BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

July 8, 2008

Mr. Gary E. Bonarski, P.E.
Project Manager
New York State Department of
Environmental Conservation
Div. of Environmental Remediation
6274 East Avon-Lima Road
Avon, New York 14414-9519

Re: Former Brainerd Manufacturing Site (#V00519)
Off-Site Soil Vapor Investigation Work Plan

Dear Mr. Bonarski:

Thank you for taking the time to meet with us last month regarding our clients' interest to conclude the remedial investigation (RI) activities for the Former Brainerd Manufacturing Site.

Based on our discussions, we understand that NYSDEC and the New York State Department of Health (NYSDOH) require further assessment of potential subslab vapor intrusion in the residential areas north of the Site. Accordingly, we have prepared this correspondence to convey our proposed approach for an offsite soil vapor investigation in the area adjacent to the residential property line along Linden Avenue. NYSDEC has also indicated that additional groundwater investigation will be required to identify the leading edge of off-site groundwater impacts, which we intend to address in a separate work plan describing a proposed monitoring well installed within the Linden Avenue right-of-way (access to the right-of-way will require a secured access agreement from the City of East Rochester). Furthermore, as we briefly discussed our client is interested in addressing the on-site source area via an Interim Remedial Measure (IRM) or as a primary component of the final remedy for the site. Toward that end, we are currently investigating gas infusion systems for anaerobic groundwater remediation and have included a brief discussion of the technology herein.

SOIL VAPOR INVESTIGATION RATIONALE

The soil vapor investigation work is being performed in response to groundwater data collected at monitoring well MW-12 during RI activities at the Site (see Figure 1 and Table 1). Specifically, the NYSDEC and NYSDOH have indicated that, based on the parameters and concentrations detected in MW-12, further investigation work is required to assess the potential for off-site soil vapor impacts from volatile organic compounds (VOCs) in groundwater. The proposed soil vapor investigation will characterize subsurface soil vapor northwest and hydraulically downgradient of the Former Despatch property on the adjacent EJ Del Monte property (northwest of well MW-12). In accordance with our June 2008 meeting, if the soil vapor results are reported as "non-detect" for chlorinated organics, the Department will not

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require any additional residential indoor air monitoring relative to the Despatch Site pending unexpected concentrations of VOCs in the well along Linden Avenue.

SOIL VAPOR INVESTIGATION APPROACH

Benchmark will seek permission to access the EJ Del Monte property northwest of the Site for purpose of installing and sampling the soil vapor points. The two proposed semi-permanent off-site soil gas sampling locations are shown on Figure 1. Sampling probes will be installed in general conformance with the New York State Department of Health (NYSDOH) Soil Vapor Intrusion Guidance (October 2006). Figure 2 illustrates soil gas sampling probe construction that will be employed at each location.

Each semi-permanent soil gas sampling probe will be installed to approximately five feet below ground surface (fbgs) with a direct-push drill rig using ¾-inch inside diameter steel rods. The steel rods will be equipped with an anchor point at the driving end of the rod. The anchor point will be connected to the sampling screen and tubing on the inside of the steel rod. Sampling equipment includes 6-inch long sampling screens, ¼-inch inside diameter inert sample tubing, and dedicated 6-liter passivated (inert), laboratory cleaned stainless-steel Summa canisters with 8-hour regulators. Once the steel rod is advanced to the target depth (i.e., five fbgs) the steel rod will be retracted, leaving the anchor point, sampling screen, and sampling tubing within the borehole annulus. Glass beads/silica will be slowly poured around the sampling screen to create a minimum 1-foot long sample interval. A bentonite/soil mixture slurry will be placed above the glass beads/silica to the ground surface (a minimum of 3 feet above the top of the sample interval) to create a seal to prohibit infiltration of ambient air into the sampling area.

Sampling will be initiated no sooner than 24 hours following the sampling probe installation. The probe and tubing will be purged (three volumes) using a calibrated syringe as required by NYSDOH (2006) guidance. Purging rate shall not exceed 0.2 liters per minute. Prior to purging, helium tracer gas will be introduced to a shroud above the sample point and purge gas will be checked with a field helium detector to ensure that the probes are well sealed. The helium detector will be capable of detecting limits in the low parts per million. Care will be taken to avoid compromising the integrity of the probe seal and sample collection tubing. The sample collection tubing will then be connected to the dedicated canister and samples will be collected over an approximate 8-hour period. An ambient air sample will also be collected concurrently with soil vapor sample collection in a 6-liter Summa canister fitted with an 8-hour regulator to establish background ambient air concentrations during soil vapor collection. Upon completion of the sampling, canister valves will be sealed and shipped under chain-of-custody command to an NYSDOH certified laboratory for VOC analysis in accordance with USEPA Method TO-15. The laboratory will be required to achieve method detection limits at or below those specified in the NYSDOH soil vapor intrusion guidance. Sample information will be recorded on the log sheet presented as Table 2.

SOURCE AREA REMEDIAL CONCEPT

At the request of our client, Benchmark is currently evaluating source area remediation alternatives for the Site. At this time we believe that a gas infusion system for anaerobic groundwater remediation will provide the most effective and implementable means to reduce

VOC concentrations in groundwater and saturated soil beneath the building. This technology employs downgradient extraction wells and upgradient reinjection wells (to the source) with concurrent dissolved hydrogen introduction to the re-circulated groundwater via microporous hollow fiber modules. The modules can be located in a tank within the recirculation line or within the injection wells (with the latter case requiring larger diameter wells). The dissolved hydrogen stimulates reductive dechlorination of chlorinated organics, and can be substituted with oxygen later in the remedial process to stimulate aerobic degradation of chlorinated organic breakdown products. We will provide additional details in a subsequent submittal upon completion of the remaining offsite investigation work.

We would appreciate a timely review of our proposed soil vapor investigation approach so that we may schedule the work concurrent with our routine groundwater pump and treat system O&M work in July. Please contact us if you have any questions or wish to discuss our proposed plan further.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Thomas H. Forbes, P.E.
Project Manager

Att.
File: 0101-001-100

c: A. Shaffer (Despatch)
S. Chalifoux (Boylan Brown)
B. Putzig (NYSDEC)
D. McNaughton (NYSDOH)
J. Kosmala, P.E. (Monroe County Health Dept)

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Off-Site Soil Vapor Investigation Work Plan
Former Brainerd Manufacturing Site
East Rochester, New York

Parameter [1]	Monitoring Well Location & Date of Sample Collection		GWQS/GV [2]
	MW-11	MW-12	
	03/10/08	03/10/08	
Field Measurements (units as indicated)			
pH (units)	6.90	6.83	**6.5 - 8.5**
Temperature (°C)	12.4	11.2	--
Specific Conductance (uS)	717	737	--
Turbidity	330	371	--
DO (ppm)	6.09	3.09	--
ORP (mV)	137	60	--
TCL VOCs (ug/L)			
Acetone	3.1 J	4.8 J	**5**
Bromodichloromethane	0.99 J	0.82 J	**5**
Carbon Disulfide	1.1	0.94 J	**5**
Toluene	ND	ND	**5**
Chloroform	1.7	1.6	**7**
Tetrachloroethene	ND	**300 D**	**5**
Trichloroethene	ND	**270 D**	**5**
1,1 Dichloroethene	ND	ND	**5**
cis-1,2-Dichlorethene	ND	0.66 J	**5**
trans-1,2-Dichloroethene	ND	ND	**5**
Trichlorofluoromethane	**11**	ND	**5**
1,1,1-Trichloroethane	ND	2	**5**
1,1,2-Trichloroethane	ND	ND	**1**
1,1-Dichloroethane	ND	ND	**5**
TOTAL VOCs	**12.7**	**574.26**	--

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as
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.
ND = parameter not detected above laboratory detection limit.
" * " = NYSDEC Class GA Guidance Value

BOLD

TABLE 2

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SOIL VAPOR SAMPLE COLLECTION LOG

Site: _____ **Sampler(s):** _____ _____

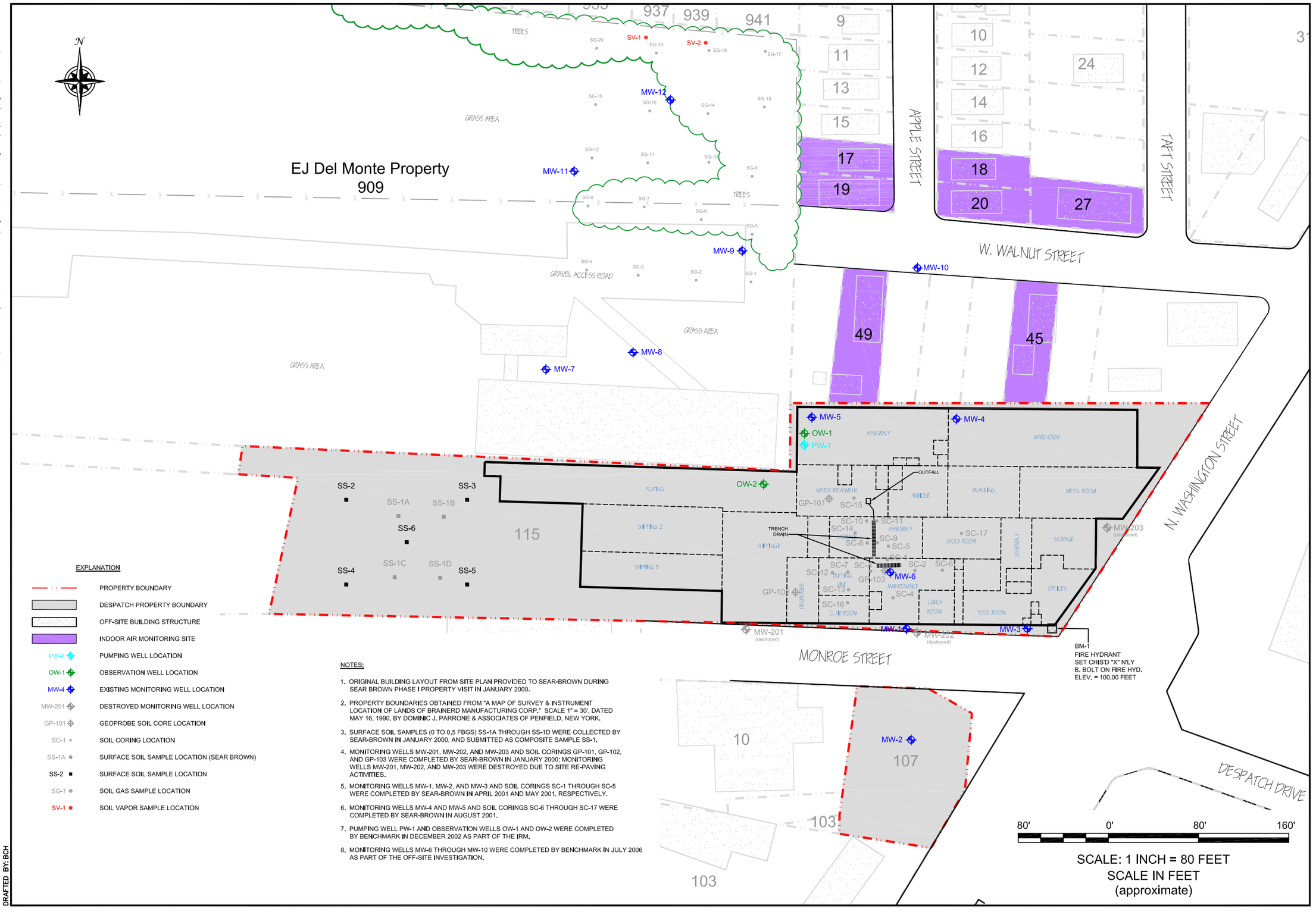
Sample ID	Sample Depth	Date	Time	Sampling Method	Sampling Device	Purge Volume	Vacuum Before & After Sample Collection		Comments (e.g. apparent moisture content (dry, moist, saturated, etc.), problems encountered, ref. to variance, important observations or descriptions, etc.)
							Before	After	

Notes:

1. See Work Plan for sampling frequency and actual number of QC samples.

FIGURES

F:\CAD\Benchmark\Despatch\Off-Site Soil Gas Sampling Plan\Soil Vapor Investigation (July 2008)\Figure 1; Site Plan (revised March 2008).dwg



EXPLANATION

- PROPERTY BOUNDARY
- DESPATCH PROPERTY BOUNDARY
- OFF-SITE BUILDING STRUCTURE
- INDOOR AIR MONITORING SITE
- 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
- SG-1 SOIL GAS SAMPLE LOCATION
- SV-1 SOIL VAPOR 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: JUNE 2008
DRAFTED BY: BCH

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SITE PLAN

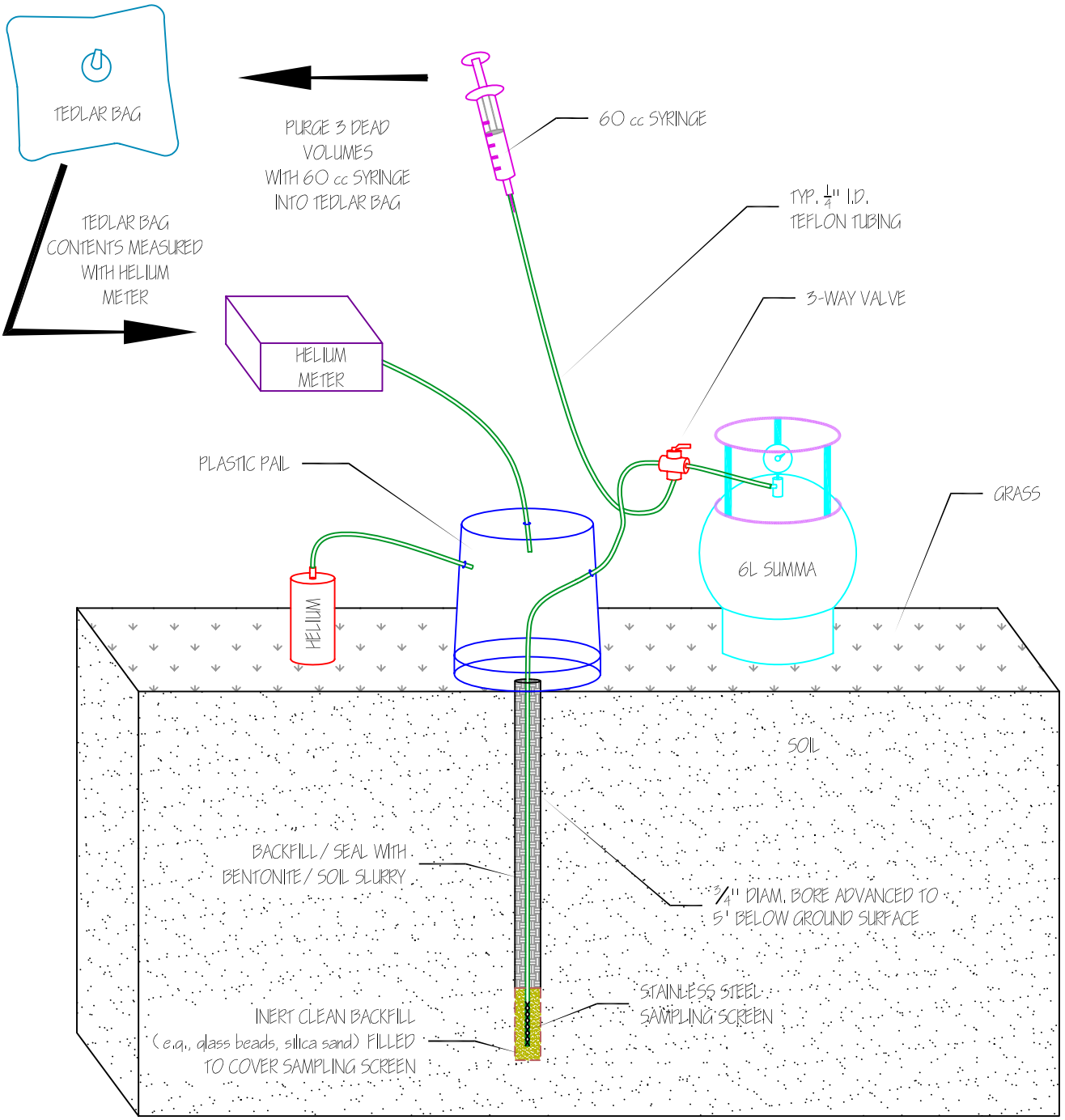
OFF-SITE SOIL VAPOR INVESTIGATION WORK PLAN
FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

PREPARED FOR
DEPATCH INDUSTRIES, INC.

FIGURE 1

F:\CAD\Benchmark\Despatch\Off-Site Soil Gas Sampling Plan\Soil Vapor Investigation (July 2008)\Figure 2; Soil Vapor Sampling Schematic.dwg

FIGURE 2



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PROJECT NO.: 0040-002-400

DATE: JUNE 2008

DRAFTED BY: BCH

SOIL VAPOR SAMPLING SCHEMATIC

OFF-SITE SOIL VAPOR INVESTIGATION WORK PLAN

FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

PREPARED FOR
DESPATCH INDUSTRIES, INC.