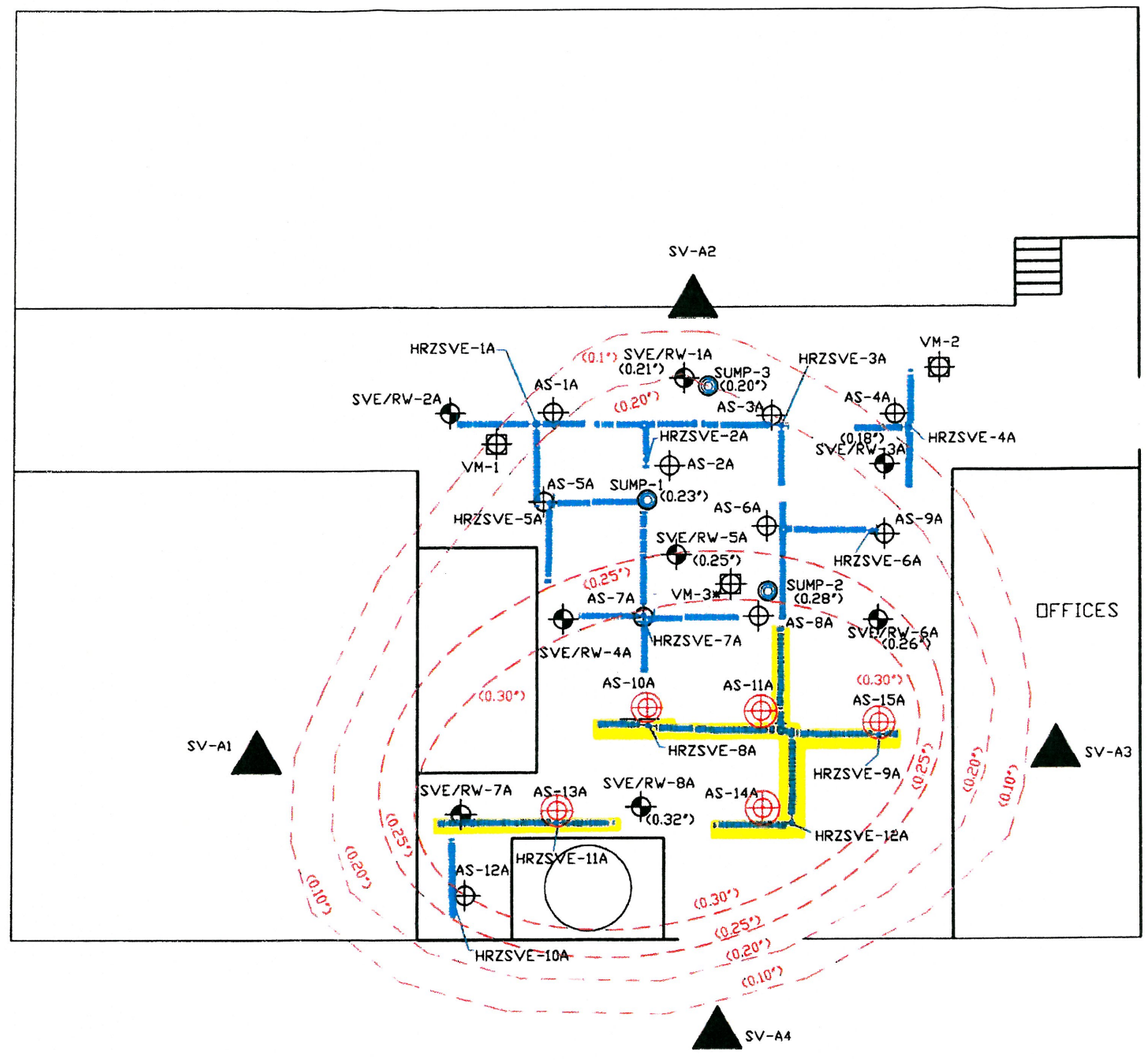
-0.30"- — VACUUM CONTOURS (IN INCHES H20)

(0.32") VACUUM READING AT WELLHEAD (IN INCHES H20)

AS-14A — OPERATING AIR SPARGING WELL LOCATIONS (Q2 2010) AT TIME OF VACUUM MEASUREMENT (RED BULLSEYE)

OPERATING SVE ZONES (Q2 2010) AT TIME OF VACUUM MEASUREMENT (YELLOW HIGHLIGHT)

SV-A1 — SUBSURFACE VAPOR SAMPLING LOCATION



EDGEWATER AVENUE

SCALE
0 7.5' 15'

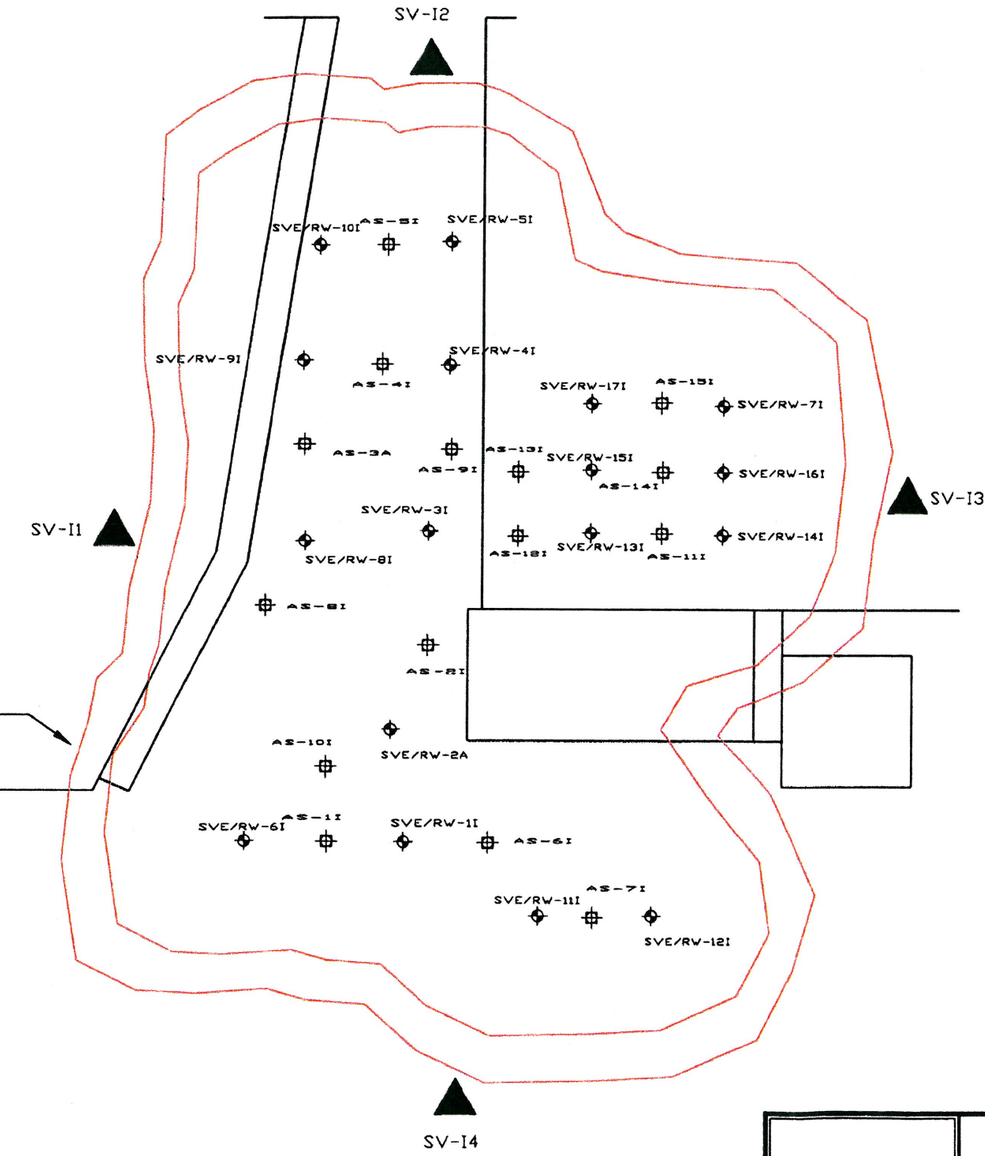
	DEXTER CHEMICAL LLC BRONX, NEW YORK
	FIGURE 17 - AREA "A" SUBSURFACE VAPOR SAMPLING LOCATION MAP
ORIGINAL BY: M.P.	DRAWN BY: R.R.
CHECKED BY: E.S.	DATE: JUNE 2010
	DRAWING NO: 970810 Fig 5 - Subsurface Vapor sampling location map Area A
	FIGURE NO: 17

WHITTIER STREET

LEGEND & NOTES

- AIR SPARGE (AS) WELL LOCATION
- SVE/GROUNDWATER RECOVERY WELL LOCATION
- SV-I1 ▲ SUBSURFACE VAPOR SAMPLE LOCATION

ANTICIPATED LIMITS OF RADIUS OF INFLUENCE (ROI) OF SVE/AS SYSTEM
APPROXIMATELY 15 - 20 FEET EACH POINT - (RED LINES)



SCALE
0 20'

	DEXTER CHEMICAL LLC BRONX, NEW YORK		
	FIGURE 18 AREA "I" SUBSURFACE VAPOR SAMPLING LOCATION MAP		
ORIGINAL BY: M.P.	DRAWN BY: M.S.	DRAWING NO: Fig 18 Area I subsurface vapor map	
CHECKED BY: E.S.	DATE: JUNE 2010	FIGURE NO: 18	

APPENDIX 1

Metes and Bounds

PARCEL 1 TAX LOT 300

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Drake Street, now known as Edgewater Road, distant 100 feet northerly from the corner formed by the intersection of the northerly side of Lafayette Avenue and the westerly side of Drake Street;

RUNNING THENCE westerly and parallel with Lafayette Avenue, 100 feet;

THENCE northerly and parallel with Whittier Street, 175 feet to the southerly line of land conveyed to Charles D. Beckwith, Inc. by deed from Gelszler-Haas Realty Company dated May 26, 1924 and recorded May 27, 1924 in Liber 452 of Conveyances at page 326 in the Office of the Register of the County of Bronx;

THENCE easterly and along the southerly line of said land and parallel with Lafayette Avenue, 100 feet to the westerly side of Drake Street;

THENCE southerly along the westerly side of Drake Street, 175 feet to the point or place of BEGINNING.

PARCEL 2 LOT 272

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the easterly side of Whittler Street, distant 205.25 feet southerly from the corner formed by the intersection of the easterly side of Whittler Street and the southerly side of Seneca Avenue.

RUNNING THENCE southerly along the said easterly side of Whittler Street, 60.25 feet;

THENCE easterly and parallel with the said southerly side of Seneca Avenue, 72.78 feet;

THENCE northerly and parallel with the said easterly side of Whittler Street, 60.25 feet;

THENCE westerly and parallel with the said southerly side of Seneca Avenue, 72.78 feet to the point or place of BEGINNING.

PARCEL 3 TAX LOT 294

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Edgewater Road, distant 325 feet northerly from the corner formed by the intersection of the northerly side of Lafayette Avenue and the westerly side of Edgewater Road;

RUNNING THENCE westerly and at right angles to the westerly side of Edgewater Road, 100 feet;

THENCE northerly and parallel or nearly so with Edgewater Road and along the center line of block, 40.60 feet;

THENCE in a northwesterly direction and along the southerly line of the Map of Estate of Charles D. Dickey, filed July 27, 1921, as Map No. 495 in the Register's Office of Bronx County, 30.03 feet to a point;

THENCE in a northwesterly direction and along the southerly line as shown on the Map of the Estate of Charles D. Dickey, filed July 27, 1921, as Map No. 499 in the Register's Office in Bronx County and also along the southerly line as shown on Map of 369 Lots of the Hunts Point Realty Co., filed June 3, 1908, as Map No. 1273 in the Register's Office of New York County, 73.27 feet to a point on the easterly side of Whittler Street, which point is 389.88 feet north of Lafayette Avenue;

THENCE northerly and along the easterly side of Whittler Street, 19.62 feet;

THENCE easterly and at right angles to the easterly side of Whittler Street, 72.78 feet;

THENCE northerly and parallel with the easterly side of Whittler Street, 60.25 feet;

THENCE easterly and at right angles to the last mentioned course, 17.67 feet;

THENCE southerly and parallel or nearly so with the easterly side of Whittler Street and at right angles with the last mentioned course, 21.30 feet;

THENCE easterly and parallel or nearly so with the southerly side of Seneca Avenue, 109.55 feet to a point on the westerly side of Edgewater Road, which point, is 226.55 feet south of the southerly side of Seneca Avenue;

THENCE southerly along the westerly side of Edgewater Road, 123.45 feet to the point or place of BEGINNING.

PARCEL 4 AND 5 TAX LOT 257 AND 299

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the easterly side of Whittler Street, distant 100 feet north of the corner formed by the intersection of the easterly side of Whittler Street with the northerly side of Lafayette Avenue;

RUNNING THENCE easterly at right angles to Whittler Street, 100 feet;

THENCE northerly parallel with Whittler Street, 175 feet;

THENCE easterly at right angles to Edgewater Road, 100 feet to the westerly side of Edgewater Road;

THENCE northerly along the westerly side of Edgewater Road, 50 feet;

THENCE westerly at right angles to Edgewater Road, 100 feet;

THENCE northerly parallel with Whittler Street, 40.66 feet to the southerly line of lots on map of property of the Estate of Charles P. Dickey, known as Green Bank, filed on July 27, 1921 in the Bronx Register, as Map No. 495;

THENCE northwesterly along the southerly line of the aforesaid lots on said map, 30.03 feet;

THENCE continuing northwesterly and along the southerly line of Lot No. 2 on map of 369 lots owned by Hunts Realty Co. filed in the Bronx Register on June 3, 1908, as Map Nos. 1273, 73.27 feet to the easterly side of Whittler Street;

THENCE southerly along said easterly side of Whittler Street, 289.88 feet to the point or place of BEGINNING.

APPENDIX 2

Chemical Inventory

5.0 REGULATORY ISSUES

5.1 Inventory of Hazardous Materials

Inventory data was provided by Robert Nanes, Plant Manager of Dexter Chemical Corp.

Glacial Acetic Acid

CAS #:64-19-7 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage locations:

1) 819 Edgewater Plant
2) 820 Whittier Warehouse

Acetic Anhydride

CAS#:108-24-7 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage locations:

1) 819 Edgewater Plant
2) 820 Whittier Warehouse

ADMA 18

CAS#: 124-28-7 Form: Liquid
Quantity: 100-999 lbs (average daily amount)
Storage location:

1) 820 Whittier Warehouse

Ammonium Hydroxide

CAS#: 1336-21-6 Form: Liquid
Quantity: 100-999 lbs. (average daily amount)
Storage location:

1) 819 Edgewater Yard

ARQUAD C-50

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) Containment behind 849-855 Edgewater Road

Comment: contains 33% isopropanol (67-63-0)

Barisol NLR

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

2-Butoxyethanol

CAS#: 111-76-2 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage Locations:
1) 820 Whittier Warehouse
2) 849 Edgewater Warehouse

Carbon Dioxide

CAS#: 124-38-9 Form: Liquid
Quantity: 10,000-99,999 lbs. (average daily amount)
Storage Location:
1) 819 Edgewater Yard

Clavanol DSZ-2

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse
Comment: contains 3% isopropanol (67-63-0)

Clavodene KN-100

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 6% isopropanol (67-63-0)

Clavodene KN-330

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)

Storage location:
1) 849 Edgewater Warehouse

Comment: contains 1% isopropanol (67-63-0) and 10% stoddard solvent (8052-41-3)

Clavodene LKT

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 1% isopropanol (67-63-0)

Cosan 158

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 819 Edgewater Plant

Dequest 2060

CAS#: 15827-60-8 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 17% hydrochloric acid (7647-01-0)

Dextrol DT

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 4% isopropanol (67-63-0)

Dextrol Foamer 1832

CAS#: N/A Form: Liquid
Quantity: 100-999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 2% isopropanol (67-63-0)

Dextrol PRCL

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: contains 1% isopropanol (67-63-0)

Dextrol Scour CFNP

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 7% isopropanol (67-63-0)

Dextrol Scour GFM-II

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage locations:
1) 820 Whittier Warehouse
2) 849 Edgewater Warehouse

Comment: contains 6% isopropanol (67-63-0)

Dextrol Scour PFE

CAS#: N/A Form: Liquid
Quantity: 10,000-99,999 lbs. (average daily amount)
Storage location:
1) 835 Edgewater Warehouse

Comment: contains 5.5% isopropanol (67-63-0) and 1.5% 2-ethyl hexanol (104-76-7)

Dextrol Scour STF

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: contains 2% isopropanol (67-63-0) and 10% stoddard solvent (8052-41-3)

Dimethyl Sulfate

CAS#: 64-67-5 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Dodecylbenzene Sulfonic Acid

CAS#: 27176-87-0 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Dypenol 800

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 819 Edgewater Plant

Comment: contains 8% isopropanol (67-63-0)

Ethylenediaminetetra Acetic Acid Tetrasodium Salt

CAS#: 64-02-8 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

2 Ethylhexanol

CAS#: 104-76-7 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage locations:
1) 820 Whittier Warehouse
2) 835 Edgewater Warehouse

Fuel Oil No.2

CAS#: 68476-30-2 Form: Liquid
Quantity: 1,000 - 9,999 lbs. (average daily amount)
Storage location:
1) 845/842 yard

Fuel Oil No. 4

CAS#: 68476-31-3 Form: Liquid
Quantity: 10,000-99,999 lbs. (average daily amount)
Storage location:
1) 819 Edgewater Yard

Fumaric Acid

CAS#: 110-17-8 Form: Solid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 847 Whittier Warehouse

Glycolie Acid

CAS#: 79-14-1 Form: Liquid
Quantity: 100-999 lbs.(average daily amount)
Storage location:
1) 819 Edgewater Yard

Comment: Contains 57% Hydroxacetic Acid (79-14-1)

Isopropyl Alcohol

CAS#: 67-63-0 Form: Liquid
Quantity: 10,000-99,999 lbs. (average daily amount)
Storage locations:
1) 820 Whittier Warehouse
2) 849 Edgewater Warehouse
3) 845/842 Yard

Iso octyl Alcohol

CAS#: 26952-21-6 Form: Liquid
Quantity: 10,000-99,000 lbs.(average daily amount)
Storage location:
1) 845/842 Yard

Kopanex Cleaner 44

CAS#: N/A Form: Liquid
Quantity: 100-999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: Contains 20% Potassium hydroxide (1310-58-3)

Inventory of Hazardous Materials (Cont'd)

Magnasoft

CAS#: N/A Form: Liquid
Quantity: 100-999 lbs. (average daily amount)
Storage location:
1) Containment behind 849/855 Edgewater

Magnasoft Ultra Fluid

CAS#: N/A Form: Liquid
Quantity: 1,000 - 9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Manganol HF-277

CAS#: N/A Form: Liquid
Quantity: 100-999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: Contains 1% Hydrochloric Acid (7647-01-0)

Mangahol PN-45

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: Contains 9% Mayoquest 1500 and 1% Hydrochloric Acit (7647-01-0)

2-methyl-1-pentanol

CAS#: 105-30-6 Form: Liquid
Quantity: 10,000-99,999 lbs. (average daily amount)
Storage location:
1) 819 Edgewater Yard

Petroleum Distillates, N.O.S.

CAS#: N/A Form: Liquid
Quantity: 1,000-9,000 lbs. (average daily amount)
Storage location:
1) 829 Whittier Warehouse

Phosphoric Acid

CAS#: 7664-38-2 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Phosphorus Pentoxide

CAS#: 1314-56-3 Form: Solid
Quantity: 10,000-99,999 lbs.(average daily amount)
Storage location:
1) 820 Whittier Warehouse

Potassium Hydroxide

CAS#: 1310-58-3 Form: Solid and Liquid
Quantity: 10,000-99,999 lbs.(average daily amount)
Storage locations:
1) 847 Whittier Warehouse
2) 845/842 Yard

Petroleum Distillates, N.O.S.

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs.(average daily amount)
Storage location:
1) 820 Whittier Warehouse

Phosphoric Acid

CAS#: 7664-38-2 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Protox HTA-5

CAS#: 68155-39-5 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: Contains Ethoxylated Hydrogenated Tallow Amine

Protox T-2

CAS#: 68155-39-5 Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comments: Contains Ethoxylated Amine

Rexan BLF

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: Contains 5% Isopropanol (67-63-0)

Rexan CHC

CAS#: N/A Form: Liquid
Quantity: 1,000-9,000 lbs (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Comment: Contains 4% Isopropanol (67-63-0)

Rexan LFDD

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: Contains 3% Isopropanol (67-63-0)

Sodium Hydroxide

CAS#: 1310-73-2 Form: Liquid and Solid
Quantity: 10,000 - 99,999 lbs. (average daily amount)
Storage locations:
1) 819 Edgewater Plant
2) 820 Whittier Warehouse
3) 849 Edgewater Warehouse

Strodex MO-100

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: Contains 100% Diisooctyl Acid Phosphate (27215-10-7)

Strodex P-100

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: Contains 50% Diisooctyl Acid Phosphate (27215-10-7)

Strodex PSK-28

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: Contains 8% Isopropanol (67-63-0)

Strodex SEK-50

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) 849 Edgewater Warehouse

Comment: Contains 10% Isopropanol (67-63-0)

Inventory of Hazardous Materials (Cont'd)

Sulfuric Acid

CAS#: 7664-93-9 Form: Liquid
Quantity: 10,000-99,999 lbs. (average daily amount)
Storage location:
1) 819 Edgewater Plan

Triethanolamine

CAS#: 102-71-6 Form: Liquid
Quantity: 1,000-9,999 lbs (average daily amount)
Storage location:
1) 820 Whittier Warehouse

Varisoft 475

CAS#: N/A Form: Liquid
Quantity: 1,000-9,999 lbs. (average daily amount)
Storage location:
1) Containment behind 849/855 Edgewater

Comment: Contains 25% Isopropanol (67-63-0)

5.2 Environmental Permit(s)

There are both air and waste water permits for the subject property. Dexter Chemical Corp. has New York City DEP air permits for all emission points and three air permits from New York State. The New York State air permits are for 842 Whittier and 819 Edgewater processing plants, (sulfanation process and phosphation process).

Dexter Chemical Corp. has a New York City DEP Industrial Wastewater Discharge Permit (#95-P625Y1). The permit recognized two discharge points; one at 819 Edgewater and one at 842 Whittier plant.

APPENDIX 3

Declaration of Covenants and Restrictions

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT, made the ___ day of _____ 2010, by **EDGEWATER REALTY, L.L.C.** (Edgewater Realty) a limited liability company organized and existing under the laws of the State of New York and having an address at 421 Bruckner Boulevard, Bronx, New York 10455, as successor to the real estate interests of, and by **Dexter Chemical L.L.C.** (Dexter) a limited liability company organized and existing under the laws of the State of New York and having a mailing address of P.O. Box 1496, Jackson, NJ 08527;

WHEREAS, the Dexter Site (as hereafter described) is the subject of a Voluntary Cleanup Agreement ("the Agreement") executed by Dexter as part of the New York State Department of Environmental Conservation's (the "Department's) Voluntary Cleanup Program, namely that parcel of real property (the Dexter Site) located on 819-845 Edgewater Road and 810-842 Whittier Street in the County of Bronx, State of New York, which is part of lands conveyed by Dexter to Edgewater Realty by deed dated June 6, 2007, and recorded in the New York County Clerk's Office on June 6, 2007 in Book of Deeds as CRFN NUMBER 2007000427999 at Reel 1626 page 134, Reel 1626 page 142, Reel 1626 page 138 and Reel 1626 page 130 and being more particularly described in Appendix "A" (Deed with Real Property Description [Deed]), attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, each of Edgewater Realty and Dexter, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions, is as shown on the survey attached to this declaration as Appendix "B" and made a part hereof, and consists of that parcel of real property located at 819 Edgewater Road, (Section 10, Block 2762, Lot 300) ("819 Edgewater"), 842 Whittier Street, (Section 10, Block 2762, Lot 272) ("842 Whittier"), 845 Edgewater Road,(Section 10, Block 2762, Lot 294) ("845 Edgewater"), 810-820 Whittier Street, (Section 10, Block 2762, Lot 257) ("810-820 Whittier") and 835 Edgewater Road, (Section 10, Block 2762, Lot 299) ("835 Edgewater") (such tax Section, Block and Lot references as set forth on the Tax Map of Bronx County), New York City, State of New York; and

Second, unless prior written approval by the New York State Department of Environmental Conservation or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which damages or prevents the function of the existing composite cover system, as defined below and shown in Appendix "B" and made a part hereof, unless such work is conducted in accordance with the soil management provisions contained within the Department-approved Site Management Plan (the "SMP") for the Property; and

Third, the owner of the Property shall prohibit the Property from ever being used for purposes other than commercial or industrial without the express written waiver of such prohibition by the Relevant Agency; and

Fourth, the owner of the Property shall prohibit the use, by the then owner or operator of the Property, of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial or other purposes or reasons, unless the user first obtains permission to do so from the Relevant Agency, with the exception of for investigation or remediation, such as for the approved remediation system.

Fifth, the owner of the Property shall continue in full force and effect any institutional controls (ICs) and engineering controls (ECs) required under the Agreement and SMP, and maintain and operate such controls in the manner specified in the SMP, unless the owner first obtains permission to discontinue such controls from the Relevant Agency.

Sixth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner, and its successors and assigns, consents to enforcement by the Relevant Agency of the prohibitions and restrictions that Paragraph X of the Agreement requires to be recorded, and hereby covenants not to contest the authority of the Relevant Agency to seek enforcement.

Seventh, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

Dexter/Volunteer/Former Owner
Dexter Chemical, L.L.C.

By_____
Leonard Sitver, President

Property Owner
Edgewater Realty, L.L.C.

By_____
Brian Tivnan, President

DEXTER CHEMICAL, L.L.C. ACKNOWLEDGEMENT

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

On the _____ day of _____, 2010, before me personally came, _____, to me known, who, being by me duly sworn, did depose and say that he resides at _____, _____, New York _____ and that he is the _____, an authorized official, of Dexter Chemical L.L.C., the limited liability company described in and which executed this instrument; and that he signed his name thereto by order of the managing officials and members of such LLC, as its voluntary act and deed for the purposes therein expressed. Signed and sworn before me on _____, 2010.

_____
Notary Public of

EDGWATER REALTY, L.L.C. ACKNOWLEDGEMENT

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

On the _____ day of _____, 2010, before me personally came, _____, to me known, who, being by me duly sworn, did depose and say that he resides at _____, _____, New York _____ and that he is the _____, an authorized official, of Edgewater Realty, L.L.C., the limited liability company described in and which executed this instrument, being the owner of the Property; and that he signed his name thereto by order of the managing officials and members of such LLC, as its voluntary act and deed for the purposes therein expressed.

Signed and sworn before me on _____, 2010.

_____
Notary Public of

DECLARATION of COVENANTS and RESTRICTIONS
BY
Edgewater Realty, LLC (Owner)
&
Dexter Chemical LLC (Volunteer)

SITE PREMISES: Block 2762, Lots 257, 272, 294, 299 and 300
845 Edgewater (Block 2762, Lot 294)
842 Whittier (Block 2762, Lot 272)
810-820 Whittier and 835 Edgewater (Block 2762, Lots 257 & 299), and
819 Edgewater (Block 2762, Lot 300)
City of New York,
Borough and County of Bronx,
State of New York

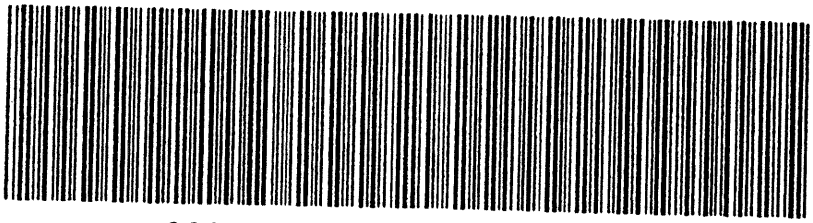
RECORD & RETURN TO: RICHARD J. CONWAY, JR.
Schenck, Price, Smith & King, LLP
220 Park Avenue PO Box 991
Florham Park, NJ 07932
Direct Phone: 973-540-7328
Fax: 973-540-7300
E-Mail: rjc@spsk.com

DATED:

Appendix A
Real Property Description

NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2007061300475001001EC8D0

RECORDING AND ENDORSEMENT COVER PAGE

Document ID: 2007061300475001 Document Date: 06-06-2007 Preparation Date: 06-13-2007
Document Type: DEED
Document Page Count: 12

PRESENTER:
TRIBOROUGH LAND SERVICES AS AGENT FOR
COMMONWEALTH
1121 OLD WALT WHITMAN ROAD
*****PICK UP*****TBL15857BX
MELVILLE, NY 11747
631-385-8844

RETURN TO:
LANCE LONGO ESQ
43 SCHNEIDER LANE
HAUPPAUGE, NY 11788

PROPERTY DATA

Borough	Block	Lot		Unit	Address
BRONX	2762	300	Entire Lot		819 EDGEWATER ROAD

Property Type: COMMERCIAL REAL ESTATE

Borough	Block	Lot		Unit	Address
BRONX	2762	272	Entire Lot		842 WHITTIER STREET

Property Type: COMMERCIAL REAL ESTATE

x Additional Properties on Continuation Page

CROSS REFERENCE DATA

CRFN_____ *or* Document ID_____ *or* _____ Year____ Reel ___ Page ____ *or* File Number_____

PARTIES

GRANTOR/SELLER:
DEXTER CHEMICAL LLC
845 EDGEWATER ROAD
BRONX, NY 10474

GRANTEE/BUYER:
EDGEWATER REALTY LLC
421 BRUCKNER BOULEVARD
BRONX, NY 10455

FEES AND TAXES

Mortgage

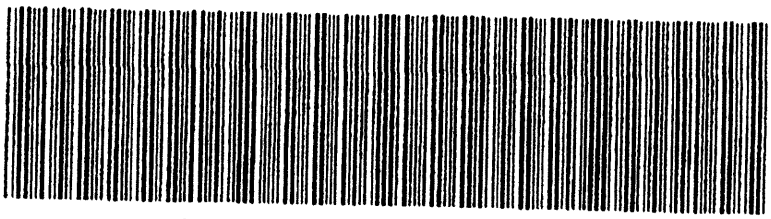
Mortgage Amount:	$	0.00
Taxable Mortgage Amount:	$	0.00
Exemption:		
TAXES: County (Basic):	$	0.00
City (Additional):	$	0.00
Spec (Additional):	$	0.00
TASF:	$	0.00
MTA:	$	0.00
NYCTA:	$	0.00
Additional MRT:	$	0.00
TOTAL:	$	0.00
Recording Fee:	$	109.00
Affidavit Fee:	$	0.00

Filing Fee: $ 165.00
NYC Real Property Transfer Tax: $ 131,250.00
NYS Real Estate Transfer Tax: $ 20,000.00

RECORDED OR FILED IN THE OFFICE OF THE CITY REGISTER OF THE CITY OF NEW YORK
Recorded/Filed 08-17-2007 16:14
City Register File No.(CRFN): **2007000427999**

City Register Official Signature

NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER



2007061300475001001CCA50

RECORDING AND ENDORSEMENT COVER PAGE (CONTINUATION)

Document ID: 2007061300475001 Document Date: 06-06-2007 Preparation Date: 06-13-2007
Document Type: DEED

PROPERTY DATA

Borough	Block	Lot		Unit	Address
BRONX	2762	294	Entire Lot		845 EDGEWATER ROAD
Property Type:	COMMERCIAL REAL ESTATE				
Borough	**Block**	**Lot**		**Unit**	**Address**
BRONX	2762	257	Entire Lot		812 WHITTIER STREET
Property Type:	COMMERCIAL REAL ESTATE				
Borough	**Block**	**Lot**		**Unit**	**Address**
BRONX	2762	299	Entire Lot		835 EDGEWATER ROAD
Property Type:	COMMERCIAL REAL ESTATE				

TBL 15857 BX

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT-THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY

THIS INDENTURE, made the 6 day of June , 2007

BETWEEN

DEXTER CHEMICAL L.L.C.
845 Edgewater Road
Bronx, New York 10474

party of the first part, and

EDGEWATER REALTY LLC
421 Bruckner Boulevard
Bronx, New York 10455

party of the second part,
WITNESSETH, that the party of the first part, in consideration of

Ten ($10.00) dollars paid

by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the

PLEASE SEE SCHEDULE A ATTACHED HERETO AND MADE A PART HEREOF.

Stamps
$20,000.00

B-2762
L-300.
272,
294,
257,
299

Being the same premises as those described in Deed in Reel 1626 page 134, Reel 1626 page 142, Reel 1626 page 138 and Reel 1626 page 130

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof; TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises; TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose. The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

DEXTER CHEMICAL L.L.C.

By: Member Leonard Sitver

Standard N.Y.B.T.U. Form 8001- Bargain and Sale Deed, without Covenant against Grantor's Acts - Uniform Acknowledgment
Form 3264

EXHIBIT A-1

819 Edgewater

PARCEL 1 TAX LOT 300

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Drake Street, now known as Edgewater Road, distant 100 feet northerly from the corner formed by the intersection of the northerly side of Lafayette Avenue and the westerly side of Drake Street;

RUNNING THENCE westerly and parallel with Lafayette Avenue, 100 feet;

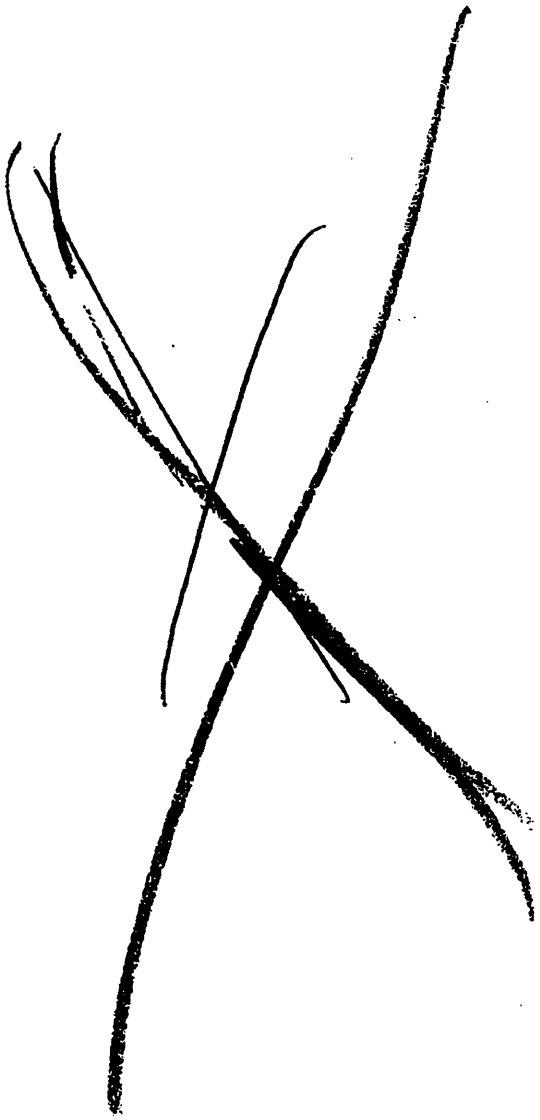
THENCE northerly and parallel with Whittier Street, 175 feet to the southerly line of land conveyed to Charles D. Beckwith, Inc. by deed from Gelszler-Haas Realty Company dated May 26, 1924 and recorded May 27, 1924 in Liber 452 of Conveyances at page 326 in the Office of the Register of the County of Bronx;

THENCE easterly and along the southerly line of said land and parallel with Lafayette Avenue, 100 feet to the westerly side of Drake Street;

THENCE southerly along the westerly side of Drake Street, 175 feet to the point or place of BEGINNING.

EXHIBIT A-2

842 Whittier



PARCEL 2 LOT 272

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the easterly side of Whittler Street, distant 205.25 feet southerly from the corner formed by the intersection of the easterly side of Whittler Street and the southerly side of Seneca Avenue;

RUNNING THENCE southerly along the said easterly side of Whittler Street, 60.25 feet;

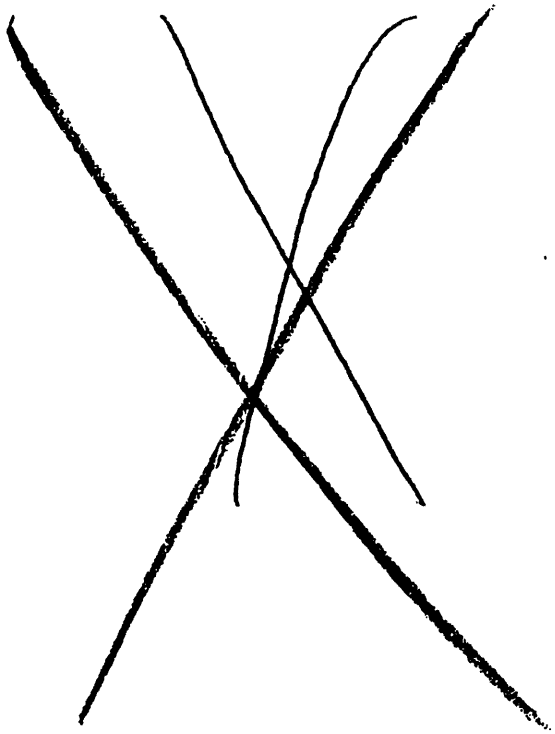
THENCE easterly and parallel with the said southerly side of Seneca Avenue, 72.78 feet;

THENCE northerly and parallel with the said easterly side of Whittler Street, 60.25 feet;

THENCE westerly and parallel with the said southerly side of Seneca Avenue, 72.78 feet to the point or place of BEGINNING.

EXHIBIT A-3

845 Edgewater



PARCEL 3 TAX LOT 294

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the westerly side of Edgewater Road, distant 325 feet northerly from the corner formed by the intersection of the northerly side of Lafayette Avenue and the westerly side of Edgewater Road;

RUNNING THENCE westerly and at right angles to the westerly side of Edgewater Road, 100 feet;

THENCE northerly and parallel or nearly so with Edgewater Road and along the center line of block, 40.60 feet;

THENCE in a northwesterly direction and along the southerly line of the Map of Estate of Charles D. Dickey, filed July 27, 1921, as Map No. 495 in the Register's Office of Bronx County, 30.03 feet to a point;

THENCE in a northwesterly direction and along the southerly line as shown on the Map of the Estate of Charles D. Dickey, filed July 27, 1921, as Map No. 499 in the Register's Office in Bronx County and also along the southerly line as shown on Map of 369 Lots of the Hunts Point Realty Co., filed June 3, 1908, as Map No. 1273 in the Register's Office of New York County, 73.27 feet to a point on the easterly side of Whittler Street, which point is 389.88 feet north of Lafayette Avenue;

THENCE northerly and along the easterly side of Whittler Street, 19.62 feet;

THENCE easterly and at right angles to the easterly side of Whittler Street, 72.78 feet;

THENCE northerly and parallel with the easterly side of Whittler Street, 60.25 feet;

THENCE easterly and at right angles to the last mentioned course, 17.67 feet;

THENCE southerly and parallel or nearly so with the easterly side of Whittler Street and at right angles with the last mentioned course, 21.30 feet;

THENCE easterly and parallel or nearly so with the southerly side of Seneca Avenue, 109.55 feet to a point on the westerly side of Edgewater Road, which point, is 226.55 feet south of the southerly side of Seneca Avenue;

THENCE southerly along the westerly side of Edgewater Road, 123.45 feet to the point or place of BEGINNING.

EXHIBIT A-4

810-820 Whittier

PARCEL 4 AND 5 TAX LOT 257 AND 299

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the easterly side of Whittler Street, distant 100 feet north of the corner formed by the intersection of the easterly side of Whittler Street with the northerly side of Lafayette Avenue;

RUNNING THENCE easterly at right angles to Whittler Street, 100 feet;

THENCE northerly parallel with Whittler Street, 175 feet;

THENCE easterly at right angles to Edgewater Road, 100 feet to the westerly side of Edgewater Road;

THENCE northerly along the westerly side of Edgewater Road, 50 feet;

THENCE westerly at right angles to Edgewater Road, 100 feet;

THENCE northerly parallel with Whittler Street, 40.66 feet to the southerly line of lots on map of property of the Estate of Charles P. Dickey, known as Green Bank, filed on July 27, 1921 in the Bronx Register, as Map No. 495;

THENCE northwesterly along the southerly line of the aforesaid lots on said map, 30.03 feet;

THENCE continuing northwesterly and along the southerly line of Lot No. 2 on map of 369 lots owned by Hunts Realty Co. filed in the Bronx Register on June 3, 1908, as Map Nos. 1273, 73.27 feet to the easterly side of Whittler Street;

THENCE southerly along said easterly side of Whittler Street, 289.88 feet to the point or place of BEGINNING.

PARCEL 4 AND 5 TAX LOT 257 AND 299

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough and County of Bronx, City and State of New York, bounded and described as follows:

BEGINNING at a point on the easterly side of Whittler Street, distant 100 feet north of the corner formed by the intersection of the easterly side of Whittler Street with the northerly side of Lafayette Avenue;

RUNNING THENCE easterly at right angles to Whittler Street, 100 feet;

THENCE northerly parallel with Whittler Street, 175 feet;

THENCE easterly at right angles to Edgewater Road, 100 feet to the westerly side of Edgewater Road;

THENCE northerly along the westerly side of Edgewater Road, 50 feet;

THENCE westerly at right angles to Edgewater Road, 100 feet;

THENCE northerly parallel with Whittler Street, 40.66 feet to the southerly line of lots on map of property of the Estate of Charles P. Dickey, known as Green Bank, filed on July 27, 1921 in the Bronx Register, as Map No. 495;

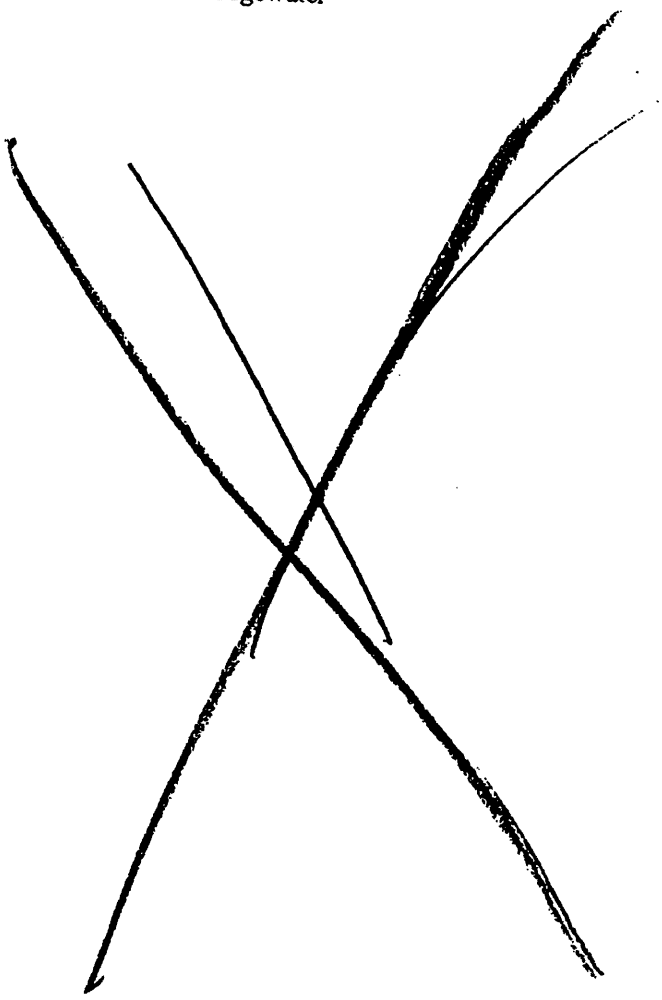
THENCE northwesterly along the southerly line of the aforesaid lots on said map, 30.03 feet;

THENCE continuing northwesterly and along the southerly line of Lot No. 2 on map of 369 lots owned by Hunts Realty Co. filed in the Bronx Register on June 3, 1908, as Map Nos. 1273, 73.27 feet to the easterly side of Whittler Street;

THENCE southerly along said easterly side of Whittler Street, 289.88 feet to the point or place of BEGINNING.

EXHIBIT A-5

835 Edgewater



TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE IN NEW YORK STATE

State of New York, County of New York ss:

On the 6 day of June in the year 2007 before me, the undersigned, personally appeared Dexter Chemical LLC / Leonard Sitrer, member personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

(signature and office of individual taking acknowledgment)

PATRICK J. SPENCER
Notary Public, State Of New York
No. 01SP6093901
Qualified In Nassau County
Commission Expires June 9, 2007

SEAL

State of New York, County of ss:

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

(signature and office of individual taking acknowledgment)

TO BE USED ONLY WHEN THE ACKNOWLEDGMENT IS MADE OUTSIDE NEW YORK STATE

State (or District of Columbia, Territory, or Foreign Country) of ss:

On the day of in the year before me, the undersigned, personally appeared

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

(insert the City or other political subdivision) in (and insert the State or Country or other place the acknowledgment was taken)

(signature and office of individual taking acknowledgment)

BARGAIN AND SALE DEED
WITHOUT COVENANT AGAINST GRANTOR'S ACTS

Title No. 15857 BX

Dexter Chemical L.L.C.

TO

Edgewater Realty LLC

DISTRICT

SECTION 10

BLOCK 2762

LOT 300, 272, 294, 257, 299,

COUNTY OR TOWN Bronx County

STREET ADDRESS 819, 845 & 835 Edgewater St., and 842 & 810-820 Whittier St.

Recorded at Request of
NEW YORK TITLE

RETURN BY MAIL TO:

Lance Longo, Esq.
43 Schneider Lane
Hauppauge, New York 11788

STANDARD FORM OF NEW YORK BOARD OF TITLE UNDERWRITERS

NEW YORK TITLE RESEARCH CORPORATION

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RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER

2007061300475001001S0651

SUPPORTING DOCUMENT COVER PAGE **PAGE 1 OF 1**

Document ID: 2007061300475001 Document Date: 06-06-2007 Preparation Date: 06-13-2007
Document Type: DEED

ASSOCIATED TAX FORM ID: 2007060400310

SUPPORTING DOCUMENTS SUBMITTED:

	Page Count
RP - 5217 REAL PROPERTY TRANSFER REPORT	3

FOR CITY USE ONLY

C1. County Code | C2. Date Deed Recorded Month / Day / Year

C3. Book OR C4. Page

C5. CRFN

REAL PROPERTY TRANSFER REPORT

STATE OF NEW YORK
STATE BOARD OF REAL PROPERTY SERVICES

RP - 5217NYC

(Rev 11/2002)

PROPERTY INFORMATION

1. Property Location: 819 (STREET NUMBER) EDGEWATER ROAD (STREET NAME) BRONX (BOROUGH) 10474 (ZIP CODE)

2. Buyer Name: EDGEWATER REALTY LLC (LAST NAME / COMPANY) (FIRST NAME)

(LAST NAME / COMPANY) (FIRST NAME)

3. Tax Billing Address: Indicate where future Tax Bills are to be sent if other than buyer address (at bottom of form) (LAST NAME / COMPANY) (FIRST NAME)

(STREET NUMBER AND STREET NAME) (CITY OR TOWN) (STATE) (ZIP CODE)

4. Indicate the number of Assessment Roll parcels transferred on the deed: 5 # of Parcels OR ☐ Part of a Parcel

4A. Planning Board Approval - N/A for NYC

4B. Agricultural District Notice - N/A for NYC

5. Deed Property Size: (FRONT FEET) X (DEPTH) OR (ACRES)

Check the boxes below as they apply:

6. Ownership Type is Condominium ☐

7. New Construction on Vacant Land ☐

8. Seller Name: DEXTER CHEMICAL LLC (LAST NAME / COMPANY) (FIRST NAME)

(LAST NAME / COMPANY) (FIRST NAME)

9. Check the box below which most accurately describes the use of the property at the time of sale:

A ☐ One Family Residential
B ☐ 2 or 3 Family Residential
C ☐ Residential Vacant Land
D ☐ Non-Residential Vacant Land
E ☑ Commercial
F ☐ Apartment
G ☐ Entertainment / Amusement
H ☐ Community Service
I ☐ Industrial
J ☐ Public Service

SALE INFORMATION

10. Sale Contract Date: 4 / 25 / 2007 (Month / Day / Year)

11. Date of Sale / Transfer: 6 / 6 / 2007 (Month / Day / Year)

12. Full Sale Price $ 5,000,000

(Full Sale Price is the total amount paid for the property including personal property. This payment may be in the form of cash, other property or goods, or the assumption of mortgages or other obligations.) *Please round to the nearest whole dollar amount.*

13. Indicate the value of personal property included in the sale

14. Check one or more of these conditions as applicable to transfer:

A ☐ Sale Between Relatives or Former Relatives
B ☐ Sale Between Related Companies or Partners in Business
C ☐ One of the Buyers is also a Seller
D ☐ Buyer or Seller is Government Agency or Lending Institution
E ☐ Deed Type not Warranty or Bargain and Sale (Specify Below)
F ☐ Sale of Fractional or Less than Fee Interest (Specify Below)
G ☐ Significant Change in Property Between Taxable Status and Sale Dates
H ☐ Sale of Business is Included in Sale Price
I ☐ Other Unusual Factors Affecting Sale Price (Specify Below)
J ☑ None

ASSESSMENT INFORMATION - Data should reflect the latest Final Assessment Roll and Tax Bill

15. Building Class: F 4

16. Total Assessed Value (of all parcels in transfer)

17. Borough, Block and Lot / Roll Identifier(s) (If more than three, attach sheet with additional identifier(s))

BRONX 2762 300 | BRONX 2762 272 | BRONX 2762 294

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and I understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

BUYER

Edgewater Realty, LLC

BUYER SIGNATURE | 6/6/07 DATE

STREET NUMBER | STREET NAME (AFTER SALE)

CITY OR TOWN | STATE | ZIP CODE

BUYER'S ATTORNEY

Longo (LAST NAME) | Lance (FIRST NAME)

631 (AREA CODE) | 342-9664 (TELEPHONE NUMBER)

SELLER

SELLER SIGNATURE | 6/6/07 DATE

Member

2007060400310201

CERTIFICATION

I certify that all of the items of information entered on this form are true and correct (to the best of my knowledge and belief) and understand that the making of any willful false statement of material fact herein will subject me to the provisions of the penal law relative to the making and filing of false instruments.

Edgewater Realty LLC

BUYER

by: [signature]
BUYER SIGNATURE

6/6/07
DATE

STREET NUMBER | STREET NAME (AFTER SALE)

CITY OR TOWN | STATE | ZIP CODE

BUYER'S ATTORNEY

Lango | Lance
LAST NAME | FIRST NAME

631 | 342-9664
AREA CODE | TELEPHONE NUMBER

SELLER

[signature]
SELLER SIGNATURE
Member

6/6/07
DATE

2007060400310201

The City of New York
Department of Environmental Protection
Bureau of Customer Services
59-17 Junction Boulevard
Flushing, NY 11373-5108

www.nyc.gov/dep

Customer Registration Form for Water and Sewer Billing

Property and Owner Information:

(1) Property receiving service is located in the Borough of **BRONX**
Block: **2762** Lot: **300**

(2) Account Number (if applicable):
Meter Number (if available–include the letter):

(3) Street Address of Property Receiving Service:
Street **819 EDGEWATER ROAD** City **NY** State **NY** Zip **10474**

(4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service: (please provide information on owner ONLY; do NOT give information on property manager or tenant):
Owner's Name Business: **EDGEWATER REALTY LLC**
or Individual:
(Last Name) (First Name) (MI)
Street **421 BRUCKNER BOULEVARD** City **BRONX** State **NY** Zip **10455**
Home Phone(Numbers only): Business Phone(Numbers only):

Customer Billing Information:

PLEASE NOTE:

A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.

B. Water and sewer charges constitute a lien on the property until paid. In addition to legal action against the owner, a failure to pay such charges when due may result in foreclosure of the lien by the City of New York, or the property being placed in a lien sale by the City.

C. Original bills for water and/or sewer service will be mailed to the owner, at the owner's address specified on this form. DEP will provide a duplicate copy of bills to one other party (such as a managing agent) if so requested below, provided, however, that any failure or delay by DEP in providing duplicate copies of bills shall in no way relieve the owner from his/her/its liability to pay all outstanding water and sewer charges.

(5) If you would like a duplicate copy of bills sent to another party, please check here ☐ and fill out the following information:
Name of Party to Receive Duplicate Copies of Bills:

(6) Mailing Address: Street City State Zip

(7) Relationship to Owner (check one): Managing Agent ☐ Mortgagee ☐
Tenant ☐ Other (please explain):

Owner's Approval

The undersigned certifies that he/she/it is the owner of the property receiving service referenced above; that he/she/it has read and understands Paragraphs A, B, C under the section captioned "Customer Billing Information"; and that the information supplied by the undersigned on this form is true and complete to the best of his/her/its knowledge.

(8) E-mail:

(9) Name of Owner:

(10) Signature: _____
Name and Title of Person Signing for Owner, if applicable:
Date(mm/dd/yyyy): / /

2007060400310101

ATTACHMENT

The City of New York
Department of Environmental Protection
Bureau of Customer Services
59-17 Junction Boulevard
Flushing, NY 11373-5108

www.nyc.gov/dep

Customer Registration Form for Water and Sewer Billing

Property and Owner Information:

(1) Property receiving service is located in the Borough of **BRONX**
Block: **2762** Lot: **272**

(2) Account Number (if applicable):
Meter Number (if available–include the letter):

(3) Street Address of Property Receiving Service:
Street **842 WHITTIER STREET** City **NY** State **NY** Zip **10474**

(4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service: (please provide information on owner ONLY; do NOT give information on property manager or tenant):
Owner's Name Business: **EDGEWATER REALTY LLC**
or Individual:
(Last Name) (First Name) (MI)
Street **421 BRUCKNER BOULEVARD** City **BRONX** State **NY** Zip **10455**
Home Phone(Numbers only): Business Phone(Numbers only):

Customer Billing Information:

PLEASE NOTE:

A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.

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Tenant ☐ Other (please explain):

Owner's Approval

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(8) E-mail:

(9) Name of Owner:

(10) Signature: _____
Name and Title of Person Signing for Owner, if applicable:
Date(mm/dd/yyyy): / /

2007060400310101 01

ATTACHMENT

The City of New York
Department of Environmental Protection
Bureau of Customer Services
59-17 Junction Boulevard
Flushing, NY 11373-5108

www.nyc.gov/dep

Customer Registration Form for Water and Sewer Billing

Property and Owner Information:

(1) Property receiving service is located in the Borough of **BRONX**
Block: **2762** Lot: **294**

(2) Account Number (if applicable):
Meter Number (if available–include the letter):

(3) Street Address of Property Receiving Service:
Street **845 EDGEWATER ROAD** City **NY** State **NY** Zip **10474**

(4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service: (please provide information on owner ONLY; do NOT give information on property manager or tenant):
Owner's Name Business: **EDGEWATER REALTY LLC**
or Individual:
(Last Name) (First Name) (MI)
Street **421 BRUCKNER BOULEVARD** City **BRONX** State **NY** Zip **10455**
Home Phone(Numbers only): Business Phone(Numbers only):

Customer Billing Information:

PLEASE NOTE:

A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.

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Name of Party to Receive Duplicate Copies of Bills:

(6) Mailing Address: Street City State Zip

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Tenant ☐ Other (please explain):

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(9) Name of Owner:

(10) Signature: _____
Name and Title of Person Signing for Owner, if applicable:
Date(mm/dd/yyyy): / /

2007060400310101 01

ATTACHMENT

The City of New York
Department of Environmental Protection
Bureau of Customer Services
59-17 Junction Boulevard
Flushing, NY 11373-5108

www.nyc.gov/dep

Customer Registration Form for Water and Sewer Billing

Property and Owner Information:

(1) Property receiving service is located in the Borough of **BRONX**
Block: **2762** Lot: **257**

(2) Account Number (if applicable):
Meter Number (if available–include the letter):

(3) Street Address of Property Receiving Service:
Street **812 WHITTIER STREET** City **NY** State **NY** Zip **10474**

(4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service: (please provide information on owner ONLY; do NOT give information on property manager or tenant):
Owner's Name Business: **EDGEWATER REALTY LLC**
or Individual:
(Last Name) (First Name) (MI)
Street **421 BRUCKNER BOULEVARD** City **BRONX** State **NY** Zip **10455**
Home Phone(Numbers only): Business Phone(Numbers only):

Customer Billing Information:

PLEASE NOTE:

A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.

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Tenant ☐ Other (please explain):

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Date(mm/dd/yyyy): / /

2007060400310101 01

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The City of New York
Department of Environmental Protection
Bureau of Customer Services
59-17 Junction Boulevard
Flushing, NY 11373-5108

www.nyc.gov/dep

Customer Registration Form for Water and Sewer Billing

Property and Owner Information:

(1) Property receiving service is located in the Borough of **BRONX**
Block: **2762** Lot: **299**

(2) Account Number (if applicable):
Meter Number (if available–include the letter):

(3) Street Address of Property Receiving Service:
Street **835 EDGEWATER ROAD** City **NY** State **NY** Zip **10474**

(4) Full name, mailing address, home phone and business phone numbers of owner of property receiving service: (please provide information on owner ONLY; do NOT give information on property manager or tenant):
Owner's Name Business: **EDGEWATER REALTY LLC**
or Individual:
(Last Name) (First Name) (MI)
Street **421 BRUCKNER BOULEVARD** City **BRONX** State **NY** Zip **10455**
Home Phone(Numbers only): Business Phone(Numbers only):

Customer Billing Information:

PLEASE NOTE:

A. Water and sewer charges are the legal responsibility of the owner of a property receiving water and/or sewer service. The owner's responsibility to pay such charges is not affected by any lease, license or other arrangement, or any assignment of responsibility for payment of such charges.

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(9) Name of Owner:

(10) Signature: _____
Name and Title of Person Signing for Owner, if applicable:
Date(mm/dd/yyyy): / /

2007060400310101 01

RP - 5217 NYC

ATTACHMENT

Borough	Block	Lot
BRONX	2762	257
BRONX	2762	299

2007060400310201O1

Appendix B

Site Survey—Composite Cover System

TITLE NO. 80376 THIS SURVEY WAS ALTERED BY VISUAL EXAMINATION OF PREMISES ON September 23, 2005 BY FEHRINGER SURVEYING, P.C. 148 N. Park Avenue, Rockville Centre, NY 11570 (516) 763-5515 FAX (516) 763-5525
SEE (14) ITEMS MARKED (A)

THIS SURVEY ALTERED BY VISUAL EXAMINATION IS CERTIFIED TO:

1. First American Title Insurance Company of New York
2. The Judicial Title Insurance Agency LLC
3. Sturdy Concrete Corp.

THIS SURVEY IS INTENDED TO BE USED FOR TITLE PURPOSES ONLY AND IS SUBJECT TO WHATEVER A MORE COMPLETE TITLE SEARCH MAY BE REVEAL. IT IS NOT TO SCALE AND USING IT TO LOCATE NEW CONSTRUCTION MAY RESULT IN PROBLEMS FOR WHICH THIS SURVEYOR WILL NOT BE LIABLE.

(A) PROJECTIONS
SECURITY GATE ... 1.25±
BOLLARDS ... 2.00±
STAND PIPE ... 0.33±
WATER METER ... 0.10±
SIGN ... 0.06±
BLDG. TRIM ... 0.06±

(A) PROJECTIONS
TRIM ... 0.33±
LIGHTS ... 0.60±
A.C. UNIT ... 1.25±
WINDOW GUARDS ... 2.00±
STEP ... 1.00±
VENT ... 0.06±
WATER METER ... 0.10±
HOSE BIB ... 0.20±

(A) PROJECTIONS
TRIM ... 0.10±
ALARM ... 0.50±
VENT PIPES ... 0.60±
SIGN ... 0.06±
STAND PIPE ... 0.70±
METAL DOOR ... 3.00±
GRATED AREA 1.20±

EDGEWATER ROAD (DRAKE STREET)

SENECA AVENUE

LAFAYETTE AVENUE (100' WIDE)

WHITTIER STREET (60' WIDE)

(A) GATE
123.45'
50.00'
175.00'
325.00'
226.55'
(A) No. 855
1 STORY GRANITE BLOCK BUILDING
1 STORY BRICK BUILDING
TAX LOT 299
2 STORY BRICK BUILDING
100.00'
(A) FENCE & GATE NOT LOCATED
ASPHALT YARD
(A) CONC. BLOCK WALL
2 STORY BRICK
100.00'
(A) TANK
1 STORY STUCCO BUILDING
73.00'
1 STORY BRICK AND CONCRETE BUILDING
100.00'
21.30'
(A) CONC. BLOCK YARD WALL NOT LOCATED
TAX LOT 294
(A) TANK
40.66'
30.00'
265.66'
TAX LOT 257
1 STORY BRICK AND CONCRETE
1 STORY BRICK BUILDING
2 STORY BRICK BUILDING
1 STORY BRICK BUILDING
100.00'
80.75'
1 STORY BRICK BUILDING
TAX LOT 272
72.78'
73.27'
205.25'
(A) ROLL UP DOOR NOT LOCATED
119.82'
(A) GATE
50.25'
289.88'
389.88'
100.00'

(A) PROJECTIONS
TRIM ... 0.06±
ALARM ... 0.30±
STAND PIPE ... 0.40±
VENT PIPE ... 0.25±
CONC. STEP ... 2.00±

(A) PROJECTIONS
SECURITY GATE ... 1.25±
ALARMS ... 0.60±
TRIM ... 0.15±
VENT PIPES ... 0.40±
STAND PIPE ... 0.30±
OIL FILL ... 0.30±
CELLAR DOOR ... 3.00±

CERTIFIED TO: NEW YORK LAND SERVICES, INC., AS AGENT FOR COMMONWEALTH LAND TITLE INSURANCE COMPANY
DEXTER CHEMICAL, LLC.
THE CHASE MANHATTAN BANK
THE HILLSTREET FUND, L.P.

DATE SURVEYED:
MAY 30, 1998

GERALD T. O'BUCKLEY, P.L.S.
NEW YORK LICENSE 039834
172-09 HENLEY ROAD
JAMAICA, N.Y. 11432-2742
TELEPHONE (718)658-7834
FAX (718)658-0048

TITLE NO. 9BNYB7327

TAX MAP
SECTION
BLOCK 2762
LOT 257,272,294,299 AND 300

FILED MAP
SECTION
BLOCK
LOT

BOROUGH OF THE BRONX
COUNTY OF THE BRONX
STATE OF NEW YORK

APPENDIX 4

RAWP (electronic copy on CD)

APPENDIX 5

Soil Management Plan (SoMP)

SOIL MANAGEMENT PLAN

FOR

DEXTER CHEMICAL, LLC
845 EDGEWATER ROAD
BRONX, NEW YORK

OCTOBER 2010

SOIL MANAGEMENT PLAN

FOR

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1. Site Location on USGS Quadrangle (see SMP Figures Section)
2. Site Plan (see SMP Figures Section)

SOIL MANAGEMENT PLAN
FOR
DEXTER CHEMICAL, LLC
845 EDGEWATER ROAD
BRONX, NEW YORK

1.0 INTRODUCTION

Dexter Chemical, L.L.C. (Dexter) is located at 819 Edgewater Road,(Section 10, Block 2762, Lot 300) ("819 Edgewater"), 842 Whittier Street, (Section 10, Block 2762, Lot 272) ("842 Whittier"), 845 Edgewater Road,(Section 10, Block 2762, Lot 294) ("845 Edgewater"), 810-820 Whittier Street, (Section 10, Block 2762, Lot 257) ("810-820 Whittier") and 835 Edgewater Road,(Section 10, Block 2762, Lot 299) ("835 Edgewater") in the Bronx, New York, hereby referred to as the Site.

Dexter entered into a Voluntary Cleanup Program (VCA) with the New York State Department of Environmental Conservation (NYSDEC) in order to set forth a process through which NYSDEC will approve and the Volunteer will implement activities designed to address in whole or in part environmental contamination at the Site. The Site will be remediated in accordance with the Voluntary Cleanup Agreement (VCA) Site/VCP # V00186-2, Index # W2-0864-03-08, which was issued on December 3, 2003 to Dexter. The Site was sold to Edgewater Realty, L.L.C., 421 Bruckner Boulevard, Bronx, NY, in May 2007.

After completion of the active remedial work described in the Remedial Action Work Plan, some contamination will be left in the subsurface at this Site, which is hereafter referred to as 'residual contamination.' This Soil Management Plan (SoMP) provides procedures to manage any future intrusive work that will disturb the residual contamination and manages modifications or repairs to the existing composite cover system.

2.0 SOIL MANAGEMENT PLAN

2.1 Soils Management

2.1.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed during any project subject to this SoMP by a qualified environmental professional during all remedial and development/construction work penetrating any engineering control (EC). In this case, the site-wide composite cover system, consisting of asphalt covered areas and concrete building slabs,

areas and sidewalks, and/or any excavations into areas with known or potentially contaminated material (i.e. all material beneath the asphalt or concrete surfaces at the site is considered contaminated unless proven otherwise via sampling). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development or construction, such as excavations for foundations and utility work, including during such time frames after the issuance of the VCA Release.

Screening will be performed by qualified environmental professionals or other experts acceptable to NYSDEC or authorized by applicable law. Resumes will be provided in the annual, certified, Site Management Report for all personnel conducting invasive work field screening (i.e. those representing the Remedial Engineer) for unknown or known contaminant sources during remediation and construction and/or development work.

2.1.2 Stockpile Methods

Stockpiles of materials excavated during any project will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarps covers will be promptly replaced. Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. Soil stockpiles will be continuously encircled with silt fences. Hay bales will be used as needed near catch basins, surface waters and other discharge points. A dedicated water truck equipped with a water cannon will be available on-Site for dust control. Stockpiles will be properly and timely characterized, removed and disposed in accordance with all applicable laws.

2.1.3 Materials Excavation and Load Out

The Remediation Engineer designated by the then owner or entity during any project subject to this SoMP, or a qualified environmental contractor, professional or expert under his/her supervision, as may be required by applicable law, will oversee all such invasive work and the excavation and load-out of all excavated material.

The owner of the Site and its contractors are solely responsible for safe execution of all invasive and other work performed at the Site and for full compliance with this SoMP and the Declaration of Covenants and Restrictions during any project subject to this SoMP.

Prior to any disturbance, the presence of utilities, SVE/AS system piping and easements on the Site will be investigated by the Remedial Engineer in advance of any project subject to this

SoMP. It will be determined whether a risk or impediment to the planned work under this SoMP is posed by utilities, system piping or easements on the Site.

Loaded vehicles leaving the Site with resulting excavated materials will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements).

A truck wash will be operated on-Site during any project subject to this SoMP. In any event, steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site. As delegated by the project owner at the time of each project, the Remediation Engineer will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until all remedial/construction work is complete.

Locations where vehicles enter or exit the Site during any project subject to this SoMP shall be inspected daily for evidence of off-Site sediment tracking. In any event, steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site.

The Remedial Engineer will be responsible for ensuring that all egress points for truck and equipment transport from the Site during any project subject to this SoMP will be clean of dirt and other materials derived from the Site during Site remediation by excavation and development/construction disturbing areas of contamination or ECs. In any event, steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site.

Cleaning of the adjacent streets will be performed as needed to maintain a clean condition for all project work.

The then owner and contractors and parties performing this work, are responsible during any project subject to this SoMP for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings) at and about the Site and for full compliance with the SMP, this SoMP and the Declaration of Covenants and Restrictions.

The Remedial Engineer will ensure that such Site development/construction activities will not interfere with, or otherwise impair or compromise, remedial activities proposed in the Remedial Action Work Plan.

Mechanical processing of historical fill and contaminated soil on-Site during any project subject to this SoMP is prohibited.

2.1.4 Materials Transport Off-Site

Steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site, of which the following provisions may apply:

- All transport of materials generated during any project subject to this SoMP, if any, will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.
- All trucks loaded with such excavated contaminated Site materials will exit the vicinity of the Site using only approved truck routes.

Proposed in-bound and out-bound truck routes to the Site will be prepared for the project. The most appropriate routes would take into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) limiting off-Site queuing of trucks entering the facility; (d) limiting total travel distance to major highways; (e) promoting safety in access to highways; (f) overall safety in transport; and (g) community input.

Trucks will be prohibited during any project subject to this SoMP from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport during any project subject to this SoMP from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks during any project subject to this SoMP will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

Material transported by trucks exiting the Site during any project subject to this SoMP will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks carrying excavated materials during any project subject to this SoMP will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

2.1.5 Materials Disposal Off-Site

The disposal locations for materials generated during any future project subject to this SoMP will be identified and reported to NYSDEC in the Annual Site Management Report.

For large projects, the total quantity of material expected to be disposed off-Site will be reported to NYSDEC prior to performance of work. This will include quantity, breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.

All soil/fill/solid waste excavated and removed from the Site during any future project subject to this SoMP will be treated as contaminated, unless pre-characterized and demonstrated as clean under all applicable standards, criteria and laws, and regulated material will be disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC's Project Manager or successor agency at that time. Unregulated off-Site management of materials from this Site is prohibited without formal NYSDEC approval unless pre-characterized and demonstrated as clean under all applicable standards, criteria and applicable laws.

Material excavated from the Site during any project subject to this SoMP that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

The following documentation will be obtained and reported by the Remedial Engineer for each disposal location used for any future project to fully demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter from the Remedial Engineer or VCP Applicant to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter will state that material to be disposed is contaminated material generated at an environmental remediation site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported; and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material.

Non-hazardous historic fill and contaminated soils taken off-Site during any project subject to this SoMP will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2

Historical fill and contaminated soils generated during any project subject to this SoMP from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

Soils that are contaminated but non-hazardous and are being removed from the Site during any project subject to this SoMP are considered by the Division of Solid & Hazardous Materials (DSHM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC Region 2 DSHM. This material is prohibited from being sent or redirected to a Part 360-16 Registration Facility. In this case, as dictated by DSHM, special procedures will include, at a minimum, a letter to the C/D facility that provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on- Site or off- Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

The Annual Site Management Report will include an accounting of the destination of all material removed from the Site during work performed under this SoMP, including excavated soil, contaminated soil, historic fill, solid waste, and hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the Annual Site Management Report.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the Annual Site Management Report.

Hazardous wastes generated during any project subject to this SoMP will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site during any project subject to this SoMP and will be in full compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal of wastes generated during any project subject to this SoMP in a manner suitable to the receiving facility and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the FER. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

2.1.6 Materials Reuse On-Site

Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site is prohibited for reuse on-Site.

Contaminated on-Site material, including historic fill and contaminated soil, removed for grading or other purposes will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

2.2 Fluids Management

All liquids to be removed from the Site during any project subject to this SoMP, including dewatering fluids, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Liquids discharged into the New York City sewer system will be addressed through approval by NYCDEP (a NYCDEP permit is required).

Dewatered fluids will not be recharged back to the land surface or subsurface of the Site. Dewatering fluids will be managed off-Site.

Discharge of water generated during remedial construction to surface waters (i.e. a local pond, stream or river) is prohibited without a SPDES permit.

2.3 Demarcation

After the completion of any soil removal and any other invasive remedial activities during any project subject to this SoMP, and prior to backfilling, a land survey will be performed by a New York State licensed surveyor. The survey will define the top elevation of residual contaminated soils, after such excavation is completed. A physical demarcation layer, consisting of orange snow fencing material or equivalent material will be placed on this surface to provide a visual reference. This demarcation layer would then constitute the top of the 'Residuals Management Zone', the zone that requires adherence to special conditions for disturbance of contaminated residual soils defined in this SoMP and the Site Management Plan (SMP). The survey will measure the grade covered by the demarcation layer before the placement of cover

soils, pavement and sub-soils, structures, or other materials. This survey and the demarcation layer placed on this grade surface will constitute a modification of the physical and written record of the upper surface of the 'Residuals Management Zone' in the Site Management Plan. A map showing the survey results will be included in the Annual Site Management Report and updates to the Site Management Plan.

2.4 Backfill from Off-Site Sources

All materials proposed for import onto the Site as clean fill for any project subject to this SoMP will be approved by the Remedial Engineer and will be in compliance with provisions in this SoMP prior to receipt at the Site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site for use as such fill.

All imported soils for use as such fill will meet NYSDEC approved backfill or cover soil quality objectives for this Site, namely Track 1 SCO (clean fill). Non-compliant soils will not be imported onto the Site for use as fill. Nothing in the approved SMP or its approval by NYSDEC should be construed as an approval for this purpose.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site for use as such fill. Nothing in this SoMP or the SMP should be construed as an approval for this purpose.

Solid waste will not be imported onto the Site for use as such fill.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

2.5 Stormwater Pollution Prevention

Silt fence barriers and hay bale checks will be installed and inspected once a week and after every storm event during any such project where soil excavated or stockpiled at the site poses a threat to storm drainage facilities. In any event, steps shall be taken during any project to contain any and all contamination such that human health and the environment shall be protected at all times during any project at the site. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

- Accumulated sediments, if any, will be removed as required to keep the barrier and hay bale check functional.
- All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.
- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.
- Silt fencing or hay bales will be installed around the entire perimeter of the remedial or construction/project area.

Erosion and sediment control measures identified in the SoMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

2.6 Contingency Plan

If previously unknown underground tanks containing hazardous materials, or other previously unidentified contaminant sources, are found during on-Site remedial excavation or development related construction or other projects, sampling will be performed on contents, free product, sediment and surrounding soils, etc. Chemical analytical work will be for full scan parameters (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs). These analyses will not be limited to STARS parameters where tanks are identified without prior approval by NYSDEC. Analyses will not be otherwise limited without NYSDEC approval.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

2.7 Community Air Monitoring Plan (CAMP)

Real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary for intrusive construction work performed at the site. Continuous monitoring will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells. Intrusive construction work activities conducted under the procedures and guidelines of the SoMP will be conducted in conjunction with the CAMP.

2.8 Odor, Dust and Nuisance Control Plan

2.8.1 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site [and on-Site, if there are residents or tenants on the property] generated during any project subject to this SoMP. Specific odor control methods to be used on a routine basis will include, ventilation, covering areas with polyethylene tarps, and cessation of activities. If nuisance odors are identified during any project subject to this SoMP, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Remediation Engineer, as delegated by the owner, who is responsible for certifying the Annual Site Management Report.

All necessary means will be employed to prevent on- and off-Site nuisances during and from any project subject to this SoMP. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils, if any. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If odor nuisances hereafter develop during any such remedial work or construction/development work or any other project onsite and cannot be then corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

2.8.2 Dust Control Plan

Each such project shall develop and implement a dust suppression plan that addresses dust management during invasive on-Site work, will include, at a minimum, the items listed below:

- Dust suppression will be achieved though the use of a dedicated on-Site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

2.8.3 Other Nuisances

A plan for rodent control will be developed and utilized by the contractor during each project subject to this SoMP prior to and during Site clearing and Site grubbing, and during all work.

A noise control plan shall be required for any project at the site, which shall conform, at a minimum, to NYCDEP noise control standards.

2.9 Composite Cover Repair

Following any disturbance or breach to the concrete or asphalt protective cover (composite cover) at this site it shall be fully repaired at a minimum to the pre-disturbance/pre-breach condition (i.e. minimum thickness of concrete and asphalt and any reinforcing material shall be restored fully in-kind). Any cracks or breaches to the site-wide composite cap generated during any disturbance/traffic shall be fully sealed, repaired and maintained.