

OPERATION AND MAINTENANCE PLAN FORMER BRAINERD MANUFACTURING FACILITY

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OPERATION AND MAINTENANCE PLAN FORMER BRAINERD MANUFACTURING FACILITY

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1.0 INTRODUCTION

1.1 Background and History

The former Brainerd Manufacturing Facility is situated at the intersection of North Washington and Monroe Streets in the City of East Rochester, New York (Figures 1 and 2). The property is composed of two parcels: an approximately 3.0-acre parcel located at 115 North Washington Street (Tax Map 139.69-1-17), improved with a 73,400 square foot industrial/manufacturing building with offices situated on the eastern side and an open gravel lot on the western side; and an approximately 0.4-acre parcel (Tax Map 139.69-1-19) that consists of an asphalt parking area. A Rochester Gas and Electric (RG&E) substation and a pre-cast concrete product manufacturing building owned by E.J. Delmonte border the property to the north. Monroe Street, Rochester Lumber Company, and A.J. Interiors are located south of the property, adjacent to the asphalt parking lot.

The property was operated as an industrial facility for nearly 100 years prior to relocation of Brainerd's operations in 1998 (Sear-Brown, February 2000). Historic operations conducted at the facility included the manufacture of hardware and decorative metal products. Production of these products involved stamping, cutting, drilling, burnishing, deburring, degreasing, lacquering, and electroplating. The property is currently being leased by a furniture reconditioning firm, which is occupying a portion of the warehouse facility.

The results of previous Phase I and Phase II investigations of soil and groundwater at the Site identified volatile organic compounds (VOCs), specifically trichloroethene (TCE) and tetrachloroethene (PCE), in groundwater above New York State Department of Environmental Conservation (NYSDEC) Class "GA" Groundwater Quality Standards at certain locations beneath the buildings (Ref. 1). The site investigation data supported the need for an interim remedial measure (IRM) to address groundwater impacts at the Site and to mitigate off-site migration of VOCs from the former Brainerd Manufacturing Facility. Accordingly, an IRM Work Plan (Ref. 2) was prepared by Benchmark in November 2002 to identify data collection procedures and testing necessary to define aquifer characteristics (e.g., hydraulic conductivity, transmissivity, storativity, pumping rates, etc.) at the Site.

An IRM Investigation Report was subsequently prepared by Benchmark (Ref. 3) to document the procedures and findings of the IRM Investigation and related activities at the former Brainerd Manufacturing Facility. The report describes the IRM investigation

activities; presents an interpretation of the collected aquifer pump test data; and identifies the recommended groundwater pump and treat IRM.

The IRM is comprised of a 4-inch pumping well and low profile air stripper to treat the collected groundwater, rendering it suitable for discharge to the Monroe County Pure Waters sewerage system for final treatment. Details of the IRM design are presented in the April 2004 IRM Design Report (Ref. 4). The IRM was constructed during July and August 2004.

1.2 Purpose and Scope

The purpose of this IRM Operation, Maintenance and Monitoring Work Plan (hereafter O&M Plan) is to provide information necessary to effectively operate, maintain and monitor the interim remedial measures at the former Brainerd Manufacturing Site. Specifically, this Plan identifies operation and maintenance requirements for the groundwater collection and pretreatment system and the environmental monitoring program that will be followed to assure the continued effectiveness of these systems. The Plan will be revised in the future, as necessary, to accommodate changes resulting from any revisions/modifications to the remedial measures implemented following completion of voluntary cleanup investigation work at the Site.

2.0 SITE CONTACTS AND RESPONSIBILITIES

Environmental maintenance, monitoring, and corrective measures concerns related to current NY State Voluntary Cleanup activities at the Site are the responsibility of Despatch Industries, Inc. The official contact person for matters pertaining to these issues is:

Mr. Alan Shaffer
Despatch Industries, Inc
21 Wolf Trapp
Pittsford, New York 14534
(585) 339-1283

Operation, maintenance and monitoring of the former Brainerd Manufacturing Facility will be performed by experienced personnel properly trained in accordance with 29CFR 1910.120 (HAZWOPPER). Operations will include activities and adjustments necessary to assure continued and reliable system function. Routine maintenance may include cleaning, reagent filling and miscellaneous minor repairs or preventative maintenance for existing equipment. Monitoring will include sample collection and recording of key process variables.

Despatch Industries has retained Benchmark Environmental Engineering & Science, PLLC as its contract provider of operation and maintenance services for the IRM. Benchmark's contact person is:

Mr. Thomas Forbes, P.E.
Benchmark Environmental Engineering & Science, PLLC
726 Exchange Street, Suite 624
Buffalo, New York 14210
(716) 856-0599

In addition, Despatch Industries' legal counsel for environmental matters is:

Mr. Frank Pavia
Boylan, Brown, Code, Fowler & Wilson, LLP
2400 Chase Square
Rochester, NY 14604

The NYSDEC will provide guidance concerning NY State regulatory issues and requirements, and the function of the IRM within the context of voluntary cleanup work at the Site. NYSDEC's project contact person is:

Mr. Todd Caffoe, P.E.
Project Manager
NYSDEC –Region 8
Div. of Solid/Hazardous Waste
6274 East Avon-Lima Road
Avon, New York 14414-9519
(585) 226-5350

Monroe County Department of Environmental Services, Division of Pure Waters governs discharge of pretreated effluent water to the sanitary sewer. The primary contact for the former Brainerd Manufacturing facility is:

Mr. Sean Keenan
Monroe County Department of Environmental Services
Division of Pure Waters
444 East Henrietta Road
Rochester, New York 14620
(585)760-7600, ext. 7143

3.0 IRM DESCRIPTION/PRINCIPLE OF OPERATION

The IRM groundwater collection and treatment system involves recovery of contaminated groundwater from a pumping well with concurrent on-site treatment of the recovered groundwater via low profile air stripping. Contaminants present in Site groundwater are predominantly: trichloroethene (also known as trichloroethylene, or TCE); tetrachloroethene (also known as tetrachloroethylene, perchloroethylene, or PCE); and to a lesser extent 1,1,1-trichloroethane (1,1,1-TCA). Concentrations of these constituents are typically present in untreated groundwater at low part per million levels.

Figure 3 presents a process flow schematic for the IRM pump and treat system. A description of the process components and their operating principles are presented below:

3.1 Pumping Well and Well Pump

The 4-inch diameter, 60-foot deep pumping well, designated PW-1, was installed near the northeast corner of the former Brainerd Manufacturing building in January 2003 (see Figure 3 for location). The pumping well was installed to allow for aquifer characteristic testing and serve as a full-scale recovery well. PW-1 was advanced into the Clayey Sand with Gravel (SC) unit using 6.25-inch hollow stem augers, located at the bottom of the borehole, and installed with a fully penetrating 37 foot sand filter pack extending the entire length of the saturated zone (23 to 60 feet below ground surface). The well was constructed with a 20-foot CircumSlot™ 0.020-inch continuous slot Schedule 40 PVC screen. A 2-foot sump was installed to determine the presence and thickness of free-phase dense non-aqueous phase liquid (none was present) and to facilitate pumping. The Schedule 40 PVC riser extends approximately 6 inches below ground surface and is completed with an 8-inch diameter steel flush mounted road box.

Untreated groundwater is pumped from PW-1 using a submersible well pump (Goulds Model 10GSO5R, single-phase, 115 VAC). Manufacturer's data for the pump is presented in Appendix A. Pumping well operation is controlled locally by level control sensors to maintain drawdown below static levels. The recovery well pump cycles between pump on (high level) at approximately 35 feet below grade and pump off (low level) at approximately 55 feet below grade to maintain an average groundwater elevation several feet below static levels based on pump testing performed during the design phase of work at the Site. Manufacturer's literature for the well sensors is presented in the air stripper O&M Manual in Appendix B. The groundwater recovered from pumping well PW-1 is pumped to

the treatment building via a 1-inch diameter, reinforced high-density polyethylene (HDPE) transfer pipe, expanded to a 1½-inch schedule 80 PVC pipe at floor level. The recovered groundwater is stored in a 1,000-gallon HDPE day tank. The well pump is tied to the treatment system process control panel. A hand/off/auto (HOA) switch on the treatment system panel allows the pump to be de-energized remotely (off mode), operated manually (i.e., in hand mode), or operated automatically (in auto mode). For safety reasons, a local disconnect is also provided near the pumping well. In auto mode, the air stripper control panel allows the well pump to start and stop automatically based on pumping well level sensors and other operational conditions within the treatment system, as discussed below.

3.2 Day Tank

The day tank is a 1,000-gallon high-density polyethylene (HDPE) upright storage tank with a 16-inch diameter top opening with cover. Fittings are PVC with stainless steel bolts and EPDM gaskets. Tank dimensions are 64 inches in diameter by 84 inches high. Untreated groundwater is temporarily stored in the day tank to provide sufficient volume for batch treatment system operation. The day tank is fitted with the following float-type level control switches:

- A high level alarm switch, located approximately 6 inches from the top of the tank.
- A feed pump/air stripper start switch, located approximately 1 foot from the top of the tank.
- A feed pump/air stripper stop switch, located approximately 6 inches from the bottom of the tank.

The level in the day tank controls startup and shutdown of the air stripper system. When the tank fills to the point that the start switch is tripped, the air stripper blower and process feed pump are energized. Groundwater in the tank is then processed through the air stripper unit until the tank level drops to the stop switch, at which point the feed pump automatically shuts down. The air stripper blower continues to operate for approximately 5 minutes to assure complete treatment of remaining groundwater within the air stripper. In addition, safety interlocks within the air stripper control panel will shut down the feed pump and air stripper in the event of a process alarm condition affecting air stripper performance.

3.3 Process Feed Pump

The process transfer pump is an American Stainless Model C143255ET1 centrifugal transfer pump with a 1.5 hp, 230 VAC single phase TEFC motor. As described above, the transfer pump automatically starts and stops via float switches in the day tank, with automatic operation defeated by an alarm condition on the air stripper. The transfer pump is typically left in auto mode to allow automatic start/stop. Appendix B (contains transfer pump specifications).

3.4 Air Stripper

The air stripper is a North East Environmental Products (NEEP) two-tray Model 2321P polyethylene shallow tray aeration system. The air stripping unit is equipped with a 2 hp, 300 cfm, single phase, 230V, TEFC blower. Appendix B contains the air stripper O&M Manual.

Groundwater exits the day tank and enters the top of the stripper, where it is distributed through a series of baffles across the top tray. The groundwater then passes to the second tray in series, where the process is repeated, and flows into a reservoir at the bottom of the air stripper unit. The treated groundwater flows is pumped from this reservoir through a 1½-inch PVC line and discharged to the existing 4-inch sanitary sewer north of the treatment room. Once groundwater in the day tank has been pumped down to the level of the stop switch, the air stripper is de-energized and the system returns to remote standby mode. Shutdown of the air stripper blower is delayed for approximately 5 minutes to ensure that the remaining water within the unit is treated prior to discharge.

When the air stripper blower is active, it draws in ambient building air to create a negative pressure within the treatment room enclosure, thereby mitigating vapor release to the building atmosphere outside of the treatment room. In addition, a ventilation fan (150 cfm at 0.2 inches water gauge) and damper operate in line with the air stripper exhaust. The fan is activated by a relay from the air stripper control panel such that when the air stripper blower is not operating, the fan is activated to assure continuous ventilation of the enclosure. When the air stripper blower is in operation, the fan is deactivated and the damper is shut to prevent short-circuiting of blower emissions back into the building.

During operation, certain process alarms and interlocks are monitored by the air stripper control panel. Process faults that could cause damage, put personnel at risk, or compromise the quality of treatment will shut the system down. A listing of potential air

stripper alarm conditions and actions are presented on Table 1. All process alarm conditions result in immediate notification via the autodialer function on the system monitor, and activate a local panel alarm light.

It should be noted that the air stripper control panel provides controls for expansion of the system with up to two additional future well pumps (PW-2 and PW-3), if necessary.

3.5 Deposit Control Agent Feed System

A deposit control agent (Redux 300) is mixed with the untreated groundwater to mitigate scale build-up in the stripper due to oxidation of naturally occurring calcium and manganese in the groundwater. The deposit control agent is injected via a chemical feed pump directly into the influent line to the day tank only when the well pump is active. The chemical feed pump is an LMI Model A15 metering pump rated at 0.16 gph. The pump operates on a 110 VAC corded electrical supply, which is plugged into an outlet that is energized only when the well pump is active. Appendix C contains the Product Data Sheet for Redux 300.

3.6 Process Discharge Pump

The process transfer pump is an American Stainless Model C143255ET1 centrifugal transfer pump with a 1.5 hp, 230 VAC single phase TEFC motor. The treated groundwater is pumped from the air stripper reservoir through a 1½-inch PVC line and discharged to the existing sanitary sewer. Float switches in the air stripper sump control startup and shutdown of the discharge pump.

3.7 Flow Meter

The influent line to the air stripper unit is fitted with a flow meter that provides process flow monitoring. The meter is comprised of a GF Signet Model 515/2536 Rotor-X paddle-wheel insertion-type flow sensor and GF Signet Model 8550-1 panel-mounted flow indicator/transmitter. The meter monitors total and instantaneous flow. Power to the meter is from a regulated, low voltage DC source (24 volt) within the air stripper control panel.

3.8 Treatment Room Sump and Pump

The treatment room is fitted with a floor sump and sloped concrete floors to provide secondary containment in the event of a spill or leak. The building sump is a 24-inch diameter by 36-inch deep recessed FRP catch basin with a steel cover. The sump pump is a standard, residential-grade 1½-inch submersible pump and discharges to the day tank via a 1½-inch PVC line.

4.0 OPERATION, MAINTENANCE AND MONITORING

4.1 Normal Operations and Adjustments

The air stripper system operates in either batch or continuous mode, and is capable of treating flows of up to 30 gpm, which is greater than the projected maximum steady state flow rate (6 gpm) of PW-1.

The system is balanced such that groundwater is transferred from the day tank to the air stripper at a flow rate greater than the average rate of groundwater recovery from the pumping well. Flow rates from PW-are less than the design operating flow rate of the groundwater treatment system; therefore, throttling of the pump flows is not necessary. Based on typical operating conditions, the flow rate from the day tank to the air stripper system should be adjusted to approximately 10 gpm. This will generally assure that the treatment system stays ahead of the groundwater collection system, and that the air stripper system is able to effectively treat organic constituents present in the groundwater. The groundwater treatment rate is controlled by adjusting the ball valve located downstream of the transfer pump. The flow rate is measured on the air stripper unit flow meter.

In addition to groundwater flows, key process operating variables include deposit control agent dosage rate and air stripper blower adjustment.

4.1.1 Deposit Control Agent Refill/Dosage Adjustment

The deposit control agent feed pump is tied to the well pump power supply and operates only when the well pump is active. The metering pump is mounted externally on top of a dedicated 60-gallon feed tank of Redux 300, with the suction line and foot valve located within the tank. Redux 300 is purchased in 55-gallon drums and transferred to the 60 gallon feed tank via a portable centrifugal pump. Spent drums of Redux 300 are rinsed with potable water and recycled. Proper safety precautions must be followed for handling the mildly corrosive Redux 300, including, but not limited, to eye protection, gloves, and long sleeve shirts.

Redux 300 is metered to the influent line proportional to the flow, thereby assuring an appropriate chemical dosage. Table 2 presents the target dosage and metering pump settings as a function of estimated well pump flow rate. Dosage is modified by adjusting the stroke rate and/or stroke length dials on the metering pump. The deposit control agent dosage rate should be adjusted whenever there is a significant change in the well flow rate.

4.1.2 Air Stripper Blower Adjustment

The influent storage tank is fitted with level controls tied to the air stripper feed pump and blower starters. At high level, the blower starts and the feed pump is activated. Upon reaching low level in the day tank, the air stripper feed pump shuts down. The blower remains on to complete treatment of the remaining groundwater in the air stripper.

It may be necessary to periodically adjust the blower damper on the air stripper to maintain sufficient airflow for treatment. Adjustment may be necessary as scale build-up begins to restrict the opening size of the perforations. Appendix D presents the conversion from differential pressure in the air stripper to air flow in the air stripper stack. A minimum differential pressure of 0.15 inches of water measured by the pitot tube is required to maintain the target air flow rate of 300 cfm.

4.2 Equipment Monitoring and Maintenance

Routine monitoring of the remediation system equipment involves measuring and recording key operating variables on a regular basis throughout the life of the system. A summary of key operating variables is presented on the process monitoring log in Appendix E. It is recommended that these variables be recorded on a weekly basis, as they will be used both to assist in tracking system performance as well as maintenance requirements. Specific routine maintenance activities that are indicated based on the monitoring variables include:

- Deposit control agent refill, based on volume remaining in drum and typical consumption rates, and dosage adjustment (if necessary due to changed influent conditions or process flow rate).
- Air stripper tray cleaning, based on degree of scale present on the trays (approximately every 6 to 12 months). Scale buildup is monitored by observed changes (drop) in pressure on the air stripper blower exhaust. In addition, snap lock fasteners on the side of the stripper trays facilitate removal to check for scale buildup.

4.2.1 Air Stripper Tray Cleaning

Prior to cleaning the air stripper, the unit must be shut down and flow through the unit temporarily stopped. Begin by removing the flexible coupling holding the top tray to the stripper stack and disconnecting the union fitting on the air stripper groundwater feed line. Next, disconnect the trays by unfastening the side-mounted snap-locks on the stripper trays. The air stripper trays are then manually lifted from the unit. At the former Brainerd

Manufacturing site, scale is comprised primarily of oxidized calcium (calcite), which is most easily removed after it is allowed to dry. Scale removal is best accomplished by using a vibrating scraper (typically used for paint or finish removal). Excess scale remaining in the tray orifices can be removed using a drill with a bit sized with the same or lesser diameter than the holes; however, care must be taken not to ream the holes larger than their original diameter. Replace the cleaned trays and reconnect the exhaust and feed lines prior to restarting the system.

4.2.2 Other Maintenance

Other maintenance activities that may be required on an infrequent basis (i.e., every 5-10 years) throughout the duration of the treatment system life include transfer pump stator/seal repair; and well pump, metering pump, and/or sump pump replacement.

4.2.3 Remote Monitoring

Remote system monitoring is performed through a dial-in (modem) function on a Sensaphone[®] 2000 combination remote system monitor/autodialer unit. The monitor/autodialer unit has 8 universal inputs and 8 relay outputs to allow for real-time monitoring of multiple process conditions. A battery backup provides continued monitoring/notification in the event of a power failure.

Conditions that are remotely monitored are listed below. All are normally closed contacts.

- High level alarm in the process day tank.
- Low level alarm in the deposit control agent tank.
- Low air pressure in the air stripper.
- High water level in the air stripper sump.
- High water level alarm in building sump.
- Power failure (automatic alarm integrated in the autodialer/monitor).

Table 1 describes the air stripper process alarm conditions. Non-alarm conditions (e.g., process flow rate) are periodically monitored by Benchmark's environmental scientists

throughout operation of the groundwater pretreatment system. All process and building alarm conditions will result in immediate notification via the autodialer function on the system monitor. Upon detection of any alarm or status change, the system will commence dialing telephone numbers programmed into the autodialer. The system will continue to call telephone numbers in succession until all destinations have been notified or acknowledgement of the alarm message is received.

4.3 Environmental Monitoring

Environmental monitoring will be performed at the former Brainerd Manufacturing Facility to monitor the effectiveness of the interim remedial measures. Specifically, environmental monitoring will include the following tasks:

- Collection of pretreated effluent samples as required by Despatch Industries' Industrial Discharge Permit (Appendix F). Presently, pretreated effluent samples are collected on a monthly basis as stipulated by Monroe County Pure Waters. Samples will be analyzed for priority pollutant volatile organic compounds in accordance with EPA Method 624.
- Preparation of a monthly compliance report for Monroe County Pure Waters. The report will summarize the sampling event, compare effluent analytical results to industrial discharge limits, and document total monthly flows and average daily flows to the sanitary sewer. NYSDEC will be copied on these reports.
- Collection of untreated water samples on an annual basis to provide an indication of collection system efficiency. Samples will be analyzed for priority pollutant volatile organic compounds in accordance with EPA Method 624. Untreated water data will also allow calculation of estimated air emissions from the system to check for conformance with Air-Guide 1 limits. Untreated sample data and Air-Guide 1 compliance confirmation will be transmitted to NYSDEC for review following the sampling event
- Collection of groundwater elevation data from collection system observation wells on an annual basis to confirm area of influence from the collection system.

5.0 DOCUMENTATION AND NOTIFICATION REQUIREMENTS

5.1 Treatment System Reporting

Treatment system compliance monitoring will be presented in a report submitted to Monroe County Pure Waters on a monthly basis approximately 30 days after completion of sampling activities. The report will summarize the sampling event, compare effluent analytical results to industrial discharge limits, and document total monthly flows and average daily flows to the sanitary sewer. NYSDEC will be copied on these reports.

Air emissions from the system will be estimated annually to check for conformance with Air Guide 1 limits. The untreated water sample data and Air-Guide 1 compliance confirmation will be transmitted to NYSDEC for review following the sampling event.

5.2 Groundwater Monitoring Event Reporting

As part of this O&M Plan, groundwater elevation data from the collection system observation wells will be recorded on an annual basis to confirm area of influence from the collection system. A Monitoring and Maintenance Summary Report will be prepared and submitted to the Site contacts listed in Section 2.0 following the completion of the annual monitoring event and will include the following:

- A discussion of Site maintenance activities (if applicable).
- A tabulated summary of groundwater elevation measurements from the collection system observation wells and a groundwater isopotential contour map prepared from those elevations.
- A tabulated summary of untreated water sample analytical results to provide an indication of collection system efficiency.
- A discussion of changes in groundwater quality that has occurred since the last monitoring event.
- Any proposed changes to the Environmental Monitoring described in Section 4.3.

5.3 Notifications

NYSDEC and Monroe County Pure Waters will be notified in advance of any changes to the IRM collection or treatment system process that could materially affect the quality or character of system emissions or discharges. NYSDEC will be notified within 24 hours of any interruption or termination of IRM operations.

6.0 REFERENCES

1. Sear-Brown Group, February 2000, *Phase I Environmental Site Assessment and Limited Phase II Environmental Investigation - Former Brainerd Manufacturing Facility*.
2. Benchmark Environmental Engineering and Science, PLLC, March 2002 (revised November 2002), *Voluntary Cleanup IRM Investigation Work Plan – Former Brainerd Manufacturing Facility*.
3. Benchmark Environmental Engineering and Science, PLLC, March 2003, *Voluntary Cleanup IRM Investigation Report – Former Brainerd Manufacturing Facility*.
4. Benchmark Environmental Engineering and Science, PLLC, April 2004, *IRM Design Report for IRM Groundwater Collection and Pretreatment System – Former Brainerd Manufacturing Facility*.

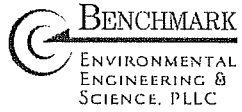


TABLE 1

AIR STRIPPER PROCESS ALARM CONDITIONS

TABLE 1

AIR STRIPPER PROCESS ALARM CONDITIONS, DESCRIPTIONS, AND ACTIONS

DESPATCH INDUSTRIES, INC.
FORMER BRAINERD MANUFACTURING FACILITY
EAST ROCHESTER, NEW YORK

ALARM CONDITION	DESCRIPTION/POSSIBLE CAUSE	ACTION ⁽¹⁾
Day Tank High Water Level	Water level in day tank reaches high-level float switch. <i>Possible cause: feed pump failure or alarm condition on air stripper that de-energizes feed pump.</i>	Shutdown well pump.
Deposit Control Agent Low Level	Level of Redux 300 in 60-gallon tank reaches low-level sensor. <i>Possible cause: product consumed or leaking storage tank.</i>	Shutdown well pump.
Building Sump High Water Level	Water level in building sump reaches high-level. <i>Possible cause: leak in the treatment system process train.</i>	Shutdown well pump.
Air Stripper Low Air Pressure	Air pressure drops below 0.10 inches w.c. <i>Possible cause: inappropriate damper setting, intake air restriction, or air stripper scale build-up</i>	Shutdown air stripper blower and feed pump.
Air Stripper High Water Level	Water level in bottom (effluent) sump approaches blower elevation. <i>Possible cause: clogged discharge line.</i>	Shutdown feed pump.

1. All actions trigger autodialer and local warning light.

TABLE 2

DEPOSIT CONTROL AGENT DOSAGE ADJUSTMENT

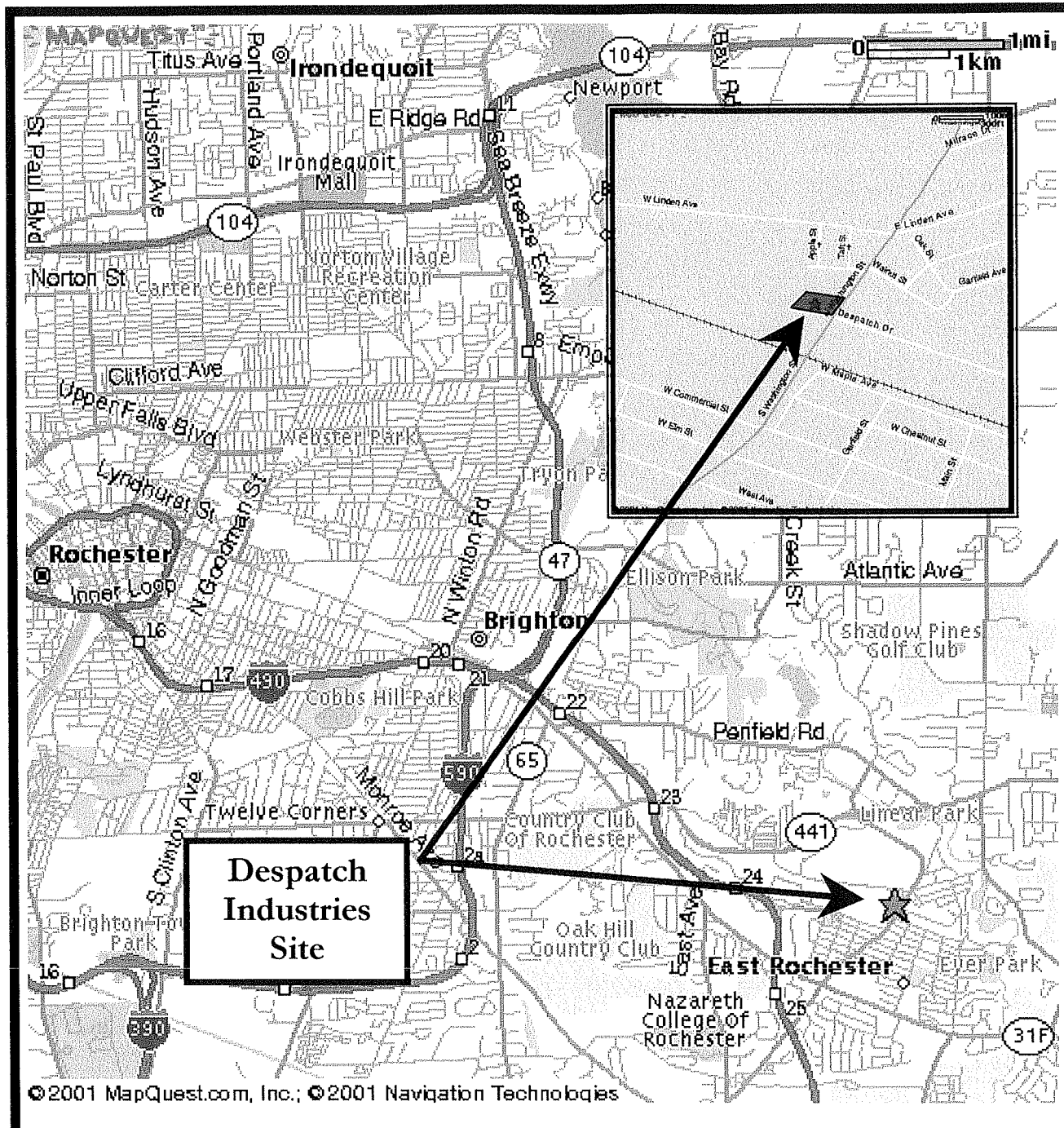
TABLE 2
Former Brainerd Manufacturing Site
Remede Products Deposit Control Agent
Target Dosage and LMI Model A15 Metering Pump Settings

Est. Well Pump Flow Rate (gpm)	Metering Pump Max Capacity (gph)	Recommended Agent Dosage (ppm)	Target Agent Dosage (gph)	Target Stroke Length	Target Stroke Rate
5.0	1	40	0.0120	20%	6.0%
5.5	1	40	0.0132	20%	6.6%
6.0	1	40	0.0144	20%	7.2%
6.5	1	40	0.0156	20%	7.8%
7.0	1	40	0.0168	20%	8.4%
7.5	1	40	0.0180	25%	7.2%
8.0	1	40	0.0192	25%	7.7%
8.5	1	40	0.0204	25%	8.2%
9.0	1	40	0.0216	25%	8.6%
9.5	1	40	0.0228	25%	9.1%
10.0	1	40	0.0240	25%	9.6%
10.5	1	40	0.0252	25%	10.1%
11.0	1	40	0.0264	25%	10.6%
11.5	1	40	0.0276	25%	11.0%
12.0	1	40	0.0288	25%	11.5%
12.5	1	40	0.0300	25%	12.0%
13.0	1	40	0.0312	25%	12.5%
13.5	1	40	0.0324	25%	13.0%
14.0	1	40	0.0336	25%	13.4%
14.5	1	40	0.0348	25%	13.9%
15.0	1	40	0.0360	25%	14.4%
15.5	1	40	0.0372	30%	12.4%
16.0	1	40	0.0384	30%	12.8%
16.5	1	40	0.0396	30%	13.2%
17.0	1	40	0.0408	30%	13.6%
17.5	1	40	0.0420	30%	14.0%
18.0	1	40	0.0432	30%	14.4%
18.5	1	40	0.0444	30%	14.8%
19.0	1	40	0.0456	30%	15.2%
19.5	1	40	0.0468	30%	15.6%
20.0	1	40	0.0480	30%	16.0%

FIGURE 1

LOCATION PLAN

Figure 1



SITE VICINITY MAP

DESIGN REPORT FOR IRM GROUNDWATER COLLECTION
AND PRETREATMENT SYSTEM
FORMER BRAINERD MANUFACTURING FACILITY

FIGURE 2

SITE PLAN

FIGURE 3

PROCESS FLOW SCHEMATIC

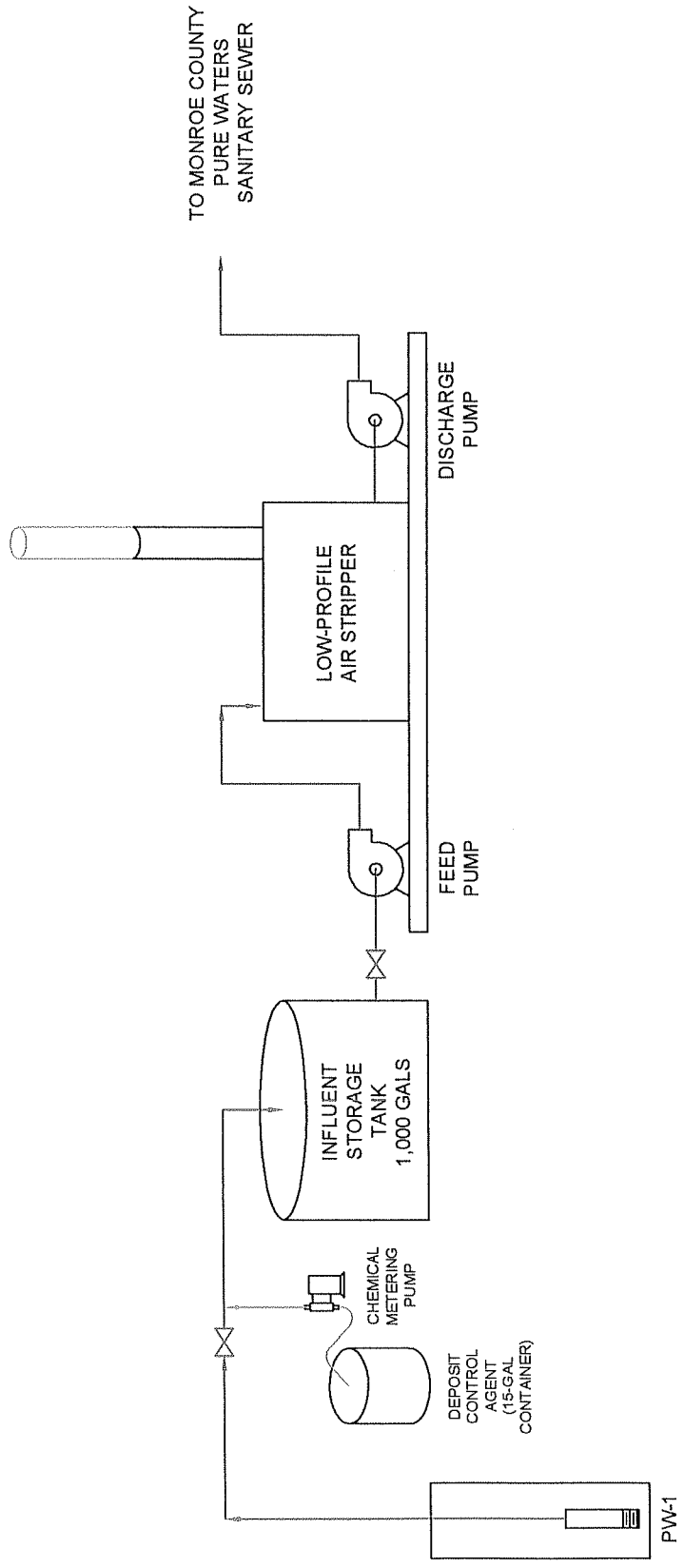


FIGURE 3

PROCESS FLOW SCHEMATIC
 DESIGN REPORT FOR IRM GROUNDWATER COLLECTION AND PRETREATMENT SYSTEM
 FORMER BRAINERD MANUFACTURING FACILITY
 EAST ROCHESTER, NEW YORK

PREPARED FOR
DESPATCH INDUSTRIES, INC.

728 EXCHANGE STREET
 SUITE 824
 BUFFALO, NEW YORK 14210
 (716) 858-0598

BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC

PROJECT NO.: 0040-002-200
 DATE: FEBRUARY 2004