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October 2020

Final Alternatives Analysis Report

Former Bernzomatic Facility
Medina, NY
BCP Site No. C837018

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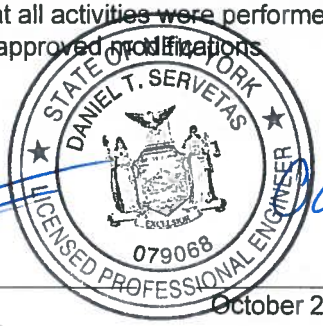
CERTIFICATION

I, Daniel Servetas, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.



October 21, 2020

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List of Acronyms

1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
AAR	Alternatives Analysis Report
AECOM	AECOM Technical Services, Inc.
ARAR	applicable or relevant and appropriate requirements
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BDI	Bio-Dechlor INOCULUM® (Regenesis product)
bgs	below ground surface
CAMP	community air monitoring program
CCL4	carbon tetrachloride
cis-1,2-DCE	cis-1,2-dichloroethene
cm/sec	centimeters per second
COC	contaminant of concern
CVOC	chlorinated volatile organic compound
DHC	*Dehalococcoides*
DER	Division of Environmental Remediation
DO	dissolved oxygen
EC	engineering control
EE	environmental easement
ESA	Environmental Site Assessment
ft	feet/foot
FS	feasibility study
FWIA	fish and wildlife impact analysis
GRA	general response action
HRC	hydrogen releasing compound
IC	institutional control
IRM	interim remedial measure
ISCO	in-situ chemical oxidation
K	hydraulic conductivity
MC	methylene chloride
ml	milliliter
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	monitored natural attenuation
NTU	nephelometric turbidity unit
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	operation and maintenance
ORP	oxidation-reduction potential
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
RAG	remedial action goal
RAO	remedial action objective
RAWP	remedial action work plan
REC	recognized environmental condition
RI	remedial investigation
RIR	remedial investigation report

SCG	standard, criteria, and guidance
SCO	soil cleanup objective
SGV	sediment guidance value
SVI	soil vapor intrusion
SVOC	semi-volatile organic compound
TAL	Target Analyte List
TCE	trichloroethene
TOC	total organic carbon
TOGS	Technical and Operational Guidance Series
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound
ZVI	zero valent iron

1.0 INTRODUCTION

On behalf of Newell Operating Company (Newell), URS Corporation (URS), an AECOM company, prepared this Draft Alternatives Analysis Report (AAR) for the former Bernzomatic Facility (Site) located at 1 Bernzomatic Drive in Medina, Orleans County, New York (**Figure 1**).

Previous investigations at the Site have identified impacts in soil, groundwater, and soil vapor. In 2017, the Site was accepted into the New York State Department of Environmental Conservation (NYSDEC or Department) Brownfield Cleanup Program (BCP) (BCP Site No. C837018). Newell entered the BCP as a Participant as defined in ECL 27-1405(1)(a). On October 16, 2018, B360 Holdings LLC purchased the overall property of which the BCP Site is a portion thereof. In April 2019, B360 Holdings submitted an Application to Amend Brownfield Cleanup Agreement (BCA) and Amendment form to be added to the Brownfield Cleanup Agreement as a Volunteer. Following NYSDEC comment, the form was amended, and B360 Holdings LLC requested to be added to the BCA as a Participant. NYSDEC approved the amendment and added B360 Holdings LLC to the BCA as a Participant on August 6, 2019. Newell remains a Participant on the BCA, as well.

The Draft AAR has been completed in accordance with the following:

- NYSDEC BCP guidance (NYSDEC 2004)
- 6 New York Codes, Rules and Regulations (NYCRR) Part 375 Environmental Remediation Programs
- NYSDEC DER-10/*Technical Guidance for Site Investigation and Remediation* (DER-10) (NYSDEC 2010)

The goal of the remedial program is to select a remedy for the Site that is protective of public health and the environment for the Site's reasonably anticipated commercial or industrial use. The primary purpose of the AAR is to identify and evaluate the most appropriate remedial alternatives to eliminate or mitigate, through the proper application of scientific and engineering principles, all significant threats to public health and to the environment presented by contaminants disposed at the Site. The ultimate goal of the AAR is to select a remedy that will allow continued use of the Site as a commercial or industrial facility. This AAR presents the remedy selection process and the proposed remedy for the Site based upon a risk-based, land use approach.

The AAR identifies one or more remedial alternatives and evaluates the effectiveness of each alternative with respect to the remedy selection evaluation criteria as presented in 6 NYCRR Part 375 and DER-10. Remedies in the BCP are selected from up to four of the following cleanup tracks:

- Track 1 – no restrictions on the use of the property.
- Track 2 – restricted use with generic soil cleanup objectives (SCOs) based on the intended use of the property – residential, restricted residential (single family houses not allowed), commercial, or industrial.
- Track 3 – restricted use with modified SCOs based on the same uses described in Track 2 above.
- Track 4 – restricted use with site-specific SCOs, where the shallow exposed soils must meet the generic SCOs used for Track 2 above.

Once a remedy has been proposed, a fact sheet will be issued noticing the availability of the Remedial Work Plan and presenting the proposed remedy for a 45-day public comment period. NYSDEC will

consider the public comments for final remedy selection, have the plan revised as necessary, and issue a final Decision Document which describes the selected remedy.

2.0 BACKGROUND

2.1 Site Description and Features

The BCP parcel includes two connected buildings approximately 160,000 square feet in size located on the west side of Bernzomatic Drive (**Figure 2**). The western manufacturing building previously consisted of assembly, packaging, warehouse/storage and office areas and is herein referred to as the manufacturing building. The eastern and older building was used for machining, parts washing, and materials storage and is herein referred to as the eastern machining building (**Figure 3**). A concrete pad located off the northeast corner of the eastern machining building was used for equipment storage and was identified as a recognized environmental condition (REC) in a Phase I Environmental Site Assessment (ESA) performed by ENSR/AECOM in 2010.

The western manufacturing building is currently occupied by B360 Holdings LLC and a tenant operation. B360 operations include dry goods storage in the northwest corner of the western manufacturing building; tenant operations include material assembly, packaging and shipping in the main area of the western manufacturing building. Truck and trailer parking areas are located to the north of the western manufacturing building and employee and visitor parking is located to its south. The eastern machining building is unoccupied.

Peripheral areas of the property are generally wooded and vacant and serve as a buffer zone to neighboring residential and commercial properties. Roof drains from the building discharge into a cistern system located beneath the western manufacturing building. The cistern functions as a backup water supply for fire suppression. Overflow from the cistern discharges to a manmade stormwater pond located southwest of the western manufacturing building.

The topography of the Site and surrounding properties is generally flat. The Site is underlain by as much as 12.5 feet of unconsolidated deposits over bedrock. The depth to groundwater ranges from 0.6 to 6.7 feet. Groundwater flow is to the northwest. (See **Figures 5** through **8**.)

A former engineering laboratory approximately 4,000 square feet in size, and a former storage building approximately 8,000 square feet in size, are located on the east side of Bernzomatic Drive but are not considered part of the BCP parcel.

2.2 Site History and Land Use

The Site is located in the “I Industrial District” in the Village of Medina. According to the Orleans County tax records, the property use is identified as Manufacturing and Processing and Vacant Land. The reasonably anticipated future use of the Site is commercial or industrial.

Historical records indicate that industrial use of the property began around 1915. Early activities included canneries and food processing. Ancillary buildings included a pipe shed, machine shop, and oil house. Records indicate that parts cleaning operations were once performed using solvent degreasing agents in the eastern machining building.

More recently, Site operations involved the machining, assembly, packing, and shipping of hand-held torches by Bernzomatic, a division of Newell. In 2011, Newell sold the business to Worthington Industries, which continued manufacturing torches until July 2014. Between July 2014 and spring 2018, the Site was only periodically occupied by a Site manager for Newell. In spring 2018, B360 Holdings LLC began use of the northwest corner of the western manufacturing building to store dry goods through a lease agreement with Newell. In September 2018, B360 Holdings LLC purchased from Newell the

overall property of which the BCP Site is a part thereof. In summer 2019, a tenant to B360 Holdings LLC began light manufacturing and assembly operations in the main area of the western manufacturing building. The eastern machining building remains unoccupied.

2.3 Adjacent Property Land Use

The adjacent properties are characterized as a mixture of industrial, commercial, and residential uses. The Site is bordered by vacant, wooded land, and a mix of residential, commercial, and industrial properties along Bates Road, by the New York Central Railroad and a vacant commercial property to the north; by vacant wooded land, a condominium development (senior citizen housing) and residential properties to the south; and by the Cook Building (a warehouse formerly leased by Bernzomatic), a “rag production factory” (manufacturer of industrial wipe cloths, fabrics and leather materials), and residential properties along East Avenue to the west.

3.0 SUMMARY OF REMEDIAL INVESTIGATIONS

Previous investigations at the Site consisted of a Phase I ESA performed by ENSR/AECOM (ENSR/AECOM 2010) and two phases of Phase II ESA and a Remedial Investigation (RI) performed by URS (URS 2018). The investigations included geophysical surveys; completion of soil borings; installation of 21 monitoring wells; and, collection and analysis of surface and subsurface soil, groundwater, surface water and co-located sediment, sub-slab soil vapor and co-located indoor air, and outdoor air samples. In January 2019, at the request of NYSDEC, URS conducted a supplemental soil vapor intrusion investigation that included additional sub-slab vapor, indoor air and outdoor ambient air samples. Investigation locations are shown in **Figure 4**.

3.1 Geology/Hydrogeology

3.1.1 Site Geology

The Site is underlain by approximately 5 to 12.5 feet of unconsolidated materials overlying bedrock. The unconsolidated materials consist of as much as 4 feet of fill composed of fine to medium sand and gravel with some concrete and wood. The fill is underlain by natural deposits of sand and silt with some gravel. The underlying bedrock consists of approximately 10 feet of the Irondequoit Limestone underlain by Medina Group sandstone. **Figures 6** and **7** present generalized cross sections across the Site. **Figure 5** presents the cross-section location map.

3.1.2 Site Hydrogeology

Twenty of the 21 monitoring wells were set in the overburden. Depth to groundwater ranges from 0.5 to 6.7 feet below ground surface with an average depth of approximately 2.7 feet below ground surface. Using water level measurements from March 23, 2017, **Figure 8** presents the groundwater elevation contour map. As shown in the figure, overall groundwater flow is to the northwest, which is typical for the Site.

The results of slug tests from four wells indicate hydraulic conductivities in the unconsolidated materials range from approximately 7.58×10^{-4} centimeters per second (cm/sec) to 4.99×10^{-3} cm/sec.

There are no known public or private water wells that exist within 0.5 miles of the Site. Water at the Site is provided by the Village of Medina, which acquires the water from the Niagara County Water District.

3.2 Nature and Extent of Contamination

3.2.1 Analytical Data

The surface and subsurface soil, groundwater, surface water and co-located sediment, sub-slab soil vapor and co-located indoor air, and outdoor air samples were submitted to Environmental Laboratory Accreditation Program-certified laboratories. All analytical results were validated by a URS chemist in accordance with NYSDEC DER-10 and United States Environmental Protection Agency (USEPA) Region II data validation procedures. The analytical results are presented in **Tables 1A** through **8**.

In the tables, the soil analytical results are compared to Protection of Ecological Resources, Protection of Groundwater, and Commercial Use Soil Cleanup Objectives (SCOs) presented in New York Codes, Rules, and Regulations (NYCRR) Chapter IV Part 375. The criteria include parameters present in NYSDEC's CP-51 Soil Cleanup Guidance.

Groundwater and cistern water analytical results are compared to NYSDEC *Technical & Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, June 1998, including January 1999 Errata Sheet, April 2000 and June 2004 Addenda (TOGS).

Surface water analytical results are compared to NYSDEC TOGS Class A water quality standards.

Sediment analytical results are compared to NYSDEC *Screening and Assessment of Contaminated Sediment*, June 24, 2014, Class A and Class C. The sediment guidance values (SGV) for organic compounds were re-calculated using site-specific total organic carbon (TOC) values. As requested by NYSDEC, the sediment sample results are also compared to Protection of Ecological Resources, Protection of Groundwater, and Commercial Use SCOs for soil.

Indoor air samples were compared to New York State Department of Health (NYSDOH) indoor air guidelines for trichloroethene (NYSDOH, 2015) and tetrachloroethene (NYSDOH, 2013), and co-located indoor air and sub-slab samples were compared to NYSDOH document titled *Guidance for Evaluating Soil Vapor Intrusion in New York State*, dated 2006 with a 2017 update, which identifies sub-slab and indoor air concentration limits for eight chlorinated volatile organic compounds (CVOCs), which are assigned to three decision matrices:

Matrix A	Matrix B	Matrix C
Trichloroethene (TCE)	Tetrachloroethene (PCE)	Vinyl chloride (VC)
Carbon tetrachloride (CCL4)	1,1,1-Trichloroethane (1,1,1-TCA)	
1,1-Dichloroethene (1,1-DCE)	Methylene chloride (MC)	
cis-1,2-Dichloroethene (cis-1,2-DCE)		

In the guidance document, NYSDOH provides recommendations of no further action, monitor, or mitigate for various concentrations of these compounds in sub-slab vapor and indoor air.

3.2.2 Soil Analytical Results

Soil samples collected during the Phase II investigations were only analyzed for VOCs. Following acceptance into the BCP, soil samples from the borings for wells MW-14 through MW-21 and soil borings SB-05 though SB-08 were analyzed for VOCs, semi-volatile VOCs (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and metals. Surface soil samples collected during the RI in February/March 2017 were analyzed for VOCs, SVOCs, PCBs, pesticides, and metals. Supplemental surface soil samples collected in April 2018 were analyzed for SVOCs only.

Surface Soil Analytical Results

A total of 20 surface soil samples (18 samples plus two field duplicates) were collected from 0 to 2 inches below the vegetative cover. The results are presented in **Table 1A** and **Figure 9.**

No VOCs were detected in surface soil samples at concentrations that exceed any SCO.

Three surface soil samples plus one duplicate sample contained at least one SVOC at a concentration above the Protection of Ecological Resources SCOs, six samples plus one duplicate contained at least one SVOC that exceeded the Protection of Groundwater SCOs, and four samples plus one duplicate (RI sample locations MW-15, SS-01, SS-02, and SS-03, located adjacent to asphalt pavement areas) contained at least one SVOC at a concentration that exceeded Commercial Use SCOs.

With respect to RI sample locations MW-15, SS-01, SS-02, and SS-03, NYSDEC requested the collection and analysis of supplemental surface soil samples in 2018 to evaluate the extent of SVOC contamination in these samples. The April 2018 analytical results for supplemental samples SS-04 through SS-07 show that no SVOCs were detected at concentrations above the SCOs in SS-04, SS-05, and SS-06 collected near MW-15, SS-01, and SS-02, respectively. One SVOC was detected in sample SS-07 collected near SS-03 at a concentration that exceeded Protection of Groundwater SCO but not the Protection of Ecological Resources SCO or the Commercial Use SCO.

No PCBs were detected in the surface soil samples.

Pesticides were detected in six surface soil samples at concentrations exceeding the Protection of Ecological Resources SCOs. None of the samples exceeded Protection of Groundwater or Commercial Use SCOs.

Fourteen surface soil samples plus two duplicates contained one to three metals at concentrations above the Protection of Ecological Resources SCOs. Metals detected above Protection of Ecological Resources SCOs were aluminum in five samples, calcium in 11 samples plus two duplicates, lead in four samples, and zinc in one sample. None of the samples exceeded Protection of Groundwater or Commercial Use SCOs.

Subsurface Soil Analytical Results

A total of 47 subsurface soils plus four duplicates were collected during site investigations. The results are presented in **Table 1B** and **Figure 10**.

Only one VOC, acetone, was detected at a concentration above an SCO, and only in one sample. Acetone was detected at a concentration of 0.063 milligrams per kilogram (mg/kg) in MW-13, which is above the Protection of Groundwater SCOs of 0.050 mg/kg, but below the Protection of Ecological Resources SCO of 2.2 mg/kg and the Commercial Use SCO of 1,000 mg/kg.

One SVOC was detected at concentration above an SCO and only in one sample. In MW-20, di-n-butylphthalate was detected at a concentration of 0.045 mg/kg, compared to the Protection of Ecological Resources SCO of 0.014 mg/kg, but below the Protection of Groundwater SCO of 8.1 mg/kg; there is no Commercial Use SCO for this compound.

No PCBs were detected in the subsurface soil samples.

The pesticide 4-4'-DDT was detected at a concentration of 0.0079J mg/kg in MW-14 and at a concentration of 0.025J mg/kg in MW-15, both of which are above the Protection of Ecological Resources SCO of 0.0033 mg/kg, but below Protection of Groundwater SCO of 136 mg/kg and Commercial Use SCO of 47 mg/kg. No pesticides were detected at concentrations exceeding SCOs in any other sample.

Nine subsurface soil samples contained one or two metals at concentrations above the Protection of Ecological Resources SCO. Lead was detected above the SCO in one sample, aluminum in four samples, and calcium in five samples. The sample from MW-15 was the only sample where two metals (calcium and lead) were detected at concentrations above the Protection of Ecological Resources SCOs. No metals were detected at concentrations above the Protection of Groundwater and Commercial Use SCOs.

3.2.3 Groundwater Analytical Results

Groundwater sampling was initiated during the first Phase II investigation when samples were collected from soil borings in the concrete pad REC and cistern areas. Supplemental Phase II investigations were performed in which permanent monitoring wells were installed based on the review of the initial Phase II soil boring and groundwater data. During Phase II investigations, the groundwater samples were analyzed for VOCs only. Following acceptance into the BCP, additional wells were installed and sampled (along with four existing wells) and analyzed for VOCs, SVOCs, PCBs, pesticides, and metals.

A total of 65 groundwater samples plus 3 duplicate samples were collected over several phases of investigations. The groundwater analytical results are presented in **Table 2** and **Figures 11** and **15**.

Groundwater samples from the eastern machining building area and the eastern portion of the western manufacturing building contained VOCs at concentrations above the groundwater criteria, with the greater impacts present beneath the eastern machining building. VOC impacts above groundwater criteria were limited to chlorinated VOCs (CVOCs) except at two locations: acetone was detected above the groundwater criterion at MW-10 and total xylene was detected above the groundwater criterion at GSP-24 (as well as several CVOCs).

No SVOCs were detected at concentrations exceeding groundwater criteria.

No PCBs were detected in the groundwater samples.

No pesticides were detected in the groundwater samples.

Metals at concentrations exceeding the groundwater criteria were detected in Phase II samples from SB-01, SB-02, SB-03, and SB-04 in the concrete pad REC area; metals exceeding the groundwater criteria at these locations included arsenic, barium, cadmium, chromium, and lead. One to four common metals (iron, magnesium, manganese, and sodium) detected at concentrations exceeding groundwater criteria at 11 of 12 RI sample locations are not shown on **Figure 11** as they are commonly occurring constituents in unconsolidated and bedrock aquifers in the region (United States Geological Survey, 2006) and are therefore not constituents of concern. Data are presented in **Table 2**.

Groundwater samples from wells MW-06, MW-11, MW-19, MW-20, and MW-21 were analyzed for natural attenuation parameters, TOC, *Dehalococcoides* (DHC), and DHC functional genes.

- TOC concentrations ranged from 1.5 milligrams per liter (mg/L) (MW-06) to 15.7 mg/L (MW-19).
- DHC and DHC functional gene concentrations were non-detect in MW-11, MW-20, and MW-21 (**Table 3**). In MW-06, DHC was detected at an estimated concentration of 0.4 cells per milliliter (cells/ml) and BAV1 Vinyl Chloride Reductase was detected at an estimated concentration of 0.1 cells/ml. In MW-19, DHC was detected at 2.4 cells/ml and BAV1 Vinyl Chloride Reductase was detected at 2.0 cells/ml. Dehalobacter was detected in all five samples with the highest concentrations observed in MW-06 (985 cells/ml) and MW-19 (18,000 cells/ml); concentrations in the other three samples ranged from 3.9 cells/ml to 8 cells/ml.
- Functional genes tceA Reductase and Vinyl Chloride Reductase were not detected in the samples.

3.2.4 Groundwater Field Measurements

Field water quality measurements of pH, temperature, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were recorded during groundwater sample collection. The measurements are presented in **Table 4** and are briefly discussed below.

- pH values were generally neutral, ranging from 6.81 to 7.65.
- Temperatures in wells MW-01 and MW-04, both located within the western manufacturing building, were 17.49 and 19.04 degrees Celsius, respectively. Temperatures in the remaining wells ranged from 4.54 to 8.65 degrees Celsius.
- Specific conductivity values ranged from 0.40 to 2.74 milliSiemens per centimeter.
- DO levels were non-detect in all wells except MW-09 (0.15 mg/L).
- Turbidity values ranged from 0 to 65.6 nephelometric turbidity units (NTUs).
- ORP values ranged from -170 to 199 milliVolts. ORP values in 11 of the 21 wells were less than zero.
- Wells MW-06, MW-11, MW-19, MW-20, and MW-21 were analyzed in the field for ferrous iron. The range was 0.08 to 2.01 mg/L with MW-19 having the highest ferrous iron concentration. The other four locations were between 0.08 and 0.10 mg/L.

3.2.5 Surface Water and Sediment Analytical Results

During the March 2017 RI, surface water and accompanying sediment samples were collected from the Site pond and analyzed for VOCs, SVOCs, PCBs, pesticides, metals and TOC. During the supplemental RI in April 2018, three pond sediment samples were collected and analyzed for SVOCs, metals, and TOC. **Figure 12** presents the results for surface water, cistern, and sediment (Class A & C criteria). **Figure 13** presents sediment results compared to soil SCOs. The surface water analytical results are tabulated in **Table 5. Table 6** presents the sediment results compared to Class A and Class C criteria. **Table 7** presents the sediment results compared to soil SCOs.

Surface Water

No parameters were detected at concentrations above NYSDEC TOGS Class A surface water criteria.

Sediment – Compared to Sediment Criteria

Two sediment samples contained total SVOCs at concentrations above the Class A criteria; no samples exceeded Class C criteria.

Several samples contained two or more metals (e.g., arsenic, chromium, copper, lead, nickel, and zinc) at concentrations above the Class A criteria and one sample (SED-01) had concentrations of chromium, copper, nickel, and zinc above the Class C criteria.

Sediment – Compared to Soil SCOs

Two sediment samples (SED-01 and SED-02) exceeded the Protection of Groundwater SCO for one VOC (acetone); no sediment samples exceeded Protection of Ecological Resources or Commercial SCOs for any VOC.

In sample SED-03, one SVOC (chrysene) was detected above the Protection of Groundwater SCO. No samples exceeded Protection of Ecological Resources or Commercial Use SCOs for any SVOCs.

All sediment sample locations exceeded Protection of Ecological Resources SCO for at least one and up to nine metals. The greatest number of metals (nine) exceeding the Protection of Ecological Resources was SED-01. In addition, arsenic in the SED-01 sample exceeded the Protection of Groundwater and Commercial Use SCOs, and copper in the SED-01 sample exceeded the Commercial Use SCOs. No other metals were detected at concentrations above Protection of Groundwater and Commercial Use SCOs.

3.2.6 Cistern Water Samples

No parameters were detected at concentrations above NYSDEC TOGS criteria in the cistern sample.

3.2.7 Vapor Intrusion Analytical Results

March 2017 Vapor Intrusion Sampling Results

At the time of the initial vapor intrusion sampling in March 2017, Newell was considering demolishing the eastern machining building as part of the remedy, and therefore, indoor air and sub-slab vapor samples were collected from two locations in only the western manufacturing building, only. The March 2017 vapor intrusion sample results are presented in **Table 8** and **Figure 14**. The two indoor air samples met the NYSDOH indoor air guidelines for PCE and TCE. The PCE concentration of 1,200 µg/m^3 in the SSV-01 sub-slab sample exceeded the 1,000 µg/m^3 criterion, above which NYSDOH guidance recommends mitigation to minimize current or potential exposures. However, at the time of sampling, the western manufacturing building was unoccupied, and action was deferred.

January 2019 Vapor Intrusion Sampling Results

In January 2019, additional SVI sampling was performed at multiple locations within the western manufacturing building due to a proposed change in use (the eastern machining building remained unoccupied and demolition is being considered as part of the remedial alternative). Nine sub-slab locations, six indoor air locations, and one outdoor air location were collected in response to this proposed change in use.

The January 2019 indoor air, sub-slab, and ambient outdoor air sample results are presented in **Table 8** and **Figure 14**, along with the March 2017 results. Of the eight VOCs which have NYSDOH Matrix Decision values, 1,1-DCE and VC were not detected in any of the samples collected in 2019. None of the remaining six VOCs that have NYSDOH Matrix Decision values were detected in the indoor air or sub-slab samples at concentrations that warrant a NYSDOH Matrix Decision recommendation of monitoring or mitigation. All January 2019 indoor air samples met the NYSDOH indoor air guidelines for PCE and TCE.

In 2017, the sub-slab soil vapor sample from SSV-01 contained PCE at a concentration of 1,200 µg/m^3. However, the January 2019 analytical result for PCE at this location was significantly lower, at only 40 µg/m^3, which is well below a concentration requiring any further action when PCE is non-detect in indoor air. In addition, the indoor air sample met the NYSDOH indoor air guidelines for PCE.

In 2019, one VOC, cis-1,2-DCE, was detected in all five indoor air samples (and duplicate) and at a narrow concentration range of 2.0 to 2.5 µg/m^3. However, cis-1,2-DCE was not detected in the associated sub-slab samples, indicating that the sub-slab vapor is not a source of cis-1,2-DCE detected in the indoor air. Nevertheless, per NYSDOH Matrix A guidance, for a sample with an indoor air

concentration of 1 µg/m^3 and above and a correlating sub-slab sample concentration of less than 6 µg/m^3, the recommendation is to identify source(s) and resample or mitigate. Because the 2019 data shows that there was no soil vapor source of cis-1,2-DCE, the presence of this compound in indoor air was attributed to renovation and development work in the western manufacturing building by the current owner B360 Holdings.

Based on the findings of the 2019 vapor intrusion sampling, which shows the absence of CVOCs at levels of concern, soil vapor is not considered a media of concern for the western manufacturing building. The eastern machining building remains unoccupied and is being considered for demolition as part of the remedy as well as preparing the Site for redevelopment. Because of this tentative status, soil vapor sampling was not performed, and it is unknown if soil vapor would be a concern should the building remain. An SVI evaluation would be implemented should the building remain or if the building is demolished and a new occupied building is constructed over area with potential soil vapor impacts.

3.3 Potential Exposure Pathways

An exposure pathway is a manner by which an individual may come in contact with a contaminant. The elements of a completed exposure pathway include:

- the contaminated environmental media (e.g., soil, surface water, and groundwater);
- the receptor (e.g., construction worker, public) exposed to the contamination; and
- the routes of exposure or how the contaminant enters the body (e.g., inhalation, ingestion, and/or dermal contact).

In spring 2018, B360 Holdings LLC began use of the northwest corner of the western manufacturing building to store dry goods. In summer 2019, a tenant to B360 Holdings LLC began operations in the main area of the western manufacturing building. The eastern machining building remains unoccupied. Future use of the Site would be in conjunction with its current zoning for industrial use. Under current or future conditions, human contact with the Site can be expected to occur primarily by three types of receptors:

- vendors, visitors, or trespassers who may enter the property;
- construction/utility workers who may be involved in construction/repairs to existing buildings or systems or future buildings or systems; and,
- future commercial/industrial workers.

The following subsections discuss the rationale for identifying completed exposure pathways.

3.3.1 Soil

Portions of the surface of the Site are covered by buildings, pavement or concrete and the remainder is covered with vegetation. The only potential completed exposure pathways are surface soil for vendors, visitors, trespassers or construction/utility workers, and subsurface soil for construction/utility workers who could come into contact with contaminated soil during intrusive activities both under current and future conditions. Potential exposure to these materials by future commercial/industrial workers is unlikely.

3.3.2 Sediment

Sediment in the pond is accessible to construction workers or trespassers through dermal contact or ingestion.

3.3.3 Groundwater

Under the current use scenario, groundwater is not used as a potable water supply or for any other known commercial or industrial purpose in the Site vicinity. Therefore, it is not a completed exposure pathway under the current use scenario. It is not anticipated that groundwater would be used for potable purposes in the future. Construction workers could be exposed to groundwater contaminants during current or future intrusive activities through dermal contact, ingestion, and/or inhalation.

3.3.4 Indoor Air of Eastern Machining Building

If the eastern machining building is not demolished as part of the remedy, a potential completed exposure pathway to possibly impacted indoor air exists for vendors, visitors, trespassers and construction utility workers.

3.3.5 Routes of Exposure

VOCs present the greatest exposure through inhalation but can also provide exposure through dermal contact and ingestion. Pesticides and SVOCs in surface and near surface soils can provide exposure through dermal contact and ingestion.

3.3.6 Summary

Under some current and future use conditions, there are completed or potential exposure pathways from surface and subsurface soil, sediment, and groundwater. For future use conditions, an additional completed exposure pathway from indoor air may be present if the eastern machining building is not demolished as part of the remedy.

3.4 Fate and Transport in the Unsaturated Zone

3.4.1 Migration

In general, propagation of contaminants in the unsaturated zone is typically dominated by three processes: migration of dissolved-phase contaminants with infiltrating precipitation, and migration of the sorbed contamination with fugitive dust emissions, and surface runoff. Contaminants sorbed to the soil may dissolve as precipitation percolates through the unsaturated zone. This occurs during wet weather periods, when the water content exceeds the field capacity of the soil matrix. The flow is mostly gravity-driven and directed downward. Such downward migration through the unsaturated zone may constitute a source of contamination for the saturated zone below.

The surface of the Site is partially paved and covered with buildings and some open grassy areas. There is little potential for fugitive dust emissions from the Site in its current state. Therefore, contaminants that are sorbed to soil in the unsaturated zone have limited ability to migrate off-site via erosional processes.

3.4.2 Degradation

Generally, the occurrence and rates of unsaturated zone biodegradation have to be determined by means of field studies, such as respiration tests. However, unsaturated zone biodegradation is limited by the amount of moisture present in the soil and transport processes between bacteria and

contaminants. Sufficient moisture for active biological growth may not be present at all locations where contamination is elevated.

While some VOCs and lighter fraction SVOCs are subject to biodegradation, the SVOCs detected at the Site area can be relatively persistent. Metals are recalcitrant. Overall, it is likely that natural degradation of the non-VOC contaminants detected at the Site would not be significant.

3.5 Fate and Transport in the Saturated Zone

3.5.1 Migration

Contaminant migration in the saturated zone takes place predominantly by means of the transport of the dissolved-phase contamination in groundwater. The controlling factors are the direction of the groundwater flow, the hydraulic gradient, the hydraulic conductivity of the aquifer material, and the chemical composition of the soil matrix.

Groundwater in the overburden generally flows toward the northwest at the Site. While the hydraulic conductivities are considered moderate, ranging from 7.58×10^{-4} cm/sec to 4.99×10^{-3} cm/sec, the horizontal hydraulic gradients are relatively low. Groundwater contamination in the overburden can be characterized as localized to the area of the eastern machining building and immediately downgradient. Dissolved-phase contamination consists primarily of CVOCs with some metals impacts in the concrete pad REC area (see Figure 15). However, downgradient monitoring well data shows that Site-related contaminants are not migrating off-site.

3.5.2 Degradation

VOCs degrade in both aerobic and anaerobic processes. The presence of degradation products of PCE and TCE indicate that degradation is occurring at the Site. Metals are elements and generally recalcitrant; therefore, degradation of these constituents in the Site area is expected to be minimal or insignificant.

3.6 Site Contaminants of Concern

Determination of whether site-related compounds are contaminants of concern (COCs) is made based on current and potential future risks to human health and the environment from Site contamination. The list of Site COCs is limited to receptors under the current and reasonably anticipated future land use scenario, which is commercial or industrial.

The SVOCs, pesticides, and metals detected in soil and/or sediment and metals detected in groundwater are not considered COCs because of one or more of the following conditions: limited detection frequencies, low concentrations, similarity to background concentrations, and limited distribution. However, it is possible that a thin layer of unsaturated CVOC-contaminated soil is present beneath the floor slab in the eastern machining building where the CVOCs were likely released (see **Figure 7**). For this AAR, it is assumed that such impacts may be present, therefore, CVOC-impacted soil is included in the evaluation of remedial alternatives. It is also assumed that the presence of such impacts will be confirmed during a pre-design investigation.

Based on the potential risks to human health and the environment, the following presents COCs for the Site, following cleanup levels as defined in 6 NYCRR Part 375-6.8(b) Commercial Use SCOs for soil and NYSDEC TOGS 1.1.1 for guidance or standards for groundwater quality objectives:

- PCE
- TCE

- Cis-1,2-DCE
- 1,1-dichloroethane (1,1-DCA)
- VC

4.0 REMEDIAL ACTION OBJECTIVES AND GOALS

4.1 Potential Standards, Criteria, and Guidance

Applicable or relevant and appropriate standards, criteria, and guidance (SCGs) are used to develop remedial action objectives (RAOs) and to scope and formulate remedial action technologies and alternatives. SCGs are categorized as:

- chemical-specific requirements that define acceptable exposure levels and may, therefore, be used in establishing preliminary remediation goals;
- location-specific requirements that may serve to protect characteristics, resources, and specific environmental features, such as flood plains or wetlands; and/or
- action-specific requirements that may set controls or restrictions for particular treatment and disposal activities related to the management of hazardous wastes.

Applicable SCGs should consider the current, intended, and reasonably anticipated future use of the Site and its surroundings. Potential SCGs are described in the following subsections.

4.1.1 Chemical-Specific SCGs

The SCGs used to evaluate the soil and groundwater analytical results in Section 3 are considered chemical-specific SCGs. SCGs incorporates both the CERCLA concept of “applicable or relevant and appropriate requirements” (ARARs) and the USEPA’s “to be considered” category of non-enforceable criteria or guidance. The SCGs are summarized as follows:

- NYSDEC TOGS water quality standards and guidance values
- 6 NYCRR 703.5 water quality standards
- 6 NYCRR 375-6.8 SCOs
- CP-51 soil cleanup guidance
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion and indoor air guidelines for PCE and TCE

4.1.2 Action-Specific SCGs

Action-specific SCGs are determined by the particular remedial activities that are selected for the Site cleanup. Action-specific requirements establish controls or restrictions on the design, implementation, and performance of remedial activities. Following the development of remedial alternatives, action-specific SCGs that specify performance levels, actions, technologies, or specific levels for discharge of residual chemicals provide a means for assessing the feasibility and effectiveness of the remedial activities.

4.1.3 Location-Specific SCGs

Location-specific SCGs are requirements that set restrictions on activities depending on the physical and environmental characteristics of the Site or its immediate surroundings. The RI included completing the DER-10 Appendix 3C Fish and Wildlife Resources Impact Analysis Decision Key. The analysis concluded that there are no identified rare, threatened or endangered species, habitats of concern, or freshwater wetlands within a 0.5-mile radius of the Site. Therefore, location-specific SCGs associated with FWIA are not applicable. Also, the Protection of Ecological Resource SCOs are not applicable to

the determination of whether surface soils need to be covered under the proposed Track 4 cleanup or what is or is not suitable cover material. Potential location-specific SCGs that may be applicable to potential Site remedial technologies are the Village of Medina zoning ordinances and building codes.

4.2 Remedial Action Goals and Objectives

4.2.1 Remedial Action Goals

Remedial Action Goals (RAGs) are general, non-site specific standards, established by the State, which are used to help develop site-specific RAOs. RAGs have been established for remedial actions implemented under NYSDEC's Inactive Hazardous Waste Disposal Site Remedial Program and include the following:

- at a minimum, to eliminate or mitigate all potential threats to human health and the environment presented by contaminants at the site, to the extent feasible.
- to restore the site, to the extent feasible.

4.2.2 Remedial Action Objectives

RAOs established for the protection of human health and the environment should specify:

- the contaminants and media of concern;
- the exposure routes and receptors; and
- an acceptable contaminant level or range of levels for each exposure route.

Remedial actions evaluated for the Site address the presence of CVOCs in soil and groundwater; demolition of the eastern machining building is considered part of the remedy for the Site to provide safe and complete access to affected media as well as prepare the Site for its redevelopment. The following RAOs have been established for Site media:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation exposure to contaminants volatilizing from soil.

RAOs for Environmental Protection

- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

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.
- Prevent the discharge of contaminants to surface water and sediment.
- Remove the source of ground 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.

4.3 Summary of Extent of Contamination to Be Addressed

The estimated extent of CVOC impacts to soil is considered to be the assumed source area in the eastern machining building, specifically the former parts washing area. This area measures about 50 feet by 50 feet for a total of approximately 2,500 square feet. Assuming a depth to bedrock of approximately 12 feet, the estimated volume of CVOC impacted soil is approximately 1,111 cubic yards (see **Figure 16**). An additional 21 cubic yards of soil is estimated for targeted excavation of PAHs (see **Figure 9**).

The estimated extent of CVOC impacts in groundwater is shown in **Figure 16**. The limit of groundwater impacts shown is considered to be the 5 µg/L contour line, which equates to an area of approximately 162,000 square feet.

5.0 GENERAL RESPONSE ACTION AND IDENTIFICATION OF REMEDIAL TECHNOLOGIES

General response actions (GRA) are remedial approaches encompassing those actions that will satisfy the RAOs. GRAs may include treatment, containment, removal, disposal, institutional controls (ICs), or a combination of these, if required, to address varied Site environmental problems and to be effective in meeting all the RAOs. **Tables 9** and **10** identify and present a preliminary screening of GRAs and potentially applicable remedial technologies for groundwater and soil, respectively, following demolition of the eastern machining building.

The following GRA descriptions have been generated in accordance with the guidelines in NYSDEC DER-10. Brief descriptions of specific technologies for each media are provided in **Tables 9** and **10**.

Limited Action involves ICs that restrict access to contaminated areas through physical and/or administrative measures. Limited Action also includes long-term monitoring. The IC response is not intended to reduce the toxicity, mobility, or volume of hazardous constituents, but to reduce the potential for exposure to the constituents.

Containment actions include control, isolation, and encapsulation technologies that involve little or no treatment, but reduce the mobility of contaminants and/or eliminate exposure pathways. Since these technologies consist primarily of physical barriers to control migration, contaminant toxicity and volume are not reduced significantly within the contained area.

Treatment/destruction actions include technologies that reduce the volume, toxicity, and/or mobility of contaminants. These technologies include in-situ treatment, ex-situ treatment, and destruction. Treatment methods reduce contaminant volume, toxicity, and/or mobility by treating contamination to acceptable cleanup levels. Destruction technologies permanently and irreversibly destroy or detoxify contaminants to acceptable cleanup levels, thereby reducing contaminant volume, toxicity, and mobility.

Removal/disposal actions include both on-site and off-site technologies, including reuse/recycling, and/or landfill disposal.

No remedial activities would be implemented under a “No Action” GRA; however, it is considered throughout the AAR process as a baseline against which other GRAs and technologies can be compared.

The GRAs and associated technologies identified for each medium include one or a combination of the following:

<u>Soil</u>

- no action
- limited action (ICs)
- excavation/disposal
- in-situ treatment (soil vapor extraction)

Groundwater

- no action
- limited action (ICs, monitored natural attenuation (MNA))
- in-situ treatment (biological treatment, chemical oxidation, chemical reduction)

Soil Vapor

- no action
- limited action (ICs)
- building demolition

6.0 EVALUATION OF TECHNOLOGIES AND PROCESS OPTIONS

In this section, the GRAs have undergone an evaluation to eliminate those remedial technologies that may not be effective based on anticipated site conditions and/or that cannot be implemented technically at the Site.

Each technology and process option is evaluated in terms of effectiveness in providing protection to human health and in reducing toxicity, mobility, or volume of the waste; implementability; and relative cost. The evaluation process was guided by DER-10 and USEPA *Guidance for Conducting RI/FS Studies under CERCLA (*USEPA 1988). **Table 11** presents the evaluation of each specific technology and process option.

Technologies retained from this evaluation process are grouped into potential remedial alternatives for discussion in Section 7.0. Based upon this evaluation, the following alternatives are retained for detailed analysis:

Alternative 1: No Action (all media, required for baseline)

Alternative 2: Targeted Excavation with Enhanced Bioremediation, MNA, and ICs

Alternative 3: MNA and ICs

Alternative 4: Enhanced Bioremediation with Targeted PAH Excavation, and ICs

Alternative 5: Remediate to Unrestricted Use (required by DER-10)

7.0 DETAILED ANALYSIS OF RETAINED REMEDIAL ALTERNATIVES

The technologies and process options retained from the evaluation process were combined to develop remedial alternatives to undergo detailed analysis. A range of alternatives was developed that would satisfy the Site-specific remedial goals and RAOs. A detailed analysis of each alternative provides conceptual design, primary capital and operating costs, and approximate remediation time to attain remedial goals. DER-10 requires an evaluation that can achieve Unrestricted Use SCGs. **Table 12** and **Figure 17** identify locations exceeding soil Unrestricted Use SCOs.

7.1 Evaluation Criteria

Each of the remedial alternatives was evaluated using the guidance and criteria set forth in NYSDEC DER-10, Section 4.2 and USEPA *Guidance for Conducting RI/FS Studies under CERCLA* (USEPA, 1988). The first two criteria are threshold criteria and must be satisfied for an alternative to be considered for selection. The following six criteria are primary balancing criteria which are used to compare the positive and negative aspects of each of the alternatives, providing the alternatives satisfy the threshold criteria.

Overall Protection of Human Health and the Environment

This criterion is an evaluation of the remedy's ability to protect human health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through the removal, treatment, containment, engineering controls (ECs) or ICs. The remedy's ability to achieve each RAO is evaluated.

Compliance with Standards, Criteria, and Guidance

This criterion is an evaluation of the remedy's ability to meet applicable or relevant and appropriate environmental laws, regulations, standards, and guidance.

Long-Term Effectiveness and Permanence

This criterion is an evaluation of the long-term effectiveness and performance of the remedy after implementation. If contamination will remain on-site after the remedial has been implemented, the evaluation assesses the impact of the remaining contamination on human exposure, ecological receptors, or impacts to the environment. The evaluation also considers engineering and/or institutional controls.

Reduction of Toxicity, Mobility or Volume

This criterion is an evaluation of the remedy's ability to reduce the toxicity, mobility or volume of the materials. Preference is given to remedies that permanently or significantly reduce toxicity, mobility, or volume of contamination at the Site.

Short-term Effectiveness

This criterion evaluates the potential short-term adverse impact(s) and human exposures during construction and/or implementation of the remedy to the community, workers, and the environment.

Implementability

This criterion is an evaluation of the feasibility of technical and administrative implementation.

Cost

Capital, operation, maintenance and monitoring costs are estimated for the remedy and presented on a present worth basis.

Land Use

This criterion is an evaluation of the current, intended and reasonably anticipated future use of the Site and its surroundings, as it relates to an alternative or remedy, when unrestricted use levels would not be achieved.

Community Acceptance

Community acceptance is evaluated following a public comment period, after a remedy has been proposed.

7.2 Other Criteria Considered

Green Remediation

This criterion is an evaluation of the extent to which green and sustainable practices and technologies are incorporated into the remedy during its implementation. NYSDEC DER-31 (NYSDEC 2010b) establishes a preference for remediating Sites in the most sustainable manner while still meeting legal, regulatory, and program requirements.

7.3 Cost Evaluation Approach

As part of the detailed evaluation, planning level costs were developed for each alternative. These costs were based on general assumptions and elements likely to become part of each alternative (conceptual planning). The planning level costs presented are intended to provide a measure of total estimated resource costs over time. The expected accuracy of these estimates is between -30 and +50 percent (USEPA/ USACE, 2000). In addition, net present value costs were estimated for future costs for each alternative. A summary of planning level costs for remedial alternative is presented in **Table 13**. Detailed cost backup calculations are provided in **Appendix A**.

7.4 Remedial Action Alternatives

7.4.1 Alternative 1: No Action

Alternative 1 (No Action) is developed as a baseline to which other alternatives can be compared, in accordance with USEPA RI/FS Guidance (USEPA, 1988). Under this alternative, no remedial action would be taken and only naturally occurring processes would be working to achieve RAOs. There would be no administrative actions (e.g., ICs) that would limit site use. The eastern machining building would not be demolished but instead the building would be reused. No costs are presented as no actions would be performed. The detailed analysis of Alternative 1 compared to the evaluation criteria is presented in **Table 14**.

7.4.2 Alternative 2: Targeted Excavation with Enhanced Bioremediation, Monitored Natural Attenuation, and Institutional Controls

Under this alternative, soil excavation for CVOCs would be performed within the source area, which is assumed to be in the parts washing area of the eastern machining building, and in localized areas at the perimeter of asphalt pavement areas with PAH exceedances in surface soil.

Based on the relatively low levels of total VOCs in groundwater, with a maximum total VOC concentration just over 600 µg/kg at GP-24, an extensive, significant source is not expected. A pre-design investigation would be required to confirm and delineate the source area. For this AAR, the excavation footprint is assumed to be centered on the former parts washing area (**Figure 18**). The soil would be excavated after the eastern machining building had been demolished and the floor slab removed.

The CVOC excavation area in the eastern machining building would be approximately 2,500 square feet and to a depth of approximately 12 feet resulting in the removal of approximately 1,111 cubic yards of soil. Prior to conducting remedial excavation work, the eastern machining building and concrete floor slab would be demolished. **Figure 19** presents the footprint for the building demolition area. The building attached to the northwest portion of the eastern machining building is not anticipated to require demolition for the remediation to proceed and is not included in the proposed demolition footprint. Excavation would be performed in the wet using trench boxes, thus eliminating the need for dewatering. Following excavation of the contaminated soil, bioremediation amendments would be applied to the open excavation to enhance degradation of residual VOCs in groundwater in and downgradient of the excavation. Potential bioremediation amendments could include PlumeStop, zero-valent iron (ZVI), hydrogen-releasing compounds (HRC), or Bio-Dechlor INOCULUM® (BDI) (DHC bacteria) manufactured by Regenesis. If used, these materials would be added to the open excavation prior to and during backfill by the contractor. Imported backfill and minimum 1 foot of soil cover meeting the requirements of DER-10 Section 5.4I would be placed and compacted in the excavation and finished to match surrounding grades, respectively.

Areas with surface soil PAH Commercial Use SCO exceedances would be remediated through targeted excavation totaling approximately 21 cubic yards of soil. Existing data (see **Tables 1 A** and **1B**) show that the impacts are limited to surface soil (i.e., within the upper 0.2-foot). Defined excavation limits will be established in each area (e.g., 5 feet by 5 feet by 1 foot deep). Confirmation excavation sidewall samples would be collected and analyzed for PAHs and additional excavation would be performed, if warranted, until soil demonstrates attainment of PAH Commercial Use SCOs.

This excavation alternative would be performed such that soil that fails to meet Commercial Use SCOs would be excavated and disposed off-site. A demarcation layer would be placed in the bottom of the PAH excavations and then excavations would be backfilled with clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d).

In addition to any actions required to address building demolition activities, site preparation activities for soil excavation would include the placement of erosion control materials and equipment decontamination areas to prevent migration of contaminated soil off-site. The removal, transportation, and disposal of contaminated soils would be accomplished with standard construction equipment, although the limited access within the building would require the use of relatively small equipment. Excavated soil would be screened, segregated, and stockpiled prior to being disposed off-site. Safety precautions would include a community air monitoring program (CAMP) to monitor for the presence of airborne volatile contaminants and dust. Bottom and sidewall limit of excavation soil samples would be collected and analyzed for VOCs and PAHs, as applicable. Additional soil collection for VOC/PAH

analysis would be performed for waste characterization prior to disposal. Based on the relatively low VOC/PAH concentrations in groundwater, it is assumed that excavated soil will be non-hazardous.

It is expected that the bioremediation amendments would not reach the entire VOC plume. Remediation of the remaining plume area would be addressed through MNA. MNA is considered to be a variety of physical, chemical, or biological processes that, under favorable conditions, act without human intervention to reduce the mass, toxicity, mobility, volume or concentration of contaminants in soil and groundwater. Such in-situ processes include biodegradation, dispersion, dilution, sorption, volatilization, and chemical or biological stabilization, transformation, or destruction of contaminants.

Implementing MNA would require groundwater monitoring of VOCs, target analyte list (TAL) metals, and the following MNA parameters in groundwater to evaluate attenuation reactions:

- Dissolved-oxygen
- Nitrate
- Iron
- Sulfate
- Alkalinity
- Oxidation-reduction potential
- pH
- Chloride
- Methane

For this AAR, it is assumed that groundwater samples would be collected from ten on-site monitoring wells on a semi-annual basis for a period of 30 years.

ICs, including an Environmental Easement (EE) and Site Management Plan (SMP), would be implemented to minimize the potential for human exposure by restricting resource usage, potentially including water use restrictions. ICs would remain in place until contaminant concentrations are reduced to levels allowing unrestricted use of the Site.

The estimated cost to implement Alternative 2 is:

Capital Cost:	$ 1,410,133
O&M Cost:	$ 304,135
Total Cost:	$ 1,714,268

The primary capital costs for this alternative include building demolition, soil excavation, bioremediation amendments, disposal, backfill, and restoration. It is estimated that site preparation, demolition, excavation, backfilling, and restoration activities would be completed in approximately four months. O&M costs would include groundwater monitoring to evaluate reductions in concentrations and the success of natural attenuation processes. A detailed analysis of Alternative 2 compared with the evaluation criteria is presented in **Table 14**.

For cost estimating purposes, O&M is assumed to occur over a 30-year period. A summary of the costs estimated for Alternative 2 is presented in **Table A1** in **Appendix A.**

7.4.3 Alternative 3 - Monitored Natural Attenuation and Institutional Controls

As with Alternative 2, implementing MNA would include monitoring VOCs, TAL metals, and the following MNA parameters (e.g., DO, nitrate, iron, sulfate, alkalinity, ORP, pH, chloride) in groundwater to evaluate attenuation reactions.

The eastern machining building would not be demolished but instead reused. Should the use of the eastern machining building include human occupancy, an SVI evaluation would be performed and mitigation implemented to address potential SVI exposures, if necessary. Contingency costs for an SVI evaluation and mitigation are included with this alternative.

For this AAR, it is assumed that groundwater samples would be collected from ten on-site monitoring wells on a semi-annual basis for a period of 30 years.

ICs, including an EE and SMP, would be implemented to minimize the potential for human exposure by requiring soil vapor intrusion assessment if there is a change in anticipated use for the eastern machining building (i.e., becomes occupied), restricting resource usage, and potentially including water use restrictions. ICs would remain in place until contaminant concentrations are reduced to levels allowing unrestricted use of the Site.

The estimated cost to implement Alternative 3 is:

Capital Cost:	$ 34,675
O&M Cost:	$ 304,135
Total Cost:	$ 338,810

The costs for this alternative include groundwater monitoring to evaluate reductions in concentrations and the success of MNA. A detailed analysis of Alternative 3 compared with the evaluation criteria is presented in **Table 14**.

For cost estimating purposes, O&M is assumed to occur over a 30-year period. A summary of the costs estimated for Alternative 3 is presented in **Table A2** in **Appendix A.**

7.4.4 Alternative 4: Enhanced Bioremediation with Targeted PAH Excavation and Institutional Controls

This alternative consists of injection of bioremediation amendments (e.g., PlumeStop, ZVI, HRC, or BDI) to enhance biological processes to convert contaminants to less harmful compounds. The eastern machining building would be demolished, and the floor slab removed and replaced with suitable imported material to form a cover system over sub-slab soils prior to performing the drilling associated with pre-design investigations and implementation of the remedial injections.

Prior to conducting remedial pre-design investigation and implementation work, the eastern machining building would be demolished, including the concrete floor slab. **Figure 19** presents the footprint for the building demolition area. The building attached to the northwest portion of the eastern machining building is a loading/unloading area with a gantry crane. It is anticipated this building may be used for storage of bulk materials with short duration occupancy by one or two workers. This area is not anticipated to require demolition in order for the remediation to proceed and is not included in the proposed demolition footprint. Following building demolition, a pre-design investigation that includes sampling of the source area to delineate VOC extent and treatment area would be performed to determine the depth and spacing of injection wells, as well as the optimal injectate solution. The injection system for enhanced biodegradation would consist of new injection well installations (as determined by

the pre-design investigation), chemical tanks, mixers, pumps, piping, and fittings. It is anticipated that the delivery of the selected amendment solution would be performed through injection points located in and around the concrete pad REC and in the area of the former parts washing area (See **Figure 20**).

The anticipated lifetime of the injected amendments would range up to three years, based upon the specific amendment chosen and dosage applied. For this AAR, no follow-up enhancement is assumed. An SMP would be prepared to monitor VOCs and MNA parameters (e.g., DO, nitrate, iron, sulfate, alkalinity, ORP, pH, chloride, methane) in groundwater to confirm successful concentration reduction. In addition, groundwater monitoring would include TAL metals to confirm the impacts remain on-site. Groundwater monitoring would begin with a baseline monitoring event prior to in-situ treatment. The post treatment monitoring program would begin approximately two weeks following completion of the treatment program.

The alternative includes targeted excavation of soil exceeding Commercial Use PAH SCOs. Prior to excavation, a pre-design investigation will be performed to delineate the lateral and vertical extent of soil exceeding Commercial Use SCOs. A demarcation layer would be placed in the bottom of the PAH excavations and then excavated areas would be backfilled with clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d).

ICs, including an EE and SMP, would be implemented to minimize the potential for human exposure by restricting resource usage, potentially including water use restrictions. ICs would remain in place until contaminant concentrations are reduced to levels allowing unrestricted use of the Site.

The estimated cost to implement Alternative 4 is:

Capital Cost:	$1,281,654
O&M Cost:	$ 158,275
Total Cost:	$1,439,929

The primary capital costs associated with this alternative are building demolition, bioremediation amendments, installation of injection points, and injection labor and equipment. Additional O&M costs include performance monitoring and future follow-up injection of amendments and monitoring. For this AAR, it is assumed that groundwater would be remediated to acceptable levels within one year and groundwater samples would be collected quarterly from ten on-site monitoring wells for two years following treatment and then annually for eight more years.

This alternative includes a contingency for an SVI evaluation, and mitigation if needed, should the occupancy change in the northwest portion of the eastern machining building or future development of the former eastern machining building or area.

A summary of the costs estimated for Alternative 5 is presented in **Table A3** in **Appendix A.**

7.4.5 Alternative 5: Remediate to Unrestricted Use

DER-10 requires evaluation of an alternative that can achieve unrestricted use of the Site. Alternative 5 would be performed such that soil would be remediated through excavation to meet Unrestricted Use SCOs and groundwater would be remediated through excavation dewatering and installation and operation of a pump and treat system until groundwater meets ambient water quality criteria. **Table 12** and **Figure 17** present soil locations exceeding Unrestricted Use SCOs.

Prior to conducting remedial pre-design investigation and implementation work, the eastern machining building and concrete floor slab would be demolished. The building attached to the northwest portion of

the eastern machining building is not anticipated to require demolition in order for the remediation to proceed and is not included in the proposed demolition footprint.

Soil remediation would be accomplished through targeted excavations across the site. Set excavation limits and depths would be established for each proposed excavation area.

Pond sediment remediation would be accomplished through pond dewatering followed by excavation of sediment/soil to a depth of 2 feet.

Excavation bottom and sidewall soil confirmation samples would be collected and analyzed for VOCs, metals, pesticides, and PAHs, as applicable. Additional soil collection would be performed for waste characterization prior to disposal. Based on the relatively low contaminant concentrations, it is assumed that excavated soil would be non-hazardous.

Groundwater remediation would be accomplished through dewatering during excavation of the suspected source area followed by the installation and operation of a pump and treat system to address areas with remaining groundwater VOC and metals impacts. A ten-year duration is assumed for operation of the groundwater pump and treat system to reduce contaminant concentrations to acceptable levels.

During remediation, ICs, including an EE, would be implemented to minimize the potential for human exposure by restricting resource usage, potentially including water use restrictions. At the completion of the remedial action, no ICs or ECs would be required.

The estimated cost to implement Alternative 5 is:

Capital Cost:	$ 5,541,612
O&M Cost:	$ 395,688
Total Cost:	$ 5,937,300

The primary capital costs associated with this alternative are building demolition, soil excavation, groundwater extraction and treatment, and pond dewatering and excavation. Following remediation, all contaminants would be at acceptable levels with no further action and the site would be available for unrestricted use.

A detailed analysis compared with the evaluation criteria is presented in **Table 14**.

A summary of the costs estimated for Alternative 5 is presented in **Table A4** in **Appendix A.**

8.0 COMPARATIVE ANALYSES OF REMEDIAL ALTERNATIVES

After individual evaluation of each alternative based on the criteria defined in Section 7, comparative analyses were conducted to evaluate the relative performance of each alternative. The purpose of the analyses was to identify the advantages and disadvantages of each alternative relative to the others so that key tradeoffs could be identified and balanced. Overall protection of human health and the environment and compliance with SCGs must be met by any selected alternative. Tradeoffs among the alternatives are related to five criteria: long-term effectiveness and permanence; reduction of toxicity, mobility and volume; short-term effectiveness; implementability; and cost. The remediation timeframes for each alternative are important to consider when comparing short-term effectiveness, compliance with SCGs, protection of human health and environment, and land use. State and community acceptance would be addressed following regulatory review and a public comment period after a remedy has been recommended. **Table 14** summarizes the comparative analysis of the alternatives and ranks each alternative for each of the criteria.

Overall Protection of Human Health and the Environment

All alternatives, with the exception of Alternative 1, would be protective of human health and the environment by eliminating potential exposure pathways. For Alternatives 2, 3, 4, and 5, ICs including an EE would be in place until the remedial action achieves compliance with Unrestricted Use SCGs. Alternative 4 – Enhanced Bioremediation with Targeted PAH Excavation and Institutional Controls and Alternative 5 – Remediation to Unrestricted Use are considered more protective than Alternative 3 by expediting the dechlorination of CVOCs, as it could take MNA considerably longer to reduce contaminant concentrations.

Compliance with SCGs

All alternatives would meet the SCGs for groundwater over time. They would achieve overall protection of human health and the environment by the remedial actions and/or the implementation of MNA. However, alternatives would meet SCGs in varying periods of time based on the degree of active remediation proposed. Alternative 4 is expected to meet the SCGs in the shortest period of time.

All alternatives would be implemented such that action-specific and location-specific SCGs would be met.

Long-Term Effectiveness and Permanence

All alternatives except for Alternative 1 would result in permanent reduction of impacted media. Alternative 1 would be least effective because it would involve no removal, immobilization or containment of impacted materials. Alternative 3 would rely solely on MNA. Alternative 2 would expedite contaminant reduction through excavation and enhanced bioremediation in the assumed source area. Because there would still be contaminants exceeding SCGs away from the assumed source area, reduction of those contaminants to below SCG concentrations will rely on MNA. Alternative 5 would address contaminants away from the source area through groundwater collection and treatment. Comparatively, Alternative 4 would achieve remediation goals in the shortest period of time.

Reduction of Toxicity, Mobility, and Volume

All alternatives would result in reduction in toxicity of contamination but at differing timeframes.

Short-Term Effectiveness

All alternatives except Alternative 1 would include measures to minimize and mitigate exposure risks to the community, the workers, and the environment during implementation. The focused excavation component of Alternatives 2 and 5 have the highest potential exposure to contamination from exposed materials, dust, and volatilized organic vapors, as well as potential impacts associated with transportation of excavated soil and concrete to the disposal/recycling facility.

Implementability

Each of the presented alternatives could be implemented, although the degree of difficulty varies between the alternatives. Prior to conducting any intrusive work for Alternative 2, 4 and 5, the eastern machining building would be demolished. Demolition of buildings of this age and size are common, not overly complex, and experienced contractors are regionally available. Demolition of the building is readily implementable. The focused excavation component of Alternatives 2 and 5 would face greater implementability challenges as compared to Alternative 4 due to the need for groundwater management, larger remediation equipment (e.g., excavator), handling and stockpiling excavated soils, and site management. Enhanced bioremediation in Alternative 4 can be readily implemented with widely available equipment and remediation amendments. However, the ability to distribute the bioremediation materials throughout the contaminant plume will be crucial for the success of this remedial alternative.

Land Use

Each alternative includes some degree of ICs until SCGs are attained. While all alternatives are expected to achieve Commercial Use SCGs, contaminant concentrations would continue to decrease over time, eventually achieving Unrestricted Use SCGs. Alternative 5 would meet Unrestricted Use SCGs in the shortest period of time.

Green Remediation

All remediation and construction activities pose an environmental impact from vehicle usage, chemical and materials manufacture, sampling activities, and laboratory analysis. Building demolition would include recycling materials such as structural steel and potentially beneficial reuse for materials such as crushed concrete. Excavation would have the greatest environmental impact due to the heavy vehicle usage to excavate and transport contaminated materials off-site. Generally, in-situ remediation technologies can be completed more sustainably than removal processes. The MNA alternative relies on natural processes, which are viewed favorably by DER-31.

Cost

The cost estimate for each alternative is included in **Table 14**. Alternative 5 presents the greatest cost, followed by Alternative 2. Alternative 3, MNA and ICs, offers significant cost savings.

Community Acceptance

Community acceptance is typically evaluated following a public comment period, after a remedy has been proposed. For the evaluated alternatives, short-term community impacts, long-term land use, and overall protection of human health and the environment are anticipated to be the most important aspects to consider for local area stakeholders.

9.0 RECOMMENDED REMEDIAL ALTERNATIVE

Alternative 4 – Enhanced bioremediation, with targeted PAH excavation and ICs is the recommended alternative based on the detailed evaluation and comparative analysis. Elevated CVOC concentrations at the Site are limited to an area associated with the former parts washing machine inside the eastern machining building and a concrete pad outside and adjacent to the eastern machining building. The presence of degradation products of PCE and TCE demonstrates that reductive dechlorination is supported and natural attenuation is occurring. Enhanced bioremediation would expedite the natural attenuation processes. Potential exposure to impacted groundwater and soil is considered minimal because groundwater is not used as a water source, the impacts are minor and occur at depth, much of the impacted area is covered by buildings and pavement, and the contamination is not migrating off-site.

PAH-impacted soil would be remediated through targeted excavation.

Establishing ICs, including actively monitoring in accordance with an SMP, would protect public exposure from the distal CVOC concentrations as natural attenuation progresses. A contingency for SVI evaluation and mitigation, if necessary, is included with this alternative, should site conditions change to include building construction and occupancy over areas with potential SVI exposure.

While Alternative 3 is the lowest estimated cost alternative and is considered a “greener” technology than the other alternatives evaluated, Alternative 4 offers a more accelerated path to achieving RAGs. Alternative 4 also poses significantly less risk to Site workers than excavation for implementation.

Elements of Remediation

The recommended alternative consists of injection of bioremediation amendments (e.g., PlumeStop, ZVI, HRC, or BDI) to enhance biological processes to convert contaminants to less harmful compounds. The eastern machining building would be demolished, and the floor slab removed and replaced with imported material meeting the requirements of 6 NYCRR Part 375-6.7(d) over sub-slab soils prior to performing the drilling associated with pre-design investigations and implementation of the remedial injections. **Figure 19** presents the footprint for the building demolition area.

Following building demolition, a pre-design investigation would be performed in the source area to determine the extent of VOC impacts and treatment area, depth and spacing of injection points, as well as the optimal injectate solution. The injection system for enhanced biodegradation would consist of new injection well installations, chemical tanks, mixers, pumps, piping, and fittings. It is anticipated that the delivery of the selected amendment solution would be performed through injection points located in and around the concrete pad REC and in and around the area of the former parts washing area (**see Figure 20**).

The anticipated lifetime of the injected amendments would range up to three years. For this AAR, no follow-up enhancement is assumed.

The alternative includes a contingency for an SVI evaluation, and mitigation if needed, should the occupancy change in the northwest portion of the eastern machining building or future development of the former eastern machining building.

The alternative also includes targeted excavation of soil exceeding Commercial Use PAH SCOs. Prior to excavation, a pre-design investigation will be performed to delineate the lateral and vertical extent of soil exceeding Commercial Use PAH SCOs.

Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principals and techniques will be implemented to the extent feasible in the design, implementation, and 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;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

Excavation

The existing on-site eastern machining building(s) will be demolished and the nature and extent of contamination in this area, where access was previously limited or unavailable, will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, the Remedial Action Work Plan (RAWP) will include removal and/or treatment of any source areas to the extent feasible. All soils in the upper foot which exceed the Commercial Use SCOs will be excavated and transported off-site for disposal. Approximately 21 cubic yards of contaminated soil will be removed from the site.

Backfill

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace the excavated soil and establish the designed grades at the site.

Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for commercial or industrial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of

exposed surface soil meets the applicable Commercial Use SCOs. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

A site cover will be required to allow for commercial or industrial use of the site in areas where the upper one foot of exposed surface soil will exceed the applicable SCOs. Where a soil cover is to be used it will be a minimum of one foot of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations and building slabs.

Groundwater Remedy

Monitoring will be required up-gradient, down-gradient, and within the treatment zone, Monitoring will be conducted for VOCs and metals upgradient, down-gradient, and within the treatment zone. To evaluate the enhanced bioremediation remedy, the treatment zone will also be monitored for the following:

- Dissolved-oxygen
- Nitrate
- Iron
- Sulfate
- Alkalinity
- Oxidation-reduction potential
- pH
- Chloride
- Methane

A baseline groundwater monitoring program will be implemented to provide groundwater quality data prior to in-situ enhanced bioremediation.

Enhanced Bioremediation

In-situ enhanced biodegradation will be employed to treat chlorinated VOCs in groundwater in the area depicted on **Figure 20**. The biological breakdown of contaminants through anaerobic reductive dechlorination will be enhanced by the placement of bacteria and nutrients into the subsurface to promote microbe growth. The bacteria and nutrients will be placed into the subsurface via injection points from 3 to 10 feet. In the event that appropriate aquifer pH (6-8) and total organic carbon (TOC) concentration (greater than 50 mg/l) cannot be simultaneously maintained, the injection solution will be buffered with sodium bicarbonate to counteract the organic acids generated from biological activity.

Engineering and Institutional Controls

Imposition of an IC in the form of an EE and an SMP, as described below, will be required. The remedy will achieve a Track 4 commercial cleanup at a minimum and will include imposition of a site cover.

Imposition of an institutional control in the form of an EE for the controlled property which will:

- require the remedial party or site owner to complete and submit to the NYSDEC a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County Department of Health; and
- require compliance with the NYSDEC approved SMP.

Site Management Plan

An SMP is required, which includes the following:

1. an 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: The Environmental Easement discussed above.

   Engineering Controls: The soil cover discussed above.

   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/or groundwater use restrictions;
   - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
   - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable SCOs
   - provisions for the management and inspection of the identified engineering controls;
   - maintaining site access controls and Department notification; and
   - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

2. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

   - monitoring of groundwater and soil vapor intrusion to assess the performance and effectiveness of the remedy;
   - a schedule of monitoring and frequency of submittals to the Department; and,

- monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Cost

The estimated cost to implement Alternative 4 is:

Capital Cost:	$1,281,654
O&M Cost:	$ 158,275
Total Cost:	$1,439,929

10.0 REFERENCES

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Village of Medina, NY Code Part II – General Legislation, Chapter 254 – Zoning, includes legislation adopted through February 27, 2017.

Tables

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-14	MW-15	MW-16	MW-16	MW-17
Sample ID					MW-14-SS (0-2)"	MW-15-SS	MW-16-SS	MW-66-SS	MW-17-SS
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					02/27/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Volatile Organic Compounds									
Tetrachloroethene	MG/KG	2	1.3	150					
Semivolatile Organic Compounds									
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500			0.045 J		
Acenaphthene	MG/KG	20	98	500					
Anthracene	MG/KG	NS	1000	500		1.1 J			
Benzo(a)anthracene	MG/KG	NS	1	5.6	0.72 J	7.1	0.11 J		
Benzo(a)pyrene	MG/KG	2.6	22	1	0.82 J	6.8	0.12 J	0.030 J	
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	1.1 J	10	0.17 J	0.044 J	
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	0.69 J	5.9	0.14 J	0.037 J	
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	0.47 J	4.4 J	0.085 J		
bis(2-Ethylhexyl)phthalate	MG/KG	239	435	-			0.066 J	0.063 J	
Carbazole	MG/KG	-	-	-		1.0 J			
Chrysene	MG/KG	NS	1	56	1.0 J	9.1	0.16 J		
Dibenz(a,h)anthracene	MG/KG	NS	1000	0.56		1.5 J			
Di-n-octylphthalate	MG/KG	-	120	-		5.4	0.059 J		
Fluoranthene	MG/KG	NS	1000	500	1.8 J	18	0.27 J	0.047 J	
Fluorene	MG/KG	30	386	500					
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	0.58 J	4.7	0.10 J	0.030 J	
Phenanthrene	MG/KG	NS	1000	500	0.77 J	8.0	0.092 J		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1A
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FORMER BERNZOMATIC FACILITY

Location ID					MW-14	MW-15	MW-16	MW-16	MW-17
Sample ID					MW-14-SS (0-2)"	MW-15-SS	MW-16-SS	MW-66-SS	MW-17-SS
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					02/27/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Semivolatile Organic Compounds									
Pyrene	MG/KG	NS	1000	500	1.6 J	15	0.24 J	0.040 J	
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92					
4,4'-DDE	MG/KG	0.0033	17	62	0.0027 J				
4,4'-DDT	MG/KG	0.0033	136	47	0.0047 J		0.00071 J		
alpha-BHC	MG/KG	0.04	0.02	3.4					
gamma-BHC (Lindane)	MG/KG	6	0.1	9.2		0.023 J			
Metals									
Aluminum	MG/KG	10000	-	-	7,790	6,000	2,980	3,030	2,770
Antimony	MG/KG	12	-	-		0.94 J			
Arsenic	MG/KG	13	16	16	3.7	2.8	4.6	4.0	4.4
Barium	MG/KG	433	820	400	54.3	50.2	12.0 J	25.7 J	9.1
Beryllium	MG/KG	10	47	590	0.38	0.27 J	0.17 J	0.18 J	0.16 J
Cadmium	MG/KG	4	7.5	9.3	0.26	1.1	0.057 J	0.23	
Calcium	MG/KG	10000	-	-	17,900	86,600 J	169,000	169,000	163,000
Chromium	MG/KG	41	NS	1500	10.6	13.7	4.7	5.3	5.0
Cobalt	MG/KG	20	-	-	4.2	3.8	2.0	1.9	1.7
Copper	MG/KG	50	1720	270	24.7	42.9	7.9	7.6	6.4
Iron	MG/KG	-	-	-	12,100	15,300 J	8,800	7,010	6,200

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-14	MW-15	MW-16	MW-16	MW-17
Sample ID					MW-14-SS (0-2)"	MW-15-SS	MW-16-SS	MW-66-SS	MW-17-SS
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					02/27/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Lead	MG/KG	63	450	1000	65.1	28.2	26.4	18.0	17.1
Magnesium	MG/KG	-	-	-	9,480	26,800	102,000	105,000	102,000
Manganese	MG/KG	1600	2000	10000	280	328 J	461	480	433
Mercury	MG/KG	0.18	0.73	2.8	0.040	0.024 J			
Nickel	MG/KG	30	130	310	10.4	12.4	4.7 J	4.7 J	3.6 J
Potassium	MG/KG	-	-	-	1,400	1,000	1,630	1,590	1,500
Selenium	MG/KG	3.9	4	1500	1.9 J				
Silver	MG/KG	2	8.3	1500			0.24 J		
Sodium	MG/KG	-	-	-	156 J	206	188	202	202
Thallium	MG/KG	5	-	-	0.41 J				
Vanadium	MG/KG	39	-	-	16.8	14.5	5.2	5.5	5.1
Zinc	MG/KG	109	2480	10000	67.9	132 J	19.8 J	53.3 J	16.0

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

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[SITE KEY] = 22 AND [MATRIX] = 'SO' AND ([SBD] = '0' AND [SED] = '0.16')

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-18	MW-19	MW-20	SB-05	SB-06
Sample ID					MW-18-SS (0-2)	MW-19-SS (0-2)"	MW-20-SS	SB-05-SS	SB-06-SS (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					03/01/17	02/27/17	02/28/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
Tetrachloroethene	MG/KG	2	1.3	150					
Semivolatile Organic Compounds									
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500					
Acenaphthene	MG/KG	20	98	500					
Anthracene	MG/KG	NS	1000	500					
Benzo(a)anthracene	MG/KG	NS	1	5.6		0.88 J		0.54 J	0.92 J
Benzo(a)pyrene	MG/KG	2.6	22	1		0.90 J		0.62 J	0.93 J
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6		1.3		0.68 J	1.1 J
Benzo(g,h,i)perylene	MG/KG	NS	1000	500		0.76 J		0.62 J	0.78 J
Benzo(k)fluoranthene	MG/KG	NS	1.7	56		0.55 J			0.70 J
bis(2-Ethylhexyl)phthalate	MG/KG	239	435	-					
Carbazole	MG/KG	-	-	-		0.14 J			
Chrysene	MG/KG	NS	1	56		1.1			1.2 J
Dibenz(a,h)anthracene	MG/KG	NS	1000	0.56					
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500	0.44 J	2.5		1.3 J	2.5
Fluorene	MG/KG	30	386	500					
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6		0.64 J		0.53 J	0.66 J
Phenanthrene	MG/KG	NS	1000	500		1.4			1.3 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

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FORMER BERNZOMATIC FACILITY

Location ID					MW-18	MW-19	MW-20	SB-05	SB-06
Sample ID					MW-18-SS (0-2)	MW-19-SS (0-2)"	MW-20-SS	SB-05-SS	SB-06-SS (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					03/01/17	02/27/17	02/28/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Pyrene	MG/KG	NS	1000	500		2.1		1.1 J	2.0 J
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92		0.0044 J			
4,4'-DDE	MG/KG	0.0033	17	62	0.14 J	0.0026 J		0.0012 J	0.0046 J
4,4'-DDT	MG/KG	0.0033	136	47	0.032 J	0.021 J	0.00049 J	0.0026 J	0.0063 J
alpha-BHC	MG/KG	0.04	0.02	3.4				0.0014 J	
gamma-BHC (Lindane)	MG/KG	6	0.1	9.2					
Metals									
Aluminum	MG/KG	10000	-	-	5,030	13,500	2,380	6,080	13,800
Antimony	MG/KG	12	-	-					
Arsenic	MG/KG	13	16	16	6.8	7.6	3.5	2.5	3.3
Barium	MG/KG	433	820	400	28.7 J	76.9	8.4	41.2	47.6
Beryllium	MG/KG	10	47	590	0.21 J	0.51	0.13 J	0.27	0.35
Cadmium	MG/KG	4	7.5	9.3	0.51 J	0.41	0.068 J	0.19 J	0.19 J
Calcium	MG/KG	10000	-	-	109,000	5,270	180,000	17,600	4,600
Chromium	MG/KG	41	NS	1500	8.2	15.0	3.7	7.5	13.3
Cobalt	MG/KG	20	-	-	2.7	6.1	1.6	4.6	4.9
Copper	MG/KG	50	1720	270	43.4 J	48.5		19.9	32.6
Iron	MG/KG	-	-	-	9,870	21,000	6,030	10,500	13,600

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-18	MW-19	MW-20	SB-05	SB-06
Sample ID					MW-18-SS (0-2)	MW-19-SS (0-2)"	MW-20-SS	SB-05-SS	SB-06-SS (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					03/01/17	02/27/17	02/28/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Lead	MG/KG	63	450	1000	81.7 J	32.6	18.6	15.2	20.9
Magnesium	MG/KG	-	-	-	66,900	3,210	114,000	4,780	3,410
Manganese	MG/KG	1600	2000	10000	716 J-	787	556	514	253
Mercury	MG/KG	0.18	0.73	2.8	0.046	0.050		0.18	0.056
Nickel	MG/KG	30	130	310	6.9 J	13.4	3.3 J	8.6	11.7
Potassium	MG/KG	-	-	-	1,350	1,510	1,340	862	1,240
Selenium	MG/KG	3.9	4	1500		0.83 J			1.2 J
Silver	MG/KG	2	8.3	1500					
Sodium	MG/KG	-	-	-	171 J	83.4 J	199		76.2 J
Thallium	MG/KG	5	-	-					
Vanadium	MG/KG	39	-	-	12.1	26.1	4.2	15.5	23.7
Zinc	MG/KG	109	2480	10000	77.5 J	93.0	20.7	48.0	64.5

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SS-01	SS-01	SS-02
Sample ID					SB-07-SS (0-2)"	SB-08-SS (0-2)"	SS-01	SS-51	SS-02
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					02/27/17	02/27/17	03/08/17	03/08/17	03/08/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Volatile Organic Compounds									
Tetrachloroethene	MG/KG	2	1.3	150	0.0012 J				
Semivolatile Organic Compounds									
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500					
Acenaphthene	MG/KG	20	98	500					
Anthracene	MG/KG	NS	1000	500			1.8 J	2.2 J	
Benzo(a)anthracene	MG/KG	NS	1	5.6	0.61 J	0.37 J	9.3	10	2.3 J
Benzo(a)pyrene	MG/KG	2.6	22	1	0.68 J	0.40 J	9.3	10	2.5 J
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6		0.49 J	13	15	3.5 J
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	0.55 J	0.33 J	7.2	8.1	2.1 J
Benzo(k)fluoranthene	MG/KG	NS	1.7	56			4.9 J	5.0 J	1.7 J
bis(2-Ethylhexyl)phthalate	MG/KG	239	435	-	3.0 J				
Carbazole	MG/KG	-	-	-			0.82 J	0.99 J	
Chrysene	MG/KG	NS	1	56			10	12	3.0 J
Dibenz(a,h)anthracene	MG/KG	NS	1000	0.56					
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500	1.1 J	0.79 J	26	30	6.0
Fluorene	MG/KG	30	386	500				0.66 J	
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6		0.31 J	5.7	6.9	1.8 J
Phenanthrene	MG/KG	NS	1000	500			12	14	2.6 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SS-01	SS-01	SS-02
Sample ID					SB-07-SS (0-2)"	SB-08-SS (0-2)"	SS-01	SS-51	SS-02
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					02/27/17	02/27/17	03/08/17	03/08/17	03/08/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Semivolatile Organic Compounds									
Pyrene	MG/KG	NS	1000	500	0.86 J	0.64 J	18	21	4.9 J
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92					
4,4'-DDE	MG/KG	0.0033	17	62		0.0040 J			
4,4'-DDT	MG/KG	0.0033	136	47		0.0029 J			
alpha-BHC	MG/KG	0.04	0.02	3.4					
gamma-BHC (Lindane)	MG/KG	6	0.1	9.2					
Metals									
Aluminum	MG/KG	10000	-	-	12,000	11,000	5,800	6,230	9,670
Antimony	MG/KG	12	-	-					
Arsenic	MG/KG	13	16	16	4.8	5.4 J	3.0 J	2.9 J	4.7
Barium	MG/KG	433	820	400	59.3	69.6	37.0	37.0	71.2
Beryllium	MG/KG	10	47	590	0.44	0.42 J	0.28 J	0.36	0.44
Cadmium	MG/KG	4	7.5	9.3	0.32	0.40 J	0.46	0.35	0.29 J
Calcium	MG/KG	10000	-	-	8,730	23,500	64,800	54,300	12,600
Chromium	MG/KG	41	NS	1500	13.3	13.8 J	7.9	11.8	11.3
Cobalt	MG/KG	20	-	-	5.4	5.2	3.0	3.7	4.5
Copper	MG/KG	50	1720	270	27.8	22.1 J	26.2	27.7	33.5
Iron	MG/KG	-	-	-	13,700	13,900	9,310	9,640	11,800

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SS-01	SS-01	SS-02
Sample ID					SB-07-SS (0-2)"	SB-08-SS (0-2)"	SS-01	SS-51	SS-02
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					02/27/17	02/27/17	03/08/17	03/08/17	03/08/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Lead	MG/KG	63	450	1000	39.3	80.3 J	29.7	46.9	69.6
Magnesium	MG/KG	-	-	-	5,200	14,600	28,100 J	11,600 J	5,120
Manganese	MG/KG	1600	2000	10000	424	434	367	306	261
Mercury	MG/KG	0.18	0.73	2.8	0.090	0.12	0.032	0.031 J	0.043
Nickel	MG/KG	30	130	310	12.7	11.2	8.7	9.9	11.7
Potassium	MG/KG	-	-	-	1,700	1,480	1,000	1,080	913
Selenium	MG/KG	3.9	4	1500	0.63 J				
Silver	MG/KG	2	8.3	1500					
Sodium	MG/KG	-	-	-	68.4 J	86.1 J			
Thallium	MG/KG	5	-	-					
Vanadium	MG/KG	39	-	-	21.0	20.5	12.7	15.3	17.5
Zinc	MG/KG	109	2480	10000	103	107 J	91.2	81.6	95.1 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-07
Sample ID					SS-03	SS-04-0-2_040618	SS-05-0-2_040618	SS-06-0-2_040618	SS-07-0-2_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
Tetrachloroethene	MG/KG	2	1.3	150		NA	NA	NA	NA
Semivolatile Organic Compounds									
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500					
Acenaphthene	MG/KG	20	98	500	0.56 J				
Anthracene	MG/KG	NS	1000	500	1.2 J				
Benzo(a)anthracene	MG/KG	NS	1	5.6	6.4	0.21 J	0.26 J	0.21 J	0.88 J
Benzo(a)pyrene	MG/KG	2.6	22	1	7.5	0.3 J	0.33 J		0.99 J
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	11	0.37 J	0.37 J	0.27 J	1.4
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	6.0		0.25 J	0.17 J	0.75 J
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	5.4	0.21 J	0.23 J		0.72 J
bis(2-Ethylhexyl)phthalate	MG/KG	239	435	-					
Carbazole	MG/KG	-	-	-	1.9 J				0.18 J
Chrysene	MG/KG	NS	1	56	9.5	0.31 J	0.3 J		1.3
Dibenz(a,h)anthracene	MG/KG	NS	1000	0.56					
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500	26	0.63 J	0.7 J	0.54 J	2.6
Fluorene	MG/KG	30	386	500	0.59 J				
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	5.0	0.24 J			0.7 J
Phenanthrene	MG/KG	NS	1000	500	14	0.28 J	0.27 J	0.23 J	1.1 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-07
Sample ID					SS-03	SS-04-0-2_040618	SS-05-0-2_040618	SS-06-0-2_040618	SS-07-0-2_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Pyrene	MG/KG	NS	1000	500	18	0.47 J	0.46 J	0.37 J	2.1
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92		NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62		NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	0.012 J	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4		NA	NA	NA	NA
gamma-BHC (Lindane)	MG/KG	6	0.1	9.2		NA	NA	NA	NA
Metals									
Aluminum	MG/KG	10000	-	-	10,200	NA	NA	NA	NA
Antimony	MG/KG	12	-	-		NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	3.6	NA	NA	NA	NA
Barium	MG/KG	433	820	400	40.0 J+	NA	NA	NA	NA
Beryllium	MG/KG	10	47	590	0.28 J	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3	0.78	NA	NA	NA	NA
Calcium	MG/KG	10000	-	-	28,700	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	12.3	NA	NA	NA	NA
Cobalt	MG/KG	20	-	-	2.8	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	15.7	NA	NA	NA	NA
Iron	MG/KG	-	-	-	11,700	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1A
SURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-07
Sample ID					SS-03	SS-04-0-2_040618	SS-05-0-2_040618	SS-06-0-2_040618	SS-07-0-2_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2	0.0-0.2
Date Sampled					03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Lead	MG/KG	63	450	1000	30.2	NA	NA	NA	NA
Magnesium	MG/KG	-	-	-	14,800	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	262	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	0.051	NA	NA	NA	NA
Nickel	MG/KG	30	130	310	7.3 J	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	1,080	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500		NA	NA	NA	NA
Silver	MG/KG	2	8.3	1500		NA	NA	NA	NA
Sodium	MG/KG	-	-	-	107 J	NA	NA	NA	NA
Thallium	MG/KG	5	-	-		NA	NA	NA	NA
Vanadium	MG/KG	39	-	-	19.7	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	77.4	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID					MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**			Field Duplicate (1-1)		
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500		0.00036 J			
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500	0.0051 J	0.0049	0.0049 J		0.0015 J
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-		0.00025 J			
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500		0.00040 J			
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-		8.10E-05 J			
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150					
Toluene	MG/KG	36	0.7	500					
Trichloroethene	MG/KG	2	0.47	200					0.00019 J
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	NS	1	5.6	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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NJ - The analyte has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID					MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**			Field Duplicate (1-1)		
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	NA	NA	NA	NA	NA
Chrysene	MG/KG	NS	1	56	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	8.1	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	120	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	NA	NA	NA	NA	NA
Naphthalene	MG/KG	NS	12	500	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pyrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID					MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	Units	Criteria (1)	Criteria (2)	Criteria (3)			Field Duplicate (1-1)		
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	NA	NA	NA	NA	NA
Barium	MG/KG	433	820	400	NA	NA	NA	NA	NA
Beryllium	MG/KG	10	47	590	NA	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	-	-	NA	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	NA	NA	NA	NA	NA
Iron	MG/KG	-	-	-	NA	NA	NA	NA	NA
Lead	MG/KG	63	450	1000	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	NA	NA	NA	NA	NA
Nickel	MG/KG	30	130	310	NA	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500	NA	NA	NA	NA	NA
Sodium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Thallium	MG/KG	5	-	-	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID					MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**			Field Duplicate (1-1)		
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID					MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500					
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500	0.0024 J	0.0051 J			0.018
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500					0.0024 J
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-					
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150					0.0077
Toluene	MG/KG	36	0.7	500					0.00030 J
Trichloroethene	MG/KG	2	0.47	200				0.00017 J	0.00039 J
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	NS	1	5.6	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID					MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	NA	NA	NA	NA	NA
Chrysene	MG/KG	NS	1	56	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	8.1	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	120	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	NA	NA	NA	NA	NA
Naphthalene	MG/KG	NS	12	500	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pyrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID					MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	NA	NA	NA	NA	NA
Barium	MG/KG	433	820	400	NA	NA	NA	NA	NA
Beryllium	MG/KG	10	47	590	NA	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	-	-	NA	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	NA	NA	NA	NA	NA
Iron	MG/KG	-	-	-	NA	NA	NA	NA	NA
Lead	MG/KG	63	450	1000	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	NA	NA	NA	NA	NA
Nickel	MG/KG	30	130	310	NA	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500	NA	NA	NA	NA	NA
Sodium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Thallium	MG/KG	5	-	-	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID					MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled					10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID					MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled					10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					0.00014 J
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500		0.0086		0.00032 J	0.00050 J
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500		0.00026 J			
Acetone	MG/KG	2.2	0.05	500		0.0048 JB*	0.0037 JB*	0.0039 JB*	0.0032 JB*
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350	0.00017 J				
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500			0.00071 J	0.00065 J	
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-	0.00017 J				
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150	0.0019	0.0067		0.0018	0.0027
Toluene	MG/KG	36	0.7	500					
Trichloroethene	MG/KG	2	0.47	200	0.00029 J	0.0049		0.0020	0.0030
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	NS	1	5.6	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID					MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled					10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	NA	NA	NA	NA	NA
Chrysene	MG/KG	NS	1	56	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	8.1	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	120	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	NA	NA	NA	NA	NA
Naphthalene	MG/KG	NS	12	500	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pyrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID					MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled					10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	NA	NA	NA	NA	NA
Barium	MG/KG	433	820	400	NA	NA	NA	NA	NA
Beryllium	MG/KG	10	47	590	NA	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	-	-	NA	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	NA	NA	NA	NA	NA
Iron	MG/KG	-	-	-	NA	NA	NA	NA	NA
Lead	MG/KG	63	450	1000	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	NA	NA	NA	NA	NA
Nickel	MG/KG	30	130	310	NA	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500	NA	NA	NA	NA	NA
Sodium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Thallium	MG/KG	5	-	-	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID					MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled					10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID					MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled					02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500				0.00031 J	0.00023 J
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500	0.00065 J			0.00038 J	0.00054 J
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500	0.0049 J	0.0017 J		0.0036 J	0.0022 J
Benzene	MG/KG	70	0.06	44		0.00014 J			0.00015 J
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500					
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-					0.00035 J
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150	0.0030		0.050	0.00038 J	0.00078 J
Toluene	MG/KG	36	0.7	500		0.00014 J			0.00025 J
Trichloroethene	MG/KG	2	0.47	200	0.0012 J		0.024	0.0045	0.0038
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	NS	1	5.6	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID					MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled					02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	NA	NA	NA	NA	NA
Chrysene	MG/KG	NS	1	56	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	8.1	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	120	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	NA	NA	NA	NA	NA
Naphthalene	MG/KG	NS	12	500	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pyrene	MG/KG	NS	1000	500	NA	NA	NA	NA	NA
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID					MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled					02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	NA	NA	NA	NA	NA
Barium	MG/KG	433	820	400	NA	NA	NA	NA	NA
Beryllium	MG/KG	10	47	590	NA	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	-	-	NA	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	NA	NA	NA	NA	NA
Iron	MG/KG	-	-	-	NA	NA	NA	NA	NA
Lead	MG/KG	63	450	1000	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	NA	NA	NA	NA	NA
Nickel	MG/KG	30	130	310	NA	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500	NA	NA	NA	NA	NA
Sodium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Thallium	MG/KG	5	-	-	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID					MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled					02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-12	MW-13	MW-14	MW-15	MW-16
Sample ID					MW-12 (11-12)	MW-13 (2-3)	MW-14-0102	MW-15-03	MW-16-0405
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					11.0-12.0	2.0-3.0	1.0-2.0	2.5-3.0	4.0-5.0
Date Sampled					02/05/15	02/06/15	02/27/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500					
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500		0.063			0.031
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500		0.010 J			
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-		0.00086 J			
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150					
Toluene	MG/KG	36	0.7	500					
Trichloroethene	MG/KG	2	0.47	200					
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-	NA	NA			
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA			
Benzo(a)anthracene	MG/KG	NS	1	5.6	NA	NA	0.24 J	0.19 J	

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

JB - The reported concentration is an estimated value and has been detected in an associated method blank.

NJ - The analyte has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-12	MW-13	MW-14	MW-15	MW-16
Sample ID					MW-12 (11-12)	MW-13 (2-3)	MW-14-0102	MW-15-03	MW-16-0405
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					11.0-12.0	2.0-3.0	1.0-2.0	2.5-3.0	4.0-5.0
Date Sampled					02/05/15	02/06/15	02/27/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	NA	NA	0.23 J	0.21 J	
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	NA	NA	0.24 J	0.24 J	
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	NA	NA	0.17 J	0.21 J	
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	NA	NA	0.14 J		
Chrysene	MG/KG	NS	1	56	NA	NA	0.24 J	0.22 J	
Di-n-butylphthalate	MG/KG	0.014	8.1	-	NA	NA			
Di-n-octylphthalate	MG/KG	-	120	-	NA	NA			
Fluoranthene	MG/KG	NS	1000	500	NA	NA	0.42 J	0.42 J	
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	NA	NA	0.15 J	0.17 J	
Naphthalene	MG/KG	NS	12	500	NA	NA			
Phenanthrene	MG/KG	NS	1000	500	NA	NA	0.32 J		
Pyrene	MG/KG	NS	1000	500	NA	NA	0.43 J	0.32 J	
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA			
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA			
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	0.0079 J	0.025 J	0.00076 J
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA			0.00064 J
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA			
delta-BHC	MG/KG	0.04	0.25	500	NA	NA			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-12	MW-13	MW-14	MW-15	MW-16
Sample ID					MW-12 (11-12)	MW-13 (2-3)	MW-14-0102	MW-15-03	MW-16-0405
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					11.0-12.0	2.0-3.0	1.0-2.0	2.5-3.0	4.0-5.0
Date Sampled					02/05/15	02/06/15	02/27/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	7,310	8,420	6,490
Arsenic	MG/KG	13	16	16	NA	NA	4.4	3.3	2.6
Barium	MG/KG	433	820	400	NA	NA	70.7	37.5	59.5
Beryllium	MG/KG	10	47	590	NA	NA	0.33	0.35	0.26
Cadmium	MG/KG	4	7.5	9.3	NA	NA	0.20 J	0.098 J	0.16 J
Calcium	MG/KG	10000	-	-	NA	NA	12,100	4,960	5,130
Chromium	MG/KG	41	NS	1500	NA	NA	8.6	10.5	8.8
Cobalt	MG/KG	20	-	-	NA	NA	3.7	7.4	5.3
Copper	MG/KG	50	1720	270	NA	NA	30.9	31.7	41.0
Iron	MG/KG	-	-	-	NA	NA	14,000	14,100	11,000
Lead	MG/KG	63	450	1000	NA	NA	92.9	5.7	5.8
Magnesium	MG/KG	-	-	-	NA	NA	6,200	3,770	3,220
Manganese	MG/KG	1600	2000	10000	NA	NA	235	720	348
Mercury	MG/KG	0.18	0.73	2.8	NA	NA	0.032		
Nickel	MG/KG	30	130	310	NA	NA	8.4	15.4	10.9
Potassium	MG/KG	-	-	-	NA	NA	845	1,480	1,120
Selenium	MG/KG	3.9	4	1500	NA	NA	1.1 J		
Sodium	MG/KG	-	-	-	NA	NA	84.7 J		207
Thallium	MG/KG	5	-	-	NA	NA			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-12	MW-13	MW-14	MW-15	MW-16
Sample ID					MW-12 (11-12)	MW-13 (2-3)	MW-14-0102	MW-15-03	MW-16-0405
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					11.0-12.0	2.0-3.0	1.0-2.0	2.5-3.0	4.0-5.0
Date Sampled					02/05/15	02/06/15	02/27/17	02/28/17	02/28/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	16.9	17.5	14.6
Zinc	MG/KG	109	2480	10000	NA	NA	65.2	38.0	70.4

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-17	MW-18	MW-19	MW-20	MW-21
Sample ID					MW-17-05	MW-18-04-05	MW-19-0203	MW-20-02	MW-21-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.5-5.0	4.0-5.0	2.0-3.0	1.5-2.0	2.8-3.8
Date Sampled					02/28/17	03/01/17	02/27/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500					
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500	0.041	0.044			
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500	0.0063 J	0.0045 J			
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-					
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150					
Toluene	MG/KG	36	0.7	500	0.00037 J				
Trichloroethene	MG/KG	2	0.47	200					
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-	0.054 J				
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500					
Benzo(a)anthracene	MG/KG	NS	1	5.6			0.12 J		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-17	MW-18	MW-19	MW-20	MW-21
Sample ID					MW-17-05	MW-18-04-05	MW-19-0203	MW-20-02	MW-21-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.5-5.0	4.0-5.0	2.0-3.0	1.5-2.0	2.8-3.8
Date Sampled					02/28/17	03/01/17	02/27/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1					
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6					
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	0.021 J		0.11 J		
Benzo(k)fluoranthene	MG/KG	NS	1.7	56					
Chrysene	MG/KG	NS	1	56					
Di-n-butylphthalate	MG/KG	0.014	8.1	-				0.045 J	
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500	0.024 J		0.27 J		
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6					
Naphthalene	MG/KG	NS	12	500	0.034 J				
Phenanthrene	MG/KG	NS	1000	500	0.034 J				
Pyrene	MG/KG	NS	1000	500			0.21 J		
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	0.00072 J				
4,4'-DDE	MG/KG	0.0033	17	62	0.00062 J				
4,4'-DDT	MG/KG	0.0033	136	47	0.0020			0.00052 J	
alpha-BHC	MG/KG	0.04	0.02	3.4					
alpha-Chlordane	MG/KG	1.3	2.9	24			0.0037 J		
delta-BHC	MG/KG	0.04	0.25	500		0.00041 J			

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-17	MW-18	MW-19	MW-20	MW-21
Sample ID					MW-17-05	MW-18-04-05	MW-19-0203	MW-20-02	MW-21-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.5-5.0	4.0-5.0	2.0-3.0	1.5-2.0	2.8-3.8
Date Sampled					02/28/17	03/01/17	02/27/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Aluminum	MG/KG	10000	-	-	7,020	12,200	9,840	13,200	5,340
Arsenic	MG/KG	13	16	16	3.5	2.4 J	2.9	3.8	2.2
Barium	MG/KG	433	820	400	34.7	106	34.7	55.9	45.8
Beryllium	MG/KG	10	47	590	0.29	0.37	0.28	0.38	0.20 J
Cadmium	MG/KG	4	7.5	9.3	0.17 J	0.067 J	0.12 J	0.17 J	0.15 J
Calcium	MG/KG	10000	-	-	16,500	1,980	3,330	3,470	30,100
Chromium	MG/KG	41	NS	1500	10.0	13.8	9.6	13.9	7.3
Cobalt	MG/KG	20	-	-	4.8	5.6	3.5	6.8	3.9
Copper	MG/KG	50	1720	270	42.2	41.7	20.2	14.5	11.5
Iron	MG/KG	-	-	-	9,310	10,700	9,530	14,400	9,170
Lead	MG/KG	63	450	1000	24.6	6.8	12.0	12.1	4.3
Magnesium	MG/KG	-	-	-	7,890	2,060	1,990	3,900	6,010
Manganese	MG/KG	1600	2000	10000	245	185	158	567	431
Mercury	MG/KG	0.18	0.73	2.8	0.014 J	0.048	0.037	0.022 J	
Nickel	MG/KG	30	130	310	9.5	12.2	7.7	13.7	8.1
Potassium	MG/KG	-	-	-	1,160	1,170	869	1,160	1,410
Selenium	MG/KG	3.9	4	1500		1.3 J	0.56 J		
Sodium	MG/KG	-	-	-	120 J	146 J	84.2 J		360
Thallium	MG/KG	5	-	-					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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C:\Users\maxwell.reis\Documents\bernzomatic\DB\EDMS.mde
Printed: 10/7/2020 8:39:30 AM
[SITE KEY] = 22 AND [MATRIX] = 'SO' AND NOT (([SBD] = '0' AND [SED] = '0.16') OR [LOCID] LIKE 'IDW*')

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					MW-17	MW-18	MW-19	MW-20	MW-21
Sample ID					MW-17-05	MW-18-04-05	MW-19-0203	MW-20-02	MW-21-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.5-5.0	4.0-5.0	2.0-3.0	1.5-2.0	2.8-3.8
Date Sampled					02/28/17	03/01/17	02/27/17	02/28/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Vanadium	MG/KG	39	-	-	13.2	22.5	17.0	21.6	13.7
Zinc	MG/KG	109	2480	10000	75.7	36.7	38.5	41.2	23.6

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-01	SB-01	SB-02	SB-02	SB-03
Sample ID					SB01 (4-5)	SB01 (8-10)	SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	8.0-10.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled					05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500					
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500		0.0023	0.0039	0.0021	
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500					
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-					
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150		0.0019	0.0087		
Toluene	MG/KG	36	0.7	500					
Trichloroethene	MG/KG	2	0.47	200					
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-					
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	NS	1	5.6					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-01	SB-01	SB-02	SB-02	SB-03
Sample ID					SB01 (4-5)	SB01 (8-10)	SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	8.0-10.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled					05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1					
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6					
Benzo(g,h,i)perylene	MG/KG	NS	1000	500					
Benzo(k)fluoranthene	MG/KG	NS	1.7	56					
Chrysene	MG/KG	NS	1	56					
Di-n-butylphthalate	MG/KG	0.014	8.1	-					
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500					
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6					
Naphthalene	MG/KG	NS	12	500					
Phenanthrene	MG/KG	NS	1000	500					
Pyrene	MG/KG	NS	1000	500					
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-01	SB-01	SB-02	SB-02	SB-03
Sample ID					SB01 (4-5)	SB01 (8-10)	SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	8.0-10.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled					05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	1.2		1.9	3.1	2.4
Barium	MG/KG	433	820	400	24.4	16.0	43.3	255	50.6
Beryllium	MG/KG	10	47	590	NA	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3					
Calcium	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	4.5	7.9	9.1	25.8	9.8
Cobalt	MG/KG	20	-	-	NA	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	NA	NA	NA	NA	NA
Iron	MG/KG	-	-	-	NA	NA	NA	NA	NA
Lead	MG/KG	63	450	1000			6.3	11.9	27.3
Magnesium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8					0.048
Nickel	MG/KG	30	130	310	NA	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500					
Sodium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Thallium	MG/KG	5	-	-	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-01	SB-01	SB-02	SB-02	SB-03
Sample ID					SB01 (4-5)	SB01 (8-10)	SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	8.0-10.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled					05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-03	SB-04	SB-04	SB-05A	SB-06
Sample ID					SB03 (4-5)	SB04 (0.4-1)	SB04 (7-8)	SB-05A	SB-06-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	0.4-1.0	7.0-8.0	4.0-5.0	2.8-3.8
Date Sampled					05/27/14	05/27/14	05/27/14	03/29/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500					
1,1-Dichloroethane	MG/KG	NS	0.27	240					
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500			0.0020		
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500					
Acetone	MG/KG	2.2	0.05	500			0.0033		
Benzene	MG/KG	70	0.06	44					
Carbon disulfide	MG/KG	-	2.7	-					
Chloroform	MG/KG	12	0.37	350					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500					
Methyl tert-butyl ether	MG/KG	NS	0.93	500					
Methylcyclohexane	MG/KG	-	-	-					
Styrene	MG/KG	300	-	-					
Tetrachloroethene	MG/KG	2	1.3	150	0.0021	0.0066	0.0084		
Toluene	MG/KG	36	0.7	500					
Trichloroethene	MG/KG	2	0.47	200			0.0061		
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-					
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	NA	NA	NA		
Benzo(a)anthracene	MG/KG	NS	1	5.6					

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-03	SB-04	SB-04	SB-05A	SB-06
Sample ID					SB03 (4-5)	SB04 (0.4-1)	SB04 (7-8)	SB-05A	SB-06-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	0.4-1.0	7.0-8.0	4.0-5.0	2.8-3.8
Date Sampled					05/27/14	05/27/14	05/27/14	03/29/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1					
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6					
Benzo(g,h,i)perylene	MG/KG	NS	1000	500					
Benzo(k)fluoranthene	MG/KG	NS	1.7	56					
Chrysene	MG/KG	NS	1	56					
Di-n-butylphthalate	MG/KG	0.014	8.1	-					
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500					
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6					
Naphthalene	MG/KG	NS	12	500					
Phenanthrene	MG/KG	NS	1000	500					
Pyrene	MG/KG	NS	1000	500					
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA		
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA		
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA		
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA		
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA		
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-03	SB-04	SB-04	SB-05A	SB-06
Sample ID					SB03 (4-5)	SB04 (0.4-1)	SB04 (7-8)	SB-05A	SB-06-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	0.4-1.0	7.0-8.0	4.0-5.0	2.8-3.8
Date Sampled					05/27/14	05/27/14	05/27/14	03/29/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	4,350	5,440
Arsenic	MG/KG	13	16	16	2.4	2.4	2.8	1.9 J	2.4
Barium	MG/KG	433	820	400	30.4	91.9	28.6	27.2 J+	38.4
Beryllium	MG/KG	10	47	590	NA	NA	NA	0.22 J	0.24
Cadmium	MG/KG	4	7.5	9.3				0.18 J	0.038 J
Calcium	MG/KG	10000	-	-	NA	NA	NA	21,200	7,180
Chromium	MG/KG	41	NS	1500	6.8	11.9	5.0	7.0	7.4
Cobalt	MG/KG	20	-	-	NA	NA	NA	3.3	4.6
Copper	MG/KG	50	1720	270	NA	NA	NA	6.0	18.9
Iron	MG/KG	-	-	-	NA	NA	NA	8,360	9,910
Lead	MG/KG	63	450	1000				3.4	3.5
Magnesium	MG/KG	-	-	-	NA	NA	NA	2,380	2,910
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	368	348
Mercury	MG/KG	0.18	0.73	2.8		0.041			0.010 J
Nickel	MG/KG	30	130	310	NA	NA	NA	6.7	9.4
Potassium	MG/KG	-	-	-	NA	NA	NA	1,110	1,430
Selenium	MG/KG	3.9	4	1500					
Sodium	MG/KG	-	-	-	NA	NA	NA	123 J	106 J
Thallium	MG/KG	5	-	-	NA	NA	NA		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-03	SB-04	SB-04	SB-05A	SB-06
Sample ID					SB03 (4-5)	SB04 (0.4-1)	SB04 (7-8)	SB-05A	SB-06-02.8-03.8
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					4.0-5.0	0.4-1.0	7.0-8.0	4.0-5.0	2.8-3.8
Date Sampled					05/27/14	05/27/14	05/27/14	03/29/17	03/01/17
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	12.9	13.1
Zinc	MG/KG	109	2480	10000	NA	NA	NA	27.8	22.2

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SB-09	SS-01	SS-02
Sample ID					SB-07-0304	SB-08-0304	SB-09-0102	SS-01-2-12_040618	SS-02-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					3.0-4.0	3.0-4.0	1.0-2.0	0.2-1.0	0.2-1.0
Date Sampled					02/27/17	02/27/17	02/27/17	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500				NA	NA
1,1-Dichloroethane	MG/KG	NS	0.27	240				NA	NA
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500				NA	NA
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500				NA	NA
Acetone	MG/KG	2.2	0.05	500				NA	NA
Benzene	MG/KG	70	0.06	44				NA	NA
Carbon disulfide	MG/KG	-	2.7	-				NA	NA
Chloroform	MG/KG	12	0.37	350				NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500			0.0046 J	NA	NA
Methyl tert-butyl ether	MG/KG	NS	0.93	500		0.00045 J		NA	NA
Methylcyclohexane	MG/KG	-	-	-				NA	NA
Styrene	MG/KG	300	-	-		0.00037 J		NA	NA
Tetrachloroethene	MG/KG	2	1.3	150				NA	NA
Toluene	MG/KG	36	0.7	500				NA	NA
Trichloroethene	MG/KG	2	0.47	200				NA	NA
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-					
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500					0.08 J
Benzo(a)anthracene	MG/KG	NS	1	5.6	0.15 J			0.15 J	0.024 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SB-09	SS-01	SS-02
Sample ID					SB-07-0304	SB-08-0304	SB-09-0102	SS-01-2-12_040618	SS-02-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					3.0-4.0	3.0-4.0	1.0-2.0	0.2-1.0	0.2-1.0
Date Sampled					02/27/17	02/27/17	02/27/17	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	0.20 J			0.17 J	
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	0.19 J			0.17 J	
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	0.18 J			0.11 J	
Benzo(k)fluoranthene	MG/KG	NS	1.7	56				0.14 J	
Chrysene	MG/KG	NS	1	56					
Di-n-butylphthalate	MG/KG	0.014	8.1	-					
Di-n-octylphthalate	MG/KG	-	120	-			0.057 J		
Fluoranthene	MG/KG	NS	1000	500	0.11 J		0.026 J	0.38 J	0.049 J
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	0.17 J				
Naphthalene	MG/KG	NS	12	500					
Phenanthrene	MG/KG	NS	1000	500				0.16 J	
Pyrene	MG/KG	NS	1000	500				0.24 J	
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	0.0023			NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	0.00046 NJ	0.00046 NJ	0.00080 NJ	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47				NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4				NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	0.0055 J		0.0030	NA	NA
delta-BHC	MG/KG	0.04	0.25	500				NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

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Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SB-09	SS-01	SS-02
Sample ID					SB-07-0304	SB-08-0304	SB-09-0102	SS-01-2-12_040618	SS-02-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					3.0-4.0	3.0-4.0	1.0-2.0	0.2-1.0	0.2-1.0
Date Sampled					02/27/17	02/27/17	02/27/17	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Aluminum	MG/KG	10000	-	-	11,600	21,500	5,560	NA	NA
Arsenic	MG/KG	13	16	16	2.8	1.8 J	3.2	NA	NA
Barium	MG/KG	433	820	400	59.3	58.2	36.3	NA	NA
Beryllium	MG/KG	10	47	590	0.36	0.48	0.36	NA	NA
Cadmium	MG/KG	4	7.5	9.3	0.24 J	0.082 J	0.15 J	NA	NA
Calcium	MG/KG	10000	-	-	7,900	1,440	17,200	NA	NA
Chromium	MG/KG	41	NS	1500	11.1	20.5	7.4	NA	NA
Cobalt	MG/KG	20	-	-	4.6	7.0	4.0	NA	NA
Copper	MG/KG	50	1720	270	22.1	33.1	9.5	NA	NA
Iron	MG/KG	-	-	-	10,900	15,700	9,560	NA	NA
Lead	MG/KG	63	450	1000	44.6	4.9	13.5	NA	NA
Magnesium	MG/KG	-	-	-	2,200	2,750	3,770	NA	NA
Manganese	MG/KG	1600	2000	10000	222	203	304	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	0.049	0.011 J		NA	NA
Nickel	MG/KG	30	130	310	10.5	14.3	7.4	NA	NA
Potassium	MG/KG	-	-	-	1,150	2,830	1,370	NA	NA
Selenium	MG/KG	3.9	4	1500		1.0 J	0.58 J	NA	NA
Sodium	MG/KG	-	-	-	71.7 J	65.6 J	152 J	NA	NA
Thallium	MG/KG	5	-	-		0.47 J		NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SB-07	SB-08	SB-09	SS-01	SS-02
Sample ID					SB-07-0304	SB-08-0304	SB-09-0102	SS-01-2-12_040618	SS-02-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					3.0-4.0	3.0-4.0	1.0-2.0	0.2-1.0	0.2-1.0
Date Sampled					02/27/17	02/27/17	02/27/17	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					
Metals									
Vanadium	MG/KG	39	-	-	20.1	32.0	16.0	NA	NA
Zinc	MG/KG	109	2480	10000	63.0	33.9	26.7	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-06
Sample ID					SS-03-2-12_040618	SS-04-2-12_040618	SS-05-2-12_040618	SS-06-2-12_040618	SS-56-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0
Date Sampled					04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					Field Duplicate (1-1)
Volatile Organic Compounds									
1,1,1-Trichloroethane	MG/KG	NS	0.68	500	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	NS	0.27	240	NA	NA	NA	NA	NA
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500	NA	NA	NA	NA	NA
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500	NA	NA	NA	NA	NA
Acetone	MG/KG	2.2	0.05	500	NA	NA	NA	NA	NA
Benzene	MG/KG	70	0.06	44	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	2.7	-	NA	NA	NA	NA	NA
Chloroform	MG/KG	12	0.37	350	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	NS	0.93	500	NA	NA	NA	NA	NA
Methylcyclohexane	MG/KG	-	-	-	NA	NA	NA	NA	NA
Styrene	MG/KG	300	-	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	2	1.3	150	NA	NA	NA	NA	NA
Toluene	MG/KG	36	0.7	500	NA	NA	NA	NA	NA
Trichloroethene	MG/KG	2	0.47	200	NA	NA	NA	NA	NA
Semivolatile Organic Compounds									
2-Methylnaphthalene	MG/KG	-	36.4	-					
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500					
Benzo(a)anthracene	MG/KG	NS	1	5.6	0.48 J		0.14 J		

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-06
Sample ID					SS-03-2-12_040618	SS-04-2-12_040618	SS-05-2-12_040618	SS-06-2-12_040618	SS-56-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0
Date Sampled					04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					Field Duplicate (1-1)
Semivolatile Organic Compounds									
Benzo(a)pyrene	MG/KG	2.6	22	1	0.5 J		0.17 J		
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	0.51 J		0.2 J		
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	0.39 J				
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	0.51 J				
Chrysene	MG/KG	NS	1	56	0.55 J				
Di-n-butylphthalate	MG/KG	0.014	8.1	-					
Di-n-octylphthalate	MG/KG	-	120	-					
Fluoranthene	MG/KG	NS	1000	500	1.2 J		0.29 J		
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	0.39 J				
Naphthalene	MG/KG	NS	12	500					
Phenanthrene	MG/KG	NS	1000	500	0.53 J				
Pyrene	MG/KG	NS	1000	500	1 J		0.17 J		
Pesticide Organic Compounds									
4,4'-DDD	MG/KG	0.0033	14	92	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	0.25	500	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-06
Sample ID					SS-03-2-12_040618	SS-04-2-12_040618	SS-05-2-12_040618	SS-06-2-12_040618	SS-56-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0
Date Sampled					04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					Field Duplicate (1-1)
Metals									
Aluminum	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	16	16	NA	NA	NA	NA	NA
Barium	MG/KG	433	820	400	NA	NA	NA	NA	NA
Beryllium	MG/KG	10	47	590	NA	NA	NA	NA	NA
Cadmium	MG/KG	4	7.5	9.3	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	-	-	NA	NA	NA	NA	NA
Chromium	MG/KG	41	NS	1500	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	-	-	NA	NA	NA	NA	NA
Copper	MG/KG	50	1720	270	NA	NA	NA	NA	NA
Iron	MG/KG	-	-	-	NA	NA	NA	NA	NA
Lead	MG/KG	63	450	1000	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	2000	10000	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.73	2.8	NA	NA	NA	NA	NA
Nickel	MG/KG	30	130	310	NA	NA	NA	NA	NA
Potassium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	4	1500	NA	NA	NA	NA	NA
Sodium	MG/KG	-	-	-	NA	NA	NA	NA	NA
Thallium	MG/KG	5	-	-	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria 1

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-03	SS-04	SS-05	SS-06	SS-06
Sample ID					SS-03-2-12_040618	SS-04-2-12_040618	SS-05-2-12_040618	SS-06-2-12_040618	SS-56-2-12_040618
Matrix					Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)					0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0	0.2-1.0
Date Sampled					04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**					Field Duplicate (1-1)
Metals									
Vanadium	MG/KG	39	-	-	NA	NA	NA	NA	NA
Zinc	MG/KG	109	2480	10000	NA	NA	NA	NA	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-07
Sample ID					SS-07-2-12_040618
Matrix					Soil
Depth Interval (ft)					0.2-1.0
Date Sampled					04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**	
Volatile Organic Compounds					
1,1,1-Trichloroethane	MG/KG	NS	0.68	500	NA
1,1-Dichloroethane	MG/KG	NS	0.27	240	NA
1,2-Dichloroethene (cis)	MG/KG	NS	0.25	500	NA
1,2-Dichloroethene (trans)	MG/KG	NS	0.19	500	NA
Acetone	MG/KG	2.2	0.05	500	NA
Benzene	MG/KG	70	0.06	44	NA
Carbon disulfide	MG/KG	-	2.7	-	NA
Chloroform	MG/KG	12	0.37	350	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	100	0.12	500	NA
Methyl tert-butyl ether	MG/KG	NS	0.93	500	NA
Methylcyclohexane	MG/KG	-	-	-	NA
Styrene	MG/KG	300	-	-	NA
Tetrachloroethene	MG/KG	2	1.3	150	NA
Toluene	MG/KG	36	0.7	500	NA
Trichloroethene	MG/KG	2	0.47	200	NA
Semivolatile Organic Compounds					
2-Methylnaphthalene	MG/KG	-	36.4	-	
4-Methylphenol (p-cresol)	MG/KG	NS	0.33	500	
Benzo(a)anthracene	MG/KG	NS	1	5.6	0.24 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-07
Sample ID					SS-07-2-12_040618
Matrix					Soil
Depth Interval (ft)					0.2-1.0
Date Sampled					04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**	
Semivolatile Organic Compounds					
Benzo(a)pyrene	MG/KG	2.6	22	1	0.26 J
Benzo(b)fluoranthene	MG/KG	NS	1.7	5.6	0.3 J
Benzo(g,h,i)perylene	MG/KG	NS	1000	500	0.17 J
Benzo(k)fluoranthene	MG/KG	NS	1.7	56	0.2 J
Chrysene	MG/KG	NS	1	56	0.32 J
Di-n-butylphthalate	MG/KG	0.014	8.1	-	
Di-n-octylphthalate	MG/KG	-	120	-	
Fluoranthene	MG/KG	NS	1000	500	0.54 J
Indeno(1,2,3-cd)pyrene	MG/KG	NS	8.2	5.6	
Naphthalene	MG/KG	NS	12	500	
Phenanthrene	MG/KG	NS	1000	500	0.29 J
Pyrene	MG/KG	NS	1000	500	0.42 J
Pesticide Organic Compounds					
4,4'-DDD	MG/KG	0.0033	14	92	NA
4,4'-DDE	MG/KG	0.0033	17	62	NA
4,4'-DDT	MG/KG	0.0033	136	47	NA
alpha-BHC	MG/KG	0.04	0.02	3.4	NA
alpha-Chlordane	MG/KG	1.3	2.9	24	NA
delta-BHC	MG/KG	0.04	0.25	500	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

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Concentration Exceeds Criteria (2)

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TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-07
Sample ID					SS-07-2-12_040618
Matrix					Soil
Depth Interval (ft)					0.2-1.0
Date Sampled					04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**	
Metals					
Aluminum	MG/KG	10000	-	-	NA
Arsenic	MG/KG	13	16	16	NA
Barium	MG/KG	433	820	400	NA
Beryllium	MG/KG	10	47	590	NA
Cadmium	MG/KG	4	7.5	9.3	NA
Calcium	MG/KG	10000	-	-	NA
Chromium	MG/KG	41	NS	1500	NA
Cobalt	MG/KG	20	-	-	NA
Copper	MG/KG	50	1720	270	NA
Iron	MG/KG	-	-	-	NA
Lead	MG/KG	63	450	1000	NA
Magnesium	MG/KG	-	-	-	NA
Manganese	MG/KG	1600	2000	10000	NA
Mercury	MG/KG	0.18	0.73	2.8	NA
Nickel	MG/KG	30	130	310	NA
Potassium	MG/KG	-	-	-	NA
Selenium	MG/KG	3.9	4	1500	NA
Sodium	MG/KG	-	-	-	NA
Thallium	MG/KG	5	-	-	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

JB - The reported concentration is an estimated value and has been detected in an associated method blank.

NJ - The analyte has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Only Detected Results Reported.

TABLE 1B
SUBSURFACE SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SS-07
Sample ID					SS-07-2-12_040618
Matrix					Soil
Depth Interval (ft)					0.2-1.0
Date Sampled					04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**	
Metals					
Vanadium	MG/KG	39	-	-	NA
Zinc	MG/KG	109	2480	10000	NA

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

JB - The reported concentration is an estimated value and has been detected in an associated method blank.

NJ - The analyte has been "tentatively identified" and the associated numerical value represents its approximate concentration.

Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-01	GSP-02	GSP-03	GSP-04	GSP-05
Sample ID			GSP-1	GSP-2	GSP-3	GSP-4	GSP-5
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	03/31/15	03/31/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5	2.6			72	
1,2-Dichloroethene (trans)	UG/L	5				1.4	
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	3.1 J	6.0 J	5.4 J	6.7 J	
Benzene	UG/L	1				0.63 J	
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5	2.7	0.50 J	2.1	1.4	1.7
Chloroethane	UG/L	5					
Chloroform	UG/L	7	50	1.9	1.7	1.4	0.44 J
Cyclohexane	UG/L	-				9.0	0.27 J
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5				4.9	
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-				9.8	
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	15	9.9	4.2	1.3	
Toluene	UG/L	5					
Trichloroethene	UG/L	5	14		1.3	3.8	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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D - Result reported from a secondary dilution analysis.

Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-01	GSP-02	GSP-03	GSP-04	GSP-05
Sample ID			GSP-1	GSP-2	GSP-3	GSP-4	GSP-5
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	03/31/15	03/31/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5				4.5	
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-01	GSP-02	GSP-03	GSP-04	GSP-05
Sample ID			GSP-1	GSP-2	GSP-3	GSP-4	GSP-5
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	03/31/15	03/31/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-06	GSP-07	GSP-08	GSP-09	GSP-10
Sample ID			GSP-6	GSP-7	GSP-8	GSP-9	GSP-10
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	03/31/15	03/31/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5			3.3		1.4
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5			6.2		1.7
1,1-Dichloroethane	UG/L	5			3.9		1.3
1,1-Dichloroethene	UG/L	5			0.71 J		
1,2-Dichloroethene (cis)	UG/L	5			6.5		2.0
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50		3.8 J	9.4 J	4.4 J	3.4 J
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5		3.8	0.66 J	0.35 J	0.89 J
Chloroethane	UG/L	5					
Chloroform	UG/L	7		0.60 J	1.1	0.42 J	0.34 J
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5			3.6	2.3	0.84 J
Toluene	UG/L	5					
Trichloroethene	UG/L	5			15	2.9	6.7

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-06	GSP-07	GSP-08	GSP-09	GSP-10
Sample ID			GSP-6	GSP-7	GSP-8	GSP-9	GSP-10
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	03/31/15	03/31/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-06	GSP-07	GSP-08	GSP-09	GSP-10
Sample ID			GSP-6	GSP-7	GSP-8	GSP-9	GSP-10
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	03/31/15	03/31/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-11	GSP-12	GSP-13	GSP-14	GSP-15
Sample ID			GSP-11	GSP-12	GSP-13	GSP-14	GSP-15
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5			4.4		
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5	1.2		1.7		
1,1-Dichloroethane	UG/L	5	1.0		11	0.85 J	
1,1-Dichloroethene	UG/L	5			3.4		
1,2-Dichloroethene (cis)	UG/L	5	1.8		53	35	
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	5.4 J	6.6 J	4.7 J	4.1 J	4.9 J
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5	1.3	1.7	0.50 J		
Chloroethane	UG/L	5					
Chloroform	UG/L	7	0.45 J		0.51 J		
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					0.24 J
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5			18		
Toluene	UG/L	5					
Trichloroethene	UG/L	5	5.0		72	11	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-11	GSP-12	GSP-13	GSP-14	GSP-15
Sample ID			GSP-11	GSP-12	GSP-13	GSP-14	GSP-15
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2			3.3	8.1 J	
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-11	GSP-12	GSP-13	GSP-14	GSP-15
Sample ID			GSP-11	GSP-12	GSP-13	GSP-14	GSP-15
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/31/15	03/31/15	03/31/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-16	GSP-17	GSP-18	GSP-19	GSP-20
Sample ID			GSP-16	GSP-17	GSP-18	GSP-19	GSP-20
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/13/15	04/13/15	04/13/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5				0.53 J	
1,1-Dichloroethane	UG/L	5				0.44 J	
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5				11	
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	4.5 J		4.7 J	3.0 J	
Benzene	UG/L	1	0.52 J				
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-	0.23 J				
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5				22	
Toluene	UG/L	5					
Trichloroethene	UG/L	5				7.7	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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Only Detected Results Reported.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-16	GSP-17	GSP-18	GSP-19	GSP-20
Sample ID			GSP-16	GSP-17	GSP-18	GSP-19	GSP-20
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/13/15	04/13/15	04/13/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-16	GSP-17	GSP-18	GSP-19	GSP-20
Sample ID			GSP-16	GSP-17	GSP-18	GSP-19	GSP-20
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/13/15	04/13/15	04/13/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-21	GSP-22	GSP-23	GSP-24	GSP-25
Sample ID			GSP-21	GSP-22	GSP-23	GSP-24	GSP-25
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/13/15	04/13/15	04/13/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5				21	
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5		0.54 J			
1,1-Dichloroethane	UG/L	5		2.8		87	1.3
1,1-Dichloroethene	UG/L	5		0.77 J		8.8	
1,2-Dichloroethene (cis)	UG/L	5	5.3	170 D	2.8	440 D	32
1,2-Dichloroethene (trans)	UG/L	5		2.0		4.9	
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50				4.2 J	
Benzene	UG/L	1		0.45 J			0.51 J
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5				2.9	
Chloroform	UG/L	7			1.1		
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5				2.8	
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-		0.24 J			0.17 J
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5		6.5	1.1	7.1	8.8
Toluene	UG/L	5				0.78 J	0.52 J
Trichloroethene	UG/L	5		28	2.0	11	7.7

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-21	GSP-22	GSP-23	GSP-24	GSP-25
Sample ID			GSP-21	GSP-22	GSP-23	GSP-24	GSP-25
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/13/15	04/13/15	04/13/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2		7.5 J		3.6 J	
Xylene (total)	UG/L	5				9.4	
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-21	GSP-22	GSP-23	GSP-24	GSP-25
Sample ID			GSP-21	GSP-22	GSP-23	GSP-24	GSP-25
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/13/15	04/13/15	04/13/15	04/13/15	04/13/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-26	GSP-27	GSP-28	GSP-29	GSP-30
Sample ID			GSP-26	GSP-27	GSP-28	GSP-29	GSP-30
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	06/05/15	06/05/15	06/05/15	06/05/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	0.97 J				
1,1-Dichloroethene	UG/L	5	0.31 J				
1,2-Dichloroethene (cis)	UG/L	5	4.8				
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	5.6 J	5.7 J	12	34	19
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50				1.5 J	3.1 J
Methylcyclohexane	UG/L	-					0.24 J
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	0.83 J				
Toluene	UG/L	5				0.77 J	0.51 J
Trichloroethene	UG/L	5	13	0.71 J			

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FORMER BERNZOMATIC FACILITY

Location ID			GSP-26	GSP-27	GSP-28	GSP-29	GSP-30
Sample ID			GSP-26	GSP-27	GSP-28	GSP-29	GSP-30
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	06/05/15	06/05/15	06/05/15	06/05/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5				0.72 J	
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

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FORMER BERNZOMATIC FACILITY

Location ID			GSP-26	GSP-27	GSP-28	GSP-29	GSP-30
Sample ID			GSP-26	GSP-27	GSP-28	GSP-29	GSP-30
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	06/05/15	06/05/15	06/05/15	06/05/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-31	GSP-32	GSP-33	GSP-34	GSP-35
Sample ID			GSP-31	GSP-32	GSP-33	GSP-34	GSP-35
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	06/05/15	06/05/15	06/05/15	06/05/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5				1.8	
1,1-Dichloroethane	UG/L	5	22				
1,1-Dichloroethene	UG/L	5	1.3			0.40 J	
1,2-Dichloroethene (cis)	UG/L	5	390 D	0.99 J	1.6	2.7	
1,2-Dichloroethene (trans)	UG/L	5	2.1				
1,2-Dichloropropane	UG/L	1	2.0				
Acetone	UG/L	50	5.6 J	7.0 J	14	36	8.8 J
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60		0.43 J			
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	3.3		0.54 J		
Toluene	UG/L	5	1.5	0.93 J	0.54 J	0.56 J	
Trichloroethene	UG/L	5	13		7.5	16	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-31	GSP-32	GSP-33	GSP-34	GSP-35
Sample ID			GSP-31	GSP-32	GSP-33	GSP-34	GSP-35
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	06/05/15	06/05/15	06/05/15	06/05/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2	2.8				
Xylene (total)	UG/L	5	1.0 J				
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA	NA	NA	NA
Arsenic	UG/L	25	NA	NA	NA	NA	NA
Barium	UG/L	1000	NA	NA	NA	NA	NA
Cadmium	UG/L	5	NA	NA	NA	NA	NA
Calcium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	50	NA	NA	NA	NA	NA
Cobalt	UG/L	-	NA	NA	NA	NA	NA
Copper	UG/L	200	NA	NA	NA	NA	NA
Iron	UG/L	300	NA	NA	NA	NA	NA
Lead	UG/L	25	NA	NA	NA	NA	NA
Magnesium	UG/L	35000	NA	NA	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-31	GSP-32	GSP-33	GSP-34	GSP-35
Sample ID			GSP-31	GSP-32	GSP-33	GSP-34	GSP-35
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	06/05/15	06/05/15	06/05/15	06/05/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-36	MW-01	MW-01	MW-02	MW-03
Sample ID			GSP-36	MW-01	MW-01	MW-02	MW-03
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	10/28/14	03/29/17	10/28/14	10/28/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					0.28 J
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5		13	15	0.69 J	0.44 J
1,2-Dichloroethene (trans)	UG/L	5		0.91 J	2.0		
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	9.0 J			8.3 J	8.3 J
Benzene	UG/L	1				0.40 J	
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60		0.93 J		5.9	10
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					0.45 J
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-	0.17 J				
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5					
Toluene	UG/L	5				0.34 J	
Trichloroethene	UG/L	5		0.23 J		2.2	

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-36	MW-01	MW-01	MW-02	MW-03
Sample ID			GSP-36	MW-01	MW-01	MW-02	MW-03
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	10/28/14	03/29/17	10/28/14	10/28/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2		1.0	15		
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA		NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA		NA	NA
Metals							
Aluminum	UG/L	-	NA	NA		NA	NA
Arsenic	UG/L	25	NA	NA		NA	NA
Barium	UG/L	1000	NA	NA	500	NA	NA
Cadmium	UG/L	5	NA	NA		NA	NA
Calcium	UG/L	-	NA	NA	213,000	NA	NA
Chromium	UG/L	50	NA	NA		NA	NA
Cobalt	UG/L	-	NA	NA		NA	NA
Copper	UG/L	200	NA	NA		NA	NA
Iron	UG/L	300	NA	NA	13,400	NA	NA
Lead	UG/L	25	NA	NA	4.4 J	NA	NA
Magnesium	UG/L	35000	NA	NA	40,500	NA	NA
Manganese	UG/L	300	NA	NA	2,200	NA	NA
Nickel	UG/L	100	NA	NA		NA	NA
Potassium	UG/L	-	NA	NA	10,600	NA	NA
Sodium	UG/L	20000	NA	NA	294,000	NA	NA
Vanadium	UG/L	-	NA	NA		NA	NA
Zinc	UG/L	2000	NA	NA	7.7 J	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			GSP-36	MW-01	MW-01	MW-02	MW-03
Sample ID			GSP-36	MW-01	MW-01	MW-02	MW-03
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/05/15	10/28/14	03/29/17	10/28/14	10/28/14
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-04	MW-04	MW-05	MW-06	MW-06
Sample ID			MW-04	MW-04	MW-05	FD-20141028	MW-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/29/14	03/29/17	10/28/14	10/28/14	10/28/14
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5	2.9	20	0.25 J	63	57
1,2-Dichloroethene (trans)	UG/L	5	0.32 J	2.2		7.1	6.9
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	8.7 J				8.0 J
Benzene	UG/L	1	0.27 J				
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60	9.0		1.2	11	11
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5				1.6 JB	0.86 JB
Tetrachloroethene	UG/L	5			3.9	18	16
Toluene	UG/L	5					
Trichloroethene	UG/L	5	2.8	15	2.3	25	23

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-04	MW-04	MW-05	MW-06	MW-06
Sample ID			MW-04	MW-04	MW-05	FD-20141028	MW-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/29/14	03/29/17	10/28/14	10/28/14	10/28/14
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatile Organic Compounds							
Vinyl chloride	UG/L	2	0.84 J	3.8			
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA		NA	NA	NA
Di-n-butylphthalate	UG/L	50	NA		NA	NA	NA
Metals							
Aluminum	UG/L	-	NA	120 J	NA	NA	NA
Arsenic	UG/L	25	NA		NA	NA	NA
Barium	UG/L	1000	NA	610	NA	NA	NA
Cadmium	UG/L	5	NA		NA	NA	NA
Calcium	UG/L	-	NA	189,000	NA	NA	NA
Chromium	UG/L	50	NA	1.1 J	NA	NA	NA
Cobalt	UG/L	-	NA	3.6 J	NA	NA	NA
Copper	UG/L	200	NA		NA	NA	NA
Iron	UG/L	300	NA	1,500	NA	NA	NA
Lead	UG/L	25	NA	6.2 J	NA	NA	NA
Magnesium	UG/L	35000	NA	37,300	NA	NA	NA
Manganese	UG/L	300	NA	2,100	NA	NA	NA
Nickel	UG/L	100	NA	3.3 J	NA	NA	NA
Potassium	UG/L	-	NA	18,600	NA	NA	NA
Sodium	UG/L	20000	NA	278,000	NA	NA	NA
Vanadium	UG/L	-	NA		NA	NA	NA
Zinc	UG/L	2000	NA	12	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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FORMER BERNZOMATIC FACILITY

Location ID			MW-04	MW-04	MW-05	MW-06	MW-06
Sample ID			MW-04	MW-04	MW-05	FD-20141028	MW-06
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/29/14	03/29/17	10/28/14	10/28/14	10/28/14
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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FORMER BERNZOMATIC FACILITY

Location ID			MW-06	MW-07	MW-08	MW-09	MW-09
Sample ID			MW-06	MW-07	MW-08	FD-02150212	MW-09
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/24/17	10/28/14	02/12/15	02/12/15	02/12/15
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5		0.70 J			
1,1-Dichloroethane	UG/L	5		0.47 J			
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5		3.0		0.98 J	0.94 J
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	3.0 J	3.6 J	28	10	12
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60		1.3		3.2	3.6
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7		2.5	0.27 J		
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5		0.33 JB			
Tetrachloroethene	UG/L	5	1.5	10		0.87 J	0.81 J
Toluene	UG/L	5					
Trichloroethene	UG/L	5	1.4	13		1.2	1.2

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Location ID			MW-06	MW-07	MW-08	MW-09	MW-09
Sample ID			MW-06	MW-07	MW-08	FD-02150212	MW-09
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/24/17	10/28/14	02/12/15	02/12/15	02/12/15
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1		NA	NA	NA	NA
Di-n-butylphthalate	UG/L	50	0.35 J	NA	NA	NA	NA
Metals							
Aluminum	UG/L	-	71 J	NA	NA	NA	NA
Arsenic	UG/L	25		NA	NA	NA	NA
Barium	UG/L	1000	33	NA	NA	NA	NA
Cadmium	UG/L	5		NA	NA	NA	NA
Calcium	UG/L	-	53,000	NA	NA	NA	NA
Chromium	UG/L	50		NA	NA	NA	NA
Cobalt	UG/L	-		NA	NA	NA	NA
Copper	UG/L	200		NA	NA	NA	NA
Iron	UG/L	300	260	NA	NA	NA	NA
Lead	UG/L	25	4.6 J	NA	NA	NA	NA
Magnesium	UG/L	35000	2,900	NA	NA	NA	NA
Manganese	UG/L	300	30	NA	NA	NA	NA
Nickel	UG/L	100		NA	NA	NA	NA
Potassium	UG/L	-	3,700	NA	NA	NA	NA
Sodium	UG/L	20000	8,700	NA	NA	NA	NA
Vanadium	UG/L	-		NA	NA	NA	NA
Zinc	UG/L	2000	4.8 J	NA	NA	NA	NA

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Location ID			MW-06	MW-07	MW-08	MW-09	MW-09
Sample ID			MW-06	MW-07	MW-08	FD-02150212	MW-09
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/24/17	10/28/14	02/12/15	02/12/15	02/12/15
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	1.5	NA	NA	NA	NA

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-10	MW-11	MW-11	MW-12	MW-13
Sample ID			MW-10	MW-11	MW-11	MW-12	MW-13
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/12/15	02/12/15	03/24/17	02/12/15	02/12/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5		2.1	1.5		
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5		1.4	0.68 J		
1,1-Dichloroethane	UG/L	5		2.5	0.63 J		
1,1-Dichloroethene	UG/L	5		0.72 J	0.35 J		
1,2-Dichloroethene (cis)	UG/L	5	2.8	8.2	2.1	0.32 J	3.0
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	80	6.1 J	3.3 J	45	10
Benzene	UG/L	1				0.25 J	
Bromodichloromethane	UG/L	50	0.17 J			0.24 J	
Carbon disulfide	UG/L	60	4.4			0.95 J	
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7	2.5			1.3	
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	3.2	3.7	4.3		
Toluene	UG/L	5				0.25 J	
Trichloroethene	UG/L	5	3.3	18	13	2.3	

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FORMER BERNZOMATIC FACILITY

Location ID			MW-10	MW-11	MW-11	MW-12	MW-13
Sample ID			MW-10	MW-11	MW-11	MW-12	MW-13
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/12/15	02/12/15	03/24/17	02/12/15	02/12/15
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2		0.37 J			
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	NA	NA		NA	NA
Di-n-butylphthalate	UG/L	50	NA	NA	0.35 J	NA	NA
Metals							
Aluminum	UG/L	-	NA	NA		NA	NA
Arsenic	UG/L	25	NA	NA		NA	NA
Barium	UG/L	1000	NA	NA	120	NA	NA
Cadmium	UG/L	5	NA	NA		NA	NA
Calcium	UG/L	-	NA	NA	123,000	NA	NA
Chromium	UG/L	50	NA	NA		NA	NA
Cobalt	UG/L	-	NA	NA		NA	NA
Copper	UG/L	200	NA	NA	2.1 J	NA	NA
Iron	UG/L	300	NA	NA		NA	NA
Lead	UG/L	25	NA	NA	5.0 J	NA	NA
Magnesium	UG/L	35000	NA	NA	13,300	NA	NA
Manganese	UG/L	300	NA	NA	1,300	NA	NA
Nickel	UG/L	100	NA	NA		NA	NA
Potassium	UG/L	-	NA	NA	7,500	NA	NA
Sodium	UG/L	20000	NA	NA	37,100	NA	NA
Vanadium	UG/L	-	NA	NA		NA	NA
Zinc	UG/L	2000	NA	NA	1.6 J	NA	NA

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GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-10	MW-11	MW-11	MW-12	MW-13
Sample ID			MW-10	MW-11	MW-11	MW-12	MW-13
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			02/12/15	02/12/15	03/24/17	02/12/15	02/12/15
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	2.6	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-14	MW-15	MW-16	MW-17	MW-18
Sample ID			MW-14	MW-15	MW-16	MW-17	MW-18
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/23/17	03/23/17	03/23/17	03/23/17	03/29/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2-Dichloroethene (cis)	UG/L	5					
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	4.9 J	4.7 J	3.2 J		
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60		0.32 J			
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5					
Toluene	UG/L	5					
Trichloroethene	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-14	MW-15	MW-16	MW-17	MW-18
Sample ID			MW-14	MW-15	MW-16	MW-17	MW-18
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/23/17	03/23/17	03/23/17	03/23/17	03/29/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1		0.67 J			
Di-n-butylphthalate	UG/L	50	0.31 J	0.34 J		0.43 J	
Metals							
Aluminum	UG/L	-		370		110 J	91 J
Arsenic	UG/L	25					
Barium	UG/L	1000	85	40	200 J	110	170
Cadmium	UG/L	5		0.64 J	0.86 J	0.91 J	
Calcium	UG/L	-	142,000	66,500	80,500	262,000	190,000
Chromium	UG/L	50					
Cobalt	UG/L	-	1.0 J	10	61	5.2	1.4 J
Copper	UG/L	200		19	120 J	9.4 J	
Iron	UG/L	300	1,300	360	950	2,700	6,000
Lead	UG/L	25	3.2 J	5.1 J	3.5 J	3.5 J	
Magnesium	UG/L	35000	20,700	8,600	14,700	47,300	30,800
Manganese	UG/L	300	570	1,200	7,400	2,400	4,000
Nickel	UG/L	100		2.7 J	12	5.3 J	1.3 J
Potassium	UG/L	-	12,500	1,400	5,500	8,500	2,900
Sodium	UG/L	20000	103,000	81,400	332,000	67,200	147,000
Vanadium	UG/L	-					
Zinc	UG/L	2000	6.7 J	26	50	15	11

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-14	MW-15	MW-16	MW-17	MW-18
Sample ID			MW-14	MW-15	MW-16	MW-17	MW-18
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/23/17	03/23/17	03/23/17	03/23/17	03/29/17
Parameter	**Units**	**Criteria***					
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	NA
Barium	UG/L	-	NA	NA	NA	NA	NA
Cadmium	UG/L	-	NA	NA	NA	NA	NA
Chromium	UG/L	-	NA	NA	NA	NA	NA
Lead	UG/L	-	NA	NA	NA	NA	NA
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

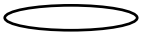
Concentration Exceeds Criteria

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-19	MW-20	MW-21	MW-21	SB-01
Sample ID			MW-19	MW-20	DUP-032417	MW-21	SB01
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/24/17	03/24/17	03/24/17	03/24/17	05/27/14
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5			3.3	3.1	
1,1-Dichloroethene	UG/L	5			0.86 J	0.95 J	
1,2-Dichloroethene (cis)	UG/L	5		3.1	23	21	1.4
1,2-Dichloroethene (trans)	UG/L	5					
1,2-Dichloropropane	UG/L	1					
Acetone	UG/L	50	3.3 J		3.2 J		5.9
Benzene	UG/L	1					
Bromodichloromethane	UG/L	50					
Carbon disulfide	UG/L	60					
Carbon tetrachloride	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5					6.8
Toluene	UG/L	5					
Trichloroethene	UG/L	5		8.6	11	11	5.4

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-19	MW-20	MW-21	MW-21	SB-01
Sample ID			MW-19	MW-20	DUP-032417	MW-21	SB01
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/24/17	03/24/17	03/24/17	03/24/17	05/27/14
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					NA
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	UG/L	1	0.95 J				NA
Di-n-butylphthalate	UG/L	50	0.35 J	0.31 J	0.46 J	0.48 J	
Metals							
Aluminum	UG/L	-	620	680	2,000	1,200	NA
Arsenic	UG/L	25					172
Barium	UG/L	1000	110	48	14 J	60 J	1,850
Cadmium	UG/L	5	0.56 J	0.54 J	0.92 J		25.6
Calcium	UG/L	-	61,400	101,000	97,600 J	31,500 J	NA
Chromium	UG/L	50		1.1 J	2.3 J	1.2 J	462
Cobalt	UG/L	-	3.7 J	0.68 J			NA
Copper	UG/L	200		13		4.0 J	NA
Iron	UG/L	300	21,000	580	1,500	1,100	NA
Lead	UG/L	25	4.0 J		4.8 J		224
Magnesium	UG/L	35000	12,400	27,300	82,700 J	6,200 J	NA
Manganese	UG/L	300	8,600	67	28	250	NA
Nickel	UG/L	100	1.3 J		1.4 J		NA
Potassium	UG/L	-	6,800	5,100	9,900 J	1,800 J	NA
Sodium	UG/L	20000	34,200	7,200	1,900,000 J	143,000 J	NA
Vanadium	UG/L	-			4.5 J	2.2 J	NA
Zinc	UG/L	2000	7.0 J	11	7.9 J	5.2 J	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			MW-19	MW-20	MW-21	MW-21	SB-01
Sample ID			MW-19	MW-20	DUP-032417	MW-21	SB01
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/24/17	03/24/17	03/24/17	03/24/17	05/27/14
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Dissolved Metals							
Arsenic	UG/L	-	NA	NA	NA	NA	
Barium	UG/L	-	NA	NA	NA	NA	72
Cadmium	UG/L	-	NA	NA	NA	NA	
Chromium	UG/L	-	NA	NA	NA	NA	
Lead	UG/L	-	NA	NA	NA	NA	
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	15.7		7.0	6.9	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-03	SB-04
Sample ID			SB02	SB03	SB04
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-
Date Sampled			05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
1,1,1-Trichloroethane	UG/L	5			
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	5			
1,1-Dichloroethane	UG/L	5			
1,1-Dichloroethene	UG/L	5			
1,2-Dichloroethene (cis)	UG/L	5	1.4		14
1,2-Dichloroethene (trans)	UG/L	5			
1,2-Dichloropropane	UG/L	1			
Acetone	UG/L	50	18	6.0	
Benzene	UG/L	1			
Bromodichloromethane	UG/L	50			
Carbon disulfide	UG/L	60			
Carbon tetrachloride	UG/L	5			
Chloroethane	UG/L	5			
Chloroform	UG/L	7			
Cyclohexane	UG/L	-			
Ethylbenzene	UG/L	5			
Isopropylbenzene (Cumene)	UG/L	5			
Methyl ethyl ketone (2-Butanone)	UG/L	50			
Methylcyclohexane	UG/L	-			
Methylene chloride	UG/L	5			
Tetrachloroethene	UG/L	5	3.1	1.4	36
Toluene	UG/L	5			
Trichloroethene	UG/L	5	2.0	2.4	24

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-03	SB-04
Sample ID			SB02	SB03	SB04
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-
Date Sampled			05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Vinyl chloride	UG/L	2			
Xylene (total)	UG/L	5	NA	NA	NA
Semivolatile Organic Compounds					
4-Methylphenol (p-cresol)	UG/L	1	NA	NA	NA
Di-n-butylphthalate	UG/L	50			
Metals					
Aluminum	UG/L	-	NA	NA	NA
Arsenic	UG/L	25	68	121	48
Barium	UG/L	1000	2,700	2,600	900
Cadmium	UG/L	5	22.6	32.2	
Calcium	UG/L	-	NA	NA	NA
Chromium	UG/L	50	429	528	122
Cobalt	UG/L	-	NA	NA	NA
Copper	UG/L	200	NA	NA	NA
Iron	UG/L	300	NA	NA	NA
Lead	UG/L	25	208	430	63
Magnesium	UG/L	35000	NA	NA	NA
Manganese	UG/L	300	NA	NA	NA
Nickel	UG/L	100	NA	NA	NA
Potassium	UG/L	-	NA	NA	NA
Sodium	UG/L	20000	NA	NA	NA
Vanadium	UG/L	-	NA	NA	NA
Zinc	UG/L	2000	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-03	SB-04
Sample ID			SB02	SB03	SB04
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-
Date Sampled			05/27/14	05/27/14	05/27/14
Parameter	**Units**	**Criteria***			
Dissolved Metals					
Arsenic	UG/L	-	11	122	
Barium	UG/L	-	297	2,680	171
Cadmium	UG/L	-		32.1	
Chromium	UG/L	-	35	535	
Lead	UG/L	-		450	
Miscellaneous Parameters					
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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TABLE 3
GROUNDWATER ANALYTICAL RESULTS - BACTERIA AND FUNCTIONAL GENES
FORMER BERNZOMATIC FACILITY

Location ID		MW-06	MW-11	MW-19	MW-20	MW-21
Sample ID		MW-06	MW-11	MW-19	MW-20	Dup-032417
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		03/24/17	03/24/17	03/24/17	03/24/17	03/24/17
Parameter	Units					Field Duplicate (1-1)
Miscellaneous Parameters						
Dehalococcoides	cells/mL	0.4 J	0.5 U	2.4	0.5 U	0.5 U
Dehalobacter	cells/mL	985	4.9	18,000	3.9 J	8
tceA Reductase	cells/mL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BAV1 Vinyl Chloride Reductase	cells/mL	0.1 J	0.5 U	2	0.5 U	0.5 U
Vinyl Chloride Reductase	cells/mL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Flags assigned during chemistry validation are shown.

cells/ml = cells per milliliter

J - The reported concentration is an estimated value. U - Not detected above the reported quantitation limit.

Detection Limits shown are PQL

Advanced Selection: FS Table 3
C:\Temp\Small Chemistry DB\EDMS.mde
Printed: 4/28/2020 10:05:55 AM
[SITE KEY] = 22 AND [UNITS] = 'cells/mL'

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - BACTERIA AND FUNCTIONAL GENES
FORMER BERNZOMATIC FACILITY

Location ID		MW-21
Sample ID		MW-21
Matrix		Groundwater
Depth Interval (ft)		-
Date Sampled		03/24/17
Parameter	**Units**	
Miscellaneous Parameters		
Dehalococcoides	cells/mL	0.5 U
Dehalobacter	cells/mL	20.1
tceA Reductase	cells/mL	0.5 U
BAV1 Vinyl Chloride Reductase	cells/mL	0.5 U
Vinyl Chloride Reductase	cells/mL	0.5 U

Flags assigned during chemistry validation are shown.

cells/ml = cells per milliliter

J - The reported concentration is an estimated value. U - Not detected above the reported quantitation limit.

Detection Limits shown are PQL

Advanced Selection: FS Table 3
C:\Temp\Small Chemistry DB\EDMS.mde
Printed: 4/28/2020 10:05:55 AM
[SITE KEY] = 22 AND [UNITS] = 'cells/mL'

TABLE 4
FIELD GROUNDWATER QUALITY MEASUREMENTS
FORMER BERNZOMATIC FACILITY

Location	Date	pH	TEMP °C	COND. (mS/cm)	DISS. O2 (mg/l)	TURB. (NTU)	ORP (mV)	Ferrous Iron (mg/L)
MW-01	10/28/2014	6.59	20.23	2.03	0.00	0.0	-118	NA
	3/29/2017	7.11	17.49	2.74	0.00	6.3	-101	NA
MW-02	10/28/2014	6.75	20.40	1.52	0.00	0.0	-159	NA
MW-03	10/28/2014	6.55	20.35	1.48	0.00	0.0	51	NA
MW-04	10/29/2018	6.67	20.44	1.52	0.00	0.0	-55	NA
	3/29/2017	7.22	19.04	2.38	0.00	3.3	-60	NA
MW-05	10/28/2014	7.16	17.26	0.43	0.00	0.0	-170	NA
MW-06	10/28/2014	6.48	17.51	0.70	0.00	0.0	183	NA
	3/24/2017	6.98	7.81	0.22	0.00	5.1	120	0.10
MW-07	10/28/2018	6.92	10.06	0.75	0.00	32.8	-99	NA
MW-08	2/12/2015	6.89	9.34	0.56	0.00	43.3	-135	NA
MW-09	2/12/2015	6.30	5.68	0.69	0.15	5.9	30	NA
MW-10	2/12/2015	6.30	5.57	0.80	0.00	65.6	10	NA
MW-11	2/12/2015	6.55	6.12	0.98	0.00	0.24	-3	NA
	3/24/2017	6.90	8.65	0.56	0.00	6.1	123	0.08
MW-12	2/12/2015	6.76	6.56	2.25	0.00	16.3	-14	NA
MW-13	2/12/2015	6.59	15.7	1.22	0.00	0.0	-141	NA
MW-14	3/23/2017	6.99	5.84	0.90	0.00	7.0	-14	NA
MW-15	3/23/2017	7.29	4.54	0.51	0.00	15.3	122	NA
MW-16	3/23/2017	7.07	6.55	1.28	0.00	1.1	59	NA
MW-17	3/23/2017	6.93	7.71	1.22	0.00	19.7	35	NA
MW-18	3/29/2017	6.87	7.03	1.22	0.00	15.1	-15	NA
MW-19	3/24/2017	6.81	8.39	0.40	0.00	58.3	-58	2.01
MW-20	3/24/2017	6.84	5.19	0.44	0.00	13.7	199	0.08
MW-21	3/24/2017	7.65	5.81	0.58	0.00	19.2	153	0.10
SW-01	3/23/2017	7.85	5.15	NA	3.95	1.8	NA	NA
SW-02	3/23/2017	7.90	4.08	NA	2.46	3.8	NA	NA
CISTERN	4/6/2018	8.32	15.9	0.06	8.00	NA	60.6	NA

Notes:
NA - Not analyzed

TABLE 5
SURFACE WATER AND CISTERN ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			CIST	CIST	CIST	SW-01	SW-01
Sample ID			CIST	SW-C1S_040618	SW-C1S-50_040618	SW-01-032317	SW-51-032317
Matrix			Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Depth Interval (ft)			-	-	-	-	-
Date Sampled			10/29/14	04/06/18	04/06/18	03/23/17	03/23/17
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		Field Duplicate (1-1)
Volatile Organic Compounds							
Acetone	UG/L	50		NA	NA		
Methylcyclohexane	UG/L	-		NA	NA	2.8 J	
Trichlorofluoromethane	UG/L	5	0.54 J	NA	NA		
Metals							
Barium	MG/L	1	NA	0.0060	0.0059	0.0052	0.0060
Calcium	MG/L	-	NA	9.4	9.5	12.1	12.1
Chromium	MG/L	0.05 H(WS)	NA				0.0057 J
Copper	MG/L	0.2 H(WS)	NA	0.0053 J	0.0042 J		0.0016 J
Iron	MG/L	0.3	NA	0.30 J-	0.11 J	0.060	0.063
Magnesium	MG/L	35	NA	0.89	0.90	2.6	2.7
Manganese	MG/L	0.3	NA	0.0017 J	0.00065 J	0.0044	0.0045
Nickel	MG/L	0.1 H(WS)	NA				0.0034 J
Potassium	MG/L	-	NA	4.7 J+	4.5 J+	0.41 J	0.40 J
Sodium	MG/L	-	NA	3.2	3.1	5.9	6.0
Zinc	MG/L	2 H(WS)	NA	0.066	0.066	0.031	0.031
Miscellaneous Parameters							
Total Organic Carbon (TOC)	MG/L	-	NA	NA	NA	2.6	2.5

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class A.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- or NS - No criteria. H(WS) - Source of Drinking Water (surface water). Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias.

Only Detected Results Reported.

TABLE 5
SURFACE WATER AND CISTERN ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID			SW-02
Sample ID			SW-02-032317
Matrix			Surface Water
Depth Interval (ft)			-
Date Sampled			03/23/17
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Acetone	UG/L	50	3.5 J
Methylcyclohexane	UG/L	-	
Trichlorofluoromethane	UG/L	5	
Metals			
Barium	MG/L	1	0.0053
Calcium	MG/L	-	12.2
Chromium	MG/L	0.05 H(WS)	
Copper	MG/L	0.2 H(WS)	0.0025 J
Iron	MG/L	0.3	0.082
Magnesium	MG/L	35	2.7
Manganese	MG/L	0.3	0.0044
Nickel	MG/L	0.1 H(WS)	
Potassium	MG/L	-	0.42 J
Sodium	MG/L	-	6.0
Zinc	MG/L	2 H(WS)	0.037
Miscellaneous Parameters			
Total Organic Carbon (TOC)	MG/L	-	2.3

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. April 2000, Class A.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

- or NS - No criteria. H(WS) - Source of Drinking Water (surface water). Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias.

Only Detected Results Reported.

TABLE 6
SEDIMENT ANALYTICAL RESULTS - CLASS A & C CRITERIA - DETECTED COMPOUNDS ONLY
FORMER BERNZOMATIC FACILITY

Location ID		SED-01			SED-02			SED-02			SED-03			SED-03			SED-04			SED-04			SED-05			SED-05			SED-05		
Sample ID		SED-01-032317			SED-02-032317			SED-52-032317			SED-03 0"-6" 040618			SED-03 6"-12"			SED-04 0"-6" 040618			SED-04 6"-12"			SED-05 0"-6" 040618			SED-55 0"-6" 040618			SED-05 6"-12"		
Matrix		Sediment			Sediment			Sediment			Sediment			Sediment			Sediment			Sediment			Sediment			Sediment			Sediment		
Date Sampled		03/23/17			03/23/17			03/23/17			04/06/18			04/06/18			04/06/18			04/06/18			04/06/18			04/06/18			04/06/18		
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**	Field Duplicate	**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**		**Criteria (1)**	**Criteria (2)**	Field Duplicate	**Criteria (1)**	**Criteria (2)**	
Volatile Organic Compounds (VOCs)																															
Acetone	UG/KG	-	-	82 J	-	-	83 J	-	-	40 J	-	-		-	-		-	-		-	-		-	-		-	-		-	-	
Semivolatile Organic Compounds (SVOCs)																															
Benzo(a)anthracene	UG/KG	-	-		-	-		-	-	200 J	-	-	670 J	-	-		-	-		-	-		-	-	380 J	-	-	140 J	-	-	
Benzo(a)pyrene	UG/KG	-	-		-	-		-	-	220 J	-	-	990 J	-	-		-	-		-	-		-	-	550 J	-	-	230 J	-	-	
Benzo(b)fluoranthene	UG/KG	-	-		-	-	320 J	-	-	410 J	-	-	1,600 J	-	-	290 J	-	-	440 J	-	-		-	-	740 J	-	-	380 J	-	-	
Benzo(g,h,i)perylene	UG/KG	-	-		-	-		-	-	210 J	-	-	710 J	-	-		-	-		-	-		-	-	480 J	-	-		-	-	
Benzo(k)fluoranthene	UG/KG	-	-		-	-		-	-	140 J	-	-	680 J	-	-		-	-		-	-		-	-	520 J	-	-		-	-	
Chrysene	UG/KG	-	-		-	-		-	-	310 J	-	-	1,400 J	-	-		-	-		-	-		-	-	610 J	-	-		-	-	
Fluoranthene	UG/KG	-	-		-	-	450 J	-	-	730 J	-	-	2,500 J	-	-	550 J	-	-	590 J	-	-		-	-	1,100 J	-	-	490 J	-	-	
Indeno(1,2,3-cd)pyrene	UG/KG	-	-		-	-		-	-	180 J	-	-	800 J	-	-		-	-		-	-		-	-	470 J	-	-	200 J	-	-	
Phenanthrene	UG/KG	-	-		-	-		-	-	420 J	-	-	1,100 J	-	-	310 J	-	-		-	-		-	-	350 J	-	-		-	-	
Pyrene	UG/KG	-	-		-	-	300 J	-	-	490 J	-	-	2,000 J	-	-	310 J	-	-	340 J	-	-		-	-	890 J	-	-	330 J	-	-	
Total Polynuclear Aromatic Hydrocarbons (PAHs)	UG/KG	8,220	71,925	ND	7,740	67,725	1,070	1,844	16,135	3,310	7,320	64,050	12,450	3,360	29,400	1,460	2,800	24,500	1,370	746	6,528	ND	9,460	82,775	6,090	6,080	53,200	1,770	4,220	36,925	ND
Metals																															
Aluminum	MG/KG	-	-	29,200	-	-	8,170 J	-	-	6,620	-	-	25,300 J	-	-	15,200 J	-	-	20,400 J	-	-	21,700	-	-	5,230 J	-	-	9,170 J	-	-	12,500
Arsenic	MG/KG	10	33	16.8 J-	10	33	4.4 J	10	33	2.6 J	10	33	6.7 J	10	33	3.4 J	10	33	5.0 J	10	33	3.2	10	33	2.0 J	10	33	4.0	10	33	2.7
Barium	MG/KG	-	-	184 J-	-	-	64.0 J	-	-	43.8	-	-	166 J	-	-	88.5 J	-	-	357 J+	-	-	179 J+	-	-	31.9 J+	-	-	65.0 J+	-	-	60.0 J+
Beryllium	MG/KG	-	-	1.3 J-	-	-	0.37 J	-	-	0.32	-	-	1.1 J	-	-	0.56 J	-	-	1.1 J+	-	-	0.73 J+	-	-	0.23 J+	-	-	0.38 J+	-	-	0.38 J+
Cadmium	MG/KG	1	5	0.65 J-	1	5	0.52 J	1	5	0.23 J	1	5	0.68 J	1	5	0.25 J	1	5	0.55 J	1	5	0.25 J	1.0	5	0.35 J	1.0	5	0.30 J	1	5	0.19 J
Calcium	MG/KG	-	-	46,000	-	-	6,030 J	-	-	7,840	-	-	36,800 J	-	-	3,860 J	-	-	3,890 J	-	-	4,090	-	-	3,290 J	-	-	24,600 J	-	-	2,920
Chromium	MG/KG	43	110	151 J-	43	110	11.5 J	43	110	10	43	110	31.0 J	43	110	15.8 J	43	110	24.3 J	43	110	21.6	43	110	6.6 J	43	110	11.1 J	43	110	12.0
Cobalt	MG/KG	-	-	21.4 J-	-	-	3.3 J	-	-	5.3	-	-	13.5 J	-	-	6.0 J	-	-	8.1 J	-	-	6.8	-	-	2.4 J	-	-	5.1 J	-	-	4.5
Copper	MG/KG	32	150	574 J-	32	150	43.1 J	32	150	33.2	32	150	111 J	32	150	42.5 J	32	150	60.6 J	32	150	46.2	32	150	23.1 J	32	150	84.4 J	32	150	19.4
Iron	MG/KG	-	-	121,000	-	-	9,320 J	-	-	9,210	-	-	28,200 J	-	-	14,100 J	-	-	22,200 J+	-	-	15,400 J+	-	-	6,020 J+	-	-	11,300 J+	-	-	10,400 J+
Lead	MG/KG	36	130	41.3 J+	36	130	13.4 J	36	130	8.7	36	130	24.3 J	36	130	12.3 J	36	130	14.1 J	36	130	15.8	36	130	9.3 J	36	130	7.8	36	130	12.6
Magnesium	MG/KG	-	-	21,200	-	-	2,790 J	-	-	3,350	-	-	18,700 J	-	-	3,550 J	-	-	4,010 J	-	-	3,660	-	-	1,400 J	-	-	12,800 J	-	-	2,070
Manganese	MG/KG	-	-	1,350	-	-	190 J	-	-	237	-	-	499 J	-	-	150 J	-	-	156 J	-	-	315	-	-	86.5 J	-	-	296 J	-	-	127
Mercury	MG/KG	0.2	1	0.062 J	0.2	1	0.037 J	0.2	1	0.00035	0.2	1		0.2	1	0.033 J	0.2	1	0.067 J	0.2	1	0.078	0.2	1		0.2	1		0.2	1	0.040
Nickel	MG/KG	23	49	102 J-	23	49	9.3 J	23	49	11.3	23	49	34.3 J	23	49	15.9 J	23	49	24.1 J	23	49	19.7	23	49	5.6 J	23	49	12.4	23	49	9.2
Potassium	MG/KG	-	-	5,260	-	-	797 J	-	-	967	-	-	4,920 J	-	-	1,840 J	-	-	2,010 J+	-	-	2,000 J+	-	-	723 J+	-	-	1,300 J+	-	-	840 J+
Selenium	MG/KG	-	-		-	-		-	-		-	-		-	-		-	-		-	-	0.84 J-	-	-		-	-		-	-	
Sodium	MG/KG	-	-	300 J	-	-	144 J	-	-	97.0 J	-	-		-	-		-	-		-	-		-	-		-	-	264	-	-	
Vanadium	MG/KG	-	-	69.7 J-	-	-	16.0 J	-	-	12.0	-	-	49.7 J	-	-	24.5 J	-	-	70.6 J	-	-	35.6	-	-	13.0 J	-	-	18.8	-	-	21.9
Zinc	MG/KG	120	460	1,090	120	460	277 J	120	460	143 J	120	460	276 J	120	460	153 J	120	460	161 J+	120	460	122 J	120	460	108 J	120	460	134 J	120	460	56.2 J
Miscellaneous Parameters																															
Total Organic Carbon (TOC)	MG/KG	-	-	41,100 J	-	-	38,700 J	-	-	9,220 J	-	-	36,600	-	-	16,800	-	-	14,000	-	-	3,730	-	-	47,300	-	-	30,400	-	-	21,100

Notes:
Criteria (1)- NYSDEC Screening and Assessment of Contaminated Sediments, Class A (based on sample TOC), June 24, 2014.
Criteria (2)- NYSDEC Screening and Assessment of Contaminated Sediments, Class C (based on sample TOC), June 24, 2014.
Criteria for volatile organic compounds and semivolatile organic compounds calculated using sample-specific TOC concentrations.
Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)
Concentration Exceeds Criteria (2)
- - No criteria. UG/KG - Micrograms per kilogram. MG/KG - Milligrams per kilogram. Empty cell - Not detected.
J - Reported concentration is an estimated value. J- - Reported concentration is an estimated value, biased low. J+ - Reported concentration is an estimated value, biased high.

TABLE 7
SEDIMENT ANALYTICAL RESULTS COMPARED TO SOIL SCOs (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SED-01	SED-02	SED-02	SED-03	SED-03
Sample ID					SED-01-032317	SED-02-032317	SED-52-032317	SED-03-0-6-040618	SED-03-6-12-040618
Matrix					Sediment	Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)					-	-	-	0.0-0.5	0.5-1.0
Date Sampled					03/23/17	03/23/17	03/23/17	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**			Field Duplicate (1-1)		
Volatile Organic Compounds									
Acetone	UG/KG	2200	50	5.00E+05	82 J	83 J	40 J	NA	NA
Semivolatile Organic Compounds									
Benzo(a)anthracene	UG/KG	NS	1000	5600			200 J	670 J	
Benzo(a)pyrene	UG/KG	2600	22000	1000			220 J	990 J	
Benzo(b)fluoranthene	UG/KG	NS	1700	5600		320 J	410 J	1,600 J	290 J
Benzo(g,h,i)perylene	UG/KG	NS	1.00E+06	5.00E+05			210 J	710 J	
Benzo(k)fluoranthene	UG/KG	NS	1700	56000			140 J	680 J	
Chrysene	UG/KG	NS	1000	56000			310 J	1,400 J	
Fluoranthene	UG/KG	NS	1.00E+06	5.00E+05		450 J	730 J	2,500 J	550 J
Indeno(1,2,3-cd)pyrene	UG/KG	NS	8200	5600			180 J	800 J	
Phenanthrene	UG/KG	NS	1.00E+06	5.00E+05			420 J	1,100 J	310 J
Pyrene	UG/KG	NS	1.00E+06	5.00E+05		300 J	490 J	2,000 J	310 J
Metals									
Aluminum	MG/KG	10000	-	-	29,200	8,170 J	6,620	25,300 J	15,200 J
Arsenic	MG/KG	13	16	16	16.8 J-	4.4 J	2.6 J	6.7 J	3.4 J
Barium	MG/KG	433	820	400	184 J-	64.0 J	43.8	166 J	88.5 J
Beryllium	MG/KG	10	47	590	1.3 J-	0.37 J	0.32	1.1 J	0.56 J
Cadmium	MG/KG	4	7.5	9.3	0.65 J-	0.52 J	0.23 J	0.68 J	0.25 J
Calcium	MG/KG	10000	-	-	46,000	6,030 J	7,840	36,800 J	3,860 J

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

Only Detected Results Reported.

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TABLE 7
SEDIMENT ANALYTICAL RESULTS COMPARED TO SOIL SCOs (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SED-01	SED-02	SED-02	SED-03	SED-03
Sample ID					SED-01-032317	SED-02-032317	SED-52-032317	SED-03-0-6-040618	SED-03-6-12-040618
Matrix					Sediment	Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)					-	-	-	0.0-0.5	0.5-1.0
Date Sampled					03/23/17	03/23/17	03/23/17	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**			Field Duplicate (1-1)		
Metals									
Chromium	MG/KG	41	NS	1500	151 J-	11.5 J	10	31.0 J	15.8 J
Cobalt	MG/KG	20	-	-	21.4 J-	3.3 J	5.3	13.5 J	6.0 J
Copper	MG/KG	50	1720	270	574 J-	43.1 J	33.2	111 J	42.5 J
Iron	MG/KG	-	-	-	121,000	9,320 J	9,210	28,200 J	14,100 J
Lead	MG/KG	63	450	1000	41.3 J+	13.4 J	8.7	24.3 J	12.3 J
Magnesium	MG/KG	-	-	-	21,200	2,790 J	3,350	18,700 J	3,550 J
Manganese	MG/KG	1600	2000	10000	1,350	190 J	237	499 J	150 J
Mercury	MG/KG	0.18	0.73	2.8	0.062 J	0.037 J	0.00035		0.033 J
Nickel	MG/KG	30	130	310	102 J-	9.3 J	11.3	34.3 J	15.9 J
Potassium	MG/KG	-	-	-	5,260	797 J	967	4,920 J	1,840 J
Selenium	MG/KG	3.9	4	1500					
Sodium	MG/KG	-	-	-	300 J	144 J	97.0 J		
Vanadium	MG/KG	39	-	-	69.7 J-	16.0 J	12.0	49.7 J	24.5 J
Zinc	MG/KG	109	2480	10000	1,090	277 J	143 J	276 J	153 J
Miscellaneous Parameters									
Total Organic Carbon (TOC)	MG/KG	-	-	-	41,100 J	38,700 J	9,220 J	36,600	16,800

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

Only Detected Results Reported.

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TABLE 7
SEDIMENT ANALYTICAL RESULTS COMPARED TO SOIL SCOs (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SED-04	SED-04	SED-05	SED-05	SED-05
Sample ID					SED-04-0-6-040618	SED-04-6-12-040618	SED-05-0-6-040618	SED-55-0-6-040618	SED-05-6-12-040618
Matrix					Sediment	Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)					0.0-0.5	0.5-1.0	0.0-0.5	0.0-0.5	0.5-1.0
Date Sampled					04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Volatile Organic Compounds									
Acetone	UG/KG	2200	50	5.00E+05	NA	NA	NA	NA	NA
Semivolatile Organic Compounds									
Benzo(a)anthracene	UG/KG	NS	1000	5600			380 J	140 J	
Benzo(a)pyrene	UG/KG	2600	22000	1000			550 J	230 J	
Benzo(b)fluoranthene	UG/KG	NS	1700	5600	440 J		740 J	380 J	
Benzo(g,h,i)perylene	UG/KG	NS	1.00E+06	5.00E+05			480 J		
Benzo(k)fluoranthene	UG/KG	NS	1700	56000			520 J		
Chrysene	UG/KG	NS	1000	56000			610 J		
Fluoranthene	UG/KG	NS	1.00E+06	5.00E+05	590 J		1,100 J	490 J	
Indeno(1,2,3-cd)pyrene	UG/KG	NS	8200	5600			470 J	200 J	
Phenanthrene	UG/KG	NS	1.00E+06	5.00E+05			350 J		
Pyrene	UG/KG	NS	1.00E+06	5.00E+05	340 J		890 J	330 J	
Metals									
Aluminum	MG/KG	10000	-	-	20,400 J	21,700	5,230 J	9,170 J	12,500
Arsenic	MG/KG	13	16	16	5.0 J	3.2	2.0 J	4.0	2.7
Barium	MG/KG	433	820	400	357 J+	179 J+	31.9 J+	65.0 J+	60.0 J+
Beryllium	MG/KG	10	47	590	1.1 J+	0.73 J+	0.23 J+	0.38 J+	0.38 J+
Cadmium	MG/KG	4	7.5	9.3	0.55 J	0.25 J	0.35 J	0.30 J	0.19 J
Calcium	MG/KG	10000	-	-	3,890 J	4,090	3,290 J	24,600 J	2,920

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

Only Detected Results Reported.

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TABLE 7
SEDIMENT ANALYTICAL RESULTS COMPARED TO SOIL SCOs (DETECTED COMPOUNDS ONLY)
FORMER BERNZOMATIC FACILITY

Location ID					SED-04	SED-04	SED-05	SED-05	SED-05
Sample ID					SED-04-0-6-040618	SED-04-6-12-040618	SED-05-0-6-040618	SED-55-0-6-040618	SED-05-6-12-040618
Matrix					Sediment	Sediment	Sediment	Sediment	Sediment
Depth Interval (ft)					0.0-0.5	0.5-1.0	0.0-0.5	0.0-0.5	0.5-1.0
Date Sampled					04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	**Criteria (3)**				Field Duplicate (1-1)	
Metals									
Chromium	MG/KG	41	NS	1500	24.3 J	21.6	6.6 J	11.1 J	12.0
Cobalt	MG/KG	20	-	-	8.1 J	6.8	2.4 J	5.1 J	4.5
Copper	MG/KG	50	1720	270	60.6 J	46.2	23.1 J	84.4 J	19.4
Iron	MG/KG	-	-	-	22,200 J+	15,400 J+	6,020 J+	11,300 J+	10,400 J+
Lead	MG/KG	63	450	1000	14.1 J	15.8	9.3 J	7.8	12.6
Magnesium	MG/KG	-	-	-	4,010 J	3,660	1,400 J	12,800 J	2,070
Manganese	MG/KG	1600	2000	10000	156 J	315	86.5 J	296 J	127
Mercury	MG/KG	0.18	0.73	2.8	0.067 J	0.078			0.040
Nickel	MG/KG	30	130	310	24.1 J	19.7	5.6 J	12.4	9.2
Potassium	MG/KG	-	-	-	2,010 J+	2,000 J+	723 J+	1,300 J+	840 J+
Selenium	MG/KG	3.9	4	1500		0.84 J-			
Sodium	MG/KG	-	-	-				264	
Vanadium	MG/KG	39	-	-	70.6 J	35.6	13.0 J	18.8	21.9
Zinc	MG/KG	109	2480	10000	161 J+	122 J+	108 J+	134 J+	56.2 J+
Miscellaneous Parameters									
Total Organic Carbon (TOC)	MG/KG	-	-	-	14,000	3,730	47,300	30,400	21,100

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

Criteria (3)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria 1

Concentration Exceeds Criteria (2)

Border Concentration Exceeds Criteria (3)

- or NS - No criteria. Empty cell - Not detected. NA - Not Analyzed

J - The reported concentration is an estimated value. J- - The reported concentration is an estimated value, low bias. J+ - The reported concentration is an estimated value, high bias

Only Detected Results Reported.

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Printed: 10/7/2020 8:40:58 AM
[SITE KEY] = 22 AND [MATRIX] = 'SE'

TABLE 8
VAPOR INTRUSION ANALYTICAL RESULTS
FORMER BERNZOMATIC FACILITY

Sample ID		IA-01	IA-01	SSV-01	SSV-01R	IA-02	SSV-02	IA-03	IA-03	SSV-04	SSV-04	IA-04	SSV-03	IA-05	SSV-08	IA-06	SSV-09	IA-07	SSV-10	SSV-05	SSV-06	OA-01	OA-01
Matrix		Indoor Air	Indoor Air	Sub-slab Vapor	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Indoor Air	Sub-slab Vapor	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Sub-slab Vapor	Sub-slab Vapor	Ambient Air	Ambient Air
Date Sampled		03/08/17	03/08/17	03/08/17	01/23/19	03/08/17	03/08/17	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	03/08/17	01/23/19
Parameter	**Units**	Duplicate						Duplicate		Duplicate													
Volatile Organic Compounds																							
Matrix A																							
Trichloroethene	UG/M3	0.16 U	0.16 U	1.3 J	4.0 U	0.16 U	1.3 U	0.34 J	0.26 J	4.7 J	4.8 J	0.33 J	0.98 U	0.25 J	1.2 U	0.34 J	0.16 U	0.34 J	14 U	0.81 U	1.6 U	0.16 UJ	0.31 J
1,2-Dichloroethene (cis)	UG/M3	0.62 J	0.67 J	0.85 U	3.7 U	0.59 J	0.95 U	**2.4**	**2.3**	1.2 U	2.8 U	**2.5**	0.89 U	**2.0**	1.0 U	**2.3**	0.15 U	**2.3**	13 U	0.73 U	1.5 U	0.12 UJ	0.15 U
1,1-Dichloroethene	UG/M3	0.040 U	0.040 U	0.28 U	3.4 U	0.040 U	0.32 U	0.13 U	0.13 U	1.1 U	2.6 U	0.13 U	0.82 U	0.13 U	0.96 U	0.13 U	0.13 U	0.13 U	12 U	0.67 U	1.3 U	0.040 UJ	0.13 U
Carbon tetrachloride	UG/M3	0.42 J	0.36 J	0.49 U	3.8 U	0.44 J	0.55 U	0.42 J	0.43 J	1.2 U	2.9 U	0.31 J	0.91 U	0.43 J	1.1 U	0.45 J	0.15 U	0.43 J	14 U	0.75 U	1.5 U	0.41 J	0.38 J
Matrix B																							
Tetrachloroethene	UG/M3	1.3 J	1.0 J	**1,200**	40	0.32 J	35	0.83 J	0.83 J	8.0 J	11 J	0.89 J	17	0.69 J	29	0.87 J	19	0.82 J	33 J	46	11 J	0.20 UJ	0.20 U
1,1,1-Trichloroethane	UG/M3	0.16 U	0.16 U	5.7 J	9.3 U	0.16 U	1.3 U	0.37 U	0.37 U	3.0 U	7.1 U	0.37 U	2.2 U	0.37 U	5.5 J	0.37 U	0.37 U	0.37 U	33 U	270	3.7 U	0.16 UJ	0.37 U
Methylene chloride	UG/M3	0.71 J	0.87 J	3.0 U	17 U	1.3 J	3.3 U	0.69 U	0.69 U	5.6 U	13 U	0.69 U	4.2 U	0.69 U	5.0 U	0.69 U	0.69 U	0.69 U	62 U	3.5 U	6.9 U	0.42 UJ	0.69 U
Matrix C																							
Vinyl chloride	UG/M3	0.066 U	0.066 U	0.47 U	2.6 U	0.066 U	0.53 U	0.10 U	0.10 U	0.84 U	2.0 U	0.10 U	0.64 U	0.10 U	0.75 U	0.10 U	0.10 U	0.10 U	9.4 U	0.52 U	1.0 U	0.066 UJ	0.10 U
No Criteria																							
1,1,2,2-Tetrachloroethane	UG/M3	0.23 U	0.23 U	1.7 U	NA	0.23 U	1.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 UJ	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	1.6	0.56 J	43	NA	0.54 J	76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.76 J	NA
1,1,2-Trichloroethane	UG/M3	0.20 U	0.20 U	1.4 U	NA	0.20 U	1.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 UJ	NA
1,1-Dichloroethane	UG/M3	0.11 U	0.11 U	0.81 U	2.6 U	0.11 U	0.91 U	0.18 J	0.17 J	0.84 U	2.0 U	0.11 U	0.64 U	0.14 J	0.75 U	0.19 J	0.11 U	0.17 J	9.4 U	12	1.1 U	0.11 UJ	0.11 U
1,2,4-Trichlorobenzene	UG/M3	0.25 U	0.25 U	1.8 U	NA	0.25 U	2.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25 UJ	NA
1,2,4-Trimethylbenzene	UG/M3	0.079 U	0.079 U	350	NA	0.079 U	93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.079 UJ	NA
1,2-Dibromoethane (Ethylene	UG/M3	0.14 U	0.14 U	0.99 U	NA	0.14 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 UJ	NA
1,2-Dichlorobenzene	UG/M3	0.11 U	0.11 U	0.77 U	NA	0.11 U	0.87 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 UJ	NA
1,2-Dichloroethane	UG/M3	0.21 U	0.21 U	1.5 U	NA	0.21 U	1.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	NA
1,2-Dichloroethene (trans)	UG/M3	0.11 U	0.11 U	0.76 U	7.4 U	0.11 U	0.86 U	0.29 U	0.29 U	2.3 U	5.6 U	0.29 U	1.8 U	0.29 U	2.1 U	0.29 U	0.29 U	0.29 U	26 U	1.5 U	2.9 U	0.11 UJ	0.29 U
1,2-Dichloropropane	UG/M3	0.16 U	0.16 U	1.2 U	NA	0.16 U	1.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 UJ	NA
1,2-Dichlorotetrafluoroethane	UG/M3	0.36 U	0.36 U	2.6 U	NA	0.36 U	2.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.36 UJ	NA
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	0.093 U	0.093 U	100	NA	0.093 U	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.093 UJ	NA
1,3-Dichlorobenzene	UG/M3	0.12 U	0.12 U	0.86 U	NA	0.12 U	0.96 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 UJ	NA
1,3-Dichloropropene (cis)	UG/M3	0.13 U	0.13 U	0.94 U	NA	0.13 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13 UJ	NA
1,3-Dichloropropene (trans)	UG/M3	0.12 U	0.12 U	0.84 U	NA	0.12 U	0.94 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 UJ	NA
1,4-Dichlorobenzene	UG/M3	0.11 U	0.11 U	0.82 U	NA	0.44 J	0.91 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 UJ	NA
1,4-Dioxane	UG/M3	0.58 U	0.58 U	4.1 U	NA	0.58 U	4.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.58 UJ	NA
4-Methyl-2-pentanone	UG/M3	0.74 U	0.74 U	5.3 U	NA	0.74 U	5.9 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.74 UJ	NA

TABLE 8
VAPOR INTRUSION ANALYTICAL RESULTS
FORMER BERNZOMATIC FACILITY

Sample ID		IA-01	IA-01	SSV-01	SSV-01R	IA-02	SSV-02	IA-03	IA-03	SSV-04	SSV-04	IA-04	SSV-03	IA-05	SSV-08	IA-06	SSV-09	IA-07	SSV-10	SSV-05	SSV-06	OA-01	OA-01
Matrix		Indoor Air	Indoor Air	Sub-slab Vapor	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Indoor Air	Sub-slab Vapor	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Indoor Air	Sub-slab Vapor	Sub-slab Vapor	Sub-slab Vapor	Ambient Air	Ambient Air
Date Sampled		03/08/17	03/08/17	03/08/17	01/23/19	03/08/17	03/08/17	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	01/23/19	03/08/17	01/23/19
Parameter	**Units**	Duplicate						Duplicate		Duplicate													
Volatile Organic Compounds																							
Acetone	UG/M3	4.6 J	6.4 J	98	NA	8.4 J	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2 J	NA
Benzene	UG/M3	0.31 J	0.34 J	32	5.9 J	0.39 J	27	2.1	2.1	6.2	8.4 J	2.5	2.5 J	3.0	4.7	1.5	2.4	1.5	20 U	6.0	18	0.27 J	0.40 J
Benzyl chloride	UG/M3	0.093 U	0.093 U	0.67 U	NA	0.093 U	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.093 UJ	NA
Bromodichloromethane	UG/M3	0.19 U	0.19 U	1.4 U	NA	0.19 U	1.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 UJ	NA
Bromoform	UG/M3	0.26 U	0.26 U	1.8 U	NA	0.26 U	2.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.26 UJ	NA
Bromomethane	UG/M3	0.17 U	0.17 U	1.2 U	NA	0.17 U	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17 UJ	NA
Carbon disulfide	UG/M3	0.093 U	0.093 U	7.8 J	NA	0.093 U	9.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.093 UJ	NA
Chlorobenzene	UG/M3	0.083 U	0.083 U	0.59 U	NA	0.083 U	0.66 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.083 UJ	NA
Chloroethane	UG/M3	0.16 U	0.16 U	1.1 U	NA	0.16 U	1.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 UJ	NA
Chloroform	UG/M3	0.19 U	0.19 U	1.3 U	NA	0.19 U	1.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 UJ	NA
Chloromethane	UG/M3	1.0	1.1	0.88 U	NA	1.3	0.99 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.98 J	NA
Cyclohexane	UG/M3	0.034 U	0.28 J	560	NA	0.034 U	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.034 UJ	NA
Dibromochloromethane	UG/M3	0.17 U	0.17 U	1.2 U	NA	0.17 U	1.4 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17 UJ	NA
Dichlorodifluoromethane	UG/M3	2.9	2.6	4.9 J	NA	3.2	2.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3 J	NA
Ethylbenzene	UG/M3	0.11 J	0.14 J	75	8.0 J	0.13 J	580	2.3	1.9	4.5 J	8.7 J	2.4	2.1 J	3.9	5.7 J	2.1	3.3	1.9	49 J	15	41	0.087 UJ	0.32 U
Hexachlorobutadiene	UG/M3	0.38 U	0.38 U	2.7 U	NA	0.38 U	3.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.38 UJ	NA
Hexane	UG/M3	0.75 J	0.94 J	870	NA	1.4 J	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.099 UJ	NA
Isopropyl alcohol	UG/M3	0.41 J	0.37 U	5.2 J	NA	0.77 J	8.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.39 J	NA
Isopropylbenzene (Cumene)	UG/M3	0.093 U	0.093 U	21 J	NA	0.093 U	0.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.093 UJ	NA
m&p-Xylene	UG/M3	0.32 J	0.40 J	400	26 J	0.41 J	2,200	15	13	18 J	35 J	15	8.7 J	16	27	16	16	14	170 J	65	240	0.11 UJ	0.30 U
Methyl ethyl ketone (2-Butanone)	UG/M3	0.56 J	1.1 J	5.3 J	NA	0.92 J	9.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.85 J	NA
Methyl tert-butyl ether	UG/M3	0.079 U	0.079 U	0.57 U	NA	0.079 U	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.079 UJ	NA
Naphthalene	UG/M3	0.16 U	0.16 U	4.9 J	NA	0.16 U	1.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 UJ	NA
o-Xylene	UG/M3	0.078 U	0.078 U	140	10 J	0.079 J	390	3.5	3.2	8.3 J	16 J	3.3	3.9 J	4.9	12	3.2	6.4	2.9	73 J	21	99	0.078 UJ	0.31 U
Styrene	UG/M3	0.068 U	0.068 U	0.49 U	NA	0.068 U	0.55 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.068 UJ	NA
Tetrahydrofuran	UG/M3	0.53 U	0.53 U	3.8 U	NA	0.53 U	4.2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.53 UJ	NA
Toluene	UG/M3	0.43 J	0.61 J	160	18 J	0.52 J	190	7.7	6.9	15	24	8.0	11	10	21	6.6	9.4	5.7	71	170	110	0.14 J	0.27 J
Trichlorofluoromethane	UG/M3	150	150	120	NA	210	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 J	NA
Vinyl acetate	UG/M3	0.29 U	0.29 U	2.1 U	NA	0.29 U	2.3 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.29 UJ	NA
Vinyl bromide	UG/M3	0.087 U	0.087 U	0.62 U	NA	0.087 U	0.70 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.087 UJ	NA

Notes:

UG/M3 - micrograms per cubic meter

IA - indoor air

OA - outdoor air

SSV - sub-slab vapor

J - estimated concentration

U - not detected

NA - not analyzed

Data evaluated under NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York

For Indoor Air sample locations, there were no exceedances as compared to NYSDOH's Indoor Air Guidelines for TCE (< 2 UG/M3) or PCE (<30 UG/M3).

Per NYSDOH Matrix Guidance: Mitigate, Concentration >1000 UG/M3

Per NYSDOH Matrix Guidance: Identify source(s) and resample or mitigate

Non-detect values are MDLs

Table 9
Preliminary Screening of General Response Actions for Groundwater
Former Bernzomatic Facility

Overview of Groundwater Impacts				
Groundwater: CVOCs.			**GRAs and subsequent screening apply to CVOCs in the groundwater.**	
General Response Actions	**Technology**	**Process**	**Description**	**Applicability**
No Action	(n/a)	(n/a)	(n/a)	**Applicable - Retained as a baseline to compare other remedial alternatives against.**
Limited Action	Institutional Controls	Environmental Easement	Non-physical means of enforcing a restriction on the site that limits exposure and use of impacted groundwater and prevents actions that would interfere with the remedial program.	**Applicable - May be required in addition to remediation, depending on future site use and selected remedy.**
		Zoning / Ordinance		
		Current Site Use		
		Site Management Plan		
	Environmental Monitoring	Groundwater Monitoring	Monitoring natural attenuation mechanisms, and plume mobility. Assumes plume is stable.	**Applicable - CVOC concentrations are relatively low and will reduce with time.**
		Monitored Natural Attenuation		
Containment	Physical Containment	Slurry Wall, Solidification, Sheet Pile	Geotechnical methods for the isolation of source areas, thus preventing the ongoing migration of contaminants. Methods include sheet pile walls, diaphragm walls and bentonite slurry walls. Barrier will likely alter natural groundwater flow paths.	Not Applicable - This is a passive technology that would not treat VOCs within the groundwater. Requires significant civil works to install barrier wall. May be feasible in future phase if remediation works are unsuccessful.
	Hydraulic Containment	Induced Drawdown - Pump and Treat	Proven method for containment of dissolved phase contaminants. Extraction wells intercept groundwater and recirculate back to upgradient injection locations until contaminants have attenuated.	Not Applicable - Requires installation of extraction wells, and relies completely on attenuation for remediation. Requires long-term infrastructure and operation which does not meet Site objectives.
In-situ Treatment	Biological Treatment	Aerobic	Aerobic bioremediation enhances biodegradation of with the addition of oxygen and/or limiting nutrients to subsurface.	**Applicable - Aerobic bioremediation process is applicable to some CVOCs (e.g., chloroethane, vinyl chloride). Could be applied as a polish step after another remedial technology.**
		Anaerobic	Anaerobic bioremediation enhances anaerobic reductive degradation by adding electron donor (carbon substrate and/or nutrients) to stimulate the microbial activity of dechlorinating bacteria.	**Applicable - Anaerobic bioremediation is effective for CVOCs found in groundwater at the Site. Based on presence of degradation products, reductive dechlorination may be occurring naturally. Process could also be applied as a polish step after another remedial technology.**
		Bioaugmentation	Bioaugmentation comprises adding a known contaminant-degrading microbial culture (e.g., KB-1) to accelerate the bioremediation process.	**Applicable - Additional microbial cultures may enhance and/or increase the rate of biodegradation at the Site.**
	Chemical Treatment	In-situ Chemical Oxidation (Injection)	Apply chemical oxidant into subsurface for oxidation/destruction of contaminants in soil and groundwater. Strong oxidants require careful handling procedures.	**Applicable - Chemical oxidation has been demonstrated to directly treat CVOC contaminants. Injection requires conservative design and more injection points. In-situ soil mixing allows for effective contact between oxidants and VOCs but may limit redevelopment schedule/reuse.**
		In-situ Chemical Reduction	Inject amendments to treat subsurface contaminants through reduction reactions (i.e., zero valent iron).	**Applicable - In-situ Chemical Reduction most commonly applied for CVOCs. In-situ chemical reduction also enhances bioremediation of CVOCs by reductive dechlorination.**

Table 9
Preliminary Screening of General Response Actions for Groundwater
Former Bernzomatic Facility

Overview of Groundwater Impacts				
Groundwater: CVOCs.			GRAs and subsequent screening apply to CVOCs in the groundwater.	
General Response Actions	**Technology**	**Process**	**Description**	**Applicability**
In-situ Treatment	Physical Treatment	Air Sparging	Strips VOCs from groundwater through addition of air below treatment zone, transferring VOCs to vapor phase for extraction and can enhance aerobic biodegradation by injecting air and providing oxygen source.	Not Applicable - Cost prohibitive based on limited impacts and low concentrations.
		Soil Vapor Extraction	Strips VOCs from groundwater, transferring VOCs to vapor phase for extraction.	Not Applicable - Cost prohibitive based on limited impacts and low concentrations.
		Electrical Resistive Heating (ERH)/Thermal Conductive Heating (TCH)	In-situ thermal remediation generates heat in-situ or applies heat directly to the subsurface, raising the temperature to above the boiling point of the target VOC contaminants (typically ~100^{o}C or greater) and evaporating VOCs from the soil. Vapors are collected from the subsurface through soil vapor extraction wells for subsequent above-ground treatment.	Not Applicable - Cost prohibitive based on limited impacts and low concentrations.
		Pump and Treat	Impacted groundwater is pumped from the subsurface and treated ex-situ using air strippers, adsorption, and/or filtration	Not Applicable - Cost prohibitive based on limited impacts and low concentrations.
		High Vacuum Multi-phase Extraction (MPE)	Utilize high vacuums to extract groundwater and expose impacted upper saturated zone soil for vapor extraction. Provides aggressive contaminant removal. Ideally applied in 48-hour continuous events.	Not Applicable - Cost prohibitive based on limited impacts and low concentrations.

Table 10
Preliminary Screening of General Response Actions for Soil
Former Bernzomatic Facility

Overview of Soil Impacts				
Soil Impacts: CVOCs probable source area			**GRAs and subsequent screening applies to CVOCs in subsurface soil.**	
General Response Actions	**Technology**	**Process**	**Description**	**Applicability**
No Action	(n/a)	(n/a)	(n/a)	**Applicable - Retained as a baseline to compare other remedial alternatives against.**
Limited Action	Institutional Controls	Environmental Easement	Non-physical means of enforcing a restriction on the site that limits exposure to impacted materials and prevents actions that would interfere with the remedial program.	**Applicable - Limited soil impacts may be addressed by institutional controls and may be required for contamination left in place.**
		Zoning / Ordinance		
		Current Site Use		
		Site Management Plan		
In-situ Treatment	In-situ Solidification	Bucket/blender, auger rig, pressure/jet grout - Portland cement, bentonite, fly ash, slag, activated carbon blend	Solidification seeks to reduce the potential mobility of soil contaminants. Treatment is possible when mixed with solidification materials.	Not Applicable - Cost prohibitive based on limited soil impacts.
	Physical Treatment	Solidification / Stabilization	Physical treatment technologies	**Applicable - Soil vapor extraction would be applicable. Others would not be cost effective due to the small treatment area and volume.**
		Soil flushing		
		Surfactant enhanced recovery		
		Electro kinetic separation		
		Vitrification		
		Thermal resistivity		
		Electromagnetic heating		
		Heat enhanced recovery		
		Soil vapor extraction		
Removal	Excavation	Off-site Disposal	Excavate soils from impacted areas, requires off-site treatment and/or disposal	Potentially Applicable - Impacts are likely limited to area beneath machining building footprint. Approach would significantly impact building structure; a building integrity /structural assessment would be required.
		On-Site Treatment and Backfill	Excavated soils treated on-site by one of the treatment options listed above (in-situ treatment).	Not Applicable - Based on limited impacts in soil, technologies not practical for the Site.

Conclusion

The following technologies were identified as applicable or potentially applicable for the site conditions and will undergo initial screening:
1) No Action
2) Institutional Controls (Limited Action)
3) Soil vapor extraction (In-situ Treatment)
4) Excavation (Off-site Disposal)

TABLE 11
EVALUATION OF TECHNOLOGIES AND PROCESS OPTIONS

General Response Action	Remedial Technology	Process Option	Effectiveness	Implementability	Relative Cost	Screening Comments	COCs		
							Groundwater	Soils	Soil Vapor
No Action	No Action	None	Not effective by itself. Does not mitigate potential risk or exposures, does not comply with SCGs, does not reduce contaminant concentrations within a reasonable period of time.	No action makes this the easiest technology alternative to implement.	No cost	Retained.	X	X	X
Limited Action	Institutional Controls	Environmental Easement	Effective in preventing exposure to construction/utility/maintenance workers and visitors.	Limited actions can make this response action easy to implement. Additional actions may be required in the future.	Low. Additional costs for remediation may be required in the future.	Retained for use in conjunction with other options.	X	X	X
	Monitoring	Monitored Natural Attenuation	Natural attenuation will reduce contaminant concentrations, but might not be in a reasonable period of time.	Environmental sampling is standard practice for contaminated sites.	Low. O&M costs for monitoring and reporting may be required for a long period of time.	Retained for use in conjunction with other options.	X	X	X
Treatment	Biological	Enhanced Bioremediation	Treatment technology has been shown to be effective in reducing mass of organic contaminants. Does not generate large amounts of waste material.	Easily implemented because remedial actions are limited to application to an open excavation or injection through semi-permanent wells.	Low to Moderate. Bioaugmentation may be required.	Retained for use in conjunction with other options.	X		X
	Chemical	In-situ Chemical Oxidation	Treatment technology has been shown to be effective in reducing mass of organic contaminants over a short period of time. Does not generate large amounts of waste material.	Easily implemented because remedial actions are limited to injection and monitoring. Technology could lead to preferential pathways, daylighting, and adverse impacts to buried utilities and structures. Additional injections may be required in the future.	Moderate.	Not Retained.	X		X
		In-situ Chemical Reduction	Treatment technology has been shown to be effective in reducing mass of organic contaminants over a short period of time. Does not generate large amounts of waste material.	Easily implemented because remedial actions are limited to injection and monitoring. Technology could lead to preferential pathways, daylighting, and adverse impacts to buried utilities and structures.	Moderate to high.	Not Retained.	X		X
		Excavation	Technology would be effective in reducing contaminant source in soil. Generates large amounts of waste material.	Excavation would be targeted to source area, which is suspected to be in the machining building. Physical restrictions inside building would limit implementability. A building integrity / structural assessment would be required.	Moderate to High	Retained for use in conjunction with other options.		X	
		Soil Vapor Extraction	Treatment technology has been shown to be effective in reducing mass of organic contaminants in soil and groundwater. Does not generate large amounts of waste material.	Would require subsurface and above grade equipment installation and operation.	Medium	Not retained. Would only address impacts in soil. Limited effect on impacts in groundwater.	X	X	X

Notes:
COCs = constituents of concern
HVAC = heating, ventilation and air conditioning
Shading indicates Process Option not retained

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID			MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	**Units**	*			Field Duplicate (1-1)		
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	0.8	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	50	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	1	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	0.33	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	100	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	100	NA	NA	NA	NA	NA
Fluorene	MG/KG	30	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	NA	NA	NA	NA	NA
Naphthalene	MG/KG	12	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	100	NA	NA	NA	NA	NA
Pyrene	MG/KG	100	NA	NA	NA	NA	NA
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID			MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	**Units**	*			Field Duplicate (1-1)		
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	NA	NA	NA	NA	NA
Antimony	MG/KG	12	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	NA	NA	NA	NA	NA
Barium	MG/KG	350	NA	NA	NA	NA	NA
Beryllium	MG/KG	7.2	NA	NA	NA	NA	NA
Cadmium	MG/KG	2.5	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	NA	NA	NA	NA	NA
Chromium	MG/KG	30	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	NA	NA	NA	NA	NA
Copper	MG/KG	50	NA	NA	NA	NA	NA
Iron	MG/KG	2000	NA	NA	NA	NA	NA
Lead	MG/KG	63	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	NA	NA	NA	NA	NA
Nickel	MG/KG	30	NA	NA	NA	NA	NA
Potassium	MG/KG	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	NA	NA	NA	NA	NA
Silver	MG/KG	2	NA	NA	NA	NA	NA
Sodium	MG/KG	-	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

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TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-01	MW-01	MW-02	MW-02	MW-02
Sample ID			MW01 (0-2)	MW01 (11-12)	FD-20141020	MW-02 (0-2)	MW-02 (11-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-12.0	0.0-2.0	0.0-2.0	11.0-12.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/20/14
Parameter	**Units**	*			Field Duplicate (1-1)		
Metals							
Thallium	MG/KG	5	NA	NA	NA	NA	NA
Vanadium	MG/KG	39	NA	NA	NA	NA	NA
Zinc	MG/KG	109	NA	NA	NA	NA	NA

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Concentration Exceeds

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TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID			MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05	0.0024	0.0051			0.018
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					0.0024
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3					0.0077
Toluene	MG/KG	0.7					0.00030
Trichloroethene	MG/KG	0.47				0.00017	0.00039
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	0.33	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	20	NA	NA	NA	NA	NA
Anthracene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	1	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

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TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID			MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	0.8	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	50	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	1	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	0.33	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	100	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	100	NA	NA	NA	NA	NA
Fluorene	MG/KG	30	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	NA	NA	NA	NA	NA
Naphthalene	MG/KG	12	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	100	NA	NA	NA	NA	NA
Pyrene	MG/KG	100	NA	NA	NA	NA	NA
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	NA	NA	NA	NA	NA

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Concentration Exceeds

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TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID			MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	NA	NA	NA	NA	NA
Antimony	MG/KG	12	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	NA	NA	NA	NA	NA
Barium	MG/KG	350	NA	NA	NA	NA	NA
Beryllium	MG/KG	7.2	NA	NA	NA	NA	NA
Cadmium	MG/KG	2.5	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	NA	NA	NA	NA	NA
Chromium	MG/KG	30	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	NA	NA	NA	NA	NA
Copper	MG/KG	50	NA	NA	NA	NA	NA
Iron	MG/KG	2000	NA	NA	NA	NA	NA
Lead	MG/KG	63	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	NA	NA	NA	NA	NA
Nickel	MG/KG	30	NA	NA	NA	NA	NA
Potassium	MG/KG	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	NA	NA	NA	NA	NA
Silver	MG/KG	2	NA	NA	NA	NA	NA
Sodium	MG/KG	-	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-03	MW-03	MW-04	MW-04	MW-05
Sample ID			MW-03 (0-2)	MW03 (11-11.5)	MW-04 (0-2)	MW-04 (10-11)	MW05 (0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	11.0-11.5	0.0-2.0	10.0-11.0	0.0-2.0
Date Sampled			10/21/14	10/21/14	10/20/14	10/20/14	10/21/14
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5	NA	NA	NA	NA	NA
Vanadium	MG/KG	39	NA	NA	NA	NA	NA
Zinc	MG/KG	109	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

 Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID			MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled			10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	*				Field Duplicate (1-1)	
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					0.00014
1,2-Dichloroethene (cis)	MG/KG	0.25		0.0086		0.00032	0.00050
1,2-Dichloroethene (trans)	MG/KG	0.19		0.00026			
Acetone	MG/KG	0.05		0.0048	0.0037	0.0039	0.0032
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37	0.00017				
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12			0.00071	0.00065	
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-	0.00017				
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3	0.0019	0.0067		0.0018	0.0027
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47	0.00029	0.0049		0.0020	0.0030
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	0.33	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	20	NA	NA	NA	NA	NA
Anthracene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	1	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID			MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled			10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	*				Field Duplicate (1-1)	
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	0.8	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	50	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	1	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	0.33	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	100	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	100	NA	NA	NA	NA	NA
Fluorene	MG/KG	30	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	NA	NA	NA	NA	NA
Naphthalene	MG/KG	12	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	100	NA	NA	NA	NA	NA
Pyrene	MG/KG	100	NA	NA	NA	NA	NA
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID			MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled			10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	*				Field Duplicate (1-1)	
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	NA	NA	NA	NA	NA
Antimony	MG/KG	12	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	NA	NA	NA	NA	NA
Barium	MG/KG	350	NA	NA	NA	NA	NA
Beryllium	MG/KG	7.2	NA	NA	NA	NA	NA
Cadmium	MG/KG	2.5	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	NA	NA	NA	NA	NA
Chromium	MG/KG	30	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	NA	NA	NA	NA	NA
Copper	MG/KG	50	NA	NA	NA	NA	NA
Iron	MG/KG	2000	NA	NA	NA	NA	NA
Lead	MG/KG	63	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	NA	NA	NA	NA	NA
Nickel	MG/KG	30	NA	NA	NA	NA	NA
Potassium	MG/KG	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	NA	NA	NA	NA	NA
Silver	MG/KG	2	NA	NA	NA	NA	NA
Sodium	MG/KG	-	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-06	MW-06	MW-07	MW-07	MW-07
Sample ID			MW-06 (0-2)	MW-06 (8-9)	MW-07 (0-2)	FD-20141022	MW-07 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-2.0	8.0-9.0	0.0-2.0	8.0-9.0	8.0-9.0
Date Sampled			10/22/14	10/22/14	10/22/14	10/22/14	10/22/14
Parameter	**Units**	*				Field Duplicate (1-1)	
Metals							
Thallium	MG/KG	5	NA	NA	NA	NA	NA
Vanadium	MG/KG	39	NA	NA	NA	NA	NA
Zinc	MG/KG	109	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.


Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID			MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled			02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	*				Field Duplicate (1-1)	
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68				0.00031	0.00023
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.00065			0.00038	0.00054
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05	0.0049	0.0017		0.0036	0.0022
Benzene	MG/KG	0.06		0.00014			0.00015
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					0.00035
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3	0.0030		0.050	0.00038	0.00078
Toluene	MG/KG	0.7		0.00014			0.00025
Trichloroethene	MG/KG	0.47	0.0012		0.024	0.0045	0.0038
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41	NA	NA	NA	NA	NA
4-Methylphenol (p-cresol)	MG/KG	0.33	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	20	NA	NA	NA	NA	NA
Anthracene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	1	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID			MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled			02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	*				Field Duplicate (1-1)	
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	100	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	0.8	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	50	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	1	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	0.33	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	0.014	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	100	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	100	NA	NA	NA	NA	NA
Fluorene	MG/KG	30	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	NA	NA	NA	NA	NA
Naphthalene	MG/KG	12	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	100	NA	NA	NA	NA	NA
Pyrene	MG/KG	100	NA	NA	NA	NA	NA
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID			MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled			02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	*				Field Duplicate (1-1)	
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	NA	NA	NA	NA	NA
Antimony	MG/KG	12	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	NA	NA	NA	NA	NA
Barium	MG/KG	350	NA	NA	NA	NA	NA
Beryllium	MG/KG	7.2	NA	NA	NA	NA	NA
Cadmium	MG/KG	2.5	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	NA	NA	NA	NA	NA
Chromium	MG/KG	30	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	NA	NA	NA	NA	NA
Copper	MG/KG	50	NA	NA	NA	NA	NA
Iron	MG/KG	2000	NA	NA	NA	NA	NA
Lead	MG/KG	63	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	NA	NA	NA	NA	NA
Nickel	MG/KG	30	NA	NA	NA	NA	NA
Potassium	MG/KG	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	NA	NA	NA	NA	NA
Silver	MG/KG	2	NA	NA	NA	NA	NA
Sodium	MG/KG	-	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-08	MW-09	MW-10	MW-11	MW-11
Sample ID			MW-08 (8-9)	MW-09 (8-9)	MW-10 (9-10)	FD-20150203	MW-11 (8-9)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			8.0-9.0	8.0-9.0	9.0-10.0	8.0-9.0	8.0-9.0
Date Sampled			02/03/15	02/03/15	02/05/15	02/03/15	02/03/15
Parameter	**Units**	*				Field Duplicate (1-1)	
Metals							
Thallium	MG/KG	5	NA	NA	NA	NA	NA
Vanadium	MG/KG	39	NA	NA	NA	NA	NA
Zinc	MG/KG	109	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-12	MW-13	MW-14	MW-14	MW-15
Sample ID			MW-12 (11-12)	MW-13 (2-3)	MW-14-SS (0-2)"	MW-14-0102	MW-15-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			11.0-12.0	2.0-3.0	0.0-0.2	1.0-2.0	0.0-0.2
Date Sampled			02/05/15	02/06/15	02/27/17	02/27/17	02/28/17
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05		0.063			
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12		0.010			
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-		0.00086			
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3					
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47					
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41	NA	NA			
4-Methylphenol (p-cresol)	MG/KG	0.33	NA	NA			
Acenaphthene	MG/KG	20	NA	NA			
Anthracene	MG/KG	100	NA	NA			1.1
Benzo(a)anthracene	MG/KG	1	NA	NA	0.72	0.24	7.1
Benzo(a)pyrene	MG/KG	1	NA	NA	0.82	0.23	6.8

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-12	MW-13	MW-14	MW-14	MW-15
Sample ID			MW-12 (11-12)	MW-13 (2-3)	MW-14-SS (0-2)"	MW-14-0102	MW-15-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			11.0-12.0	2.0-3.0	0.0-0.2	1.0-2.0	0.0-0.2
Date Sampled			02/05/15	02/06/15	02/27/17	02/27/17	02/28/17
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	NA	NA	1.1	0.24	10
Benzo(g,h,i)perylene	MG/KG	100	NA	NA	0.69	0.17	5.9
Benzo(k)fluoranthene	MG/KG	0.8	NA	NA	0.47	0.14	4.4
bis(2-Ethylhexyl)phthalate	MG/KG	50	NA	NA			
Carbazole	MG/KG	-	NA	NA			1.0
Chrysene	MG/KG	1	NA	NA	1.0	0.24	9.1
Dibenz(a,h)anthracene	MG/KG	0.33	NA	NA			1.5
Di-n-butylphthalate	MG/KG	0.014	NA	NA			
Di-n-octylphthalate	MG/KG	100	NA	NA			5.4
Fluoranthene	MG/KG	100	NA	NA	1.8	0.42	18
Fluorene	MG/KG	30	NA	NA			
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	NA	NA	0.58	0.15	4.7
Naphthalene	MG/KG	12	NA	NA			
Phenanthrene	MG/KG	100	NA	NA	0.77	0.32	8.0
Pyrene	MG/KG	100	NA	NA	1.6	0.43	15
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA			
4,4'-DDE	MG/KG	0.0033	NA	NA	0.0027		
4,4'-DDT	MG/KG	0.0033	NA	NA	0.0047	0.0079	
alpha-BHC	MG/KG	0.02	NA	NA			
alpha-Chlordane	MG/KG	0.094	NA	NA			
delta-BHC	MG/KG	0.04	NA	NA			

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-12	MW-13	MW-14	MW-14	MW-15
Sample ID			MW-12 (11-12)	MW-13 (2-3)	MW-14-SS (0-2)"	MW-14-0102	MW-15-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			11.0-12.0	2.0-3.0	0.0-0.2	1.0-2.0	0.0-0.2
Date Sampled			02/05/15	02/06/15	02/27/17	02/27/17	02/28/17
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA			0.023
Metals							
Aluminum	MG/KG	10000	NA	NA	7,790	7,310	6,000
Antimony	MG/KG	12	NA	NA			0.94
Arsenic	MG/KG	13	NA	NA	3.7	4.4	2.8
Barium	MG/KG	350	NA	NA	54.3	70.7	50.2
Beryllium	MG/KG	7.2	NA	NA	0.38	0.33	0.27
Cadmium	MG/KG	2.5	NA	NA	0.26	0.20	1.1
Calcium	MG/KG	10000	NA	NA	17,900	12,100	86,600
Chromium	MG/KG	30	NA	NA	10.6	8.6	13.7
Cobalt	MG/KG	20	NA	NA	4.2	3.7	3.8
Copper	MG/KG	50	NA	NA	24.7	30.9	42.9
Iron	MG/KG	2000	NA	NA	12,100	14,000	15,300
Lead	MG/KG	63	NA	NA	65.1	92.9	28.2
Magnesium	MG/KG	-	NA	NA	9,480	6,200	26,800
Manganese	MG/KG	1600	NA	NA	280	235	328
Mercury	MG/KG	0.18	NA	NA	0.040	0.032	0.024
Nickel	MG/KG	30	NA	NA	10.4	8.4	12.4
Potassium	MG/KG	-	NA	NA	1,400	845	1,000
Selenium	MG/KG	3.9	NA	NA	1.9	1.1	
Silver	MG/KG	2	NA	NA			
Sodium	MG/KG	-	NA	NA	156	84.7	206

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-12	MW-13	MW-14	MW-14	MW-15
Sample ID			MW-12 (11-12)	MW-13 (2-3)	MW-14-SS (0-2)"	MW-14-0102	MW-15-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			11.0-12.0	2.0-3.0	0.0-0.2	1.0-2.0	0.0-0.2
Date Sampled			02/05/15	02/06/15	02/27/17	02/27/17	02/28/17
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5	NA	NA	0.41		
Vanadium	MG/KG	39	NA	NA	16.8	16.9	14.5
Zinc	MG/KG	109	NA	NA	67.9	65.2	132

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-15	MW-16	MW-16	MW-16	MW-17
Sample ID			MW-15-03	MW-16-SS	MW-66-SS	MW-16-0405	MW-17-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	0.0-0.2	0.0-0.2	4.0-5.0	0.0-0.2
Date Sampled			02/28/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	*			Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05				0.031	
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3					
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47					
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33		0.045			
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1	0.19	0.11			
Benzo(a)pyrene	MG/KG	1	0.21	0.12	0.030		

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-15	MW-16	MW-16	MW-16	MW-17
Sample ID			MW-15-03	MW-16-SS	MW-66-SS	MW-16-0405	MW-17-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	0.0-0.2	0.0-0.2	4.0-5.0	0.0-0.2
Date Sampled			02/28/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	*			Field Duplicate (1-1)		
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	0.24	0.17	0.044		
Benzo(g,h,i)perylene	MG/KG	100	0.21	0.14	0.037		
Benzo(k)fluoranthene	MG/KG	0.8		0.085			
bis(2-Ethylhexyl)phthalate	MG/KG	50		0.066	0.063		
Carbazole	MG/KG	-					
Chrysene	MG/KG	1	0.22	0.16			
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100		0.059			
Fluoranthene	MG/KG	100	0.42	0.27	0.047		
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	0.17	0.10	0.030		
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100		0.092			
Pyrene	MG/KG	100	0.32	0.24	0.040		
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033					
4,4'-DDE	MG/KG	0.0033					
4,4'-DDT	MG/KG	0.0033	0.025	0.00071		0.00076	
alpha-BHC	MG/KG	0.02				0.00064	
alpha-Chlordane	MG/KG	0.094					
delta-BHC	MG/KG	0.04					

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-15	MW-16	MW-16	MW-16	MW-17
Sample ID			MW-15-03	MW-16-SS	MW-66-SS	MW-16-0405	MW-17-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	0.0-0.2	0.0-0.2	4.0-5.0	0.0-0.2
Date Sampled			02/28/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	*			Field Duplicate (1-1)		
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1					
Metals							
Aluminum	MG/KG	10000	8,420	2,980	3,030	6,490	2,770
Antimony	MG/KG	12					
Arsenic	MG/KG	13	3.3	4.6	4.0	2.6	4.4
Barium	MG/KG	350	37.5	12.0	25.7	59.5	9.1
Beryllium	MG/KG	7.2	0.35	0.17	0.18	0.26	0.16
Cadmium	MG/KG	2.5	0.098	0.057	0.23	0.16	
Calcium	MG/KG	10000	4,960	169,000	169,000	5,130	163,000
Chromium	MG/KG	30	10.5	4.7	5.3	8.8	5.0
Cobalt	MG/KG	20	7.4	2.0	1.9	5.3	1.7
Copper	MG/KG	50	31.7	7.9	7.6	41.0	6.4
Iron	MG/KG	2000	14,100	8,800	7,010	11,000	6,200
Lead	MG/KG	63	5.7	26.4	18.0	5.8	17.1
Magnesium	MG/KG	-	3,770	102,000	105,000	3,220	102,000
Manganese	MG/KG	1600	720	461	480	348	433
Mercury	MG/KG	0.18					
Nickel	MG/KG	30	15.4	4.7	4.7	10.9	3.6
Potassium	MG/KG	-	1,480	1,630	1,590	1,120	1,500
Selenium	MG/KG	3.9					
Silver	MG/KG	2		0.24			
Sodium	MG/KG	-		188	202	207	202

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-15	MW-16	MW-16	MW-16	MW-17
Sample ID			MW-15-03	MW-16-SS	MW-66-SS	MW-16-0405	MW-17-SS
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			2.5-3.0	0.0-0.2	0.0-0.2	4.0-5.0	0.0-0.2
Date Sampled			02/28/17	02/28/17	02/28/17	02/28/17	02/28/17
Parameter	**Units**	*			Field Duplicate (1-1)		
Metals							
Thallium	MG/KG	5					
Vanadium	MG/KG	39	17.5	5.2	5.5	14.6	5.1
Zinc	MG/KG	109	38.0	19.8	53.3	70.4	16.0

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-17	MW-18	MW-18	MW-19	MW-19
Sample ID			MW-17-05	MW-18-SS (0-2)	MW-18-04-05	MW-19-SS (0-2)"	MW-19-0203
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			4.5-5.0	0.0-0.2	4.0-5.0	0.0-0.2	2.0-3.0
Date Sampled			02/28/17	03/01/17	03/01/17	02/27/17	02/27/17
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05	0.041		0.044		
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.0063		0.0045		
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3					
Toluene	MG/KG	0.7	0.00037				
Trichloroethene	MG/KG	0.47					
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41	0.054				
4-Methylphenol (p-cresol)	MG/KG	0.33					
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1				0.88	0.12
Benzo(a)pyrene	MG/KG	1				0.90	

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-17	MW-18	MW-18	MW-19	MW-19
Sample ID			MW-17-05	MW-18-SS (0-2)	MW-18-04-05	MW-19-SS (0-2)"	MW-19-0203
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			4.5-5.0	0.0-0.2	4.0-5.0	0.0-0.2	2.0-3.0
Date Sampled			02/28/17	03/01/17	03/01/17	02/27/17	02/27/17
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1				1.3	
Benzo(g,h,i)perylene	MG/KG	100	0.021			0.76	0.11
Benzo(k)fluoranthene	MG/KG	0.8				0.55	
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-				0.14	
Chrysene	MG/KG	1				1.1	
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100	0.024	0.44		2.5	0.27
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5				0.64	
Naphthalene	MG/KG	12	0.034				
Phenanthrene	MG/KG	100	0.034			1.4	
Pyrene	MG/KG	100				2.1	0.21
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	0.00072			0.0044	
4,4'-DDE	MG/KG	0.0033	0.00062	0.14		0.0026	
4,4'-DDT	MG/KG	0.0033	0.0020	0.032		0.021	
alpha-BHC	MG/KG	0.02					
alpha-Chlordane	MG/KG	0.094					0.0037
delta-BHC	MG/KG	0.04			0.00041		

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-17	MW-18	MW-18	MW-19	MW-19
Sample ID			MW-17-05	MW-18-SS (0-2)	MW-18-04-05	MW-19-SS (0-2)"	MW-19-0203
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			4.5-5.0	0.0-0.2	4.0-5.0	0.0-0.2	2.0-3.0
Date Sampled			02/28/17	03/01/17	03/01/17	02/27/17	02/27/17
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1					
Metals							
Aluminum	MG/KG	10000	7,020	5,030	12,200	13,500	9,840
Antimony	MG/KG	12					
Arsenic	MG/KG	13	3.5	6.8	2.4	7.6	2.9
Barium	MG/KG	350	34.7	28.7	106	76.9	34.7
Beryllium	MG/KG	7.2	0.29	0.21	0.37	0.51	0.28
Cadmium	MG/KG	2.5	0.17	0.51	0.067	0.41	0.12
Calcium	MG/KG	10000	16,500	109,000	1,980	5,270	3,330
Chromium	MG/KG	30	10.0	8.2	13.8	15.0	9.6
Cobalt	MG/KG	20	4.8	2.7	5.6	6.1	3.5
Copper	MG/KG	50	42.2	43.4	41.7	48.5	20.2
Iron	MG/KG	2000	9,310	9,870	10,700	21,000	9,530
Lead	MG/KG	63	24.6	81.7	6.8	32.6	12.0
Magnesium	MG/KG	-	7,890	66,900	2,060	3,210	1,990
Manganese	MG/KG	1600	245	716	185	787	158
Mercury	MG/KG	0.18	0.014	0.046	0.048	0.050	0.037
Nickel	MG/KG	30	9.5	6.9	12.2	13.4	7.7
Potassium	MG/KG	-	1,160	1,350	1,170	1,510	869
Selenium	MG/KG	3.9			1.3	0.83	0.56
Silver	MG/KG	2					
Sodium	MG/KG	-	120	171	146	83.4	84.2

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

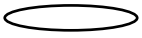
Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-17	MW-18	MW-18	MW-19	MW-19
Sample ID			MW-17-05	MW-18-SS (0-2)	MW-18-04-05	MW-19-SS (0-2)"	MW-19-0203
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			4.5-5.0	0.0-0.2	4.0-5.0	0.0-0.2	2.0-3.0
Date Sampled			02/28/17	03/01/17	03/01/17	02/27/17	02/27/17
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5					
Vanadium	MG/KG	39	13.2	12.1	22.5	26.1	17.0
Zinc	MG/KG	109	75.7	77.5	36.7	93.0	38.5

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.


Concentration Exceeds

Only Detected Results Reported.

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TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-20	MW-20	MW-21	SB-01	SB-01
Sample ID			MW-20-SS	MW-20-02	MW-21-02.8-03.8	SB01 (4-5)	SB01 (8-10)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	1.5-2.0	2.8-3.8	4.0-5.0	8.0-10.0
Date Sampled			02/28/17	02/28/17	03/01/17	05/27/14	05/27/14
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05					0.0023
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3					0.0019
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47					
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33				NA	NA
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1					
Benzo(a)pyrene	MG/KG	1					

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-20	MW-20	MW-21	SB-01	SB-01
Sample ID			MW-20-SS	MW-20-02	MW-21-02.8-03.8	SB01 (4-5)	SB01 (8-10)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	1.5-2.0	2.8-3.8	4.0-5.0	8.0-10.0
Date Sampled			02/28/17	02/28/17	03/01/17	05/27/14	05/27/14
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1					
Benzo(g,h,i)perylene	MG/KG	100					
Benzo(k)fluoranthene	MG/KG	0.8					
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-					
Chrysene	MG/KG	1					
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014		0.045			
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100					
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5					
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100					
Pyrene	MG/KG	100					
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033				NA	NA
4,4'-DDE	MG/KG	0.0033				NA	NA
4,4'-DDT	MG/KG	0.0033	0.00049	0.00052		NA	NA
alpha-BHC	MG/KG	0.02				NA	NA
alpha-Chlordane	MG/KG	0.094				NA	NA
delta-BHC	MG/KG	0.04				NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-20	MW-20	MW-21	SB-01	SB-01
Sample ID			MW-20-SS	MW-20-02	MW-21-02.8-03.8	SB01 (4-5)	SB01 (8-10)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	1.5-2.0	2.8-3.8	4.0-5.0	8.0-10.0
Date Sampled			02/28/17	02/28/17	03/01/17	05/27/14	05/27/14
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1				NA	NA
Metals							
Aluminum	MG/KG	10000	2,380	13,200	5,340	NA	NA
Antimony	MG/KG	12				NA	NA
Arsenic	MG/KG	13	3.5	3.8	2.2	1.2	
Barium	MG/KG	350	8.4	55.9	45.8	24.4	16.0
Beryllium	MG/KG	7.2	0.13	0.38	0.20	NA	NA
Cadmium	MG/KG	2.5	0.068	0.17	0.15		
Calcium	MG/KG	10000	180,000	3,470	30,100	NA	NA
Chromium	MG/KG	30	3.7	13.9	7.3	4.5	7.9
Cobalt	MG/KG	20	1.6	6.8	3.9	NA	NA
Copper	MG/KG	50		14.5	11.5	NA	NA
Iron	MG/KG	2000	6,030	14,400	9,170	NA	NA
Lead	MG/KG	63	18.6	12.1	4.3		
Magnesium	MG/KG	-	114,000	3,900	6,010	NA	NA
Manganese	MG/KG	1600	556	567	431	NA	NA
Mercury	MG/KG	0.18		0.022			
Nickel	MG/KG	30	3.3	13.7	8.1	NA	NA
Potassium	MG/KG	-	1,340	1,160	1,410	NA	NA
Selenium	MG/KG	3.9					
Silver	MG/KG	2					
Sodium	MG/KG	-	199		360	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			MW-20	MW-20	MW-21	SB-01	SB-01
Sample ID			MW-20-SS	MW-20-02	MW-21-02.8-03.8	SB01 (4-5)	SB01 (8-10)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	1.5-2.0	2.8-3.8	4.0-5.0	8.0-10.0
Date Sampled			02/28/17	02/28/17	03/01/17	05/27/14	05/27/14
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5				NA	NA
Vanadium	MG/KG	39	4.2	21.6	13.7	NA	NA
Zinc	MG/KG	109	20.7	41.2	23.6	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

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TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-02	SB-03	SB-03	SB-04
Sample ID			SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)	SB03 (4-5)	SB04 (0.4-1)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.4-1.0	4.0-5.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled			05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05	0.0039	0.0021			
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3	0.0087			0.0021	0.0066
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47					
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1					
Benzo(a)pyrene	MG/KG	1					

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-02	SB-03	SB-03	SB-04
Sample ID			SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)	SB03 (4-5)	SB04 (0.4-1)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.4-1.0	4.0-5.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled			05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1					
Benzo(g,h,i)perylene	MG/KG	100					
Benzo(k)fluoranthene	MG/KG	0.8					
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-					
Chrysene	MG/KG	1					
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100					
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5					
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100					
Pyrene	MG/KG	100					
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-02	SB-03	SB-03	SB-04
Sample ID			SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)	SB03 (4-5)	SB04 (0.4-1)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.4-1.0	4.0-5.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled			05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	NA	NA	NA	NA	NA
Antimony	MG/KG	12	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	1.9	3.1	2.4	2.4	2.4
Barium	MG/KG	350	43.3	255	50.6	30.4	91.9
Beryllium	MG/KG	7.2	NA	NA	NA	NA	NA
Cadmium	MG/KG	2.5					
Calcium	MG/KG	10000	NA	NA	NA	NA	NA
Chromium	MG/KG	30	9.1	25.8	9.8	6.8	11.9
Cobalt	MG/KG	20	NA	NA	NA	NA	NA
Copper	MG/KG	50	NA	NA	NA	NA	NA
Iron	MG/KG	2000	NA	NA	NA	NA	NA
Lead	MG/KG	63	6.3	11.9	27.3		
Magnesium	MG/KG	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18			0.048		0.041
Nickel	MG/KG	30	NA	NA	NA	NA	NA
Potassium	MG/KG	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9					
Silver	MG/KG	2					
Sodium	MG/KG	-	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-02	SB-02	SB-03	SB-03	SB-04
Sample ID			SB02 (0.4-1)	SB02 (4-5)	SB03 (0.4-1)	SB03 (4-5)	SB04 (0.4-1)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.4-1.0	4.0-5.0	0.4-1.0	4.0-5.0	0.4-1.0
Date Sampled			05/27/14	05/27/14	05/27/14	05/27/14	05/27/14
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5	NA	NA	NA	NA	NA
Vanadium	MG/KG	39	NA	NA	NA	NA	NA
Zinc	MG/KG	109	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

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[SITEID] = '25369237' AND [MATRIX] = 'SO' AND ([SACODE] = 'N' OR [SACODE] = 'FD') AND [LOCID] <> 'IDW-S'

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-04	SB-05	SB-05A	SB-06	SB-06
Sample ID			SB04 (7-8)	SB-05-SS	SB-05A	SB-06-SS (0-2)	SB-06-02.8-03.8
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			7.0-8.0	0.0-0.2	4.0-5.0	0.0-0.2	2.8-3.8
Date Sampled			05/27/14	02/28/17	03/29/17	03/01/17	03/01/17
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.0020				
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05	0.0033				
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					
Methyl tert-butyl ether	MG/KG	0.93					
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300					
Tetrachloroethene	MG/KG	1.3	0.0084				
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47	0.0061				
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33	NA				
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1		0.54		0.92	
Benzo(a)pyrene	MG/KG	1		0.62		0.93	

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-04	SB-05	SB-05A	SB-06	SB-06
Sample ID			SB04 (7-8)	SB-05-SS	SB-05A	SB-06-SS (0-2)	SB-06-02.8-03.8
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			7.0-8.0	0.0-0.2	4.0-5.0	0.0-0.2	2.8-3.8
Date Sampled			05/27/14	02/28/17	03/29/17	03/01/17	03/01/17
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1		0.68		1.1	
Benzo(g,h,i)perylene	MG/KG	100		0.62		0.78	
Benzo(k)fluoranthene	MG/KG	0.8				0.70	
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-					
Chrysene	MG/KG	1				1.2	
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100		1.3		2.5	
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5		0.53		0.66	
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100				1.3	
Pyrene	MG/KG	100		1.1		2.0	
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA				
4,4'-DDE	MG/KG	0.0033	NA	0.0012		0.0046	
4,4'-DDT	MG/KG	0.0033	NA	0.0026		0.0063	
alpha-BHC	MG/KG	0.02	NA	0.0014			
alpha-Chlordane	MG/KG	0.094	NA				
delta-BHC	MG/KG	0.04	NA				

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-04	SB-05	SB-05A	SB-06	SB-06
Sample ID			SB04 (7-8)	SB-05-SS	SB-05A	SB-06-SS (0-2)	SB-06-02.8-03.8
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			7.0-8.0	0.0-0.2	4.0-5.0	0.0-0.2	2.8-3.8
Date Sampled			05/27/14	02/28/17	03/29/17	03/01/17	03/01/17
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA				
Metals							
Aluminum	MG/KG	10000	NA	6,080	4,350	13,800	5,440
Antimony	MG/KG	12	NA				
Arsenic	MG/KG	13	2.8	2.5	1.9	3.3	2.4
Barium	MG/KG	350	28.6	41.2	27.2	47.6	38.4
Beryllium	MG/KG	7.2	NA	0.27	0.22	0.35	0.24
Cadmium	MG/KG	2.5		0.19	0.18	0.19	0.038
Calcium	MG/KG	10000	NA	17,600	21,200	4,600	7,180
Chromium	MG/KG	30	5.0	7.5	7.0	13.3	7.4
Cobalt	MG/KG	20	NA	4.6	3.3	4.9	4.6
Copper	MG/KG	50	NA	19.9	6.0	32.6	18.9
Iron	MG/KG	2000	NA	10,500	8,360	13,600	9,910
Lead	MG/KG	63		15.2	3.4	20.9	3.5
Magnesium	MG/KG	-	NA	4,780	2,380	3,410	2,910
Manganese	MG/KG	1600	NA	514	368	253	348
Mercury	MG/KG	0.18		0.18		0.056	0.010
Nickel	MG/KG	30	NA	8.6	6.7	11.7	9.4
Potassium	MG/KG	-	NA	862	1,110	1,240	1,430
Selenium	MG/KG	3.9				1.2	
Silver	MG/KG	2					
Sodium	MG/KG	-	NA		123	76.2	106

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-04	SB-05	SB-05A	SB-06	SB-06
Sample ID			SB04 (7-8)	SB-05-SS	SB-05A	SB-06-SS (0-2)	SB-06-02.8-03.8
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			7.0-8.0	0.0-0.2	4.0-5.0	0.0-0.2	2.8-3.8
Date Sampled			05/27/14	02/28/17	03/29/17	03/01/17	03/01/17
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5	NA				
Vanadium	MG/KG	39	NA	15.5	12.9	23.7	13.1
Zinc	MG/KG	109	NA	48.0	27.8	64.5	22.2

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-07	SB-07	SB-08	SB-08	SB-09
Sample ID			SB-07-SS (0-2)"	SB-07-0304	SB-08-SS (0-2)"	SB-08-0304	SB-09-0102
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	3.0-4.0	0.0-0.2	3.0-4.0	1.0-2.0
Date Sampled			02/27/17	02/27/17	02/27/17	02/27/17	02/27/17
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68					
1,1-Dichloroethane	MG/KG	0.27					
1,2-Dichloroethene (cis)	MG/KG	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19					
Acetone	MG/KG	0.05					
Benzene	MG/KG	0.06					
Carbon disulfide	MG/KG	2.7					
Chloroform	MG/KG	0.37					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12					0.0046
Methyl tert-butyl ether	MG/KG	0.93				0.00045	
Methylcyclohexane	MG/KG	-					
Styrene	MG/KG	300				0.00037	
Tetrachloroethene	MG/KG	1.3	0.0012				
Toluene	MG/KG	0.7					
Trichloroethene	MG/KG	0.47					
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33					
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1	0.61	0.15	0.37		
Benzo(a)pyrene	MG/KG	1	0.68	0.20	0.40		

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-07	SB-07	SB-08	SB-08	SB-09
Sample ID			SB-07-SS (0-2)"	SB-07-0304	SB-08-SS (0-2)"	SB-08-0304	SB-09-0102
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	3.0-4.0	0.0-0.2	3.0-4.0	1.0-2.0
Date Sampled			02/27/17	02/27/17	02/27/17	02/27/17	02/27/17
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1		0.19	0.49		
Benzo(g,h,i)perylene	MG/KG	100	0.55	0.18	0.33		
Benzo(k)fluoranthene	MG/KG	0.8					
bis(2-Ethylhexyl)phthalate	MG/KG	50	3.0				
Carbazole	MG/KG	-					
Chrysene	MG/KG	1					
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					0.057
Fluoranthene	MG/KG	100	1.1	0.11	0.79		0.026
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5		0.17	0.31		
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100					
Pyrene	MG/KG	100	0.86		0.64		
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033		0.0023			
4,4'-DDE	MG/KG	0.0033		0.00046	0.0040	0.00046	0.00080
4,4'-DDT	MG/KG	0.0033			0.0029		
alpha-BHC	MG/KG	0.02					
alpha-Chlordane	MG/KG	0.094		0.0055			0.0030
delta-BHC	MG/KG	0.04					

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-07	SB-07	SB-08	SB-08	SB-09
Sample ID			SB-07-SS (0-2)"	SB-07-0304	SB-08-SS (0-2)"	SB-08-0304	SB-09-0102
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	3.0-4.0	0.0-0.2	3.0-4.0	1.0-2.0
Date Sampled			02/27/17	02/27/17	02/27/17	02/27/17	02/27/17
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1					
Metals							
Aluminum	MG/KG	10000	12,000	11,600	11,000	21,500	5,560
Antimony	MG/KG	12					
Arsenic	MG/KG	13	4.8	2.8	5.4	1.8	3.2
Barium	MG/KG	350	59.3	59.3	69.6	58.2	36.3
Beryllium	MG/KG	7.2	0.44	0.36	0.42	0.48	0.36
Cadmium	MG/KG	2.5	0.32	0.24	0.40	0.082	0.15
Calcium	MG/KG	10000	8,730	7,900	23,500	1,440	17,200
Chromium	MG/KG	30	13.3	11.1	13.8	20.5	7.4
Cobalt	MG/KG	20	5.4	4.6	5.2	7.0	4.0
Copper	MG/KG	50	27.8	22.1	22.1	33.1	9.5
Iron	MG/KG	2000	13,700	10,900	13,900	15,700	9,560
Lead	MG/KG	63	39.3	44.6	80.3	4.9	13.5
Magnesium	MG/KG	-	5,200	2,200	14,600	2,750	3,770
Manganese	MG/KG	1600	424	222	434	203	304
Mercury	MG/KG	0.18	0.090	0.049	0.12	0.011	
Nickel	MG/KG	30	12.7	10.5	11.2	14.3	7.4
Potassium	MG/KG	-	1,700	1,150	1,480	2,830	1,370
Selenium	MG/KG	3.9	0.63			1.0	0.58
Silver	MG/KG	2					
Sodium	MG/KG	-	68.4	71.7	86.1	65.6	152

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SB-07	SB-07	SB-08	SB-08	SB-09
Sample ID			SB-07-SS (0-2)"	SB-07-0304	SB-08-SS (0-2)"	SB-08-0304	SB-09-0102
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	3.0-4.0	0.0-0.2	3.0-4.0	1.0-2.0
Date Sampled			02/27/17	02/27/17	02/27/17	02/27/17	02/27/17
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5				0.47	
Vanadium	MG/KG	39	21.0	20.1	20.5	32.0	16.0
Zinc	MG/KG	109	103	63.0	107	33.9	26.7

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

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[SITEID] = '25369237' AND [MATRIX] = 'SO' AND ([SACODE] = 'N' OR [SACODE] = 'FD') AND [LOCID] <> 'IDW-S'

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-01	SS-01	SS-01	SS-02	SS-02
Sample ID			SS-01	SS-51	SS-01-2-12_040618	SS-02	SS-02-2-12_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0
Date Sampled			03/08/17	03/08/17	04/06/18	03/08/17	04/06/18
Parameter	**Units**	*		Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68			NA		NA
1,1-Dichloroethane	MG/KG	0.27			NA		NA
1,2-Dichloroethene (cis)	MG/KG	0.25			NA		NA
1,2-Dichloroethene (trans)	MG/KG	0.19			NA		NA
Acetone	MG/KG	0.05			NA		NA
Benzene	MG/KG	0.06			NA		NA
Carbon disulfide	MG/KG	2.7			NA		NA
Chloroform	MG/KG	0.37			NA		NA
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12			NA		NA
Methyl tert-butyl ether	MG/KG	0.93			NA		NA
Methylcyclohexane	MG/KG	-			NA		NA
Styrene	MG/KG	300			NA		NA
Tetrachloroethene	MG/KG	1.3			NA		NA
Toluene	MG/KG	0.7			NA		NA
Trichloroethene	MG/KG	0.47			NA		NA
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33					0.08
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100	1.8	2.2			
Benzo(a)anthracene	MG/KG	1	9.3	10	0.15	2.3	0.024
Benzo(a)pyrene	MG/KG	1	9.3	10	0.17	2.5	

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-01	SS-01	SS-01	SS-02	SS-02
Sample ID			SS-01	SS-51	SS-01-2-12_040618	SS-02	SS-02-2-12_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0
Date Sampled			03/08/17	03/08/17	04/06/18	03/08/17	04/06/18
Parameter	**Units**	*		Field Duplicate (1-1)			
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	13	15	0.17	3.5	
Benzo(g,h,i)perylene	MG/KG	100	7.2	8.1	0.11	2.1	
Benzo(k)fluoranthene	MG/KG	0.8	4.9	5.0	0.14	1.7	
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-	0.82	0.99			
Chrysene	MG/KG	1	10	12		3.0	
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100	26	30	0.38	6.0	0.049
Fluorene	MG/KG	30		0.66			
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.7	6.9		1.8	
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100	12	14	0.16	2.6	
Pyrene	MG/KG	100	18	21	0.24	4.9	
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033			NA		NA
4,4'-DDE	MG/KG	0.0033			NA		NA
4,4'-DDT	MG/KG	0.0033			NA		NA
alpha-BHC	MG/KG	0.02			NA		NA
alpha-Chlordane	MG/KG	0.094			NA		NA
delta-BHC	MG/KG	0.04			NA		NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-01	SS-01	SS-01	SS-02	SS-02
Sample ID			SS-01	SS-51	SS-01-2-12_040618	SS-02	SS-02-2-12_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0
Date Sampled			03/08/17	03/08/17	04/06/18	03/08/17	04/06/18
Parameter	**Units**	*		Field Duplicate (1-1)			
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1			NA		NA
Metals							
Aluminum	MG/KG	10000	5,800	6,230	NA	9,670	NA
Antimony	MG/KG	12			NA		NA
Arsenic	MG/KG	13	3.0	2.9	NA	4.7	NA
Barium	MG/KG	350	37.0	37.0	NA	71.2	NA
Beryllium	MG/KG	7.2	0.28	0.36	NA	0.44	NA
Cadmium	MG/KG	2.5	0.46	0.35	NA	0.29	NA
Calcium	MG/KG	10000	64,800	54,300	NA	12,600	NA
Chromium	MG/KG	30	7.9	11.8	NA	11.3	NA
Cobalt	MG/KG	20	3.0	3.7	NA	4.5	NA
Copper	MG/KG	50	26.2	27.7	NA	33.5	NA
Iron	MG/KG	2000	9,310	9,640	NA	11,800	NA
Lead	MG/KG	63	29.7	46.9	NA	69.6	NA
Magnesium	MG/KG	-	28,100	11,600	NA	5,120	NA
Manganese	MG/KG	1600	367	306	NA	261	NA
Mercury	MG/KG	0.18	0.032	0.031	NA	0.043	NA
Nickel	MG/KG	30	8.7	9.9	NA	11.7	NA
Potassium	MG/KG	-	1,000	1,080	NA	913	NA
Selenium	MG/KG	3.9			NA		NA
Silver	MG/KG	2			NA		NA
Sodium	MG/KG	-			NA		NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-01	SS-01	SS-01	SS-02	SS-02
Sample ID			SS-01	SS-51	SS-01-2-12_040618	SS-02	SS-02-2-12_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0
Date Sampled			03/08/17	03/08/17	04/06/18	03/08/17	04/06/18
Parameter	**Units**	*		Field Duplicate (1-1)			
Metals							
Thallium	MG/KG	5			NA		NA
Vanadium	MG/KG	39	12.7	15.3	NA	17.5	NA
Zinc	MG/KG	109	91.2	81.6	NA	95.1	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-03	SS-03	SS-04	SS-04	SS-05
Sample ID			SS-03	SS-03-2-12_040618	SS-04-0-2_040618	SS-04-2-12_040618	SS-05-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0	0.0-0.2
Date Sampled			03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68		NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	0.27		NA	NA	NA	NA
1,2-Dichloroethene (cis)	MG/KG	0.25		NA	NA	NA	NA
1,2-Dichloroethene (trans)	MG/KG	0.19		NA	NA	NA	NA
Acetone	MG/KG	0.05		NA	NA	NA	NA
Benzene	MG/KG	0.06		NA	NA	NA	NA
Carbon disulfide	MG/KG	2.7		NA	NA	NA	NA
Chloroform	MG/KG	0.37		NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12		NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	0.93		NA	NA	NA	NA
Methylcyclohexane	MG/KG	-		NA	NA	NA	NA
Styrene	MG/KG	300		NA	NA	NA	NA
Tetrachloroethene	MG/KG	1.3		NA	NA	NA	NA
Toluene	MG/KG	0.7		NA	NA	NA	NA
Trichloroethene	MG/KG	0.47		NA	NA	NA	NA
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33					
Acenaphthene	MG/KG	20	0.56				
Anthracene	MG/KG	100	1.2				
Benzo(a)anthracene	MG/KG	1	6.4	0.48	0.21		0.26
Benzo(a)pyrene	MG/KG	1	7.5	0.5	0.3		0.33

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-03	SS-03	SS-04	SS-04	SS-05
Sample ID			SS-03	SS-03-2-12_040618	SS-04-0-2_040618	SS-04-2-12_040618	SS-05-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0	0.0-0.2
Date Sampled			03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	11	0.51	0.37		0.37
Benzo(g,h,i)perylene	MG/KG	100	6.0	0.39			0.25
Benzo(k)fluoranthene	MG/KG	0.8	5.4	0.51	0.21		0.23
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-	1.9				
Chrysene	MG/KG	1	9.5	0.55	0.31		0.3
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100	26	1.2	0.63		0.7
Fluorene	MG/KG	30	0.59				
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	5.0	0.39	0.24		
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100	14	0.53	0.28		0.27
Pyrene	MG/KG	100	18	1	0.47		0.46
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033		NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033		NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	0.012	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02		NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094		NA	NA	NA	NA
delta-BHC	MG/KG	0.04		NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-03	SS-03	SS-04	SS-04	SS-05
Sample ID			SS-03	SS-03-2-12_040618	SS-04-0-2_040618	SS-04-2-12_040618	SS-05-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0	0.0-0.2
Date Sampled			03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*					
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1		NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	10,200	NA	NA	NA	NA
Antimony	MG/KG	12		NA	NA	NA	NA
Arsenic	MG/KG	13	3.6	NA	NA	NA	NA
Barium	MG/KG	350	40.0	NA	NA	NA	NA
Beryllium	MG/KG	7.2	0.28	NA	NA	NA	NA
Cadmium	MG/KG	2.5	0.78	NA	NA	NA	NA
Calcium	MG/KG	10000	28,700	NA	NA	NA	NA
Chromium	MG/KG	30	12.3	NA	NA	NA	NA
Cobalt	MG/KG	20	2.8	NA	NA	NA	NA
Copper	MG/KG	50	15.7	NA	NA	NA	NA
Iron	MG/KG	2000	11,700	NA	NA	NA	NA
Lead	MG/KG	63	30.2	NA	NA	NA	NA
Magnesium	MG/KG	-	14,800	NA	NA	NA	NA
Manganese	MG/KG	1600	262	NA	NA	NA	NA
Mercury	MG/KG	0.18	0.051	NA	NA	NA	NA
Nickel	MG/KG	30	7.3	NA	NA	NA	NA
Potassium	MG/KG	-	1,080	NA	NA	NA	NA
Selenium	MG/KG	3.9		NA	NA	NA	NA
Silver	MG/KG	2		NA	NA	NA	NA
Sodium	MG/KG	-	107	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-03	SS-03	SS-04	SS-04	SS-05
Sample ID			SS-03	SS-03-2-12_040618	SS-04-0-2_040618	SS-04-2-12_040618	SS-05-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.2-1.0	0.0-0.2	0.2-1.0	0.0-0.2
Date Sampled			03/29/17	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*					
Metals							
Thallium	MG/KG	5		NA	NA	NA	NA
Vanadium	MG/KG	39	19.7	NA	NA	NA	NA
Zinc	MG/KG	109	77.4	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-05	SS-06	SS-06	SS-06	SS-07
Sample ID			SS-05-2-12_040618	SS-06-0-2_040618	SS-06-2-12_040618	SS-56-2-12_040618	SS-07-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.0-0.2	0.2-1.0	0.2-1.0	0.0-0.2
Date Sampled			04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*				Field Duplicate (1-1)	
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	0.68	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	0.27	NA	NA	NA	NA	NA
1,2-Dichloroethene (cis)	MG/KG	0.25	NA	NA	NA	NA	NA
1,2-Dichloroethene (trans)	MG/KG	0.19	NA	NA	NA	NA	NA
Acetone	MG/KG	0.05	NA	NA	NA	NA	NA
Benzene	MG/KG	0.06	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	2.7	NA	NA	NA	NA	NA
Chloroform	MG/KG	0.37	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	0.93	NA	NA	NA	NA	NA
Methylcyclohexane	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	300	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	1.3	NA	NA	NA	NA	NA
Toluene	MG/KG	0.7	NA	NA	NA	NA	NA
Trichloroethene	MG/KG	0.47	NA	NA	NA	NA	NA
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	0.41					
4-Methylphenol (p-cresol)	MG/KG	0.33					
Acenaphthene	MG/KG	20					
Anthracene	MG/KG	100					
Benzo(a)anthracene	MG/KG	1	0.14	0.21			0.88
Benzo(a)pyrene	MG/KG	1	0.17				0.99

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-05	SS-06	SS-06	SS-06	SS-07
Sample ID			SS-05-2-12_040618	SS-06-0-2_040618	SS-06-2-12_040618	SS-56-2-12_040618	SS-07-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.0-0.2	0.2-1.0	0.2-1.0	0.0-0.2
Date Sampled			04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*				Field Duplicate (1-1)	
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	MG/KG	1	0.2	0.27			1.4
Benzo(g,h,i)perylene	MG/KG	100		0.17			0.75
Benzo(k)fluoranthene	MG/KG	0.8					0.72
bis(2-Ethylhexyl)phthalate	MG/KG	50					
Carbazole	MG/KG	-					0.18
Chrysene	MG/KG	1					1.3
Dibenz(a,h)anthracene	MG/KG	0.33					
Di-n-butylphthalate	MG/KG	0.014					
Di-n-octylphthalate	MG/KG	100					
Fluoranthene	MG/KG	100	0.29	0.54			2.6
Fluorene	MG/KG	30					
Indeno(1,2,3-cd)pyrene	MG/KG	0.5					0.7
Naphthalene	MG/KG	12					
Phenanthrene	MG/KG	100		0.23			1.1
Pyrene	MG/KG	100	0.17	0.37			2.1
Pesticide Organic Compounds							
4,4'-DDD	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDE	MG/KG	0.0033	NA	NA	NA	NA	NA
4,4'-DDT	MG/KG	0.0033	NA	NA	NA	NA	NA
alpha-BHC	MG/KG	0.02	NA	NA	NA	NA	NA
alpha-Chlordane	MG/KG	0.094	NA	NA	NA	NA	NA
delta-BHC	MG/KG	0.04	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-05	SS-06	SS-06	SS-06	SS-07
Sample ID			SS-05-2-12_040618	SS-06-0-2_040618	SS-06-2-12_040618	SS-56-2-12_040618	SS-07-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.0-0.2	0.2-1.0	0.2-1.0	0.0-0.2
Date Sampled			04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*				Field Duplicate (1-1)	
Pesticide Organic Compounds							
gamma-BHC (Lindane)	MG/KG	0.1	NA	NA	NA	NA	NA
Metals							
Aluminum	MG/KG	10000	NA	NA	NA	NA	NA
Antimony	MG/KG	12	NA	NA	NA	NA	NA
Arsenic	MG/KG	13	NA	NA	NA	NA	NA
Barium	MG/KG	350	NA	NA	NA	NA	NA
Beryllium	MG/KG	7.2	NA	NA	NA	NA	NA
Cadmium	MG/KG	2.5	NA	NA	NA	NA	NA
Calcium	MG/KG	10000	NA	NA	NA	NA	NA
Chromium	MG/KG	30	NA	NA	NA	NA	NA
Cobalt	MG/KG	20	NA	NA	NA	NA	NA
Copper	MG/KG	50	NA	NA	NA	NA	NA
Iron	MG/KG	2000	NA	NA	NA	NA	NA
Lead	MG/KG	63	NA	NA	NA	NA	NA
Magnesium	MG/KG	-	NA	NA	NA	NA	NA
Manganese	MG/KG	1600	NA	NA	NA	NA	NA
Mercury	MG/KG	0.18	NA	NA	NA	NA	NA
Nickel	MG/KG	30	NA	NA	NA	NA	NA
Potassium	MG/KG	-	NA	NA	NA	NA	NA
Selenium	MG/KG	3.9	NA	NA	NA	NA	NA
Silver	MG/KG	2	NA	NA	NA	NA	NA
Sodium	MG/KG	-	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-05	SS-06	SS-06	SS-06	SS-07
Sample ID			SS-05-2-12_040618	SS-06-0-2_040618	SS-06-2-12_040618	SS-56-2-12_040618	SS-07-0-2_040618
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.0-0.2	0.2-1.0	0.2-1.0	0.0-0.2
Date Sampled			04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Parameter	**Units**	*				Field Duplicate (1-1)	
Metals							
Thallium	MG/KG	5	NA	NA	NA	NA	NA
Vanadium	MG/KG	39	NA	NA	NA	NA	NA
Zinc	MG/KG	109	NA	NA	NA	NA	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-07
Sample ID			SS-07-2-12_040618
Matrix			Soil
Depth Interval (ft)			0.2-1.0
Date Sampled			04/06/18
Parameter	**Units**	*	
Volatile Organic Compounds			
1,1,1-Trichloroethane	MG/KG	0.68	NA
1,1-Dichloroethane	MG/KG	0.27	NA
1,2-Dichloroethene (cis)	MG/KG	0.25	NA
1,2-Dichloroethene (trans)	MG/KG	0.19	NA
Acetone	MG/KG	0.05	NA
Benzene	MG/KG	0.06	NA
Carbon disulfide	MG/KG	2.7	NA
Chloroform	MG/KG	0.37	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	NA
Methyl tert-butyl ether	MG/KG	0.93	NA
Methylcyclohexane	MG/KG	-	NA
Styrene	MG/KG	300	NA
Tetrachloroethene	MG/KG	1.3	NA
Toluene	MG/KG	0.7	NA
Trichloroethene	MG/KG	0.47	NA
Semivolatile Organic Compounds			
2-Methylnaphthalene	MG/KG	0.41	
4-Methylphenol (p-cresol)	MG/KG	0.33	
Acenaphthene	MG/KG	20	
Anthracene	MG/KG	100	
Benzo(a)anthracene	MG/KG	1	0.24
Benzo(a)pyrene	MG/KG	1	0.26

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-07
Sample ID			SS-07-2-12_040618
Matrix			Soil
Depth Interval (ft)			0.2-1.0
Date Sampled			04/06/18
Parameter	**Units**	*	
Semivolatile Organic Compounds			
Benzo(b)fluoranthene	MG/KG	1	0.3
Benzo(g,h,i)perylene	MG/KG	100	0.17
Benzo(k)fluoranthene	MG/KG	0.8	0.2
bis(2-Ethylhexyl)phthalate	MG/KG	50	
Carbazole	MG/KG	-	
Chrysene	MG/KG	1	0.32
Dibenz(a,h)anthracene	MG/KG	0.33	
Di-n-butylphthalate	MG/KG	0.014	
Di-n-octylphthalate	MG/KG	100	
Fluoranthene	MG/KG	100	0.54
Fluorene	MG/KG	30	
Indeno(1,2,3-cd)pyrene	MG/KG	0.5	
Naphthalene	MG/KG	12	
Phenanthrene	MG/KG	100	0.29
Pyrene	MG/KG	100	0.42
Pesticide Organic Compounds			
4,4'-DDD	MG/KG	0.0033	NA
4,4'-DDE	MG/KG	0.0033	NA
4,4'-DDT	MG/KG	0.0033	NA
alpha-BHC	MG/KG	0.02	NA
alpha-Chlordane	MG/KG	0.094	NA
delta-BHC	MG/KG	0.04	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-07
Sample ID			SS-07-2-12_040618
Matrix			Soil
Depth Interval (ft)			0.2-1.0
Date Sampled			04/06/18
Parameter	**Units**	*	
Pesticide Organic Compounds			
gamma-BHC (Lindane)	MG/KG	0.1	NA
Metals			
Aluminum	MG/KG	10000	NA
Antimony	MG/KG	12	NA
Arsenic	MG/KG	13	NA
Barium	MG/KG	350	NA
Beryllium	MG/KG	7.2	NA
Cadmium	MG/KG	2.5	NA
Calcium	MG/KG	10000	NA
Chromium	MG/KG	30	NA
Cobalt	MG/KG	20	NA
Copper	MG/KG	50	NA
Iron	MG/KG	2000	NA
Lead	MG/KG	63	NA
Magnesium	MG/KG	-	NA
Manganese	MG/KG	1600	NA
Mercury	MG/KG	0.18	NA
Nickel	MG/KG	30	NA
Potassium	MG/KG	-	NA
Selenium	MG/KG	3.9	NA
Silver	MG/KG	2	NA
Sodium	MG/KG	-	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

TABLE 12
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
UNRESTRICTED USE CRITERIA
FORMER BERNZOMATIC FACILITY

Location ID			SS-07
Sample ID			SS-07-2-12_040618
Matrix			Soil
Depth Interval (ft)			0.2-1.0
Date Sampled			04/06/18
Parameter	**Units**	*	
Metals			
Thallium	MG/KG	5	NA
Vanadium	MG/KG	39	NA
Zinc	MG/KG	109	NA

*- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Concentration Exceeds

Only Detected Results Reported.

Table 13
Criteria Comparison and Ranking of Remedial Alternatives
Former Bernzomatic Facility
Medina, New York

Alternative	Overall Protection of Human Health & the Environment	Compliance with SCGs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, and Volume through Treatment	Short-Term Effectiveness	Implementability	Land Use	Green Remediation	Cost	Total Score/ Relative Ranking
Ranking:	4	4	4	4	1	1	4	4	Not ranked.	26
Alternative 1 No Action	Alternative would not be protective because there would be no removal, immobilization, or containment of impacted materials and there would be no monitoring or administrative means to prevent exposure.	Chemical SCGs would be met over time. However, the alternative does not include monitoring to assess compliance with SCGs.	Alternative would be not be effective as it does not involve removal, treatment or containment. There would be no monitoring or administrative means to prevent exposure.	Alternative would reduce volume and toxicity over time through natural attenuation. However, alternative does not include monitoring to evaluate contaminant reduction.	Alternative requires no action.	Alternative requires no technical or administrative action, and therefore is easy to implement.	With no action, alternative would have no impact on land use. However, contamination would remain in place reducing potential for redevelopment and potential property values.	Alternative involves no remedial action.	This alternative is required by DER-10 and is retained as a baseline alternative for comparison purposes. No cost generated.	5
Ranking:	2	2	2	3	3	4	2	4	3	25
Alternative 2 Targeted Excavation with Enhanced Bioremediation, MNA and ICs	Alternative would be protective with removal and off-site disposal of contaminated soil and enhanced bioremediation of residual impacts in source area. However, groundwater impacts would remain, but decrease over time in areas away from the source area.	Alternative would meet chemical specific SCGs over time. Impacted soil removal and enhanced bioremediation would accelerate time to achieve chemical SCGs. Action- and location-specific SCGs would be met.	Excavation permanently removes contaminants from site. Bioremediation would reduce impacts in source area. Impacts away from source area would decrease over time.	Excavation would reduce mobility, but will not reduce volume or toxicity (unless treatment performed at disposal facility). Enhanced bioremediation would reduce volume and toxicity in source area. Remaining VOC impacts would decrease over time through MNA.	Alternative has high potential exposure to contamination during excavation. Site-specific HASP and CAMP would be used to confirm that dust or volatilized organic vapors are within acceptable levels and specify additional engineering controls needed (e.g., use of water sprays and/or foam to suppress dust/vapors/odors).	Following building demolition, excavation would still be implemented with some difficulty associated with working in the wet and materials handling, transportation, and disposal.	Alternative may have the most adverse short-term impact. There would be significant temporary land use disruptions, but no land use restrictions when the work is completed. Bioremediation and MNA would attain SCGs over a period of time, thereby requiring land use restrictions until impacts achieve unrestricted use SCGs.	Alternative would require off-site disposal of excavated material. Transportation of this material to an off-site landfill will have a large carbon footprint. Regarding building demolition, steel and concrete would be recycled or reused to the extent practicable.	$1.71M	4
Ranking:	3	3	3	3	1	1	2	2	1	19
Alternative 3 MNA with ICs	Alternative would rely on institutional controls to limit potential exposure to ecological and human health receptors.	Chemical SCGs would be met over time. Action- and location-specific SCGs would be met over time.	Alternative would be effective at preventing/minimizing exposure. Impacts away from source area would decrease over time.	Volume and toxicity would be reduced over time through MNA.	Alternative would have a low potential for exposure.	Alternative would be easy to implement.	MNA would attain SCGs over time, requiring land use restrictions until impacts achieve unrestricted use SCGs.	Alternative relies on natural processes in less contaminated areas to reduce volume, toxicity, and mobility, which is viewed favorably by DER 31. Limited environmental impact would occur from sampling and laboratory activities.	$339K	2
Ranking:	2	2	2	1	2	2	2	2	2	17
Alternative 4 Enhanced Bioremediation	Alternative would be protective by permanently destroying site contaminants through biodegradation over time. This alternative may require several applications to achieve remediation.	Alternative would meet chemical specific SCGs in a relatively short time. Action- and location-specific SCGs would be met.	Alternative would permanently treat/remove contaminants by in-situ bioremediation. Although only one is assumed, several applications may be required to treat all mass and volume of contaminants. Time to achieve remedial goals would be about two years.	Alternative would result in permanent reduction in volume, toxicity, and mobility through in-situ treatment.	Site remediation workers would face minimal risks associated with bioremediation injection; proper PPE would be used by workers. There is limited potential exposure to contamination during injection and sampling.	Alternative could be implemented readily with a degree of certainty. Numerous bioremediation amendment products are commercially available, and no special equipment is required for bioremediation injection. Although only one is assumed, several applications may be necessary to achieve complete treatment. Injections following building demolition increases the implementability of injections in the source area.	Alternative utilizes in-situ remediation to treat contamination in place. Technology is anticipated to meet SCGs (and more area with less restricted land use) more quickly than natural attenuation alternatives.	Alternative treats contaminants in the ground without any removal activities. Carbon footprint limited to drilling injection wells, injection pumps, mixers and sampling activities. Alternative enhances natural processes. Regarding building demolition, steel and concrete would be recycled or reused to the extent practicable.	$1.44M	1
Ranking:	2	2	2	1	3	4	1	4	4	23
Alternative 5 Remediate to Unrestricted Use	Alternative would be protective with removal and off-site disposal of contaminated soil and sediment and treating contaminants in groundwater through a pump and treat system.	Alternative would meet soil and sediment chemical specific SCGs in a relatively short time; meeting groundwater SCGs will take longer. Action- and location-specific SCGs would be met.	Alternative would permanently treat/remove contaminants by excavation and groundwater treatment. Time to achieve groundwater remedial goals would be about ten years.	Alternative would result in permanent reduction in volume, toxicity, and mobility through in-situ treatment.	Alternative has high potential exposure to contamination during excavation. Site-specific HASP and CAMP would be used to confirm that dust or volatilized organic vapors are within acceptable levels and specify additional engineering controls needed (e.g., use of water sprays and/or foam to suppress dust/vapors/odors).	Following building demolition, excavation would be implemented with some difficulty associated with working in the wet and materials handling, transportation, and disposal. Groundwater treatment would be performed using conventional pump and treat methods.	Alternative would result in land available for unrestricted use.	Alternative would require off-site disposal of excavated material. Transportation of this material to an off-site landfill will have a large carbon footprint. Regarding building demolition, steel and concrete would be recycled or reused to the extent practicable. Operation of pump and treat system would have a moderate carbon footprint.	$5.94M	3

Notes:
Ranking scale of 1 through 4, with 1 being most favorable and 4 being least favorable
CAMP - community air monitoring plan
HASP - health and safety plan
IC - institutional control
MNA - monitored natural attenuation
SCG - standards, criteria, and guidance

Table 14
Summary of Planning Level Costs for Remedial Alternatives
Former Bernzomatic Facility
Medina, New York

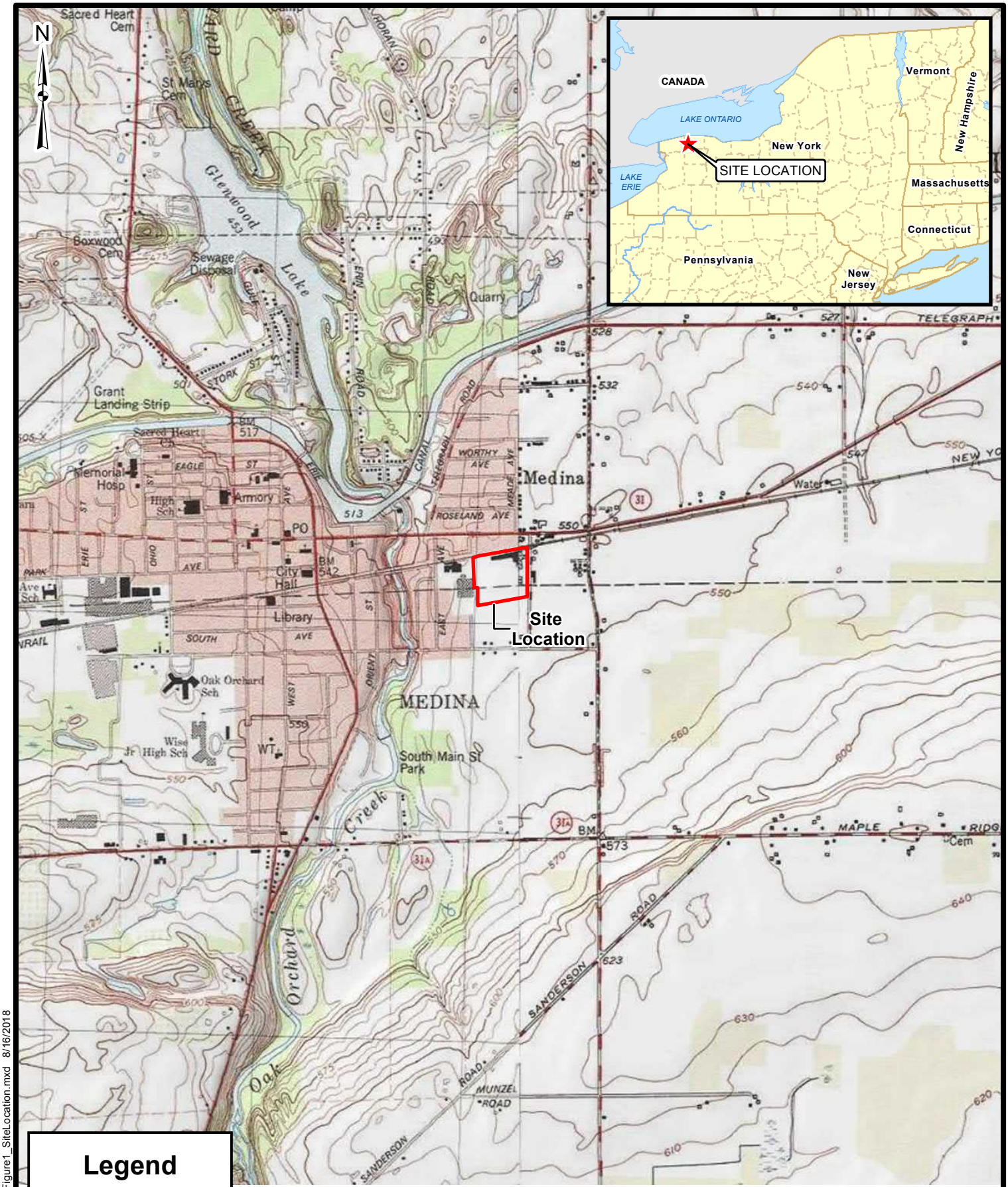
	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Alternative	**Targeted Excavation + Enhanced Bioremediation + MNA + ICs**	**MNA + ICs**	**Enhanced Bioremediation, Targeted PAH Excavation + ICs**	**Remediation to Unrestriced Use**
Process Description	Excavation, off-site disposal, application of bioremediation agents to excavation, and MNA for remainder of plume (soil disposal assume 100% non-haz). ICs would remain in place through MNA period.	MNA and ICs. ICs would remain in place through MNA period.	Injection of amendments to enhance natural microbial processes in addition to adding microbe cultures to augment desired native microbe populations.ICs would remain in place through monitoring period.	Excavation of soil exceeding unrestricted use SCOs, collection and treatment of groundwater exceeding ambient water quality criteria.
Remedy Construction	$1,410,133	$34,675	$1,281,654	$5,541,612
O&M (present worth)	$304,135	$304,135	$158,275	$395,688
Total Cost	**$1,714,268**	**$338,810**	**$1,439,929**	**$5,937,300**
Cost at Expected Accuracy				
-30%	$1,199,988	$237,167	$1,007,951	$4,156,110
+50%	$2,571,402	$508,215	$2,159,894	$8,905,950
Remedial Construction	4 months	0 months	3-4 months (1 Injection event)	1 year
Post-Remediation Monitoring (O&M)	Assume 30 years of MNA sampling to demonstrate criteria attainment	Assume 30 years of MNA sampling to demonstrate criteria attainment	Assume 10 years performance monitoring sampling after injection to demonstrate criteria attainment	Assume 10 years O&M of groundwater treatment system
Overall Time to Achieve Site Closure	31 years	30 years	11 years	11 years

Notes:

Remedial construction costs include markups and escalation.

Machining building would be removed under Alternatives 2, 4, and 5.

Figures



Legend

Site Boundary

Source: © 2013 National Geographic Society, i-cubed; 1:24:000-scale USGS Topographic Maps, Medina & Knowlesville Quadrangle

2,000 0 2,000 Feet

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FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
SITE LOCATION MAP

FIGURE 1

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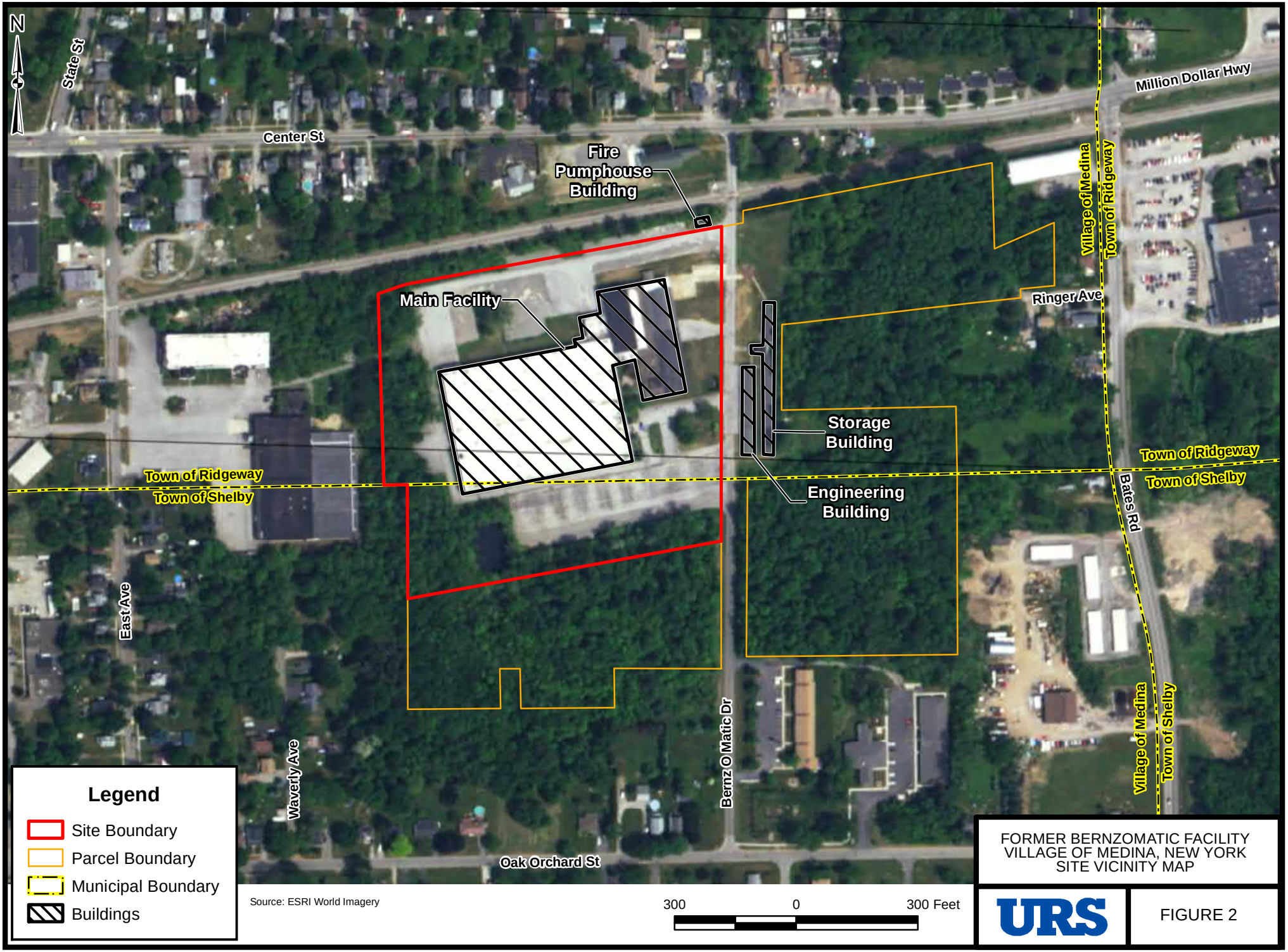

N

METAL SHAVINGS STAGING TRAILER
SEALED SUMP
STORAGE OF METAL WASTE
WC
STORAGE OF RAW MATERIALS
EXTERNAL STORAGE OF EQUIP. (TEMPORARY)
LOADING DOCK
TRENCH DRAIN
SUMP
MACHINING
VIRGIN OIL SUPPLY
USED OIL STORAGE TANKS AND BERM
LOADING DOCK
WAREHOUSE STORAGE
WAREHOUSE STORAGE
WAREHOUSE STORAGE
ASSEMBLY AREA
PACKING AREA
PRINTING AREA
CAFETERIA
550-GAL. DIESEL AST
OFFICE AREA (2 FLOORS)
PARTS WASHING AREA
ACTIVE FLOOR DRAIN
FLAMMABLE PRODUCTS STORAGE (CLOSETS)
SEALED TRENCH DRAIN
MAINT. DEPT.
ELECTRIC SWITCHBOARD

50 0 50 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
BUILDING FLOOR PLAN
(2014)

URS

FIGURE 3

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Legend

- Air
- Soil Gas
- Soil Boring
- Monitoring Well
- Surface Soil
- DPT Temporary Well
- Surface Water/Sediment

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

100 0 100 Feet

FORMER BERNZOMATIC FACILITY INVESTIGATION LOCATION MAP

URS

FIGURE 4

C:\Users\maxwell.reis\Documents\bernzomatic\Maps\ALL LOCATIONS.mxd 4/28/2020

N

GSP-18
GSP-17
GSP-16
MW-17
GSP-05
GSP-15
MW-18
B'
SB-06
GSP-02
GSP-04
MW-16
GSP-03
GSP-06
GSP-01
GSP-30
MW-09
GSP-19
SB-05A
SB-04
MW-06
A'
GSP-14
SB-05
SB-03
GSP-07
SS-04
MW-15
MW-08
MW-10
MW-05
GSP-29
SB-01
GSP-22
MW-07
GSP-09
GSP-08
GSP-20
MW-21
GSP-31
GSP-23
SB-02
SB-07
GSP-10
MW-11
GSP-11
A
GSP-28
MW-20
GSP-26
GSP-24
GSP-25
GSP-13
GSP-12
GSP-33
MW-19
GSP-27
GSP-34
GSP-21
GSP-35
SB-08
GSP-36
IA-01
SSV-01
GSP-32
MW-02
MW-04
CIST
MW-12
SS-05
SS-01
MW-01
MW-03
SB-09
MW-14
MW-13
SSV-02
IA-02
B
OA-01
SS-03
SS-02
SW-01/SED-01
SS-06
SS-07
SED-05
BERNZOMATIC DR
SED-06
SED-04
SW-02/SED-02
SED-03

Legend

- Air
- Soil Gas
- Soil Boring
- Monitoring Well
- Surface Soil
- DPT Temporary Well
- Surface Water/Sediment
- Cross Section A-A'
- Cross Section B-B'

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
CROSS SECTION LOCATION MAP

URS

FIGURE 5

J:\Projects\25369237\GIS\Maps\Crosssection_Location_Map.mxd 9/25/2018

WEST

A

EAST

A’

FORMER BERNZOMATIC MACHINING BUILDING

Parts Washing Area - Suspected Source (Projected)

Release to Subsurface

MW-20

MW-21

MW-05

MW-08

MW-10

Overburden Groundwater

FILL

TOPSOIL

SILTY SAND

SAND & GRAVEL

FINE SAND & SILT

FINE TO COARSE SAND

SAND & GRAVEL

SAND & GRAVEL

6.5’ TD

10.25’ TD

10’ TD

8.5’ TD

IRONDEQUOIT LIMESTONE

24% RQD

MEDINA SANDSTONE

16% RQD

25’ TD

ELEVATION (FEET)

555
550
545
540
535
530
525
520
515

Fill
Sand
Irondequoit Limestone
Medina Sandstone
Topsoil

MW-20 ← Monitoring Well Number

Potentiometric Surface from 3/23/2017

Screened Interval of Monitoring Well

Borehole Termination

8.5’TD = Total Depth

NOTES:

1. Geologic conditions shown are representative of conditions encountered at each boring location to the depth drilled. Extrapolations between borings have been interpreted using standardly accepted geologic practices and principles. Actual conditions may vary between borings from those shown.

Horizontal Scale: 1” = 50’
Vertical Scale: 1” = 5’
10 x Vertical Exaggeration

Revised: 2018

FORMER BERNZOMATIC FACILITY
GENERALIZED CROSS SECTION
A-A’

URS

FIGURE 6

J:\Projects\25369237\Deliverables\BCP AAR (draft)\Cross Sections\Cross Section A-A'.cdr

SOUTH

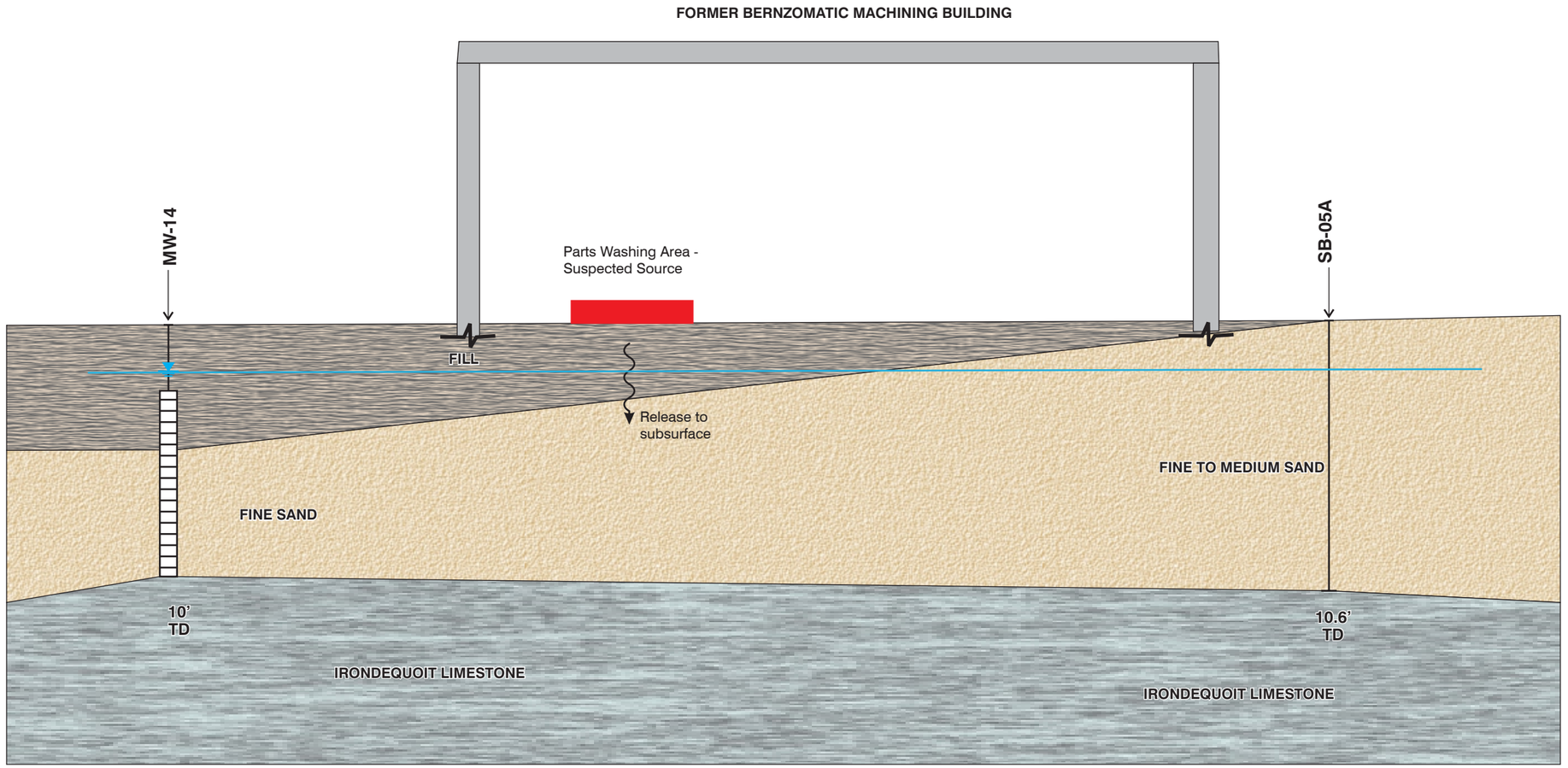
B

NORTH

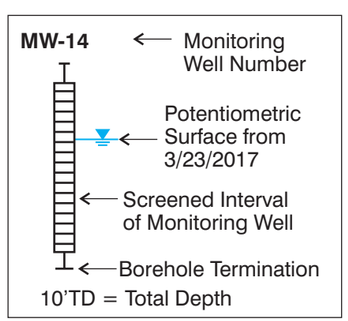
B’

ELEVATION (FEET)

560
555
550
545
540
535
530
525



Fill Sand Irondequoit Limestone



NOTES:

1. Geologic conditions shown are representative of conditions encountered at each boring location to the depth drilled. Extrapolations between borings have been interpreted using standardly accepted geologic practices and principles. Actual conditions may vary between borings from those shown.

Horizontal Scale: 1” = 50’
Vertical Scale: 1” = 5’
10 x Vertical Exaggeration

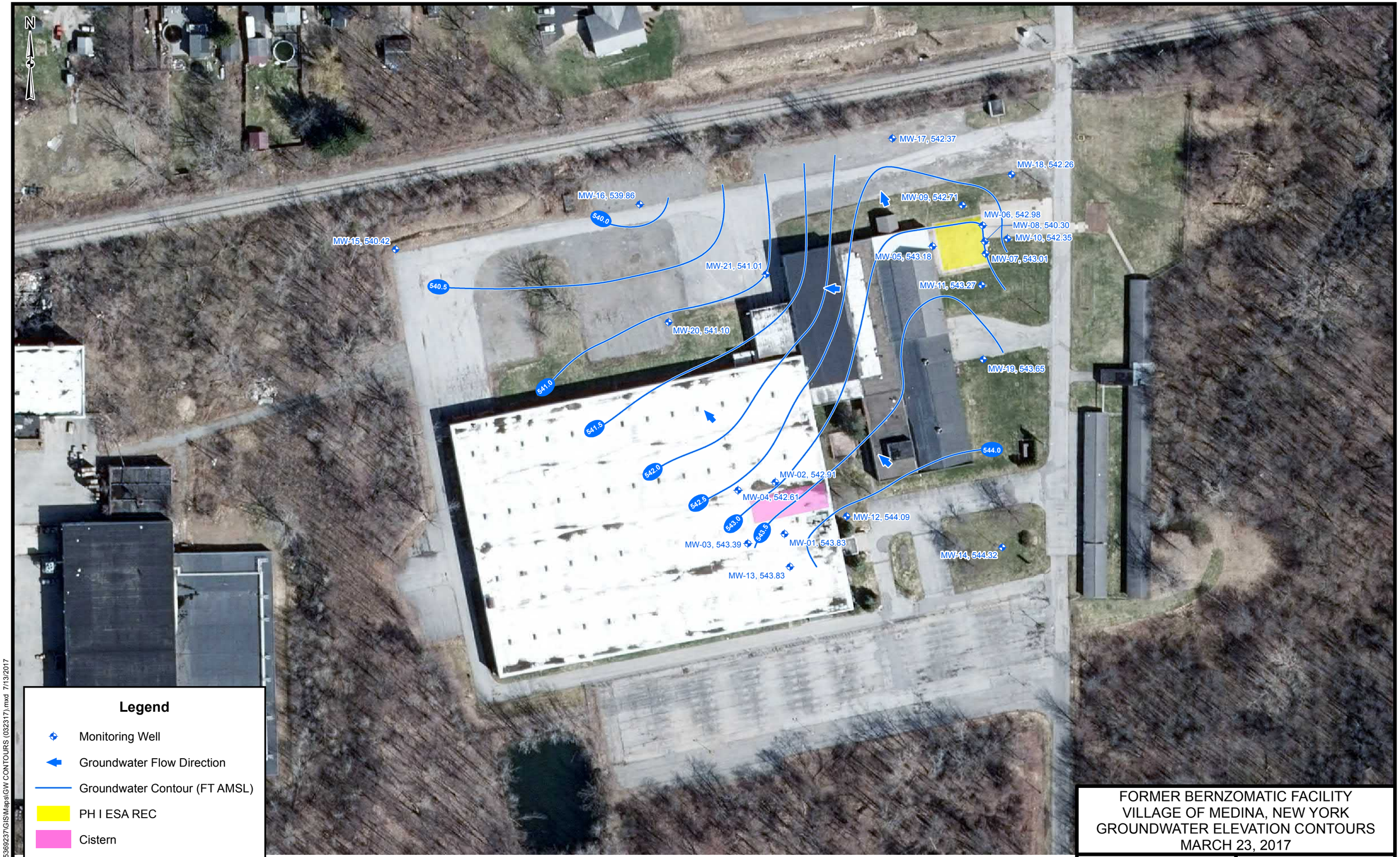
Revised: 2018

FORMER BERNZOMATIC FACILITY
GENERALIZED CROSS SECTION
B-B’

URS

FIGURE 7

J:\Projects\25369237\Deliverables\BCP AAR (draft)\Cross Sections\Cross Section B-B' .cdr



Note: Monitoring well, MW-08, is a bedrock well; therefore, it was not used for generating groundwater contours.
Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
GROUNDWATER ELEVATION CONTOURS
MARCH 23, 2017

URS

FIGURE 8

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N

MW-15 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
SVOCs:				
Benzo(a)anthracene	--	1	5.6	7.1
Benzo(a)pyrene	2.6	22	1	6.8
Benzo(b)fluoranthene	--	1.7	5.6	10
Benzo(k)fluoranthene	--	1.7	56	4.4
Chrysene	--	1	56	9.1
Dibenz(a,h)anthracene	--	1000	0.56	1.5
Metals:				
Calcium	10000	--	--	86600
Zinc	109	2480	10000	132

MW-16 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Calcium	10000	--	--	169000

MW-17 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Calcium	10000	--	--	163000

SB-05 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Calcium	10000	--	--	17600

SB-06 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	03/17
SVOCs:				
Chrysene	--	1	56	1.2
Pesticides:				
4,4'-DDE	0.0033	17	62	0.0046
4,4'-DDT	0.0033	136	47	0.0063
Metals:				
Aluminum	10000	--	--	13800

MW-18 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	03/17
Pesticides:				
4,4'-DDE	0.0033	17	62	0.14
4,4'-DDT	0.0033	136	47	0.032
Metals:				
Calcium	10000	--	--	109000
Lead	63	450	1000	81.7

SB-07 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Aluminum	10000	--	--	12000

MW-19 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
SVOCs:				
Chrysene	--	1	56	1.1
Pesticides:				
4,4'-DDD	0.0033	14	92	0.0044
4,4'-DDT	0.0033	136	47	0.021
Metals:				
Aluminum	10000	--	--	13500

MW-20 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Calcium	10000	--	--	180000

SS-01 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	03/17
SVOCs:				
Benzo(a)anthracene	--	1	5.6	10
Benzo(a)pyrene	2.6	22	1	10
Benzo(b)fluoranthene	--	1.7	5.6	15
Benzo(k)fluoranthene	--	1.7	56	5
Chrysene	--	1	56	12
Indeno(1,2,3-cd)pyrene	--	8.2	5.6	6.9
Metals:				
Calcium	10000	--	--	64800

SB-08 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Pesticides:				
4,4'-DDE	0.0033	17	62	0.004
Metals:				
Aluminum	10000	--	--	11000
Calcium	10000	--	--	23500
Lead	63	450	1000	80.3

SS-02 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	03/17
SVOCs:				
Benzo(a)anthracene	--	1	5.6	2.3
Benzo(a)pyrene	2.6	22	1	2.5
Benzo(b)fluoranthene	--	1.7	5.6	3.5
Chrysene	--	1	56	3
Metals:				
Calcium	10000	--	--	12600
Lead	63	450	1000	69.6

MW-14 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	02/17
Pesticides:				
4,4'-DDT	0.0033	136	47	0.0047
Metals:				
Calcium	10000	--	--	17900
Lead	63	450	1000	65.1

SS-07 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	04/18
SVOCs:				
Chrysene	--	1	56	1.3

SS-03 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	03/17
SVOCs:				
Benzo(a)anthracene	--	1	5.6	6.4
Benzo(a)pyrene	2.6	22	1	7.5
Benzo(b)fluoranthene	--	1.7	5.6	11
Benzo(k)fluoranthene	--	1.7	56	5.4
Chrysene	--	1	56	9.5
Pesticides:				
4,4'-DDT	0.0033	136	47	0.012
Metals:				
Aluminum	10000	--	--	10200
Calcium	10000	--	--	28700

SS-04

SS-05

SS-06

Legend

- At Least One Compound Exceeds Criteria
- No Compounds Exceed Criteria
- No Compounds Detected
- PH I ESA REC
- Cistern

Location ID & Depth — Criteria — Sample Date

SS-07 (0" - 2")	CRIT 1	CRIT 2	CRIT 3	04/18
SVOCs:				
Chrysene	--	1	56	1.3

Parameter — Criteria Value (mg/kg) — Concentration (mg/kg)

100 0 100 Feet

CRIT 1: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

CRIT 2: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

CRIT 3: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Notes: Only compounds that exceed at least one listed criteria are shown.
If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
SURFACE SOIL ANALYTICAL RESULTS

URS

FIGURE 9

C:\Users\maxwell.reis\Documents\bernzomatic\Maps\SO ANALYTICAL_SHALLOW (040618)_Rev.mxd 10/6/2020

N

MW-17 (54" - 60")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Calcium	10000	--	--	16500

MW-18 (48" - 60")	CRIT 1	CRIT 2	CRIT 3	03/17
Metals:				
Aluminum	10000	--	--	12200

SB-05A (48" - 60")	CRIT 1	CRIT 2	CRIT 3	03/17
Metals:				
Calcium	10000	--	--	21200

MW-21 (34" - 46")	CRIT 1	CRIT 2	CRIT 3	03/17
Metals:				
Calcium	10000	--	--	30100

MW-15 (30" - 36")	CRIT 1	CRIT 2	CRIT 3	02/17
Pesticides:				
4,4'-DDT	0.0033	136	47	0.025

SB-07 (36" - 48")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Aluminum	10000	--	--	11600

MW-20 (18" - 24")	CRIT 1	CRIT 2	CRIT 3	02/17
SVOCs:				
Di-n-butylphthalate	0.014	8.1	--	0.045
Metals:				
Aluminum	10000	--	--	13200

SB-08 (36" - 48")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Aluminum	10000	--	--	21500

MW-14 (12" - 24")	CRIT 1	CRIT 2	CRIT 3	02/17
Pesticides:				
4,4'-DDT	0.0033	136	47	0.0079
Metals:				
Calcium	10000	--	--	12100
Lead	63	450	1000	92.9

SB-09 (12" - 24")	CRIT 1	CRIT 2	CRIT 3	02/17
Metals:				
Calcium	10000	--	--	17200

MW-13 (24" - 36")	CRIT 1	CRIT 2	CRIT 3	02/15
VOCs:				
Acetone	2.2	0.05	500	0.063

MW-16
SS-04
MW-04
MW-02
SS-05
SS-01
MW-12
MW-03
MW-01
SB-06
MW-09
SB-03
SB-04
MW-06
MW-08
MW-10
MW-05
MW-07
SB-02
SB-01
MW-11
MW-19
SS-02
SS-06
SS-03
SS-07

Legend

- At Least One Compound Exceeds Criteria
- No Compounds Exceed Criteria
- No Compounds Detected
- PH I ESA REC
- Cistern

Location ID & Depth | Criteria | Sample Date

MW-13 (24" - 36")	CRIT 1	CRIT 2	CRIT 3	02/15
VOCs:				
Acetone	2.2	0.05	500	0.063

Parameter | Criteria Value (mg/kg) | Concentration (mg/kg)

100 0 100 Feet

CRIT 1: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

CRIT 2: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

CRIT 3: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Notes: Only compounds that exceed at least one listed criteria are shown.
If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
SUBSURFACE SOIL ANALYTICAL RESULTS

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FIGURE 10

C:\Users\maxwell.reis\Documents\bernzomatic\Maps\SO ANALYTICAL_DEEP (040618)_Rev.mxd 10/6/2020

N

GSP-19	CRIT	04/15
VOCs:		
1,2-Dichloroethene (cis)	5	11
Tetrachloroethene	5	22
Trichloroethene	5	7.7

GSP-01	CRIT	03/15
VOCs:		
Chloroform	7	50
Tetrachloroethene	5	15
Trichloroethene	5	14

GSP-02	CRIT	03/15
VOCs:		
Tetrachloroethene	5	9.9

GSP-22	CRIT	04/15
VOCs:		
1,2-Dichloroethene (cis)	5	170
Tetrachloroethene	5	6.5
Trichloroethene	5	28
Vinyl chloride	2	7.5

GSP-04	CRIT	03/15
VOCs:		
1,2-Dichloroethene (cis)	5	72

GSP-14	CRIT	04/15
VOCs:		
1,2-Dichloroethene (cis)	5	35
Trichloroethene	5	11
Vinyl chloride	2	8.1

SB-04	CRIT	05/14
VOCs:		
1,2-Dichloroethene (cis)	5	14
Tetrachloroethene	5	36
Trichloroethene	5	24

GSP-31	CRIT	06/15
VOCs:		
1,1-Dichloroethane	5	22
1,2-Dichloroethene (cis)	5	390
1,2-Dichloropropane	1	2
Trichloroethene	5	13
Vinyl chloride	2	2.8

MW-06	CRIT	10/14	03/17
VOCs:			
1,2-Dichloroethene (cis)	5	63	ND
1,2-Dichloroethene (trans)	5	7.1	ND
Tetrachloroethene	5	18	BC
Trichloroethene	5	25	BC

MW-21	CRIT	03/17
VOCs:		
1,2-Dichloroethene (cis)	5	23
Trichloroethene	5	11

MW-10	CRIT	02/15
VOCs:		
Acetone	50	80

GSP-08	CRIT	03/15
VOCs:		
1,1,2-Trichloro-1,2,2-trifluoroethane	5	6.2
1,2-Dichloroethene (cis)	5	6.5
Trichloroethene	5	15

MW-20	CRIT	03/17
VOCs:		
Trichloroethene	5	8.6

GSP-26	CRIT	06/15
VOCs:		
Trichloroethene	5	13

GSP-10	CRIT	03/15
VOCs:		
Trichloroethene	5	6.7

GSP-24	CRIT	04/15
VOCs:		
1,1,1-Trichloroethane	5	21
1,1-Dichloroethane	5	87
1,1-Dichloroethene	5	8.8
1,2-Dichloroethene (cis)	5	440
Tetrachloroethene	5	7.1
Trichloroethene	5	11
Vinyl chloride	2	3.6
Xylene (total)	5	9.4

MW-07	CRIT	10/14
VOCs:		
Tetrachloroethene	5	10
Trichloroethene	5	13

GSP-33	CRIT	06/15
VOCs:		
Trichloroethene	5	7.5

SB-01	CRIT	05/14
VOCs:		
Tetrachloroethene	5	6.8
Trichloroethene	5	5.4

GSP-34	CRIT	06/15
VOCs:		
Trichloroethene	5	16

MW-11	CRIT	02/15	03/17
VOCs:			
1,2-Dichloroethene (cis)	5	8.2	BC
Trichloroethene	5	18	13

MW-04	CRIT	10/14	03/17
VOCs:			
1,2-Dichloroethene (cis)	5	BC	20
Trichloroethene	5	BC	15
Vinyl chloride	2	BC	3.8

GSP-13	CRIT	03/15
VOCs:		
1,1-Dichloroethane	5	11
1,2-Dichloroethene (cis)	5	53
Tetrachloroethene	5	18
Trichloroethene	5	72
Vinyl chloride	2	3.3

MW-01	CRIT	10/14	03/17
VOCs:			
1,2-Dichloroethene (cis)	5	13	15
Vinyl chloride	2	BC	15

GSP-25	CRIT	04/15
VOCs:		
1,2-Dichloroethene (cis)	5	32
Tetrachloroethene	5	8.8
Trichloroethene	5	7.7

GSP-21	CRIT	04/15
VOCs:		
1,2-Dichloroethene (cis)	5	5.3

GSP-18, GSP-17, MW-17, GSP-16, GSP-15, MW-16, GSP-30, MW-15, GSP-29, GSP-28, GSP-27, GSP-05, MW-18, GSP-03, MW-09, GSP-06, SB-03, MW-08, MW-05, GSP-23, SB-02, GSP-07, GSP-09, GSP-20, GSP-11, GSP-12, MW-19, GSP-35, GSP-36, GSP-32, MW-14, MW-02, MW-12, MW-03, MW-13

Legend

- At Least One Compound Exceeds Criteria
- No Compounds Exceed Criteria
- No Compounds Detected
- PH I ESA REC
- Cistern

Location ID | Criteria | Sample Date

SB-04	CRIT	05/14
VOCs:		
Trichloroethene	5	24

Parameter | Criteria Value (µg/L) | Concentration (µg/L)

Criteria: NYSDEC TOGS (1.1.1), Ambient water quality standards and guidance values and groundwater effluent limitations

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

Notes: BC = Below Criteria
ND = Not Detected
Analyzed organic compounds include: VOCs, SVOCs, PCBs, and Pesticides.
Only compounds that exceed the listed criteria are shown.
If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
GROUNDWATER ANALYTICAL RESULTS
ORGANIC COMPOUNDS

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FIGURE 11A

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N

MW-17	CRIT	03/17
Metals:		
Iron	300	2700
Magnesium	35000	47300
Manganese	300	2400
Sodium	20000	67200

MW-18	CRIT	03/17
Metals:		
Iron	300	6000
Manganese	300	4000
Sodium	20000	147000

MW-16	CRIT	03/17
Metals:		
Iron	300	950
Manganese	300	7400
Sodium	20000	332000

SB-03	CRIT	05/14
Metals:		
Arsenic	25	121
Barium	1000	2600
Cadmium	5	32.2
Chromium	50	528
Lead	25	430

SB-04	CRIT	05/14
Metals:		
Arsenic	25	48
Chromium	50	122
Lead	25	63

MW-15	CRIT	03/17
Metals:		
Iron	300	360
Manganese	300	1200
Sodium	20000	81400

MW-06

SB-01	CRIT	05/14
Metals:		
Arsenic	25	172
Barium	1000	1850
Cadmium	5	25.6
Chromium	50	462
Lead	25	224

MW-21	CRIT	03/17
Metals:		
Iron	300	1500
Magnesium	35000	82700
Sodium	20000	1900000

SB-02	CRIT	05/14
Metals:		
Arsenic	25	68
Barium	1000	2700
Cadmium	5	22.6
Chromium	50	429
Lead	25	208

MW-20	CRIT	03/17
Metals:		
Iron	300	580

MW-11	CRIT	03/17
Metals:		
Manganese	300	1300
Sodium	20000	37100

MW-19	CRIT	03/17
Metals:		
Iron	300	21000
Manganese	300	8600
Sodium	20000	34200

MW-04	CRIT	03/17
Metals:		
Iron	300	1500
Magnesium	35000	37300
Manganese	300	2100
Sodium	20000	278000

MW-14	CRIT	03/17
Metals:		
Iron	300	1300
Manganese	300	570
Sodium	20000	103000

MW-01	CRIT	03/17
Metals:		
Iron	300	13400
Magnesium	35000	40500
Manganese	300	2200
Sodium	20000	294000

Legend

- At Least One Compound Exceeds Criteria
- No Compounds Exceed Criteria
- No Compounds Detected
- PH I ESA REC
- Cistern

Location ID | Criteria | Sample Date

SB-04	CRIT	05/14
Metals:		
Arsenic	25	48

Parameter | Criteria Value (µg/L) | Concentration (µg/L)

Criteria: NYSDEC TOGS (1.1.1), Ambient water quality standards and guidance values and groundwater effluent limitations

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

Notes: Only compounds that exceed the listed criteria are shown. If a field duplicate was collected at a particular location, the greater of two detected values is displayed. Locations not shown were not sampled for Metals.

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
GROUNDWATER ANALYTICAL RESULTS
METALS

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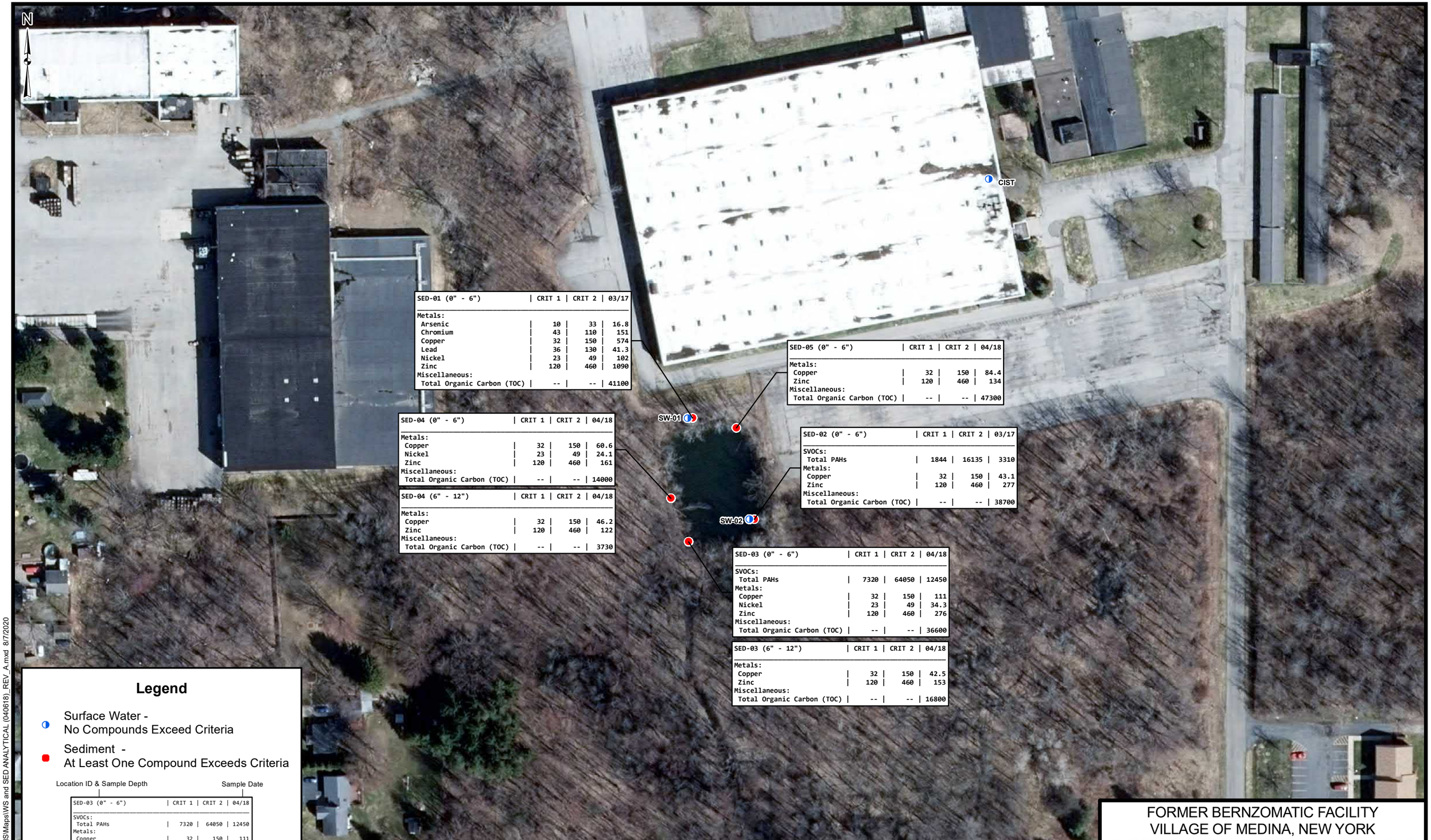
FIGURE 11B

C:\Users\maxwell.reis\Documents\bernzomaticMaps\GW ANALYTICAL (032017) (REV)_METALS.mxd 8/7/2020



SED-01 (0" - 6")	CRIT 1	CRIT 2	03/17
Metals:			
Arsenic	10	33	16.8
Chromium	43	110	151
Copper	32	150	574
Lead	36	130	41.3
Nickel	23	49	102
Zinc	120	460	1090
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	41100

SED-04 (0" - 6")	CRIT 1	CRIT 2	04/18
Metals:			
Copper	32	150	60.6
Nickel	23	49	24.1
Zinc	120	460	161
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	14000

SED-04 (6" - 12")	CRIT 1	CRIT 2	04/18
Metals:			
Copper	32	150	46.2
Zinc	120	460	122
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	3730

SED-05 (0" - 6")	CRIT 1	CRIT 2	04/18
Metals:			
Copper	32	150	84.4
Zinc	120	460	134
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	47300

SED-02 (0" - 6")	CRIT 1	CRIT 2	03/17
SVOCs:			
Total PAHs	1844	16135	3310
Metals:			
Copper	32	150	43.1
Zinc	120	460	277
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	38700

SED-03 (0" - 6")	CRIT 1	CRIT 2	04/18
SVOCs:			
Total PAHs	7320	64050	12450
Metals:			
Copper	32	150	111
Nickel	23	49	34.3
Zinc	120	460	276
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	36600

SED-03 (6" - 12")	CRIT 1	CRIT 2	04/18
Metals:			
Copper	32	150	42.5
Zinc	120	460	153
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	16800

Legend

Surface Water -
No Compounds Exceed Criteria

Sediment -
At Least One Compound Exceeds Criteria

Location ID & Sample Depth — Sample Date

SED-03 (0" - 6")	CRIT 1	CRIT 2	04/18
SVOCs:			
Total PAHs	7320	64050	12450
Metals:			
Copper	32	150	111
Nickel	23	49	34.3
Zinc	120	460	276
Miscellaneous:			
Total Organic Carbon (TOC)	--	--	36600

Parameter — Concentration (mg/kg) for Metals and Misc. (ug/kg) for SVOCs

Notes: Metal and SVOC results shown are in exceedance of NYSDEC Screening and Assessment of Contaminated Sediments, Class A (CRIT 1) or Class C (CRIT 1) (based on Sample TOC), June 24, 2014 . Please refer to Table 6 for further information.
Only compounds that exceed the listed criteria are shown.
If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
SURFACE WATER, CISTERN, AND SEDIMENT (CLASS A & C CRITERIA) ANALYTICAL RESULTS

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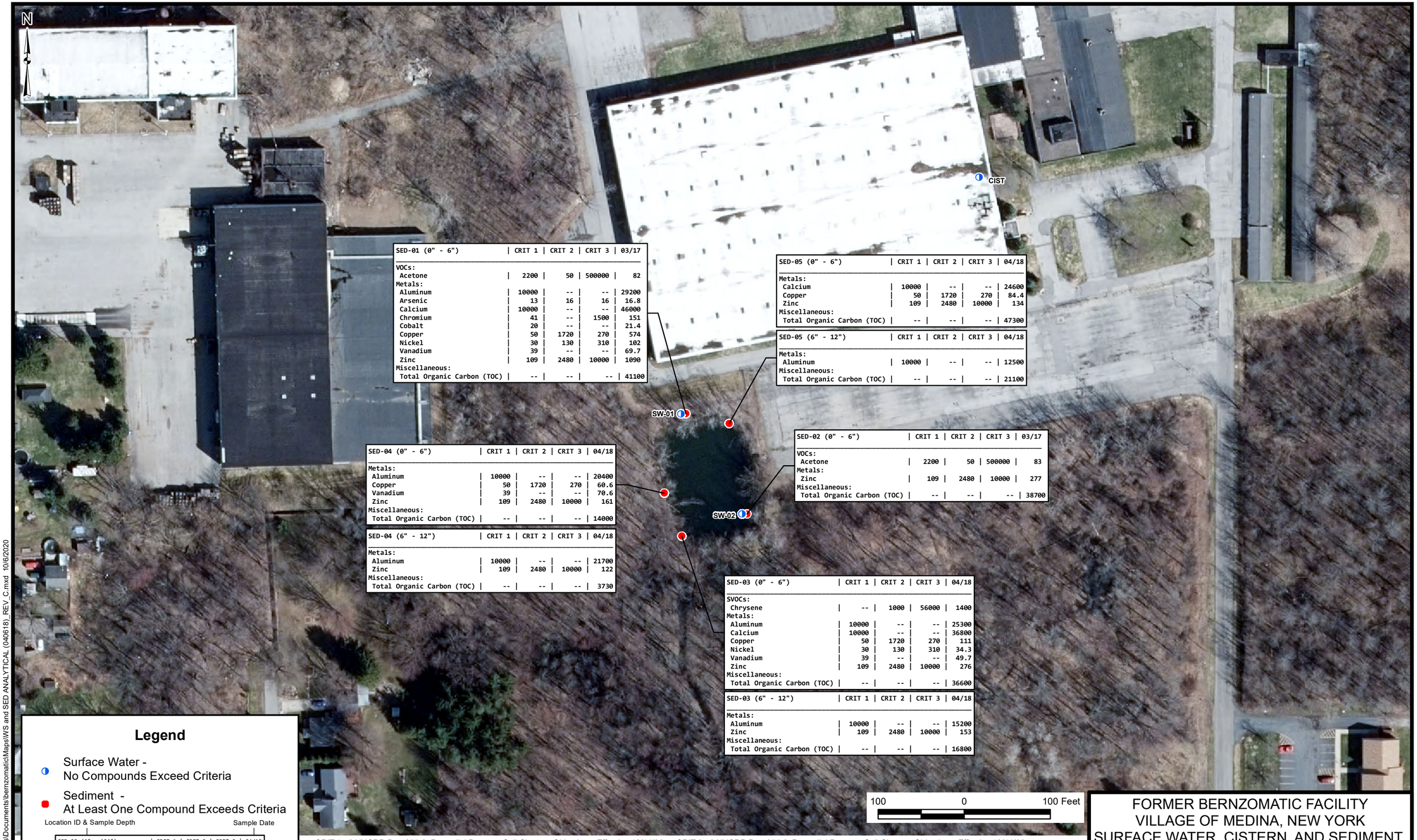
FIGURE 12

J:\Projects\25369237\GIS\Maps\WS and SED ANALYTICAL (040618)_REV_A.mxd 8/7/2020



SED-01 (0" - 6")	CRIT 1	CRIT 2	CRIT 3	03/17
VOCs:				
Acetone	2200	50	500000	82
Metals:				
Aluminum	10000	--	--	29200
Arsenic	13	16	16	16.8
Calcium	10000	--	--	46000
Chromium	41	--	1500	151
Cobalt	20	--	--	21.4
Copper	50	1720	270	574
Nickel	30	130	310	102
Vanadium	39	--	--	69.7
Zinc	109	2480	10000	1090
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	41100

SED-05 (0" - 6")	CRIT 1	CRIT 2	CRIT 3	04/18
Metals:				
Calcium	10000	--	--	24600
Copper	50	1720	270	84.4
Zinc	109	2480	10000	134
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	47300

SED-05 (6" - 12")	CRIT 1	CRIT 2	CRIT 3	04/18
Metals:				
Aluminum	10000	--	--	12500
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	21100

SED-02 (0" - 6")	CRIT 1	CRIT 2	CRIT 3	03/17
VOCs:				
Acetone	2200	50	500000	83
Metals:				
Zinc	109	2480	10000	277
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	38700

SED-04 (0" - 6")	CRIT 1	CRIT 2	CRIT 3	04/18
Metals:				
Aluminum	10000	--	--	20400
Copper	50	1720	270	60.6
Vanadium	39	--	--	70.6
Zinc	109	2480	10000	161
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	14000

SED-04 (6" - 12")	CRIT 1	CRIT 2	CRIT 3	04/18
Metals:				
Aluminum	10000	--	--	21700
Zinc	109	2480	10000	122
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	3730

SED-03 (0" - 6")	CRIT 1	CRIT 2	CRIT 3	04/18
SVOCs:				
Chrysene	--	1000	56000	1400
Metals:				
Aluminum	10000	--	--	25300
Calcium	10000	--	--	36800
Copper	50	1720	270	111
Nickel	30	130	310	34.3
Vanadium	39	--	--	49.7
Zinc	109	2480	10000	276
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	36600

SED-03 (6" - 12")	CRIT 1	CRIT 2	CRIT 3	04/18
Metals:				
Aluminum	10000	--	--	15200
Zinc	109	2480	10000	153
Miscellaneous:				
Total Organic Carbon (TOC)	--	--	--	16800

Legend

Surface Water -
No Compounds Exceed Criteria

Sediment -
At Least One Compound Exceeds Criteria

Location ID & Sample Depth — Sample Date

SED-03 (6" - 12'")	CRIT 1	CRIT 2	CRIT 3	04/18
Metals:				
Zinc	109	2480	10000	153

Parameter — Concentration (mg/kg)

100 0 100 Feet

CRIT 1: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Ecological Resources, including CP-51 Table 1, Effective 12/2/10.

CRIT 2: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, including CP-51 Table 1, Effective 12/2/10.

CRIT 3: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Notes: Only compounds that exceed at least one listed criteria are shown
If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
SURFACE WATER, CISTERN, AND SEDIMENT (SOIL SCO CRITERIA) ANALYTICAL RESULTS

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FIGURE 13

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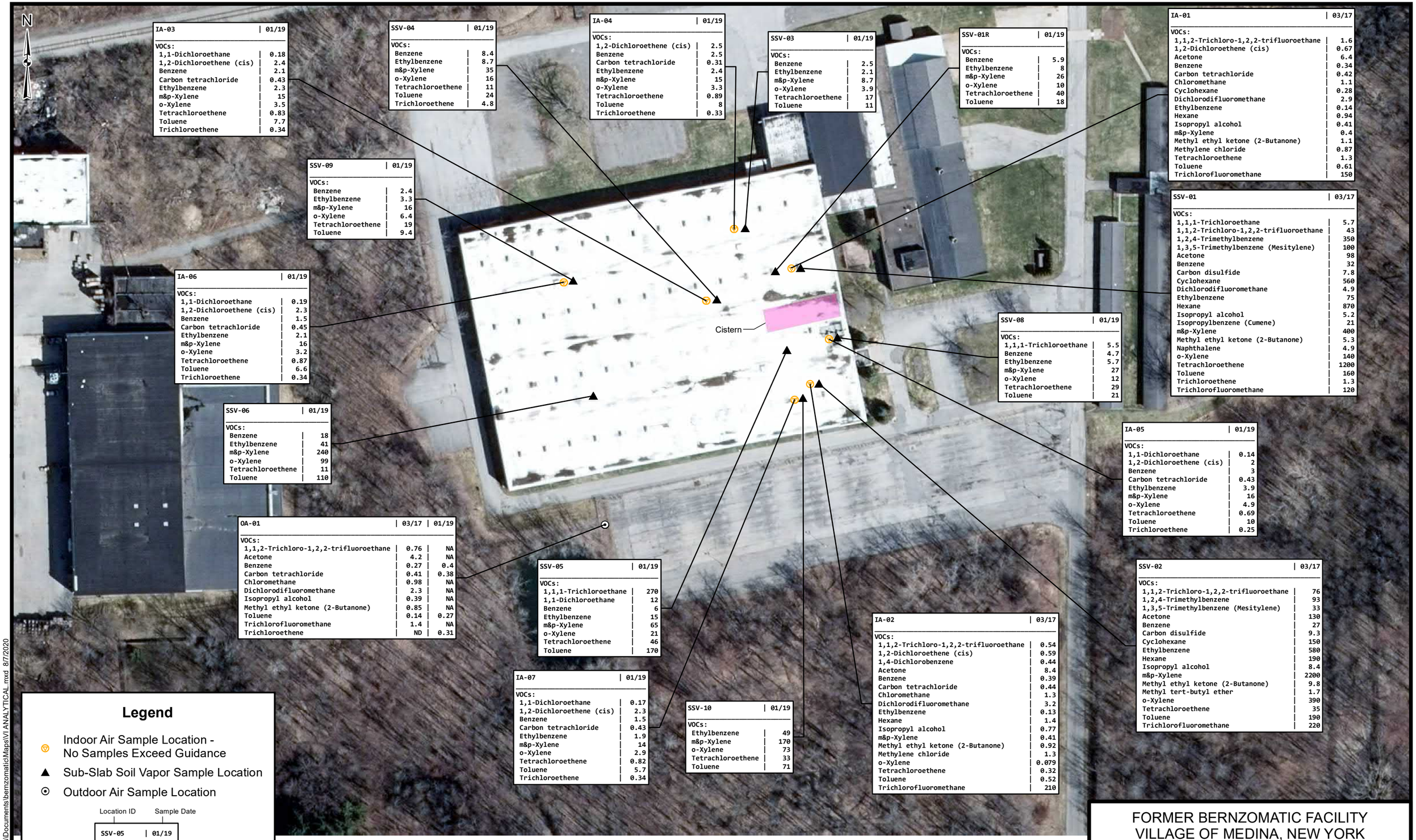

IA-03	01/19
VOCs:	
1,1-Dichloroethane	0.18
1,2-Dichloroethene (cis)	2.4
Benzene	2.1
Carbon tetrachloride	0.43
Ethylbenzene	2.3
m&p-Xylene	15
o-Xylene	3.5
Tetrachloroethene	0.83
Toluene	7.7
Trichloroethene	0.34

SSV-04	01/19
VOCs:	
Benzene	8.4
Ethylbenzene	8.7
m&p-Xylene	35
o-Xylene	16
Tetrachloroethene	11
Toluene	24
Trichloroethene	4.8

IA-04	01/19
VOCs:	
1,2-Dichloroethene (cis)	2.5
Benzene	2.5
Carbon tetrachloride	0.31
Ethylbenzene	2.4
m&p-Xylene	15
o-Xylene	3.3
Tetrachloroethene	0.89
Toluene	8
Trichloroethene	0.33

SSV-03	01/19
VOCs:	
Benzene	2.5
Ethylbenzene	2.1
m&p-Xylene	8.7
o-Xylene	3.9
Tetrachloroethene	17
Toluene	11

SSV-01R	01/19
VOCs:	
Benzene	5.9
Ethylbenzene	8
m&p-Xylene	26
o-Xylene	10
Tetrachloroethene	40
Toluene	18

IA-01	03/17
VOCs:	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6
1,2-Dichloroethene (cis)	0.67
Acetone	6.4
Benzene	0.34
Carbon tetrachloride	0.42
Chloromethane	1.1
Cyclohexane	0.28
Dichlorodifluoromethane	2.9
Ethylbenzene	0.14
Hexane	0.94
Isopropyl alcohol	0.41
m&p-Xylene	0.4
Methyl ethyl ketone (2-Butanone)	1.1
Methylene chloride	0.87
Tetrachloroethene	1.3
Toluene	0.61
Trichlorofluoromethane	150

SSV-09	01/19
VOCs:	
Benzene	2.4
Ethylbenzene	3.3
m&p-Xylene	16
o-Xylene	6.4
Tetrachloroethene	19
Toluene	9.4

SSV-01	03/17
VOCs:	
1,1,1-Trichloroethane	5.7
1,1,2-Trichloro-1,2,2-trifluoroethane	43
1,2,4-Trimethylbenzene	350
1,3,5-Trimethylbenzene (Mesitylene)	100
Acetone	98
Benzene	32
Carbon disulfide	7.8
Cyclohexane	560
Dichlorodifluoromethane	4.9
Ethylbenzene	75
Hexane	870
Isopropyl alcohol	5.2
Isopropylbenzene (Cumene)	21
m&p-Xylene	400
Methyl ethyl ketone (2-Butanone)	5.3
Naphthalene	4.9
o-Xylene	140
Tetrachloroethene	1200
Toluene	160
Trichloroethene	1.3
Trichlorofluoromethane	120

IA-06	01/19
VOCs:	
1,1-Dichloroethane	0.19
1,2-Dichloroethene (cis)	2.3
Benzene	1.5
Carbon tetrachloride	0.45
Ethylbenzene	2.1
m&p-Xylene	16
o-Xylene	3.2
Tetrachloroethene	0.87
Toluene	6.6
Trichloroethene	0.34

SSV-08	01/19
VOCs:	
1,1,1-Trichloroethane	5.5
Benzene	4.7
Ethylbenzene	5.7
m&p-Xylene	27
o-Xylene	12
Tetrachloroethene	29
Toluene	21

SSV-06	01/19
VOCs:	
Benzene	18
Ethylbenzene	41
m&p-Xylene	240
o-Xylene	99
Tetrachloroethene	11
Toluene	110

IA-05	01/19
VOCs:	
1,1-Dichloroethane	0.14
1,2-Dichloroethene (cis)	2
Benzene	3
Carbon tetrachloride	0.43
Ethylbenzene	3.9
m&p-Xylene	16
o-Xylene	4.9
Tetrachloroethene	0.69
Toluene	10
Trichloroethene	0.25

OA-01	03/17	01/19
VOCs:		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.76	NA
Acetone	4.2	NA
Benzene	0.27	0.4
Carbon tetrachloride	0.41	0.38
Chloromethane	0.98	NA
Dichlorodifluoromethane	2.3	NA
Isopropyl alcohol	0.39	NA
Methyl ethyl ketone (2-Butanone)	0.85	NA
Toluene	0.14	0.27
Trichlorofluoromethane	1.4	NA
Trichloroethene	ND	0.31

SSV-05	01/19
VOCs:	
1,1,1-Trichloroethane	270
1,1-Dichloroethane	12
Benzene	6
Ethylbenzene	15
m&p-Xylene	65
o-Xylene	21
Tetrachloroethene	46
Toluene	170

SSV-02	03/17
VOCs:	
1,1,2-Trichloro-1,2,2-trifluoroethane	76
1,2,4-Trimethylbenzene	93
1,3,5-Trimethylbenzene (Mesitylene)	33
Acetone	130
Benzene	27
Carbon disulfide	9.3
Cyclohexane	150
Ethylbenzene	580
Hexane	190
Isopropyl alcohol	8.4
m&p-Xylene	2200
Methyl ethyl ketone (2-Butanone)	9.8
Methyl tert-butyl ether	1.7
o-Xylene	390
Tetrachloroethene	35
Toluene	190
Trichlorofluoromethane	220

IA-07	01/19
VOCs:	
1,1-Dichloroethane	0.17
1,2-Dichloroethene (cis)	2.3
Benzene	1.5
Carbon tetrachloride	0.43
Ethylbenzene	1.9
m&p-Xylene	14
o-Xylene	2.9
Tetrachloroethene	0.82
Toluene	5.7
Trichloroethene	0.34

SSV-10	01/19
VOCs:	
Ethylbenzene	49
m&p-Xylene	170
o-Xylene	73
Tetrachloroethene	33
Toluene	71

IA-02	03/17
VOCs:	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.54
1,2-Dichloroethene (cis)	0.59
1,4-Dichlorobenzene	0.44
Acetone	8.4
Benzene	0.39
Carbon tetrachloride	0.44
Chloromethane	1.3
Dichlorodifluoromethane	3.2
Ethylbenzene	0.13
Hexane	1.4
Isopropyl alcohol	0.77
m&p-Xylene	0.41
Methyl ethyl ketone (2-Butanone)	0.92
Methylene chloride	1.3
o-Xylene	0.079
Tetrachloroethene	0.32
Toluene	0.52
Trichlorofluoromethane	210

Legend

- Indoor Air Sample Location - No Samples Exceed Guidance
- ▲ Sub-Slab Soil Vapor Sample Location
- ⊙ Outdoor Air Sample Location

Location ID: SSV-05 | Sample Date: 01/19
VOCs: Benzene | 6
Parameter | Concentration (µg/m³)

Notes: SSV = Sub-Slab Vapor; IA = Indoor Air; OA = Outdoor Air; ND = Not Detected; NA = Not Analyzed
Indoor Air PCE/TCE results were compared to *Trichloroethene in Indoor and Outdoor Air - Fact Sheet*, dated August 2015, and *Tetrachloroethene in Indoor and Outdoor Air - Fact Sheet*, dated September 2013.
If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
VAPOR INTRUSION ANALYTICAL RESULTS

URS

FIGURE 14

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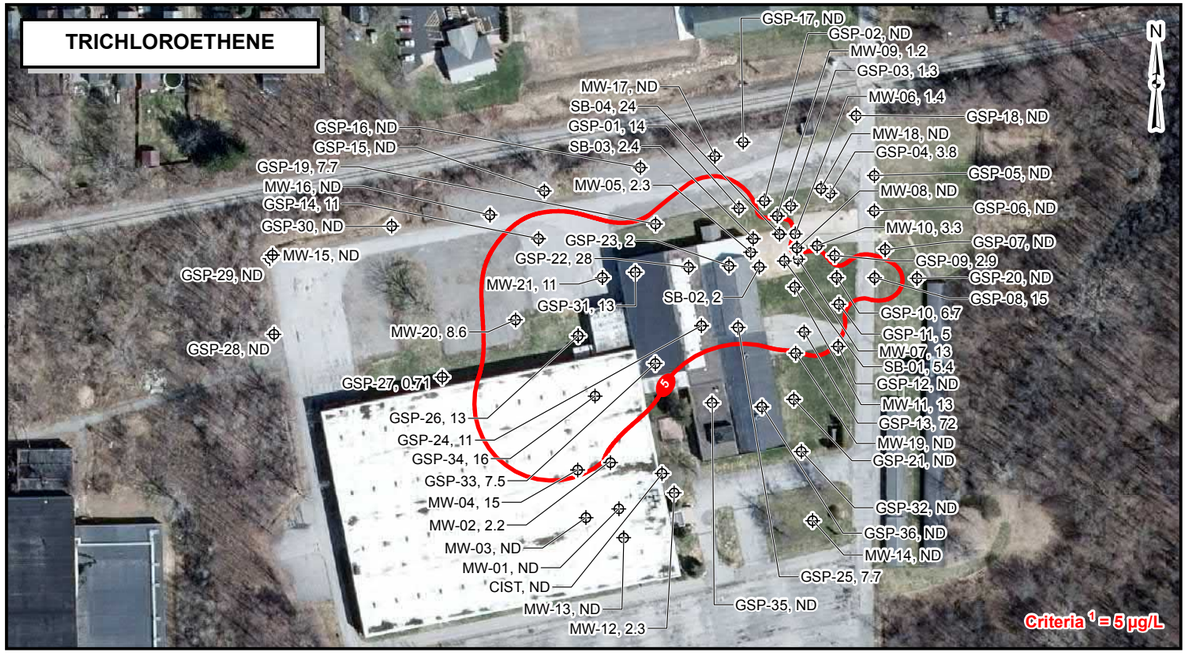
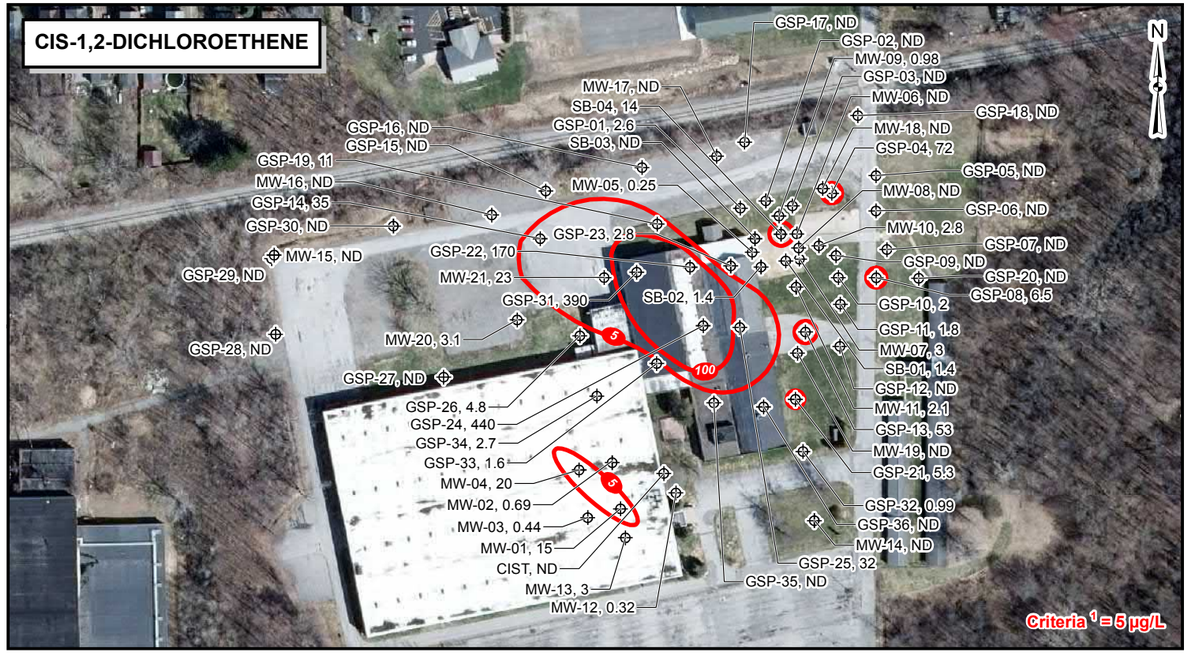
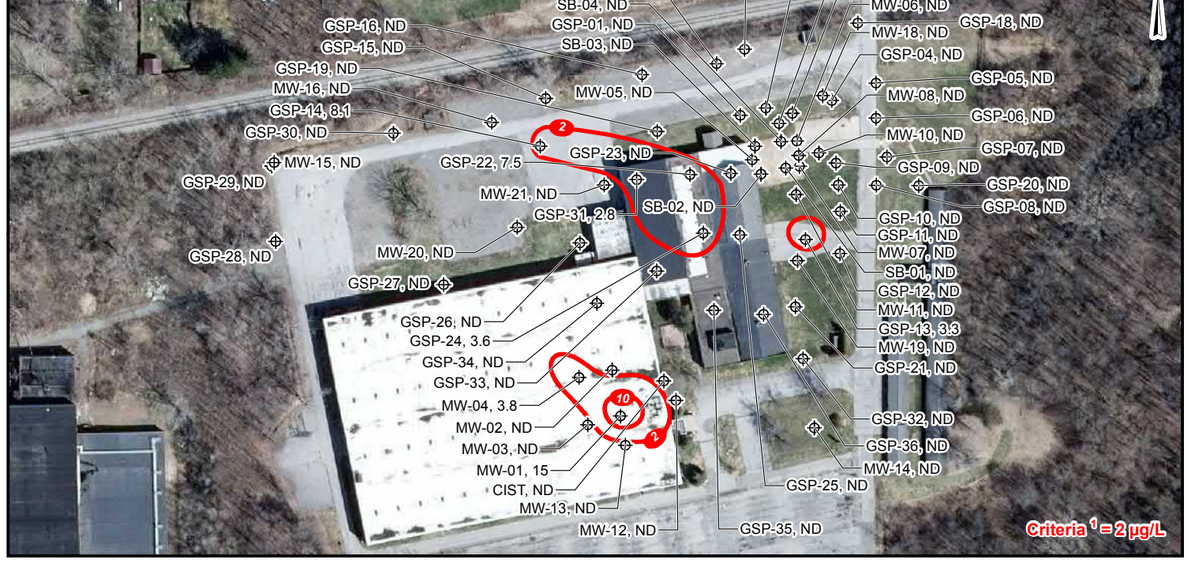






Legend

- Monitoring Well
- Isoconcentration Contour

Notes:
1. Criteria = NYSDEC TOGS 1.1.1 Ambient Water Quality Standards, Class GA
2. Units are shown in µg/L
3. ND = Not Detected
4. Date presented represents direct-push and monitoring well results from Oct. 2014 through Mar. 2017
5. Direct-push results may not represent true dissolved-phase groundwater conditions due to the likely presence of fines in the samples.

Source:
NYS Digital Ortho-Imagery Program, Orleans County, 2015

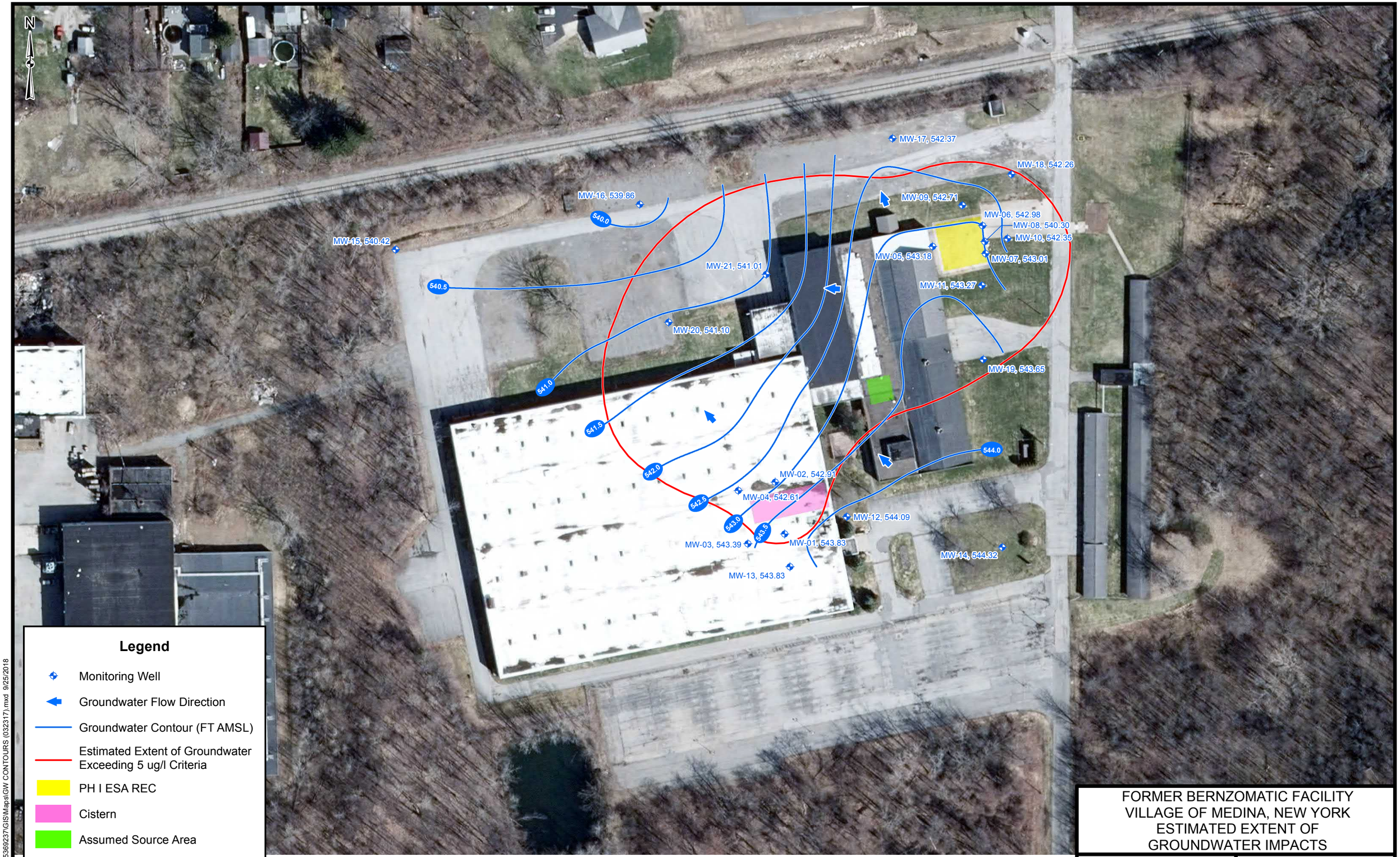
200 0 200 Feet

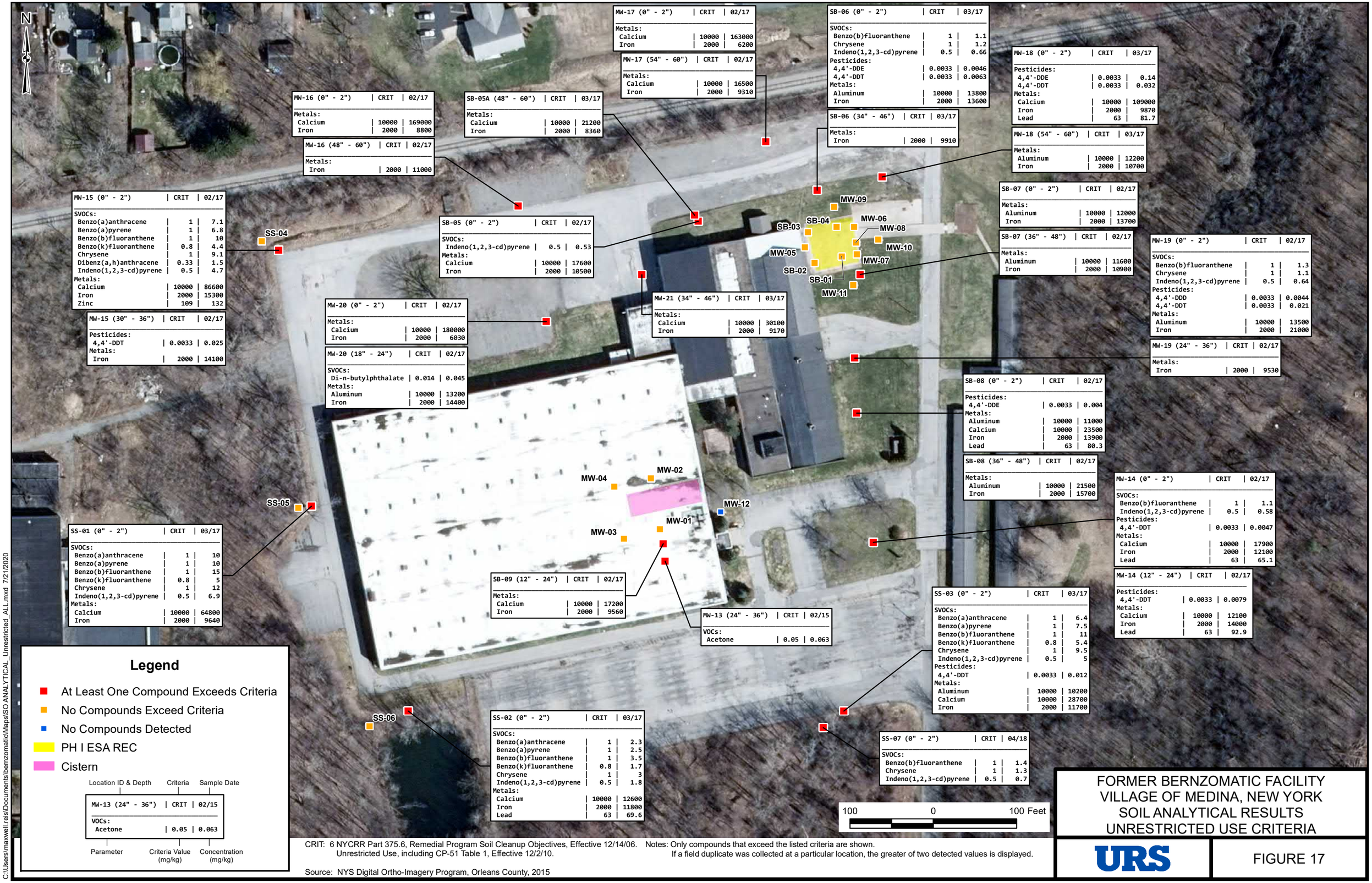
FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
GROUNDWATER VOC ISOCONTOURS

URS

FIGURE 15

\\URSBuffalo.us.ie.urs\Buffalo\Projects\25369237\GIS\Maps\Groundwater VOC Plume (032017).mxd 7/18/2017


N
MW-17, 542.37
MW-18, 542.26
MW-16, 539.86
MW-09, 542.71
MW-06, 542.98
MW-08, 540.30
MW-10, 542.35
MW-15, 540.42
MW-05, 543.18
MW-07, 543.01
MW-21, 541.01
MW-11, 543.27
MW-20, 541.10
MW-19, 543.65
MW-02, 542.91
MW-04, 542.61
MW-12, 544.09
MW-03, 543.39
MW-01, 543.83
MW-14, 544.32
MW-13, 543.83
540.0
540.5
541.0
541.5
542.0
542.5
543.0
543.5
544.0
Legend
Monitoring Well
Groundwater Flow Direction
Groundwater Contour (FT AMSL)
Estimated Extent of Groundwater Exceeding 5 ug/l Criteria
PH I ESA REC
Cistern
Assumed Source Area
FT AMSL = Feet Above Mean Sea Level
Note: Monitoring well, MW-08, is a bedrock well; therefore, it was not used for generating groundwater contours. March 23, 2017 groundwater data.
Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015
100 0 100 Feet
FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
ESTIMATED EXTENT OF GROUNDWATER IMPACTS
URS
FIGURE16
J:\Projects\25369237\GIS\Maps\GW CONTOURS (032317).mxd 9/25/2018



CRIT: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Notes: Only compounds that exceed the listed criteria are shown. If a field duplicate was collected at a particular location, the greater of two detected values is displayed.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

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N

METAL SHAVINGS STAGING TRAILER
SEALED SUMP
STORAGE OF METAL WASTE
WC
STORAGE OF RAW MATERIALS
EXTERNAL STORAGE OF EQUIP. (TEMPORARY)
LOADING DOCK
TRENCH DRAIN
SUMP
MACHINING
VIRGIN OIL SUPPLY
USED OIL STORAGE TANKS AND BERM
LOADING DOCK
PROPOSED TARGETED EXCAVATION AREA
WAREHOUSE STORAGE
WAREHOUSE STORAGE
PARTS WASHING AREA
ACTIVE FLOOR DRAIN
FLAMMABLE PRODUCTS STORAGE (CLOSETS)
SEALED TRENCH DRAIN
ASSEMBLY AREA
550-GAL. DIESEL AST
MAINT. DEPT.
ELECTRIC SWITCHBOARD
WAREHOUSE STORAGE
PACKING AREA
OFFICE AREA (2 FLOORS)
CAFETERIA
PRINTING AREA

50 0 50 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
ALTERNATIVE 2 - PROPOSED TARGETED EXCAVATION AREA

URS

FIGURE 18

J:\Projects\25369237\GIS\Maps\Figure3_SITEPLAN.mxd 8/16/2018

Legend

- Monitoring Well
- Demolition Area

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
ALTERNATIVES 2 & 4
PROPOSED DEMOLITION AREA

URS

FIGURE 19

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N

MW-17
MW-18
MW-16
MW-09
MW-06
MW-08
MW-10
MW-15
MW-05
MW-07
MW-21
MW-11
MW-20
MW-19
MW-04
MW-02
SS-01
MW-12
MW-03
MW-01
MW-14
MW-13
SS-02
SS-03

Legend

- PAH Excavation Location (5'x5'x1')
- Monitoring Well
- Line of Injection Points
- Potential Line of Injection Points
- PH I ESA REC
- Assumed Source Area
- Potential Treatment Area

Note: Extent of treatment area and location of injection points will be determined during a pre-design investigation to be performed following building demolition.

Source: NYS Digital Ortho-Imagery Program, Orleans County, 2015

100 0 100 Feet

FORMER BERNZOMATIC FACILITY
VILLAGE OF MEDINA, NEW YORK
ALTERNATIVE 4
PROPOSED TREATMENT AREAS

URS

FIGURE 20

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Appendix A

Cost Estimate Detail

FORMER BERNZOMATIC FACILITY
FEASIBILITY STUDY COST ESTIMATE
SUMMARY

CAPITAL COSTS			ALTERNATIVE 1: No Action		ALTERNATIVE 2: Targeted Excavation with Enhanced Bioremediation, Monitored Natural Attenuation and Institutional Controls		ALTERNATIVE 3: Monitored Natural Attenuation and Institutional Controls		ALTERNATIVE 4: Enhanced Bioremediation with Targeted PAH Excavation and Institutional Controls		ALTERNATIVE 5: Remediation to Unrestricted Use	
Item	Description	Unit	COST		COST		COST		COST		COST	
1	General Conditions and Site Services	LS	$0		$187,095		$27,000		$179,299		$201,200	
2	Remediation	LS	$0		$703,892		$0		$630,509		$3,300,246	
	Capital Cost Subtotal:		**$0**		**$890,987**		**$27,000**		**$809,808**		**$3,501,446**	
Markups			Markup	Cost	Markup	Cost	Markup	Cost	Markup	Cost	Markup	Cost
1	Mobilization/Demobilization, percentage of Capital Cost Subtotal	%	NA		5%	$44,549	5%	$1,350	5%	$40,490	5%	$175,072
2	Contractor's Overhead and Profit	%	NA		21%	$196,463	5%	$1,418	21%	$178,563	21%	$772,069
3	Bonds and Insurance, percentage of Capital Cost Subtotal	%	NA		2%	$17,819.73	2%	$540	2%	$16,196.16	2%	$70,028.92
4	Engineering & CM, percentage of Capital Cost Subtotal plus Markup 1	%	NA		15%	$140,330	5%	$1,418	15%	$127,545	15%	$551,478
5	Escalation to Midpoint of Construction (2021), 3% per year. Percentage of Capital Cost Subtotal plus Markups 1 through 4	%	NA		9.3%	$119,984	9.3%	$2,950	9.3%	$109,052	9.3%	$471,519
	Total Cost of Markups:		**$0**		**$519,146**		**$7,675**		**$471,846**		**$2,040,166**	
Total Remediation Cost:			**$0**		**$1,410,133**		**$34,675**		**$1,281,654**		**$5,541,612**	
1	MNA/Monitoring Present Worth (See Note 1)	LS	$0		$304,135		$304,135		$158,275		$395,688	
	TOTAL COST:		**$0**		**$1,714,267**		**$338,810**		**$1,439,929**		**$5,937,300**	

Notes:

1 Present worth for Monitored Natural Atteunation or Monitoring is calculated for the number of years indicated

TABLE A1
FORMER BERNZOMATIC FACILITY
ALTERNATIVE ANALYSIS REPORT
DETAILED COST ESTIMATE - ALTERNATIVE 2
ALTERNATIVE 2 - Targeted Excavation with Enhanced Bioremediation, Monitored Natural Attenuation, and Institutional Controls

No.	DESCRIPTION	QTY	UNIT	LABOR					MATERIAL/OTHER		EQUIPMENT				TOTAL COST			
				HRS/UNIT	Calculated Crew Hours	$/HR	UNIT COST	TOTAL	UNIT COST	TOTAL	HRS/UNIT	$/HR	UNIT COST	TOTAL	UNIT COST	SUBTOTAL	SUB MARKUP (15.5%)	TOTAL
1	**General Conditions and Site Services**																	
	Health and Safety Allowance	1.00	ls						$ 2,000.00	$ 2,000.00					$ 2,000.00	$ 2,000.00		$ 2,000.00
	Develop Site Management Plan	1.00	ls						$ 25,000.00	$ 25,000.00					$ 25,000.00	$ 25,000.00		$ 25,000.00
	PID Rental	30.00	day						$ 88.09	$ 2,642.63					$ 88.09	$ 2,642.63		$ 2,642.63
	Erosion and Sediment Controls	1.00	ls						$ 1,000.00	$ 1,000.00					$ 1,000.00	$ 1,000.00		$ 1,000.00
	Surveying	1.00	day	8.0	8.00	$ 127.91	$ 1,023.31	$ 1,023.31							$ 1,023.31	$ 1,023.31		$ 1,023.31
	Geophysical Survey	1.00	ls						$ 2,400.00	$ 2,400.00					$ 2,400.00	$ 2,400.00		$ 2,400.00
	Community Air Monitoring Program	1.00	ls						$ 56,256.00	$ 56,256.00					$ 56,256.00	$ 56,256.00		$ 56,256.00
	Preparation of Final Engineering Report	1.00	ls						$ 31,000.00	$ 31,000.00					$ 31,000.00	$ 31,000.00		$ 31,000.00
	Environmental Easement Survey	1.00	ls						$ 5,000.00	$ 5,000.00					$ 5,000.00	$ 5,000.00		$ 5,000.00
	Import/Reuse Soil Analyses	1.00	ls						$ 4,860.00	$ 4,860.00					$ 4,860.00	$ 4,860.00		$ 4,860.00
	Engineering Support During Construction	1.00	ls						$ 3,600.00	$ 3,600.00					$ 3,600.00	$ 3,600.00		$ 3,600.00
	Storage Box Rental	2.00	mo						$ 97.78	$ 195.55					$ 97.78	$ 195.55		$ 195.55
	Submittals and Shop Drawings	1.00	ls						$ 5,000.00	$ 5,000.00					$ 5,000.00	$ 5,000.00		$ 5,000.00
	Construct Soil Stockpile Areas (spill berms, 6 mil poly)	1.00	ls	4.0	4.00	$ 147.31	$ 589.25	$ 589.25	$ 7,222.00	$ 7,222.00	4.0	$ 16.57	$ 66.28	$ 66.28	$ 7,877.53	$ 7,877.53		$ 7,877.53
	Project Manager	6.00	wk	20.0	120.00	$ 147.00	$ 2,940.00	$ 17,640.00		$ -					$ 2,940.00	$ 17,640.00		$ 17,640.00
	Health and Safety Officer	6.00	wk	40.0	240.00	$ 90.00	$ 3,600.00	$ 21,600.00		$ -					$ 3,600.00	$ 21,600.00		$ 21,600.00
	SUBTOTAL				***372.00***			***$ 40,852.56***		***$ 146,176.18***				***$ 66.28***				***$ 187,095.02***
2	**Demolition, Targeted Excavation, Bioremediation, and Restoration**																	
	Demolition/Construction Services (see note 7)	1	ls						$ 495,714.00	$ 495,714.00					$ 495,714.00	$ 495,714.00		$ 495,714.00
	Excavate source area to 50 ft x 50 ft x 12 ft bgs with trench box	1,111	cy	0.0670	74.44	$ 153.17	$ 10.26	$ 11,402.41			0.0670	$ 65.30	$ 4.38	$ 4,861.22	$ 14.64	$ 16,263.63		$ 16,263.63
	Excavate PAH-impacted soil	21	cy	0.3770	7.99	$ 149.91	$ 56.52	$ 1,197.34			0.3770	$ 72.24	$ 27.23	$ 576.97	$ 83.75	$ 1,774.30		$ 1,774.30
	Haul Excavated Soil to Stockpile Area (8 cy truck) (See note 4)	1,132	cy	0.0500	56.61	$ 65.28	$ 3.26	$ 3,695.68			0.0500	$ 67.02	$ 3.35	$ 3,794.32	$ 6.61	$ 7,490.01		$ 7,490.01
	Transport and Disposal of Excavated Soil (assume 1.5 ton/cy)	1,698	ton						$ 43.82	$ 74,425.84					$ 43.82	$ 74,425.84	$ 11,536.00	$ 85,961.84
	Haul Backfill to Excavations (8 cy truck) (See note 4)	1,132	cy	0.0330	37.37	$ 65.28	$ 2.15	$ 2,439.15			0.0330	$ 67.02	$ 2.21	$ 2,504.25	$ 4.37	$ 4,943.41		$ 4,943.41
	Backfill Remediated Soil in Excavations	1,132	cy	0.0330	37.37	$ 236.52	$ 7.81	$ 8,837.82	$ 18.51	$ 20,964.11	0.0330	$ 98.44	$ 3.25	$ 3,678.29	$ 29.57	$ 33,480.22		$ 33,480.22
	Compaction (See note 5)	1,132	cy	0.0330	37.37	$ 121.19	$ 4.00	$ 4,528.29			0.0330	$ 56.80	$ 1.87	$ 2,122.19	$ 5.87	$ 6,650.48		$ 6,650.48
	Confirmation Sampling	1	ls						$ 5,200.00	$ 5,200.00					$ 5,200.00	$ 5,200.00	$ 806.00	$ 6,006.00
	Confirmation Sampling Reporting	1	ls						$ 3,600.00	$ 3,600.00					$ 3,600.00	$ 3,600.00		$ 3,600.00
	Place Bioremediation Material in Open Source Area Excavation	1	ls	1.0000	1.00	$ 153.17	$ 153.17	$ 153.17	$ 15,850.00	$ 15,850.00	1.0000	$ 65.30	$ 65.30	$ 65.30	$ 16,068.47	$ 16,068.47		$ 16,068.47
	Replace Concrete Slab	93	cy	0.0500	4.65	$ 316.42	$ 15.82	$ 1,471.34	$ 151.00	$ 14,043.00	0.0500	$ 3.92	$ 0.20	$ 18.23	$ 167.02	$ 15,532.56		$ 15,532.56
	Moisture Barrier (Poly)	2,500	sf	0.0004	1.00	$ 127.91	$ 0.05	$ 127.91	$ 0.85	$ 2,120.63	0.0004				$ 0.90	$ 2,248.54		$ 2,248.54
	Concrete Slab Rebar, assume 75 lb/cy	6,975	lb	0.0020	13.95	$ 296.63	$ 0.59	$ 4,137.96	$ 0.58	$ 4,020.22	0.0020				$ 1.17	$ 8,158.18		$ 8,158.18
	SUBTOTAL				***271.74***			***$ 37,991.07***		***$ 635,937.79***				***$ 17,620.77***				***$ 703,891.64***

3	**Monitored Natural Attenuation (see note 6)**														**Annual Cost**	**Duration (yrs)**	**PW Rate**	**Present Worth**
	Semi-annual Groundwater Sampling, 20 hrs per event for 30 years	60	ea	20.0	1,200.00	$ 90.00	$ 1,800.00	$ 108,000.00	$ 100.00	$ 6,000.00	20.0	$ 20.37	$ 407.45	$ 24,447.00	$ 4,614.90	30	5%	$ 70,942
	Analyze Groundwater Samples for MNA and VOCs (assume 10 per event)	600	ea						$ 345.00	$ 207,000.00					$ 7,969.50	30	5%	$ 122,511
	Semi-annual Groundwater Monitoring Reports (40 hr ea)	60	ea	40.0	2,400.00	$ 90.00	$ 3,600.00	$ 216,000.00							$ 7,200.00	30	5%	$ 110,682
	SUBTOTAL				***3,600.00***			***$ 324,000.00***		***$ 213,000.00***				***$ 24,447.00***	***$ 19,784.40***			***$ 304,134.72***

TOTALS	**Crew Hours**	**4243.74**		***Labor***	***$ 402,843.63***	***Mat'l/Other***	***$ 995,113.97***		***Equipment***	***$ 42,134.05***		***Total***	***$ 1,195,121.38***

Notes

1 Due to the excavation being inside, small equipment will be utilized. It is assumed that there is garage door access so that backhoes and other small equipment can enter and leave the building.
2 Labor and Equipment Unit Costs are based on RS Means crew daily outputs. For some cost items, the crews and/or daily outputs were adjusted to suit field conditions, based on engineering judgement.
3 This estimate assume that there will be no construction delays due to availability of personnel, equipment or materials.
4 It is assumed that the production rate of the hauling vehicle(s) will be controlled by the production rate of the excavation operation. When hauling from the stockpile back to the excavation, the production rate of the hauling vehicle will not be limited.
5 It is assumed that the rate of soil compaction will be limited by the rate that soil can be backfilled, so the productivity was adjusted so that the duration for compaction equals the duration for backfill
6 Present worth for Monitored Natural Atteunation is calculated for the number of years indicated, based on an annual rate of 5%
7 Demolition/construction includes suitable backfill
* Subcontractor markup of 15.5% added to unit cost

TABLE A2
FORMER BERNZOMATIC FACILITY
ALTERNATIVE ANALYSIS REPORT
DETAILED COST ESTIMATE - ALTERNATIVE 3
ALTERNATIVE 3 - Monitored Natural Attenuation with Institutional Controls

No.	DESCRIPTION	QTY	UNIT	LABOR					MATERIAL/OTHER		EQUIPMENT				PRESENT WORTH			
				HRS/UNIT	Calculated Crew Hours	$/HR	UNIT COST	TOTAL	UNIT COST	TOTAL	HRS/UNIT	$/HR	UNIT COST	TOTAL	UNIT COST	SUBTOTAL	SUB MARKUP (15.5%)	TOTAL
1	**General Conditions and Site Services**																	
	Environmental Easement Survey	1.00	ls						$ 5,000.00	$ 5,000.00					$ 5,000.00	$ 5,000.00		$ 5,000.00
	Health and Safety Allowance	1.00	ls						$ 2,000.00	$ 2,000.00					$ 2,000.00	$ 2,000.00		$ 2,000.00
	Develop Site Management Plan	1.00	ls						$ 25,000.00	$ 25,000.00					$ 25,000.00	$ 25,000.00		$ 25,000.00
	SUBTOTAL				***0.00***			***$ -***		***$ 27,000.00***				***$ -***				***$ 27,000.00***

No.	DESCRIPTION	QTY	UNIT	LABOR					MATERIAL/OTHER		EQUIPMENT				PRESENT WORTH			
				HRS/UNIT	Calculated Crew Hours	$/HR	UNIT COST	TOTAL	UNIT COST	TOTAL	HRS/UNIT	$/HR	UNIT COST	TOTAL	Annual Cost	Duration (yrs)	PW Rate	Present Worth
2	**Monitored Natural Attenuation (see note 2)**																	
	Semi-annual Groundwater Sampling, 20 hrs per event for 30 years	60	ea	20.0	1,200.00	$ 90.00	$ 1,800.00	$ 108,000.00	$ 100.00	$ 6,000.00	20.0	$ 20.37	$ 407.45	$ 24,447.00	$ 4,614.90	30	5%	$ 70,942
	Analyze Groundwater Samples for MNA, metals, and VOCs (assume 10 per event)*	600	ea						$ 345.00	$ 207,000.00					$ 7,969.50	30	5%	$ 122,511
	Semi-annual Groundwater Monitoring Reports (40 hr ea)	60	ea	40.0	2,400.00	$ 90.00	$ 3,600.00	$ 216,000.00							$ 7,200.00	30	5%	$ 110,682
	SUBTOTAL				***3,600.00***			***$ 324,000.00***		***$ 213,000.00***				***$ 24,447.00***	***$ 19,784.40***			***$ 304,134.72***

TOTALS	**Crew Hours 3600.00**		***Labor $ 324,000.00***	***Mat'l/Other $ 240,000.00***		***Equipment $ 24,447.00***		***Total $ 331,134.72***

Notes
1 This work will be performed by the consultant
2 Present worth for Monitored Natural Atteunation is calculated for the number of years indicated, based on an annual rate of 5%
3 Building remains
* Subcontractor markup of 15.5% added to unit cost

TABLE A3
FORMER BERNZOMATIC FACILITY
ALTERNATIVE ANALYSIS REPORT
DETAILED COST ESTIMATE - ALTERNATIVE 4
ALTERNATIVE 4 - Enhanced Bioremediation with Targeted PAH Excavation and Institutional Controls

No.	DESCRIPTION	QTY	UNIT	LABOR					MATERIAL/OTHER		EQUIPMENT				TOTAL COST			
				HRS/UNIT	Calculated Crew Hours	$/HR	UNIT COST	TOTAL	UNIT COST	TOTAL	HRS/UNIT	$/HR	UNIT COST	TOTAL	UNIT COST	SUBTOTAL	SUB MARKUP (15.5%)	TOTAL
1	**General Conditions and Site Services**																	
	Health and Safety Allowance	1.00	ls						$ 2,000.00	$ 2,000.00					$ 2,000.00	$ 2,000.00		$ 2,000.00
	Develop Site Management Plan	1.00	ls						$ 25,000.00	$ 25,000.00					$ 25,000.00	$ 25,000.00		$ 25,000.00
	Erosion and Sediment Controls	1.00	ls						$ 1,000.00	$ 1,000.00					$ 1,000.00	$ 1,000.00		$ 1,000.00
	Surveying	1.00	day	8.0	8.00	$ 127.91	$ 1,023.31	$ 1,023.31							$ 1,023.31	$ 1,023.31		$ 1,023.31
	Geophysical Survey	1.00	ls						$ 2,400.00	$ 2,400.00					$ 2,400.00	$ 2,400.00		$ 2,400.00
	Pre-Design Investigaton	1.00	ls						$ 50,000.00	$ 50,000.00					$ 50,000.00	$ 50,000.00		$ 50,000.00
	Community Air Monitoring Program	1.00	ls						$ 56,256.00	$ 56,256.00					$ 56,256.00	$ 56,256.00		$ 56,256.00
	Import/Reuse Soil Analyses	1.00	ls						$ 4,860.00	$ 4,860.00					$ 4,860.00	$ 4,860.00		$ 4,860.00
	Environmental Easement Survey	1.00	ls						$ 5,000.00	$ 5,000.00					$ 5,000.00	$ 5,000.00		$ 5,000.00
	Engineering Support During Construction	1.00	ls						$ 3,600.00	$ 3,600.00					$ 3,600.00	$ 3,600.00		$ 3,600.00
	Submittals and Shop Drawings	1.00	ls						$ 2,000.00	$ 2,000.00					$ 2,000.00	$ 2,000.00		$ 2,000.00
	Project Manager	4.00	wk	20.0	80.00	$ 147.00	$ 2,940.00	$ 11,760.00		$ -					$ 2,940.00	$ 11,760.00		$ 11,760.00
	Health and Safety Officer	4.00	wk	40.0	160.00	$ 90.00	$ 3,600.00	$ 14,400.00		$ -					$ 3,600.00	$ 14,400.00		$ 14,400.00
	SUBTOTAL				***248.00***			***$ 27,183.31***		***$ 152,116.00***				***$ -***				***$ 179,299.31***
2	**Demolition, Targeted PAH Excavation, and Enhanced Bioremedation Injections**																	
	Demolition/Construction Services	1	ls						$ 495,714.00	$ 495,714.00					$ 495,714.00	$ 495,714.00		$ 495,714.00
	Excavate PAH-impacted soil	21	cy	0.3770	7.99	$ 149.91	$ 56.52	$ 1,197.34			0.3770	$ 72.24	$ 27.23	$ 576.97	$ 83.75	$ 1,774.30		$ 1,774.30
	Confirmation Sampling	1	ls						$ 5,200.00	$ 5,200.00					$ 5,200.00	$ 5,200.00	$ 806.00	$ 6,006.00
	Confirmation Sampling Reporting	1	ls						$ 3,600.00	$ 3,600.00					$ 3,600.00	$ 3,600.00		$ 3,600.00
	Haul Excavated soil to Stockpile Area (8 cy truck) (see note 4)	21	cy	0.0500	1.06	$ 65.28	$ 3.26	$ 69.15			0.0500	$ 67.02	$ 3.35	$ 70.99	$ 6.61	$ 140.14		$ 140.14
	Transport and Disposal of Excavated Soil (assume 1.5 ton/cy)	32	ton	0.0330					$ 43.82	$ 1,392.50					$ 43.82	$ 1,392.50	$ 163.01	$ 1,555.51
	Haul Backfill to Excavations (8 cy truck) (See note 4)	21	cy	0.0330	0.70	$ 65.28	$ 2.15	$ 45.64			0.0330	$ 67.02	$ 2.21	$ 46.85	$ 4.37	$ 92.49		$ 92.49
	Backfill Remediated Soil in Excavations	21	cy	0.0330	0.70	$ 236.52	$ 7.81	$ 165.36	$ 18.51	$ 392.24	0.0330	$ 98.44	$ 3.25	$ 68.82	$ 29.57	$ 626.41		$ 626.41
	PlumeStop/ZVI/HRC/BDI injection (by Regenesis)	1	ea						$ 121,000.00	$ 121,000.00					$ 121,000.00	$ 121,000.00		$ 121,000.00
	SUBTOTAL				***10.44***			***$ 1,477.47***		***$ 627,298.74***				***$ 763.63***				***$ 630,508.86***
3	**Groundwater Monitoring**																	
	Quarterly Groundwater Sampling, 20 hrs per event for 2 years	8	ea	20.0	160.00	$ 90.00	$ 1,800.00	$ 14,400.00	$ 100.00	$ 800.00	20.0	$ 20.37	$ 407.45	$ 3,259.60	$ 2,307.45	$ 18,459.60		$ 18,459.60
	Analyze Groundwater Samples for metals and VOCs (assume 10 per event)	80	ea						$ 345.00	$ 27,600.00					$ 345.00	$ 27,600.00	$ 4,278.00	$ 31,878.00
	Quarterly Groundwater Monitoring Reports (40 hr ea)	8	ea	40.0	320.00	$ 90.00	$ 3,600.00	$ 28,800.00							$ 3,600.00	$ 28,800.00		$ 28,800.00
	Annual Groundwater Sampling, 20 hrs per event for 8 years	8	ea	20.0	160.00	$ 90.00	$ 1,800.00	$ 14,400.00	$ 100.00	$ 800.00	20.0	$ 20.37	$ 407.45	$ 3,259.60	$ 2,307.45	$ 18,459.60		$ 18,459.60
	Analyze Groundwater Samples for metals and VOCs (assume 10 per event	80	ea						$ 345.00	$ 27,600.00					$ 345.00	$ 27,600.00	$ 4,278.00	$ 31,878.00
	Annual Groundwater Monitoring Reports (40 hr ea)	8	ea	40.0	320.00	$ 90.00	$ 3,600.00	$ 28,800.00							$ 3,600.00	$ 28,800.00		$ 28,800.00
	SUBTOTAL				***960.00***			***86,400.00***		***56,800.00***				***$ 6,519.20***				***$ 158,275.20***

TOTALS	Crew Hours 1218.44	*Labor* $115,060.79	*Mat'l/Other* $836,214.74	*Equipment* $7,282.83	*Total* $968,083.37

Notes
1 This estimate assume that there will be no construction delays due to availability of personnel, equipment or materials.
2 Injections include drilling
3 Demolition budget includes asbestos abatement, building demolition, concrete floor removal, grade beam/footer, import of suitable backfill material, site restoration

TABLE A4
FORMER BERNZOMATIC FACILITY
ALTERNATIVE ANALYSIS REPORT
DETAILED COST ESTIMATE - ALTERNATIVE 5
ALTERNATIVE 5 - Remediation to Unrestricted Use

No.	DESCRIPTION	QTY	UNIT	LABOR					MATERIAL/OTHER		EQUIPMENT				TOTAL COST			
				HRS/UNIT	Calculated Crew Hours	$/HR	UNIT COST	TOTAL	UNIT COST	TOTAL	HRS/UNIT	$/HR	UNIT COST	TOTAL	UNIT COST	SUBTOTAL	SUB MARKUP (15.5%)	TOTAL
1	**General Conditions and Site Services**																	
	Health and Safety Allowance	1.00	ls						$ 2,000.00	$ 2,000.00					$ 2,000.00	$ 2,000.00		$ 2,000.00
	Develop Site Management Plan	1.00	ls						$ 8,000.00	$ 8,000.00					$ 8,000.00	$ 8,000.00		$ 8,000.00
	Erosion and Sediment Controls	1.00	ls						$ 1,000.00	$ 1,000.00					$ 1,000.00	$ 1,000.00		$ 1,000.00
	Surveying	1.00	day	8.0	8.00	$ 127.91	$ 1,023.31	$ 1,023.31							$ 1,023.31	$ 1,023.31		$ 1,023.31
	Geophysical Survey	1.00	ls						$ 2,400.00	$ 2,400.00					$ 2,400.00	$ 2,400.00		$ 2,400.00
	Pre-Design Investigaton	1.00	ls						$ 50,000.00	$ 50,000.00					$ 50,000.00	$ 50,000.00		$ 50,000.00
	Community Air Monitoring Program	1.00	ls						$ 56,256.00	$ 56,256.00					$ 56,256.00	$ 56,256.00		$ 56,256.00
	Import/Reuse Soil Analyses	1.00	ls						$ 4,860.00	$ 4,860.00					$ 4,860.00	$ 4,860.00		$ 4,860.00
	Preparation of Final Engineering Report	1.00	ls						$ 31,000.00	$ 31,000.00					$ 31,000.00	$ 31,000.00		$ 31,000.00
	Environmental Easement Survey	1.00	ls						$ 5,000.00	$ 5,000.00					$ 5,000.00	$ 5,000.00		$ 5,000.00
	Engineering Support During Construction	1.00	ls						$ 3,600.00	$ 3,600.00					$ 3,600.00	$ 3,600.00		$ 3,600.00
	Submittals and Shop Drawings	1.00	ls						$ 2,000.00	$ 2,000.00					$ 2,000.00	$ 2,000.00		$ 2,000.00
	Construct Soil Stockpile Areas (spill berms. 6 mil poly)	1.00	ls	4.0	4.00	$ 153.17	$ 612.67	$ 612.67	$ 7,222.00	$ 7,222.00	4.0	$ 16.57	$ 66.28	$ 66.28	$ 7,900.95	$ 7,900.95		$ 7,900.95
	Project Manager	4.00	wk	20.0	80.00	$ 147.00	$ 2,940.00	$ 11,760.00		$ -					$ 2,940.00	$ 11,760.00		$ 11,760.00
	Health and Safety Officer	4.00	wk	40.0	160.00	$ 90.00	$ 3,600.00	$ 14,400.00		$ -					$ 3,600.00	$ 14,400.00		$ 14,400.00
	SUBTOTAL				***252.00***			***$ 27,795.98***		***$ 173,338.00***				***$ 66.28***				***$ 201,200.26***
2	**Demolition, Targeted Excavation, and Restoration**																	
	Demolition/Construction Services	1	ls						$ 495,714.00	$ 495,714.00					$ 495,714.00	$ 495,714.00		$ 495,714.00
	Excavate source area to 50 ft x 50 ft x 12 ft bgs with trench box	1,111	cy	0.0670	74.44	$ 153.17	$ 10.26	$ 11,402.41			0.0670	$ 72.24	$ 4.84	$ 5,377.87	$ 15.10	$ 16,780.28		$ 16,780.28
	Excavate other impacted soil (UU exceedances, including pond)	4,453	cy	0.0670	298.34	$ 149.91	$ 10.04	$ 44,724.83			0.0670	$ 72.24	$ 4.84	$ 21,551.80	$ 14.88	$ 66,276.63		$ 66,276.63
	Excavate PAH-impacted soil	21	cy	0.3770	7.99	$ 149.91	$ 56.52	$ 1,197.34			0.3770	$ 72.24	$ 27.23	$ 576.97	$ 83.75	$ 1,774.30		$ 1,774.30
	Confirmation Sampling	1	ls						$ 3,920.00	$ 3,920.00					$ 3,920.00	$ 3,920.00	$ 607.60	$ 4,527.60
	Confirmation Sampling Reporting	1	ls						$ 5,200.00	$ 5,200.00					$ 5,200.00	$ 5,200.00		$ 5,200.00
	Haul Excavated Soil to Stockpile Area (8 cy truck) (See note 4)	5,585	cy	0.0500	279.25	$ 65.28	$ 3.26	$ 18,229.03			0.0500	$ 67.02	$ 3.35	$ 18,715.58	$ 6.61	$ 36,944.62		$ 36,944.62
	Transport and Disposal of Excavated Soil (assume 1.5 ton/cy)	8,378	ton						$ 43.82	$ 367,106.92					$ 43.82	$ 367,106.92	$ 56,901.57	$ 424,008.49
	Haul Backfill to Excavations (8 cy truck) (See note 4)	5,585	cy	0.0330	184.31	$ 65.28	$ 2.15	$ 12,031.16			0.0330	$ 67.02	$ 2.21	$ 12,352.28	$ 4.37	$ 24,383.45		$ 24,383.45
	Backfill Remediated Soil in Excavations	5,585	cy	0.0330	184.31	$ 236.52	$ 7.81	$ 43,592.73	$ 18.51	$ 103,405.90	0.0330	$ 98.44	$ 3.25	$ 18,143.22	$ 29.57	$ 165,141.85		$ 165,141.85
	Compaction (See note 5)	5,585	cy	0.0330	184.31	$ 121.19	$ 4.00	$ 22,335.88			0.0330	$ 56.80	$ 1.87	$ 10,467.74	$ 5.87	$ 32,803.62		$ 32,803.62
	Replace Concrete Slab	93	cy	0.0500	4.65	$ 316.42	$ 15.82	$ 1,471.34	$ 151.00	$ 14,043.00	0.0500	$ 3.92	$ 0.20	$ 18.23	$ 167.02	$ 15,532.56		$ 15,532.56
	Concrete Slab Rebar, assume 75 lb/cy	6,975	lb	0.0020	13.95	$ 296.63	$ 0.59	$ 4,137.96	$ 0.58	$ 4,020.22					$ 1.17	$ 8,158.18		$ 8,158.18
	SUBTOTAL				***1,231.54***			***$ 159,122.67***		***$ 993,410.04***				***$ 87,203.70***				***$ 1,297,245.58***
3	**Groundwater Treatment (note 2)**																	
	Install 3 well P&T system	1	ls						$ 723,000.00	$ 723,000.00					$ 723,000.00	$ 723,000.00		$ 723,000.00
	Annual O&M	10	yr						$ 128,000.00	$ 1,280,000.00					$ 128,000.00	$ 1,280,000.00		$ 1,280,000.00
	SUBTOTAL				***0.00***			***$ -***		***$ 2,003,000.00***				***$ -***				***$ 2,003,000.00***
4	**Moniotring**																	
	Quarterly Groundwater Sampling, 20 hrs per event for 10 years	40	ea	20.0	800.00	$ 90.00	$ 1,800.00	$ 72,000.00	$ 100.00	$ 4,000.00	20.0	$ 20.37	$ 407.45	$ 16,298.00	$ 2,307.45	$ 92,298.00		$ 92,298.00
	Analyze Groundwater Samples for MNA and VOCs (assume 10 per event)	400	ea						$ 345.00	$ 138,000.00					$ 345.00	$ 138,000.00	$ 21,390.00	$ 159,390.00
	Quarterly Groundwater Monitoring Reports (40 hr ea)	40	ea	40.0	1,600.00	$ 90.00	$ 3,600.00	$ 144,000.00							$ 3,600.00	$ 144,000.00		$ 144,000.00
	SUBTOTAL				***2,400.00***			***$ 216,000.00***		***$ 142,000.00***				***$ 16,298.00***	***$ 6,252.45***			***$ 395,688.00***

TOTALS	Crew Hours	3883.54	*Labor*	$402,918.66	*Mat'l/Other*	$3,311,748.04	*Equipment*	$103,567.98	*Total*	$3,897,133.84

Notes

1 This estimate assume that there will be no construction delays due to availability of personnel, equipment or materials.

2 Groundwater P&T system based on a similar project.

3 Demolition budget includes asbestos abatement, building demolition, concrete floor removal, grade beam/footer, import of suitable backfill material, site restoration