LABELLA Associates, D.P.C.
Engineering
Architecture
Environmental
Planning

300 State Street, Suite 201 | Rochester, NY 14614 | p 585.454.6110 | f 585.454.3066 | www.labellapc.com

February 13, 2015

Ms. Charlotte Theobald
NYS Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Re: Change of Use
Former Monoco Oil
75 Monroe Avenue, Pittsford, New York
BCP Site #C828137
LaBella Project No. 213647

Dear Ms. Theobald:

Please find attached the Change of Use Form for the above referenced project with a proposed change date of April 15th, 2015. The change includes installation of stormwater drainage piping from an off-site source along the southern property boundary across the Site to the Erie Canal (refer to the Attachment 2). The work will be completed in accordance with the Interim Site Management Plan developed for the project by LaBella dated January 2015 (refer to Attachment 3).

If you have any questions, please do not hesitate to contact me at (585) 295-6611.

Sincerely,

LABELLA ASSOCIATES, D.P.C.

Daniel P. Noll, P.E.
Project Manager

DPN

cc: Scott Harter, P.E. – Professional Engineering Group
Bryan Powers, P.E. – Mark IV Enterprises

Attachment 1: Change of Use Form
Attachment 2: Site Plan
Attachment 3: Interim Site Management Plan

I:\Mark IV Enterprises\213647 - 75 Monroe Ave NYSBCP Program Completion\Change in Use 1_15_2105\Change of Use Cover Letter.doc

Attachment 1
Change of Use Form

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership
Required by 6NYCRR Part 375-1.11(d) and 375-1.9(f)

To be submitted at least 60 days prior to change of use to:

Chief, Site Control Section
New York State Department of Environmental Conservation
Division of Environmental Remediation, 625 Broadway
Albany NY 12233-7020

I. Site Name: Former Monoco Oil **DEC Site ID No.** C828137

II. Contact Information of Person Submitting Notification:

Name: Steve DiMarzo
Address1: 301 Exchange Blvd.
Address2: Rochester, NY 14608
Phone: 585-232-1760 E-mail: sdimarzo@markiventerprises.com

III. Type of Change and Date: Indicate the Type of Change(s) (check all that apply):

- ☐ Change in Ownership or Change in Remedial Party(ies)
- ☐ Transfer of Certificate of Completion (CoC)
- ☑ Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): 4/15/2015

IV. Description: Describe proposed change(s) indicated above and attach maps, drawings, and/or parcel information.

Installation of stormwater drainage pipe from off-site source along southern property line across the Site to the Erie Canal at the northern property line. See attached drawing for pipe location.

If "Other," the description must explain and advise the Department how such change may or may not affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

This new pipe would replace a pipe removed during soil removal implemented in accordance with a NYSDEC- approved Interim Remedial Measures Work Plan and addendum. An Interim Site Management Plan (ISMP) has been developed for the work being conducted (see attached).

V. **Certification Statement:** Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: _____ _____
(Signature) (Date)

_____
(Print Name)

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

VI. **Contact Information for New Owner, Remedial Party, or CoC Holder:** If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☐ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

Certifying Party Name: _____

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

VII. **Agreement to Notify DEC after Transfer:** If Section VI applies, and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of the CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing requirements (see 6NYCRR Part 375-1.9(f)).

Signing below indicates that these notices will be provided to the DEC within the specified time frames. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the notice required by VII.1 below (which normally must be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: _____ _____

(Signature) (Date)

_____

(Print Name)

Address1: _____

Address2: _____

Phone: _____ E-mail: _____

Continuation Sheet

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative
Name: ______________________________
Address1: ______________________________
Address2: ______________________________
Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative
Name: ______________________________
Address1: ______________________________
Address2: ______________________________
Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative
Name: ______________________________
Address1: ______________________________
Address2: ______________________________
Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative
Name: ______________________________
Address1: ______________________________
Address2: ______________________________
Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative
Name: ______________________________
Address1: ______________________________
Address2: ______________________________
Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative
Name: ______________________________
Address1: ______________________________
Address2: ______________________________
Phone: ______________ E-mail: ______________

New York State Department of Environmental Conservation

Instructions for Completing the 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion (CoC), and/or Ownership Form

Submit to: Chief, Site Control Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany NY 12233-7020

Section I	**Description**
Site Name	Official DEC site name. (see http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3)
DEC Site ID No.	DEC site identification number.

Section II	**Contact Information of Person Submitting Notification**
Name	Name of person submitting notification of site change of use, transfer of certificate of completion and/or ownership form.
Address1	Street address or P.O. box number of the person submitting notification.
Address2	City, state and zip code of the person submitting notification.
Phone	Phone number of the person submitting notification.
E-mail	E-mail address of the person submitting notification.

Section III	**Type of Change and Date**
Check Boxes	Check the appropriate box(s) for the type(s) of change about which you are notifying the Department. Check all that apply.
Proposed Date of Change	Date on which the change in ownership or remedial party, transfer of CoC, or other change is expected to occur.

Section IV	**Description**
Description	For each change checked in Section III, describe the proposed change. Provide all applicable maps, drawings, and/or parcel information. If "Other" is checked in Section III, explain how the change may affect the site's proposed, ongoing, or completed remedial program at the site. Please attach additional sheets, if needed.

Section V Certification Statement

This section must be filled out if the change of use results in a change of ownership or responsibility for the proposed, ongoing, or completed remedial program for the site. When completed, it provides DEC with a certification that the prospective purchaser has been provided a copy of any order, agreement, or State assistance contract as well as a copy of all approved remedial work plans and reports.

Name	The owner of the site property or their designated representative must sign and date the certification statement. Print owner or designated representative's name on the line provided below the signature.
Address1	Owner or designated representative's street address or P.O. Box number.
Address2	Owner or designated representative's city, state and zip code.
Phone	Owner or designated representative's phone number.
E-Mail	Owner or designated representative's E-mail.

Section VI Contact Information for New Owner, Remedial Party, and CoC Holder (if a CoC was issued)

Fill out this section only if the site is to be sold or there will be a new remedial party. Check the appropriate box to indicate whether the information being provided is for a Prospective Owner, CoC Holder (if site was ever issued a COC), Prospective Remedial Party, or Prospective Owner Representative. Identify the prospective owner or party and include contact information. A Continuation Sheet is provided at the end of this form for additional owner/party information.

Name	Name of Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
Address1	Street address or P.O. Box number for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Address2	City, state and zip code for the Prospective Owner, Prospective Remedial Party, or Prospective Owner Representative.
Phone	Phone number for the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.
E-Mail	E-mail address of the Prospective Owner, Prospective Remedial Party or Prospective Owner Representative.

If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/EC), indicate who will be the certifying party(ies). Attach additional sheets, if needed.

Certifying Party	
Name	Name of Certifying Party.
Address1	Certifying Party's street address or P.O. Box number.
Address2	Certifying Party's city, state and zip code.
Phone	Certifying Party's Phone number.
E-Mail	Certifying Party's E-mail address.

Section VII Agreement to Notify DEC After Property Transfer/Sale

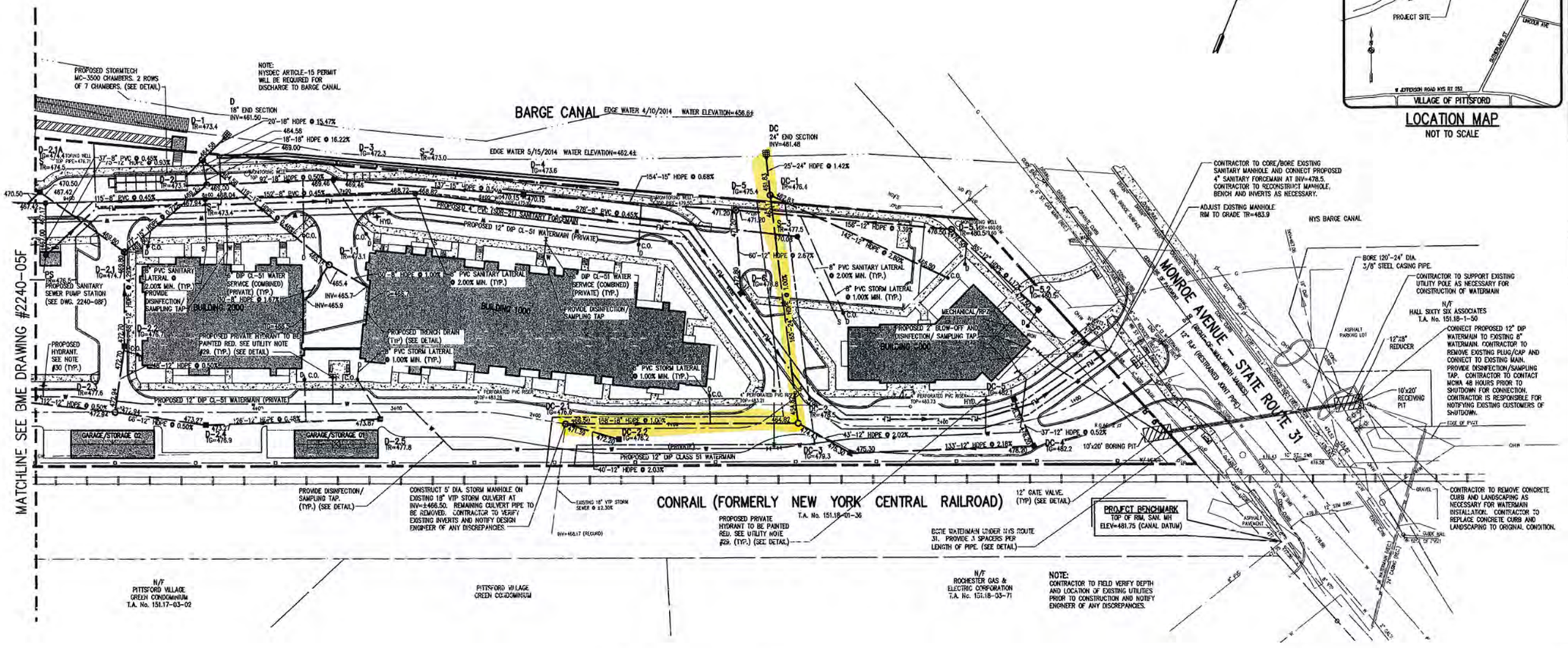
This section must be filled out for all property transfers of all or part of the site. If the site also has a CoC, then the CoC shall be transferred using DEC's form found at http://www.dec.ny.gov/chemical/54736.html

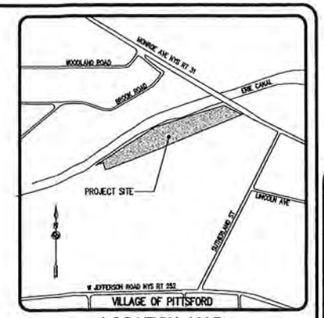
Filling out and signing this section of the form indicates you will comply with the post transfer notifications within the required timeframes specified on the form. If a CoC has been issued for the site, the DEC will allow 30 days for the post transfer notification so that the "Notice of CoC Transfer Form" and proof of it's filing can be included. Normally the required post transfer notification must be submitted within 15 day (per 375-1.11(d)(3)(ii)) when no CoC is involved.

Name	Current property owner must sign and date the form on the designated lines. Print owner's name on the line provided.
Address1	Current owner's street address.
Address2	Current owner's city, state and zip code.

Attachment 2
Site Plans

P:\2240\Drawings\Final\2240 Design Base.dwg





LOCATION MAP
NOT TO SCALE

Drawing Alteration
The following is an excerpt from the New York State 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 direction of a licensed professional engineer or land surveyor to alter any item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration."

7			
6			
5			
4			
3	REVISED FOR VILLAGE AND AGENCY COMMENTS	11/25/14	RRG
2	REVISED STORM SEWER PER TOWN ENGINEER COMMENTS	4/23/14	RRG
1	REVISED PER ADDENDUM No. 1, 2, & 3	2/13/14	RRG
	REVISIONS	DATE	BY

BME ASSOCIATES
ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS
15 LIFT BRIDGE LANE EAST
FAIRPORT, NEW YORK 14450
WWW.BMEPC.COM
PHONE 585.377-7360
FAX 585-377-7395

PHELPS & GORHAM PURCHASE, TOWNSHIP 12, RANGE 5, TOWN LOT 24, TAX MAP NUMBER 151.18-1-50.1

PROJECT: WESTPORT CROSSING
LOCATION: VILLAGE OF PITTSFORD, MONROE COUNTY, NEW YORK STATE
CLIENT: PITTSFORD CANALSIDE PROPERTIES, LLC 300 PACKETT'S LANDING ROCHESTER, NY 14626
DRAWING TITLE: FINAL UTILITY PLAN

PROJECT MANAGER	P.G. VARS
PROJECT ENGINEER	J.L. SWEDROCK
DRAWN BY	M. BOGDJEVSKI
SCALE	1" = 40'
DATE ISSUED	SEPTEMBER 2013
PROJECT NO.	2240
DRAWING NO.	04F (SHEET 1 OF 2)

LEGEND

- BOUNDARY LINE
- PROPOSED LOT LINE
- CENTERLINE
- SETBACK LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPERTY MARKER FOUND
- CONCRETE HIGHWAY MONUMENT FOUND
- EX. WATERMAIN, HYDRANT AND VALVE
- PROP. WATERMAIN, HYDRANT AND VALVE
- EXISTING STORM SEWER, AND MANHOLE
- PROPOSED STORM SEWER, MANHOLE AND INLET
- EXISTING SANITARY SEWER AND MANHOLE
- PROPOSED SANITARY SEWER AND MANHOLE

MONROE COUNTY DEPARTMENT OF HEALTH STANDARD WATER MAIN EXTENSION NOTES:

1. THE WATER MAIN SHALL BE DISINFECTED EQUAL TO AWWA STANDARD FOR DISINFECTING WATER MAINS DESIGNATION C651 (LATEST REVISION). FOLLOWING DISINFECTION, THE WATER MAIN SHALL BE FLUSHED UNTIL THE CHLORINE CONCENTRATION IN THE WATER LEAVING THE WATER MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM.

   ALL WATER MAIN FITTINGS NOT RECEIVING 24-HOUR CHLORINE DISINFECTION CONTACT TIME MUST BE SWAB DISINFECTED 30 MINUTES PRIOR TO INSTALLATION.

   THE SAMPLING POINT(S) MUST BE DECONTAMINATED BY FLAMING.

   FIRE HYDRANTS ARE NOT ACCEPTABLE SAMPLING POINTS.

   THE MONROE COUNTY DEPARTMENT OF HEALTH MUST RECEIVE AT LEAST 48-HOUR ADVANCE NOTIFICATION REQUESTING SAMPLING SERVICES. SAMPLING WILL NOT BE PERFORMED PRIOR TO RECEIPT FROM NEW YORK STATE LICENSED OR REGISTERED DESIGN PROFESSIONAL ENGINEER, ARCHITECT OR LAND SURVEYOR WITH A SPECIAL EXEMPTION UNDER SECTION 7208(N) OF THE EDUCATION LAW CERTIFYING THAT THE WATER SUPPLY IMPROVEMENTS, TESTING AND DISINFECTION PROCEDURES WERE COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS, REPORTS, SPECIFICATIONS AND ANY APPROVED AMENDMENTS. THE DEPARTMENT WILL COLLECT SAMPLES FOR FREE CHLORINE RESIDUAL, TOTAL AND FECAL COLIFORM AND 24-HOUR BACTERIAL PLATE COUNT.

   THE WATER MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL SO AUTHORIZED BY THE MONROE COUNTY DEPARTMENT OF HEALTH.
2. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER PIPE LINES SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES OR VAULTS.
3. WHEN INSTALLING FIRE HYDRANTS, SHOULD GROUND WATER BE ENCOUNTERED WITHIN SEVEN (7) FEET OF THE FINISHED GRADE, FIRE HYDRANT WEEP HOLES (DRAINS) SHALL BE PLUGGED.
4. THE WATER MAIN SHALL BE PRESSURE/LEAKAGE TESTED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE AWWA STANDARD C600 (LATEST REVISION) OR IN ACCORDANCE WITH MORE STRINGENT REQUIREMENTS IMPOSED BY THE SUPPLIER OF WATER.

PUBLIC WATER SERVICE LINE NOTES:

1. WATER SERVICE LINES (LATERALS) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND SPECIFICATIONS OF THE MONROE COUNTY WATER AUTHORITY.
2. WATER SERVICE LINES SHALL HAVE A MINIMUM OF FIVE FEET OF COVER FROM FINISHED GRADE IN LAWN AREAS AND SIX FEET OF COVER FROM FINISHED GRADE IN PAVED AREAS.
3. WATER SERVICE LINES SHALL BE SEPARATED AT LEAST TEN FEET, MEASURED FROM THE OUTSIDE OF THE PIPES, FROM SEWER MAINS OR SEPTIC SYSTEMS.
4. WATER SERVICE LINES SHALL BE IDENTIFIED AS:

DESCRIPTION	SIZE	MATERIAL(A)	TYPE(B)
MCWA PORTION = FROM THE WATER MAIN TO AND INCLUDING THE CONTROL VALVE ON THE ROW/ PROPERTY/EASEMENT LINE.	12"	DIP	CMB
PRIVATE PORTION = FROM THE CONTROL VALVE TO THE METER	12"	DIP	CMB

(A) ACCEPTABLE MATERIAL IS "CLASS 51 CEMENT MORTAR LINED DUCTILE IRON PIPE.
(B) SERVICE TYPES INCLUDE: DOMESTIC = DS, FIRE = FS, OR COMBINED = CMB.

5. THE MCWA PORTION OF THE WATER SERVICE LINE SHALL BE INSTALLED PRIOR TO THE PRIVATE PORTION OF THE SERVICE LINE.
6. WATER METER(S) TO BE LOCATED ON THE INTERIOR OF EXTERIOR WALL(S) IMMEDIATELY UPON SERVICE ENTRANCE INTO THE BUILDING(S). RESIDENTIAL SERVICES: A BY-PASS ASSEMBLY IS NOT REQUIRED AROUND THE INSTALLATION OF 5/8-INCH THROUGH 2-INCH METERS. NON-RESIDENTIAL SERVICES: THE INSTALLATION OF A 1 ½-INCH METER OR LARGER REQUIRES A BY-PASS ASSEMBLY AROUND THE METER.
7. WATER SERVICE LINES SIZED 4-INCHES OR GREATER SHALL BE:

   PRESSURE TESTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE MONROE COUNTY WATER AUTHORITY. A WATER AUTHORITY REPRESENTATIVE MUST WITNESS THIS TEST. DISINFECTED BY USING THE CONTINUOUS FEED METHOD ACCORDING TO AWWA STANDARD SPECIFICATIONS. AFTER FLUSHING AND DISINFECTING THE SERVICE LINE, WATER SAMPLES SHALL BE COLLECTED BY THE MONROE COUNTY DEPARTMENT OF HEALTH. APPROVAL AND NOTIFICATION BY THE HEALTH DEPARTMENT MUST BE RECEIVED BEFORE THE LATERAL IS PLACED IN SERVICE.

NOT APPROVED

This plan has not received final approval of all reviewing agencies. This plan is subject to revisions until all approvals are obtained and should not be used for construction purposes.

SEE BME DRAWING NUMBER 2240-05F FOR UTILITY NOTES

IRONDEQUOIT BAY SOUTH CENTRAL PURE WATERS DISTRICT:

MONROE COUNTY HEALTH DEPARTMENT:

APPROVALS

BY: _____ DATE: _____
MONROE COUNTY WATER AUTHORITY

BY: _____ DATE: _____
PLANNING BOARD CHAIRMAN

BY: _____ DATE: _____
VILLAGE ENGINEER

BY: _____ DATE: _____
VILLAGE CODE ENFORCEMENT OFFICER

Former Monoco Oil

MONROE COUNTY, NEW YORK

Interim Site Management Plan

NYSDEC Site Number: C828137

Prepared for:

Pittsford Canalside Properties, LLC
c/o Mark IV Enterprises
301 Exchange Boulevard
Rochester, New York 14608

Prepared by:

LaBella Associates, D.P.C.
300 State Street, Suite 201
Rochester, New York 14614
(585) 245-4140

Revisions to Final Approved Interim Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

FEBRUARY 2015

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

AOC	Area of Concern
ASP	Analytical Services Protocol
AST	Aboveground Storage Tank
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
DUSR	Data Usability Summary Report
EC	Engineering Control
ESA	Environmental Site Assessment
EWP	Excavation Work Plan
HASP	Health and Safety Plan
IC	Institutional Control
IRM	Interim Remedial Measures
ISMP	Interim Site Management Plan
MDL	Method Detection Limit
NAPL	Non-aqueous Phase Liquid
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
PCB	Polychlorinated Biphenyls
PCP	Pittsford Canalside Properties

PID	Photoionization Detector
ppm	Parts Per Million
QCP	Quality Control Plan
QA/QC	Quality Assurance, Quality Control
RGE	Rochester Gas and Electric
RI	Remedial Investigation
SCO	Soil Cleanup Objective
SSDS	Subslab Depressurization System
SVOC	Semivolatile Organic Compound
TAL	Total Analyte List
TCL	Total Compound List
TOGS	Technical and Operational Guidance Series
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

INTERIM 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 Monoco Oil Site (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 is to be remediated in accordance with the Brownfield Cleanup Agreement (BCA) for Site #C828137, which was executed on August 14, 2007.

This Interim Site Management Plan (ISMP) will be utilized during the installation of stormwater infrastructure, which will convey stormwater from beneath the CSX railroad tracks in the central southern portion of the Site to the Erie Canal.

1.1.1 General

Pittsford Canalside Properties, LLC (PCP) entered into a BCA with the NYSDEC to remediate a 7.5-acre property located in the Village of Pittsford, New York. This BCA required the Remedial Party, PCP, to investigate and remediate contaminated media at the Site. A figure showing the Site location and boundaries of this 7.5-acre Site is provided in Figure 1.

This ISMP was prepared to manage remaining contamination at the Site during the installation of stormwater infrastructure. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in NYS.

This ISMP was prepared by LaBella Associates, D.P.C. ("LaBella"), on behalf of PCP, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by

NYSDEC. This ISMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required for interim Site activities required to complete the project.

1.1.2 Purpose

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. Once implementation of the Site remedy is completed, an Environmental Easement will be granted to the NYSDEC, and recorded with the Monroe County Clerk, that will require compliance with the final SMP and all ECs and ICs placed on the Site. The ICs place restrictions on Site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. The final SMP will specify the methods necessary to ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site. The final SMP will be approved by the NYSDEC, and compliance with the final SMP will be required by the grantor of the Environmental Easement and the grantor's successors and assigns. The final SMP may only be revised with the approval of the NYSDEC.

This ISMP provides a detailed description of all procedures required to manage contamination at the Site during the installation of stormwater drainage piping and associated infrastructure from an off-Site source along the southern property boundary across the Site to the Erie Canal, including: (1) implementation and management of all Engineering and Institutional Controls; and (2) media monitoring.

To address these needs, this ISMP includes two (2) plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring. An Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems (including where appropriate, preparation of an Operation and Maintenance Manual for complex systems) is not included in this ISMP due to the specific purpose of the work; however, an Operation and Maintenance Plan may be required for the final SMP. Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC are not included in this ISMP based on

the specific work (i.e., storm sewer installation); however, these will be included in the final SMP.

It is important to note that failure to comply with this ISMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA # C828137 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. The NYSDEC will provide a notice of any approved changes to the ISMP, and append these notices to the ISMP that is retained in its files.

1.1.4 Applicable Permits

Permitting applicable to the proposed work may include:

- NYSDEC Article 15 Permit
- Canal Authority Permit
- Village Engineer Approval
- Letter of Credit

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in the Village of Pittsford, County of Monroe, New York and is identified as Block 1 and Lot 51.1 on the Village of Pittsford Tax Map #151.18-1-51.1. The Site is an approximately 7.5-acre area bounded by the Erie Canal to the north with a New York State Department of Transportation (NYSDOT) facility to the north of the canal, railroad tracks and a Rochester Gas and Electric (RG&E) substation to the south, an office park and Pittsford Schools athletic fields south of the railroad tracks, Monroe Avenue to the east with a commercial shopping building and a gas station beyond Monroe Avenue, and vacant undeveloped land to the west (see Figure 2).

1.2.2 Site History

The Site was initially developed in the mid 1920s for the storage and distribution

of petroleum products. The Site appeared to be initially developed on the eastern portion of the Site and then expanded over the years to the west. The Site was reconfigured around 1980 for storing and distributing liquid asphalt and fertilizer.

Eight (8) aboveground storage tanks (ASTs) were installed at the Site for the storage of asphalt. These ASTs were installed between 1968 and 1980 with storage capacities ranging between 112,000-gallons and 4.7-Million gallons, with a total storage capacity of 12,562,000-gallons of asphalt. An additional twelve (12) ASTs were documented to have been installed at the Site for storage of gasoline and fuel oil. The total petroleum storage volume for these ASTs was listed as 224,700-gallons. Two (2) underground storage tanks (USTs) were historically located at the Site; one (1) 4,000-gallon gasoline UST and a 10,000-gallon fuel oil UST.

In 2003 the United States Environmental Protection Agency (USEPA) Region 2 Spill Response addressed a spill reported in 1999, which reportedly consisted of approximately 6,000 to 8,000-gallons of fuel oil. The EPA response consisted of excavating approximately 1,213 tons of contaminated soil, which was disposed off-Site and an additional 15,000-tons of contaminated soil was excavated and placed in a bio-cell constructed on-Site. The bio-cell was irrigated and tilled weekly between August and October 2003.

A Phase I Environmental Site Assessment (ESA) was conducted by TriTech Environmental Health and Safety, Inc. (TriTech) dated August 9, 2006 which summarized the historical activities conducted at the Site and the previous environmental work. Groundwater monitoring data provided as part of the Phase I ESA indicated 'low-level' petroleum hydrocarbons impacts throughout the Site and one area of 'low-level' chlorinated solvent impacts.

Based on the previously completed work at the Site, seven (7) areas of concern (AOC) were identified and investigated as part of the Remedial Investigation (RI) Work Plan. During the RI sampling several source areas of petroleum constituents were identified and a series of Interim Remedial Measures (IRM) were performed to address the source areas and remove impacted soil and groundwater to accomplish the remedial action objectives outlined in the IRM Work Plan and subsequent activity modifications.

The results of the RI and IRM are detailed in Section 1.3.

1.2.3 Geologic Conditions

Information concerning the Site geology and hydrogeology were obtained from observations made during the installation of RI soil borings and monitoring wells as well as observations made during the IRM work.

SITE GEOLOGY

The topographic elevation of the Site is approximately 475' amsl with a gentle downward slope to the northwest (toward Monroe Avenue). Since inception of the remedial work in 2013, the Site has experienced extensive cutting and filling associated with the IRM remedial excavations and planned future construction. Large areas remain below pre-IRM surface grade that will be the locations of future buildings at the Site.

Subsurface soils at the Site were mostly brown to dark brown silty fine to coarse sand with some fine to coarse gravel and shale pieces mixed with typical urban fill type material such as concrete, stumps, wood, trace cinders, trace glass, trace metal and plastic to approximately 6 feet (ft) below the ground surface (bgs). Beneath the urban fill layer was a buried thin (0.5 ft thick) topsoil layer observed intermittently across the Site followed by reworked glacial alluvial/till consisting of brown to gray firm coarse to fine sand layer with little silt and little gravel from approximately 6 to 10 ft bgs. From approximately 10 to 14 ft bgs soils were mostly reddish brown compact sand and silt with trace clay and trace gravel.

Bedrock was not encountered during IRM activities at the Site. One geotechnical soil boring was completed to apparent top of bedrock at 31.5 ft bgs.

SITE HYDROGEOLOGY

The Site borders the Erie Canal to the north and surface water predominately drains into the canal via a man made cut where storm water protection measures are installed to control runoff. It is assumed the annual filling and draining of the canal significantly impacts groundwater levels at the Site. Depth to groundwater at the Site ranges from approximately 3.7 to 13.0 ft bgs.

Site groundwater flow direction was calculated using static water levels collected as part of the IRM work. Water level elevation data indicate the resultant direction of groundwater flow is to the north-northwest (i.e. toward the canal).

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

The RI and IRM activities recently concluded and reports are being generated. This work was performed to characterize the nature and extent of contamination at the Site and to remove petroleum impacts at concentrations in soils above the Residential Soil Cleanup Objectives (SCOs). The results of the RI will be described in detail in a RI Report and an IRM Construction Completion Report will summarize the IRM activities following receipt of laboratory data collected for recent Site activities.

RI and IRM activities to date have determined that several areas of the Site contained petroleum-related contamination resulting from various historical uses of the Site. In the area of the proposed stormwater piping petroleum contaminated soil and groundwater was removed during IRM activities in 2013 and confirmation soil sampling was conducted to document the effectiveness of the removal actions.

Below is a summary of the current Site conditions in the area of the proposed stormwater piping installation:

<u>Soil</u>

Soil was excavated from the "Large IRM Excavation" area as shown on Figure 3 during the implementation of IRM activities in 2013. Petroleum-impacted soil was removed to the extent practicable and a 3:1 slope was left in-place along the southern sidewall of the excavation along the property boundary in order to maintain the structural integrity of the CSX railroad tracks. Worst-case documentation soil samples were collected along the southern sidewall in the locations shown on Figure 3 to document the nature of the remaining contamination on this slope. Excavation bottom documentation samples were collected in the locations shown on Figure 3 to document the effectiveness of the remedial excavation vertically. Documentation samples were also collected on the northern sidewall, which was advanced to the property boundary with the Erie Canal property. Note that only soil samples collected in close proximity to the proposed

stormwater piping location were included in this summary. The details and results of the closure sampling in the vicinity of the proposed stormwater piping are shown on Table 1a-1f and Figure 3, and are summarized below:

Southern 3:1 Slope

- The closure samples along this sidewall were collected from between 466' and 468' amsl in worst-case locations based on headspace Photoionization Detector (PID) screening (also shown on Figure 3) and evidence of impairment (visual and olfactory). The invert of the proposed stormwater piping (18" diameter) will be installed between 464.8' and 466.5' amsl in this area.
- Headspace PID readings of the seven (7) sidewall samples from the southern slope ranged between 15 to 1,560 parts-per-million (ppm) and much of the material contains nuisance petroleum characteristics including staining and odors.
- Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), and Metals were detected above the laboratory method detection limits (MDLs) within each sample; however none were reported at concentrations that exceed the Unrestricted Use SCOs.
- Polychlorinated Biphenyls (PCBs), Pesticides, and Cyanide were not detected within any of these samples at concentrations that exceed the laboratory MDLs.

North-South Portion of Proposed Piping

- The bottom closure samples along this alignment were collected from between 460' to 464' amsl. The invert of the proposed stormwater piping (24" diameter) will be installed between 461.8' and 464.8' amsl in this area.
- Headspace PID readings of the four (4) confirmation samples from the bottom of the Large IRM Excavation along the proposed stormwater

piping alignment were all 0.0 ppm and no evidence of impairment remained following soil excavation activities.

- VOCs were detected at concentrations above the laboratory MDL within three (3) of the four (4) bottoms samples; however each of these were reported at concentrations below the Unrestricted Use SCOs.
- SVOCs were detected within two (2) of the four (4) bottom confirmation samples at concentrations above the laboratory MDLs, however each of these were reported at concentrations below the Unrestricted Use SCOs.
- One (1) Metal (Zinc) was detected within two (2) of the four (4) bottom samples (CS-BOT23 and CS-BOT38) at concentrations that slightly exceed the Unrestricted Use SCO, but below the Residential Use SCO. All other detections of Metals were at concentrations below the Unrestricted Use SCOs.
- PCBs, Pesticides, and Cyanide were not detected within any of these samples at concentrations that exceed the laboratory MDLs.

Northern Sidewall

- The sidewall sample along the northern sidewall (CS-SW19) along the alignment of the proposed stormwater piping was collected from 462' amsl and the invert of the proposed stormwater piping will be approximately the same elevation.
- Soil sample CS-SW19 had a headspace PID reading of 2.4 ppm and exhibited minor nuisance petroleum characteristics.
- Seven (7) petroleum-related VOCs were detected at concentrations above the laboratory MDLs within CS-SW19; however each of these was reported at a concentration below the Unrestricted Use SCOs.
- Tentatively identified SVOCs were detected within soil sample CS-SW-19, however no SVOCs were detected above the laboratory MDLs for which there is a NYSDEC Part 375 SCO.

- Metals were detected above the laboratory MDLs within CS-SW19; however each of these detections was reported at a concentration well below the Unrestricted Use SCOs.
- PCBs, Pesticides, and Cyanide were not detected within soil sample CS-SW19 at concentrations that exceed the laboratory MDLs.

Site-Related Groundwater

Following the completion of the IRM excavation activities groundwater monitoring wells were installed along the northern portion of the Site. Two (2) of the groundwater monitoring wells (IRM-MW-3 and IRM-MW-4) are the closest to the area of the proposed stormwater piping alignment. Two (2) rounds of groundwater monitoring have been conducted to date. The results of the groundwater sampling are shown on Tables 2a-2c and Figure 4, and are discussed below:

IRM-MW-3

- Only one (1) VOC (1,2,4-Trimethylbenzene) was reported at a concentration of 0.36 ug/l, which is above the laboratory MDLs, but below the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 groundwater standard of 5.0 ug/l during the June 2014 sampling event, and no VOCs were detected during the October 2014 sampling event.
- No SVOCs, Pesticides, or PCBs were detected above the laboratory MDLs during the June 2014 and October 2014 sampling events.
- Metals were detected above the laboratory MDLs during the June 2014 and October 2014 sampling events including three (3) Metals (Iron, Manganese, and Sodium) at concentrations that exceed the NYSDEC TOGS 1.1.1 groundwater standard.

IRM-MW-4

- No VOCs were detected during the June 2014 and October 2014 sampling events.

- Eleven (11) SVOCs were detected during the June 2014 sampling event at concentrations slightly above the laboratory MDLs, but well below the NYSDEC TOGS 1.1.1 groundwater standards. One (1) SVOC (Acenaphthene) was detected during the October 2014 sampling event at a concentration of 1.2 ug/l, which is above the laboratory MDL. There is no NYSDEC TOGS 1.1.1 groundwater standard for this analyte.
- No Pesticides or PCBs were detected above the laboratory MDLs during the June 2014 and October 2014 sampling events.
- Metals were detected above the laboratory MDLs during the June 2014 and October 2014 sampling events including three (3) Metals (Iron, Manganese, and Sodium) at concentrations that exceed the NYSDEC TOGS 1.1.1 groundwater standard.

Site-Related Soil Vapor Intrusion

All proposed structures will include sub-slab depressurization systems (SSDS) in order to eliminate the concern for potential vapor intrusion.

Underground Storage Tanks

All USTs were removed from the Site during the pre-BCP work and IRM-activities at the Site. No USTs were historically located in the area of the proposed stormwater piping.

1.4 SUMMARY OF REMEDIAL ACTIONS

The current extent of the Site remediation has been completed in accordance with the NYSDEC-approved IRM Work Plan dated July 22, 2010, and associated IRM activity modifications.

The following is a summary of the Remedial Actions performed to date at the Site:

1. Excavation of soil/fill exceeding residential use SCOs;

2. Maintenance of a soil cover system consisting of impervious cover (i.e., clean Class 1 backfill material, asphalt, sidewalks and building foundations) to prevent human exposure to remaining contaminated soil/fill remaining at the Site;

3. To address the potential for soil vapor intrusion, SSDSs will be incorporated into the construction of any proposed buildings.

It should be noted that a Final SMP for long term management of remaining contamination will be developed in conjunction with the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.

Remedial activities began at the Site in December 2013 and recently concluded and CCR is being developed.

1.4.1 Removal of Contaminated Materials from the Site

Contaminated materials generated during Site work were disposed off Site. Management of materials that were disposed off-Site included characterization (sampling and laboratory analysis as required by the chosen landfill), management, off-Site transportation and disposal at an approved landfill. The area in proximity to the storm sewer installation was remediated (soil removal) in 2013 and the extent of removal is shown on Figures 3 and 4. The 2013 excavation included removal of approximately 43,259 tons of petroleum impacted soil from the "Large Excavation" (refer also to Section 1.3).

1.4.2 Site-Related Treatment Systems

To address the potential for soil vapor intrusion, SSDSs will be installed in all buildings constructed during redevelopment. The details of the SSDSs are beyond the scope of this ISMP but will be included in the Final SMP for the Site.

1.4.3 Remaining Contamination

Remaining contamination in the area of the proposed stormwater piping is discussed in previous sections. A summary of the contamination remaining at the Site following the Site remedy will be provided in the final SMP.

1.4.4 Product Monitoring Trench

During the excavation of the Large IRM Excavation impacted material containing Non-aqueous Phase Liquid (NAPL) was left in-place. In order to monitor potential NAPL in this area a product monitoring trench was installed in the location shown on Figure 5. The monitoring trench consists of pea gravel in the base of the trench at elevations between 463' and 465' amsl, which is approximately the top of ambient groundwater at the Site. A geofabric was place above the pea gravel and a 4-inch horizontal PVC slotted pipe was placed within the pea gravel. Pairs of PVC risers (one slotted, one solid) were connected to the product monitoring trench in the locations shown on Figure 5. The solid riser pipe was connected to the horizontal perforated pipe within the trench for potential product recover. The slotted vertical piping was placed to provide a monitoring point for the NAPL (i.e. to account for water table fluctuations). The downgradient edge of the product monitoring trench was lined with polyethylene sheeting to prevent migration of contaminated groundwater or NAPL to the remediated areas of the Site.

The product monitoring trench will be encountered during the installation of the proposed stormwater piping and will need to be restored to its original condition during backfilling and restoration. The area of intersection of the NAPL trench and storm sewer is shown in the cross sections included in Appendix D, specifically, Section DC-2 to DC. The intersection of the Storm Sewer and NAPL trench will consist of the upper most portion of the trench peastone being in contact/connection with the storm sewer pipe. In order to address the potential for a preferential pathway, an anti-seepage collar will be placed on the down gradient side of the storm sewer piping as shown in the drawings in Appendix D.

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 ISMP 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 plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan (EWP) 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

In areas of excavation, the soil cover system will be replaced to minimize potential exposure to remaining contamination in soil/fill at the Site. This cover system

will be comprised of a minimum of two feet of clean soil/fill. It should be noted that the proposed Site development will result in a majority of the Site being impervious surfaces with a limited amount of topsoil and clean Class 1 soil in the remaining areas. However, this ISMP an environmental monitor will be on-Site to document where and how the cover is placed, and to verify the required thickness of the cover.

The Excavation Work Plan that appears in Appendix A outlines the procedures required to be implemented during the storm sewer installation work.

2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required 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 residential uses only. Adherence to these Institutional Controls on the Site will be implemented under this ISMP. These Institutional Controls are:

- Compliance with this ISMP by the Owner and the Owner's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this ISMP (Specifically the soil cover system);
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this ISMP;

The Site will have a series of Institutional Controls in the form of Site restrictions and will be defined in the final SMP.

2.3.1 Excavation Work Plan

The Site is being remediated for restricted residential use. As noted previously, the storm sewer installation work will penetrate the cover or cap, and encounter or disturb the remaining contamination, and as such all work shall be performed in compliance with the EWP that is attached as Appendix A to this ISMP. 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 B to this ISMP 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 A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP.

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 de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as the CSX railroad tracks). The Site owner will ensure that Site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this ISMP.

2.3.2 Soil Vapor Intrusion Evaluation

SSDSs will be installed in all proposed buildings. The details of the SSDSs will be included in the Final SMP for the Site.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

No Site-wide inspections are required under this Interim SMP. Future inspection requirements will be incorporated into the Final SMP.

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 BCA, 6NYCRR Part 375, and/or Environmental Conservation Law.

- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or engineering control that reduces or has the potential to reduce the effectiveness of an Engineering Control and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site, with written confirmation within 7 days that includes 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 ISMP 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 ISMP
- 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 LaBella. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 3: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362
Dan Noll, P.E. (LaBella)	(585) 301-8458

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

2.5.2 Map and Directions to Nearest Health Facility

Site Location: Pittsford, New York

Nearest Hospital Name: Strong Memorial Hospital

Hospital Location: 601 Elmwood Road, Rochester, New York

Hospital Telephone: (585) 275-2100

Directions to the Hospital:

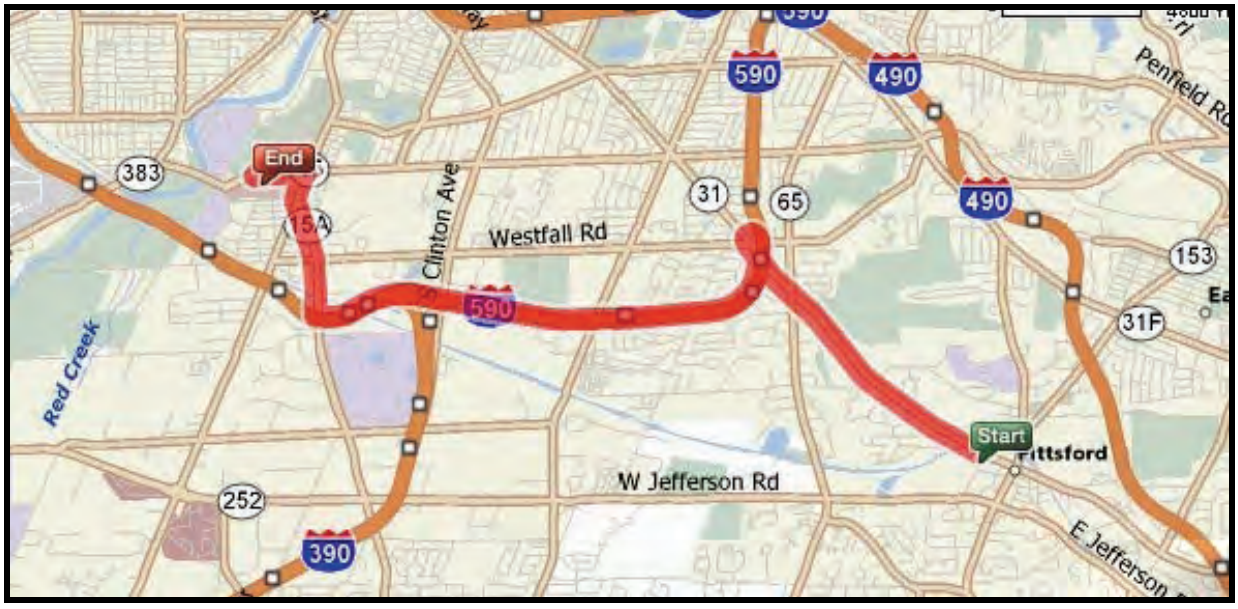
Start out going NORTHWEST on MONROE AVE / NY-31 toward BRITTANY LN.	2.4 miles
Merge onto I-590 S.	3.3 miles
I-590 S becomes I-390 N.	0.2 miles
Take the E HENRIETTA RD / RT-15A exit- EXIT 16- toward RT-15 / W HENRIETTA RD.	0.2 miles
Turn RIGHT onto NY-15A / E HENRIETTA RD.	0.9 miles

Turn SLIGHT RIGHT onto MT HOPE AVE / NY-15.	0.2 miles
Turn LEFT onto ELMWOOD AVE.	0.3 miles
Make a U-TURN onto ELMWOOD AVE.	<0.1 miles

Total Distance: 7.87 miles

Total Estimated Time: 14 minutes

Map Showing Route from the Site to the Hospital:



2.5.3 Response Procedures

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 3). The list will also be posted prominently at the Site and made readily available to all personnel at all times.

2.5.3.1 Procedures for Spills

New York State regulations and guidelines will be followed in the event that a spill occurs. All petroleum spills that occur within NYS must be reported to the NYS Spill Hotline (1-800-457-7362) within 2 hours of discovery, except spills which meet all of the following criteria:

1. The quantity is known to be less than 5 gallons;
2. The spill is contained and under the control of the spiller;
3. The spill has not and will not reach the State's water or any land; and,
4. The spill is cleaned up within 2 hours of discovery.

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable.

2.5.3.2 Evacuation Procedures

In the event that a Site evacuation is needed, there will be a verbal signal to evacuate the Site. The off-Site muster point will be the entrance of the Site leading to Monroe Avenue.

2.5.3.3 Amendments to the contingency plan

Amendments and updates to the contingency plan will be made at the time that new or updated information is obtained.

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 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:

- Sampling and analysis of all appropriate media (e.g., groundwater, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria;
- 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;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and

- Annual inspection and periodic certification.

The frequency and duration of monitoring of the performance of the remedy and overall reduction in contamination on-Site will be finalized subsequent to the completion of remedial activities and will be addressed in the final SMP. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals.

3.2 COVER SYSTEM MONITORING

The frequency and duration of cover system monitoring will be specified in the final SMP.

3.3 MEDIA MONITORING PROGRAM

3.3.1 Groundwater Monitoring

The details of any required groundwater monitoring will be included in the final SMP.

3.3.2 Other Media Monitoring

The frequency, duration, and sampling protocols of other media monitoring will be specified in the final SMP.

3.4 SITE-WIDE INSPECTION

Requirements for Site-wide inspections will be incorporated in the final SMP.

3.5 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of the Quality Control Plan (QCP) prepared for the Site (Appendix C). Main Components of the QCP include:

- QA/QC Objectives for Data Measurement;

- Sampling Program:
    - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
    - Sample holding times will be in accordance with the NYSDEC Analytical Services Protocol (ASP) requirements.
    - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
    - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
    - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- 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.
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.6 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-Site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be subject to approval by NYSDEC.

A letter report will be prepared subsequent to each sampling event. The letter will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., soil, groundwater, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format); and,
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table 4 below.

Table 4: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Waste characterization sampling of material to be disposed of off-Site	By the 10th day of the month following the month in which preliminary laboratory data are received (i.e., included in the monthly progress report).

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

4.0 OPERATION AND MAINTENANCE PLAN

An Operations and Maintenance Plan is not applicable to this ISMP. An Operations and Maintenance Plan will be incorporated into the final SMP.

5. INSPECTIONS, REPORTING AND CERTIFICATIONS

Plans for Site inspections will be outlined in the final SMP. Certification of Engineering and Institutional Controls, Periodic Review Reports, and a Corrective Measures Plan are not applicable to this ISMP at this time. These will also be incorporated into the final SMP.

A Corrective Measures Plan may be needed, and may be developed, prior to the preparation of the final SMP if any component of the remedy (including monitoring) is found to have failed.

FIGURES

FIGURE 1: SITE LOCATION AND BOUNDARIES
INTERIM SITE MANAGEMENT PLAN
Former Monoco Oil
75 Monroe Avenue
Pittsford, New York
BCP #C828137

Scale: 1:10,000

N

LABELLA Associates, D.P.C.

I:\Mark IV Enterprises\213647 - 75 Monroe Ave NYSBCP Program Completion\Drawings\IRM Construction Completion Report\MAP.2013.12.16.FIG1BCPuserfriendly.mxd

User Name: dkaveney

WOODLAND RD

MONROE AVE

BROOK RD

E PARK RD

No. Monroe Ave
SBL 151.18-1-52
Now or Formerly
Town Of Pittsford

No. Monroe Ave
SBL 151.17-2-21
Now or Formerly
Town Of Pittsford

No. 3899 Monroe Ave
SBL 151.17-3-25
Now or Formerly
Town of Pittsford

No. 66 Monroe Ave
SBL 151.18-1-50
Now or Formerly
Hall, Sixty Six Associates

No. Monroe Ave
SBL 151.18-1-36
Now or Formerly
CSX Transportation Inc

No. 58 Monroe Ave
SBL 151.18-3-1
Now or Formerly
Barrese, Anthony J

Barge Canal
Now or Formerly
State of New York

No. 75 Monroe Ave
SBL 151.18-1-51
Now or Formerly
Monoco Oil Co Inc

No. Monroe Ave
SBL 151.18-3-71
Now or Formerly
Roch Gas & Electric Corp

No. 57 Monroe Ave
SBL 151.18-3-70.1
Now or Formerly
57 Monroe Ave LLC

Pittsford Village Green Condominiums
Nos. 59-71 Monroe Ave
SBL 151.18-4
Owners Vary

SUTHERLAND ST

No. 75 Monroe Ave
SBL 151.17-3-3
Now or Formerly
Monoco Oil Co Inc

Now or Formerly
State of New York

No. Monroe Ave
SBL 151.18-1-36
Now or Formerly
CSX Transportation Inc

No. W Jefferson Road
SBL 164.01-1-10
Now or Formerly
Pitts Cent School Dist #1

No. 42 W Jefferson Road
SBL 164.06-1-85
Now or Formerly
Pitts Cent School Dist #1

LINCOLN AVE

No. 152 W Jefferson Road
SBL 164.01-1-6
Now or Formerly
Greendyke, Robert M

No. 154 W Jefferson Road
SBL 164.01-1-5
Now or Formerly
Greendyke, Peter M

No. W Jefferson Road
SBL 164.01-1-9
Now or Formerly
Trichenor, Mark L

Town of Pittsford
Pittsford Village

N
W E
S

0 200

1 inch = 200 feet

Path: I:\Mark IV Enterprises\213647 - 75 Monroe Ave NYSBCP Program Completion\Drawings\IRM Construction Completion Report\MAP 2013.12.16 FIG2_Parcels.mxd

LABELLA Associates, D.P.C.

300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585) 454-3066
www.labellapc.com

INTERIM SITE MANAGEMENT PLAN

Former Monoco Oil
BCP Site #C828137

75 Monroe Avenue
Pittsford, New York

SITE LOCATION AND SURROUNDING PROPERTIES

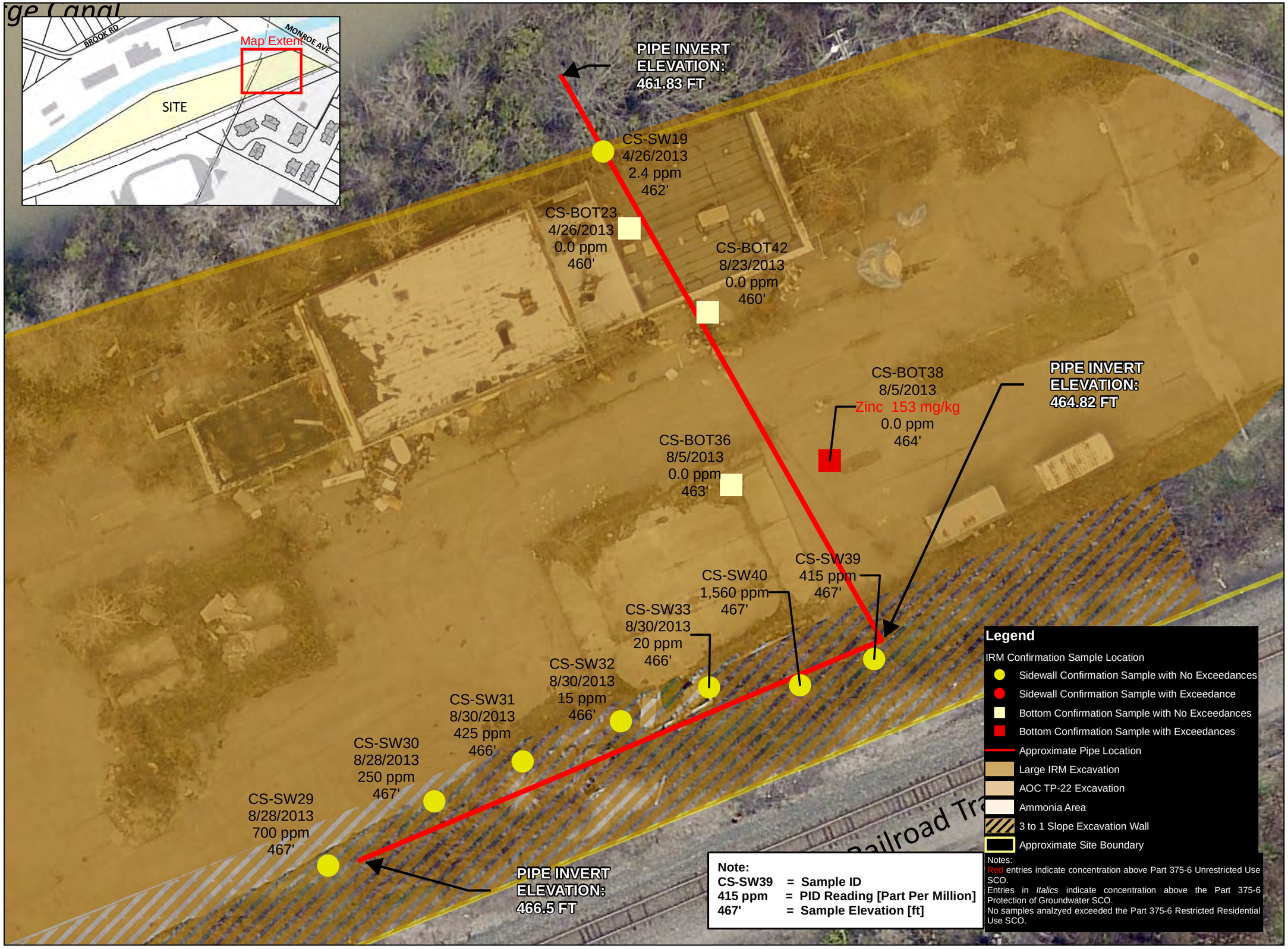
Issued For: **DRAFT**

Date: 2/13/2015

Drawn By: AAQUILINA

213647

FIGURE 2



LABELLA Associates, D.P.C.
300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585)454-3066
www.labellapc.com

INTERIM SITE MANAGEMENT PLAN

Former Monoco Oil
BCP Site #C828137

75 Monroe Avenue
Pittsford, New York

LARGE IRM EXCAVATION

N
W E
S

1 inch = 25 feet

Issued For: DRAFT

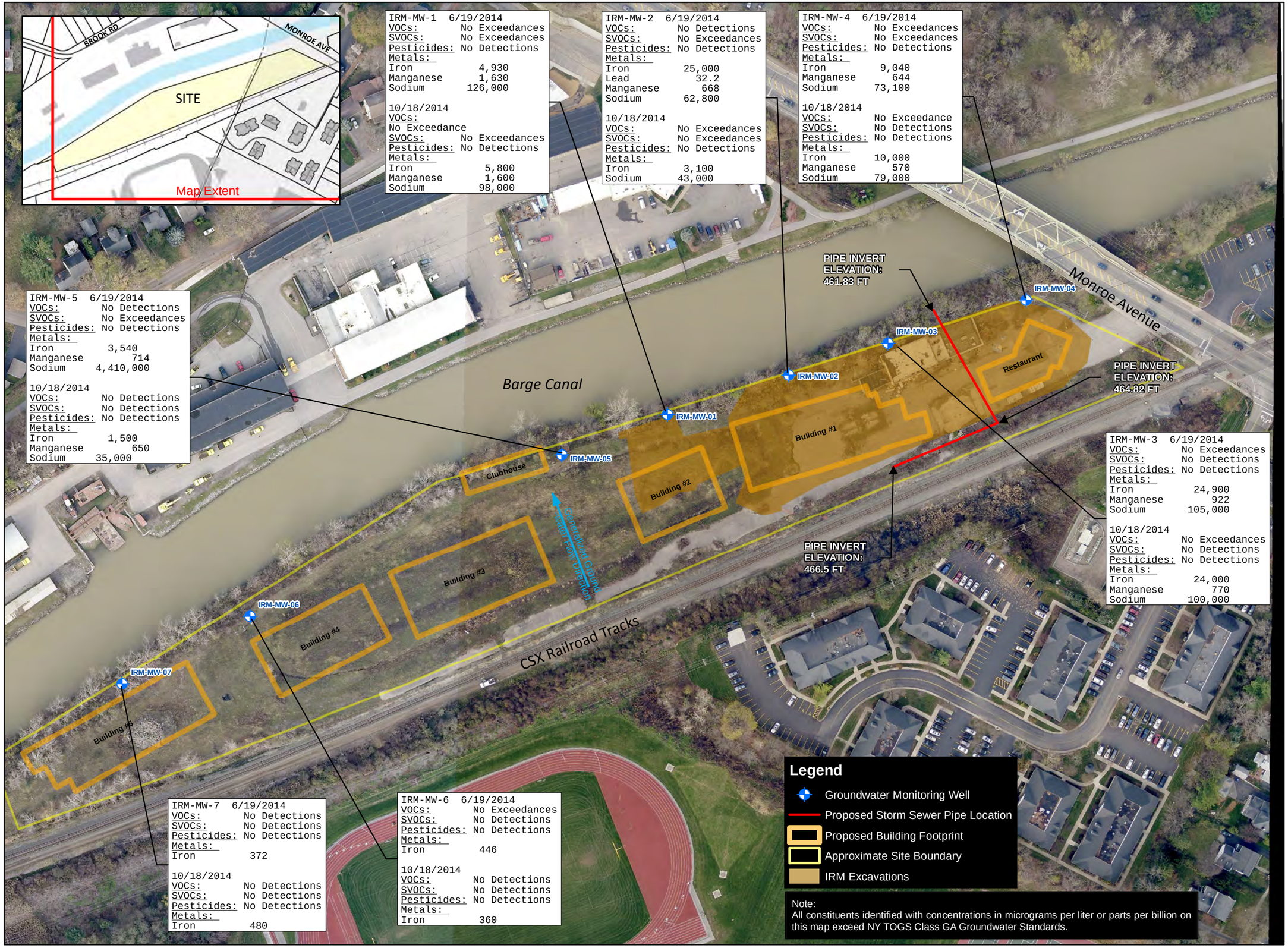
Date: 2/13/2015

Drawn By: MPELYCHATY

213647

FIGURE 3

Path: I:\Mark IV Enterprises\213647 - 75 Monroe Ave NYSBCP Program Completion\Drawings\IRM Site management plan\Map 2015.1.29.FIG3.IRM.EXCAVATION.mxd



Path: I:\Mark IV Enterprises\213647 - 75 Monroe Ave NYSBCP Program Completion\Drawings\IRM Site management plan\Map 2015.1.29.2015.FIG4.GW.Sampling Results.mxd

LABELLA Associates, D.P.C.
300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585) 454-3066
www.labellapc.com

INTERIM SITE MANAGEMENT PLAN

Former Monoco Oil
BCP Site #C828137

75 Monroe Avenue
Pittsford, New York

GROUNDWATER SAMPLING RESULTS

N
W E
S

0 125

1 inch = 125 feet

Issued For: DRAFT

Date: 2/13/2015

Drawn By: MPELYCHATY

213647

FIGURE 4

Path: I:\Mark IV Enterprises\213647 - 75 Monroe Ave NYSBCP Program Completion\Drawings\IRM Construction Completion Report\MAP-2014.07.24-FIG13_Trench.mxd

LABELLA Associates, D.P.C.

300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-6110
F: (585)454-3066
www.labellapc.com

INTERIM REMEDIAL MEASURES CONSTRUCTION COMPLETION REPORT

Former Monoco Oil
BCP Site #C828137

75 Monroe Avenue
Pittsford, New York

PRODUCT RECOVERY TRENCH

N
W E
S

0 40

1 inch = 40 feet

Issued For: DRAFT

Date: 2/13/2015

Drawn By: AAQUILINA

213647

FIGURE 5

TABLES

Large IRM Excavation Confirmation Soil Samples
BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

TABLE 1A
Summary of Volatile Organic Compounds in Soil Samples

Confirmation Soil Sample ID	6 NYCRR Subpart 375-6 Restricted Residential Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Protection of Groundwater Soil Cleanup Objectives	CS-BOT23	CS-BOT36	CS-BOT38	CS-BOT42
Sample Date				4/26/2013	8/5/2013	8/5/2013	8/23/2013
Volatile Organic Compounds							
Acetone	100,000	50	50	ND<5.2	ND<6.1	ND<6.0	ND<5.1
Methylene Chloride	100,000	50	50	2.5 J	ND<6.1	3.2 J	3.2 BJ
Tetrachloroethene	19,000	1,300	1,300	ND<5.2	ND<6.1	ND<6.0	ND<5.1
Chlorobenzene	100,000	1,100	1,100	ND<5.2	ND<6.1	ND<6.0	ND<5.1
Xylene (Total)	100,000	260	1,600	ND<5.2	ND<6.1	ND<6.0	ND<5.1
Isopropylbenzene	Not Listed	Not Listed	Not Listed	ND<5.2	ND<6.1	ND<6.0	ND<5.1
1,3,5-Trimethylbenzene	52,000	8,400	8,400	ND<5.2	ND<6.1	ND<6.0	ND<5.1
1,2,4-Trimethylbenzene	52,000	3,600	3,600	ND<5.2	ND<6.1	ND<6.0	ND<5.1
sec-Butylbenzene	100,000	11,000	11,000	ND<5.2	ND<6.1	ND<6.0	ND<5.1
1,3-Dichlorobenzene	49,000	2,400	2,400	ND<5.2	ND<6.1	ND<6.0	ND<5.1
1,4-Dichlorobenzene	13,000	1,800	1,800	ND<5.2	ND<6.1	ND<6.0	ND<5.1
n-Butylbenzene	Not Listed	12,000	Not Listed	ND<5.2	ND<6.1	ND<6.0	ND<5.1
1,2-Dichlorobenzene	100,000	1,100	1,100	ND<5.2	ND<6.1	ND<6.0	ND<5.1
Naphthalene	100,000	12,000	12,000	1.3 BJ	ND<6.1	ND<6.0	ND<5.1
Total VOCs	Not Listed	Not Listed	Not Listed	4	0	7 J	2.4 BJ
Total TICs	Not Listed	Not Listed	Not Listed	20	0	0	0
Total VOCs + TICs	Not Listed	Not Listed	Not Listed	24	0	7	2

Notes:
1. Samples analyzed using USEPA Methods 8260 (VOCs)
2. Analytical Results Expressed in micrograms per kilogram (µg/kg) or parts per billion (ppb).
3. "J" denotes Estimated value (bias undetermined); "U" indicates analyte undetected; "E" denotes the associated compound concentration exceeded the calibration range of the instrument; "B" denotes the analyte was also detected in the method blank.
4. **Bold** values indicate concentration exceeds NYSDEC Part 375 Restricted Residential Soil Cleanup Objective
5. Highlighted values indicate concentration exceeds NYSDEC Part 375 Unrestricted Use SCO
6. *In laboratory report M0344, sample MW7-CS-SW5 is expressed as "MW7-CS-SW4".

Large IRM Excavation Confirmation Soil Samples
BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

TABLE 1B
Summary of Volatile Organic Compounds in Soil Samples

Confirmation Soil Sample ID	6 NYCRR Subpart 375-6 Restricted Residential Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Protection of Groundwater Soil Cleanup Objectives	CS-SW19	CS-SW29	CS-SW30	CS-SW31	CS-SW32	CS-SW33	CS-SW39	CS-SW40
Sample Date				4/26/2013	8/28/2013	8/28/2013	8/30/2013	8/30/2013	8/30/2013	9/19/2013	9/19/2013
Volatile Organic Compounds											
Acetone	100,000	50	50	7.4 J	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	ND<5.1	ND<5.3
Methylene Chloride	100,000	50	50	ND<16	1.6 J	ND<6.1	ND<4.6	1.8 J	1.8 J	ND<5.1	ND<5.3
2-Butanone	Not Listed	Not Listed	Not Listed	ND<16	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	ND<5.1	ND<5.3
Isopropylbenzene	Not Listed	Not Listed	Not Listed	ND<16	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	ND<5.1	3.2 J
n-Propylbenzene	100,000	3,900	3,900	ND<16	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	ND<5.1	5.3
1,3,5-Trimethylbenzene	52,000	8,400	8,400	4.6 J	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	1.6 J	9.5
1,2,4-Trimethylbenzene	52,000	3,600	3,600	12.0 J	ND<5.5	ND<6.1	ND<4.6	2.3 J	ND<5.9	ND<5.1	13.0
sec-Butylbenzene	100,000	11,000	11,000	11.0 J	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	ND<5.1	9.3
4-Isopropyltoluene	Not Listed	Not Listed	Not Listed	4.4 J	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	1.3 J	8.5
n-Butylbenzene	Not Listed	12,000	Not Listed	14.0 J	ND<5.5	ND<6.1	ND<4.6	ND<6.7	ND<5.9	2.0 J	7.8
Naphthalene	100,000	12,000	12,000	5.2 BJ	ND<5.5	ND<6.1	ND<4.6	2.1 J	ND<5.9	1.4 J	ND<5.3
Total VOCs	Not Listed	Not Listed	Not Listed	59	2 J	0	0	6 J	2 J	6 J	57 J
Total TICs	Not Listed	Not Listed	Not Listed	4,760	2,340 NJ	317 NJ	1,477 NJ	105 NJ	207 NJ	800	2,208
Total VOCs + TICs	Not Listed	Not Listed	Not Listed	4,819	2,342	317	1,477	111	209	806	2,265

Notes:
1. Samples analyzed using USEPA Methods 8260 (VOCs)
2. Analytical Results Expressed in micrograms per kilogram (µg/kg) or parts per billion (ppb).
3. "J" denotes Estimated value (bias undetermined); "U" indicates analyte undetected; "E" denotes the associated compound concentration exceeded the calibration range of the instrument; "B" denotes the analyte was also detected in the method blank.
4. **Bold** values indicate concentration exceeds NYSDEC Part 375 Restricted Residential Soil Cleanup Objective
5. Highlighted values indicate concentration exceeds NYSDEC Part 375 Unrestricted Use SCO
6. Italics indicate concentration exceeds NYSDEC Part 375 Protection of Groundwater SCO

Large IRM Excavation Confirmation Soil Samples
BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

TABLE 1C
Summary of Semi Volatile Organic Compounds in Soil Samples (µg/kg)

Soil Boring ID	6 NYCRR Subpart 375-6 Restricted Residential Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Protection of Groundwater Soil Cleanup Objectives	CS-BOT23	CS-BOT36	CS-BOT38	CS-BOT42
Sample Date				4/26/2013	8/5/2013	8/5/2013	8/23/2013
Semi-volatile Organic Compounds							
Diethylphthalate	Not Listed	Not Listed	Not Listed	ND<360	ND<400	ND<400	ND<320
Di-n-butylphthalate	Not Listed	Not Listed	Not Listed	ND<360	ND<400	ND<400	ND<320
Bis (2-ethylhexyl) phthalate	Not Listed	Not Listed	Not Listed	81 J	ND<400	ND<400	ND<320
Total SVOCs	Not Listed	Not Listed	Not Listed	81	0	0	0
Total TICS	Not Listed	Not Listed	Not Listed	350	0	0	1,370 NJ
Total SVOCs	Not Listed	Not Listed	Not Listed	431	0	0	1,370

1. "J" denotes Estimated value (bias undetermined); "U" indicates analyte undetected; "E" denotes the associated compound concentration exceeded the calibration range of the instrument;
2. "B" denotes the analyte was also detected in the method blank; "A" denotes one or more TICs identified are aldol condensation byproducts.

Large IRM Excavation Confirmation Soil Samples
BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

TABLE 1D
Summary of Semi Volatile Organic Compounds in Soil Samples (µg/kg)

Soil Boring ID	6 NYCRR Subpart 375-6 Restricted Residential Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Protection of Groundwater Soil Cleanup Objectives	CS-SW19	CS-SW29	CS-SW30	CS-SW31	CS-SW32	CS-SW33	CS-SW39	CS-SW40
Sample Date				4/26/2013	8/28/2013	8/28/2013	8/30/2013	8/30/2013	8/30/2013	9/19/2013	9/19/2013
Semi-volatile Organic Compounds											
Naphthalene	100,000	12,000	12,000	ND<400	ND<310	ND<320	ND<310	82 J	ND<320	ND<370	ND<370
2-Methylnaphthalene	Not Listed	Not Listed	Not Listed	ND<400	ND<310	ND<320	ND<310	ND<320	ND<320	ND<370	ND<370
Fluorene	100,000	30,000	386,000	ND<400	ND<310	ND<320	ND<310	ND<320	ND<320	ND<370	ND<370
Phenanthrene	100,000	100,000	1,000,000	ND<400	ND<310	ND<320	ND<310	ND<320	ND<320	ND<370	ND<370
Di-n-butylphthalate	Not Listed	Not Listed	Not Listed	ND<400	110 BJ	120 BJ	98 BJ	91 BJ	100 BJ	ND<370	ND<370
Pyrene	100,000	100,000	1,000,000	ND<400	ND<310	ND<320	ND<310	ND<320	ND<320	ND<370	ND<370
Chrysene	3,900	1,000	1,000	ND<400	ND<310	ND<320	ND<310	ND<320	ND<320	ND<370	ND<370
Bis (2-ethylhexyl) phthalate	Not Listed	Not Listed	Not Listed	ND<400	ND<310	78 J	ND<310	ND<320	ND<320	ND<370	ND<370
Total SVOCs	Not Listed	Not Listed	Not Listed	0	110	198 BJ	98 J	173 BJ	100 J	0	0
Total TICS	Not Listed	Not Listed	Not Listed	6,150	18,230 NJ	6,150 NJ	10,830 NJ	2,690 NJ	370 NJ	7,150 NJ	7,710
Total SVOCs	Not Listed	Not Listed	Not Listed	6,150	18,340	6,348	10,928	2,863	470	7,150	7,710

1. "J" denotes Estimated value (bias undetermined); "U" indicates analyte undetected; "E" denotes the associated compound concentration exceeded the calibration range of the instrument;
2. "B" denotes the analyte was also detected in the method blank; "A" denotes one or more TICs identified are aldol condensation byproducts.
3. "N" denotes Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified.

Large IRM Excavation Confirmation Soil Samples
BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, NY

TABLE 1E
Summary of TAL Metals in Soil Samples (mg/kg)

Soil Boring ID	6 NYCRR Subpart 375-6 Restricted Residential Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Protection of Groundwater Soil Cleanup Objectives	CS-BOT23		CS-BOT36		CS-BOT38		CS-BOT42	
Sample Date				4/26/2013		8/5/2013		8/5/2013		8/23/2013	
TAL Metals											
Aluminum	Not Listed	Not Listed	Not Listed	4,300		5,540		14,200		5,920	
Antimony	Not Listed	Not Listed	Not Listed	0.36	UN	ND<0.33		0.47	B	ND<0.36	
Arsenic	16	13	16	3.9	*	3.5		4.3		2.1	
Barium	400	350	820	49.8		51.8		113		47.4	
Beryllium	72	7.2	47	0.15	B	0.28		0.62		0.25	
Cadmium	4.3	2.5	7.5	0.47		ND<0.013		0.077	B	0.2	B
Calcium	Not Listed	Not Listed	Not Listed	97,500		2,620		2,760		63,100	
Chromium₸	180	30	Not Listed	5.3		9.6		17.6		8.3	
Cobalt	Not Listed	Not Listed	Not Listed	4.9		5.5		7.3		4.9	
Copper	270	50	1,720	11.8		8.7		8.1		12.1	
Iron	Not Listed	Not Listed	Not Listed	8,380	E	14,700		20,300		12,300	
Lead	400	63	450	21.2	N*E	3.9		12.7		9.3	
Magnesium	Not Listed	Not Listed	Not Listed	53,000		2,180		3,560		29,700	
Manganese	2000	1,600	2,000	861		161		150		444	
Mercury	0.81	0.18	0.73	0.0085	B	0.017	B	0.036	B	0.004	B
Nickel	310	30	130	8.3	E	9.8		17.5		10.2	
Potassium	Not Listed	Not Listed	Not Listed	763		467		1,650		1,110	
Selenium	180	3.9	4	0.61	U	2.3		2.8		ND<0.61	
Silver	180	2	8.3	0.07	B	ND<0.056		ND<0.074		ND<0.061	
Sodium	Not Listed	Not Listed	Not Listed	125	E	104		83.1		128	
Thallium	Not Listed	Not Listed	Not Listed	0.63	B	ND<0.19		ND<0.25		1	
Vanadium	Not Listed	Not Listed	Not Listed	10.2		18.3		26.3		12.3	
Zinc	10,000	109	2,480	123.0	E	25.6		153		58	
Cyanide	27	27	40	ND<0.46		NA		NA		NA	

1. ₸ assumed to be trivalent chromium
2. Highlighted entries indicate concentration above Part 375-6 Unrestricted Use SCO.
3. **Bold** entries indicate concentrations above the Part 375-6 Protection of Groundwater SCO.
4. NA indicates Not Analyzed
5. B denotes a "trace" concentration below the reporting limit and equal to or above the detection limit.
6. J denotes the compound was detected below the reporting limit.
7. * denotes relative percent difference for duplicate analyses is outside of the control limit.

Large IRM Excavation Confirmation Soil Samples
BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, NY

TABLE 1F
Summary of TAL Metals in Soil Samples (mg/kg)

Soil Boring ID	6 NYCRR Subpart 375-6 Restricted Residential Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Unrestricted Use Soil Cleanup Objectives	6 NYCRR Subpart 375-6 Protection of Groundwater Soil Cleanup Objectives	CS-SW19	CS-SW29	CS-SW30	CS-SW31	CS-SW32	CS-SW33	CS-SW39	CS-SW40
Sample Date				4/26/2013	8/28/2013	8/28/2013	8/30/2013	8/30/2013	8/30/2013	9/19/2013	9/19/2013
TAL Metals											
Aluminum	Not Listed	Not Listed	Not Listed	7,760	5,330	8,840	3,560	15,600	12,700	6,060	5,400
Antimony	Not Listed	Not Listed	Not Listed	0.39 UN	ND<0.31	ND<0.49	0.50 B	ND<0.37	ND<0.31	ND<0.31	ND<0.43
Arsenic	16	13	16	4.5 *	2.9	5.2	2.7	3.9	3.7	2.9	1.9
Barium	400	350	820	67.4	39.8	72.6	17.7	164	88.7	36.1	24
Beryllium	72	7.2	47	0.38	0.23	0.39	0.15 B	0.83	0.57	0.25	0.22 B
Cadmium	4.3	2.5	7.5	0.46	0.18 B	0.22 B	0.096 B	0.9	0.37	0.59	0.53
Calcium	Not Listed	Not Listed	Not Listed	56,600	26,800 *	17,800 *	33,400 *	4,490 *	3,180 *	21,000	1,590
Chromium₸	180	30	Not Listed	14.3	7.2	11.7	5.1	17.7	15.3	7.3	6.9
Cobalt	Not Listed	Not Listed	Not Listed	14.8	3.8	7.4	3.7	9	6.6	4.4	5.3
Copper	270	50	1,720	6.9	10	14.9	7.5	11.6	6.8	9.3	5.9
Iron	Not Listed	Not Listed	Not Listed	20,400 E	11,100	16,200	9,570	20,100	16,600	11,500	11,600
Lead	400	63	450	4.8 N*E	7.7	17	4.3	15.1	7.4	8.2	5.5
Magnesium	Not Listed	Not Listed	Not Listed	23,600	11,700 *	7,280 *	10,800 *	3,110 *	2,720 *	12,000	1,950
Manganese	2000	1,600	2,000	317	887 *	307 *	737 *	473 *	635 *	380	236
Mercury	0.81	0.18	0.73	0.0091 B	0.01 B	0.035 B	0.0087 B	0.099	0.063	0.016 B	0.015 B
Nickel	310	30	130	22 E	7.4	13.5	7	14.5	12.2	8.3	9.2
Potassium	Not Listed	Not Listed	Not Listed	2,610	558 *E	1,190 *E	689 *E	991 *E	593 *E	499	326
Selenium	180	3.9	4	0.99 B	ND<0.53	1.3 B	ND<0.72	1.8	1 B	ND<0.52	ND<0.72
Silver	180	2	8.3	0.065 U	ND<0.053	ND<0.082	ND<0.072	ND<0.062	ND<0.052	ND<0.052	ND<0.072
Sodium	Not Listed	Not Listed	Not Listed	237 E	93.5	190	111	89.9	84.6	86.6	26.6 B
Thallium	Not Listed	Not Listed	Not Listed	0.22 U	ND<0.18	ND<0.28	ND<0.25	0.22 B	ND<0.18	0.44 B	ND<0.25
Vanadium	Not Listed	Not Listed	Not Listed	18.3	10.5	17.4	7.8	26.0	23.4	13.7	11.3
Zinc	10,000	109	2,480	27.5 E	38.8	45.3	20.9	65.7	46.7	32.2	30.4
Cyanide	27	27	40	ND<0.47	ND<0.48	ND<0.51	ND<0.44	ND<0.56	ND<0.55	ND<0.47	ND<0.45

1. ₸ assumed to be trivalent chromium
2. Highlighted entries indicate concentration above Part 375-6 Unrestricted Use SCO.
3. **Bold** entries indicate concentrations above the Part 375-6 Protection of Groundwater SCO.
4. NA indicates Not Analyzed
5. B denotes a "trace" concentration below the reporting limit and equal to or above the detection limit.
6. J denotes the compound was detected below the reporting limit.
7. * denotes relative percent difference for duplicate analyses is outside of the control limit.

Groundwater Samples

BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

Table 2A
Summary of Detected VOCs in Groundwater Samples

Sample ID:		NY TOGS GW Standard	IRM-MW-1		IRM-MW-2		IRM-MW-3		IRM-MW-4		IRM-MW-5		IRM-MW-6		IRM-MW-7	
Date Sampled:			**6/19/2014**	**10/18/2014**	**6/19/2014**	**10/18/2014**	**6/19/2014**	**10/18/2014**	**6/19/2014**	**10/18/2014**	**6/19/2014**	**10/18/2014**	**6/19/2014**	**10/18/2014**	**6/19/2014**	**10/18/2014**
Acetone	ug/l	-	ND<2.5	ND<50	ND<2.5	ND<50	ND<2.5	ND<50	ND<2.5	ND<50	ND<2.5	ND<50	6.6 J	ND<50	ND<2.5	ND<50
Naphthalene	ug/l	-	ND<0.69	ND<5.0	ND<0.69	ND<1.0	ND<0.69	ND<5.0	7.5	ND<5.0	ND<0.69	ND<5.0	ND<0.69	ND<5.0	ND<0.69	ND<5.0
1,2,4-Trimethylbenzene	ug/l	5	ND<0.32	ND<1.0	ND<0.32	ND<1.0	0.36 J	ND<1.0	ND<0.32	ND<1.0	ND<0.32	ND<1.0	ND<0.32	ND<1.0	ND<0.32	ND<1.0
Trichloroethene	ug/l	5	ND<0.47	1.1	ND<0.47	4.1	ND<0.47	ND<1.0	ND<0.47	ND<1.0	ND<0.47	ND<10	ND<0.47	ND<1.0	ND<0.47	ND<1.0
Total TIC, Volatile	ug/l	-	4.1 J	1.1	0	4.1	0.36	0	7.5	0	0		6.6		0	0

1. "J" denotes Estimated value (bias undetermined).

Groundwater Samples

BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

Table 2B
Summary of Detected SVOCs in Groundwater Samples

Sample ID:		NY TOGS GW Standard	IRM-MW-1		IRM-MW-2		IRM-MW-3		IRM-MW-4		IRM-MW-5		IRM-MW-6		IRM-MW-7	
Date Sampled:			6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014		6/19/2014	10/18/2014	6/19/2014	10/18/2014
Acenaphthene	ug/l	-	ND<0.32	ND<1.0	ND<0.35	ND<1.0	ND<0.32	ND<1.0	0.87 J	1.2	ND<0.32	ND<1.0	ND<0.32	ND<1.0	ND<0.32	ND<1.0
Acenaphthylene	ug/l	-	ND<0.22	ND<1.0	ND<0.23	ND<1.0	ND<0.22	ND<1.0	0.24 J	ND<1.0	ND<0.21	ND<1.0	ND<0.21	ND<1.0	ND<0.22	ND<1.0
Anthracene	ug/l	-	ND<0.19	ND<1.0	ND<0.20	ND<1.0	ND<0.19	ND<1.0	0.35 J	ND<1.0	ND<0.19	ND<1.0	ND<0.19	ND<1.0	ND<0.19	ND<1.0
Caprolactam	ug/l		NA	ND<1.0	NA	11	NA	ND<1.0	NA	ND<1.0	NA	ND<10	NA	ND<1.0	NA	ND<1.0
Carbazole	ug/l	-	3.8	ND<10	ND<0.18	ND<10	ND<0.17	ND<10	1.6 J	ND<10	ND<0.16	ND<10	ND<0.16	ND<10	ND<0.17	ND<10
Dibenzofuran	ug/l	-	ND<0.26	ND<10	ND<0.28	ND<10	ND<0.26	ND<10	0.52 J	ND<10	ND<0.26	ND<10	ND<0.26	ND<10	ND<0.26	ND<10
Di-n-butyl phthalate	ug/l	50	0.23 J	ND<3.0	0.23 J	ND<3.0	ND<0.18	ND<3.0	ND<0.18	ND<1.0	ND<0.17	ND<3.0	ND<0.17	ND<3.0	ND<0.18	ND<3.0
Fluoranthene	ug/l	-	ND<0.46	ND<1.0	ND<0.49	ND<1.0	ND<0.46	ND<1.0	0.51 J	ND<1.0	ND<0.45	ND<1.0	ND<0.45	ND<1.0	ND<0.46	ND<1.0
Fluorene	ug/l	-	ND<0.22	ND<1.0	ND<0.23	ND<1.0	ND<0.22	ND<1.0	0.92 J	ND<1.0	ND<0.21	ND<1.0	ND<0.21	ND<1.0	ND<0.22	ND<1.0
2-Methylnaphthalene	ug/l	-	ND<0.27	ND<1.0	ND<0.29	ND<1.0	ND<0.27	ND<1.0	0.32 J	ND<1.0	ND<0.26	ND<1.0	ND<0.26	ND<1.0	ND<0.27	ND<1.0
Naphthalene	ug/l	-	ND<0.30	ND<1.0	ND<0.32	ND<1.0	ND<0.30	ND<1.0	1.4 J	ND<1.0	ND<0.30	ND<1.0	ND<0.30	ND<1.0	ND<0.30	ND<1.0
Phenanthrene	ug/l	-	ND<0.14	ND<1.0	ND<0.15	ND<1.0	ND<0.14	ND<1.0	1.1 J	ND<1.0	ND<0.14	ND<1.0	ND<0.14	ND<1.0	ND<0.14	ND<1.0
Pyrene	ug/l	-	ND<0.17	ND<1.0	ND<0.18	ND<1.0	ND<0.17	ND<1.0	0.37 J	ND<1.0	ND<0.17	ND<1.0	ND<0.17	ND<1.0	ND<0.17	ND<1.0
Total SVOC TICs	ug/l	-	26.8 J	0	0	0	0	0	0	0	6.4 J	0	0	0	0	0

1. "J" denotes Estimated value (bias undetermined).
2. "NA" denotes analyte not analyzed for.

Groundwater Samples

BCP Interim Remedial Measure
75 Monroe Avenue, Pittsford, New York

Table 2C
Summary of Detected Metals in Groundwater Samples

Sample ID:		NY TOGS GW Standard	IRM-MW-1		IRM-MW-2		IRM-MW-3		IRM-MW-4		IRM-MW-5		IRM-MW-6		IRM-MW-7	
Date Sampled:			6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014	6/19/2014	10/18/2014
Aluminum	ug/l	-	397	250	22,700	1,600	785	ND<100	499	130	2,680	410	568	250	280	170
Antimony	ug/l	3	ND<2.4	ND<1.0	ND<2.4	ND<1.0	ND<2.4	ND<1.0	ND<2.4	ND<1.0	ND<4.8	ND<1.0	ND<2.4	ND<1.0	ND<2.4	ND<1.0
Arsenic	ug/l	25	5.2	10.0	7.6	3.3	4.1	12.0	5.2	5.4	ND<4.8	2.4	ND<2.4	ND<1.0	ND<2.4	N1.2
Barium	ug/l	1,000	161	160	192	100	127	150	292	320	198	190	116	150	286	290
Beryllium	ug/l	-	ND<0.18	ND<2.0	0.90 B	ND<2.0	ND<0.18	ND<2.0	ND<0.18	ND<2.0	ND<0.18	ND<2.0	ND<0.18	ND<2.0	ND<0.18	ND<2.0
Cadmium	ug/l	5	ND<0.24	ND<5.0	0.30 B	ND<5.0	ND<0.24	ND<5.0	ND<0.24	ND<5.0	ND<0.48	ND<5.0	ND<0.24	ND<5.0	ND<0.24	ND<5.0
Calcium	ug/l	-	145,000	140,000	202,000	38,000	315,000	300,000	165,000	180,000	105,000	130,000	85,700	88,000	93,600	93,000
Chromium	ug/l	50	ND<0.73	ND<10	26.3	ND<10	ND<0.73	ND<10	ND<0.73	ND<10	4.2 B	ND<10	1.2 B	ND<10	1.5 B	ND<10
Cobalt	ug/l	-	3.1 B	ND<10	16.9 B	ND<10	1.2 B	ND<10	0.60 B	ND<10	ND<1.8	ND<10	ND<0.60	ND<10	ND<0.60	ND<10
Copper	ug/l	200	ND<3.6	ND<20	21.1 B	ND<20	ND<3.6	ND<20	ND<3.6	ND<20	ND<7.2	ND<20	ND<3.6	ND<20	ND<3.6	ND<20
Iron	ug/l	300	**4,930**	**5,800**	**25,000**	**3,100**	**24,900**	**24,000**	**9,040**	**10,000**	**3,540**	**1,500**	**446**	**360**	**372**	**480**
Lead	ug/l	25	ND<1.9	1.1	**32.2**	11	ND<3.9	ND<1.0	6.4	10	ND<5.8	ND<1.0	ND<1.9	ND<1.0	ND<1.9	ND<1.0
Magnesium	ug/l	-	38,400	37,000	137,000	31,000	134,000	120,000	63,700	67,000	22,100	25,000	32,100	32,000	40,300	39,000
Manganese	ug/l	300	**1630**	**1600**	**668**	120	**922**	**770**	**644**	**570**	**724**	**650**	65.3	58	159	150
Mercury	ug/l	0.7	ND<0.10	ND<0.2	ND<0.10	ND<0.2	ND<0.10	ND<0.2	ND<0.10	ND<0.2	ND<0.10	ND<0.2	ND<0.10	ND<0.2	ND<0.10	ND<0.2
Nickel	ug/l	100	2.6 B	ND<20	62.1	48	11.6 B	ND<20	2.1 B	ND<20	26.0 B	ND<20	1.1 B	ND<20	6.1 B	ND<20
Potassium	ug/l	-	3,300 B	3,000	71,000	40,000	4,110 B	3,400	3,870 B	4,000	3,410 B	2,200	1,890 B	1,600	1,930 B	1,700
Selenium	ug/l	10	ND<2.7	ND<1.0	4.5 B	1.4	2.9 B	ND<1.0	ND<2.7	ND<1.0	ND<5.4	1.2	ND<2.7	1	ND<2.7	ND<1.0
Silver	ug/l	50	ND<0.96	ND<10	ND<0.96	ND<10	ND<0.96	ND<10	ND<0.96	ND<10	ND<1.9	ND<10	ND<0.96	ND<10	ND<0.96	ND<10
Sodium	ug/l	20,000	**126,000**	**98,000**	**62,800**	**43,000**	**105,000**	**100,000**	**73,100**	**79,000**	**4,410,000**	**35,000**	11,400	12,000	17,900	17,000
Thallium	ug/l	-	ND<1.5	ND<1.0	ND<1.5	ND<1.0	ND<1.5	ND<1.0	ND<1.5	ND<1.0	ND<4.6	ND<1.0	ND<1.5	ND<1.0	ND<1.5	ND<1.0
Vanadium	ug/l	-	ND<0.72	ND<20	34.7	ND<20	1.0 B	ND<20	0.80 B	ND<20	3.8 B	ND<20	1.2 B	ND<20	ND<0.72	ND<20
Zinc	ug/l	-	8.1 B	ND<50	121	71	5.1 B	ND<50	17.5 B	ND<50	30.1 B	ND<50	ND<4.2	ND<50	ND<4.2	ND<50
Cyanide	mg/l	0.2	ND<0.010	NA	ND<0.010	NA	ND<0.010	NA	ND<0.010	NA	ND<0.010	NA	ND<0.010	NA	ND<0.010	NA

1. Highlighted values indicate concentration exceeds the NYSDEC TOGS Groundwater Standard
2. "J" denotes Estimated value (bias undetermined).
3. "B" denotes the analyte was also detected in the method blank.

APPENDIX A

APPENDIX A – EXCAVATION WORK PLAN

A-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:

Charlotte B. Theobald

Regional Hazardous Waste Remediation Engineer

6274 East Avon-Lima Road, 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,
- 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, in electronic format, if it differs from the HASP provided in Appendix B of this document,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). 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.

Soils will be segregated based on previous environmental data and 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.

A-3 STOCKPILE METHODS

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.

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

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

A-4 MATERIALS EXCAVATION AND LOAD OUT

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

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

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this ISMP is posed by utilities or easements on the site.

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. The qualified environmental professional 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 qualified environmental professional 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.

A-5 MATERIALS TRANSPORT 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 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 be determined based on the location of approved disposal locations for the wastes generated at the Site. All trucks loaded with site materials will exit the vicinity of the site using only the approved truck routes, which will be the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total 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 project site.

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

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from areas of known remaining contamination at 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 this 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 a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

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

A-7 MATERIALS REUSE ON-SITE

Chemical criteria for on-site reuse of material has been approved by NYSDEC and includes the Restricted Residential Use SCOs. The qualified environmental professional will ensure that procedures defined for materials reuse in this ISMP 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.

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.

A-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 managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the this ISMP. The demarcation layer, consisting of orange snow fencing material or equivalent material will be replaced to provide a visual reference to the top of the ‘Remaining Contamination Zone’, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that which exists prior to the excavation 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 any updates to the Site Management Plan.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP 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). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are the Part 375 Residential Use SCOs. 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.

A-11 STORMWATER POLLUTION PREVENTION

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 ISMP 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 construction area.

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (Total Analyte List [TAL] metals; Target Compound List [TCL] volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

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.

A-13 COMMUNITY AIR MONITORING PLAN

A 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 won-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 Site-Specific CAMP is consistent with the New York State Department of Health (NYSDOH) generic CAMP presented in Appendix 1A of NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). A copy of the Site-Specific CAMP is presented in Appendix B and includes details relating to the perimeter air monitoring program, action levels, methods for air monitoring, analytes measured and instrumentation to be used, and a figure of the typical air monitoring instrumentation locations at the Site. Should site conditions change in the future, specific requirements for community air monitoring at the Site should be reviewed in consultation with NYSDOH to ensure proper applicability.

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

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include covering stockpiles of contaminated material with poly. 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.

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 to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If 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.

A-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.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- 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.

APPENDIX B

LABELLA Associates, P.C.

Engineering
Architecture
Environmental

Site Health and Safety Plan

Location:

Former Monoco Oil, Inc.
75 Monroe Avenue
Pittsford, New York 14534

Prepared For:

Pittsford Canalside Properties, LLC
c/o Mark IV Enterprises
301 Exchange Boulevard
Rochester, New York 14608

March 2010

Site Health and Safety Plan

Location:

Former Monoco Oil, Inc.
75 Monroe Avenue
Pittsford, New York 14534

Prepared For:

Pittsford Canalside Properties, LLC
c/o Mark IV Enterprises
301 Exchange Boulevard
Rochester, New York 14608

March 2010

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

Table of Contents

SITE HEALTH AND SAFETY PLAN

Project Title:	Monoco Oil Brownfield Cleanup Program
Project Number:	210259
Project Location (Site):	75 Monroe Avenue, Pittsford, New York 14534
Environmental Director:	Gregory Senecal, CHMM
Project Manager:	Dennis Porter, CHMM
Plan Review Date:	March 18, 2010
Plan Approval Date:	March 18, 2010
Plan Approved By:	Mr. Richard Rote, CIH
Site Safety Supervisor:	Evan Dumrese
Site Contact:	Evan Dumrese
Safety Director:	Rick Rote, CIH
Proposed Date(s) of Field Activities:	Spring 2010
Site Conditions:	Slightly sloping, encompassing approximately 7.5 acres
Site Environmental Information Provided By:	Prior Environmental Reports by TriTech Environmental Health and Safety, dated August 9, 2006
Air Monitoring Provided By:	LaBella Associates, P.C.
Site Control Provided By:	Mark IV Construction

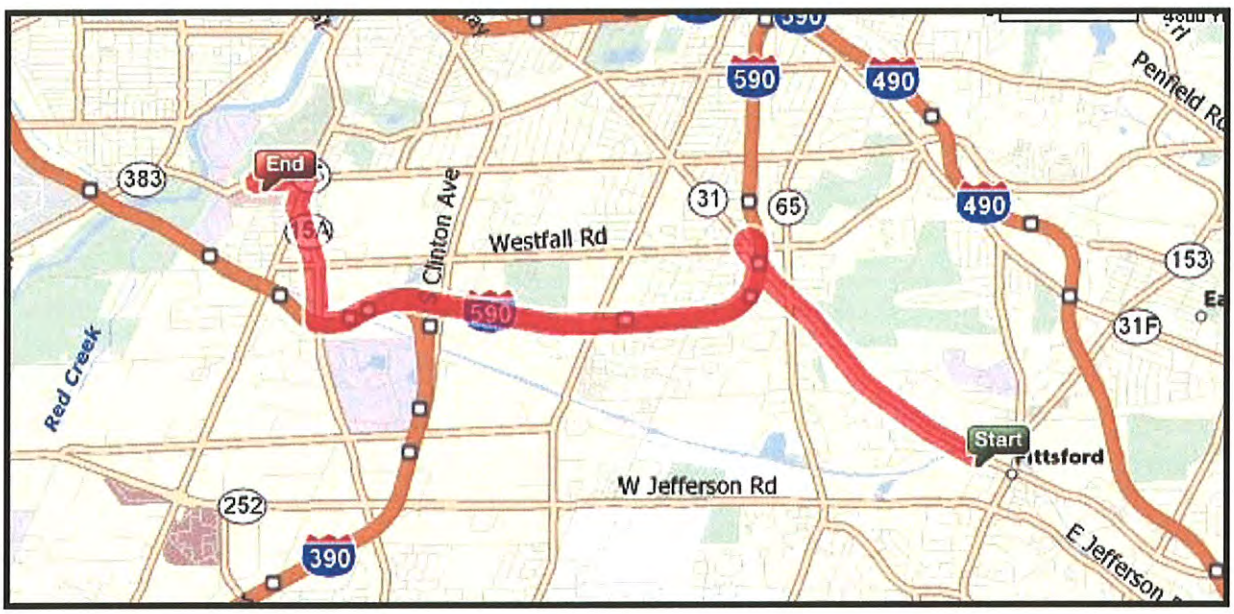
EMERGENCY CONTACTS

	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:	Pittsford Fire Department	911
Site Contact:	Mr. Bryan Powers, P.E.	Direct: 585-232-1760 Cell: 585-766-1614
Agency Contact:	NYSDEC – Charlotte Theobald NYSDOH – Mark Sergott Finger Lakes Poison Control MCDOH – Jeff Kosmala	585-226-5354 1-800-458-1158 x. 27860 1-800-222-1222 585-753-5094
Environmental Director:	Greg Senecal, CHMM	Direct: 585-295-6243 Cell: 585-752-6480 Home: 585-323-2142
Project Manager:	Dennis Porter, CHMM	Direct: 585-295-6245 Cell: 585-451-4854 Home: 585-289-3380
Site Safety Supervisor:	Mike Pelychaty	Direct: 585-295-6253 Cell: 585-451-6225
Safety Director	Rick Rote, CIH	Direct: 585-295-6241

MAP AND DIRECTIONS TO THE MEDICAL FACILITY - STONG MEMORIAL HOSPITAL

Total Est. Time: 14 minutes **Total Est. Distance:** 7.87 miles

1:	Start out going NORTHWEST on MONROE AVE / NY-31 toward BRITTANY LN.	2.4 miles
2:	Merge onto I-590 S.	3.3 miles
3:	I-590 S becomes I-390 N.	0.2 miles
4:	Take the E HENRIETTA RD / RT-15A exit- EXIT 16- toward RT-15 / W HENRIETTA RD.	0.2 miles
5:	Turn RIGHT onto NY-15A / E HENRIETTA RD.	0.9 miles
6:	Turn SLIGHT RIGHT onto MT HOPE AVE / NY-15.	0.2 miles
7:	Turn LEFT onto ELMWOOD AVE.	0.3 miles
8:	Make a U-TURN onto ELMWOOD AVE.	<0.1 miles
9:	End at **601 Elmwood Ave** Rochester, NY 14642-0001, US	



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 Interim Remedial Measures (IRMs) at the former Monoco Oil Company located at 75 Monroe Avenue in the Town/Village of Pittsford, Monroe County, New York. This HASP only reflects the policies of LaBella Associates P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications and the Community Air Monitoring Plan (CAMP), 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 USEPA, NYSDEC, OSHA or and other regulatory body.

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:

- Management of environmental investigation and remediation activities
- Environmental Monitoring
- Collection of samples
- Management of excavated soil and fill.

4.0 Work Area Access and Site Control

The contractor(s) 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 will 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).

Excavations left open create a fall hazard which can cause injury or death.

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 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.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

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, chlorinated solvents 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.

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 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 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 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 photoionization Detector (PID) to screen the ambient air in the work areas (excavation, soil staging, and soil grading areas) for total Volatile Organic Compounds (VOCs) and a DustTrak tm Model 8520 aerosol monitor or equivalent for measuring particulates. Work area ambient air will generally be monitored in the work area and downwind of the work area. Air monitoring of the

work areas and downwind of the work areas will be performed at least every 60 minutes or more often using a PID and the DustTrak meter.

If sustained PID readings of greater than 25 ppm or benzene readings greater than 1.0 ppm are recorded in the breathing zone then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently, if necessary. If PID readings are sustained, in the work area, at levels above 50 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B).

If downwind PID measurements reach or exceed 25 ppm consistently for a 5 minute period downwind of the work area, PID readings will be taken within the buildings (if occupied) on Site to ensure that the vapors are not penetrating any occupied building and effecting the personnel working within. If the PID measurements reach or exceed 25 ppm within the nearby buildings, the personnel should be evacuated via a route in which they would not encounter the work area. The building should then be ventilated until the PID measurements within the building are at or below background levels.

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.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

Table 1
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL (ppm)(b)	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	.2	.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	.096	10.07
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethylbenzene	100	100	NA	1.0	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45

Table 1 (continued)
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL (ppm)(b)	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
Metals									
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	Almond		NA
Cadmium	0.2	0.5	NA	NA	NA				NA
Chromium	1	0.5	NA	NA	NA				NA
Lead	0.05	0.15	NA	NA	NA	700			NA
Mercury	0.05	0.05	NA	NA	NA	28	Odorless		NA
Selenium	0.2	0.02	NA	NA	NA	Unknown			NA

(a) Skin = Skin Absorption
(b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990
(c) ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003.
(d) Metal compounds in mg/m3
(e) Lower Exposure Limit (%)
(f) Upper Exposure Limit (%)
(g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

Notes:
1. All values are given in parts per million (PPM) unless otherwise indicated.
2. Ca = Possible Human Carcinogen, no IDLH information.

LABELLA Associates, P.C.

Engineering
Architecture
Environmental

Site-Specific Community Air Monitoring Plan

Location:

Former Monoco Oil
75 Monroe Avenue
Pittsford, New York

Prepared For:

Pittsford Canalside Properties, LLC
301 Exchange Boulevard
Rochester, New York 14608

LaBella Project No. 210259

April 2010

Site-Specific Community Air Monitoring Plan

Location:

Former Monoco Oil
75 Monroe Avenue
Pittsford, New York

Prepared For:

Pittsford Canalside Properties, LLC
301 Exchange Boulevard
Rochester, New York 14608

LaBella Project No. 210259

April 2010

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

Table of Contents

1.0 INTRODUCTION

This Site Specific Community Air Monitoring Plan (CAMP) has been prepared by LaBella Associates, P.C. (LaBella) on behalf of Pittsford Canalside Properties, LLC (PCP). This CAMP addresses potential Volatile Organic Compound (VOC) vapor and particulate emissions that may occur during excavation, backfilling, and other remedial activities at the former Monoco Oil Site located at 75 Monroe Avenue, Pittsford, New York which encompasses approximately 7.5 acres located in a Canal Waterfront Business District zoned area along the south side of the Erie Canal in the Village of Pittsford, Monroe County, New York herein after referred to as the "Site."

2.0 PURPOSE

Various levels of VOCs, semi-VOCs, and metals (collectively refered to as "constituents of concern" (COCs)) have been detected in the soil and groundwater at the Site or are suspected to be contained in the soil and/or groundwater at the Site. The presence of these COCs through disturbance of soil and groundwater at the Site can potentially result in nuisance odors or fugitive emissions to the neighborhood in the immediate vicinity of the Site. However, it should be noted that this CAMP is in-place as a precautionary measure.

This CAMP is specific to activities being conducted as part of the interim remedial measures (IRMs) at the Site. The CAMP describes the air monitoring activities to be completed in order to provide a measure of protection for any downwind receptors and occupants of neighboring properties.

This CAMP is based on the air monitoring specified in the New York State Department of Health (NYSDOH) Generic CAMP (included as Appendix 1A and 1B of the Draft DER-10 NYSDEC Technical Guidance for Site Investigation and Remediation dated November 2009).

3.0 METHODOLOGY

This CAMP has been designed for IRMs at the Site. The CAMP is arranged in the following sections:

- Section 3.1: Site Background Monitoring – This section identifies the background monitoring (VOC and fugitive dust) to be completed at the beginning of each day and periodically throughout the day when IRMs are being conducted. The background monitoring is used for comparing readings from the other monitoring locations.

- Section 3.2: Downwind Perimeter Monitoring – This section identifies the downwind perimeter work area monitoring (VOC and fugitive dust) to be completed continuously during the IRMs. Action levels are identified in this section.

- Section 3.3: Nearest Potential Receptor Monitoring – This section identifies additional VOC monitoring that will be completed during the IRMs to provide an added measure of protection at this Site that would not normally be required by NYSDEC or NYSDOH (i.e., this is above and beyond the NYSDOH Generic CAMP). Action levels are identified in this section.

It should be noted that based on the type of work, the various monitoring locations will be moved throughout the day to comply with the appropriate testing location.

In addition to the above, this CAMP also contains a Vapor Emission to Sensitive Receptors Response Plan (Section 3.0). This includes actions to be taken in the event that sustained exceedances of the specified action levels occur.

3.1 Site Background Monitoring

At the beginning of each day of field work, a wind sock or flag will be used to monitor wind direction in the work areas. Based upon daily wind conditions, a background monitoring location will be established. [*Note: In the event that the wind direction changes, the background monitoring location will be moved to an appropriate upwind location.*] The background monitoring location will be at least 25 feet from the work area in an upwind location. Subsequent to establishing the initial background measurements (VOC and particulate, see below), background measurements will be collected every 60 minutes throughout the duration of the IRM activities for that day. The specific background monitoring is defined below:

Background VOC Monitoring:

A photo-ionization Detector (PID) capable of data logging will be used to screen the ambient air or VOCs in the background location (i.e., upwind). The PID will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting the background readings. The background readings will be collected by a 15-minute running average which will be used for comparison to the downwind perimeter monitoring (refer to Section 3.2) and the nearest potential receptor monitoring (refer to Section 3.3). After the initial reading, periodic background readings will be collected every 60-minutes.

Background Fugitive Dust Monitoring:

A TSI DustTrak™ Model 8520 aerosol monitor or equivalent will be used for measuring particulates. The meter must be capable of measuring matter less than 10 micrometers in size (PM-10). The dust monitor will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting the background readings. The background dust monitoring will consist of collecting measurements integrated over a 15 minute period and will be used for comparison to the downwind perimeter monitoring (refer to Section 3.2). After the initial reading, periodic background readings will be collected every 60-minutes.

3.2 Downwind Perimeter Monitoring

Subsequent to collecting the initial Background Monitoring measurements, continuous monitoring of the downwind perimeter of the work area (i.e., exclusion zone) will be conducted throughout the duration of the IRMs that day. The downwind perimeter will vary depending on the work; however, in general this will be approximately 30 feet from the location of the work being completed. For example, in the event a Geoprobe boring is being completed, the downwind perimeter monitoring would be conducted approximately 30-ft. from the boring location.

Downwind Perimeter VOC Monitoring:

A MiniRae Lite PID or equivalent will be used to continuously monitor for VOCs at the downwind perimeter location. The PID will be calibrated daily (in accordance with the manufacturer's specifications) at the beginning of each day. An audible alarm will be set on the PID to sound in the event that total organic vapors exceed 5 parts per million (ppm) above the background readings. For example, if the background reading is 2 ppm, then the alarm will be set for 7 ppm.

Actions for Elevated VOC Readings

1. In the event that the action level of 5 ppm above background is exceeded, then work activities will 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.

2. If total organic vapor levels at the downwind perimeter of the work area 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 (refer to Section 4.0 Vapor Emission to Sensitive Receptors Response Plan for engineering controls), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200-feet downwind of the work area 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 (background based on the 15-minute average).

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown and the Vapor Emission to Sensitive Receptors Response Plan initiated, refer to Section 4.0.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request. Instantaneous readings, if any, that are used for decision purposes will also be recorded.

Downwind Perimeter Fugitive Dust Monitoring:

A DustTrak™ Model 8520 aerosol monitor or equivalent will be used for measuring particulates. The dust meter must be capable of measuring matter less than 10 micrometers in size (PM-10) and be equipped with an audible alarm. The dust meter will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting readings. The dust monitoring will be conducted continuously and the measurements integrated over a 15 minute period. The results will be compared to the background monitoring (refer to Section 3.1). An audible alarm will be set on the dust meter to sound in the event that particulate levels exceed 100 micrograms per cubic meter ($\mu g/m^3$) greater than background for the 15-minute period. For example, if the background reading is 100 $\mu g/m^3$, then the alarm will be set for 200 $\mu g/m^3$.

Actions for Elevated Particulate Readings

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

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work must be stopped and the Fugitive Dust Control Techniques identified below will be reevaluated. In this event the NYSDEC Project Manager will be contacted immediately. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g /m^3$ of the upwind level and in preventing visible dust migration.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request.

Fugitive Dust Control Techniques

One or more of the following dust control measures will be implemented in the event that the above action levels are exceeded:

- Apply water to haul roads.
- Wetting equipment and excavation faces.
- Spraying water on buckets during excavation and dumping.
- Reducing excavation sizes.
- Reducing vehicle speeds to 10 mph.
- Immediately placing any investigation derived waste in drums and/or covering with plastic sheeting.

3.3 Nearest Potential Receptor Monitoring

A MiniRae Lite PID or equivalent will be used to continuously monitor for VOCs between the nearest potential receptor and the work area. Specifically, the MiniRae Lite PID or equivalent will be located half the distance between the perimeter of the work area (exclusion zone) and the nearest potential receptor, hereinafter referred to as the "Nearest Potential Receptor Monitoring Location". It should be noted that this location is not dependent on wind direction. The MiniRae Lite PID or equivalent will be calibrated daily (in accordance with the manufacturer's specifications) prior to collecting readings. The MiniRae Lite PID or equivalent will be operated in continuous mode and evaluate 15-minute running averages to account for any drift. An audible alarm will be set on the MiniRae Lite PID or equivalent to sound in the event that total organic vapors exceed 1 ppm above the background readings. For example, if the background reading is 2 ppm, then the alarm will be set for 3 ppm.

Actions for Elevated VOC Readings

1. In the event that the action level of 1 ppm above background is exceeded, then work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 1 ppm over background at the Nearest Potential Receptor Monitoring Location work activities can resume with continued monitoring (assuming the downwind perimeter location is also below it's action level, refer to Section 3.2).

2. If total organic vapor levels at the Nearest Potential Receptor Monitoring Location persist at levels in excess of 1 ppm over background but less than 3 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions (refer to Section 4.0 for engineering controls), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level at the Nearest Potential Receptor Monitoring Location is below 10 ppm over background (background based on the 15-minute average).

3. If the organic vapor level is above 3 ppm at the Nearest Potential Receptor Monitoring Location, activities must be shutdown and the Vapor Emission to Sensitive Receptors Response Plan initiated, refer to Section 4.0.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request. Instantaneous readings, if any, that are used for decision purposes will also be recorded.

4.0 VAPOR EMISSION TO SENSITIVE RECEPTORS RESPONSE PLAN

Engineering controls to abate VOC emissions will immediately be put into effect if the action levels for VOC monitoring identified in Sections 3.2 and 3.3 are exceeded. These engineering controls may include:

- Vapor suppression utilizing polyethylene sheeting and/or water.
- Backfilling of excavations.
- Covering emission sources with stockpiled materials.

If the measures taken to abate the emission source are ineffective and the total organic vapor readings continue to be above the specified action levels for more than 15 minutes (5 ppm at the downwind perimeter monitoring location or 1 ppm at the Nearest Potential Receptor Monitoring Location), then the following actions shall be placed into effect.

- Occupants of the residential and commercial buildings will be advised to stay inside their respective structure and to close all windows.
- All personnel listed in the Emergency Contacts section of the HASP for this project will be contacted.

- The Site Safety Supervisor will immediately contact the local authorities (fire department) and advise them of the circumstances.
- Continuous air monitoring will be conducted at the Downwind Perimeter Location, the Nearest Potential Receptor Monitoring Location and within the work zone and 1 minute average measurements will be recorded every 15 minutes. Air monitoring may be halted or modified by the Site Safety Supervisor when two successive measurements are below the specified action levels.

If readings remain elevated above the specified action levels for a period of 60 minutes (5 ppm at the downwind perimeter monitoring location or 1 ppm at the Nearest Potential Receptor Monitoring Location) the Site Safety Officer will request that local authorities evacuate the occupants of the buildings.

Y:\MARK IV ENTERPRISES\210259\IRMS\IRM WORK PLAN\SITE SPECIFIC CAMP.DOC

APPENDIX C

Quality Control (QC) Program

Location:

Former Monoco Oil
75 Monroe Avenue
Pittsford, New York

Prepared For:

Pittsford Canalside Properties, LLC
301 Exchange Boulevard
Rochester, New York 14608

LaBella Project No. 213647

February 2015

Quality Control (QC) Program

Location:

Former Monoco Oil
75 Monroe Avenue
Pittsford, New York

Prepared For:

Pittsford Canalside Properties, LLC
301 Exchange Boulevard
Rochester, New York 14608

LaBella Project No. 213647

February 2015

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

Table of Contents

Table of Contents (continued)

Page

1. Introduction

LaBella's Quality Control (QC) Program is an integral part of its approach to environmental investigations. By maintaining a rigorous QC program, our firm is able to provide accurate and reliable data. QC also provides safe working conditions for all on-site workers.

The Quality Control program contains procedures, which provide for collected data to be properly evaluated, and which document that quality control procedures have been followed in the collection of samples. The quality control program 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 the firm's Quality Control 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 project-related documents may have project specific details that will differ from the procedures in this QC program. In such cases, the project-related documents should be followed (subsequent to regulatory approval).

2. Quality Control Objectives

The United States Environmental Protection Agency (EPA) 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 EPA-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 site activities 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 EPA 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 EPA supplied known solutions, this recovery is compared to the published data that accompany the solution.

For the firm's prepared solutions, the recovery is compared to EPA-developed data or the firm's historical data as available. For surrogate compounds, recoveries are compared to EPA 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 EPA 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 (see Section 9), 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:

- The firm'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. Quality Control 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 QCP, 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, the firm will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

5. Sampling Procedures

This section describes the sampling procedures to be utilized for each environmental medium that will be collected and analyzed in accordance with appropriate state and federal requirements. All procedures described are consistent with EPA sampling procedures as described in SW-846, third edition, September 1986. All samples will be delivered to the laboratory within 24 to 28 hours of collection.

6. Soil & Groundwater Investigation

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.

Prior to drilling, all drill sites will be cleared with appropriate utility companies to avoid potential accidents relating to underground utilities.

6.1. Test Borings and Well Installation

6.1.1. Drilling Equipment

Direct Push "Geo-Probe" Soil Borings:

Borings will be advanced with a "geo-probe" direct push sampling system. The use of direct push technology allows for rapid sampling, observation, and characterization of relatively shallow overburden soils. The geo-probe utilizes a four-foot macro-core sampler, with disposable polyethylene sleeves. Soil cores will be retrieved in four-foot sections, and can be easily cut from the polyethylene sleeves for observation and sampling. The macro-core sampler will be decontaminated between samples and borings using an alconox and water solution.

Drill Rig Advanced Soil Borings:

The drilling and installation of monitoring wells will be performed using a rotary drill rig which will have sufficient capacity to perform 4 1/2-inch inside diameter (ID) hollow-stem auger drilling in the overburden, retrieve split-spoon samples, and perform necessary rock coring to provide a minimum 3-inch diameter core, known in the industry as "NX." The borehole may be reamed to 5 1/2-inch diameter prior to monitoring well installation as cased hole in the bedrock, or may be left as open hole, with NYSDEC concurrence.

6.1.2. Drilling Techniques

Direct Push "Geo-Probe" Advanced Borings:

Prior to initiating drilling activities, the Geo-probe, macro cores, drive rods, pertinent equipment, well pipe and screens will be steam cleaned or washed with an alconox and water solution followed by a clean water rinse. This cleaning procedure will also be used between each boring. These activities will be performed in a designated on-site decontamination area. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures (e.g., pallets, sawhorses) will be used. The drilling rig and all equipment will be steam cleaned upon completion of the investigation and prior to leaving the site.

Test borings will be advanced with 2-inch direct push macro-cores through overburden soils. Drilling fluids, other than water from a NYSDEC-approved source, will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative.

It will be the responsibility of the consultant to arrange for the appropriate drilling equipment to be present at the site. Standby time to arrange for additional equipment or a water supply will not be allowed unless caused by unexpected site conditions.

During the drilling, a Photoionization detector (PID) will be used to monitor the gases exiting the hole. Macro-core cuttings will be contained if the PID meter readings are greater than 5 ppm above background or the cuttings show visible evidence of contamination, or as specified in the RI Work Plan.

Drill Rig Advanced Borings:

Prior to initiating drilling activities, the drilling rig, augers, rods, split spoons, pertinent equipment, well pipe and screens will be steam cleaned. This cleaning procedure will also be used between each boring. These activities will be performed in a designated on-site decontamination area. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will be avoided. Plastic sheeting and/or clean support structures (e.g., pallets, sawhorses) will be used. The drilling rig and all equipment will be steam cleaned upon completion of the investigation and prior to leaving the site.

Test borings will be advanced with 4 1/2-inch (ID) hollow stem augers through overburden, and NX-sized diamond core barrels in competent rock, driven by truck-, track-, or trailer-mounted drilling equipment. Alternative methods of drilling or equipment may be allowed or requested for site-specific criteria, but must be approved by the NYSDEC. Drilling fluids, other than water from a NYSDEC-approved source, will not be allowed without special consideration and agreement from NYSDEC. The use of lubricants is also not allowed unless approved by the NYSDEC representative. One sample from each drilling water source may be analyzed for full TCL.

It will be the responsibility of the consultant to arrange for the appropriate drilling equipment to be present at the site. Standby time to arrange for additional equipment or a water supply will not be allowed unless caused by unexpected site conditions.

During the drilling, a PID will be used to monitor the gases exiting the hole. Auger cuttings will be contained if the PID meter readings are greater than 5 ppm above background or the cuttings show visible evidence of contamination.

Where bedrock wells are required, test borings shall be advanced into rock with NX coring tools. Only water from an approved source shall be used in rock coring. The consultant shall monitor and record the petrology, core recovery, fractures, rate of advance, water levels, and water lost or produced in each test boring. The Rock Quality Determination (RQD) value shall be calculated for each 5-foot core. Each core shall be screened with a PID upon extraction to determine proper handling procedure. All core samples shall be retained and stored by the consultant, for review by NYSDEC, in an approved wooden core box for a period of not less than one year.

Bedrock well installation will involve construction of a rock socket. The socket will be drilled into the top of rock at each bedrock well location to allow permanent 3-inch casing to be grouted securely in place prior to completion of the well. The purpose for this is to provide a seal at the overburden/bedrock

interface and into the upper bedrock surface, to prevent the entrance of overburden water into the bedrock.

To construct the rock socket, a core hole will be reamed out to a minimum diameter of 3 7/8-inches and set into the first 5-feet of bedrock. This will allow the placement of permanent 3-inch diameter Polyvinyl chloride (PVC) well casing into the bedrock surface. The method selected may be percussion or rotary drilling at the option of the subcontractor. The method and equipment selected must be capable of penetrating the bedrock at each well location to a depth required by the work plan and will be selected based on the results of the rock coring performed.

While the augers are seated on top of bedrock, a cement grout will be tremied into the bedrock socket. Once sufficient grout has been place, the 3-inch PVC casing will be lowered into the bedrock socket. A PVC plug will be placed in the end of the 3-inch PVC casing, prior to insertion in the borehole, to prevent grout from entering the PVC casing. Once the 3-inch PVC casing is in place, the augers can be removed and the remaining grout should be added. After the grout and 3-inch PVC casing have set up for 24 hours, the remaining amount of bedrock can be NX cored through the 3-inch PVC casing to a depth determined by the RI work plan.

6.1.3. Well Casing (Riser)

Direct Push Geo-Probe Groundwater Monitoring Wells:

Direct Push Geo-Probe advanced groundwater-monitoring wells utilized 1.25-inch threaded flush joint PVC pipe.

Drill Rig Advanced Groundwater Monitoring Wells:

The well riser shall consist of 2-inch or 4-inch diameter, threaded flush-joint PVC pipe. All well risers will conform to the requirements of ASTM-D 1785 Schedule 40 pipe, and shall bear markings that will identify the material as that which is specified. All materials used to construct the wells will be NSF/ASTM approved.

6.1.4. Well Screen

Direct Push Geo-Probe Groundwater Monitoring Wells:

Direct Push Geo-Probe advanced groundwater-monitoring wells utilized 1.25-inch diameter well screen. Groundwater-monitoring wells will set to intersect the top of the shallow overburden groundwater table. Each geo-probe advanced well will be equipped with 5 to 10 feet (based on anticipated groundwater level and bedrock depth) of .010 inch slotted PVC screen connected to an appropriate length of PVC riser to complete the well installation.

Drill Rig Advanced Groundwater Monitoring Wells:

Generally, wells will be constructed with 10-foot machine-slotted screens, unless otherwise specified or dictated by field conditions (i.e., screens of less than 10-feet in length may be used, depending on the characteristics of the well). The well screen slot size will be selected based on the filter pack grain size and the ability to hold back 85 percent or more of the filter pack materials. Screen and riser sections shall be joined by flush-threaded coupling to form watertight unions that retain 100% of the strength of the casing. Solvent PVC glue shall not be used at any time in the construction of the wells. The bottom of the screen shall be sealed with a treated cap or plug. No lead shot or lead wool is to be employed in

sealing the bottom of the well or for sealant at any point in the well.

All risers and screens shall be set round, plumb, and true to line.

6.1.5. Artificial Sand Pack

Granular backfill will be chemically and texturally clean (as determined using a 10x hand lens), inert, siliceous, and of appropriate grain size for the screen slot size and the host environment. Sand pack grain size will be selected based on sieve analyses of formation samples. The sand pack will be installed using a tremie pipe and the casing will be equipped with centralizers (wells 15 ft. or deeper only) to minimize the tendency for particle separation and bridging. Prior to casing and screen insertion, a minimum of 1-foot of gravel-pack bedding will be placed in the bottom of the hole. The well screen and casing will be installed, and the sand pack placed around the screen and casing to a depth extending at least 25 percent of the screen length above the top of the screen.

6.1.6. Bentonite Seal

A minimum 2-foot thick seal of tamped bentonite pellets will be placed directly on top of the sand pack, and care will be taken to avoid bridging. The seal will be measured immediately after placement, without allowance for swelling.

6.1.7. Grout Mixture

Upon completion of the bentonite seal, the well will be grouted with a non-shrinking cement grout (e.g., Volclay®) mix to be placed from the top of the bentonite seal to the ground surface. The cement grout shall consist of a mixture of Portland cement (ASTM C 150) and water, in the proportion of not more than 7 gallons of clean water per bag of cement (1 cubic foot or 94 pounds). Additionally, 3% by weight of bentonite powder shall be added, if permitted.

6.1.8 Surface Protection

At all times during the progress of the work, precautions shall be used to prevent tampering with or the entrance of foreign material into the well. Upon completion of the well, a suitable lockable cap shall be installed to prevent material from entering the well. The PVC well riser shall be protected by a flush mounted road box set into a concrete pad. A concrete pad, sloped away from the well, shall be constructed around the flush mount road box at ground level.

Any well that is to be temporarily removed from service or left incomplete due to delay in construction shall be capped with a watertight cap and equipped with a "vandal-proof" cover, satisfying applicable NYSDEC regulations or recommendations.

6.1.9. Surveying

Coordinates and elevations will be established for each monitoring well and sampling location. Elevations to the closest 0.01 foot shall be used for the survey. These elevations shall be referenced to a regional, local, or project-specific datum. USGS benchmarks will be used whenever available. The location, identification, coordinates, and elevations of the wells will be plotted on maps with a scale large enough to show their location with reference to other structures at each site.

6.1.10. Well Development

After completion of the well, but not sooner than 24 hours after grouting is completed, development will be accomplished using pumping, bailing, or surge blocking. No dispersing agents, acids, disinfectants, or

other additives will be used during development or introduced into the well at any other time. During development, water will be removed throughout the entire water column by periodically lowering and raising the pump intake (or bailer stopping point).

Well development will include washing the entire well cap and the interior of the well casing above the water table, using only water from the well itself. As a result of this operation, the well casing will be free of extraneous materials (grout, bentonite, and sand) inside the riser, well cap, and blank casing between top of the well casing and water table. This washing will be conducted before and/or during development; not after development. Development water will be either properly contained and treated as waste until the results of chemical analysis of samples are obtained or discharged on site as determined by the site-specific work plans and/or consultation with the NYSDEC representatives on site.

The development process will continue until a stabilization of pH, specific conductance, temperature, and clarity (goal of <50 NTUs) of the discharge is achieved or for a maximum of two hours.

After final development of the well, water levels will be recorded and approximately 1 liter of water from the well will be collected in a clear glass jar, labeled and photographed, and submitted as part of the well log. The photograph will be taken to show the relative clarity of the water. Visual identification of the physical characteristics of removed sediments will also be recorded.

7. Geologic Logging and Sampling

At each investigative location, the boring will be advanced through overburden using either a drill rig and hollow-stem auger or direct push technology; soils will be visually inspected for stains and monitored with a PID to help determine potential for vertical migration of contaminants. Soil samples will be collected continuously in both the unsaturated soil zone and the saturated zone. Selected wells will be sampled continuously over the entire depth of the well. The sampling device will be decontaminated according to procedures outlined in the Decontamination section of this document. The split-spoon sampler will be driven into the soil using a 140-pound safety hammer and allowed to free-fall 30-inches, in accordance with ASTM-D 1586-84 specifications. The number of blows required to drive the sampler each 6-inches of penetration will be recorded. Soil samples will be screened in the field for volatile organic vapors using a PID, classified in accordance with Unified Soil Classification System (USCS) specifications, and logged. Samples will be stored in glass jars until they are needed for testing or the project is complete.

All samples will be screened with a PID during collection. The headspace of all samples taken in the field will be screened using USEPA method 3810.

Monitoring well borings will be advanced to maximum design depth below the ground surface, as indicated by the work plan for each site. If hard boulders or bedrock result in auger refusal, rock coring will be used to advance the hole to design depth. If hydrogeologic conditions are favorable for well installation at a depth less than design, the well will be installed at the boring or coring termination depth. In the event that maximum design depth is reached and hydrogeologic conditions are not suitable for well installation, the maximum drilling depth will be revised. Hydrogeologic suitability for well emplacement will be determined by the supervising geologist in consultation with NYSDEC, based on thickness and estimated hydraulic conductivity of the saturated zone encountered. If necessary, the borehole will be advanced to water or abandoned.

Boulders and bedrock encountered during well installation shall be cored by standard diamond-core

drilling methods using an "NX" size core barrel. All rock cores recovered will be logged by a geologist, labeled, photographed, and stored in wooden core boxes. The photographs will be submitted as part of the completed boring logs. The cores will be stored by the firm until the project is completed or for at least one year. Drilling logs will be prepared by an experienced geologist or geotechnical engineer, who will be present during all drilling operations. One copy of each field boring and well construction log, including color photographs of the rock core, if encountered, and groundwater data, will be submitted as part of the RI report. The RQD value shall be calculated for each 5-foot section. Information provided in the logs shall include, but not be limited to, the following:

- Date, test hole identification, and project identification;
- Name of individual developing the log;
- Name of driller and assistant(s);
- Drill, make and model, auger size;
- Identification of alternative drilling methods used and justification thereof (e.g., rotary drilling with a specific bit type to remove material from within the hollow stem augers);
- Standard penetration test (ASTM D-1586) blow counts;
- Field diagram of each monitoring well installed with the depth to bottom of screen, top of screen, and pack, bentonite seal, etc.;
- Reference elevation for all depth measurements;
- Depth of each change of stratum;
- Thickness of each stratum;
- Identification of the material of which each stratum is composed, according to the USCS system or standard rock nomenclature, as appropriate;
- Depth interval from which each sample was taken;
- Depth at which hole diameters (bit sizes) change;
- Depth at which groundwater is encountered;
- Depth to static water level and changes in static water level with well depth;
- Total depth of completed well;
- Depth or location of any loss of tools or equipment;
- Location of any fractures, joints, faults, cavities, or weathered zones;
- Depth of any grouting or sealing;
- Nominal hole diameters;
- Amount of cement used for grouting or sealing;
- Depth and type of well casing;
- Description of well screen (to include depth, length, location, diameter, slot sizes, material, and manufacturer);
- Any sealing-off of water-bearing strata;
- Static water level upon completion of the well and after development;
- Drilling date or dates;
- Construction details of well; and
- An explanation of any variations from the work plan.

8. Groundwater Sampling Procedures

The groundwater in all new monitoring wells will be allowed to stabilize for 7 days following development. Water levels will be measured to within 0.01 foot prior to purging and sampling. A temporary staff gauge or other surface water elevation measuring device will be established on any nearby surface water body, which may significantly influence groundwater movement. The surface

elevation of these water bodies will be checked whenever groundwater elevations are measured. Sampling of each well will be accomplished in one of two ways.

Active Sampling:

Purging will be completed prior to active sampling. 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 well-bore volumes or to dryness. Groundwater samples will be collected via active methods (i.e., purging) according to the following procedures and in the volumes specified in Table 11-1:

- 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.

Passive Sampling:

Groundwater samples will be collected via passive methods (i.e., no-purge) according to the following procedures and in the volumes specified in Table 11-1:

- Samples will be collected via passive diffusion bag (PDB) samplers. PDB samplers are made of low-density polyethylene plastic tubing (typically 4 mil), filled with laboratory grade (ASTM Type II) deionized water and sealed at both ends.
- PDB samplers will only be used to collect groundwater samples which will be analyzed for VOCs.
- PDB samplers will be deployed by hanging in the well at the middle of the well screen unless a low water table, need to deploy multiple samplers or the targeting of a specific depth interval is identified. The PDB samplers will be deployed at least 14 days prior to sampling.
- The PDB samplers will be deployed using a Teflon® coated string or synthetic rope.
- When transferring water from the PDB 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 chemicals using NYSDEC Analytical Services Protocol (ASP; revised July 2005 and subsequent amendments or revisions).

9. Management of Investigative-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. Investigation-derived waste (IDW) 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 investigation-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 investigation-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 (pending NYSDEC approval) or otherwise treated as a non-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

10. 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 samples between composite sample locations will not require decontamination between collection of samples. All drilling equipment will be decontaminated prior to drilling, after drilling each monitoring well, and after the completion of all drilling. Special attention will be given to the drilling assembly, augers, and PVC casing and screens.

Drilling decontamination will consist of:

- Steam cleaning;
- Scrubbing with brushes, if soil remains on 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 alconox solution;
- Triple rinsed with deionized water; and
- Allowed to air dry.

11. 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 EPA bottle washing procedures.

Table 11-1
Water 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
Semivolatile 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

* Holding time is based on verified time of sample receipt at laboratory.

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

TABLE 11-2
Soil Samples

Type of Analysis	Type and Size of Container	Number of Containers and Sample Volume (per sample)	Preservation	Maximum Holding Time
Volatile Organics, Semivolatile 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

* Holding time is based on the times from verified time of sample receipt at the laboratory.

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

TABLE 11-3
List of Major Instruments for Sampling and Analysis

- MSA 360 0_2 /Explosimeter
- Hollige Series 963 Nephlometer (turbidity meter)
- EM-31 Geomics Electromagnetic Induction Device
- 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

12. 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 EPA 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.

13. 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.

13.1. 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.

13.2. 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.

13.3. 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.

13.4. 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.

13.5. 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.

13.6. 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.

14. Documentation

14.1. 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.

14.2. 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.

15. Corrections to Documentation

15.1. 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.

15.2. 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.

15.3. 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

16. 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 EPA 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.

16.1. 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.

16.2. 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.

16.3. 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.

17. 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. Section 7 lists the major instruments to be used for sampling and analysis. Brief descriptions of calibration procedures for major field and laboratory instruments follow.

18. Field Instrumentation

18.1. 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.

18.2. Organic Vapor Analyzer

Organic vapor analyzers (OVAs) are calibrated and routine maintenance performed every six months when the units are not in use. Calibration is performed and the major system checks are performed prior to the instrument being released for field use.

Calibration of the OVA 128 GC must be performed by a factory-authorized service representative. The instrument is removed from its protective case and the probe is connected to the base unit. After checking for an airtight seal in the sample line (plugging the sample inlet to stop the pump), the hydrogen supply is turned on and the pressure is set to 10 psi. The electronics are turned on and the instrument is allowed to warm up for at least 5 minutes. After warm up, the instrument is zeroed on the "X10" scale using the adjust knob. The flame is then lit and a gas-tight sample bag is filled with a mixture of 100 ppm methane in air. The sample bag is then attached to the probe inlet and the internal pump is allowed to draw in as much sample as is needed. R32 on the control board is adjusted to read 100 ppm on the "X10" scale and then the hydrogen supply is shut down. The pump can now be turned off and the sample bag removed. Using the adjust knob, the meter is set to read 4 ppm on the "X1" scale. Switching back to the "X10" scale the adjust knob is again used to set the meter to 40 ppm. The scale is then set to "X100" and R33 is adjusted until the meter reads 40 ppm on the "X100" scale.

The OVA has a detection limit of 0.1 ppm in methane equivalents and a working range of 0 to 1,000 ppm. During daily field use, system checks are performed which involve calibration and maintenance of the pump systems, gases, and filters. Care is taken to check for and prevent clogging or leaks. Quad rings and the burner chamber are examined on a weekly basis. Routine biannual maintenance includes a thorough cleaning as well as a re-examination of the pump system for leaks and wear. Parts are replaced as necessary. Instrument operation is verified by calibrating and running the OVA for 4 to 6 hours. An instrument specific logbook is maintained with the OVA to document its use and maintenance.

18.3. Conductance, Temperature, and pH Tester

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).

18.4. 0_2/Explosimeter

The primary maintenance item of the Model 260 is the rechargeable 2.4 volt (V) nickel cadmium battery. The battery is recharged by removing the screw cap covering receptacle and connecting one end of the charging cable to the instrument and the other end to a 115V AC outlet.

The battery can also be recharged using a 12V DC source. An accessory battery charging cable is available, one end of which plugs into the Model 260 while the other end is fitted with an automobile cigarette lighter plug.

Recommended charging time is 16 hours.

Before the calibration of the combustible gas indicator can be checked, the Model 260 must be in operating condition. Calibration check-adjustment is made as follows:

1. Attach the flow control to the recommended calibration gas tank.
2. Connect the adapter-hose to the flow control.
3. Open flow control valve.
4. Connect the adapter-hose fitting to the inlet of the instrument; after about 15 seconds the LEL meter pointer should be stable and within the range specified on the calibration sheet accompanying the calibration equipment. If the meter pointer is not in the correct range, stop the flow; remove the right hand side cover. Turn on the flow and adjust the "S" control with a small screwdriver to obtain a reading as specified on the calibration sheet.
5. Disconnect the adapter-hose fitting from the instrument.
6. Close the flow control valve.
7. Remove the adapter-hose from the flow control.
8. Remove the flow control from the calibration gas tank.
9. Replace the side cover on the Model 260.

CAUTION: Calibration gas tank contents are under pressure. Use no oil, grease, or flammable solvents on the flow control or the calibration gas tank. Do not store calibration gas tank near heat or fire or in rooms used for habitation. Do not throw in fire, incinerate, or puncture. Keep out of reach of children. It is illegal and hazardous to refill this tank. Do not attach the calibration gas tank to any other apparatus than described above. Do not attach any gas tank other than MSA calibration tanks to the regulator.

18.5. 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.

19. 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.

19.1. 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:

19.2. 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.

19.3. 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.

19.4. Quality Control Check Samples

Inorganic and organic control check samples are available from EPA 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.

APPENDIX D

P:\2240\Drawings\Final\2240 Design Base.dwg

UTILITY NOTES:

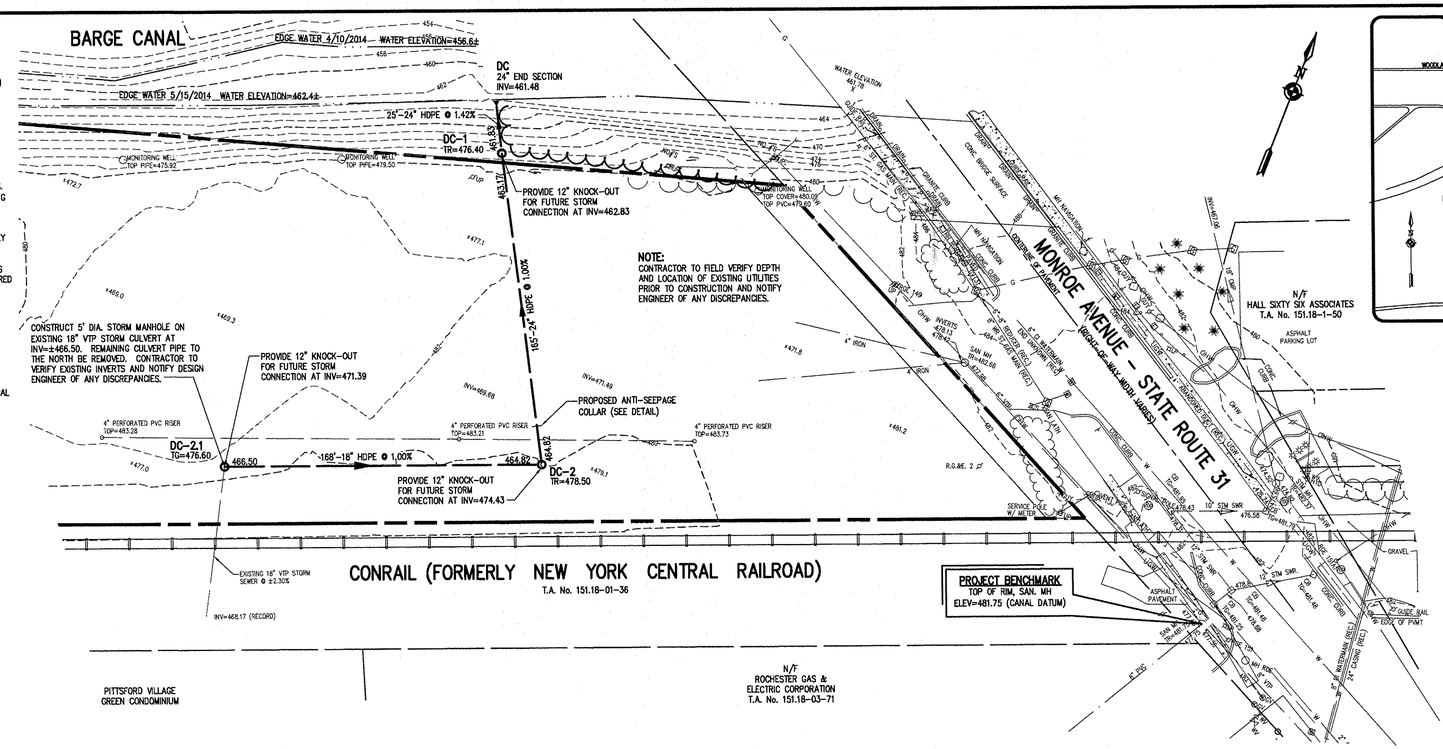
1. ALL IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE MOST RECENT STANDARDS AND SPECIFICATIONS OF THE VILLAGE OF PITTSFORD, THE APPROPRIATE AGENCIES (IE, MONROE COUNTY WATER AUTHORITY, AND THE MONROE COUNTY HEALTH DEPARTMENT) UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD, AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND RIGHT-OF-WAY MONUMENTS IN THE AREAS OF CONSTRUCTION. FOR DESCRIPTIVE AND SURVEY DATA ON THE CONTROL MONUMENTS, CALL THE MONROE COUNTY GEODETIC SURVEY OFFICE.
3. THE DEVELOPER'S AND CONTRACTOR'S ATTENTION IS DIRECTED TO LOCAL LAW NO. 6 OF 1971 REGARDING LIABILITY INCURRED THROUGH DISTURBANCES OR DESTRUCTION OF GEODETIC SURVEY MONUMENTS.
4. EXISTING UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM FIELD LOCATIONS AND/OR UTILITY COMPANY RECORD PLANS. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CALL THE UPPO HOTLINE AT 1(800)962-7962 FOR STAKE-OUT OF EXISTING UTILITIES.
5. THE CONTRACTOR SHALL DETERMINE EXACT LOCATION AND ELEVATION OF UNDERGROUND UTILITIES BEFORE COMMENCING CONSTRUCTION. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS AS REQUIRED TO MEET EXISTING CONDITIONS.
6. MINIMUM SEPARATION BETWEEN WATERMAIN AND SEWER MAINS TO BE 18" VERTICALLY MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. MINIMUM HORIZONTAL SEPARATION BETWEEN WATERMAINS AND SEWER MAINS TO BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES. ONE FULL LENGTH OF WATERMAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHERE A WATERMAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING THE WATERMAINS.
7. STORM SEWER PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) SMOOTH INTERIOR OR AS NOTED ON THE PLAN. STORM SEWER SYSTEM SHALL BE PRIVATE.
8. ALL UTILITY SERVICES SHALL BE INSTALLED UNDERGROUND.
9. REFERENCE BME DRAWING No. 2240-20F, DETAIL SHEET, FOR STANDARD MANHOLE DIMENSIONS, ANTI-SEEPAGE COLLAR AND TYPICAL PIPE TRENCH SECTION DETAILS.

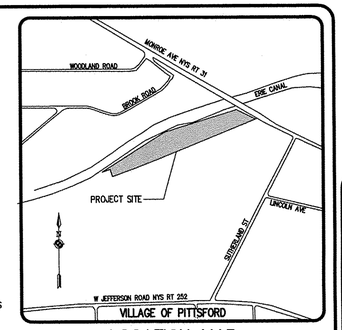
GENERAL NOTES:

1. THE VILLAGE OF PITTSFORD TO COORDINATE WITH OTHERS THE REMOVAL OF SOIL AND DEBRIS WITHIN THE PITTSFORD VILLAGE GREEN PROPERTY AND THE CSX RAILROAD RIGHT-OF-WAY TO LOCATE THE REPORTED 18" VTP STORM PIPE AS NOTED ON THE PITTSFORD VILLAGE GREEN UTILITY PLAN PREPARED BY SEAR BROWN ASSOCIATES, DATED MAY 1984.
2. THE VILLAGE OF PITTSFORD TO COORDINATE WITH OTHERS THE CLEANING, INSPECTION, AND IF NECESSARY REPAIR OF THE REPORTED 18" STORM SEWER PIPE WITHIN THE CSX RIGHT-OF-WAY LEADING TO THE NEW 5' DIAMETER MANHOLE, STRUCTURE DC-2.1 TO BE INSTALLED BY PITTSFORD CANALSIDE PROPERTIES, LLC WITHIN THE WESTPORT CROSSING PROPERTY.
3. THE VILLAGE OF PITTSFORD TO COORDINATE WITH OTHERS THE GRADING AND STABILIZATION OF THE AREAS ADJACENT TO THE REPORTED 18" STORM SEWER TO PROVIDE POSITIVE AND UNOBSTRUCTED DRAINAGE TO THIS CULVERT AND TO BE IN CONFORMANCE WITH THE CONTOURS AND ELEVATIONS NOTED ON THE PITTSFORD VILAGE GREEN GRADING PLAN PREPARED BY SEAR BROWN ASSOCIATES, DATED MAY 1984 FOR THE ENTIRE PITTSFORD VILLAGE GREEN FRONTAGE TO THE CSX RAILROAD. FURTHER, ALL RIP RAP AND STONE FILTER FEATURES CALLED FOR ON THE PITTSFORD VILLAGE GREEN UTILITY PLAN PREPARED BY EAR BROWN ASSOCIATES, DATED MAY 1984, SHALL BE RESTORED. FINALLY, THE VILLAGE OF PITTSFORD AS PART OF THEIR MS4 RESPONSIBILITIES WILL INSPECT THIS AREA ANNUALLY TO INSURE THE OPENING TO THE 18" PIPE REMAINS CLEAR AND UNINHIBITED.
4. REFERENCE BME DRAWING No. 2240-10F, CONSTRUCTION EROSION CONTROL PLAN, FOR EROSION CONTROL MEASURES AND CONSTRUCTION EROSION CONTROL NOTES.

SEQUENCE OF CONSTRUCTION NOTES:

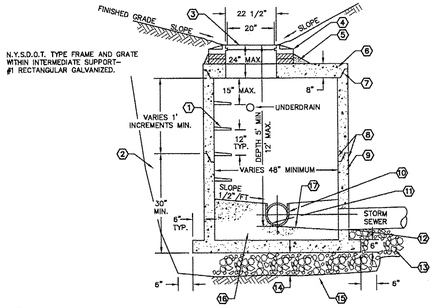
1. PITTSFORD CANALSIDE PROPERTIES, LLC (PCP) SHALL OBTAIN ALL PERMITS AND APPROVALS NECESSARY TO CONSTRUCT STORM SEWER DC-2.1 TO DC INCLUDING APPROVALS FROM NYSDEC (CHANGE OF USE AND ARTICLE 15 PERMIT), THE USACOE, AND THE NYS CANAL CORPORATION.
2. UPON RECEIPT OF ALL PERMITS AND APPROVALS, PCP SHALL SCHEDULE THE CONSTRUCTION WORK. THE CONSTRUCTION SCHEDULE SHALL BE SUBMITTED TO THE VILLAGE ENGINEER FOR APPROVAL.
3. PCP WILL POST A FINANCIAL SURETY WITH THE VILLAGE OF PITTSFORD FOR THE SCOPE OF WORK TO CONSTRUCT DC-2.1 TO DC, SUBJECT TO APPROVAL BY THE VILLAGE ENGINEER.
4. CONSTRUCTION SCHEDULE MAY BE INFLUENCED BY SEASON, CONSTRUCTION MATERIALS AVAILABILITY, AND THE WORK OF OTHERS REQUIRED UPSTREAM OF THE STORM SEWER CONSTRUCTION.
5. CONSTRUCTION OF DC-2.1 TO DC SHALL COMMENCE WHEN UPSTREAM WORK IS UNDERTAKEN BY OTHERS ON THE LANDS OF VILLAGE GREEN AND CSX RAILROAD TO REPAIR THE UPSTREAM STORM SEWER, OR AS PART OF THE NORMAL SITE WORK CONSTRUCTION SCHEDULE OF WESTPORT CROSSING, WHICHEVER OCCURS FIRST.
6. UPSTREAM AND OFF-SITE STORM SEWER WORK WILL BE COORDINATED BY THE VILLAGE OF PITTSFORD, AND IF NECESSARY PERFORMED BY THE VILLAGE OF PITTSFORD AT NO COST TO PITTSFORD CANALSIDE PROPERTIES, LLC.





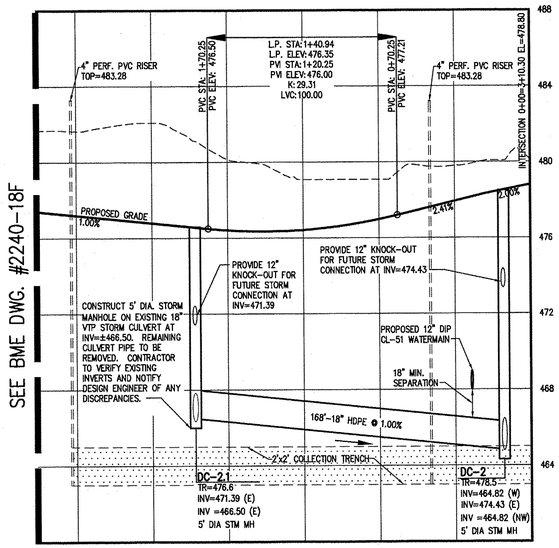
LOCATION MAP
NOT TO SCALE

NOTES: A. RISER AND COVER SLAB JOINTS AND LIFT HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND SEALED WITH TWO (2) COATS OF APPROVED HEAVY DUTY COAL TAR SEALER.
B. MORTAR SHALL BE ONE (1) PART PORTLAND CEMENT, ONE AND ONE-HALF (1 1/2) PART CLEAN SAND.

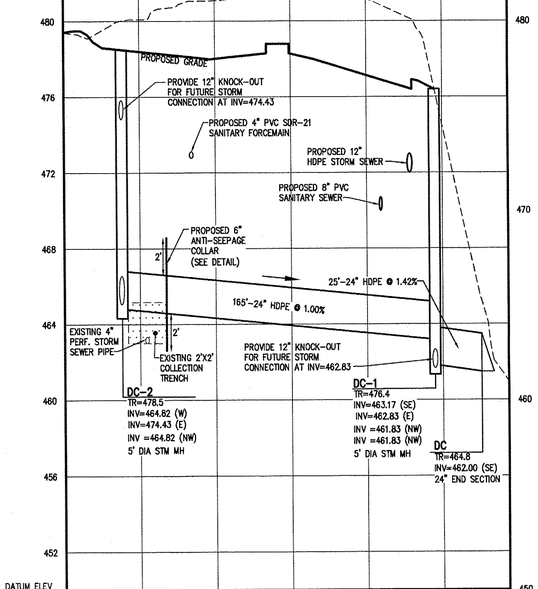


1. CAST IRON STEMS TO BE INSTALLED AT ALTERNATE JOINTS AND SHALL BE ASPHALT STEPS TO BE NEENAH FOUNDRY R-1980-1 STEEL REINFORCED COPOLYMER POLYPROPYLENE OR APPROVED EQUAL.
2. BACKFILL SHALL BESELECT BACKFILL (AS PER NYSDOT SPEC. 203-2.02) IF OUTSIDE PAVEMENT. IF IN PAVEMENT BACKFILL SHALL BE CRUSHER RUN STONE (NYSDOT SPEC. 304-2.02, TYPE 2 STONE.)
3. CAST IRON FRAME & COVER TO BE NEENAH FOUNDRY R-1723 OR EQUAL WITH MACHINED BEARING SURFACE AND PERFORATED COVER. SET SET IN MORTAR BED WITH MORTAR FILL ALL AROUND.
4. BRICK OR PRECAST SPACERS- TWO (2) COURSE MAX. 1" MORTAR BED FOR LEVELING.
5. FILL WITH CONCRETE EXCEPT IN PAVEMENT.
6. PRECAST ECCENTRIC FLAT REINFORCED CONCRETE COVER WITH 24" DIA. M.O. TO BE DESIGNED AND CONSTRUCTED FOR H-20 HIGHWAY LOADING.
7. SUPER "O" RING JOINT AND GASKETS, ASTM C-443 (TYP.)
8. COAT WITH (2) TWO COATS OF KOPPERS SUPER SERVICE BLACK.
9. PRECAST REINFORCED CONCRETE MANHOLE CONFORMING TO ASTM C-478
10. 1/2 SECTION OF PIPE BUILT UP OR BRICK INVERT.
11. INVERT TO BE SMOOTH AND EVEN.
12. PREFORMED OPENING- FILL JOINT ALL AROUND PIPE WITH NON-SHRINK GROUT AND SEAL WITH TWO (2) COATS OF APPROVED HEAVY DUTY COAT TAR SEALER.
13. PIPE BEDDING MATERIAL TYPE AND QUANTITY DEPENDENT ON PIPE MATERIAL AND SOIL CONDITIONS.
14. 6" MINIMUM #1 AND #2 CRUSHED STONE (NYSDOT GRADATION TABLE 703-4) LEVELING BASE THOROUGHLY COMPACTED.
15. UNDISTURBED EARTH.
16. 3000# CONCRETE BENCH AND INVERT. BENCH SET AT TOP OF PIPE SLOPE.
17. SPRAY INSIDE WITH GUTTER SEALER.

STANDARD STORM AND CATCH BASIN MANHOLE
N.T.S.



DC-2.1 TO DC-2
SCALE: HORIZ: 1"=40'
VERT: 1"=4'



DC-2 TO DC
SCALE: HORIZ: 1"=40'
VERT: 1"=4'

LEGEND

- BOUNDARY LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPERTY MARKER FOUND
- CONCRETE HIGHWAY MONUMENT FOUND
- EX. WATERMAIN, HYDRANT AND VALVE
- EXISTING STORM SEWER, AND MANHOLE
- PROPOSED STORM SEWER, MANHOLE AND INLET
- EXISTING SANITARY SEWER AND MANHOLE

NOT APPROVED
This plan has not received final approval of all reviewing agencies. This plan is subject to revisions until all approvals are obtained and should not be used for construction purposes.

APPROVALS
BY: _____ DATE: _____
PLANNING BOARD CHAIRMAN

BY: _____ DATE: _____
VILLAGE ENGINEER

Drawing Alteration
The following is an excerpt from the New York State 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 direction of a licensed professional engineer or land surveyor to alter any item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration."

NO.	REVISIONS	DATE	BY
7			
6			
5			
4			
3			
2			
1			

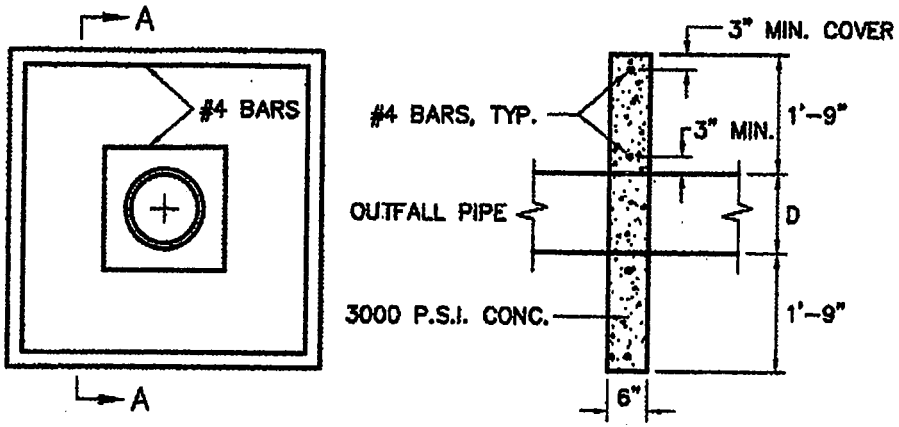
BME ASSOCIATES
ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS
10 LIFT BRIDGE LANE EAST
FAIRPORT, NEW YORK 14450
WWW.BMEPC.COM
PHONE 585-377-7360
FAX 585-377-7309

STATE OF NEW YORK * MILOS BOGOJEVSKI * 077080 * LICENSED PROFESSIONAL ENGINEER

PROJECT: WESTPORT CROSSING
LOCATION: VILLAGE OF PITTSFORD, MONROE COUNTY, NEW YORK STATE
CLIENT: PITTSFORD CANALSIDE PROPERTIES, LLC 301 EXCHANGE BOULEVARD ROCHESTER, NY 14608
DRAWING TITLE: FINAL STORM SEWER DC-2.1 TO DC PLAN

PHELPS & GORHAM PURCHASE, TOWNSHIP 12, RANGE 5, TOWN LOT 24, TAX MAP NUMBER 151.18-1-51.1

PROJECT MANAGER	
P. VARS	
PROJECT ENGINEER	
M. BOGOJEVSKI	
DRAWN BY	
R. GLITCH	
SCALE	DATE ISSUED
1" = 40'	FEBRUARY, 2015
PROJECT NO.	
2240	
DRAWING NO.	
53	



ELEVATION

SECTION A–A

TYPICAL ANTI-SEEPAGE COLLAR

N.T.S.