DECISION DOCUMENT

Former Brainerd Manufacturing Site
Voluntary Cleanup Program
East Rochester, Monroe County
Site No. V00519
February 2012

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Former Brainerd Manufacturing Site
Voluntary Cleanup Program
East Rochester, Monroe County
Site No. V00519
February 2012

Statement of Purpose and Basis

This document presents the remedy for the Former Brainerd Manufacturing Site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Former Brainerd Manufacturing Site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the remedy are as follows:

Remedy Description
The proposed remedy for the site is enhanced biodegradation of source area groundwater through injection of dissolved hydrogen gas. Extracted groundwater from the IRM pump and treat system would be infused with hydrogen gas and reinjected into the subsurface at a location upgradient of the source area to stimulate reductive dechlorination. Operation, maintenance, and monitoring of the on-site remedial systems and continued monitoring of select homes off-site would be required.

The remedy would include:

1) Development of a remedial action work plan. The operation of the components of the remedy would continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

2) A site cover will be required to allow for restricted commercial or restricted industrial site use. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of

sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3) Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

4) Imposition of an institutional control in the form of an environmental easement for the controlled property that:
   - Requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
   - Allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
   - Restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
   - Requires compliance with the Department approved Site Management Plan.

5) A Site Management Plan is required, which includes the following:

   a. Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

      Institutional Controls: Placement of an environmental easement as discussed in paragraph 4 above

      Engineering Controls: Maintain the soil cover discussed in Paragraph 2 and evaluate the potential for soil vapor intrusion during future development.

      This plan includes, but may not be limited to:
      - An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
      - Descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

- A provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access and controls and Department notification; and
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- Compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining site access controls and Department notification; and
- Providing the Department access to the site and O&M records.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

02/09/2012

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Former Brainerd Manufacturing Site
East Rochester, Monroe County
Site No. V00519
February 2012

SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

East Rochester Public Library
111 West Elm Street
East Rochester, NY 14445
Phone: (585)-586-8302

The proposed remedy may be modified based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is located at the intersection of North Washington and Monroe Streets in the Village of East Rochester and consists of two parcels (Figure 1). The larger parcel is approximately 3 acres and contains the former Brainerd Manufacturing building and the smaller parcel is approximately 0.3 acres and is currently a paved parking lot (Figure 2). The surrounding area is mixed use, with light industrial, railroad and residential properties. The area is served by public water.

Site Features: The larger parcel contains a 73,400 square feet industrial/manufacturing building with offices on the eastern portion and an open gravel lot comprises the western portion of the parcel. The smaller parcel is located on the south side of Monroe Street and it is currently an asphalt parking lot.

Current Zoning/Uses – The building is currently leased to a furniture refurbishing and refinishing company that does not use chlorinated solvent in its operations. The property is zoned for industrial use.

Historical Use: Industrial activity took place at this facility for nearly 100 years. The most recent occupant, Brainerd Industries, was a manufacturer of hardware and decorative metal products, and operated at the site from 1959 to 1998. The manufacturing operations included various degreasing, metal finishing and painting operations. The mostly likely source of on-site contamination would be from former degreasing operations.

Site Geology and Hydrogeology: The site lies over the Irondogenesee buried valley aquifer. On-site soils consist mainly of fine sand with traces of coarse sand and gravel. Groundwater flows to the northwest and it is approximately 25 feet below ground surface. Bedrock was encountered approximately 72 feet below ground surface.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to commercial or industrial use as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

A comparison of the results of the remedial investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The voluntary cleanup agreement is with a responsible party. The agreement requires the party to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

The Department and Despatch Industries, Inc. entered into a Voluntary Cleanup Agreement on May 31, 2002. The agreement obligates the responsible parties to implement a full remedial program. The PRPs are required to reimburse the State for all costs incurred in connection with this site.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.4.

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see:

http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

tetrachloroethene (pce)
trichloroethene (tce)

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor
- indoor air

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

IRM - Groundwater Pump and Treatment System

A groundwater pump and treat system was installed at the site in 2004. It consists of a single groundwater extraction well and an air stripper. Treated groundwater is discharged to the sanitary sewer, and vapors are discharged through a stack on the roof of the manufacturing building. The system has continuously operated and has mitigated additional off-site migration of contaminants in groundwater. Contaminant concentrations in groundwater have not decreased significantly.

IRM - Sub-slab Depressurization System

A sub-slab depressurization system was installed in December 2010 within the manufacturing building to address current indoor air contamination of volatile organic compounds associated with soil vapor intrusion. Performance data indicate that the SSDS effectively mitigating vapor intrusion.

6.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

People are not expected to come into direct contact with contaminants in the soil because the buildings and pavement cover most of the site. People may come into direct contact with contaminants if they dig below the surface. People are not drinking contaminated groundwater associated with the site because the area is served by a public water supply that obtains its water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. A sub-slab depressurization system (system that ventilates the air beneath the building) has been installed in the on-site building to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the building. Actions have been taken at three off-site structures to address potential concerns related to soil vapor intrusion.

6.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination

A groundwater pump-and-treat system was installed as an IRM in 2004 to prevent further offsite migration of contaminated groundwater. Contaminated groundwater is treated using and air stripper and discharged to the Publicly Owned Wastewater Treatment Plant (POTW). Further investigation was completed in January 2010 to identify the nature and extent of off-site groundwater contamination.

Groundwater:
The primary contaminants of concern are tetrachloroethene (PCE), trichloroethene (TCE) and their breakdown products. A well-defined plume is migrating from a suspected source area beneath the building in a northwesterly direction off-site. Concentrations of PCE range from non-detect to 3,100 ppb and concentrations of TCE range from non-detect to 2,700 ppb. Concentrations decrease by a factor of 10 between the site and Linden Avenue and decrease to non-detect north of Linden Avenue.

Soil:
A suspected source of groundwater contamination was identified in soils beneath the building. Levels of PCE and TCE in soils beneath the former maintenance room exceed the groundwater protection SCOs. Levels of PCE range from 6.6 to 40 ppm, and levels of TCE range from 2.3 to 5.4 ppm. The SCOs for protection of groundwater are 1.3 ppm for PCE and 0.47 ppm for TCE. Soil sample results were below the groundwater protection SCOs for TCE and PCE elsewhere on the site. All other site-related contaminants are below the cleanup SCOs.

Soil Vapor:
On-site: PCE and TCE were detected in soil vapor beneath the building and within the indoor air. Sub-slab levels of PCE range from 46 to 475 micrograms per cubic meter (mcg/m3), and levels of TCE range from 32 to 1,289 mcg/m3. Indoor air levels of PCE and TCE exceeded NYSDOH air guidelines within the building.

Off-site: In 2007, soil vapor intrusion investigations were conducted at five homes downgradient of the site. Two of the homes sampled require additional monitoring. In 2009, an additional soil vapor intrusion investigation study was completed in an additional fifteen homes. One home out of the fifteen tested 2009 requires additional monitoring. Overall, the extent of soil vapor intrusion has been defined and three properties warrant additional monitoring.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent

practicable.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the alternative analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation.

The elements of the selected remedy, as shown in Figure 5, are as follows:

Remedy Description
The proposed remedy for the site is enhanced biodegradation of source area groundwater through injection of dissolved hydrogen gas. Extracted groundwater from the IRM pump and treat system would be infused with hydrogen gas and reinjected into the subsurface at a location upgradient of the source area to stimulate reductive dechlorination. Operation, maintenance, and monitoring of the on-site remedial systems and continued monitoring of select homes off-site would be required.

The remedy would include:

1) Development of a remedial action work plan. The operation of the components of the remedy would continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.

2) A site cover will be required to allow for restricted commercial or restricted industrial site use. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of one foot, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

3) Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

4) Imposition of an institutional control in the form of an environmental easement for the controlled property that:
   - Requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
   - Allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
   - Restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
   - Requires compliance with the Department approved Site Management Plan.

5) A Site Management Plan is required, which includes the following:

   c. Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

      Institutional Controls: Placement of an environmental easement as discussed in paragraph 4 above

      Engineering Controls: Maintain the soil cover discussed in Paragraph 2 and evaluate the potential for soil vapor intrusion during future development.

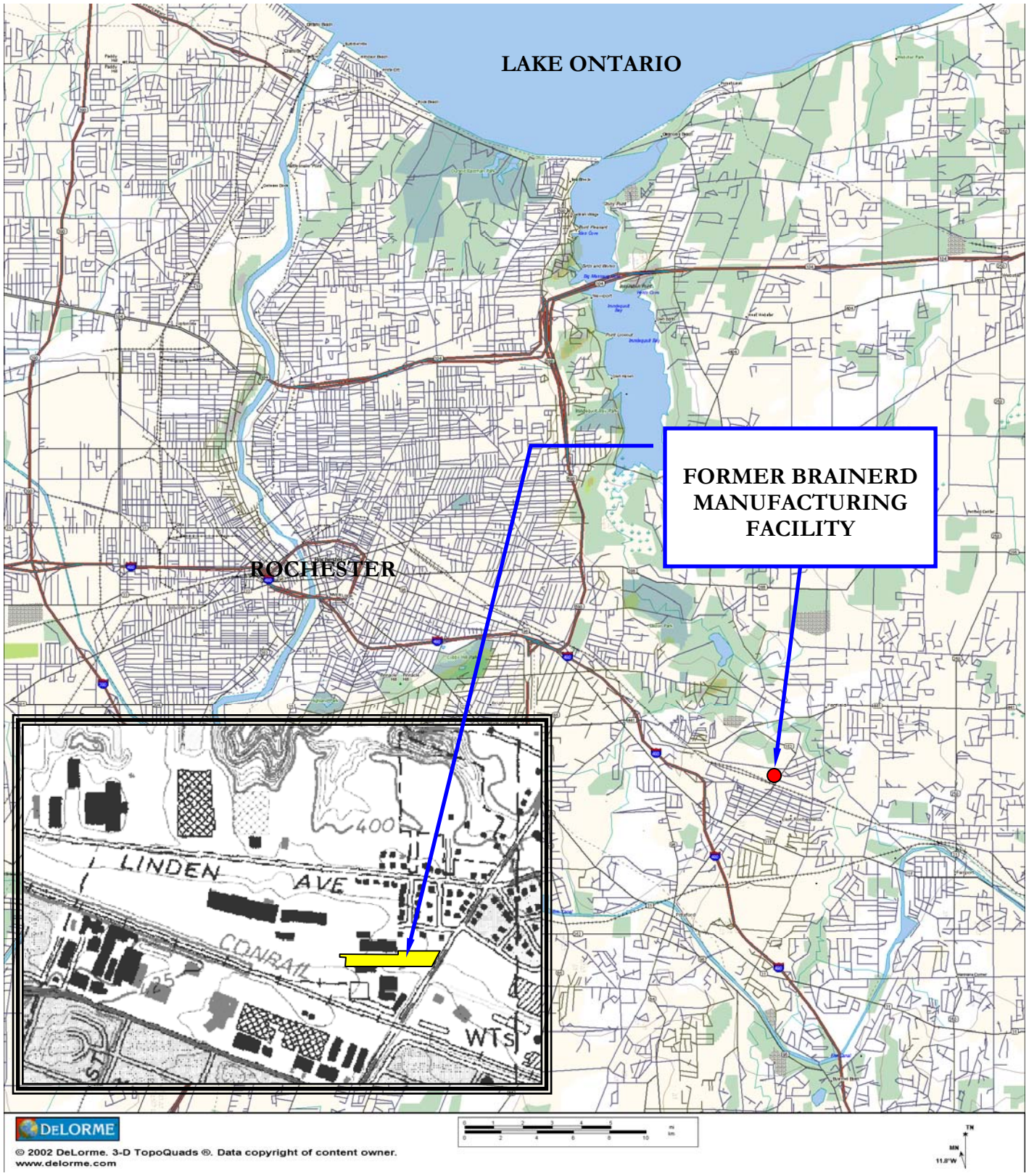
      This plan includes, but may not be limited to:
      - An Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
      - Descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;

- A provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access and controls and Department notification; and
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

d. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- Compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining site access controls and Department notification; and
- Providing the Department access to the site and O&M records.

FIGURE 1



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NEW YORK 14218
(716) 856-0599

PROJECT NO.: 0040-002-400

DATE: NOVEMBER 2009

DRAFTED BY: AJZ

SITE LOCATION AND VICINITY MAP

RI/AAR/IRM REPORT

FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

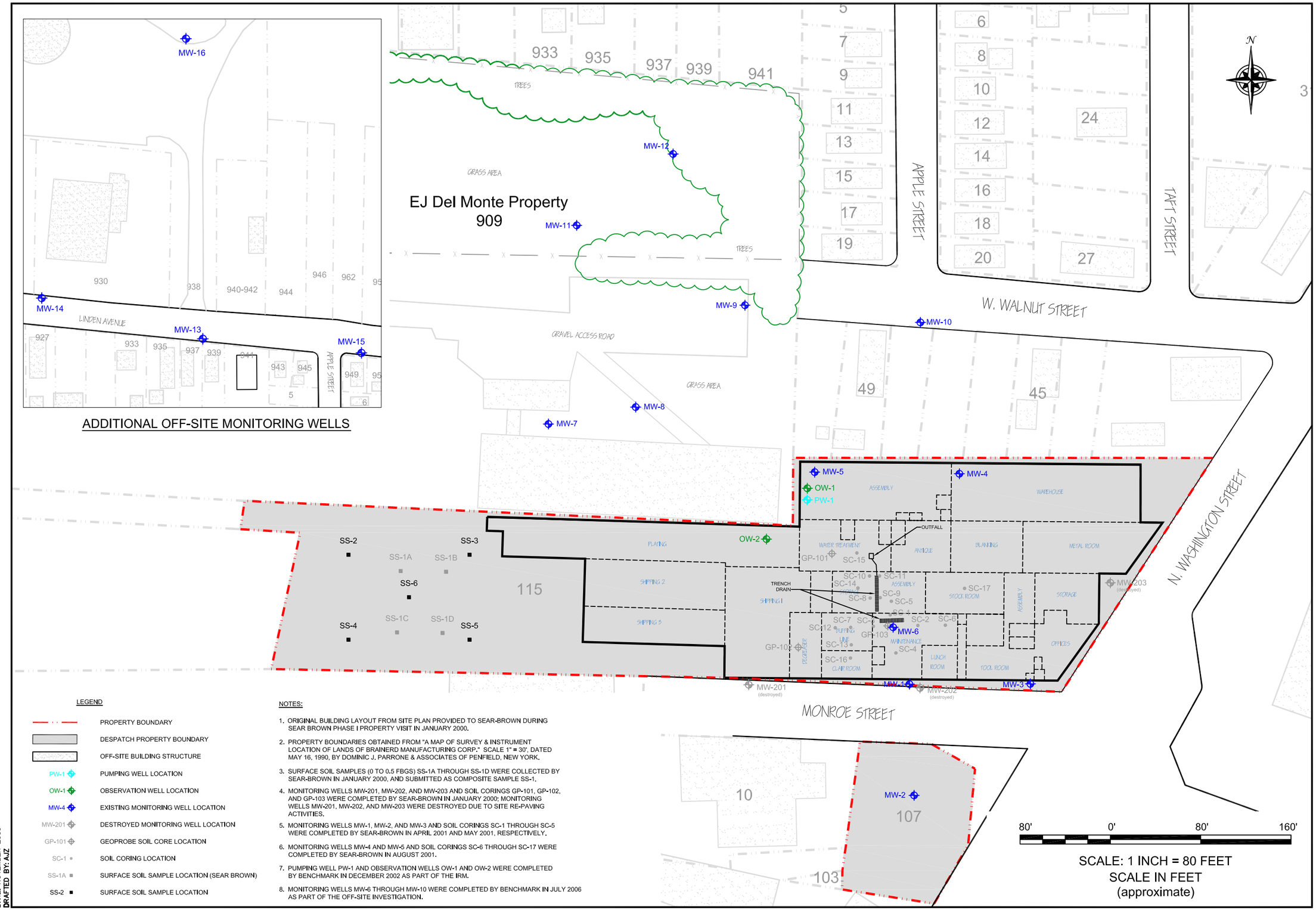
PREPARED FOR

DESPATCH INDUSTRIES, INC.

FILEPATH=I:\CAD\Benchmark\Despatch\RI-AAR-IRM (NOVEMBER 2009\figure 1; site location and vicinity map.dwg

F:\CAD\Benchmark\Despatch\RI-AAR-IRM (NOVEMBER 2009)\Figure 2; Site Plan.dwg

ADDITIONAL OFF-SITE MONITORING WELLS



SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

LEGEND

- PROPERTY BOUNDARY
- DESPATCH PROPERTY BOUNDARY
- OFF-SITE BUILDING STRUCTURE
- PW-1 PUMPING WELL LOCATION
- OW-1 OBSERVATION WELL LOCATION
- MW-4 EXISTING MONITORING WELL LOCATION
- MW-201 DESTROYED MONITORING WELL LOCATION
- GP-101 GEOPROBE SOIL CORE LOCATION
- SC-1 SOIL CORING LOCATION
- SS-1A SURFACE SOIL SAMPLE LOCATION (SEAR BROWN)
- SS-2 SURFACE SOIL SAMPLE LOCATION

NOTES:

1. ORIGINAL BUILDING LAYOUT FROM SITE PLAN PROVIDED TO SEAR-BROWN DURING SEAR BROWN PHASE I PROPERTY VISIT IN JANUARY 2000.
2. PROPERTY BOUNDARIES OBTAINED FROM "A MAP OF SURVEY & INSTRUMENT LOCATION OF LANDS OF BRAINERD MANUFACTURING CORP." SCALE 1" = 30', DATED MAY 16, 1990, BY DOMINIC J. PARRONE & ASSOCIATES OF PENFIELD, NEW YORK.
3. SURFACE SOIL SAMPLES (0 TO 0.5 FBGS) SS-1A THROUGH SS-1D WERE COLLECTED BY SEAR-BROWN IN JANUARY 2000, AND SUBMITTED AS COMPOSITE SAMPLE SS-1.
4. MONITORING WELLS MW-201, MW-202, AND MW-203 AND SOIL CORINGS GP-101, GP-102, AND GP-103 WERE COMPLETED BY SEAR-BROWN IN JANUARY 2000; MONITORING WELLS MW-201, MW-202, AND MW-203 WERE DESTROYED DUE TO SITE RE-PAVING ACTIVITIES.
5. MONITORING WELLS MW-1, MW-2, AND MW-3 AND SOIL CORINGS SC-1 THROUGH SC-5 WERE COMPLETED BY SEAR-BROWN IN APRIL 2001 AND MAY 2001, RESPECTIVELY.
6. MONITORING WELLS MW-4 AND MW-5 AND SOIL CORINGS SC-6 THROUGH SC-17 WERE COMPLETED BY SEAR-BROWN IN AUGUST 2001.
7. PUMPING WELL PW-1 AND OBSERVATION WELLS OW-1 AND OW-2 WERE COMPLETED BY BENCHMARK IN DECEMBER 2002 AS PART OF THE IRM.
8. MONITORING WELLS MW-6 THROUGH MW-10 WERE COMPLETED BY BENCHMARK IN JULY 2006 AS PART OF THE OFF-SITE INVESTIGATION.

DATE: NOVEMBER 2009
DRAFTED BY: AJZ

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NEW YORK 14218
(716) 856-0599

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

JOB NO.: 0040-002-400

SITE PLAN

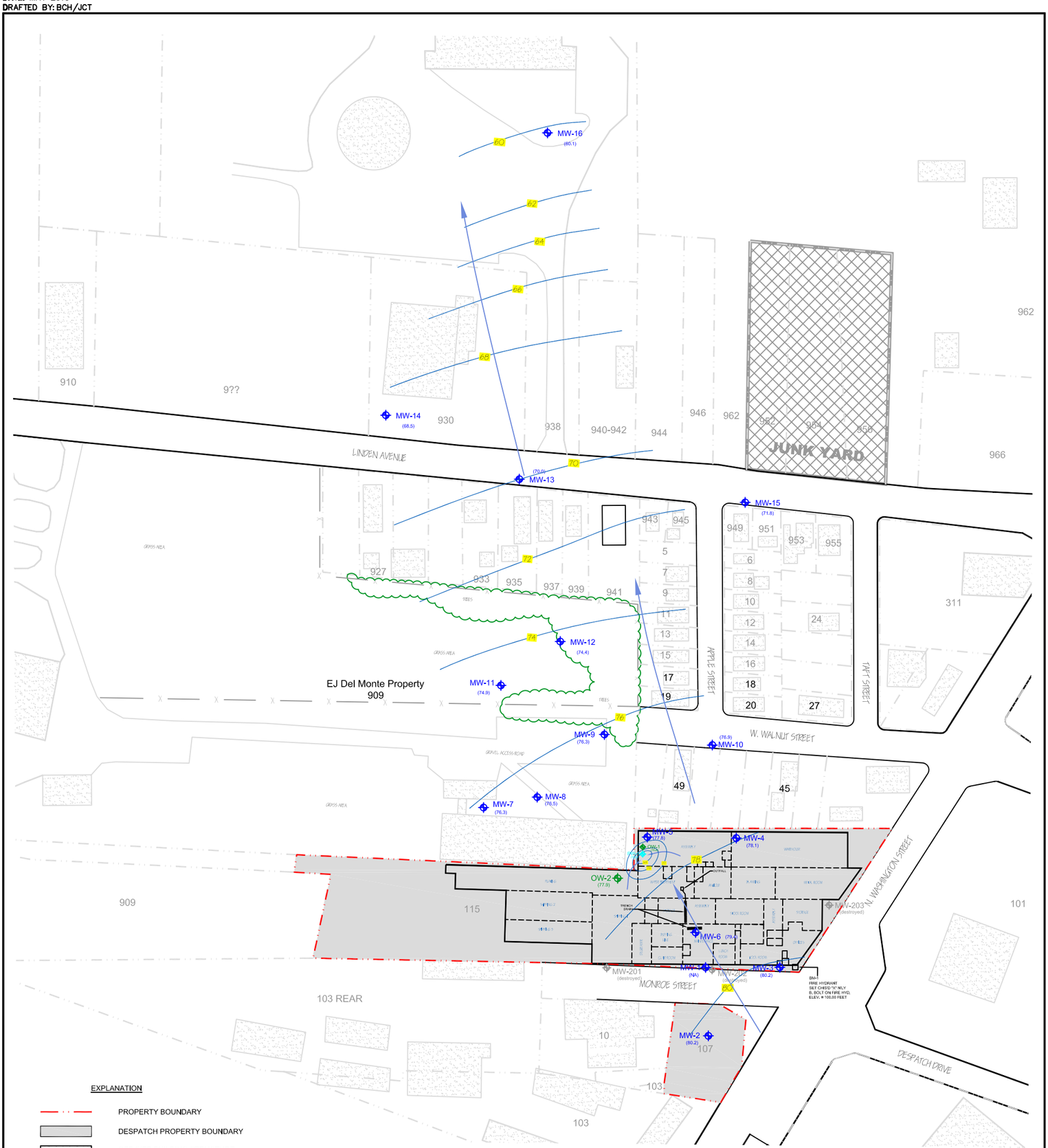
RI/AAR/IRM REPORT
FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

PREPARED FOR
DESPATCH INDUSTRIES, INC.

FIGURE 2

F:\CAD\Benchmark\Despatch\RI-AAR-IRM (NOVEMBER 2009)\Figure 4; Groundwater Isopotential Map - October 2009.dwg

DATE: MAY 2010
DRAFTED BY: BCH/JCT



NOTES:

1. ORIGINAL BUILDING LAYOUT FROM SITE PLAN PROVIDED TO SEAR-BROWN DURING SEAR BROWN PHASE I PROPERTY VISIT IN JANUARY 2000.
2. PROPERTY BOUNDARIES OBTAINED FROM "A MAP OF SURVEY & INSTRUMENT LOCATION OF LANDS OF BRAINERD MANUFACTURING CORP." SCALE 1" = 30', DATED MAY 16, 1990, BY DOMINIC J. PARRONE & ASSOCIATES OF PENFIELD, NEW YORK.
3. SURFACE SOIL SAMPLES (0 TO 0.5 FBGS) SS-1A THROUGH SS-1D WERE COLLECTED BY SEAR-BROWN IN JANUARY 2000, AND SUBMITTED AS COMPOSITE SAMPLE SS-1.
4. MONITORING WELLS MW-201, MW-202, AND MW-203 AND SOIL CORINGS GP-101, GP-102, AND GP-103 WERE COMPLETED BY SEAR-BROWN IN JANUARY 2000; MONITORING WELLS MW-201, MW-202, AND MW-203 WERE DESTROYED DUE TO SITE RE-PAVING ACTIVITIES.
5. MONITORING WELLS MW-1, MW-2, AND MW-3 AND SOIL CORINGS SC-1 THROUGH SC-5 WERE COMPLETED BY SEAR-BROWN IN APRIL 2001 AND MAY 2001, RESPECTIVELY.
6. MONITORING WELLS MW-4 AND MW-5 AND SOIL CORINGS SC-6 THROUGH SC-17 WERE COMPLETED BY SEAR-BROWN IN AUGUST 2001.
7. PUMPING WELL PW-1 AND OBSERVATION WELLS OW-1 AND OW-2 WERE COMPLETED BY BENCHMARK IN DECEMBER 2002 AS PART OF THE IRM.
8. MONITORING WELLS MW-6 THROUGH MW-10 WERE COMPLETED BY BENCHMARK IN JULY 2006 AS PART OF THE OFF-SITE INVESTIGATION.
9. MONITORING WELLS MW-11 AND MW-12 WERE COMPLETED BY BENCHMARK IN FEBRUARY 2008 AS PART OF THE OFF-SITE INVESTIGATION.
10. MONITORING WELL MW-13 WAS COMPLETED BY BENCHMARK IN AUGUST 2008 AS PART OF THE OFF-SITE INVESTIGATION.
11. MONITORING WELLS MW-14, MW-15 AND MW-16 WERE COMPLETED BY BENCHMARK IN AUGUST/SEPTEMBER 2009 AS PART OF THE OFF-SITE INVESTIGATION.

FIGURE 4

GROUNDWATER ISOPOTENTIAL MAP
OCTOBER 14, 2009

RI/AAR/IRM REPORT

FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

PREPARED FOR
DESPATCH INDUSTRIES, INC.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NEW YORK 14218
(716) 856-0599

JOB NO.: 0040-002-400

F:\CAD\Benchmark\Despatch\RA Work Plan\Figure 5. gPRO Injection Plan.dwg, 3/14/2011 3:13:21 PM, Adobe PDF

WATER SUPPLY LINE

PW-1

ASSEMBLY

WAREHOUSE

OUTFALL

PLATING

WATER TREATMENT

ANTIQUE

BLANKING

METAL ROOM

PW-2

SHIPPING 2

TRENCH DRAIN

STORAGE

ASSEMBLY

SHIPPING 1

STOCK ROOM

ASSEMBLY

STORAGE

SHIPPING 3

TREATMENT SHED AND GAS SUPPLY

BUFFING LINE

DEGREASER

MAINTENANCE

OFFICES

ROOF

LUNCH ROOM

CLAIR ROOM

TOOL ROOM

N. WASHINGTON STREET

RW-1

RW-2

RW-3

MONROE STREET

WATER SUPPLY LINE

EXPLANATION

PROPERTY BOUNDARY

DESPATCH PROPERTY BOUNDARY

OFF-SITE BUILDING STRUCTURE

PW-1 PUMPING WELL LOCATION

RW-1 REINJECTION WELL LOCATION

10

107

40' 0' 40' 80'

SCALE: 1 INCH = 40 FEET
SCALE IN FEET
(approximate)

DATE: MARCH 2008
DRAFTED BY: BCH

2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NEW YORK 14218
(716) 856-0599

BENCHMARK Environmental Engineering & Science, PLLC

JOB NO.: 0040-002-400

gPRO INJECTION PLAN

REMEDIAL ACTION WORK PLAN
FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

PREPARED FOR
DEPATCH INDUSTRIES, INC.

FIGURE 5

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SUMMARY OF SURFICIAL SOIL ANALYTICAL RESULTS

Remedial Investigation / Alternatives Analysis / Interim Remedial Measures Report
Former Brainerd Manufacturing Facility
East Rochester, New York

PARAMETER[1]	Location						SCO [2]	
	SS-2	SS-3	SS-4	SS-5	Blind Dup.[3]	SS-6	Commercial (ppm)	Industrial (ppm)
TCL VOCs (mg/Kg)								
Trichloroethene	ND	ND	0.001 J	ND	0.003 J	ND	**200**	**400**
TCL SVOCs (mg/Kg)								
Acenaphthene	ND	ND	0.12 J	ND	ND	ND	**500**	**1,000**
Anthracene	ND	ND	0.2 J	ND	ND	ND	**500**	**1,000**
Benzo (a) anthracene	ND	0.19 J	0.88 J	ND	ND	0.67 J	**5.6**	**11**
Benzo (a) pyrene	ND	0.22 J	0.91 J	ND	ND	0.82 J	**1**	**1.1**
Benzo (b) fluoranthene	0.5 J	0.27 J	1.2 J	0.86 J	ND	1.1 J	**5.6**	**11**
Benzo (g,h,i) perylene	ND	0.27 J	0.6 J	ND	ND	0.62 J	**500**	**1,000**
Benzo (k) fluoranthene	ND	ND	0.34 J	ND	ND	0.29 J	**56**	**110**
Carbazole	ND	ND	0.15 J	ND	ND	ND	**--**	**--**
Chrysene	ND	0.18 J	0.86 J	ND	ND	0.71 J	**56**	**110**
Dibenzo(a,h)anthracene	ND	ND	0.17 J	ND	ND	0.17 J	**0.56**	**1.1**
Fluoranthene	0.46 J	0.26 J	2.0	1.1 J	4.7 J	1.2 J	**500**	**1,000**
Indeno (1,2,3 - cd) pyrene	ND	0.18 J	0.52 J	ND	ND	0.56 J	**5.6**	**11**
Phenanthrene	ND	ND	1.2 J	ND	ND	0.29 J	**500**	**1,000**
Pyrene	0.4 J	0.24 J	1.6 J	0.86 J	ND	1.1 J	**500**	**1,000**
TAL Metals (mg/Kg)								
Aluminum	4460	1820	4740	1950	2150	2040	**--**	**--**
Arsenic	4.1	ND	4.3	3.4	2.9	3.7	**16**	**16**
Barium	**863 NJ**	51.4 NJ	399 NJ	72.6 NJ	128 NJ	323 NJ	**400**	**10,000**
Beryllium	0.24	ND	0.24	ND	ND	ND	**590**	**2,700**
Cadmium	3.1	0.28	1.5	0.41	0.5	0.69	**9.3**	**60**
Calcium	32500 *	95500 *	58500 *	96900 *	109000 *	80500 *	**--**	**--**
Chromium	36.4	5.7	15.5	5.6	6.2	12.7	**1,500**	**6,800**
Cobalt	3.6	1.5	4	1.7	1.8	2	**--**	**--**
Copper	34.6	33.9	74	24.6	37.5	48.2	**270**	**10,000**
Iron	9760 NEJ	5750 NEJ	10500 NEJ	8260 NEJ	6990 NEJ	7420 NEJ	**--**	**--**
Lead	**2440 NJ**	141 NJ	920 NJ	135 NJ	208 NJ	701 NJ	**1,000**	**3,900**
Magnesium	16400 *	49500 *	12500 *	51500 *	58000 *	45000 *	**--**	**--**
Manganese	244	235	285	299	322	251	**10,000**	**10,000**
Nickel	14.8	6.3	34	5.5	5.5	11.5	**310**	**10,000**
Potassium	750	563	674	613	725	530	**--**	**--**
Vanadium	9 E	5.2 E	9.2 E	5.4 E	6.3 E	4.9 E	**--**	**--**
Zinc	829 NEJ	98.2 NEJ	346 NEJ	120 NEJ	141 NEJ	274 NEJ	**10,000**	**10,000**
PCB Aroclor (mg/Kg)								
Aroclor 1260	0.04	0.011 J	R	0.021	0.011 J	0.022	**1**	**25**

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC Part 375 Restricted Use Soil Cleanup Objectives; effective December 14, 2006.
3. Blind Duplicate collected at monitoring well SS-5.

Definitions:

ND = Parameter not detected above laboratory detection limit.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
* = Indicates analysis is not within quality control limits.
N = Spike sample recovery is not within quality control limits.
E = Indicates value estimated or not reported due to the presence of interferences.
R = Sample results rejected; therefore, the presence or absence of the analyte cannot be verified.
SCO = soil cleanup objective

BOLD = Analytical result exceeds the Part 375 Restricted-Commercial SCO.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 3

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - AUG. 2006 & SEP. 2007

Remedial Investigation / Alternatives Analysis / Interim Remedial Measures Report
Former Brainerd Manufacturing Facility
East Rochester, New York

Parameter [1]	Monitoring Well Location & Date of Sample Collection														GWQS/GV [4]
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6 [5]	MW-7	MW-8	MW-9 [3]	MW-9	MW-10	PW-1 [2]	OW-1	OW-2	
	08/18/06	08/18/06	08/21/06	08/22/06	08/22/06	08/22/06	08/21/06	08/21/06	08/21/06	09/12/07	08/21/06	08/22/06	08/22/06	08/21/06	
TCL VOCs (ug/L)															
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Toluene	ND	ND	ND	ND	ND	3.2 J	ND	ND	ND	ND	ND	1.8 J	ND	ND	**5**
Chloroform	ND	0.91 J	ND	0.86 J	1.4 J	ND	ND	ND	2 J	0.9 J	ND	0.55 J	0.58 J	ND	**7**
Tetrachloroethene	3.1 J	**8.2**	ND	**87**	**1600**	**3100**	ND	**13**	**3100**	**2600 D**	**17**	**780**	**570**	ND	**5**
Trichloroethene	0.78 J	**6.3**	**11**	**240**	**1400**	**1500**	**6.0**	**20**	**2700**	**1900 D**	**15**	**540**	**470**	**320**	**5**
1,1 Dichloroethene	ND	ND	ND	ND	0.56 J	ND	ND	ND	3.5 J	1.3	ND	ND	1 J	ND	**5**
cis-1,2-Dichlorethene	ND	ND	ND	ND	0.8 J	ND	ND	ND	3.2 J	1.3	ND	1.3 J	0.65 J	4 J	**5**
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3 J	**5**
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
1,1,1-Trichloroethane	ND	ND	0.74 J	2.6 J	**11**	**16 J**	ND	ND	**34**	**12**	0.6 J	3.6 J	**5.4**	ND	**5**
1,1,2-Trichloroethane	ND	ND	ND	ND	**1.5 J**	ND	ND	ND	**3.8 J**	**1.9**	ND	0.51 J	ND	ND	**1**
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	0.62 J	ND	ND	ND	ND	ND	**5**
TOTAL VOCs	**3.88**	**15.4**	**11.7**	**330**	**3015**	**4619**	**6**	**33**	**5847**	**4517**	**32.6**	**1328**	**1048**	**325**	**--**
Total and Soluble Metals [4] (ug/L)															
Aluminum, Total	NA	**511**	NA	NA	NA	ND	NA	NA	**917**	NA	NA	ND	NA	NA	**100**
Barium, Total	NA	40.2	NA	NA	NA	ND	NA	NA	66.5	NA	NA	57.2	NA	NA	**1,000**
Calcium, Total	NA	85700	NA	NA	NA	ND	NA	NA	144000	NA	NA	119000	NA	NA	**--**
Chromium, Total	NA	5.6	NA	NA	NA	ND	NA	NA	**212**	NA	NA	12.4	NA	NA	**50**
Iron, Total	NA	**604**	NA	NA	NA	**4870**	NA	NA	**1320**	NA	NA	ND	NA	NA	**300**
Iron, Soluble	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	**300**
Magnesium, Total	NA	20400	NA	NA	NA	ND	NA	NA	**35400**	NA	NA	**40600**	NA	NA	**35,000***
Manganese, Total	NA	16.4	NA	NA	NA	**558**	NA	NA	**322**	NA	NA	95.6	NA	NA	**300**
Manganese, Soluble	NA	ND	NA	NA	NA	**337**	NA	NA	ND	NA	NA	ND	NA	NA	**300**
Nickel, Total	NA	ND	NA	NA	NA	ND	NA	NA	11.4	NA	NA	ND	NA	NA	**100**
Potassium, Total	NA	5270 J	NA	NA	NA	ND	NA	NA	6020 J	NA	NA	22600 NJ	NA	NA	**--**
Selenium, Total	NA	ND	NA	NA	NA	ND	NA	NA	**22.9**	NA	NA	ND	NA	NA	**10**
Sodium, Total	NA	**283000**	NA	NA	NA	ND	NA	NA	**452000**	NA	NA	**237000**	NA	NA	**20,000**
Zinc, Total	NA	ND	NA	NA	NA	ND	NA	NA	12.3	NA	NA	ND	NA	NA	**2,000***

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 4

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - MAR. 2008 - SEP. 2009

Remedial Investigation / Alternatives Analysis / Interim Remedial Measures Report
Former Brainerd Manufacturing Site
East Rochester, New York

Parameter [1]	Monitoring Well Location & Date of Sample Collection											GWQS/GV [2]
	MW-11	MW-12	MW-13	MW-14		Blind Dup MW-14	MW-15		Blind Dup MW-15	MW-16		
	03/10/08	03/10/08	08/07/08	08/11/09	01/19/10	01/19/10	08/11/09	01/19/10	08/11/09	09/12/09	01/19/10	
TCL VOCs (ug/L)												
Acetone	3.1 J	4.8 J	4.6 J	ND	ND	ND	ND	ND	ND	**12**	ND	**5**
Bromodichloromethane	0.99 J	0.82 J	**6.0**	2.8	ND	ND	2.8	ND	2.8	2.3	ND	**5**
Bromoform	ND	ND	3.2 J	ND	ND	ND	ND	ND	ND	ND	ND	**--**
2-Butanone	ND	ND	ND	ND	ND	ND	7.4	ND	3.1 J	3.6 J	ND	**50**
Carbon Disulfide	1.1	0.94 J	0.42 J	0.89 J	ND	ND	ND	ND	ND	0.74 J	ND	**5**
Chloroform	1.7	1.6	**15**	5.5	ND	ND	5.9	ND	6.0	4.8	ND	**7**
Dibromochloromethane	ND	ND	2.6	ND	ND	ND	ND	ND	ND	2.9	ND	**50**
1,1-Dichloroethene	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	ND	ND	**5**
cis-1,2-Dichloroethene	ND	0.66 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8 J	ND	**50**
Tetrachloroethene	ND	**300 D**	**350 D**	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Trichloroethene	ND	**270 D**	**300 D**	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Trichlorofluoromethane	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
1,1,1-Trichloroethane	ND	2.0	1.8	ND	ND	ND	ND	ND	ND	ND	ND	**5**
1,1,2-Trichloroethane	ND	ND	0.42 J	ND	ND	ND	ND	ND	ND	ND	ND	**1**
TOTAL VOCs	**17.9**	**581**	**684**	**9.2**	**0.0**	**0.00**	**16.10**	**0.00**	**11.90**	**30.1**	**0.0**	**--**
Field Measurements (units as indicated)												
pH (units)	6.90	6.83	7.21	7.26	7.03	**7.03**	**6.36**	6.94	**6.36**	6.68	6.68	**6.5 - 8.5**
Temperature (°C)	12.4	11.2	15.7	18.3	10.3	10.3	16.2	9.4	16.2	15.1	11.0	**--**
Specific Conductance (uS)	717	737	851.3	704.3	880	880.0	801.1	1532	801.1	10610	11500	**--**
Turbidity	330	371	>1000	>1000	634	634	594	31.8	594	508	540	**--**
DO (ppm)	6.09	3.09	--	3.56	7.03	7.03	4.15	5.48	4.15	6.89	2.26	**--**
ORP (mV)	137	60	10	111	93	93	95	100	95	140	86	**--**

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV), 6 NYCRR Part 703.

Definitions:

J = Estimated value; result is less than the sample quantitation limit but greater than zero.
D = Compound identified in an analysis at the secondary dilution factor.
ND = parameter not detected above laboratory detection limit.

BOLD = Result exceeds Class GA GWQS/GV.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 10

SUMMARY OF DECEMBER 2003 ON-SITE SUB-SLAB SOIL VAPOR SAMPLING RESULTS

Remedial Investigation / Alternatives Analysis / Interim Remedial Measures Report
Former Brainerd Manufacturing Facility
East Rochester, New York

Sample I.D. and Location		Parameter and CAS No.											
		TCE				PCE				1,1,1-TCA			
		79-01-6				127-18-4				71-55-6			
		Molecular Weight	Lab Reported Concentration (ppbv)	Converted Concentration (ug/m^3)	Soil Vapor / Indoor Air Matrix 1	Molecular Weight	Lab Reported Concentration (ppbv)	Converted Concentration (ug/m^3)	Soil Vapor / Indoor Air Matrix 2	Molecular Weight	Lab Reported Concentration (ppbv)	Converted Concentration (ug/m^3)	Soil Vapor / Indoor Air Matrix 2
V-1	office floor	131.4	140 D	752.39	Mitigate	165.8	70 D	474.68	Mitigate	133.4	5	27.28	NFA
V-1	office ambient	131.4	9.2	49.44		165.8	11	74.59		133.4	0.5	2.73	
V-2	warehouse floor	131.4	3.3	17.73	Mitigate	165.8	6.8	46.11	I, R, M	133.4	8.9	48.56	NFA
V-2	warehouse ambient	131.4	6	32.25		165.8	7.1	48.15		133.4	0.5	2.73	
V-3	assembly floor	131.4	55 D	295.58	Mitigate	165.8	22	149.19	Mitigate	133.4	4.8	26.19	NFA
V-3	assembly ambient	131.4	9.4	50.52		165.8	11	74.59		133.4	0.5	2.73	
V-4	shipping floor	131.4	18	96.74	Mitigate	165.8	21	142.40	Mitigate	133.4	0.67	3.66	I, R
V-4	shipping ambient	131.4	18	96.74		165.8	24	162.75		133.4	0.65	3.55	
V-5	blanking room floor	131.4	240 D	1289.82	Mitigate	165.8	16	108.50	Mitigate	133.4	300 D	1636.81	Mitigate
V-5	blanking room ambient	131.4	11	59.12		165.8	13	88.16		133.4	0.5	2.73	

Notes:

1. Only those parameters detected above the method detection limit, at a minimum of one location, are presented in this table.
2. " D " = Concentrations identified from analysis of the sample at a secondary dilution.
3. " I " = take reasonable and practical actions to identify source(s)
4. " R " = take reasonable and practical actions to reduce exposure(s)
5. " M " = monitor soil vapor / indoor air
6. " NFA " = no further action

= " ND "; compound was analyzed, but detected below method detection limit; not detected. The method detection limit is presented numerically in this table.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 11

SUMMARY OF INFLUENT & EFFLUENT ANALYTICAL RESULTS
FOR PUMP & TREAT SYSTEM

FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

Sampling Event	Influent [2]	Effluent	Volume Data (Gal)		Volatile Organic Compounds (mg/L) [1]						
			Total Volume	Period Total	Methylene Chloride	Tetrachloroethene	Toluene	Trichloroethene	cis-1,2-Dichloroethene	1,1,1-Trichloroethene	Total VOCs
Permitted Discharge Limit (mg/L) [3]											2.13
8/30/2004		x	--	--	0.16	0.011	0.025	0.017	ND	ND	0.213
8/31/2004		x	--	--	0.27	ND	0.015	0.0059	ND	ND	0.2909
9/1/2004		x	--	--	0.069	ND	0.021	0.0079	ND	ND	0.0979
9/7/2004		x	--	--	0.058	0.0055	0.0066	0.0075	ND	ND	0.0776
9/14/2004		x	--	--	0.029	0.0072	0.023	0.0098	ND	ND	0.069
9/21/2004		x	172,913	172,913	0.1	ND	0.034	ND	ND	ND	0.134
10/13/2004		x	291,761	118,848	0.041	ND	0.0084	ND	ND	ND	0.0494
11/9/2004	x		--	--	ND	0.23	ND	ND	ND	ND	0.23
11/9/2004		x	461,569	169,808	0.017	ND	0.0081	ND	ND	ND	0.0251
12/2/2004		x	618,439	156,870	ND	ND	ND	0.0059	ND	ND	0.0059
1/13/2005		x	914,277	295,838	ND	ND	ND	0.0088	ND	ND	0.0088
2/18/2005		x	1,156,450	242,173	ND	ND	ND	0.0077	ND	ND	0.0077
3/9/2005	x		--	--	ND	0.34	ND	0.37	ND	ND	0.71
3/9/2005		x	1,273,749	117,299	ND	ND	ND	0.0057	ND	ND	0.0057
4/19/2005		x	1,541,553	267,804	ND	0.0054	ND	0.0079	ND	ND	0.0133
5/25/2005		x	1,782,297	240,744	ND	ND	ND	ND	ND	ND	ND
6/8/2005		x	1,870,997	88,700	0.006	ND	ND	0.0057	ND	ND	0.0117
7/7/2005		x	2,060,886	189,889	0.017	ND	0.037	0.0071	ND	ND	0.0611
8/3/2005	x		--	--	ND	0.22 E	0.0012	0.27	0.0014	0.001	0.4912
8/3/2005		x	2,232,653	171,767	ND	ND	0.007	0.0068	ND	ND	0.0138
9/9/2005		x	2,458,235	225,582	ND	ND	0.0085	0.0057	ND	ND	0.0142
10/3/2005		x	2,600,759	142,524	0.014	ND	0.032	0.006	ND	ND	0.052
11/3/2005		x	2,783,076	182,317	0.005	ND	ND	0.0086	ND	ND	0.0136
12/1/2005		x	2,944,509	161,433	0.0057	ND	ND	0.0061	ND	ND	0.0118
1/3/2006		x	3,119,072	174,563	ND	0.0055	ND	0.01	ND	ND	0.0155
2/1/2006		x	3,277,311	158,239	ND	ND	ND	0.007	ND	ND	0.007
3/1/2006	x		--	--	ND	0.34 D	ND	0.31 D	ND	ND	0.65
3/1/2006		x	3,427,689	150,378	0.0064	0.0068	ND	0.011	ND	ND	0.0242
4/4/2006		x	3,608,897	181,208	ND	ND	ND	0.0054	ND	ND	0.0054
5/2/2006		x	3,755,931	147,034	ND	0.0076	0.0058	0.01	ND	ND	0.0234
6/19/2006		x	4,003,627	247,696	0.014	0.006	0.015	0.0095	ND	ND	0.0445

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 11

SUMMARY OF INFLUENT & EFFLUENT ANALYTICAL RESULTS
FOR PUMP & TREAT SYSTEM

FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

Sampling Event	Influent [2]	Effluent	Volume Data (Gal)		Volatile Organic Compounds (mg/L) [1]						
			Total Volume	Period Total	Methylene Chloride	Tetrachloroethene	Toluene	Trichloroethene	cis-1,2-Dichloroethene	1,1,1-Trichloroethene	Total VOCs
Permitted Discharge Limit (mg/L) [3]											2.13
7/12/2006		x	4,120,141	116,514	0.046	0.0074	0.012	0.0099	ND	ND	0.0753
8/11/2006		x	4,277,310	157,169	0.006	0.005	0.023	0.0081	ND	ND	0.0421
10/24/2006 [4]		x	4,278,205	895	0.015	ND	ND	ND	ND	ND	0.015
11/15/2006		x	4,492,423	214,218	ND	0.0095	ND	0.016	ND	ND	0.0255
12/13/2006		x	4,595,333	102,910	ND	0.0057	ND	0.009	ND	ND	0.0147
1/5/2007		x	4,677,995	82,662	0.0052	0.0087	0.018	0.013	ND	ND	0.0449
2/2/2007	x		--	--	ND	0.16	ND	0.24	ND	ND	0.4
2/2/2007		x	4,739,436	61,441	ND	0.0067	ND	0.0098	ND	ND	0.0165
3/7/2007 [5]		x	4,739,436	0	ND	ND	ND	0.0066	ND	ND	0.0066
4/17/2007		x	4,833,445	94,009	0.0098	ND	0.018	ND	ND	ND	0.0278
5/10/2007		x	4,930,077	96,632	0.012	ND	0.0057	ND	ND	ND	0.0177
6/7/2007		x	5,046,062	115,985	0.006	ND	0.019	ND	ND	ND	0.025
7/9/2007		x	5,129,641	83,579	ND	ND	ND	ND	ND	ND	ND
8/2/2007		x	5,224,224	94,583	0.043	ND	0.0082	0.005	ND	ND	0.0562
9/12/2007		x	5,372,992	148,768	0.057	ND	0.0096	ND	ND	ND	0.0666
10/12/2007		x	5,476,205	103,213	0.01	ND	0.02	ND	ND	ND	0.03
11/1/2007		x	5,542,767	66,562	ND	ND	0.007	ND	ND	ND	0.007
12/4/2007	x		--	--	ND	0.27 D	ND	0.25	ND	ND	0.52
12/4/2007		x	5,649,067	106,300	ND	ND	ND	ND	ND	ND	ND
1/18/2008		x	5,797,398	148,331	ND	ND	ND	ND	ND	ND	ND
2/11/2008		x	5,835,867	38,469	ND	ND	ND	ND	ND	ND	ND
3/6/2008	x		--	--	ND	0.14	0.007	0.22	ND	ND	0.367
3/6/2008		x	5,918,140	82,273	ND	ND	0.007	ND	ND	ND	0.007
4/4/2008		x	6,017,380	99,240	ND	ND	ND	ND	ND	ND	ND
5/7/2008		x	6,131,654	114,274	0.006	ND	ND	ND	ND	ND	0.006
6/12/2008		x	6,224,249	92,595	ND	ND	0.02	ND	ND	ND	0.02
7/10/2008		x	6,225,939	1,690	0.13 D	0.0059	0.018	ND	ND	ND	0.1539
8/7/2008		x	6,234,354	8,415	0.0056	ND	0.022	ND	ND	ND	0.0276
9/15/2008	x		--	--	ND	0.088	ND	0.16	ND	ND	0.248
9/15/2008		x	6,240,620	6,266	ND	ND	ND	ND	ND	ND	ND
10/7/2008		x	6,294,275	53,655	ND	ND	0.007	ND	ND	ND	0.007

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 11

SUMMARY OF INFLUENT & EFFLUENT ANALYTICAL RESULTS FOR PUMP & TREAT SYSTEM

FORMER BRAINERD MANUFACTURING FACILITY EAST ROCHESTER, NEW YORK

Sampling Event	Influent [2]	Effluent	Volume Data (Gal)		Volatile Organic Compounds (mg/L) [1]						
			Total Volume	Period Total	Methylene Chloride	Tetrachloroethene	Toluene	Trichloroethene	cis-1,2-Dichloroethene	1,1,1-Trichloroethene	Total VOCs
										Permitted Discharge Limit (mg/L) [3]	2.13
11/3/2008		x	6,380,309	86,034	ND	ND	ND	ND	ND	ND	ND
12/17/2008		x	6,522,243	141,934	ND	ND	ND	ND	ND	ND	ND
1/9/2009		x	6,532,215	9,972	0.0013 J	0.0015 J	0.013	0.0022 J	ND	ND	0.018
2/3/2009		x	6,613,599	81,384	0.0041 J	0.0018 J	0.0059	0.0022 J	ND	ND	0.014
3/3/2009	x		--	--	ND	0.13	ND	0.18	ND	ND	0.31
3/3/2009		x	6,648,848	35,249	ND	0.0022 J	0.0015 J	0.003 J	ND	ND	0.0067
4/1/2009		x	6,684,786	35,938	ND	0.0011 J	0.00096	0.0017 J	ND	ND	0.00376
5/1/2009		x	6,769,635	84,849	0.0037 BJ	0.0027 J	0.014	0.0026 J	ND	ND	0.023
6/3/2009		x	6,920,820	151,185	0.0028 BJ	0.0023 J	0.013	0.0037 J	ND	ND	0.0218
7/3/2009		x	7,075,788	154,968	0.002 J	0.0029 J	0.0072	0.0041 J	ND	ND	0.0162
8/6/2009		x	7,214,912	139,124	0.0037 J	0.0019 J	0.038	0.0022 J	ND	ND	0.0458
9/11/2009	x		--	--	0.0018 DJ	0.13 D	0.0023 DJ	0.22 D	ND	ND	0.3541
9/11/2009		x	7,260,148	45,236	0.005	0.0021 J	0.039	0.0031 J	ND	ND	0.0492
10/13/2009		x	7,260,612	464	ND	0.0018 J	0.001 J	0.0024 J	ND	ND	0.0052
11/9/2009		x	7,358,349	97,737	0.0011 J	0.0017 J	0.0035 J	0.0023 J	ND	ND	0.0086
12/2/2009		x	7,358,629	280	ND	0.0015 J	0.0035 J	0.0017 J	ND	ND	0.0067
1/8/2010		x	7,359,677	1,048	ND	0.0022 J	0.0057	0.0011	ND	ND	0.009
2/3/2010		x	7,463,186	103,509	ND	0.0022 J	0.0036 J	0.0027 J	ND	ND	0.0085
3/8/2010	x		--	--	ND	0.39 D	ND	0.28 D	ND	ND	0.67
3/8/2010		x	7,690,320	227,134	ND	0.0023 J	ND	0.003 J	ND	ND	0.0053
4/14/2010		x	7,944,172	253,852	ND	0.0028 J	0.0034 J	0.0037 J	ND	ND	0.0099

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table.
2. Parameters detected in the effluent but not in the influent is a result of higher detection limits for influent sample parameters.
3. Permitted Discharge limit per Sewer Use Permit 883.
4. System was down for repairs in September 2006 and restarted October 24, 2006.
5. Malfunctioning flow meter replaced.

Definitions:

ND = Parameter not detected above laboratory detection limit.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

B = Analyte found in the associated blank, as well as the sample.

D = Compounds identified in an analysis at the secondary dilution.

E = Identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

TABLE 7
SUMMARY OF DETECTED VOLATILE COMPOUNDS IN SOIL AND CONCRETE SAMPLES (ug/kg)

FORMER BRAINERD MANUFACTURING
115 NORTH WASHINGTON STREET
EAST ROCHESTER, NEW YORK

COMPOUNDS	January 2000 Samples			April-May 2001 Samples								NYS DEC RECOMMENDED SOIL CLEANUP OBJECTIVE**
	GP-101 0-2 feet BG (Water Treat. Rm.)	GP-102 0-2 feet BG (Degreaser Rm.)	GP-103 0-2 feet BG (Maintenance Rm.)	SC-1, S2A 1-2.5 feet BG (North of GP-103)	SC-3 Top of 6" slab* (West of GP-103)	SC-3, S2 1-2.5 feet BG (West of GP-103)	SC-4, S2 2-4 feet BG (South of GP-103)	SC-5, S2 1.5-4 feet BG (North of SC-1)	MW-1, S5 8-10 feet BG (MW-202 Location)	MW-2, S11 20-22 feet BG (Southern Parcel)	MW-3, S12 24-26 feet BG (SE Corner)	
VOCs by EPA 8260												
Acetone	22	<50	<2,500	<494	<40	<404	<47.3	<50.3	<43.3	<43.3	<50.3	200
Ethylbenzene	5.3	<13	<630	<98.8	<8	<80.7	<9.47	<10.1	<8.66	<8.66	<10.1	5,500
m,p Xylene	19	<13	<630	<98.8	<8	<80.7	<9.47	<10.1	<8.66	21.3	16.1	1,200
Tetrachloroethene	<5	74	**40,000*** **	**6,600**	187	**7,490**	259	742	10.8	<8.66	<10.1	1,400
Trichloroethene	10	220	**4,500**	**5,450**	76.9	**2,320**	88	414	<8.66	<8.66	<10.1	700

Notes:

1. ug/kg = micrograms per kilogram which is equivalent to parts per billion (ppb)
2. BG = Below Grade
3. * = Sample taken of top .25 inch of the 6 inch concrete core. Six inch concrete core from the older concrete floor that is overlain by a newer four inch thick concrete floor.
4. ** = New York State Department of Environmental Conservation. January 24, 1994. Determination of Soil Cleanup Objectives and Cleanup Levels, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum, HWR 94-4046 (Revised December 2000).
5. **Bold** = reported concentration is above cleanup objective
6. *** = estimated value due to exceedance of calibration range
7. "GP-" series samples collected on January 26, 2000 from interior corings conducted by Sear-Brown. "SC-" series samples collected on May 4, 2001 from interior corings conducted by Sear-Brown. "MW-" series samples collected on April 18-20, 2001 from exterior soil borings conducted by Sear-Brown.