Former Rochester Drug Cooperative Building

CITY OF ROCHESTER, MONROE COUNTY, NEW YORK

Site Management Plan

NYSDEC BCP Site Number: C828115

Prepared for:
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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at the Former Rochester Drug Cooperative Building located at 320 North Goodman Street (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index# B8-0657-04-03, Site # C828115, which was executed on May 18, 2004.

1.1.1 General

The Gary and Marcia Stern Family Limited Partnership entered into a BCA with the NYSDEC to remediate a $2.7^{\pm}$ acre property located in the City of Rochester, Monroe County, New York. This BCA required the Remedial Party, The Gary and Marcia Stern Family Limited Partnership, to investigate and remediate contaminated media at the Site. Figures showing the Site location (Figure 1) and boundaries (Figure 2) of this $2.7^{\pm}$ acre "Site" are provided. The boundaries of the Site are more fully depicted on the ALTA/ACSM Land Title Survey that is part of the Environmental Easement, which is included as Appendix A.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this Site, which is hereafter referred to as "remaining contamination." This Site Management Plan (SMP) was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. 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 LaBella Associates, P.C. ("LaBella"), on behalf of The Gary and Marcia Stern Family Limited Partnership (the "Volunteer"), in accordance with the requirements in NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the Site. The Volunteer and the Volunteer's successors or assigns, must mange the controls and monitoring in full compliance with the terms of this SMP and the remedial program.

This SMP has been prepared for the Volunteer and Volunteer's successors and assigns, to understand how to manage residual contamination at the Site in perpetuity or until extinguishment of the Environmental Easement in accordance with Article 71 Title 36 of the Environmental Conservation Law and applicable regulations in 6 NYCRR Part 375. An Environmental Easement has been recorded and will run with the land requiring the Volunteer and Volunteer's successors and assigns to comply with the terms in this SMP and the Environmental Easement.

1.1.2 Purpose

The Site contains residual contamination left after completion of the remedial action performed under the BCP in accordance with the remedy selected for the Site in the NYSDEC approved RAWP. Engineering Controls have been incorporated into the site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Monroe County Clerk, will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on use of the Site and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental

Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

Long-term Site management is triggered by the approval of the Final Engineering Report (FER) and issuance of the Certificate of Completion (COC) by NYSDEC at the end of the remedial process. The SMP continues in perpetuity or until extinguished in accordance with 6 NYCRR Part 375. It is the responsibility of the Applicant and Applicant's successors and assigns, to ensure that all Site Management responsibilities under this plan continue to be performed. A thorough review of the document will make it clear that compliance will not be difficult, but is extremely important. This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) operation and maintenance of the on-site building's Sub-Slab Depressurization System; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of the on-site building's Sub-Slab Depressurization System operations. To address these needs, this SMP includes three plans: (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 the on-site building's Sub-Slab Depressurization System (SSDS).

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA (Index# B8-0657-04-03; Site # C828115) for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

Previous environmental investigations at the Site identified petroleum contamination in soil and groundwater. The apparent source of the petroleum impacts was four (4) petroleum underground storage tanks (USTs) that were formerly located in the eastern portion of the Site. Two (2) additional USTs were reportedly removed by others in the early 1970s, and yet another UST was removed by others in 1998. There was no closure documentation for the tanks removed from the Site.

According to the NYSDEC Petroleum Bulk Storage (PBS) registration form for the Site, one (1) 4,000-gallon, steel, unleaded gasoline UST was installed at the Site in February 1975 with no secondary containment, overfill protection or leak detection devices. This UST was reportedly removed from the Site in August 1998.

There are two (2) NYSDEC Spills associated with the Site. The first, NYSDEC Spill #9506933 was reported to the NYSDEC on September 5, 1995 after gasoline was released from a ruptured vehicle fuel tank at the Site. According to the NYSDEC Spill Report Form, the City of Rochester Fire Department responded and cleaned up the spilled gasoline using SpeediDry absorbent. NYSDEC Spill #9506933 was closed by the NYSDEC with "No Further Action Required" on December 5, 1995.

The second NYSDEC Spill associated with the Site (#0106407) was reported to the NYSDEC on September 18, 2001, based on the findings of a Phase II Environmental Site Assessment (ESA). NYSDEC Spill #0106407 was closed on January 17, 2008; however, the investigation and remediation of the petroleum impacts were performed as part of this BCP project. The Site was entered into the NYSDEC BCP on May 18, 2004.

A Remedial Investigation (RI) was conducted by GeoQuest Environmental, Inc. (GeoQuest) in September 2003 to complete the delineation of the horizontal and vertical extent of petroleum-impacted soil and groundwater at the Site. This RI consisted of advancing seven (7) direct-push soil borings (designated MW-13 through MW-17 and B-18 and B-19) of which five (5) were converted into temporary groundwater monitoring wells (designated MW-13 through MW-17). Additional information regarding Geoquest's RI can be found in Section 1.3. Geoquest's RI concluded that:

- the source of the petroleum impacts at the 320 North Goodman Street Site emanated from on-site petroleum storage tanks that had previously been removed from the Site;
- there were no current or reasonably foreseeable exposure pathways since the impacted area was to remain a parking lot; and,
- conditions at the Site required remediation in order to meet the NYSDEC BCP requirements.

In April 2005, GeoQuest conducted an Interim Remedial Measure (IRM) Soil Removal program at the Site. As part of the IRM, an ex-situ treatment biocell was constructed, on the easterly adjacent Village Gate Square property, to treat approximately 2,103 cubic yards of petroleum-impacted soil that was excavated from the Site. This petroleum-impacted soil was placed in a "biocell" for remediation over time. Subsequent to screening and sampling the biocell soils, NYSDEC approved, in 2009, grading of the biocell soils into an existing soil berm to the east of the on-site building and covered with one (1) foot of clean soil. Section 1.4 provides detailed information regarding the IRM work.

An active Sub-Slab Depressurization System (SSDS) was installed beneath the concrete slab of the on-site building in November 2006. The SSDS was designed to depressurize the subsurface immediately below the concrete floor slab, thus restricting soil vapor intrusion into the on-site building from beneath the floor slab. Additional sub-slab depressurization fans were installed in the on-site building in 2009. The Sub-Slab Depressurization System was designed to depressurize the subsurface immediately below the floor slab, thus restricting vapor intrusion into the building from beneath the floor slab. Subsequent testing of these monitoring points

indicated negative pressures beneath the floor slab throughout the on-site building. Section 2.2 provides details regarding the SSDS.

1.2.1 Site Location and Description

The Site is located in the City of Rochester, County of Monroe, New York and is identified as Block 106.840-0001 and Lot 1.0 on the City of Rochester Tax Map. The Site is an approximately 2.7-acre area bounded by the CSX Goodman Street Yards and railroad tracks to the north and east, the Village Gate Square Mall to the south, and residential properties are located adjacent to the west of the Site, across North Goodman Street (see Figure 2). The Site is improved with a $62{,}000^{\pm}$ square foot building with a partial basement. The above-grade portions of the on-site building are currently occupied by multiple commercial tenants. The Site and surrounding area is served by public drinking water and sanitary sewers. The boundaries of the Site are more fully depicted on the ALTA/ACSM Land Title Survey that is part of the Environmental Easement, which is included as Appendix A.

1.2.2 Site History

The on-site building was constructed in 1900 and occupies the western portion of the Site. Past uses of the Site include a lumberyard, furniture manufacturing, offices, and warehousing. In addition, according to the NYSDEC Environmental Site Remediation database, the Site was formerly operated as the Rochester Drug Company.

1.2.3 Geologic Conditions

The Site is located within the Ontario Lowland subdivision of the Central Lowlands physiographic province. The Ontario Lowlands is an area of relatively low relief with the ground surface sloping upward to the south and southeast. The overburden geology within the Ontario Lowlands is dominated by glacial landforms derived from deposition during and immediately after the most recent period of glaciation to affect the area (i.e., Wisconsin Glacial event which ended approximately 10,000 years ago).

Four (4) overburden soil deposits identified as underlying the Site (by the previous environmental investigations and a Post-IRM Subsurface Evaluation conducted by LaBella in the

Fall of 2006) include a Fill Material deposit (including asphalt pavement), a Glacial Lacustrine deposit, a Glacial Outwash deposit, and a Glacial Till deposit. The Fill Material deposit was encountered in each soil boring and test pit completed at the Site from ground surface to depths ranging from 2.0 to 6.5 feet below the ground surface (BGS). Though extremely variable, the Fill Material deposit generally ranged in texture from a coarse to fine-grained Sand, with little to some coarse to fine-grained Gravel, to a Clayey Silt and Gravel, with trace to no Sand. The Fill Material could generally be identified by the presence of man-made materials, including ash, asphalt, brick fragments, cinders, coal, concrete, crushed gravel, glass, scrap metal, slag, and wood.

The Glacial Lacustrine deposit was encountered beneath the Fill Material within each of the GeoQuest soil borings and some soil borings (MW-14R, MW-16R, MW-17R and MW-18) advanced during the LaBella's 2006 Post-IRM Subsurface Evaluation. *[NOTE: neither the DAY Phase II ESA nor the LaBella Phase II ESA identified specific soil types encountered beneath the Fill Material deposit. However, a review of the soil boring logs from both the DAY and LaBella Phase II ESAs appear to indicate that the lacustrine deposit was encountered beneath the Fill Material deposit within all soil boring and test pits completed at the Site.]* The Glacial Lacustrine deposit ranged in texture from a Clayey Silt, with trace to no Sand and Gravel, to a coarse to fine-grained Sand, with trace to no fine-grained Gravel. The Glacial Lacustrine deposit appeared to range in thickness from 4 to 9 feet.

The Glacial Outwash deposit was encountered within soil borings MW-14R, MW-15R, MW-16R, MW-17R and MW-18 during the LaBella's 2006 Post-IRM Subsurface Evaluation. The Glacial Outwash deposit generally consisted of coarse to fine-grained Sand, with trace to some coarse to fine-grained Gravel.

The Glacial Outwash deposit was in turn underlain by a Glacial Till deposit within soil borings MW-13, MW-14, MW-14R, MW-15, MW-16, and MW-17. The Glacial Till deposit ranged in texture from dense, medium to fine-grained Sand with trace Clayey Silt to a dense, coarse to fine-grained Sand with little to some Clayey Silt and trace to little medium to fine-grained Gravel.

Bedrock, identified as the Penfield Dolostone Formation of the Middle Silurian Lockport Group, was encountered within the soil borings at depths ranging from 14.6 to 16.0 feet BGS. Based on rock core samples collected during the advancement of soil borings MW-15R and MW-17R, the upper five (5) feet of bedrock at both of these locations generally consisted of a heavily to slightly weathered fine-grained dolomitic limestone with some low angle cross-bedding.

According to the Final Remedial Investigation Report for the Site (GeoQuest, February 2004), groundwater levels within the pre-IRM overburden monitoring wells ranged from 6.55 to 9.70 feet BGS, with groundwater flow beneath the Site generally to the north.

Groundwater levels collected from the post-IRM overburden/bedrock interface monitoring wells ranged from approximately 6.7 to 10.7 feet BGS. Static water levels have been collected from the post-IRM interface wells, and associated groundwater contours from the initial measurements indicate a general groundwater flow to the east/southeast. However, the three subsequent monitoring events indicated a general groundwater flow toward the north-northeast. Based on the previous work conducted by GeoQuest, which identifying a groundwater flow to the north and the three (3) consecutive LaBella monitoring events in 2007, which identified a groundwater flow to the north/northeast, it appears that the groundwater flow directions encountered in August 2006 and November 2006 (to the east/southeast) are anomalous. It is possible that groundwater extraction at the Davis-Howland Oil Corporation State Superfund Program Site (#828088), which is located approximately 800 feet to the southeast of the Site, may have been impacting groundwater flow during the August 2006 and November 2006 groundwater monitoring events.

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

The following previous environmental assessments/investigations were completed at the Site:

- Phase II Environmental Site Assessment (ESA), by Day Environmental, Inc. (DAY) and dated September 2001;
- Phase II ESA, by LaBella and dated April 2002;

- Final Remedial Investigation Report, by GeoQuest Environmental, Inc. (GeoQuest) and dated February 2004; and,
- Monthly Progress Reports, by LaBella dated October 2006 through April 2007.

In addition, a Final Engineering Report (FER) for the Site, dated December 2009, has been prepared by LaBella, and a summary of the prior environmental assessments/investigations follows.

The three investigations completed at the Site consisted of a total of advancing twenty-nine (29) soil borings and ten (10) test pits and installing eleven (11) monitoring wells. The investigation activities included the following laboratory testing and findings:

<u>Soil</u>

- Twenty (20) soil samples were analyzed for petroleum related volatile organic compounds (VOCs). A total of seven (7) of these soil samples detected concentrations of VOCs above the Part 375-6.8(b) Protection of Groundwater or Restricted Commercial Use criteria. [*Note: Two of the soil samples were also analyzed for chlorinated VOCs (i.e., Target Compound List); however, no chlorinated VOCs were detected.*]
- Nine (9) soil samples were analyzed for petroleum related semi-volatile organic compounds (SVOCs). None of these samples detected SVOCs above the Part 375-6.8(b) Protection of Groundwater or Restricted Commercial Use criteria.
- Three (3) soil samples were analyzed for total petroleum hydrocarbons (TPH) which was detected above the reported laboratory detection limits in each of these soil samples. The detected concentrations ranged from 59.4 ppm to 156 ppm. The laboratory identified the detected TPH in each sample as light-weight petroleum hydrocarbons (tentatively identified as mineral spirits). In addition, the laboratory also identified a heavy-weight petroleum hydrocarbon (identified as lube oil) in one of the soil samples.
- Four (4) soil samples were analyzed for Resource Conservation and Recovery Act (RCRA) Metals which did not detect metals at concentrations above Part 375-6.8(b) Protection of Groundwater or Restricted Commercial Use criteria.

- One (1) soil sample was analyzed for polychlorinated biphenyls (PCBs) which did not detect concentrations of PCBs above Part 375-6.8(b) Protection of Groundwater or Restricted Commercial Use criteria.

Groundwater

- Eleven (11) groundwater samples analyzed for petroleum related VOCs. Nine of these groundwater samples detected VOCs at concentrations above the NYSDEC Part 703 Groundwater Standards. [*Note: Three of the groundwater samples were also analyzed for chlorinated VOCs (i.e., Target Compound List); however, no chlorinated VOCs were detected.*]
- Six (6) groundwater samples analyzed for petroleum related SVOCs; however, none of the samples detected SVOCs above the Part 703 Groundwater Standards.

The testing results for the investigation work are provided on Tables 1 through 8 and shown on Figures 4 and 5.

The GeoQuest Final RI concluded the following:

- the source of the petroleum impacts at the 320 North Goodman Street Site emanated from on-site petroleum storage tanks that had previously been removed from the Site;
- there were no current or reasonably foreseeable exposure pathways since the impacted area was to remain a parking lot; and,
- conditions at the Site required remediation in order to meet the NYSDEC BCP requirements.

Based on the findings of the prior environmental investigations, the Site was entered into the NYSDEC BCP on May 18, 2004. GeoQuest developed an Interim Remedial Measures (IRM) Work Plan to remove impacted soil from the subsurface at the Site. The IRM Work Plan was approved by the NYSDEC between August 2004 and April 2005. Section 1.4 provides detailed information regarding the completion of the IRM.

1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the NYSDEC approved remedial work plan. Specifically, in the spring of 2005 an IRM soil removal was conducted by GeoQuest in the former UST area on the eastern portion of the Site. Approximately 2,100 cubic yards of petroleum impacted soil was excavated from eight (8) locations to the east of the Site on-site building, and the impacted soil was placed in an on-site bioremediation "biocell" for treatment. Areas where 2005 IRM excavations were performed are shown in Figure 6.

Eight (8) remedial excavations areas were excavated at the Site where previous environmental investigations identified petroleum-impacted soils. Soil that was not heavily stained and emitted less than 10 ppm VOCs, as measured with the PID, were determined to be non-impacted soil and were staged on-site for use as backfill. Soils that were heavily stained and/or emitted greater than 10 ppm VOCs were classified as petroleum-impacted soil and were placed in the biocell constructed on the easterly adjacent Village Gate Square parcel.

As summarized in the following table, based upon the surveyed areas of the eight (8) remedial excavations and the reported depth of each excavation, a total of $3{,}116^{\pm}$ cubic yards of soil were excavated from the Site, with $2{,}103^{\pm}$ cubic yards of petroleum-impacted soil placed in the biocell.

Remedial Excavation Summary

Remedial Excavation ID	Area of Excavation	Depth of Excavation	Volume of Clean Soil Excavated	Volume of Impacted Soil Excavated
RE #1	407 Sq. Ft.	10.0 to 15.0 Ft.	120.4 Cu. Yds.	105.5 Cu. Yds.
RE #2	170 Sq. Ft.	3.0 Ft.	0.0 Cu. Yds.	18.9 Cu. Yds.
RE #3	139 Sq. Ft.	10.0 Ft.	25.7 Cu. Yds.	25.7 Cu. Yds.
RE #4	243 Sq. Ft.	15.0 Ft.	0 Cu. Yds.	135.2 Cu. Yds.
RE #5	524 Sq. Ft.	10.0 to 15.0 Ft.	155.2 Cu. Yds.	87.3 Cu. Yds.
RE #6	109 Sq. Ft.	7.0 Ft.	0.0 Cu. Yds.	28.4 Cu. Yds.
RE #7	460 Sq. Ft.	15.0 Ft.	136.2 Cu. Yds.	119.2 Cu. Yds.
RE #8	3,885 Sq. Ft.	15.0 Ft.	575.6 Cu. Yds.	1,582.8 Cu. Yds.
Total Estimated Volumes			**1,013.1 Cu. Yds.**	**2,102.7 Cu. Yds.**

Note: The excavation quantities were estimated based upon the surveyed dimensions of each excavation and field notes obtained from GeoQuest.

Groundwater encountered within the remedial excavations was pumped into temporary on-site holding tanks.

The field criteria for terminating excavation work, as identified in the NYSDEC-approved work plan, were met for each of the remedial excavations, with the exception of remedial excavation #8 (i.e., RE #8). An active 4-inch diameter sewer lateral was reportedly encountered within remedial excavation #8, so petroleum-impacted soil could not be excavated from immediately beneath and adjacent to this sewer lateral. Confirmatory soil samples were collected from each remedial excavation.

Biocell Construction

The petroleum impacted soil removed from the eight (8) remedial excavations was placed in an approximately 140-foot by 90-foot biocell, constructed approximately 500 feet to the east of the IRM excavation, on the easterly adjacent Village Gate Square property. Approximately 2,103 cubic yards of petroleum-impacted soil was placed in the biocell.

Dewatering Activities

In order to remove source area groundwater and depress the water table in adjacent excavations, temporary groundwater dewatering wells were constructed within Remedial Excavations #1, #4, #5, #7, and #8 during backfill of the excavations. The combined dewatering operations generated approximately 40,000 gallons of water.

Excavation Backfill

The eight (8) Remedial Excavations were backfilled in order to restore these areas for continuing use as a parking lot. A portion of the backfill used for this project consisted of soil removed from the excavations that was identified by visual observation and field screening to be clean, non-impacted soil. In addition, approximately 2,100 cubic yards of soil was imported to the Site to complete the backfilling of the eight (8) Remedial Excavations. When the soil backfilled delivered to the Site was determined to have originated from a non-approved source, the NYSDEC required sampling of the proposed backfill material.

Confirmatory Soil Sampling

Forty (40) confirmatory soil samples were collected from the Remedial Excavations. Soil samples were collected from each sidewall and from the base of each of the Remedial Excavations.

It is understood that all of the forty (40) confirmatory soil samples arrived at the laboratory at a temperature of 15°C, which is above the required range of 4-6°C. According to the Data Usability Summary Report (DUSR) prepared for these laboratory analytical data, "in accordance with EPA Region II guidelines, the samples were qualified as 'J', estimated, for the positive results and 'UJ', estimated, for the non-detectable results for the Volatile compounds." Therefore, the laboratory analytical results for the forty (40) confirmatory soil samples are somewhat questionable and cannot be relied upon to conclude that Part 375-6.8(b) Restricted Commercial Use SCOs were met with respect to the 2005 Remedial Excavations. However, subsequent groundwater sampling events have generally shown a 98% or greater reduction in Site-related contaminants. This significant decrease in the concentration of Site-related

contaminants in groundwater indicates that the 2005 IRM soil removal activities appear to have effectively remediated the soils at the Site.

A summary of the analytical results is presented in Table 9, with a comparison to Part 375-6.8(a) Unrestricted Use SCOs and Part 375-6.8(b) Restricted Commercial Use SCOs.

The analytical results associated with the confirmatory soil samples collected from each Remedial Excavation are presented on Table 9, shown on Figure 6, and summarized below:

- Remedial Excavation #1 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits, with the exception of the bottom sample. Eleven (11) VOCs were detected in the bottom sample (15 feet BGS), and four (4) of these VOCs were reported at concentrations above Part 375-6.8(a) Unrestricted Use SCOs. However, none of the detected VOCs were reported at concentrations above Part 375-6.8(b) Restricted Commercial Use SCOs.
- Remedial Excavation #2 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits.
- Remedial Excavation #3 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits.
- Remedial Excavation #4 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits.
- Remedial Excavation #5 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits, with the exception of the bottom sample. One (1) VOC (toluene) was detected in the bottom sample (15 feet BGS); however, the reported concentration is below the Part 375-6.8(a) Unrestricted Use and Part 375-6.8(b) Restricted Commercial Use SCOs for toluene.
- Remedial Excavation #6 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits.

- Remedial Excavation #7 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits.
- Remedial Excavation #8 – The confirmatory soil samples collected from this excavation did not contain concentrations of VOCs above the reported laboratory detection limits, with the exception of the bottom sample. Six (6) VOCs were detected in the bottom sample; however, the reported concentrations are below their respective Part 375-6.8(a) Unrestricted Use and Part 375-6.8(b) Restricted Commercial Use SCOs.

Subsequent to implementation of the IRM, in July 2006, four (4) rotary drill rig advanced bedrock interface groundwater monitoring wells and one (1) direct-push advanced overburden groundwater monitoring well were installed at the Site. The four (4) bedrock interface wells (designated MW-14R through MW-17R) were advanced in the area of the IRM excavations at the Site to evaluate subsurface conditions in the wake of the IRM soil removal. The post soil removal groundwater sampling results indicated significant decreases in contaminant concentrations. Table 10 provides a summary of the post remedial actions groundwater sampling results and these results are also shown on Figure 7.

Soil Vapor Intrusion Evaluation

Because the levels of contaminants in on-site soils and groundwater exceeded applicable standards, an active Sub-Slab Depressurization System (SSDS) was installed beneath the concrete slab of the on-site building to mitigate the potential for vapor intrusion, instead of conducting a formal Soil Vapor Intrusion (SVI) investigation. The SSDS was installed in November 2006, and additional sub-slab depressurization fans were installed in the on-site building in 2009. Section 1.4.2 and 2.2 provide details regarding the SSDS (including pressure field extension tests).

1.4.1 Removal of Contaminated Materials from the Site

Approximately 2,103 cubic yards of petroleum-impacted soil that was excavated from the Site and placed in an ex-situ treatment biocell on the easterly adjacent Village Gate Square property. In addition, contaminated groundwater was removed from the site as part of

GeoQuest‘s 2005 IRM. In order to remove source area groundwater and depress the water table in adjacent excavations, GeoQuest constructed temporary groundwater dewatering wells within Remedial Excavations #1, #4, #5, #7, and #8 during backfill of the excavations. The combined dewatering operations generated approximately 40,000 gallons of groundwater from the Site.

The goal for the Site was generally to clean it up to the Part 375-6.8(a) Unrestricted Use criteria; however, select locations (refer to Section 1.4.3 Remaining Contamination) were identified above the Part 375-6.8(b) Restricted Commercial Use criteria. The locations of the materials removed are shown in Figure 6.

1.4.2 Remaining Contamination

It is understood that all of the forty (40) confirmatory soil samples arrived at the laboratory at a temperature of 15°C, which is above the required range of 4-6°C. According to the Data Usability Summary Report (DUSR) prepared for these laboratory analytical data, “in accordance with EPA Region II guidelines, the samples were qualified as ‘J’, estimated, for the positive results and ‘UJ’, estimated, for the non-detectable results for the Volatile compounds.” Therefore, the laboratory analytical results for the forty (40) confirmatory soil samples are somewhat questionable and cannot be relied upon to conclude that Part 375-6.8(b) Restricted Commercial Use SCOs were met with respect to the 2005 Remedial Excavations.

Based upon the laboratory analytical results associated with the forty (40) confirmatory soil samples, the following areas contain petroleum-impacted soil above the Part 375-6.8(a) Unrestricted Use SCOs (Track 1 SCOs):

- soil at the bottom (15 feet BGS) of Remedial Excavation #1 (based upon the results associated with confirmatory bottom soil sample from this area). It is not clear, based upon field notes obtained from GeoQuest, why Remedial Excavation #1 was terminated at a depth of 15 feet BGS, but it is reasonable to assume that this was due to limitations of the excavation equipment;
- soil around an active 4-inch diameter sewer lateral was encountered along the southern portion of Remedial Excavation #8, and it appears that impacted soil was left in-place

in order to protect the integrity of this underground utility [this area includes soil samples LaBella B-3 (8-9.5') and DAY SB-12 (12.0')]; and,

- a soil sample from west of Remedial Excavation #8 [sample LaBella B-5 (8-9.5').] Impacted soil could not safely be excavated from this area of the Site due to an active roadway and the potential for underground utilities to be present under the roadway.

Based upon the laboratory analytical results associated with the forty (40) confirmatory soil samples collected from the eight (8) Remedial Excavations completed by GeoQuest in 2005, Table 12 and Figure 9 summarize the areas of the Site documented to contain remaining contamination that exceeds the Part 375-6.8(a) Unrestricted Use SCOs (Track 1 SCOs). These areas of remaining contamination could not be excavated during the 2005 remedial action due to physical limitations of the Site, such as roadways, underground utilities, and probable limits of the excavation equipment.

Laboratory analysis of groundwater samples collected from four (4) existing bedrock interface wells (MW-14R, MW-15R, MW-16R and MW-17R) indicates that residual petroleum-related groundwater contamination remains on the eastern portion of the Site. Table 10 provides a summary of the post remedial action groundwater sampling results and these results are also shown on Figure 7.

The Excavation Work Plan (EWP) discussed in Section 2.3.1 and provided as Appendix C to this SMP, is intended to provide guidance in the identification and management of petroleum-impacted soil and groundwater that may be encountered during future ground-intrusive work at the Site (e.g., subsurface utility repair/replacement, etc.) The EWP provides procedures for handling, treating, and disposing, or re-using on-site any residually impacted soil or groundwater that may be encountered during future on-site subsurface work. As such, the EWP should be provided to all contractors, utility workers, maintenance personnel or anyone else conducting ground-intrusive work at the Site.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Since remaining contaminated soil and groundwater exist 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

This plan provides:

- A description of all EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment 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 CONTROLS

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover – On-Site

Based upon the findings of GeoQuest's April 2005 IRM Soil Removal program, direct exposure to remaining contamination in soil/fill at the Site is prevented by several feet of soil/fill cover and paved by asphalt. In addition, the existing on-site building contains a concrete floor slab. Therefore, the cover system is comprised of asphalt, concrete, and/or a minimum of 1 foot of clean soil. The Excavation Work Plan that appears in Appendix C outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

2.2.1.2 Soil Cover – Off-Site

As part of the IRM, an ex-situ treatment biocell was constructed off-Site, on the easterly adjacent Village Gate Square property. Subsequent to NYSDEC approval, the former biocell soils were graded into an existing soil berm to the east of the Site and covered with 1 foot of clean soil. The Excavation Work Plan that appears in Appendix C outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

2.2.1.3 Sub-Slab Depressurization System (SSDS)

Because the levels of contaminants in on-site soils and groundwater exceeded applicable standards, an active SSDS was installed beneath the concrete slab of the on-site building to mitigate the potential for vapor intrusion, instead of conducting a formal Soil Vapor Intrusion (SVI) investigation. The SSDS was installed in November 2006, and additional sub-slab depressurization fans were installed in the on-site building in 2009.

The Sub-Slab Depressurization System was designed to depressurize the subsurface immediately below the floor slab, thus restricting soil vapor intrusion into the on-site building. The Sub-Slab Depressurization System was installed in accordance with the NYSDEC approved plans and details for the project [Wyffels Engineering, PLLC (Wyffels) drawings M-1 and M-2 dated October 25, 2005]. A copy of the design drawings and details for the active Sub-Slab Depressurization System are included in Appendix B. On August 16, 2007, Stern Properties and LaBella installed sub-slab monitoring points throughout the building and collected sub-slab pressure readings. The approximate Sub-Slab Depressurization System vent fan locations and monitoring points are shown on Figure 8.

Pressure readings collected to date from the sub-slab monitoring points are summarized in Table 11. As shown in Table 11, vacuum readings collected from these monitoring points indicated negative pressures beneath the floor slab throughout the on-site building.

Procedures for operating and maintaining the Sub-Slab Depressurization System are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP).

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1 Sub-Slab Depressurization System

The active Sub-Slab Depressurization System will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the Sub-Slab Depressurization System is no longer required, a proposal to discontinue the Sub-Slab Depressurization System will be submitted by the property owner to the NYSDEC and New York State Department of Health (NYSDOH).

2.2.2.2 Groundwater Monitoring

Groundwater monitoring activities to assess groundwater quality at the Site will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the RAWP to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to commercial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are as follows:

A. The Site may be used for commercial use as described within 6NYCRR Part 375- 1.8 (g) (2) (iii), as long as the following long-term engineering controls are employed and the land use restrictions specified below are adhered to:

- the SMP must be implemented for the Site;
- the existing surface and near surface soil, asphalt-paved surfaces, and the building itself, as depicted in ALTA survey dated 2009, act as a cover system at the Site. Disturbances and incidental damage to this cover system shall be repaired upon discovery with cover materials approved by the NYSDEC and the NYSDOH.
- any intrusive activities, including building renovation/expansion, subgrade utility line repair/relocation, and new construction which will cause a

disturbance of the soil below any concrete, asphalt, or structures must be conducted in accordance with the Department-approved SMP;

- the use of groundwater underlying the Site is prohibited. The City of Rochester Code prohibits the use of groundwater as a potable source;
- the installed SSDS, as depicted in the Final Engineering Report prepared by LaBella , shall be inspected, certified, operated and maintained as required in the SMP;
- monitor, maintain and replace as necessary groundwater monitoring wells required to be monitored as set forth in the SMP.

B. the current owner of the Site (i.e., the "Grantor" of the Environmental Easement) must provide all persons who acquire any interest in the Site a true and complete copy of the SMP that the Department has approved for the Site and all Department-approved amendments to that SMP.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. In addition:

- Vegetable gardens and farming on the Site are prohibited; and
- The Site owner or remedial party will submit 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 constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site 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 and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The Site has been remediated for restricted commercial use. Any future intrusive work that will penetrate the soil cover placed on the former biocell soils or encounter or disturb remaining contamination, including any modifications or repairs to the existing soil cover system, will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix C to this SMP. Any work conducted pursuant to the EWP 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. A sample HASP is attached as Appendix D to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and Federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section C-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP, and CAMP and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (see Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation waters, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations). The Site owner will ensure that Site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining contamination, a Soil Vapor Intrusion (SVI) evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This SVI mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the State's most recent guidance on evaluating soil vapor intrusion. Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation or monitoring. If any indoor air test results exceed NYSDOH guidelines, relevant NYSDOH fact sheets will be provided to all tenants and occupants of the property within 15 days of receipt of validated data.

SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule (refer to Section 3.1.2). A comprehensive Site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. 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 Environmental Easement;
- 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 SSDS.

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 Periodic Review Reporting section of this SMP (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the Brownfield Cleanup Agreement (BCA), 6NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan (EWP).
- Notice within 48 hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be 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 potential to reduce the effectiveness of Engineering Controls in place at the Site, including a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

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

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 CONTINGENCY PLAN

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

2.5.1 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 the Owner's Environmental Consultant.

Emergency Contact Numbers

Medical, Fire, and Police:	911
Dig Safely NY:	(800) 962-7962 or 811 *NOTE: Three (3) day notice required for utility markouts.*
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Non-Emergency Contact Numbers

Owner of the Site Mr. Gary Stern The Gary and Marcia Stern Family Limited Partnership 274 North Goodman Street Rochester, New York 14607	(585) 442-9061
Owner's Environmental Consultant LaBella Associates, P.C. 300 State Street Rochester, New York 14614	(585) 454-6110

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

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 320 North Goodman Street, City of Rochester

Nearest Hospital Name: Rochester General Hospital

Hospital Location: 1425 Portland Avenue, Rochester, New York

Hospital Telephone: (585) 922-4000

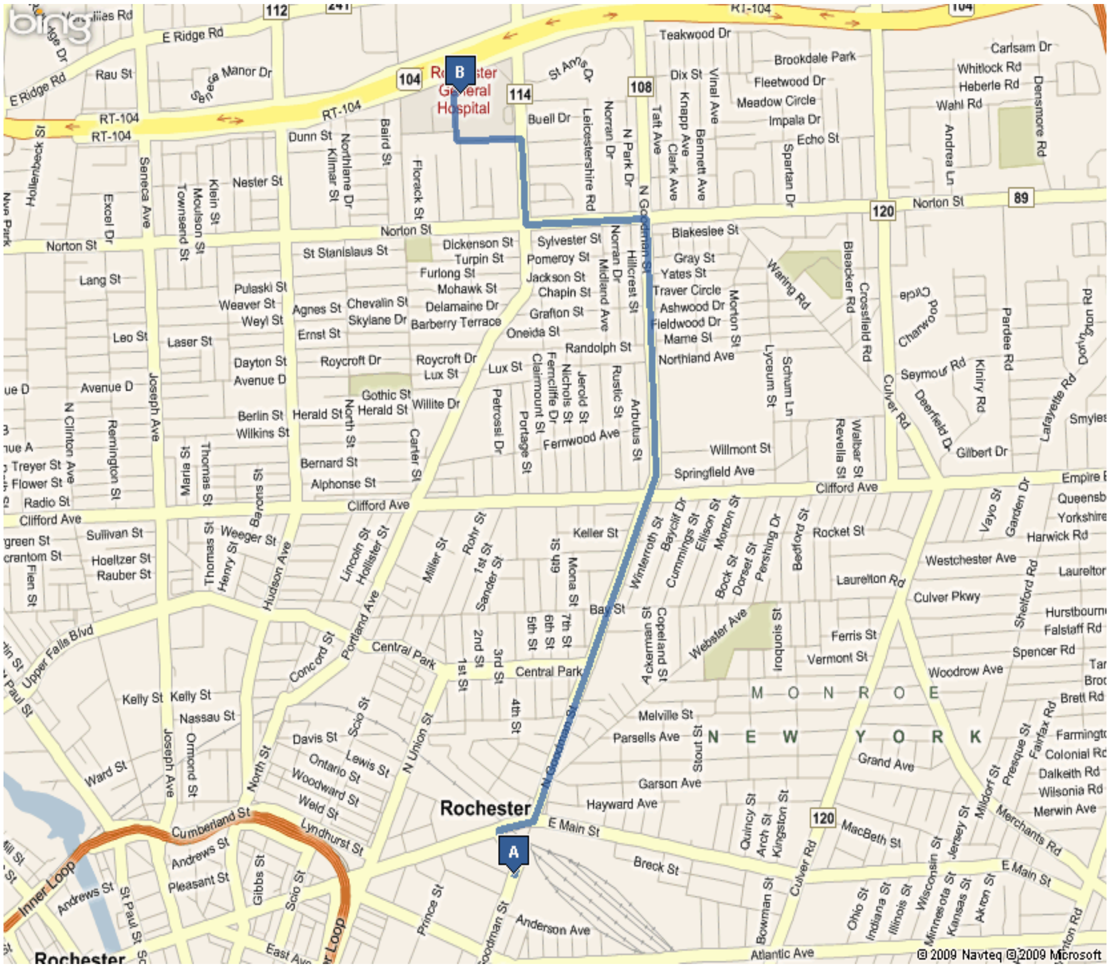
Directions to the Hospital:

1. Depart 320 North Goodman Street
2. Turn right and road name changes to Circle Street
3. Turn right onto East Main Street
4. Turn left onto North Goodman Street
5. Turn left onto Norton St
6. Turn right onto Portland Avenue
7. Turn left into Rochester General Hospital campus

Total Distance: 3.2 miles

Total Estimated Drive Time: 10 minutes

Map Showing Route from the Site to the Hospital:



2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The Emergency Contact list can be found at the beginning of this Contingency Plan.

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected on-site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Future sampling and analysis of groundwater;
- Assessing compliance with applicable NYSDEC ambient groundwater standards;
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

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

- Sampling locations, protocol, and frequency;
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Monitoring of the performance of the remedy and overall reduction in contamination on-site will be conducted for the first two (2) years, via semi-annual sampling of four (4) existing groundwater monitoring wells (MW-14R, MW-15R, MW-16R and MW-17R). The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in groundwater in the affected areas will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. The groundwater monitoring program is summarized in the following table and outlined in detail in Section 3.2.

Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater Monitoring	Semi-annual	Groundwater	NYSDEC STARS-list VOCs using USEPA Method 8260
Soil Cover	Annual	Soil	None
SSDS	Monthly	Vapor/Air	None

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

3.2 Groundwater Monitoring

Initially, groundwater monitoring will be performed on a semi-annual (twice per year) basis to assess the performance of the remedy. After two (2) years, this sampling frequency may be modified with NYSDEC approval. The SMP will be modified to reflect any future changes in sampling plans that are approved by NYSDEC.

3.2.1 Sampling Protocol

All monitoring well sampling activities will be recorded in a field book and on a groundwater sampling log, as presented in Appendix E. Other observations (e.g., well integrity, etc.) will be noted on the groundwater sampling log. The groundwater sampling log will serve as the inspection form for the groundwater monitoring well network. A copy of the monitoring well construction logs area included in Appendix E for reference.

During each groundwater monitoring event, prior to sample collection, purging of the wells will be completed by removing three (3) well volumes using a dedicated or disposable bailer. Field measurements of indicator parameters such as temperature, pH, specific conductance, and Eh will be measured and recorded. These parameters will be measured in the purge water until they appear to stabilize. Subsequent to purging, one (1) groundwater sample will be collected from each monitoring well, and the samples will sent under standard chain of custody procedures to a NYSDOH ELAP-certified laboratory for analysis of NYSDEC STARS-list VOCs using USEPA Method 8260. Laboratory results will be provided with Category B Deliverables, and a Data Usability Summary Report (DUSR) will be generated for the groundwater analytical data.

3.2.2 Monitoring Well Repairs, Replacement and Decommissioning

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

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of 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.

3.4 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. During these inspections, an inspection form will be completed (see Appendix F). 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.

3.5 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 G). Main Components of the QAPP include:

- Sampling Program:
    - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added by the analytical laboratory prior to their use. Sampling 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.
- Preparation of 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.

3.6 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file at the offices of LaBella. 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 Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report, which will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- 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 (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater 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 monitoring program deliverables are summarized in the following table.

Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Groundwater Monitoring	Annually
Inspection of the SSDS Vent Fans	Annually
Site-Wide Inspection	Annually

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

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

This Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the Sub-Slab Depressurization System (SSDS);
- Includes an operation and maintenance contingency plan; and,

- Will be updated periodically to reflect changes in on-site conditions or the manner in which the SSDS is operated and/or maintained.

Information on non-mechanical Engineering Controls (i.e., soil cover system) is provided 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.

4.2 ENGINEERING CONTROL SYSTEM OPERATION AND MAINTENANCE

Monitoring of the Sub-Slab Depressurization System

Monthly monitoring of the Site's Sub-Slab Depressurization System (SSDS) will be performed to ensure that the system is operating properly. Operations, Monitoring, and Maintenance (OM&M) activities will be performed by employees of the Owner of the Site, the Owner's Environmental Consultant, or other qualified personnel. A visual inspection of the entire system will be conducted during each monitoring event. To ensure that the SSDS fans are operating properly, SSDS components and labeling will be visually inspected, including: manometers and alarm systems associated with each Vent Fan, the Vent Fans themselves, and overall system piping and wiring. Manometers will be checked annually to ensure they are performing properly. A complete list of components to be checked and documented (e.g., manometer readings, labeling, etc.) is provided in the Inspection Checklist, as provided in Appendix F.

In the event that a vent fan appears to be malfunctioning, or if piping or wiring appears damaged, the component(s) in question will be promptly repaired or replaced, following the manufacturer's recommendations and instructions. Vent fan failure(s), repair(s), replacement(s), and/or operational problems will be noted in the subsequent Periodic Review Report.

If a portion of the SSDS appears to be malfunctioning, then trouble-shooting will be performed to assess whether: piping has become clogged; a fan has failed; or what the reason is for loss of vacuum to the sub-slab area. Once the problem is identified, then repairs or replacement of

components will be performed promptly, and the identified problem and remedy will be outlined in the subsequent Periodic Review Report.

Any future building renovations will maintain the integrity and performance of the SSDS. If the SSDS is approved for decommissioning by the NYSDEC and NYSDOH, then all above-slab components of the SSDS will be removed and properly disposed of and the penetrations in the concrete floor slab will be repaired.

4.3 MAINTENANCE AND PERFORMANCE MONITORING REPORTING REQUIREMENTS

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

4.3.1 Routine Maintenance Reports

Checklists or forms will be completed during each routine maintenance event. Checklists/forms will include, but not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;
- Maintenance activities conducted;
- Any modifications to the system; and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

4.3.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a form will be 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;
- Repairs or adjustments made to the system; and,
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 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. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring of the Sub-Slab Depressurization System will be recorded on the appropriate forms (see Appendix F). Additionally, a general Site-wide inspection form will be completed during the Site-wide inspection (see Appendix F). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 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; and
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, the following certification will be provided to NYSDEC:

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

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the Environmental Easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program;

- No new information has come to my attention, including groundwater monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid;
- Every five (5) years the following certification will be added: The assumptions made in the qualitative exposure assessment remain valid; and
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, __(*name)*__, of __(*business address*)__, am certifying as the Owner's Designated Site Representative for the Site.

  The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after the Certificate of Completion is issued. 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. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual Site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media, which include a listing of all compounds analyzed, along with the applicable standards,

with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;

- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A Site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the Site-specific RAWP;
    - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
    - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted in both electronic and hard-copy format to the NYSDEC Region 8 Office in Avon, New York. Electronic copies of the Periodic Review Report will be sent to NYSDEC Central Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

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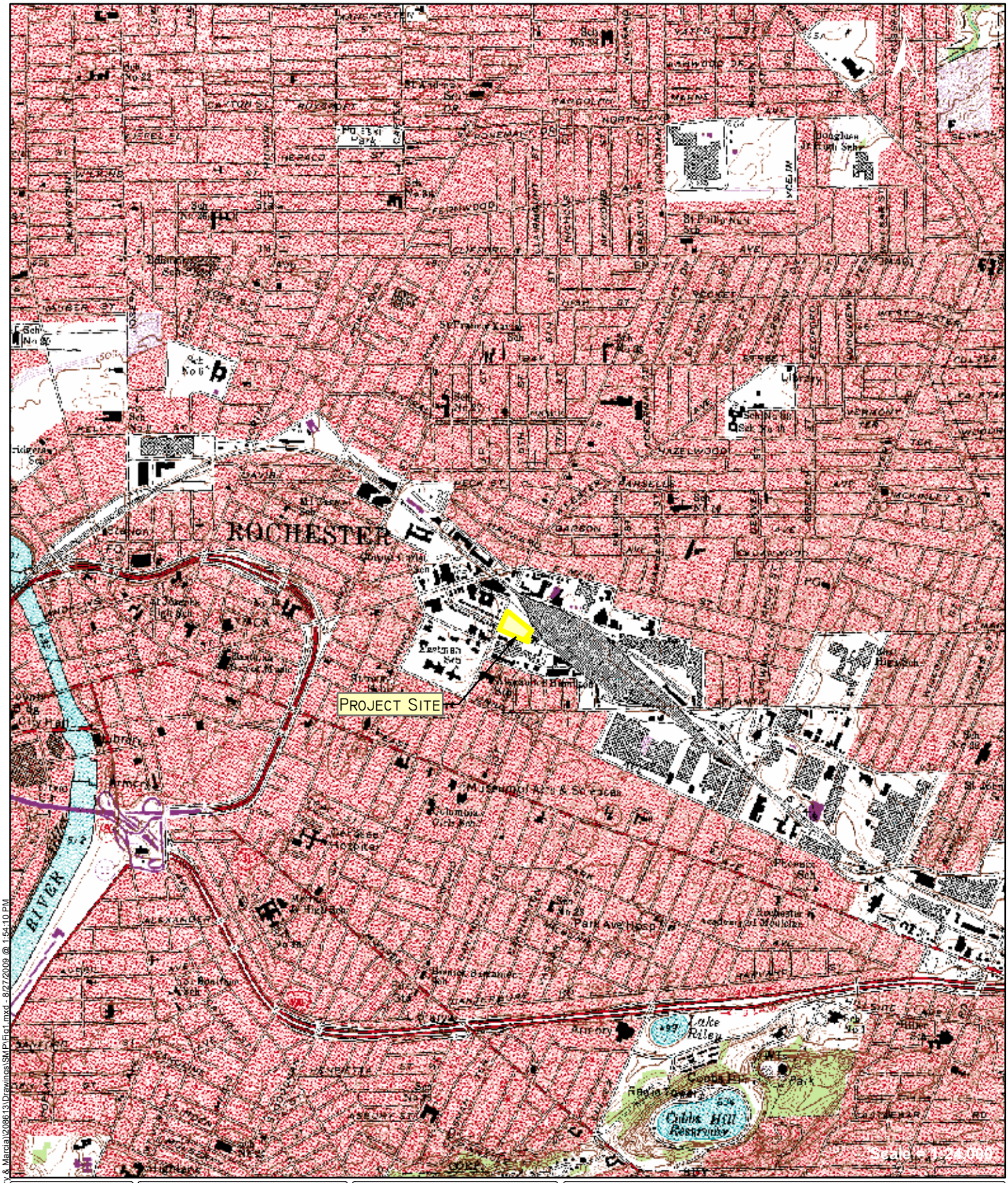
Rochester, New York 14614

Figures



PROJECT/DRAWING NUMBER

208613

FIGURE 1

DRAWING TITLE

SITE MAP WITH USGS 7.5 MINUTE TOPO MAP ROCHESTER EAST QUAD

ISSUED FOR: FINAL

DATE: JANUARY, 2007

DESIGNED BY: RCN

DRAWN BY: RCN

REVIEWED BY: DPN

PROJECT/CLIENT

ROCHESTER DRUG COOPERATIVE
NYSDEC BCP Site No. C828115

320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

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Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\Fig1.mxd - 8/27/2009 @ 1:54:10 PM

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RESIDENTIAL
NEIGHBORHOOD

NEW YORK CENTRAL RAILROAD

GARY & MARCIA STERN FAMILY
320 TO 348 N GOODMAN ST
106.084-0001-001

COLLEGE STREET

NORTH GOODMAN STREET

VILLAGE GATE SHOPPING CENTER
274 TO 302 N GOODMAN ST

ANDERSON AVE

Legend

- Approximate BCP Site Boundaries
- Remedial Soil Berm

Background imagery 2005 NYSDOP High Resolution Orthoimagery

0 25 50 100 150 Feet

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG2.mxd - 12/3/2009 @ 12:24:07 PM

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PROJECT/CLIENT

SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115

320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE

SITE PLAN

ISSUED FOR: FINAL
DATE: MAY 2007
DESIGNED BY: JJW
DRAWN BY: JJW
REVIEWED BY: DPN

PROJECT/DRAWING NUMBER

208613

FIGURE 2

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG3.mxd - 8/27/2009 @ 2:00:13 PM

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PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
ALL INVESTIGATION SAMPLE LOCATIONS

ISSUED FOR: FINAL
DESIGNED BY: JJW
DRAWN BY: JJW
REVIEWED BY: DPN
DATE: AUGUST 2009

PROJECT/DRAWING NUMBER
208613
FIGURE 3

DAY MW-1 (SB-1) (0-4') 9/1/01
VOCs
Toluene 69.5 ppb
Ethylbenzene 9.54 ppb
m,p-Xylene 31.6 ppb
o-Xylene 9.02 ppb

RCRA Metals
Arsenic 5.9 ppm
Barium 17.8 ppm
Chromium 8.52 ppm
Lead 11.6 ppm
Selenium 1.38 ppm
Silver 1.50 ppm

Total Petroleum Hydrocarbon
Light Weight 59,400 ug/Kg

DAY SB-10 9/1/01
RCRA Metals (4.0')
Arsenic 8.69 ppm
Barium 64.3 ppm
Chromium 14.9 ppm
Lead 12.5 ppm

LaBella TP-8 (2-3') 12/7/01
VOCs, SVOCs
None Detected

Geoquest MW-13 (6.5-7') 10/1/03
VOCs
m,p-Xylene 11.6 ppb

DAY SB-7 (8.0') 9/1/01
VOCs
None Detected

Geoquest MW-16 (7.5-8') 10/1/03
VOCs
None Detected

DAY SB-3 (12.0') 9/1/01
VOCs
None Detected

Geoqeust B-18 (6-6.5') 10/1/03
VOCs
None Detected

LaBella TP-7 (9-10') 12/7/01
VOCs
Isopropylbenzene 150 ppb
n-Propylbenzene 42.3 ppb
1,2,4-Trimethylbenzene 29.6 ppb

SVOCs
None Detected

DAY SB-4 (0-4') 9/1/01
VOCs, SVOCs, PCBs
None Detected

RCRA Metals
Arsenic 2.16 ppm
Barium 18.4 ppm
Chromium 5.20 ppm
Lead 4.51 ppm

Geoquest MW-14 (4-4.5) 10/1/03
VOCs
None Detected

Geoqeust MW-17 (5-5.5') 10/1/03
VOCs
None Detected

Geoquest B-19 (3.5-4') 10/1/03
VOCs
None Detected

LaBella B-2 (8'-12') 12/17/07
VOCs
Toluene 1,170,000 ppb
Ethylbenzene 40,300 ppb
m,p-Xylene 174,000 ppb
o-Xylene 42,500 ppb

SVOCs
None Detected

Total Petroleum Hydrocarbon
Light Weight 156,000 ug/Kg

DAY MW-2 (SB-5)
No Soil Samples Analyzed

LaBella MW-1 (B-4) (8-11') 12/17/01
VOCs
Toluene 13.2 ppb

LaBella B-5 (8-9.5') 12/17/01
VOCs
Toluene 515,000 ppb
Ethylbenzene 13,800 ppb
m,p-Xylene 56,300 ppb

DAY MW-3 (SB-6) (10.0') 9/1/01
RCRA Metals
Arsenic 4.32 ppm
Barium 32.0 ppm
Chromium 9.49 ppm
Lead 13.5 ppm
Selenium 1.20 ppm

DAY SB-12 (12.0') 9/1/01
VOCs
Toluene 1,220,000 ppb
Ethylbenzene 27,100 ppb
m,p-Xylene 112,000 ppb
o-Xylene 33,200 ppb

Geoquest MW-15 (7-7.5') 10/1/03
VOCs
Toluene 1,780 ppb
Ethylbenzene 240 ppb
m,p-Xylene 1,480 ppb
o-Xylene 144 ppb
Isopropylbenzene 154 ppb
n-Propylbenzene 110 ppb
1,3,5-Trimethlybenzene 85.7 ppb
1,2,4-Trimethlybenzene 136 ppb

LaBella TP-10 (6-7') 12/7/01
VOCs
Toluene 14,800 ppb
Ethylbenzene 1,540 ppb
m,p-Xylene 14,600 ppb
0-Xylene 1,580 ppb
Isopropylbenzene 150 ppb
n-Propylbenzene 42.3 ppb
1,3,5-Trimethlybenzene 745 ppb
1,2,4-Trimethlybenzene 29.6 ppb

LaBella B-3 (8-12') 12/17/01
VOCs
Toluene 2,070,000 ppb
m,p-Xylene 15,600 ppb

SVOCs
None Detected

SB-10 SB-9 SB-8 SB-7 SB-2 SB-3 SB-4 SB-11 SB-12 SB-1
TP-1 TP-2 TP-3 TP-4 TP-5 TP-6 TP-7 TP-8 TP-9 TP-10
B-1 B-2 B-3 B-5 B-8 B-11 B-12 B-18 B-19
MW-13 MW-14 MW-15 MW-16
DAY MW-1 (SB-1) DAY MW-2 (SB-5) DAY MW-3 (SB-6)
LaBella MW-1 (B-4) LaBella MW-2 (B-7)

Legend
- LaBella Geoprobe Boring December 2001
- LaBella Test Pit December 2001
- LaBella Overburden Geoprobe Monitoring Well December 2001
- Geoquest Geoprobe Boring
- Geoquest Overburden Geoprobe Monitoring Well
- Day Geoprobe Boring September 2001
- Day Overburden Geoprobe Monitoring Well September 2001
- Former Monitoring Well
- BCP Site Boundary
- Parking lot features

0 25 50 Feet

Notes:
Blue type denotes compound detected at a concentration above NYSDEC Remedial Program Subpart 375-6 Recommended Soil Cleanup Objectives for Protection of Groundwater.
Purple type denotes compound detected at a concentration above the NYSDEC Remedial Program Subpart 375-6 Recommended Soil Cleanup Objective for Protection of Public Health: Commercial Use.

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG4.mxd - 8/27/2009 @ 2:07:25 PM

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PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
PREVIOUS INVESTIGATION
SOIL DATA
(PRE-REMEDIATION)

ISSUED FOR: FINAL
DESIGNED BY: DEP
DRAWN BY: RCN
REVIEWED BY: DPN
DATE: AUGUST 2009

PROJECT/DRAWING NUMBER
208613
FIGURE 4

Geoquest MW-16 10/2/03
VOCs

Benzene	1,510 ug/L
Toluene	37,000 ug/L
Ethylbenzene	6,940 ug/L
m, p-Xylene	24,000 ug/L
o-Xylene	9,240 ug/L
n-Propylbenzene	628 ug/L
1,3,5-Trimethylbenzene	678 ug/L
1,2,4-Trimethylbenzene	3,160 ug/L

DAY MW-1 9/5/01
VOCs

Toluene	580 ppb
Ethylbenzene	214 ppb
m,p-Xylene	1,010 ppb
1,2,4-Trimethylbenzene	387 ppb

SVOCs
None Detected

LaBella MW-2 12/26/01
VOCs
None Detected

Geoquest MW-17 10/2/03
VOCs

Toluene	16.5 ug/L
m, p- Xylene	2.42 ug/L
Isopropylbenzene	19.4 ug/L
n-Propylbenzene	11.2 ug/L
1,2,4-Trimethylbenzene	7.67 ug/L

Geoquest MW-13 10/2/03
VOCs

Toluene	4.14 ug/L
Isopropylbenzene	2.86 ug/L

Geoquest MW-14 10/2/03
VOCs

Benzene	1.81 ug/L
Toluene	8.81 ug/L
m, p-Xylene	9.01 ug/L

DAY MW-2 9/5/01
VOCs

Benzene	89.0 ug/L
Ethylbenzene	1,900 ug/L
m,p-Xylene	89,200E ug/L
o-Xylene	7,780 ug/L
Isopropylbenzene	2,420 ug/L
n-Propylbenzene	213 ug/L
1,3,5-Trimethylbenzene	276 ug/L
1,2,4-Trimethylbenzene	1,190 ug/L

SVOCs
None Detected

Geoquest MW-15 10/2/03
VOCs

Toluene	268,000 ug/L
m, p-Xylene	3,170 ug/L

LaBella MW-1 12/26/01
VOCs

Toluene	11.6 ug/L

DAY MW-3 9/5/01
VOCs

Toluene	89.0 ug/L
Ethylbenzene	181 ug/L
m,p-Xylene	867 ug/L
o-Xylene	156 ug/L
Isopropylbenzene	121 ug/L
1,3,5-Trimethylbenzene	101 ug/L
1,2,4-Trimethylbenzene	410 ug/L

SVOCs
None Detected

Legend
- LaBella Overburden Geoprobe Monitoring Well
- Geoquest Overburden Geoprobe Monitoring Well
- Day Overburden Geoprobe Monitoring Well
- Former Monitoring Well
- Parking lot features
- BCP Site Boundary

0 25 50 Feet

Notes:
Red type denotes constituents above NYSDEC Part 703 Groundwater Standard.

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG5.mxd - 8/27/2009 @ 2:17:45 PM

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PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
PREVIOUS INVESTIGATION GROUNDAATER DATA (PRE-REMEDIATION)

ISSUED FOR: FINAL
DESIGNED BY: DEP
DRAWN BY: RCN
REVIEWED BY: DPN
DATE: AUGUST 2009

PROJECT/DRAWING NUMBER
208613
FIGURE 5

Notes:
Blue type denotes compound detected at a concentration above NYSDEC Remedial Program Subpart 375-6 Soil Cleanup Objectives for Protection of Groundwater.
Purple type denotes compound detected at a concentration above both the NYSDEC Remedial Program Subpart 375-6 Soil Cleanup Objectives for Protection of Groundwater and Protection of Public Health: Commercial Use.
'J' indicates an estimated value.

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG6.mxd - 12/3/2009 @ 11:16:53 AM

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PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
IRM EXCAVATION AREAS
AND CONFIRMATORY SOIL
ANALYTICAL RESULTS

ISSUED FOR: FINAL
DESIGNED BY: DEP
DRAWN BY: RCN
REVIEWED BY: DPN
DATE: AUGUST 2009

PROJECT/DRAWING NUMBER
208613
FIGURE 6

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\Fig7_krm.mxd - 12/9/2009 @ 4:20:54 PM

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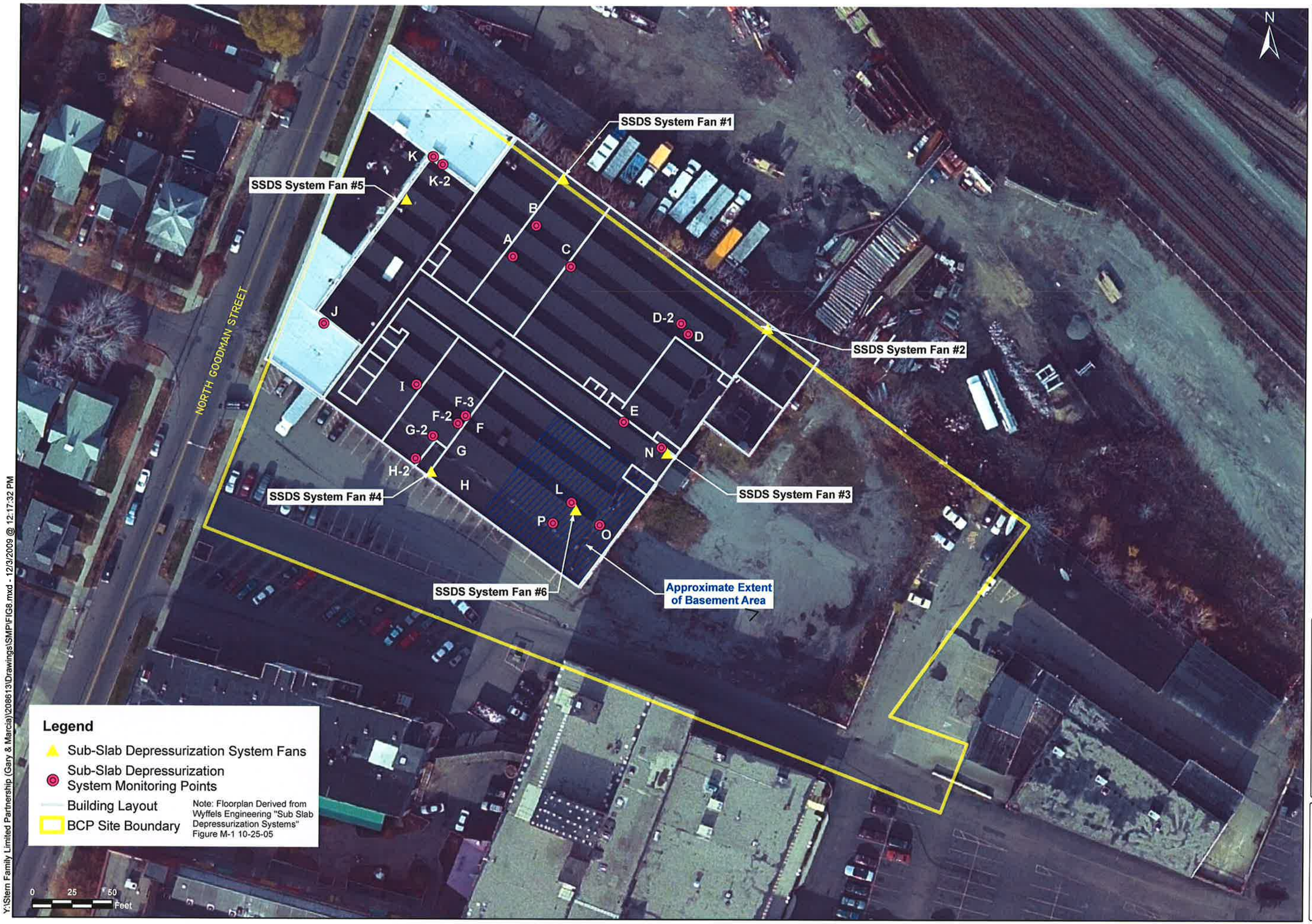
PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
POST-IRM GROUNDWATER ANALYTICAL RESULTS

ISSUED FOR: FINAL
DESIGNED BY: DEP
DRAWN BY: RCN
REVIEWED BY: DPN
DATE: AUGUST 2009

PROJECT/DRAWING NUMBER
208613
FIGURE 7



Y:\Stem Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG8.mxd - 12/3/2009 @ 12:17:32 PM

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PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
SUB-SLAB DEPRESSURIZATION SYSTEM LAYOUT AND MONITORING POINTS

ISSUED FOR: FINAL
DATE: AUGUST 2009
DESIGNED BY: DEP
DRAWN BY: RON
REVIEWED BY: DPN

PROJECT/DRAWING NUMBER
208613
FIGURE 8

RE No. 1 BASE

VOCs	ppm	Track 1	Track 2
Toluene	3.2 J	0.7	500
Ethylbenzene	8.8 J	1	390
m,p-Xylene	14 J	0.26	500
o-Xylene	1.1 J	0.26	500
Isopropylbenzene	1.6 J	n/a	n/a
n-Propylbenzene	3.2 J	n/a	500
1,3,5-Trimethylbenzene	3.4 J	8.4	190
1,2,4-Trimethylbenzene	11 J	3.6	190
sec-Butylbenzene	0.160 J	11	500
n-Butylbenzene	1.2 J	3.9	500
Naphthalene	1.4 J	12	500

LaBella B-5 (8-9.5') 12/17/01
Soil Exceedances:

VOCs	ppm	Track 1	Track 2
Toluene	515 J	0.7	500
Ethylbenzene	13.8 J	1	390
m,p-Xylene	56.3 J	0.26	500

RE No. 8 BASE

VOCs	ppm	Track 1	Track 2
Ethylbenzene	0.038 J	1	500
m,p-Xylene	0.160 J	0.26	500
o-Xylene	0.0045 J	0.26	500
Isopropylbenzene	0.0027 J	n/a	n/a
n-Propylbenzene	0.0015 J	n/a	500
1,2,4-Trimethylbenzene	0.0015 J	3.6	190

DAY SB-12 (12.0') 9/1/01
Soil Exceedances:

VOCs	ppm	Track 1	Track 2
Toluene	1,220 J	0.7	500
Ethylbenzene	27.1 J	1	300
m,p-Xylene	112 J	0.26	500
o-Xylene	33.2 J	0.26	500

LaBella B-3 (8-12') 12/17/01
Soil Exceedances:

VOCs	ppm	Track 1	Track 2
Toluene	2,070 J	0.7	500
m,p-Xylene	15.6 J	0.26	500

Legend

- Parking lot features
- Approximate Area of Remedial Excavations (RE)
- BCP Site Boundary
- LaBella Geoprobe Boring
- Day Geoprobe Boring

Notes:
Blue type denotes compound detected at a concentration above NYSDEC Remedial Program Subpart 375-6 Unrestricted Use Soil Cleanup Objectives (SCOs) (i.e. Track 1 SCOs).
Purple type denotes compound detected at a concentration above the NYSDEC Remedial Program Subpart 375-6 SCOs for Protection oProtection of Public Health: Commercial Use (i.e. Track 2 SCOs).
'J' indicates and estimated value.

Y:\Stern Family Limited Partnership (Gary & Marcia)\208613\Drawings\SMP\FIG9.mxd - 9/15/2009 @ 11:18:42 AM

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PROJECT/CLIENT
SITE MANAGEMENT PLAN
NYSDEC BCP Site No. C828115
320 NORTH GOODMAN ST
ROCHESTER, NEW YORK

DRAWING TITLE
AREAS OF IMPACTS LEFT IN PLACE ABOVE SCGs

ISSUED FOR: FINAL
DESIGNED BY: DEP
DRAWN BY: RCN
REVIEWED BY: DPN
DATE: AUGUST 2009

PROJECT/DRAWING NUMBER
208613
FIGURE 9

LaBella Associates, P.C.
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Tables

Table 1
Volatile Organic Compounds in Soil Samples
DAY September 2001 Phase II Environmental Site Assessment
320 North Goodman Street, Rochester, New York
USEPA Method 8021

Compound	DAY Soil Boring SB-1 0 to 4 ft.	DAY Soil Boring SB-3 12.0 ft.	DAY Soil Boring SB-7 8.0 ft.	DAY Soil Boring SB-12 12.0 ft.	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Public Health: Commercial Use
	TCL + STARS VOCs	STARS VOCs	STARS VOCs	TCL + STARS VOCs		
MTBE	ND<7.60	ND <10.6	ND <9.24	ND<15,100	930	500,000
Benzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	44,000	60
Toluene	69.5	ND <10.6	ND <9.24	***1,220,000***	700	500,000
Ethylbenzene	9.54	ND <10.6	ND <9.24	**27,100**	1,000	390,000
m,p-Xylene	31.6	ND <10.6	ND <9.24	**112,000**	1,600 †	500,000 †
o-Xylene	9.02	ND <10.6	ND <9.24	**33,200**	1,600 †	500,000 †
Isopropylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	N/A	N/A
n-Propylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	3,900	500,000
1,3,5-Trimethylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	8,400	190,000
tert-Butylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	5,900	500,000
1,2,4-Trimethylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	3,600	190,000
sec-Butylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	11,000	500,000
p-Isopropyltoluene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	N/A	N/A
n-Butylbenzene	ND<7.60	ND <10.6	ND <9.24	ND<15,100	12,000	500,000
Naphthalene	ND<19.0	ND <52.9	ND <46.2	ND<15,100	12,000	500,000
Total Detected VOCs	119.66	None Detected	None Detected	1,392,300	N/A	N/A

Bold, Underlined, Italicized type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Public Health: Commercial Use.

Bold type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality.

† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).

All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)

N/A = Not Applicable

ND= Not Detected

Table 2
USEPA RCRA Metals in Soil Samples
DAY September 2001 Phase II Environmental Site Assessment
320 North Goodman Street, Rochester, New York
USEPA Methods 6010 and 7471

Compound	DAY Soil Boring SB-1 0 to 4 ft.	DAY Soil Boring SB-4 0 to 4 ft.	DAY Soil Boring #6 10.0 ft.	DAY Soil Boring SB-10 4.0 ft.	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Public Health: Commercial Use
Arsenic	5.90	2.16	4.32	8.69	16	16
Barium	17.8	18.4	32.0	64.3	820	400
Cadmium	ND <0.484	ND <0.540	ND <0.570	ND <0.574	7.5	9.3
Chromium	8.52	5.20	9.49	14.9	NS*	1,500*
Lead	11.6	4.51	13.5	12.5	450	1,000
Mercury	ND <0.0821	ND <0.0958	ND <0.0912	ND <0.100	0.73	2.8
Selenium	1.38	ND <0.540	1.20	ND <0.574	4	1,500
Silver	1.50	ND <1.08	ND <1.14	ND <1.15	8.3	1,500

All sample results and Soil Cleanup Objectives are shown in milligrams per kilogram (mg/kg) = parts per million (ppm)
SB = Site Background
N/A = Not Applicable
ND= Not Detected

Table 3
Volatile Organic Compounds in Groundwater Samples
DAY September 2001 Phase II Environmental Site Assessment
320 North Goodman Street, Rochester, New York
USEPA Method 8260

Compound	DAY MW-1	DAY MW-2	DAY MW-3	NYSDEC Part 703 Groundwater Standards (ppb)
MTBE	ND<200	ND<200	ND<100	10
Benzene	ND<200	**89.0**	ND<100	0.7
Toluene	**580**	ND<200	**504**	5
Ethylbenzene	**214**	**1,900**	**181**	5
m, p-Xylene	**1,010**	**89,200 E**	**867**	5
o-Xylene	ND<200	**7,780**	**158**	5
Isopropylbenzene	ND<200	**2,420**	**121**	5
n-Propylbenzene	ND<200	**213**	ND<100	5
1,3,5-Trimethylbenzene	ND<200	**276**	**101**	5
Tert-Butylbenzene	ND<200	ND<200	ND<100	5
1,2,4-Trimethylbenzene	**387**	**1,190**	**412**	5
Sec-Butylbenzene	ND<200	ND<200	ND<100	5
p-Isopropyltoluene	ND<200	ND<200	ND<100	5
n-Butylbenzene	ND<200	ND<200	ND<100	5
Naphthalene	ND<500	ND<500	ND<250	10
Total Detected VOCs	2,191	103,068	2,344	N/A

Samples submitted for analysis of TCL and NYSDEC STARS-list VOCs by USEPA Method 8260
Bold type denotes a concentration above NYSDEC Part 703 Groundwater Standards
"E" denotes concentration exceeds calibration range
All sample results are shown in micrograms per liter (µg/l) = parts per billion (ppb)
ND denotes Not Detected
N/A denotes Not Applicable

Table 4
Volatile Organic Compounds in Soil Samples
LaBella December 2001 Phase II Environmental Site Assessment
320 North Goodman Street, Rochester, New York
USEPA Method 8021 or 8260

Compound	Test Pits			Test Borings						NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Public Health: Commercial Use
	TP-7 9 to 10 ft.	TP-8 2 to 3 ft.	TP-10 6 to 7 ft.	B-2 8 to 12 ft.	B-3 8 to 12 ft.	B-4 8 to 11 ft.	B- 5 8 to 9.5 ft.	B-9 4 to 8 ft.	B-10 8 to 12 ft.		
	STARS	STARS	STARS	STARS	TCL + STARS	STARS	STARS	TCL + STARS	STARS		
Methyl tert-Butyl Ether	ND<6.03	ND<10.0	ND<197	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	930	500,000
Benzene	ND<6.03	ND<10.0	ND<197	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	60	44,000
Toluene	ND<6.03	ND<10.0	**14,800**	***1,170,000***	***2,070,000***	13.2	***515,000***	**126,000**	ND<10.3	700	500,000
Ethylbenzene	ND<6.03	ND<10.0	**1,540**	**40,300**	ND<12,100	ND<6.94	**13,800**	ND<12,000	ND<10.3	1,000	390,000
m,p-Xylene	ND<6.03	ND<10.0	**14,600**	**174,000**	**15,600**	ND<6.94	**56,300**	ND<12,000	ND<10.3	1,600 †	500,000 †
o-Xylene	ND<6.03	ND<10.0	1,580	**42,500**	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	1,600 †	500,000 †
Isopropylbenzene	150	ND<10.0	150	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	N/A	N/A
n-Propylbenzene	42.3	ND<10.0	42.3	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	3,900	500,000
1,3,5-Trimethylbenzene	ND<6.03	ND<10.0	745	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	8,400	190,000
tert-Butylbenzene	ND<6.03	ND<10.0	ND<197	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	5,900	500,000
1,2,4-Trimethylbenzene	29.6	ND<10.0	29.6	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	3,600	190,000
sec-Butylbenzene	ND<6.03	ND<10.0	ND<197	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	11,000	500,000
p-Isopropyltoluene	ND<6.03	ND<10.0	ND<197	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	N/A	N/A
n-Butylbenzene	ND<6.03	ND<10.0	ND<197	ND<11,200	ND<12,100	ND<6.94	ND<9,540	ND<12,000	ND<10.3	12,000	500,000
Naphthalene	ND<30.2	ND<50.0	ND<493	ND<27,900	ND<12,100	ND<34.7	ND<23,700	ND<12,000	ND<51.4	12,000	500,000
Total Detected VOCs	221.9	None Detected	33,486.9	1,426,800	2,085,600	13.2	585,100	126,000	None Detected	N/A	N/A

Bold, Underlined, Italicized type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Public Health: Commercial Use.
Bold type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality.
TCL + STARS denotes analysis for Target Compound List (TCL) and NYSDEC STARS-list VOCs by USEPA Method 8260
STARS denotes analysis for petroleum-related NYSDEC STARS-list VOCs by USEPA Method 8021
† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A = Not Applicable
ND= Not Detected

Table 5
Total Petroleum Hydrocarbons (TPH) in Soil Samples
LaBella December 2001 Phase II Environmental Site Assessment
320 North Goodman Street, Rochester, New York
NYSDOH Method 310.13

Boring Location	Petroleum Hydrocarbon	Result (µg/kg)	Reporting Limit (µg/kg)
B-1 (LAB) 6'-8'	Light Weight PHC as Mineral Spirits*	59,400	8,650
B-3 (LAB) 8'-12'	Light Weight PHC as Mineral Spirits*	156,000	9,630
B-9 (LAB) 4'-8'	Light Weight PHC as Mineral Spirits*	132,000	8,570
	&		
	Heavy Weight PHC as Lube Oil	68,700	8,570

* denotes Sample Chromatogram not an exact match to reference chromatogram. Closest match made.
PHC denotes Petroleum Hydrocarbon

Table 6
Volatile Organic Compounds in Groundwater Samples
LaBella December 2001 Phase II Environmental Site Assessment
320 North Goodman Street, Rochester, New York
USEPA Method 8021

Compound	LaBella MW-1	LaBella MW-2	LaBella MW-3	NYSDEC Part 703 Groundwater Standard (ppb)
MTBE	ND <2.00	ND <2.00	ND <2.00	10
Benzene	ND <0.70	ND <0.70	ND <0.70	0.7
Toluene	**11.6**	ND <2.00	ND <2.00	5
Ethylbenzene	ND <2.00	ND <2.00	2.85	5
m, p-Xylene	ND <2.00	ND <2.00	**9.55**	5
o-Xylene	ND <2.00	ND <2.00	ND <2.00	5
Isopropylbenzene	ND <2.00	ND <2.00	**27.3**	5
n-Propylbenzene	ND <2.00	ND <2.00	4.06	5
1,3,5-Trimethylbenzene	ND <2.00	ND <2.00	ND <2.00	5
Tert-Butylbenzene	ND <2.00	ND <2.00	ND <2.00	5
1,2,4-Trimethylbenzene	ND <2.00	ND <2.00	**47.1**	5
Sec-Butylbenzene	ND <2.00	ND <2.00	ND <2.00	5
p-Isopropyltoluene	ND <2.00	ND <2.00	ND <2.00	5
n-Butylbenzene	ND <2.00	ND <2.00	ND <2.00	5
Naphthalene	ND <5.00	ND <5.00	ND <5.00	10
Total Detected VOCs	11.6	None	90.86	N/A

Bold type denotes constituents above NYSDEC Part 703 Groundwater Standard
All sample results are listed in micrograms per liter (µg/l) = parts per billion (ppb)
ND denotes Not Detected
N/A denotes Not Applicable

Table 7
Volatile Organic Compounds in Soil Samples
GeoQuest October 2003 Final Remedial Investigation
320 North Goodman Street, Rochester, New York
USEPA Method 8021 or 8260

Compound	MW-13 6.5 to 7 ft.	MW-14 4 to 4.5 ft.	MW-15 7 to 7.5 ft.	MW-16 7.5 to 8 ft.	MW-17 5 to 5.5 ft.	B-18 6 to 6.5 ft.	B-19 3.5 to 4 ft.	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality	NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Public Health: Commercial Use
Methyl tert-Butyl Ether	ND <9.36	ND <9.19	ND <21.1	ND <7.85	ND <9.37	ND <9.82	ND <8.55	930	500,000
Benzene	ND <9.36	ND <9.19	ND <21.1	ND <7.85	ND <9.37	ND <9.82	ND <8.55	60	44,000
Toluene	ND <9.36	ND <9.19	**1,780**	ND <7.85	ND <9.37	ND <9.82	ND <8.55	700	500,000
Ethylbenzene	ND <9.36	ND <9.19	240	ND <7.85	ND <9.37	ND <9.82	ND <8.55	1,000	390,000
m,p-Xylene	11.6	ND <9.19	**1,480**	ND <7.85	ND <9.37	ND <9.82	ND <8.55	1,600 †	500,000 †
o-Xylene	ND <9.36	ND <9.19	144	ND <7.85	ND <9.37	ND <9.82	ND <8.55	1,600 †	500,000 †
Isopropylbenzene	ND <9.36	ND <9.19	154	ND <7.85	ND <9.37	ND <9.82	ND <8.55	N/A	N/A
n-Propylbenzene	ND <9.36	ND <9.19	110	ND <7.85	ND <9.37	ND <9.82	ND <8.55	3,900	500,000
1,3,5-Trimethylbenzene	ND <9.36	ND <9.19	85.7	ND <7.85	ND <9.37	ND <9.82	ND <8.55	8,400	190,000
tert-Butylbenzene	ND <9.36	ND <9.19	ND <21.1	ND <7.85	ND <9.37	ND <9.82	ND <8.55	5,900	500,000
1,2,4-Trimethylbenzene	ND <9.36	ND <9.19	136	ND <7.85	ND <9.37	ND <9.82	ND <8.55	3,600	190,000
sec-Butylbenzene	ND <9.36	ND <9.19	ND <21.1	ND <7.85	ND <9.37	ND <9.82	ND <8.55	11,000	500,000
p-Isopropyltoluene	ND <9.36	ND <9.19	ND <21.1	ND <7.85	ND <9.37	ND <9.82	ND <8.55	N/A	N/A
n-Butylbenzene	ND <9.36	ND <9.19	ND <21.1	ND <7.85	ND <9.37	ND <9.82	ND <8.55	12,000	500,000
Naphthalene	ND <23.4	ND <23.0	ND <52.9	ND <19.6	ND <23.4	ND <24.5	ND <21.4	12,000	500,000
Total Detected VOCs	11.6	None Detected	4,129.7	None Detected	None Detected	None Detected	None Detected	N/A	N/A

Bold type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality.
† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A = Not Applicable
ND= Not Detected

Table 8
Volatile Organic Compounds in Groundwater Samples
GeoQuest October 2003 Final Remedial Investigation
320 North Goodman Street, Rochester, New York
USEPA Method 8260B

Compound	MW-13	MW-14	MW-15	MW-16	MW-17	NYSDEC Part 703 Groundwater Standards (ppb)
MTBE	ND <2.00	ND <2.00	ND <2,000	ND <500	ND <2.00	10
Benzene	ND <0.700	**1.81**	ND <700	**1,510**	ND <0.700	0.7
Toluene	4.14	**8.81**	**268,000**	**37,000**	**16.5**	5
Ethylbenzene	ND <2.00	ND <2.00	ND <2,000	**6,940**	ND <2.00	5
m, p-Xylene	ND <2.00	**9.01**	**3,170**	**24,000**	2.42	5
o-Xylene	ND <2.00	ND <2.00	ND <2,000	**9,240**	ND <2.00	5
Isopropylbenzene	2.86	ND <2.00	ND <2,000	ND <500	**19.4**	5
n-Propylbenzene	ND <2.00	ND <2.00	ND <2,000	**628**	**11.2**	5
1,3,5-Trimethylbenzene	ND <2.00	ND <2.00	ND <2,000	**678**	ND <2.00	5
Tert-Butylbenzene	ND <2.00	ND <2.00	ND <2,000	ND <500	ND <2.00	5
1,2,4-Trimethylbenzene	ND <2.00	ND <2.00	ND <2,000	**3,160**	**7.67**	5
Sec-Butylbenzene	ND <2.00	ND <2.00	ND <2,000	ND <500	ND <2.00	5
p-Isopropyltoluene	ND <2.00	ND <2.00	ND <2,000	ND <500	ND <2.00	5
n-Butylbenzene	ND <2.00	ND <2.00	ND <2,000	ND <500	ND <2.00	5
Naphthalene	ND <5.00	ND <5.00	ND <5,000	ND <1,250	ND <5.00	10
Total Detected VOCs	7.00	19.63	271,170	83,156	57.19	N/A

Bold type denotes constituents above NYSDEC Part 703 Groundwater Standard
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A denotes Not Applicable
ND denotes Not Detected

Table 9
Volatile Organic Compounds in Confirmatory Soil Samples
GeoQuest April 2005 Interim Remedial Measure (IRM)
320 North Goodman Street, Rochester, New York
USEPA Method 8021 or 8260

Compound	Remedial Excavation #1					Remedial Excavation #2					NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives)	NYSDEC Part 375-6.8(b) Soil Cleanup Objectives to Protect Public Health: Commercial Use
	East Wall (10.0-10.5 ft)	West Wall (8.0-8.5 ft)	North Wall (7.0-7.5 ft)	South Wall (7.0-7.5 ft)	Base (15.0 ft)	East Wall (2.5–3.0 ft)	West Wall (2.5–3.0 ft)	North Wall (2.5–3.0 ft)	South Wall (2.5–3.0 ft)	Base (3.0 ft)		
Methyl tert-Butyl Ether	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <140 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	930	500,000
Benzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <140 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	60	44,000
Toluene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	**3,200** J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	700	500,000
Ethylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	**8,800** J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	1,000	390,000
m,p-Xylene	ND <2.2 UJ	ND <2.2 UJ	ND <2.2 UJ	ND <2.2 UJ	**14,000** J	ND <2.2 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.2 UJ	ND <2.3 UJ	260 †	500,000 †
o-Xylene	ND <2.2 UJ	ND <2.2 UJ	ND <2.2 UJ	ND <2.2 UJ	**1,100** J	ND <2.2 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.2 UJ	ND <2.3 UJ	260 †	500,000 †
Isopropylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	1,600 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	N/A	N/A
n-Propylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	3,200 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	3,900	500,000
1,3,5-Trimethylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	3,400 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	8,400	190,000
tert-Butylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <140 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	5,900	500,000
1,2,4-Trimethylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	11,000 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	3,600	190,000
sec-Butylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	160 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	11,000	500,000
p-Isopropyltoluene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <140 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	N/A	N/A
n-Butylbenzene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	1,200 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	12,000	500,000
Naphthalene	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	ND <1.1 UJ	1,400 J	ND <1.1 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.1 UJ	12,000	500,000
Total Detected VOCs	None Detected	None Detected	None Detected	None Detected	49,060 J	None Detected	None Detected	None Detected	None Detected	None Detected	N/A	N/A

Bold type denotes a concentration above NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives).
† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A = Not Applicable
ND= Not Detected
J = indicates an estimated value
UJ = indicates an estimated value that is below the method detection limit

Table 9 (Continued)
Volatile Organic Compounds in Confirmatory Soil Samples
GeoQuest April 2005 Interim Remedial Measure (IRM)
320 North Goodman Street, Rochester, New York
USEPA Method 8021 or 8260

Compound	Remedial Excavation #3					Remedial Excavation #4					NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives)	NYSDEC Part 375-6.8(b) Soil Cleanup Objectives to Protect Public Health: Commercial Use
	East Wall (8.0-9.0 ft)	West Wall (8.0-9.0 ft)	North Wall (8.0-9.0 ft)	South Wall (8.0-8.5 ft)	Base (10.0- t)	East Wall (10.0-10.5 ft)	West Wall (12.0-13.0 ft)	North Wall (7.0-7.5 ft)	South Wall (14.0-14.5 ft)	Base (14.0 ft)		
Methyl tert-Butyl Ether	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	930	500,000
Benzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	60	44,000
Toluene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	700	500,000
Ethylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	1,000	390,000
m,p-Xylene	ND <2.3 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.5 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	260 †	500,000 †
o-Xylene	ND <2.3 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.5 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	260 †	500,000 †
Isopropylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	N/A	N/A
n-Propylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	3,900	500,000
1,3,5-Trimethylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	8,400	190,000
tert-Butylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	5,900	500,000
1,2,4-Trimethylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	3,600	190,000
sec-Butylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	11,000	500,000
p-Isopropyltoluene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	N/A	N/A
n-Butylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	12,000	500,000
Naphthalene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	12,000	500,000
Total Detected VOCs	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	N/A	N/A

Bold type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality.
† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A = Not Applicable
ND= Not Detected
UJ = indicates an estimated value that is below the method detection limit

Table 9 (Continued)
Volatile Organic Compounds in Confirmatory Soil Samples
GeoQuest April 2005 Interim Remedial Measure (IRM)
320 North Goodman Street, Rochester, New York
USEPA Method 8021 or 8260

Compound	Remedial Excavation #5					Remedial Excavation #6					NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives)	NYSDEC Part 375-6.8(b) Soil Cleanup Objectives to Protect Public Health: Commercial Use
	East Wall (10.0-10.5 ft)	West Wall (6.0-6.5 ft)	North Wall (7.0-7.5 ft)	South Wall (9.0-9.5 ft)	Base (15.0 ft)	East Wall (6.0-6.5 ft)	West Wall (6.5-7.0 ft)	North Wall (5.0-5.5 ft)	South Wall (4.5-5.0 ft)	Base (7.0 ft)		
Methyl tert-Butyl Ether	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	930	500,000
Benzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	60	44,000
Toluene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	5.6 J	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	700	500,000
Ethylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	1,000	390,000
m,p-Xylene	ND <2.4 UJ	ND <2.5 UJ	ND <2.4 UJ	ND <2.5 UJ	ND <2.4 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.3 UJ	260 †	500,000 †
o-Xylene	ND <2.4 UJ	ND <2.5 UJ	ND <2.4 UJ	ND <2.5 UJ	ND <2.4 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.4 UJ	ND <2.3 UJ	260 †	500,000 †
Isopropylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	N/A	N/A
n-Propylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	3,900	500,000
1,3,5-Trimethylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	8,400	190,000
tert-Butylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	5,900	500,000
1,2,4-Trimethylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	3,600	190,000
sec-Butylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	11,000	500,000
p-Isopropyltoluene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	N/A	N/A
n-Butylbenzene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	12,000	500,000
Naphthalene	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	12,000	500,000
Total Detected VOCs	None Detected	None Detected	None Detected	None Detected	5.6 J	None Detected	None Detected	None Detected	None Detected	None Detected	N/A	N/A

Bold type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality.
† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A = Not Applicable
ND= Not Detected
J = indicates an estimated value
UJ = indicates an estimated value that is below the method detection limit

Table 9 (Continued)
Volatile Organic Compounds in Confirmatory Soil Samples
GeoQuest April 2005 Interim Remedial Measure (IRM)
320 North Goodman Street, Rochester, New York
USEPA Method 8021 or 8260

Compound	Remedial Excavation #7					Remedial Excavation #8					NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives)	NYSDEC Part 375-6.8(b) Soil Cleanup Objectives to Protect Public Health: Commercial Use
	East Wall (12.0-12.5 ft)	West Wall (10.0-10.5 ft)	North Wall (7.5-8.0 ft)	South Wall (5.0-5.5 ft)	Base (15.0 ft)	East Wall (12.0-12.5 ft)	West Wall (7.0-7.5 ft)	Northwest Wall (8.0-8.5 ft)	South Wall (9.0-9.5 ft)	Base (12.0 ft)		
Methyl tert-Butyl Ether	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	930	500,000
Benzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	60	44,000
Toluene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	700	500,000
Ethylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	38 J	1,000	390,000
m,p-Xylene	ND <2.4 UJ	ND <2.2 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.3 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.3 UJ	ND <2.4 UJ	160 J	260 †	500,000 †
o-Xylene	ND <2.4 UJ	ND <2.2 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.3 UJ	ND <2.3 UJ	ND <2.4 UJ	ND <2.3 UJ	ND <2.4 UJ	4.5 J	260 †	500,000 †
Isopropylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	2.7 J	N/A	N/A
n-Propylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	1.5 J	3,900	500,000
1,3,5-Trimethylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	8,400	190,000
tert-Butylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	5,900	500,000
1,2,4-Trimethylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	1.5 J	3,600	190,000
sec-Butylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	11,000	500,000
p-Isopropyltoluene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	N/A	N/A
n-Butylbenzene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	12,000	500,000
Naphthalene	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.1 UJ	ND <1.2 UJ	ND <1.2 UJ	12,000	500,000
Total Detected VOCs	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	None Detected	208.2 J	N/A	N/A

Bold type denotes a concentration above NYSDEC Part 375-6 Soil Cleanup Objectives to Protect Groundwater Quality.
† denotes that the Soil Cleanup Objectives shown are for total xylenes (i.e., m+p-xylene and o-xylene).
All sample results and Soil Cleanup Objectives are shown in micrograms per kilogram (µg/kg) = parts per billion (ppb)
N/A = Not Applicable
ND= Not Detected
J = indicates an estimated value
UJ = indicates an estimated value that is below the method detection limit

Table 10
Summary of Detected Volatile Organic Compounds (VOCs) in Groundwater
320 North Goodman Street, Rochester, New York
Results Shown in Micrograms per Liter (µg/L) or Parts per Billion (ppb)

Constituent	Groundwater Samples				NYCRR Part 703 Groundwater Standards
	MW-14R	MW-15R	MW-16R	MW-17R	
	9/12/2008	9/12/2008	9/12/2008	9/12/2008	
Benzene	0.72	1.6	0.37 J	0.88	1
Sec-Butylbenzene	ND<5 U	0.9 J	0.65 J	ND<5 U	5
Ethylbenzene	**10**	ND<5 U	ND<5 U	ND<5 U	5
Isopropyl Benzene	**9.4**	**6.2**	**12**	ND<5 U	5
Naphthalene	ND<5 U	0.51 J	0.89 J	ND<5 U	5
N-Propylbenzene	1.2 J	**5.9**	0.47 J	ND<5 U	5
Toluene	ND<5 U	1.2 J	ND<5 U	ND<5 U	5
1,2,4-Trimethylbenzene	1.2 J	ND<5 U	ND<5 U	ND<5 U	5
1,3,5-Trimethylbenzene	0.38 J	ND<5 U	ND<5 U	ND<5 U	5
M+P-Xlylene	**66**	0.46 J	0.59 J	ND<5 U	5
Total VOCs	88.9	16.77	14.97	0.88	NL

Notes:

VOC analysis by United States Environmental Protection Agency (USEPA) Method 8260

ND<5 indicates that the compound was analyzed for, but not detected at or above the Contract Required Quantitation Limit (CRQL), or the compound was not detected due to qualification through the method or field blank.

U = indicates that the compound was analyzed for, but not detected at of above the CRQL, or the compound was not detected due to qualification through the method or field blank.

J = Estimated value – The analyte was positively identified; but the associated numerical value is the approximate concentration of the analyte in the sample.

NL = Not Listed

Bold denotes the concentration exceeds the NYCRR Part 703 Groundwater Standards.

Table 11
Sub-Slab Depressurization System Vacuum Response Summary
320 North Goodman Street, Rochester, New York
(Vacuum Readings Shown In Inches of Water)

Vacuum Monitoring Point ID	Former Vacuum Monitoring Point ID	Nearest Sub-Slab Vent Fan	Distance/Direction from Sub-Slab Vent Fan	August 16, 2007 Vacuum Readings	September 28, 2007 Vacuum Readings	September 5, 2008 Vacuum Readings	May 22, 2009 Vacuum Readings
Monitoring Point A	Monitoring Point A	Vent Fan #1	59 ft. south and 5 ft. east of Vent #1	-0.002	Not Measured	-0.004	-0.001
Monitoring Point B	Monitoring Point A'		35 ft. south and 5 ft. east of Vent #1	-0.004		-0.015	-0.003
Monitoring Point C	Monitoring Point B		42 ft. south and 38 ft. west of Vent #2	-0.008		-0.008	Varied: 0.001 to -0.001
Monitoring Point D	Monitoring Point C	Vent Fan #2	33 ft. south and 39 ft. west of Vent #3	-0.016		-0.021	Varied: 0.000 to -0.005
Monitoring Point D-2	Not Applicable		Installed Near Monitoring Point D	Installed May 22, 2009			Varied: 0.002 to -0.003
Monitoring Point E	Monitoring Point D	Vent Fan #3	38 ft. west of Vent #3	-0.007	Not Measured	-0.004	-0.003
Monitoring Point N	Not Applicable		7 ft. west of Vent #3	Installed September 5, 2008		-1.407	-1.422
Monitoring Point F	Monitoring Point E	Vent Fan #4	36 ft. north and 5 ft. east of Vent #4	0.000	-0.006	Not Available†	Not Available†
Monitoring Point F-2	Not Applicable		36 ft. north and 2 ft. west of Vent #4	Installed September 5, 2008		-0.006	Not Available†
Monitoring Point F-3	Not Applicable		Installed Near Monitoring Point F-2	Installed May 22, 2009			-0.003
Monitoring Point G	Monitoring Point E'		21 ft. north and 3.5 ft. east of Vent #4	-0.004	-0.009	Not Available†	Not Available†
Monitoring Point G-2	Not Applicable		21 ft. north and 8.5 ft. east of Vent #4	Installed September 5, 2008		-0.045	-0.022
Monitoring Point H	Monitoring Point E"		6 ft. north and 12 ft. east of Vent #4	-0.258	-0.006	Not Available†	Not Available†
Monitoring Point H-2	Not Applicable		6 ft. north and 9.5 ft. west of Vent #4	Installed September 5, 2008		-0.507	-0.424
Monitoring Point I	Not Applicable		47.3 ft. north and 39 ft. west of Vent #4	Installed September 5, 2008		-0.021	-0.003
Monitoring Point J	Not Applicable	Vent Fan #6	38.3 ft. north and 108 ft. west of Vent #4			-0.004	-0.007
Monitoring Point K	Not Applicable		34.75 ft. south and 71 ft. west of Vent #1			-0.001	-0.001
Monitoring Point K-2	Not Applicable	Vent Fan #1	Offset 5 ft. from Monitoring Point K			Installed May 22, 2009	-0.011
Monitoring Point L	Not Applicable	Vent Fan #5	52 ft. north of Vent #5			Varied: 0.000 to -0.002	-0.445
Monitoring Point O	Not Applicable	Vent Fan #5	19 ft. south and 7 ft. west of Vent #5	Installed May 22, 2009			-0.048
Monitoring Point P	Not Applicable	Vent Fan #5	19 ft. east of Vent #5	Installed May 22, 2009			-0.109

† Denotes that monitoing points F, G, & H were sealed and carpetted over during a renovation of the area.

Table 12
Summary of Remaining Contamination in Soil
Above NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives)
320 North Goodman Street, Rochester, New York
Results Shown in Micrograms per Liter (µg/L) or Parts per Billion (ppb)

Constituent	LaBella Soil Boring B-5 (8-9.5 ft.)	LaBella Soil Boring B-3 (8-12 ft.)	DAY Soil Boring SB-12 (12.0 ft.)	Remedial Excavation #1 "Base" Sample (15.0 ft)	NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (Track 1 Soil Cleanup Objectives)
Toluene	515,000	2,070,000	1,220,000	3,200	700
Ethylbenzene	13,800	ND<12,100	27,100	8,800	1,000
m,p-Xylene	56,300	15,600	112,000	14,000	260
o-Xylene	ND<12,100	ND<9,540	33,200	1,100	260
1,3,5-Trimethylbenzene	ND<9,540	ND<12,100	ND<15,100	11,000	8,400

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix A

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this _____day of , 2009, between Owner(s) Gary and Marcia Family Limited Partnership, having an office at 274 North Goodman Street, Rochester, New York 14607, (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 320- 348 North Goodman Street, in the City of Rochester, County of Monroe, State of New York, known and designated on the tax map of the County Clerk of Monroe as tax map parcel numbers: Section 106.84 Block 01 Lot 01; being the same as that property conveyed to Grantor by Warranty Deed dated July 14, 2003 and recorded on July 15, 2003 in the Monroe County Clerk's Office in Book 09814 at page 0559 of deeds, comprising of approximately 2.699 ± acres, and hereinafter more fully described in the ALTA/ACSM Land Title Survey dated March 31, 2009, prepared by Magdeland Surveying, P.C. and corresponding Schedule "A" property description, both documents are attached hereto and made a part hereof (the "Controlled Property"); and

WHEREAS, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the covenants and mutual promises contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number B8-0657-04-03, Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The following controls apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property:

A. The Controlled Property may be used for commercial use as described within 6 NYCRR Part 375- 1.8 (g) (2) (iii), as long as the following long-term engineering controls are employed and the land use restrictions specified below are adhered to:

(i) The Site Management Plan(SMP) dated , must be implemented for the Controlled Property;

(ii) The existing surface and near surface soil, asphalt-paved surfaces, and the building itself, as depicted in ALTA survey dated Act as a cover system at the Controlled Property, disturbances and incidental damage to this cover system shall be repaired upon discovery with cover materials approved by the NYSDEC and the NYSDOH.

(iii) any intrusive activities, including building renovation/expansion, subgrade utility line repair/relocation, and new construction which will cause a disturbance of the soil below any concrete, asphalt, or structures must be conducted in accordance with the Department approved SMP;

(iv) The use of groundwater underlying the Controlled Property is prohibited. The City of Rochester code prohibits the use of groundwater as a potable source;

(v) the installed soil vapor mitigation system as depicted in the final engineering report prepared by LaBella and dated , shall be inspected, certified, operated and maintained as required in the SMP;

(vi) monitor, maintain and replace as necessary groundwater monitoring wells required to be monitored as set forth in the SMP.

B. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the Site Management Plan ("SMP") that the Department has approved for the Controlled Property and all Department-approved amendments to that SMP.

The Grantor hereby acknowledges receipt of a copy of the NYSDEC-approved Site Management Plan, dated XXXX, 2009. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system on the Controlled Property, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. Upon notice of not less than thirty (30) days the Department in exercise of its discretion and consistent with applicable law may revise the SMP. The notice shall be a final agency determination. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer
NYSDEC - Region 8
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9519
Phone: (585) 226-5363 fax: (585) 226-9485

or

Site Control Section
Division of Environmental Remediation
NYS DEC
625 Broadway
Albany, New York 12233

C. The Controlled Property may not be used for a higher level of use such as unrestricted or restricted residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

D. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.

E. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

F. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common

law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person intentionally violates this Environmental Easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 56, Title 5 or ECL Article 27 Title 14 with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. Notice. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:
County, NYSDEC Site Number, NYSDEC Contract or Order Number, and the
County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Number: C 828115
Department of Environmental Enforcement
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. This Environmental Easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Grantor's Name: **Gary and Marcia Stern Family Limited Partnership.** .

By:_____

Title:_____Date:_____

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation

By: _____
Alexander B. Grannis, Commissioner

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

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

_____
Notary Public - State of New York

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

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

_____
Notary Public - State of New York

SCHEDULE "A" PROPERTY DESCRIPTION

LEGAL DESCRIPTION

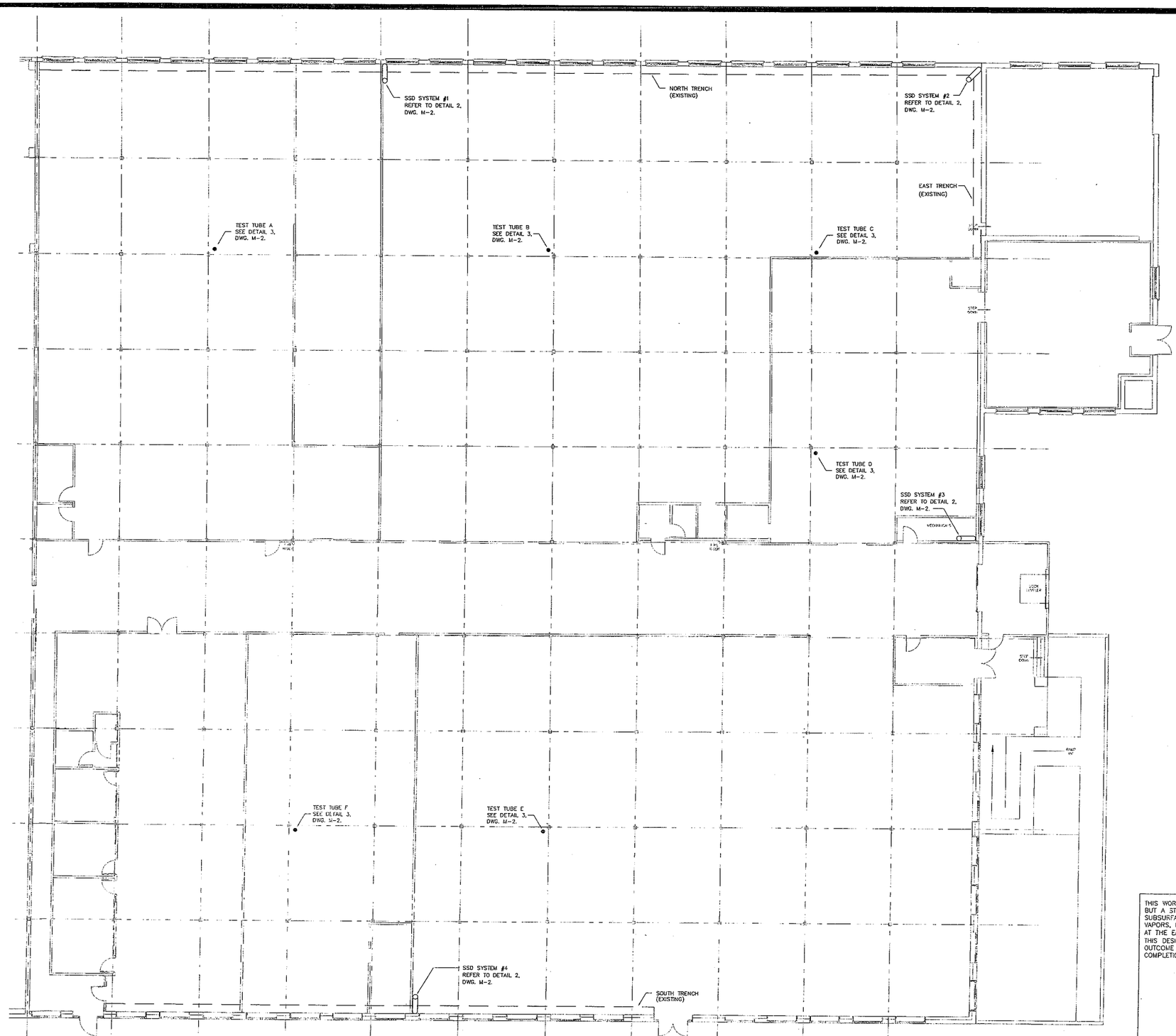
ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Rochester, County of Monroe and State of New York, being part of Lot 50, Second Division, Township 13, Range 7, and more particularly bounded and described as follows: Beginning at the point of intersection of the easterly line of North Goodman Street and the southerly line of the land of the New York Central Railroad Company 495.5 feet to the northwest corner of premises now or formerly of Gary L. and Marcia Stern, Liber 8778 of Deeds, page 79; thence (2) southwesterly making an interior angle of 90° with the last described course, and along the westerly line of the premises so conveyed to Stern, as aforesaid, 146.89 feet to a PK nail; thence (3) easterly making an interior angle of 284° 50' 53" and continuing along the westerly line of lands now or formerly Stern as aforesaid, 51.2 feet to a PK nail; thence (4) southerly making an interior angle of 90° with the last described course and continuing along the westerly line of premises now or formerly Stern, as aforesaid 45.00 feet to a PK nail in the northerly line of other premises now or formerly Gary L. Stern and Marcia Stern, Liber 8778 of Deeds, page 79; thence (5) westerly making an interior angle of 90° with the last described course and along the northerly line of the lands now or formerly Stern, as aforesaid, 490.31 feet to a point in the easterly line of North Goodman Street, which point is marked by a PK nail and is 478.83 feet northerly from the intersection of the northerly line of Anderson Avenue and the easterly line of North Goodman Street; and thence (6) northerly, making an interior angle of 90° 22' 07" with the last described course and along the easterly line of North Goodman Street 313.97 feet to the point and place of beginning, containing 2.699 acres of land, more or less.

Together with all the right, title and interest of the mortgagor in and to all easements and agreements in connection with the railroad tracks and subsidiary tracks on the premises hereby mortgaged on the premises conveyed by Rochester Drug Cooperative, Inc. to Frank & Fraser Wholesale Lumber Corporation and on the premises conveyed by Thomas C. Spencer, as Trustee and Agent to Gleason Fund Incorporated by deed recorded in Monroe County Clerk's Office in Liber 2744 of Deeds, page 119 on March 31, 1952, as described in said deed, together with the right to use the railroad sidings and all existing track facilities now located upon premises hereby mortgaged, on the premises so conveyed by Thomas G. Spencer, as Trustee and Agent to Gleason Fund Incorporated, as aforesaid. Also together with the right and easements reserved by Rochester Drug Cooperative, Inc. in the deed made June 3, 1952 to Frank & Fraser Wholesale Lumber Corp. recorded June 4, 1952 in the Monroe County Clerk's Office in Liber 2756 of Deeds, Page 292.

SURVEY

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix B



M-1 FLOOR PLAN
SCALE: 1/8"=1'-0"

THIS WORK IS NOT CONSIDERED TO BE A REMEDIATION BUT A STEP TOWARD MINIMIZING INFILTRATION OF SUBSURFACE VAPORS INTO THE BUILDING. SUBSURFACE VAPORS, IF PRESENT, WOULD LIKELY BE CONCENTRATED AT THE EAST END OF THE BUILDING.
THIS DESIGN IS NOT A GUARANTEE OF ANY PARTICULAR OUTCOME AND ADDITINAL STEPS MAY BE CONSIDERED AFTER COMPLETION OF THE PRESSURE FIELD EXTENSION TEST.

WYFFELS ENGINEERING, PLLC
PHONE: 585.454.4610
FAX: 585.454.4313
www.wyffelsengineering.com
1 SOUTH WASHINGTON STREET
SUITE 410
ROCHESTER, NEW YORK 14614

CLIENT:
STERN PROPERTIES
274 N. GOODMAN STREET
ROCHESTER, NY

PROJECT:
320 N. GOODMAN STREET
ROCHESTER, NY

DRAWING REVISIONS:

MARK:	DATE:	DESCRIPTION:

DRAWN:	PM:	CHECKED:
AW	AW	AW
	DATE: 10-25-05	

SHEET TITLE:
SUB SLAB DEPRESSURIZATION SYSTEMS

PROJECT NUMBER
100-05

SHEET NUMBER
M-1

SPECIFICATIONS

1. Contractor to include Local, State, Federal taxes, permits and fees as applicable to this contract.

2. Contractor to guarantee his work for one (1) year from date of final acceptances and if during this time any defects in materials or workmanship should appear, they shall be corrected by this Contractor at his expense.

3. Contractor to furnish three (3) sets of typewritten and/or printed instruction on care and operation of equipment to Engineer for approval. Instructions to include list of routine maintenance instructions, parts lists, wiring diagrams and shop drawings listed indexed in hard cover in loose leaf binders. Instruct Owner's representative on the care and operation of the equipment and provide a letter stating to whom and when instructions were provided. Engineer will turn over instructions to owner.

4. Equivalents - Contractor to base bid on equipment specified. Contractor may attach to his proposal a separate sheet upon which is listed the products he desires to substitute with amount to be added or deducted from the base bid if such change is approved.

5. Installation to conform to the latest State codes.

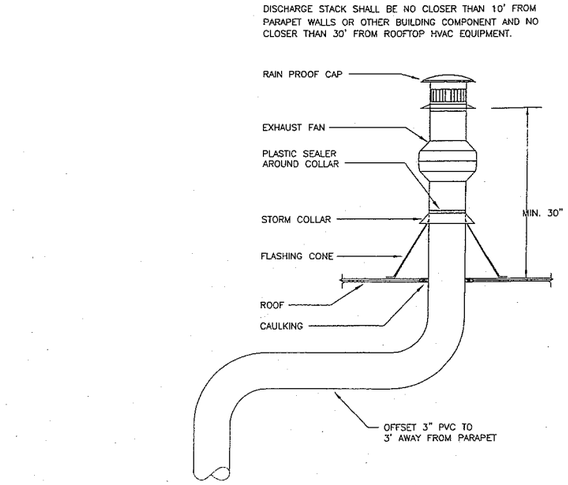
6. Provide cutting and patching required for installation on all existing work and new work.

7. All rubbish and debris to be promptly removed and legally disposed of away from the premises.

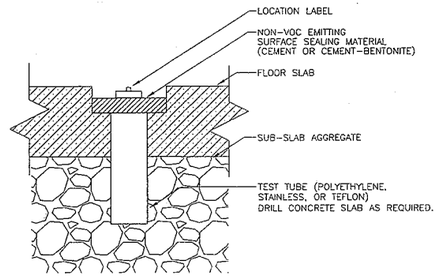
8. Work Scope: Provide four complete, operational Sub Slab Depressurization Systems (SSD) as follows:

   a. The building owner will seal all slab cracks and joints with urethane caulk prior to commencing this work.
   b. The building owner will fill and patch all slab floor excavations, openings, pits, sumps, etc, prior to commencing this work.
   c. Furnish and install all equipment, labor, and material as shown on this plan.
   d. The building owner will provide cutting and patching of the roof.
   e. Furnish and install one vacuum indicator with alarm light for each SSD System.
   f. Caulk around base of each PVC suction pipe with Urethane Caulk.
   g. Provide power, and disconnect switch for each SSD System.
   h. Label panel breakers "SSD System – Do Not Turn Off".
   i. Label fans "Sub Slab Depressurization System". Labels shall be plastic laminate affixed to the fan directly or with a nylon tie.
   j. Label alarm light "Sub Slab Depressurization System Operational When Light Is On".
   k. Once system is operational, check all caulk seals with a smoke tube. Repair any leaks.
   l. Conduct a Pressure Field Extension Test between 30 and 90 days after system start-up. A certified EPA and NEHA testing agency must perform testing. Submit 3 copies of the certified test report to the building owner.

9. Pressure Field Extension Test:
   a. Recheck all caulk seals with a smoke tube.
   b. Provide permanent test tubes in the floor as indicated on the plan. Using a digital micromanometer, measure and record the negative pressure at each test tube. Identify each test tube by its identification number in the report.
   c. Check operation of the alarm lights by briefly turning each fan off. Note that each fan is operational and that each alarm light turned off upon fan shut down.



2 / M-1 SSD SYSTEM DETAIL
SCALE: NOT TO SCALE
TYPICAL OF 4 SYSTEMS



3 / M-1 TEST TUBE DETAIL
SCALE: NOT TO SCALE
TYPICAL OF 8 TUBES

FAN SCHEDULE

NO.	SERVICE	CFM	SP INCHES W.C.	WATTS	INLET	MODEL NO.	POWER
F-1	NORTH TRENCH	10	4	70	3"	RADONWAY GP501	120/1/60
F-2	NORTH/EAST TRENCH	10	4	70	3"	RADONWAY GP501	120/1/60
F-3	EAST FOUNDATION	10	4	70	3"	RADONWAY GP501	120/1/60
F-4	SOUTH TRENCH	10	4	70	3"	RADONWAY GP501	120/1/60

THIS WORK IS NOT CONSIDERED TO BE A REMEDIATION BUT A STEP TOWARD MINIMIZING INFILTRATION OF SUBSURFACE VAPORS INTO THE BUILDING. SUBSURFACE VAPORS, IF PRESENT, WOULD LIKELY BE CONCENTRATED AT THE EAST END OF THE BUILDING.
THIS DESIGN IS NOT A GUARANTEE OF ANY PARTICULAR OUTCOME AND ADDITINAL STEPS MAY BE CONSIDERED AFTER COMPLETION OF THE PRESSURE FIELD EXTENSION TEST.

WYFFELS ENGINEERING, PLLC
1600 EAST WASHINGTON STREET
SUITE 410
ROCHESTER, NEW YORK 14614
PHONE: 585.454.4510
FAX: 585.454.4515
www.wyffelsengineering.com

Drawings Alteration:
The following is an excerpt from the New York Education Law Article 145 Section 7209 and applies to this drawing:
It is a violation of this law for any person, unless he is acting under the direct supervision of A licensed architect or a licensed professional engineer to alter an item in any way. If an item bearing the seal of an architect or engineer is altered, the altering architect or engineer shall affix his seal and the notation "ALTERED BY" followed by his signature and date of such alteration and a specific description of the alteration.

CLIENT:
STERN PROPERTIES
274 N. GOODMAN STREET
ROCHESTER, NY

PROJECT:
320 N. GOODMAN STREET
ROCHESTER, NY

DRAWING REVISIONS:

MARK:	DATE:	DESCRIPTION:

It is a violation of the law for any person, unless acting under the direction of a licensed architect, to alter any item in any way. If an item is altered, the altering architect shall affix to his item the seal and the notation "altered by" followed by his signature and the date of the alteration, and a specific description of the alteration.

DRAWN:	PM:	CHECKED:
AW	AW	AW

DATE: 10-23-25

SHEET TITLE:
SUB SLAB DEPRESSURIZATION SYSTEMS

PROJECT NUMBER
100-05

SHEET NUMBER
M-2

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix C

APPENDIX C – EXCAVATION WORK PLAN

C-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the Department. Currently, this notification will be made to the New York State Department of Environmental Conservation (NYSDEC) Region 8 Office in Avon, New York.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for Site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;

  NOTE: Simple excavations may only require compliance with a portion of the EWP (e.g., excavation of a small volume of soil from above the water table that is directly loaded for off-site disposal would not require the stockpiling or fluids management provisions of the EWP).
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the Contractor's Health and Safety Plan;
- Identification of disposal facilities for potential waste streams; and

- Identification of sources of any anticipated backfill, along with all required chemical testing results.

C-2 SOIL-SCREENING METHODS

Visual, olfactory and instrument-based (i.e., PID) soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). [Note: These areas are shown on Figure 9 of the SMP]. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based upon soil screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as "cover" soil.

Petroleum-impacted soils at the Site exhibit a moderate gasoline-like odor and are typically stained a dark gray color. The petroleum-impacted soils at the Site will also register elevated readings on a properly calibrated PID meter.

Two (2) classes of soil have been defined for the Site. These Classes of material will be managed and handled in a manner dictated soil-screening observations. These two (2) classes of material are described in the following table.

EWP Soil Classifications
For On-Site Management of Soils

Class of Material	Physical Description	Screening Parameter	Management/ Re-use of Material
Class 1 Material	'Clean' Soil	No discernable odor; No staining; No elevated PID readings (i.e., < 10 ppm).	Unrestricted use anywhere on the Site; Unrestricted off-site disposal, if required; Use on Site to cover Class 2 Materials.
Class 2 Material	Soil with petroleum impacts.	Petroleum odor; Staining; PID readings > 10 ppm.	Sample in accordance with NYSDEC Spill Technology and Remediation Series (STARS) Memo #1. The following actions would be undertaken depending on the sampling results: 1) unrestricted use (on-site or off-site) if results meet Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (i.e., reclassify as Class 1 Material); 2) use on Site as non-structural backfill and buried under at least 1 foot of Class 1 Materials if results fail Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives but pass Part 375-6.8(b) Restricted Commercial Use Soil Cleanup Objectives; or 3) Off-Site disposal per 6 NYCRR Part 360 requirements.

[Note: The above screening is to be used for on-site soil management, refer to Section C-6 for off-site disposal.]

C-3 STOCKPILE METHODS

Construction and maintenance of staging/stockpiling areas are described as follows:

- **Class 1 Material** - will be staged for later use as cover material or removed from the Site as clean fill. No Containment System is required for stockpiles of Class 1 Material.

- **Class 2 Material** - will be staged on a minimum two (2) layers of 6-mil polyethylene sheeting and covered with one (1) layer of polyethylene sheeting until sampled and a determination of unrestricted use, restricted on-site reuse, or off-site disposal is made. Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters, and other discharge points.

The Contractor will be required to cover the Class 2 Materials during non-working hours. Stockpiles will be kept covered at all times with appropriately anchored tarps. The covers will be anchored or weighted at the edges to prevent storm water and windborne erosion. Stockpiles will be routinely inspected and damaged covers will be promptly replaced.

C-4 EXCAVATION AND LOAD OUT OF MATERIAL

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material from areas with impacts.

The owner of the Site and its contractors are solely responsible for safe execution of all invasive and other work performed under this SMP.

Loaded vehicles leaving the Site 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 if impacted materials are encountered. The contractor will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete.

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

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

C-5 TRANSPORT OF MATERIAL OFF-SITE

All transport of materials 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 shall be properly placarded.

Material transported by trucks exiting the Site 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 will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Truck transport routes will take 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 distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during on-site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

C-6 OFF-SITE DISPOSAL OF MATERIAL

All soil/fill/solid waste excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360), and Federal regulations. If disposal of soil/fill from the Site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and an appropriate solid waste landfill disposal facility. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading, and disposal facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Part 375-6.8(a) Unrestricted Use SCOs (Track 1 SCOs) is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

C-7 REUSE OF MATERIALS ON-SITE

'Reuse on-site' means reuse on-site of material that originates at the Site and which does not leave the Site during the excavation. Excavated material determined to be Class 1 Material may be re-used on-site with no restrictions.

Excavated material staged as apparent Class 2 Material will be sampled for NYSDEC STARS-list VOCs in order to determine appropriate reuse. The following criteria/reuse will be implemented:

- if contaminant concentrations are less than Part 375-6.8(a) Unrestricted Use SCOs (Track 1 SCOs), then the material can be reused on-site anywhere or NYSDEC could be petitioned for off-site reuse (subject to NYSDEC approval);
- if contaminant concentrations are above the Part 375-6.8(a) Unrestricted Use SCOs (Track 1 SCOs) but below the Part 375-6.8(b) Restricted Commercial Use criteria then the material can be reused on-site if covered by an impervious surface (e.g., asphalt, concrete, etc.), Class 1 material or imported clean fill (refer to C-10: Backfill From Off-Site Sources for requirements of backfill);
- if contaminant concentrations are above the Part 375-6.8(b) Restricted Commercial Use criteria, then the materials will require off-site disposal (refer to C-6: Off-Site Disposal of Material).

All waste streams will be staged separately.

A qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site.

C-8 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, but will be properly handled and disposed off-site.

Petroleum-impacted groundwater at the Site exhibits a moderate petroleum odor and may be discolored (gray or black) and exhibit a petroleum sheen. Laboratory analytical results associated with groundwater sampling performed to date indicate that groundwater at the Site may not require pretreatment prior to discharge to the Monroe County Pure Waters (MCPW) sewer system; however, actual sampling of the water generated is required to obtain a discharge permit from MCPW.

If petroleum-impacted groundwater is discovered in an on-site excavation, contractors will follow their company's Health and Safety Plan(s).

Since elevated levels of petroleum compounds may be encountered in water entering on-site excavations, the following apply:

1. If petroleum-impacted excavation waters are encountered, an appropriately sized container will be mobilized to the Site and staged at a location close to the

excavation. Ideally, this tank should be located in a level area that is protected from vehicle traffic, yet remains accessible to trucks and the sewer system. The contractor will need to supply the appropriate number and size of "trash" pumps to effectively de-water the excavation. The pumps will need to be able to generate enough head to pump the water to the temporary containment tank(s), or a water truck could be utilized to transport the water from the excavation to the tank(s). The contractor will be responsible for reducing the turbidity of the water during pumping (i.e., removing/filtering suspended solids/sediments).

2. When the container becomes full, a sample of water from the tank will be collected and submitted to a NYSDOH ELAP-certified laboratory. The water sample will be sampled in accordance with MCPW guidelines for gasoline related VOCs by NYSDOH Method 602. [*Note: Based upon field observations and/or Monroe County Pure Waters (MCPW) requirements, additional testing may be required.*]

3. The laboratory analytical results will be compared to the applicable MCPW discharge criteria. In the event that contaminant concentrations exceed the MCPW discharge criteria, the water will be treated using an appropriate system (e.g., additional filtering, carbon treatment, air stripping, etc.) to remove contaminants and discharged to a second tank, or circulated through the same tank. A second sample of the treated water will then be collected and analyzed, in order to confirm that contaminants were removed to concentrations below the MCPW discharge criteria. This process will be repeated if necessary. Subsequent to receiving results in compliance with MCPW discharge criteria, the test results will be submitted with a sewer use permit application to MCPW, in order to obtain a sewer use permit for discharge of the treated water. [*Note: In the event that treatment of the excavation waters is unable to meet the discharge criteria, the waters will be disposed off-site at an approved facility.*]

C-9 COVER SYSTEM RESTORATION

Any soil removals and any other invasive activities will be backfilled with at least 1 foot of clean materials over any areas or Remaining Contamination (the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP) or

covered with an impervious surface (e.g., asphalt pavement, concrete, etc.). If the type of cover system changes from that which existed prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the SMP.

C-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be in compliance with provisions in the SMP, applicable regulations [6NYCRR 375-6.7(d)] and guidance (DER-10) 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. All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d).

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 without prior approval by NYSDEC. Solid waste will not be imported onto the site. Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

Given the fully developed nature of the Site, it is considered unlikely that significant amounts of backfill will need to be imported to the Site in the future. In the event that imported backfill material is needed at the Site, the following procedures will be followed for importing backfill to the Site:

- All imported backfill will be from NYSDEC-permitted source, and written documentation regarding the nature of the material will be obtained from the source, or
- Representative samples of the imported backfill will be collected at the frequency specified in the NYSDEC Spill Technology and Remediation Series (STARS) Memo #1 guidance document. The representative samples of imported backfill will be submitted for laboratory analysis of the following: VOCs, SVOCs, USEPA RCRA metals; PCBs; and pesticides. Laboratory analytical results associated with the samples of imported backfill will be compared to NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for the

Protection of Groundwater. Samples that meet these SCOs will be deemed suitable for use as backfill at the Site.

C-11 STORMWATER POLLUTION PREVENTION

Although not anticipated at the Site, with regard to larger excavations that may be proposed at the Site, procedures for storm water pollution prevention shall be specified in a project-specific Stormwater Pollution Prevention Plan that conforms to the requirements of NYSDEC Division of Water guidelines and NYS regulations. If not covered in the project-specific Stormwater Pollution Prevention Plan, the following will also apply:

- Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the 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 excavation/construction area.

C-12 CONTINGENCY PLAN

If USTs or other previously unidentified contaminant sources (e.g., stained soil, drums, etc.) are found during post-remedial subsurface excavations or development related construction,

then excavation activities will be suspended until sufficient equipment and personnel are mobilized to the Site to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for petroleum-related compounds (i.e., STARS-list VOCs and SVOCs), unless field observations suggest the need for more comprehensive analyses or at the discretion of the NYSDEC.

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. Reportable quantities of petroleum product will also be reported to the NYSDEC Spills Hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

C-13 COMMUNITY AIR MONITORING PLAN

A copy of the Community Air Monitoring Plan (CAMP) component of the EWP, obtained from Appendix 1A of NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002, is included as Appendix H of this SMP. The provisions of this CAMP will be followed during all future ground-intrusive activities performed at the Site.

Air sampling station locations will be located based upon generally prevailing wind conditions and will be adjusted on a daily or more frequent basis, based upon actual wind directions to provide an upwind and at least two (2) downwind monitoring stations. Although not currently applicable, if a sensitive receptor, such as a school, day care or residential area is located adjacent to the Site in the future; a fixed monitoring station should be located at that Site perimeter, regardless of wind direction.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

C-14 ODOR CONTROL PLAN

This Odor Control Plan component of the EWP is intended to control emissions of nuisance odors off-site and into on-site tenant spaces. If nuisance odors are identified at the Site boundary, or if odor complaints are received, 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 any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams or other additives to cover or "seal" 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 nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

C-15 DUST CONTROL PLAN

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.

C-16 OTHER NUISANCES

A plan for rodent control, if required by the City of Rochester, will be developed and utilized by the Contractor prior to and during all on-site demolition or remedial work.

If required by the City of Rochester, a plan will be developed and utilized by the Contractor for all demolition or remedial work to ensure compliance with all applicable City of Rochester noise control ordinances.

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix D

LABELLA Associates, P.C.

Engineering
Architecture
Environmental

Site Health and Safety Plan

Location:

NYSDEC BCP Site # C828115
320 North Goodman Street
Rochester, New York

Prepared for:

The Gary and Marcia Stern Family Limited Partnership
274 North Goodman Street
Rochester, New York 14607

LaBella Project No. 208613

August 2009

Site Health and Safety Plan

Location:

NYSDEC BCP Site # C828115
320 North Goodman Street
Rochester, New York

Prepared for:

The Gary and Marcia Stern Family Limited Partnership
274 North Goodman Street
Rochester, New York 14607

LaBella Project No. 208316

August 2009

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Table of Contents

Page

SITE HEALTH AND SAFETY PLAN

Project Title:	NYSDEC BCP Site No. C828115 320 North Goodman Street, Rochester, New York
Project Number:	208613
Project Location (Site):	320 North Goodman Street, Rochester, New York
Environmental Director:	Gregory Senecal, CHMM
Project Manager:	Daniel P. Noll, P.E.
Site Safety Supervisor:	To Be Determined
Site Contact:	To Be Determined
Safety Director:	Rick Rote, CIH
Proposed Date(s) of Field Activities:	To Be Determined
Site Conditions:	Generally level, developed, encompassing approximately 2.7 acres
Site Environmental Information Provided By:	Site Management Plan (SMP) dated August 2009 and completed by LaBella Associates, P.C. (LaBella) of Rochester, New York
Air Monitoring Provided By:	LaBella Associates, P.C.
Site Control Provided By:	Owner

EMERGENCY CONTACTS

	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Strong Memorial Hospital	(585) 275-2100
Poison Control Center:	Finger Lakes Poison Control	(585) 275-3232
Police (local, state):	Monroe County Sheriff	911
Fire Department:	Perinton Fire Department	911
Site Contact:	Daniel P. Noll, P.E.	Direct: (585) 295-6611
Agency Contact:	NYSDEC – Todd M. Caffoe, P.E.	(585) 226-5350
Environmental Director:	Greg Senecal, CHMM	Direct: (585) 295-6243 Cell: (585) 752-6480
Project Manager:	Daniel P. Noll, P.E.	Direct: (585) 295-6611
Site Safety Supervisor:	To Be Determined	Direct: Cell:
Safety Director	Rick Rote, CIH	Direct: (585) 295-6241

DIRECTIONS TO THE MEDICAL FACILITY
- ROCHESTER GENERAL HOSPITAL -

Site Location: 320 North Goodman Street, City of Rochester

Nearest Hospital Name: Rochester General Hospital

Hospital Location: 1425 Portland Avenue, Rochester, New York

Hospital Telephone: (585) 922-4000

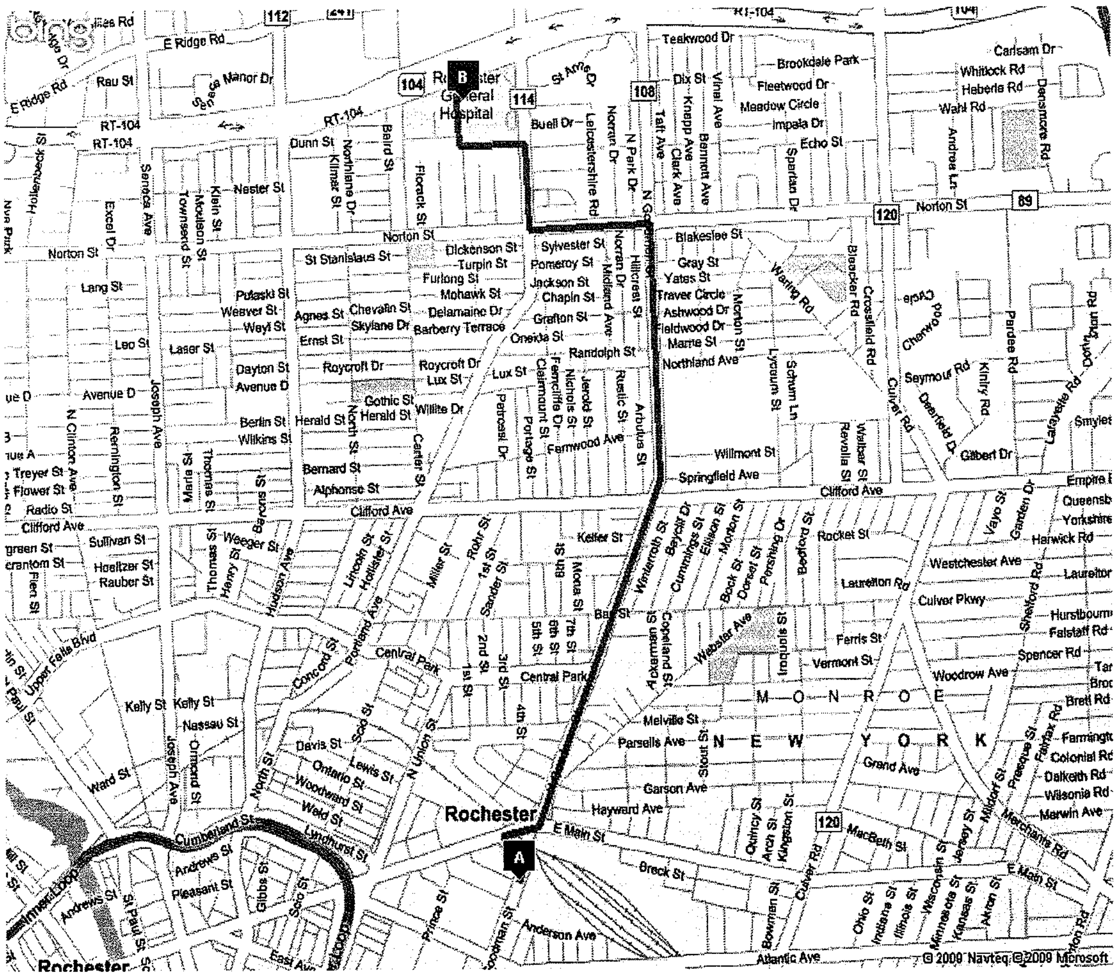
Directions to the Hospital:

1. Depart 320 North Goodman Street
2. Turn right and road name changes to Circle Street
3. Turn right onto East Main Street
4. Turn left onto North Goodman Street
5. Turn left onto Norton St
6. Turn right onto Portland Avenue
7. Turn left into Rochester General Hospital campus

Total Distance: 3.2 miles

Total Estimated Drive Time: 10 minutes

MAP TO THE MEDICAL FACILITY
- ROCHESTER GENERAL HOSPITAL -



1.0 Introduction

The purpose of this Health and Safety Plan (HASP) it to provide guidelines for responding to potential health and safety issues that may be encountered during the implementation of the Site Management Plan (SMP) for the Former Rochester Drug Cooperative Building located at 320 North Goodman Street (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). This HASP only reflects the policies of LaBella Associates P.C. (LaBella). The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any regulatory requirements of the United States Environmental Protection Agency (USEPA), New York State Department of Environmental Conservation (NYSDEC), United States Occupational Safety and Health Administration (OSHA), or any other regulatory agency.

2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 Activities Covered

The activities covered under this HASP are limited to the following:

- Periodic Environmental Monitoring & Site Inspections
- Collection of samples
- Management of excavated soil and fill

4.0 Work Area Access and Site Control

The Owner will have primary responsibility for work area access and Site control.

5.0 Potential Health and Safety Hazards

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his or her instructions must be followed.

5.1 Hazards Due to Heavy Machinery

Potential Hazard:
Heavy machinery including trucks, excavators, backhoes, etc may be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

Protective Action:
Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

5.2 Excavation Hazards

Potential Hazard:
Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Protective Action:
Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over four (4) feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable.

5.3 Cuts, Punctures and Other Injuries

Potential Hazard:
In any excavation or construction, work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:
The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment in not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer

5.4 Injury Due to Exposure of Chemical Hazards

Potential Hazards:
Volatile organic vapors from petroleum products or other chemicals may be encountered during excavation activities at the project work site. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis. Previous investigations completed at the Site indicate that the constituents of concern are limited to petroleum-related compounds.

Protective Action:
The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 60 minutes or more often using a photoionization detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 parts per million (ppm) consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm or benzene readings of 1.0 ppm are encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

5.5 Injuries Due to Extreme Hot or Cold Weather Conditions

Potential Hazards:
Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:
Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

6.0 Work Zones

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

Exclusion Zone (EZ):
The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate personal protective equipment (PPE) (e.g., Level C).

Contaminant Reduction Zone (CRZ):
The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 Decontamination Procedures

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor's disposal container for disposal of PPE.

8.0 Personal Protective Equipment

Generally, site conditions at this work site require level of protection of Level D or "modified" Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:
Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:
Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [*Note: Organic vapor cartridges are to be changed after each eight (8) hours of use or more frequently.*]

9.0 Air Monitoring

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedure listed below. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications.

The Air Monitor will utilize a PID to screen the ambient air in the work areas (excavation, soil staging, and soil grading areas) for total VOCs. Work area ambient air will generally be monitored in the work area and downwind of the work area at 30-minuter intervals.

10.0 Emergency Action Plan

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 Medical Surveillance

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

12.0 Employee Training

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

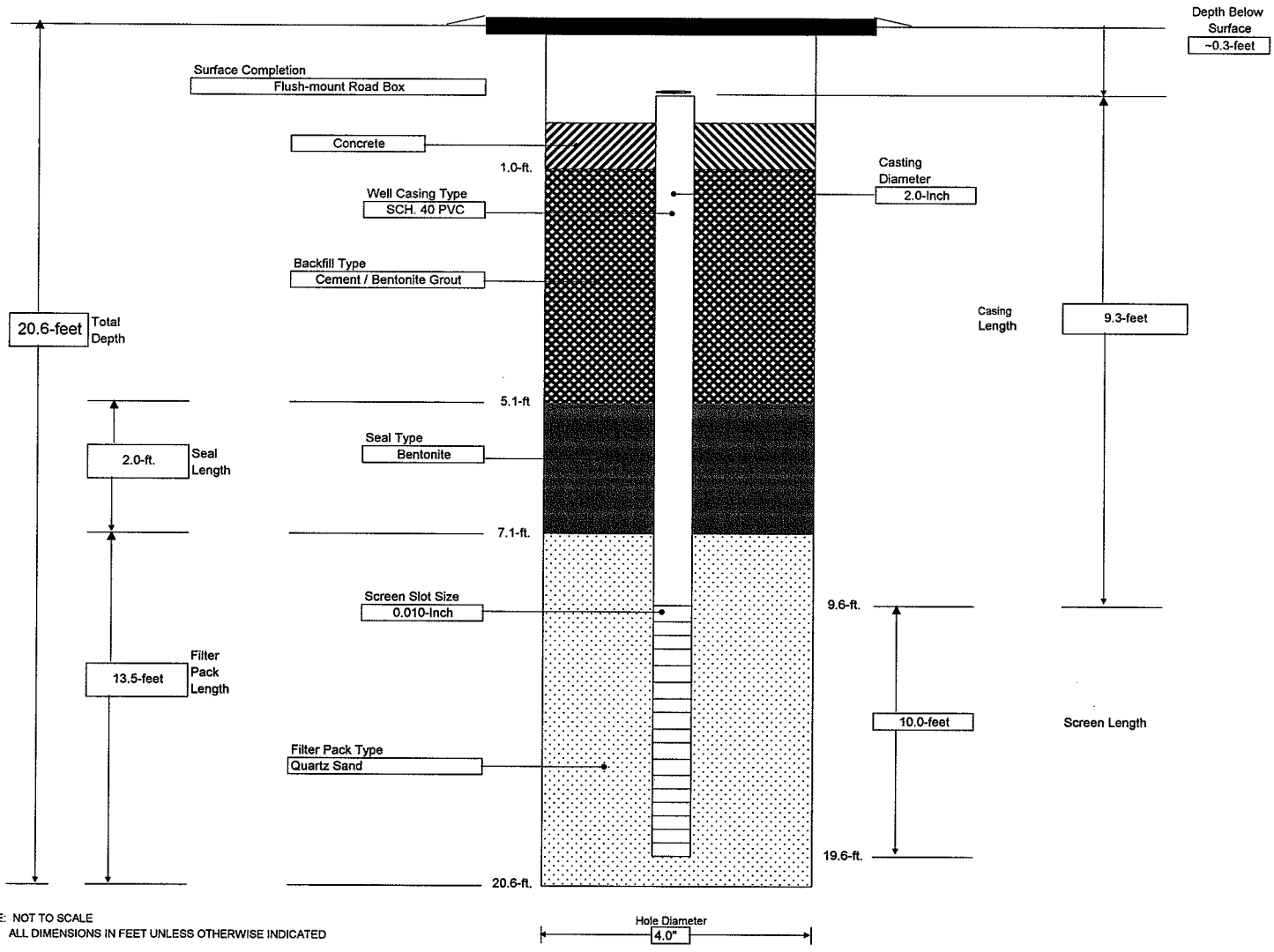
Appendix E

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	Phase II Environmental Site Assessment Brownfield Assistance 320 North Goodman Street Rochester, New York	WELL ID **MW-14R** SHEET 1 OF 1 JOB # 206101 CHKD. BY:

CONTRACTOR: Target Drilling Co.		BORING LOCATION	
DRILLER B. Siragusa		GROUND SURFACE ELEVATION	DATUM
LABELLA REPRESENTATIVE: C. Stiles		START DATE 19-Jul-06	END DATE 20-Jul-06
TYPE OF DRILL RIG:	CME Model 75 Rotary Drill Rig		
AUGER SIZE AND TYPE	4.25-Inch ID		
OVERBURDEN SAMPLING METHOD	2" x 2' Split-spoon w/140# Hammer		
ROCK DRILLING METHOD	Air Rotary		

WATER LEVEL DATA

DATE	TIME	WATER	CASING	REMARKS



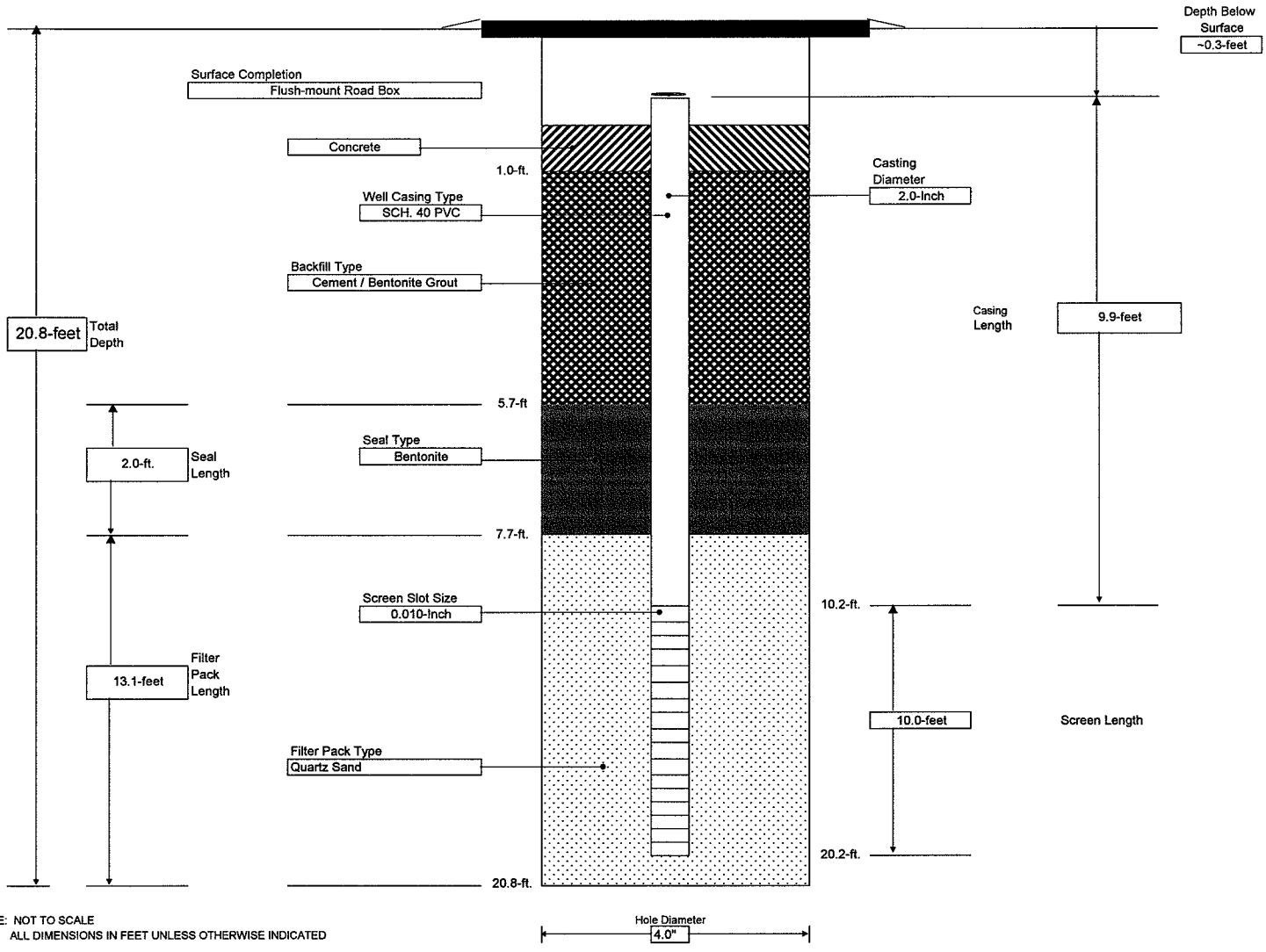
NOTE: NOT TO SCALE
ALL DIMENSIONS IN FEET UNLESS OTHERWISE INDICATED

GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	Phase II Environmental Site Assessment Brownfield Assistance 320 North Goodman Street Rochester, New York	WELL ID **MW-15R** SHEET 1 OF 1 JOB # 206101 CHKD. BY:

CONTRACTOR: Target Drilling Co.		BORING LOCATION	
DRILLER B. Siragusa		GROUND SURFACE ELEVATION	DATUM
LABELLA REPRESENTATIVE:	C. Stiles	START DATE 17-Jul-06	END DATE 18-Jul-06
TYPE OF DRILL RIG:	CME Model 75 Rotary Drill Rig		
AUGER SIZE AND TYPE	4.25-Inch ID		
OVERBURDEN SAMPLING METHOD	2" x 2' Split-spoon w/140# Hammer		
ROCK DRILLING METHOD	Air Rotary		

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



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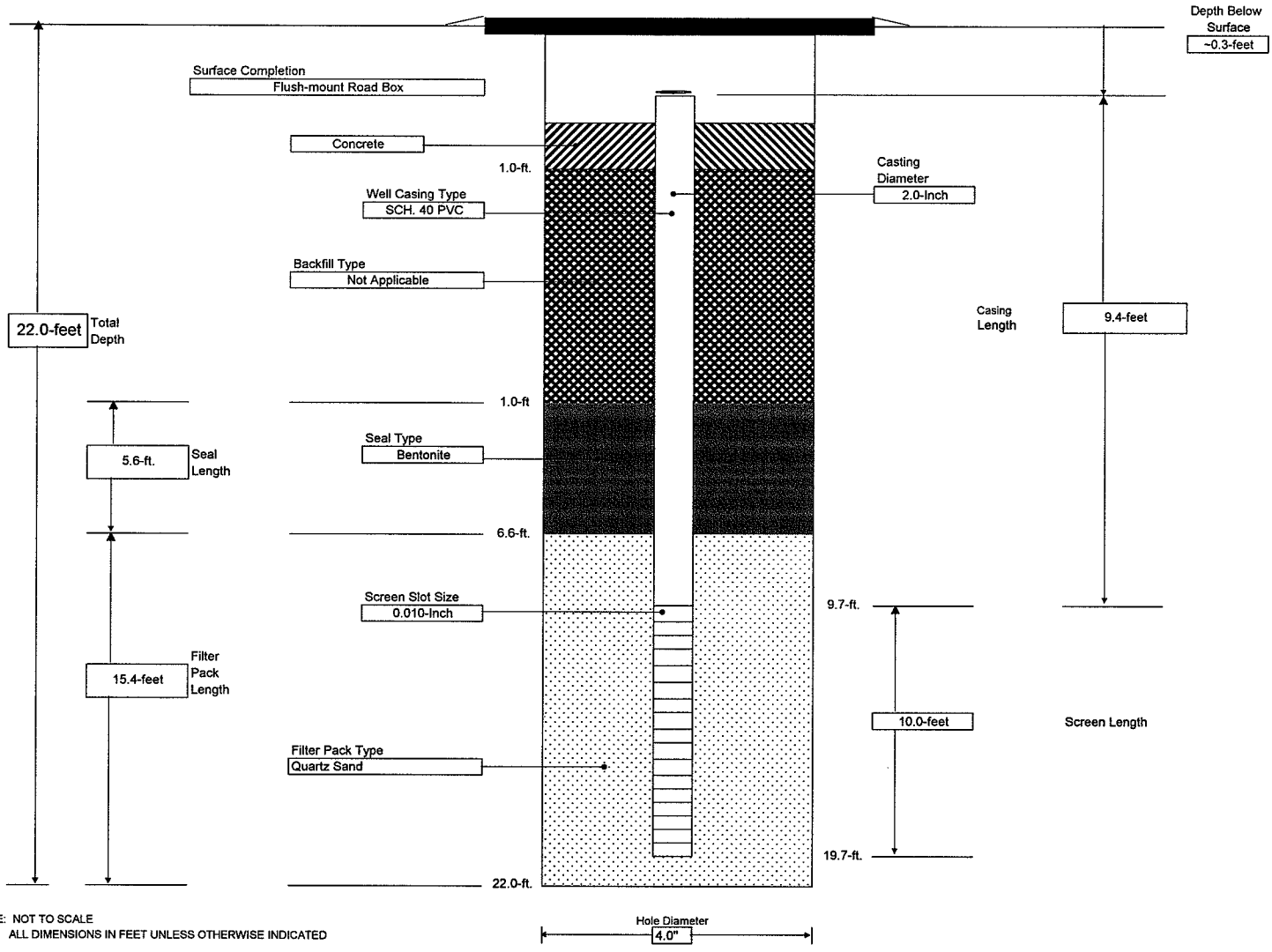
LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	Phase II Environmental Site Assessment Brownfield Assistance 320 North Goodman Street Rochester, New York	WELL ID **MW-16R** SHEET 1 OF 1 JOB # 206101 CHKD. BY:

CONTRACTOR: Target Drilling Co.		BORING LOCATION	
DRILLER B. Siragusa		GROUND SURFACE ELEVATION	DATUM
LABELLA REPRESENTATIVE: C. Stiles		START DATE 20-Jul-06	END DATE 21-Jul-06
TYPE OF DRILL RIG:	CME Model 75 Rotary Drill Rig		
AUGER SIZE AND TYPE	4.25-Inch ID		
OVERBURDEN SAMPLING METHOD	2" x 2' Split-spoon w/140# Hammer		
ROCK DRILLING METHOD	Air Rotary		

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



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GENERAL NOTES:
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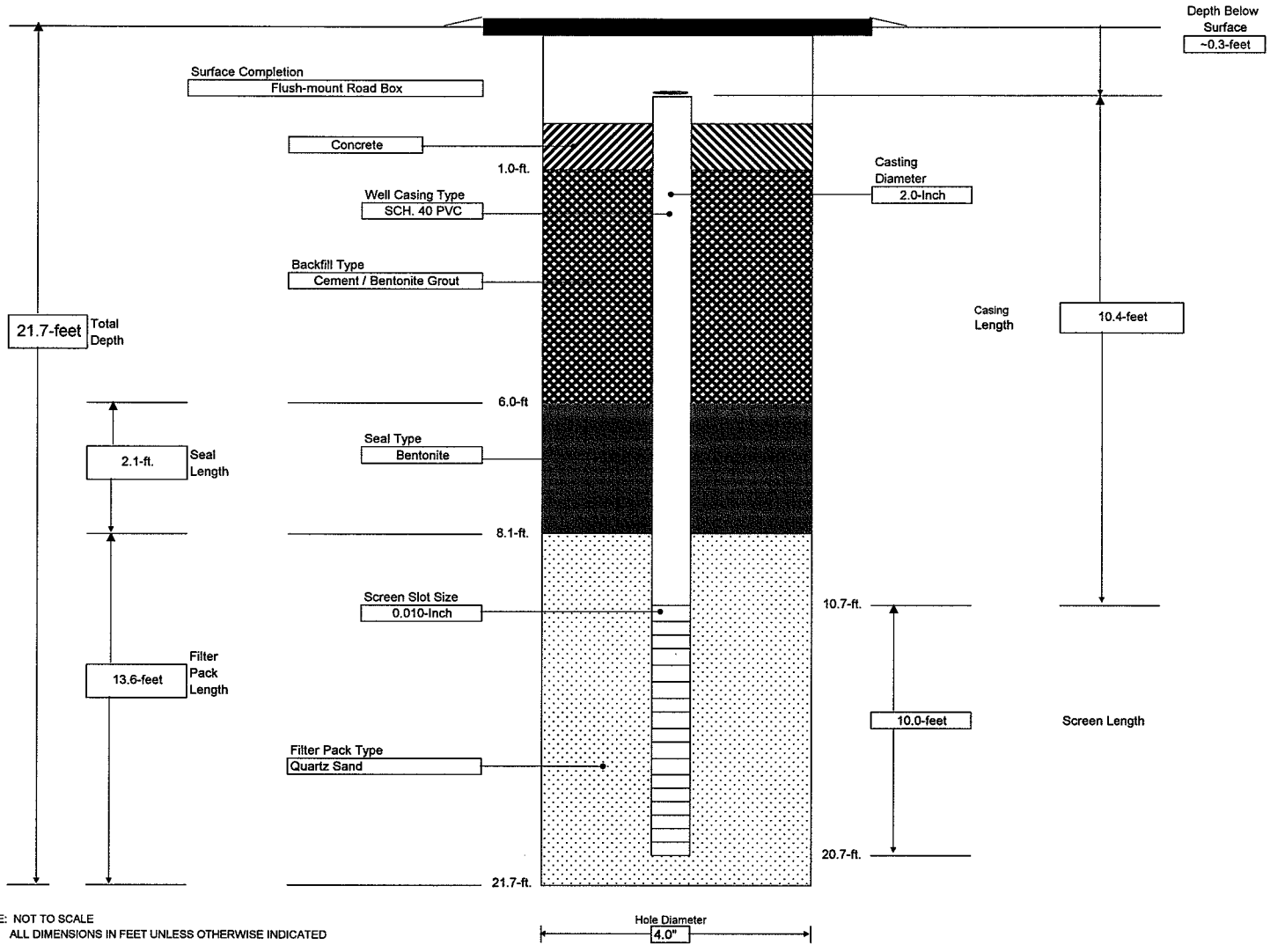
LABELLA Associates, PC. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	Phase II Environmental Site Assessment Brownfield Assistance 320 North Goodman Street Rochester, New York	WELL ID **MW-17R** SHEET 1 OF 1 JOB # 206101 CHKD. BY:

CONTRACTOR: Target Drilling Co.		BORING LOCATION	
DRILLER B. Siragusa		GROUND SURFACE ELEVATION	DATUM
LABELLA REPRESENTATIVE: C. Stiles		START DATE 18-Jul-06	END DATE 19-Jul-06
TYPE OF DRILL RIG:	CME Model 75 Rotary Drill Rig		
AUGER SIZE AND TYPE	4.25-Inch ID		
OVERBURDEN SAMPLING METHOD	2" x 2' Split-spoon w/140# Hammer		
ROCK DRILLING METHOD	Air Rotary		

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	REMARKS



NOTE: NOT TO SCALE
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GENERAL NOTES:
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LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
PH: (585) 454-6110 FAX: (585) 454-3066

GROUNDWATER SAMPLING & WELL INSPECTION FORM

WELL ID _____

Project Name: NYSDEC BCP Site C828115 Project No.: _____

Location: 320 North Goodman St., Rochester, New York

Sampled By: _____ Date: _____

Weather: _____

PURGE VOLUME CALCULATION

Well Diameter: -Inch Static Water Level: Feet

Depth of Well: Feet Single Well Volume: Gallons

PURGE & SAMPLING METHOD

☐ Bailer - Type: _____ ☐ Pump - Type _____

Sampling Device: _____ Pump Rate: _____

FIELD PARAMETER MEASUREMENTS

Time	Gallons Purged	pH	Temp (C)	Conductivity (µS/cm)	Turbidity (NTU)		Comments

Total Gallons Purged: Purge Start Time: Purge End Time:

WELL SAMPLING

Sample I.D. _____ Sample Time: _____

No. of Containers: Two (2) 40-ml Sample Preservation: HCl

Sampled For: ☒ NYSDEC STARS VOCs by USEPA Method 8260 ☐ ☐ ☐

WELL INSPECTION OBSERVATIONS:

Well Volume (1" well) = 0.0408 gal./ft.	Well Volume (4" well) = 0.65 gal./ft.
Well Volume (2" well) = 0.163 gal./ft.	

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix F

Sub-Slab Depressurization System (SSDS) Inspection Form
Site Management Plan
320 North Goodman Street, City of Rochester, New York
NYSDEC Brownfield Cleanup Program Site No. C828115

LABELLA Associates, P.C.

300 State Street

Rochester, New York 14614

Phone: (585) 454-6110

Fax: (585) 454-3066

Project Name: NYSDEC BCP Site No. C828115
Location: 320 North Goodman Street, Rochester, New York
Project No.: 208613
Inspected By:
Date of Inspection:
Weather Conditions:

SSDS VENT FAN & GENERAL LOCATION	FAN OPERATING PROPERLY (YES/NO)	PIPING IN GOOD CONDITION (YES/NO)	MANOMETER READING (INCHES OF WATER COLUMN)	LABELLING OF SYSTEM INTACT (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
FAN #1 Northern Wall, Near Center of Building					
FAN #2 Near Northeastern Corner of Building					
FAN #3 Eastern Wall					
FAN #4 Southern Wall					
FAN #5 Western Portion of Building, In Bathroom Utility Closet					
FAN #6 Partial Basement, Southeastern Portion of Building					

LABELLA Associates, P.C.

300 State Street
Rochester, New York 14614
Phone: (585) 454-6110
Fax: (585) 454-3066

SITE-WIDE INSPECTION FORM

Project Name: NYSDEC BCP Site No. C828115
Location: 320 North Goodman Street, City of Rochester, New York
Project No.: 208613
Inspected By:
Date of Inspection:
Weather Conditions:

INSPECTION FINDINGS

SSDS VENT FAN & GENERAL LOCATION	FAN OPERATING PROPERLY (YES/NO)	PIPING IN GOOD CONDITION (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN
BIO-CELL SOIL COVER	BIOCELL SOIL COVER IN GOOD CONDITION (YES/NO)		COMMENTS AND/OR ACTIONS TAKEN
GENERAL SITE CONDITIONS	CURRENT USE OF SITE (COMMERCIAL/ RESIDENTIAL/ETC.)	SITE RECORDS UP TO DATE (YES/NO)	COMMENTS AND/OR ACTIONS TAKEN

LaBella Associates, P.C.
300 State Street
Rochester, New York 14614

Appendix G

LABELLA Associates, P.C.

Engineering
Architecture
Environmental

Quality Assurance Project Plan (QAPP)

Location:

NYSDEC Brownfield Cleanup Program # C828115
Former Rochester Drug Cooperative
320 North Goodman Street
Rochester, New York 14607

Prepared for:

The Gary and Marcia Stern Family Limited Partnership
274 North Goodman Street
Rochester, New York 14607

LaBella Project No. 208613

August 2009

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1. Introduction

This Quality Assurance Project Plan (QAPP) contains procedures that provide for collected data to be properly evaluated and document that Quality Control (QC) procedures have been followed in the collection of samples. This QAPP represents the methodology and measurement procedures used in collecting quality field data. This methodology includes the proper use of equipment, documentation of sample collection, and sample handling practices.

Procedures used in LaBella Associates, P.C.'s (LaBella's) QC program are compatible with federal, state, and local regulations, as well as, appropriate professional and technical standards.

This QC program has been organized into the following areas:

- QC Objectives and Checks
- Field Equipment, Handling, and Calibration
- Sampling Techniques
- Sample Handling and Packaging

It should be noted that the Site Management Plan (SMP) may have site-specific details that will differ from the procedures in this QC program. In such cases, the SMP should be followed (subsequent to regulatory approval).

2. Quality Control Objectives

The United States Environmental Protection Agency (USEPA) has identified five general levels of analytical data quality as being potentially applicable to site investigations conducted under CERCLA. These levels are summarized below:

- **Level I** - Field screening. This level is characterized by the use of portable instruments, which can provide real-time data to assist in the optimization of sampling point locations and for health and safety support. Data can be generated regarding the presence or absence of certain contaminants (especially volatiles) at sampling locations.
- **Level II** - Field analysis. This level is characterized by the use of portable analytical instruments, which can be used on site or in mobile laboratories stationed near a site (close-support labs). Depending upon the types of contaminants, sample matrix, and personnel skills, qualitative and quantitative data can be obtained.
- **Level III** - Laboratory analysis using methods other than the Contract Laboratory Program (CLP) Routine Analytical Services (RAS). This level is used primarily in support of engineering studies using standard USEPA-approved procedures. Some procedures may be equivalent to CLP RAS, without the CLP requirements for documentation.
- **Level IV** - CLP Routine Analytical Services. This level is characterized by rigorous QC protocols and documentation and provides qualitative and quantitative analytical data. Some regions have obtained similar support via their own regional laboratories, university laboratories, or other commercial laboratories.

- **Level V** - Non-standard methods. Analyses, which may require method modification and/or development. CLP Special Analytical Services (SAS) are considered Level V.

Unless stated otherwise, all data will be generated in accordance with Level IV. When CLP methodology is not available, federal and state approved methods will be utilized. Level III will be utilized, as necessary, for non-CLP RAS work which may include ignitability, corrosivity, reactivity, EP toxicity, and other state approved parameters for characterization. Level I will be used throughout the implementation of the SMP for health and safety monitoring activities.

All measurements will be made to provide that analytical results are representative of the media and conditions measured. Unless otherwise specified, all data will be calculated and reported in units consistent with other organizations reporting similar data to allow comparability of data bases among organizations. Data will be reported in µg/L and mg/L for aqueous samples, and µg/kg and mg/kg (dry weight) for soils, or otherwise as applicable.

The characteristics of major importance for the assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. Application of these characteristics to specific projects is addressed later in this document. The characteristics are defined below.

2.1. Accuracy

Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

2.2. Precision

Precision is the degree of mutual agreement among individual measurements of a given parameter.

2.3. Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.

2.4. Representativeness

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition

Careful choice and use of appropriate methods in the field will ensure that samples are representative. This is relatively easy with water or air samples since these components are homogeneously dispersed. In soil and sediment, contaminants are unlikely to be evenly distributed, and thus it is important for the sampler and analyst to exercise good judgment when removing a sample.

2.5. Comparability

Comparability expresses the confidence with which one data set can be compared to another. The data sets may be inter- or intra- laboratory.

3. Measurement of Data Quality

3.1. Accuracy

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These "knowns" take the form of USEPA standard reference materials, or laboratory prepared solutions of target analytes spiked into a pure water or sample matrix. In the case of GC or GC/MS analyses, solutions of surrogate compounds, which can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination, are used.

In each case the recovery of the analyte is measured as a percentage, correcting for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For USEPA supplied known solutions, this recovery is compared to the published data that accompany the solution.

For LaBella's prepared solutions, the recovery is compared to USEPA-developed data or LaBella's historical data as available. For surrogate compounds, recoveries are compared to USEPA CLP acceptable recovery tables.

If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate. The analyst or his supervisor must initiate an investigation of the cause of the problem and take corrective action. This can include recalibration of the instrument, reanalysis of the QC sample, reanalysis of the samples in the batch, or flagging the data as suspect if the problems cannot be resolved. For highly contaminated samples, recovery of the matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

3.2. Precision

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is sometimes not known to ASC and usually not known to bench analysts, so their usefulness for monitoring analytical precision at bench level is limited. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantitation of precision is impossible. For USEPA CLP analyses, replicate pairs of spiked samples, known as matrix spike/matrix spike duplicate samples, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of Relative Percent Difference (RPD).

- Where X_1 and X_2 represent the individual values found for the target analyte in the two replicate analyses or in the matrix spike/matrix spike duplicate analyses.
- RPDs must be compared to the method RPD for the analysis. The analyst or his supervisor must investigate the cause of RPDs outside stated acceptance limits. This may include a visual inspection of the sample for non homogeneity, analysis of check samples, etc. Follow-up action may include sample reanalysis or flagging of the data as suspect if problems cannot be resolved.
- During the data review and validation process, field duplicate RPDs are assessed as a measure of the total variability of both field sampling and laboratory analysis.

3.3. Completeness

Completeness for each parameter is calculated as follows:

- LaBella's target value for completeness for all parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported to the site managers. In planning the field sample collection, the site manager will plan to collect field duplicates from identified critical areas. This procedure should assure 100% completeness for these areas.

3.4. Representativeness

The characteristic of representativeness is not quantifiable. Subjective factors to be taken into account are as follows:

- The degree of homogeneity of a site;
- The degree of homogeneity of a sample taken from one point in a site; and
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the site and the specific area. Within the laboratory, precautions are taken to extract from the sample bottle an aliquot representative of the whole sample. This includes premixing the sample and discarding pebbles from soil samples.

4. QC Targets

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and RPD of duplicates/replicates are included in the QAPP, Analytical Procedures. Note that tabulated values are not always attainable. Instances may arise where high sample concentrations, non homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, LaBella will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

5. Groundwater Sampling Procedures

The groundwater sampling plan outlined in this subsection has been prepared in general accordance with RCRA Groundwater Monitoring Technical Enforcement Guidance Document 9950.1 (September 1986), Office of Solid Waste and Emergency Response.

Water levels in all existing monitoring wells will be measured to within 0.01 foot prior to purging and sampling. Purging and sampling of each well will be accomplished using precleaned dedicated PVC bailers on new polypropylene line. In general, wells will be purged until the pH, conductivity, temperature, and turbidity of the water being pumped from the well have stabilized. All wells will be purged of at least three (3) well volumes or to dryness.

Groundwater samples will be collected according to the following procedures and in the volumes specified in Table 1:

- Water clarity will be quantified during sampling with a turbidity meter;
- When transferring water from the bailer or pump line to sample containers, care will be taken to avoid agitating the sample, since agitation promotes the loss of volatile constituents;
- Any observable physical characteristics of the groundwater (e.g., color, sheen, odor, turbidity) at the time of sampling will be recorded; and
- Weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

All groundwater samples and their accompanying QC samples will be run for volatile organic compounds (VOCs) using NYSDEC ASP 91-1.

6. Management of Sampling-Derived Waste

Purpose:

The purposes of these guidelines are to ensure the proper holding, storage, transportation, and disposal of materials that may contain hazardous wastes. Sampling-derived waste (SDW) included the following:

- Drill cuttings, discarded soil samples, drilling mud solids, and used sample containers;
- Well development and purge waters and discarded groundwater samples;
- Decontamination waters and associated solids;
- Soiled disposable personal protective equipment (PPE);
- Used disposable sampling equipment;
- Used plastic sheeting and aluminum foil;
- Other equipment or materials that either contain or have been in contact with potentially-impacted environmental media.
- Because these materials may contain regulated chemical constituents, they must be managed as a solid waste. This management may be terminated id characterization analytical results indicate the absence of these constituents.

Procedure:

1. Contain all sampling-derived wastes in Department of Transpiration (DOT)-approved 55-gallon drums, roll-off boxes, or other containers suitable for the wastes.
2. Contain wastes from separate borings or wells in separate containers (i.e. do not combine wastes from several borings/wells in a single container, unless it is a container used specifically for transfer purposes, or unless specific permission to do so has been provided by the LaBella Project Manager. Unused samples from surface sample locations within a given area may be combined.
3. To the extent practicable, separate solids from drilling muds, decontamination waters, and similar liquids. Place solids within separate containers.
4. Transfer all waste containers to a staging area. Access to this area will be controlled. Waste containers must be transferred to the staging area as soon as practicable after the generating activity is complete.
5. Pending transfer, all containers will be covered and secured when not immediately attended,
6. Label all containers with regard to contents, origin, and date of generation. Use indelible ink for all labeling.
7. Collect samples for waste characterization purposes, use boring/well sample analytical data for characterization.
8. For wastes determined to be hazardous in character, be aware on accumulation time limitations. Coordinate the disposal of these wastes with the Owner and NYSDEC.
9. Dispose of sampling-derived wastes as follows;
    - Soil, water, and other environmental media for which analysis does not detect organic constituents, and for which inorganic constituents are at levels consistent with background, may be spread on-site or otherwise treated as a non0-waste material.
    - Soils, water, and other environmental media in which organic compounds are detected or metals are present above background will be disposed as industrial waste. Alternate disposition must be consistent with applicable State and Federal laws.
    - Personal protective equipment, disposable bailers, and similar equipment may be disposed as municipal waste, unless waste characterization results mandate disposal as industrial wastes

7. Decontamination

Sampling methods and equipment have been chosen to minimize decontamination requirements and to prevent the possibility of cross-contamination. Decontamination of equipment will be performed between discrete sampling locations. Equipment used to collect composite samples will not require decontamination between aliquots of the same composite sample. All sampling equipment will be decontaminated prior to sampling, after sampling each monitoring well, and after the completion of all sampling.

Decontamination will consist of:

- Steam cleaning;
- Scrubbing with brushes, if soil remains on sampling equipment; and
- Steam rinse.

Split spoons and other non-disposable equipment will be decontaminated between each sampling event. The sampler will be cleaned prior to each use, by one of the following procedures:

- Initially cleaned of all foreign matter;
- Sanitized with a steam cleaner;

OR

- Initially cleaned of all foreign matter;
- Scrubbed with brushes in trisodium phosphate or alconox solution;
- Rinsed with deionized water;
- Rinsed with pesticide grade methanol;
- Triple rinsed with deionized water; and
- Allowed to air dry.

8. Sample Containers

The volumes and containers required for the sampling activities are included in pre-washed sample containers will be ordered directly from a firm, which prepares the containers in accordance with USEPA bottle washing procedures.

Table 1
Groundwater Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics	40-ml glass vial with Teflon-backed septum	Two (2); fill completely, no air space	Cool to 4° C (ice in cooler), Hydrochloric acid to pH <2	7 days
Semi-volatile Organics	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Pesticides	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
PCBs	1,000-ml amber glass jar	One (1); fill completely	Cool to 4° C (ice in cooler)	7/40 days
Metals	500-ml polyethylene	One (1); fill completely	Cool to 4° C (Nitric acid to pH <2	6 months

Notes: 1. Holding time is based on the times from verified time of sample receipt at the laboratory.

2. All sample bottles will be prepared in accordance with USEPA bottle washing procedures. These procedures are incorporated in LaBella's Quality Control Procedures Manual, January, 1992.

TABLE 2
Soil Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics, Semi-volatile Organics, PCBs, and Pesticides	8-oz, glass jar with Teflon-lined cap	Two (2), fill as completely as possible	Cool to 4° C (ice in cooler)	7 days
RCRA Characterization	8-oz. glass jar with Teflon-lined cap	One (1); fill completely	Cool to 4° C (ice in cooler)	Must be extracted within 10 days; analyzed with 30 days

Notes: 1. Holding time is based on the times from verified time of sample receipt at the laboratory.

2. All sample bottles will be prepared in accordance with USEPA bottle washing procedures. These procedures are incorporated in LaBella's Quality Control Procedures Manual, January, 1992.

TABLE 3
List of Major Instruments for Sampling and Analysis

- Photovac Micro Tip FID or PID
- Hollige Series 963 Nephlometer (turbidity meter)
- pH/Temperature/Conductivity Meter - Portable
- Hewlett Packard (HP) 1000 computer with RTE-6 operating system; and HP 9144 computer with RTE-4 operating system equipped with Aquarius software for control and data acquisition from gas chromatograph/mass spectrometer (GC/MS) systems; combined wiley and National Bureau of Standards (NBS) mass spectral library; and data archiving on magnetic tape
- Viriam 6000 and 37000 gas chromatrographs equipped with flame ionization, electron capture, photoionization and wall detectors as appropriate for various analyses,, and interfaced to Variam DS604 or D5634 data systems for processing data.
- Spectra-Physics Model SP 4100 and SP 4270 and Variam 4270 cam puting integrators
- Perkin Eimer (PE) 3000% and 3030% fully Automated Atomic Absorption Spectrophotometers (AAS) with Furnace Atomizer and background correction system
- PE Plasma II Inductively Coupled Argon Plasma (ICAP) Spectre meter with PE7500 laboratory computer
- Dionex 20001 ion chromatograph with conductivity detector for anion analysis, with integrating recorder

9. Sample Custody

This section describes standard operating procedures for sample identification and chain-of-custody to be utilized for all Phase II field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during their collection, transportation, and storage through analysis. All chain-of-custody requirements comply with standard operating procedures indicated in USEPA sample handling protocol.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field notebooks,
- Sample label,
- Custody seals, and
- Chain-of-custody records.

10. Chain-of-Custody

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of all required analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

10.1. Field Custody Procedures

- As few persons as possible should handle samples.
- Sample bottles will be obtained precleaned from a source such as I-Chem. Coolers or boxes containing cleaned bottles should be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- The sample collector is personally responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in the notebook.
- The site manager will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

10.2. Sample Tags

Sample tags attached to or affixed around the sample container must be used to properly identify all samples collected in the field. The sample tags are to be placed on the bottles so as not to obscure any QC lot numbers on the bottles; sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the logbook. For chain-of-custody purposes, all QC samples are subject to exactly the same custodial procedures and documentation as "real" samples.

10.3. Transfer of Custody and Shipment

- The coolers in which the samples are packed must be accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the chain-of-custody record. This record documents sample custody transfer
- Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered in the "Remarks" section of the chain-of-custody record and traffic reports.
- All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment. The other copies are distributed appropriately to the site manage.
- If sent by mail, the package is registered with return receipt requested. If sent by common carrier, a bill of lading is used. Freight bills, Postal Service receipts, and bill of lading are retained as part of the permanent documentation.

10.4. Chain-of-Custody Record

The chain-of-custody record must be fully completed in duplicate, using black carbon paper where possible, by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints in the "Remarks" section of the record.

10.5. Laboratory Custody Procedures

A designated sample custodian accepts custody of the shipped samples and verifies that the sample identification number matches that on the chain-of-custody record and traffic reports, if required. Pertinent information as to shipment, pickup, and courier is entered in the "Remarks" section.

10.6. Custody Seals

Custody seals are preprinted adhesive-backed seals with security slots designed to break if the seals are disturbed. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. On receipt at the laboratory, the custodian must check (and certify, by completing the package receipt log and LABMIS entries) that seals on boxes and bottles are intact. Strapping tape should be placed over the seals to ensure that seals are not accidentally broken during shipment.

11. Documentation

11.1. Sample Identification

All containers of samples collected from the project will be identified using the following format on a label or tag fixed to the sample container (labels are to be covered with Mylar tape):

XX-YY-O/D

- XX This set of initials indicates the specific Phase II sampling project
- YY These initials identify the sample location. Actual sample locations will be recorded in the task log.
- O/D An "O" designates an original sample; "D" identifies it as a duplicate.

Each sample will be labeled, chemically preserved, if required and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers and protected with Mylar tape. The sample label will give the following information:

- Name of sampler,
- Date and time of collection,
- Sample number,
- Analysis required,
- pH, and
- Preservation.

11.2. Daily Logs

Daily logs and data forms are necessary to provide sufficient data and observations to enable participants to reconstruct event that occurred during the project and to refresh the memory of the field personnel if called upon to give testimony during legal proceedings. All daily logs will be kept in a bound waterproof notebook containing numbered pages. All entries will be made in waterproof ink, dated, and signed. No pages will be removed for any reason. Corrections will be made according to the procedures given at the end of this section. The daily logs will include a site log and task log.

The site log is the responsibility of the site manager and will include a complete summary of the day's activity at the site.

The **Task Log** will include:

- Name of person making entry (signature).
- Names of team members on-site.
- Levels of personnel protection:
  - Level of protection originally used;
  - Changes in protection, if required; and
  - Reasons for changes.

- Time spent collecting samples.
- Documentation on samples taken, including:
  - Sampling location and depth station numbers;
  - Sampling date and time, sampling personnel;
  - Type of sample (grab, composite, etc.); and
  - Sample matrix.
- On-site measurement data.
- Field observations and remarks.
- Weather conditions, wind direction, etc.
- Unusual circumstances or difficulties.
- Initials of person recording the information.

12. Corrections to Documentation

12.1. Notebook

As with any data logbooks, no pages will be removed for any reason. If corrections are necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside. The correction must be initialed and dated. Most corrected errors will require a footnote explaining the correction.

12.2. Sampling Forms

As previously stated, all sample identification tags, chain-of-custody records, and other forms must be written in waterproof ink. None of these documents are to be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made on a document assigned to one individual, that individual may make corrections simply by crossing a line through the error and entering the corrected information. The incorrect information should not be obliterated. Any subsequent error discovered on a document should be corrected by the person who made the entry. All corrections must be initialed and dated.

12.3. Photographs

Photographs will be taken as directed by the site manager. Documentation of a photograph is crucial to its validity as a representation of an existing situation. The following information will be noted in the task log concerning photographs:

- Date, time, location photograph was taken;
- Photographer (signature);
- Weather conditions;
- Description of photograph taken;
- Reasons why photograph was taken;
- Sequential number of the photograph and the film roll number; and
- Camera lens system used.

After the photographs have been developed, the information recorded in the field notebook should be transferred to the back of the photographs

13. Sample Handling, Packaging, and Shipping

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (DOT) in the Code of Federal Regulation, 49 CFR 171 through 177. All samples will be delivered to the laboratory with 24 to 48 hours from the day of collection.

All chain-of-custody requirements must comply with standard operating procedures in the USEPA sample handling protocol. All sample control and chain-of-custody procedures applicable to the Consultant are presented in the Field Personnel Chain-of-Custody Documentation and Quality Control Procedures Manual, January 1992.

13.1. Sample Packaging

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed. All sample lids must stay with the original containers.
- The sample volume level can be marked by placing the top of the label at the appropriate sample height, or with a grease pencil. This procedure will help the laboratory to determine if any leakage occurred during shipment. The label should not cover any bottle preparation QC lot numbers.
- All sample bottles are placed in a plastic bag to minimize the potential for vermiculite contamination.
- Shipping coolers must be partially filled with packing materials and ice when required, to prevent the bottles from moving during shipment.
- The sample bottles must be placed in the cooler in such a way as to ensure that they do not touch one another.
- The environmental samples are to be cooled. The use of "blue ice" or some other artificial icing material is preferred. If necessary, ice may be used, provided that it is placed in plastic bags. Ice is not to be used as a substitute for packing materials.
- Any remaining space in the cooler should be filled with inert packing material. Under no circumstances should material such as sawdust, sand, etc., be used.
- A duplicate custody record and traffic reports, if required must be placed in a plastic bag and taped to the bottom of the cooler lid. Custody seals are affixed to the sample cooler.

13.2. Shipping Containers

Shipping containers are to be custody-sealed for shipment as appropriate. The container custody seal will consist of filament tape wrapped around the package at least twice and custody seals affixed in such a way that access to the container can be gained only by cutting the filament tape and breaking a seal.

Field personnel will make arrangements for transportation of samples to the lab. When custody is relinquished to a shipper, field personnel will telephone the lab custodian to inform him of the expected time of arrival of the sample shipment and to advise him of any time constraints on sample analysis. The lab must be notified as early in the week as possible, and in no case later than 3 p.m. (EST) on Thursday, regarding samples intended for Saturday delivery.

13.3. Marking and Labeling

- Use abbreviations only where specified.
- The words "This End Up" or "This Side Up" must be clearly printed on the top of the outer package. Upward pointing arrows should be placed on the sides of the package. The words "Laboratory Samples" should also be printed on the top of the package.
- After a sample container has been sealed, two chain-of-custody seals are placed on the container, one on the front and one on the back. The seals are protected from accidental damage by placing strapping tape over then.
- If samples are designated as medium or high hazard, they must be sealed in metal paint cans, placed in the cooler with vermiculite and labeled and placarded in accordance with DOT regulations.
- In addition, the coolers must also be labeled and placarded in accordance with DOT regulations if shipping medium and high hazard samples.

14. Calibration Procedures and Frequency

All instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Documentation of all routine and special maintenance and calibration information will be maintained in an appropriate logbook or reference file, and will be available on request. Table 7-1 lists the major instruments to be used for sampling and analysis. Brief descriptions of calibration procedures for major field and laboratory instruments follow.

15. Field Instrumentation

15.1. Photovac Micro Tip Flameionizer (FID)

Standard operating procedures for the FID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers.

15.2. Photovac/MiniRae Photoionization Detector (PID)

Standard operating procedures for the PID require that routine maintenance and calibration be performed every six months. Field calibration will be performed on a daily basis. The packages used for calibration are non-toxic analyzed gas mixtures available in pressurized containers.

15.3. Conductance, Temperature, and pH Meter

Temperature and conductance instruments are factory calibrated. Temperature accuracy can be checked against an NBS certified thermometer prior to field use if necessary. Conductance accuracy may be checked with a solution of known conductance and recalibration can be instituted, if necessary.

To recalibrate conductance, remove the black plug revealing the adjustment potentiometer screw. Add standard solution to cup, discard and refill. Repeat procedure until the digital display indicates the same value twice in a row. Adjust the potentiometer until the digital display indicates the known value of conductance. To increase the digital display reading, turn the adjustment potentiometer screw counter-clockwise (clockwise to decrease).

To standardize the pH electrode and meter, place the pH electrode in the 7.0 buffer bottle. Adjust the "ZERO" potentiometer on the face of the tester so that the digital display indicates 7.00.

Then place the pH electrode in the 4.0 or 10.0 buffer bottle (depending on where you expect the actual measurement to be). Adjust the "SLOPE" potentiometer on the face of the tester so that the digital display indicates the value of the buffer chosen.

Note: There is interaction between the "ZERO" and "SLOPE" adjustments, so the procedure should be repeated several times.

Do not subject the pH electrode to freezing temperatures.

It is good practice to rinse the electrode in distilled water when going from one buffer to another. When not in use the cap should be kept on the electrode. Keeping the cotton in the cap moist will keep the electrode ready to use. Moisten the cotton frequently (once a week, usually).

15.4. Nephelometer (Turbidity Meter)

The Series 95 nephelometer is calibrated before each use. Allow the instrument to warm up for approximately 2 hours. Using turbidity-free deionized water, zero the meter. Set the scale to 100, fill with a 40 NTU standard (AEPA-1 turbidity standard from Advanced Polymer Systems, Inc.), and insert into the instrument. Adjust the standardize control to give a readout of 200. Re-zero the instrument and repeat these steps with the scale set at 10 and 1 using 4.0 and 0.4 NTU standards, respectively. These standards are prepared by diluting aliquots of the 40 NTU standard.

16. Internal Quality Control Checks

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of field equipment. Field-based QC will comprise at least 10% of each data set generated and will consist of standards, replicates, spikes, and blanks. Field duplicates and field blanks will be analyzed by the laboratory as samples and will not necessarily be identified to the laboratory as duplicates or blanks. For each matrix, field duplicates will be provided at a rate of one per 10 samples collected or one per shipment, whichever is greater. Field blanks which consist of trip, routine field, and rinsate blanks will be provided at a rate of one per 20 samples collected for each parameter group, or one per shipment, whichever is greater.

Calculations will be performed for recoveries and standard deviations along with review of retention times, response factors, chromatograms, calibration, tuning, and all other QC information generated. All QC data, including split samples, will be documented in the site logbook. QC records will be retained and results reported with sample data.

16.1. Blank Samples

Blank samples are analyzed in order to assess possible contamination from the field and/or laboratory so that corrective measures may be taken, if necessary. Field samples are discussed in the following subsection:

16.2. Field Blanks

Various types of blanks are used to check the cleanliness of field handling methods. The following types of blanks may be used: the trip blank, the routine field blank, and the field equipment blank. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination. Field staff may add blanks if field circumstances are such that they consider normal procedures are not sufficient to prevent or control sample contamination, or at the direction of the project manager. Rigorous documentation of all blanks in the site logbooks is mandatory.

- **Routine Field Blanks** or bottle blanks are blank samples prepared in the field to access ambient field conditions. They will be prepared by filling empty sample containers with deionized water and any necessary preservatives. They will be handled like a sample and shipped to the laboratory for analysis.
- **Trip Blanks** are similar to routine field blanks with the exception that they are **not** exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. For the RI/FS, one trip blank will be collected with every batch of water samples for volatile organic analysis. Each trip blank will be prepared by filling a 40-ml vial with deionized water prior to the sampling trip, transported to the site, handled like a sample, and returned to the laboratory for analysis without being opened in the field.
- **Field Equipment Blanks** are blank samples (sometimes called transfer blanks or rinsate blanks) designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use, and that cleaning procedures between samples are sufficient to minimize cross contamination. If a sampling team is familiar with a particular site, they may be able to predict which areas or samples are likely to have the highest concentration of

contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment.

16.3. Field Duplicates

Field duplicate samples consist of a set of two samples collected independently at a sampling location during a single sampling event. In some instances the field duplicate can be a blind duplicate, i.e., indistinguishable from other analytical samples so that personnel performing the analyses are not able to determine which samples are field duplicates. Field duplicates are designed to assess the consistency of the overall sampling and analytical system.

16.4. Quality Control Check Samples

Inorganic and organic control check samples are available from USEPA free of charge and are used as a means of evaluating analytical techniques of the analyst. Control check samples are subjected to the entire sample procedure, including extraction, digestion, etc., as appropriate for the analytical method utilized.

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Appendix H

APPENDIX 1A

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, 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. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. 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.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.