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URS

October 20, 2006

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Will Hart
NCDENR – Washington Regional Office
943 Washington Square Mall
Washington, NC 27889

RE: Injection Summary Report
Groundwater Incident No. 14338
Hamilton Beach◊Proctor-Silex, Inc.
Washington, North Carolina

Dear Will:

On behalf of Hamilton Beach◊Proctor-Silex (HB◊PS), URS Corporation – North Carolina (URS) is pleased to submit this copy of the *Injection Summary Report* for the referenced site. This report describes the injection of Zero Valent Iron (ZVI) and molasses slurry to promote the degradation of chlorinated organic compounds in groundwater underlying the site. In addition to the subsurface injection, this report details the supplemental sampling conducted prior to the injection activities. This sampling was utilized to refine the horizontal and vertical delineation of the chlorinated organic compounds in groundwater.

This report also addresses the reporting requirements set forth in the Underground Injection Control Permit No. WI0700041. This report does not include the results of performance monitoring as described in the Corrective Action Plan. Performance monitoring is still ongoing, and the results of this monitoring and an evaluation of that data will be presented in a separate report.

If you have any questions, please contact me at 919-461-1290.

Sincerely,

URS CORPORATION – NORTH CAROLINA

Brett Berra, P.E.

Enclosure

cc: Mario Kuhar, HB◊PS
Brad De Vore, Womble Carlyle Sandridge and Rice
James C. Smith, City of Washington
Underground Injection Control Program, NCDENR

URS Corporation - North Carolina
1600 Perimeter Park Drive, Suite 400
Morrisville, NC 27560
Tel: 919.461.1100
Fax: 919.461.1415

351

Injection Summary Report
Hamilton Beach◊Proctor-Silex, Inc.
Washington, North Carolina

Prepared for:

Hamilton Beach◊Proctor-Silex, Inc.
4421 Waterfront Drive
Glen Allen, Virginia 23060

Prepared by:

URS Corporation – North Carolina
1600 Perimeter Park Drive, Suite 400
Morrisville, NC 27560

and

AST Environmental, Inc.
1115 Delaware Avenue, Suite 300
Lexington, KY 40505

and

Remediation Products, Inc.
6390 Joyce Drive, Suite 150 West
Golden, CO 80403

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October 2006

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

111TCA	1,1,1-trichloroethane
11DCA	1,1-dichloroethane
11DCE	1,1-dichloroethene
cDCE	cis-1,2-dichloroethene
COC	Chemicals of Concern
ERH	Electrical Resistance Heating
HASP	Health and Safety Plan
HB◊PS	Hamilton Beach◊Proctor-Silex
IDW	Investigation-Derived Waste
ppb	Parts per Billion
PPE	Personal Protective Equipment
ppm	Parts per Million
PRE	Preformatted
psi	Pounds per Square Inch
RID	Reduced Iron Dust
RPI	Remediation Products, Inc.
SSHO	Site Health and Safety Officer
TCE	trichloroethene
µg/kg	Micrograms per Kilogram
µg/L	Micrograms per Liter
URS	URS Corporation-North Carolina
VOC	Volatile Organic Compound
ZVI	Zero Valent Iron

Executive Summary

ES.0 EXECUTIVE SUMMARY

Full-scale subsurface injection of Zero Valent Iron (ZVI) and molasses slurry was conducted from February 10, 2005 to August 12, 2005 at the former Hamilton Beach◊Proctor-Silex (HB◊PS) manufacturing facility in Washington, North Carolina. Injection was conducted according to a State-approved corrective action plan (CAP) to promote the degradation of chlorinated organic compounds in groundwater underlying the site. Full-scale injection of ZVI was proposed in the CAP after the results of a 2002 pilot test indicated that iron powder and molasses could effectively remediate the plume of dissolved organic compounds underlying the site.

The first phase of the injection project consisted of supplemental sampling to refine the horizontal and vertical delineation of chlorinated organic compounds in groundwater and soil at the site. During the supplemental sampling, 300 soil and groundwater samples were collected and analyzed. The results from the supplemental sampling were used to improve estimates regarding the distribution of the chlorinated constituents. The data identified several hot spots within the plume and also indicated that the area requiring treatment was larger than initially anticipated. These data were then used to develop an updated injection plan for treating the impacted area, including the injection of additional ZVI at hot spots and along certain segments of the property boundary. The updated injection plan conforms to the injection approach approved by Underground Injection Control Permit No. WI0700041.

The second phase of the project consisted of implementing the injection plan, which included: site preparation, installation of groundwater sampling implants, injection pilot testing, and full-scale slurry injection. The groundwater implants were used to monitor the injection of the ZVI and molasses to verify that the material was being distributed at the required depths and locations. Pilot testing was conducted to verify and refine the injection spacing specified in the injection plan.

During the project, 103 tons of iron and approximately 36,000 gallons of feed grade molasses were injected into 1,407 direct push bore holes. A total of 4,645 injections were completed at varying depths throughout the plume. Based on field observations at the implants and documentation of the gallons of solution and mix ratio for each specified injection, this report concludes that the material was installed consistent with the injection plan.

This report does not include the performance monitoring described in the Corrective Action Plan (CAP). The results of performance monitoring and an evaluation of that data will be presented in a separate report.

Section 1.0

1.0 INTRODUCTION

This document addresses the injection of Zero Valent Iron (ZVI) and molasses slurry to remediate groundwater quality at the former Hamilton Beach◊Proctor-Silex (HB◊PS) manufacturing facility at 234 Springs Road in Washington, North Carolina. The report describes the injection of ZVI and related activities conducted to promote the degradation of chlorinated organic compounds in groundwater underlying the site.

1.1 Site Description and Background

The site is an irregularly shaped parcel over 39 acres in size, of which 30 acres are occupied by a plant building and surrounding grounds. Until its closing in December 1998, the facility was used to assemble, package, and warehouse small, electric household appliances. Chemicals were initially detected in groundwater at the site in 1992. Several phases of investigation culminated in a comprehensive site assessment report (Radian International LLC, 1999) that characterized site conditions and identified various organic chemicals in soil and groundwater. The chemicals of concern (COCs), primarily chlorinated solvents and their degradation products, occur as a dissolved plume within two hydrostratigraphic units. These include a shallow, unconfined unit comprised of low permeability deposits (Unit A) and an underlying semi-confined unit comprised of more permeable silty sand (Unit B).

A state-approved Corrective Action Plan (URS Corporation-NC, 2002) recommended a two-phased remediation approach. Phase 1 involved applying Electrical Resistance Heating (ERH) between December 2003 and July 2004 to address soil and groundwater in the source area. Implementation of ERH at the site is documented in a report prepared by URS Corporation-North Carolina (URS) and Thermal Remediation Services, Inc. (2005), the technology vendor. Phase 2 of the remediation approach involved injecting ZVI slurry into affected portions of Units A and B to address the remaining areas of the dissolved groundwater plume. The injection process, which was permitted by an Underground Injection Control Permit issued in April 2003 (W10700041), is described in this report co-written by the project team including URS, Remediation Products, Inc. (RPI), the technology provider, and AST Environmental, Inc. (AST), the injection contractor.

1.2 Purpose

Supplemental sampling and subsurface injection of ZVI slurry consisting of nano-scale reduced iron dust (RID) and molasses was conducted from 10 February 2005 to 12 August 2005.

Site-wide implementation of this technology was scheduled after favorable results were obtained from a pilot test performed in 2001. The field work included the following major tasks:

- Site set-up;
- Supplemental Sampling;
- Test injection;
- Preparation of the final injection plan;
- Site preparation for the injection work;
- Plume-wide injection; and finally
- Site restoration.

The primary purpose of this report is to document the fieldwork performed from early February through August 2005. In addition, a discussion of the supplemental sampling has been included so the reader can understand why this task was important. Also, a description of the test injections and their relationship to the final injection plan is included. The secondary purpose of this report is to provide a description of how the final injection plan was developed from the supplemental sampling data and test injection work. Finally, this report documents any deviations from the plan and together with the injection plan provides an "as-built" description of the "treatment system".

This report does not include the performance monitoring described in the Corrective Action Plan (CAP). The results of performance monitoring and an evaluation of that data will be presented in a separate report.

1.3 Report Organization

This report presents the work conducted over a six-month period chronologically, regardless of the relationship between tasks. Discussions regarding task objectives and results are added in the appropriate section. The first three sections provide an overview of the project, describe activities performed prior to mobilizing to the field, and detail activities associated with mobilization.

Section 4 is dedicated to the supplemental sampling performed over the first weeks of the project. A number of sampling techniques were employed and a description of each is found here. Further, there is a discussion of the sampling objectives, and figures illustrating soil and groundwater sample locations are provided.

A mobile laboratory was used to support the supplemental sampling effort so that "same day" analytical results could be obtained to optimize the sampling work. Details of this and other analytical methods utilized can be found in Section 5. This section also presents tabulated data from this phase of the project and a discussion of the results. Lastly, this section presents the updated conceptual model for contamination at the site and revised figures showing resulting plume boundaries.

Section 6 discusses the test injection conducted in Units A and B and contains information pertaining to the test locations, objectives, and results.

The culmination of this preliminary work was to utilize the results of supplemental sampling and test injection to update the injection plan proposed in the CAP and develop a final injection plan. As with any in situ treatment approach, contact of injectant with the COCs is critical. Therefore, the injection plan provided specific instructions for mixing and injecting the ZVI slurry including the amount of iron and volume of slurry required for each injection. Also, locations and depths for each injection point were specified. Finalization of the injection plan is discussed in Section 7.

Before full-scale injection commenced, several preparatory steps were required, including the installation of sampling implants and monitoring wells. These steps are described in Section 8. Once these preparations were completed, the injection plan was implemented. Injection activities are summarized in Section 9.

Site restoration is described in Section 10, and references are listed in Section 11.

Section 2.0

2.0 PRE-MOBILIZATION PREPARATIONS

The following activities were completed or initiated prior to the first mobilization of equipment to the site in February of 2005:

- Preparation of site-specific Health and Safety Plans (HASP).
- Design and fabrication of modifications to the injection trailers and fabrication of the polymer mixing station.
- Assignment of staff.
- Procurement of supplies and materials, including establishing delivery schedules for the RID and polymer.

A HASP was prepared that focused on work to be performed by the injection contractor. The HASP also addressed other activities planned at the site and included any facility-specific requirements.

The project team met to discuss logistics and equipment needed to perform the contract scope of work. The proposed injection plan called for roughly 200,000 pounds of RID to be mixed into 550,000 gallons of water and injected into the subsurface in just over 5 months. Therefore, injection equipment was utilized that would allow the preparation and injection of more than 5,400 gallons of slurry per day.

Preliminary schedules were prepared addressing all major tasks associated with the project, and staff members were matched with technical/physical requirements. This same approach was completed with respect to delivery of equipment to the site, as described in the next section.

Arrangements were made for delivery of raw materials including the RID, polymer for control of slurry viscosity, and molasses. Delivery time was scheduled to coincide with the testing of equipment.

Finally, the first two weeks of work onsite was planned in detail. It was during these initial two weeks that fabrication of injection equipment was completed, key injection materials were delivered, equipment and supplies were staged, and supplemental sampling was initiated.

Section 3 0

3.0 MOBILIZATION AND INITIAL SITE ACTIVITIES

The following sections describes the mobilization of personnel and equipment to the site. Activities during the first few days on site are also summarized here.

3.1 Mobilization

Mobilization of equipment, supplies, and personnel coincided with evolving project requirements, as summarized below:

2/10/05	The GeoProbe® drill rig, mobile laboratory, and personnel arrived at the site for supplemental sampling.
2/23/05	The tanks, pump, mixer, and associated parts for the Polymer Mixing Station were delivered.
2/24/05	The polymer used in preparing the ZVI slurry was delivered.
3/18/05	The first injection trailer arrived at the site and the first shipment of RID was delivered.
4/04/05	The second injection trailer was delivered to the site.
4/22/05	The second shipment of RID was delivered to the site.
4/25/05	The crew for the second injection trailer arrived at the site.
5/29/05	The third shipment of RID was delivered to the site.
7/01/05	The fourth shipment of RID was delivered to the site.

3.2 Kick-off Meeting

The project team held a kick-off meeting at the facility on February 10, 2005. Also present were representatives from Impressions (a building lessee), and Regional Probing Services (a sub-contracted Certified Well Contractor). Roles and responsibilities of the project team members were discussed at this time along with the topics listed below:

- Introduction of project personnel,
- Site orientation and review of HASP,
- Lines of communication and emergency procedures,
- Staging of equipment and materials handling,
- Overview of project tasks,
- Routine facility operations and site access, and
- Daily tailgate meetings.

3.2.1 Project Personnel

Principal project personnel and site contacts are listed below with their project responsibilities:

- Mario Kuhar – HB◊PS Environmental and Safety Engineering Manager.
- Bobby Wallace – HB◊PS Onsite Point of Contact. All site work was coordinated through Mr. Wallace, and he was also the main contact for any facility and site questions.
- Brett Berra – URS Project Manager. Mr. Berra was intimately involved with the field work as it progressed and assisted in choosing sampling points and new well locations. Further, he was provided daily progress reports by AST.
- Mike Fallon, Don Hall, and Kevin Hahn – URS Site Contacts. At least one of these individuals was present during all field work to ensure that safety protocols and the injection plan were followed. They were primarily responsible for record keeping and management of site activities; although they also assisted with groundwater and soil sampling activities.
- Tom Guilfoil – AST Project Manager. Mr. Guilfoil was the Project Lead for the construction of the injection trailers and coordinated field crew schedules and chemical deliveries.
- Scott Noland – RPI Mobile Lab Analyst and Project Technical Lead. Mr. Noland analyzed all of the samples in the mobile laboratory. In addition to his laboratory responsibilities, Mr. Noland was the technical lead for the project and developed the initial sampling strategy and the injection plan.
- Brad Guilfoil – AST Site Manager and Site Health and Safety Officer. Mr. Guilfoil had primary responsibility for overseeing all sampling and injection. He monitored RID and molasses injection rates and amounts, and crew safety compliance.
- Stuart Outten and Larry Opper – Regional Probing Services. Mr. Outten and Mr. Opper were North Carolina Certified Well Contractors (Certification Numbers 2515 and 3322, respectively) who oversaw all drilling and injection activities. Oversight included the installation of groundwater sampling wells, injection wells, and their abandonment. They were also responsible for completing and submitting state required forms.
- Randy Roark – Plant Manager, Impressions, Inc. All work conducted inside of the facility was coordinated with Mr. Roark to ensure the safety of all Impressions employees. He also assisted with the relocation of plywood bunks and other materials stored in the warehouse during sampling and injection efforts throughout the field work.

3.2.2 Review of Safety Protocols

Site and task-specific protocols specified in the HASP were reviewed during the kick-off meeting to ensure that project personnel were aware of safety practices associated with the various activities planned during the project. The location of the HASP was identified. Proper use of personal protective equipment (PPE), equipment operation, and emergency procedures were discussed. The need to review safety issues during the daily tailgate meetings was reiterated. Lines of communication were established for immediately reporting any hazard, unsafe condition, or other safety concern to the Site Health and Safety Officer (SSHO). Finally, procedures were established for contacting the fire department in the event a fire should occur during times when the fire alarm was disabled to allow water for the project to be supplied from facility hydrants.

3.3 Site Walk

Following the kick-off meeting, a site walk was conducted to familiarize the project team with the facility and grounds. Items emphasized during the site walk included the location of utilities and areas to stage the equipment. Future work areas and potential impacts to facility operations were discussed. Areas to be isolated from truck traffic were identified during the site walk, along with procedures for diverting traffic so as to not hinder the facility operations. Also, access to water and power for the polymer mix station was determined.

3.4 Site Preparation

Before field work could begin, equipment and supplies were staged, subsurface utility locations verified, and the sampling grid laid out. Details are provided in the following sections. Additional preparation included the relocation of equipment and supplies within the plant building, the removal of tractor trailers from the east parking lot, and the installation of safety fencing to control traffic.

3.4.1 Staging of Equipment and Supplies

Drilling supplies, injection equipment, RID, and polymer were staged in the southeast end of the facility. All RID super-sacks were placed on pallets, and the polymer was covered with plastic. By staging these products in the southeast area of the plant, the large dock door could be used to move them easily into and out of the building.

Four areas were chosen for polymer mixing. Each of these areas had access to fire hydrants for water, and electrical connections for 3-phase/480 volt power.

The mobile laboratory, like the polymer mixing station, needed an appropriate source of local power. Therefore, the laboratory was located on the south side of the plant building next to a storage shed where power was available. The 8,000 gallon tank used to store molasses was also placed on the south side of the plant building.

3.4.2 Utility Location

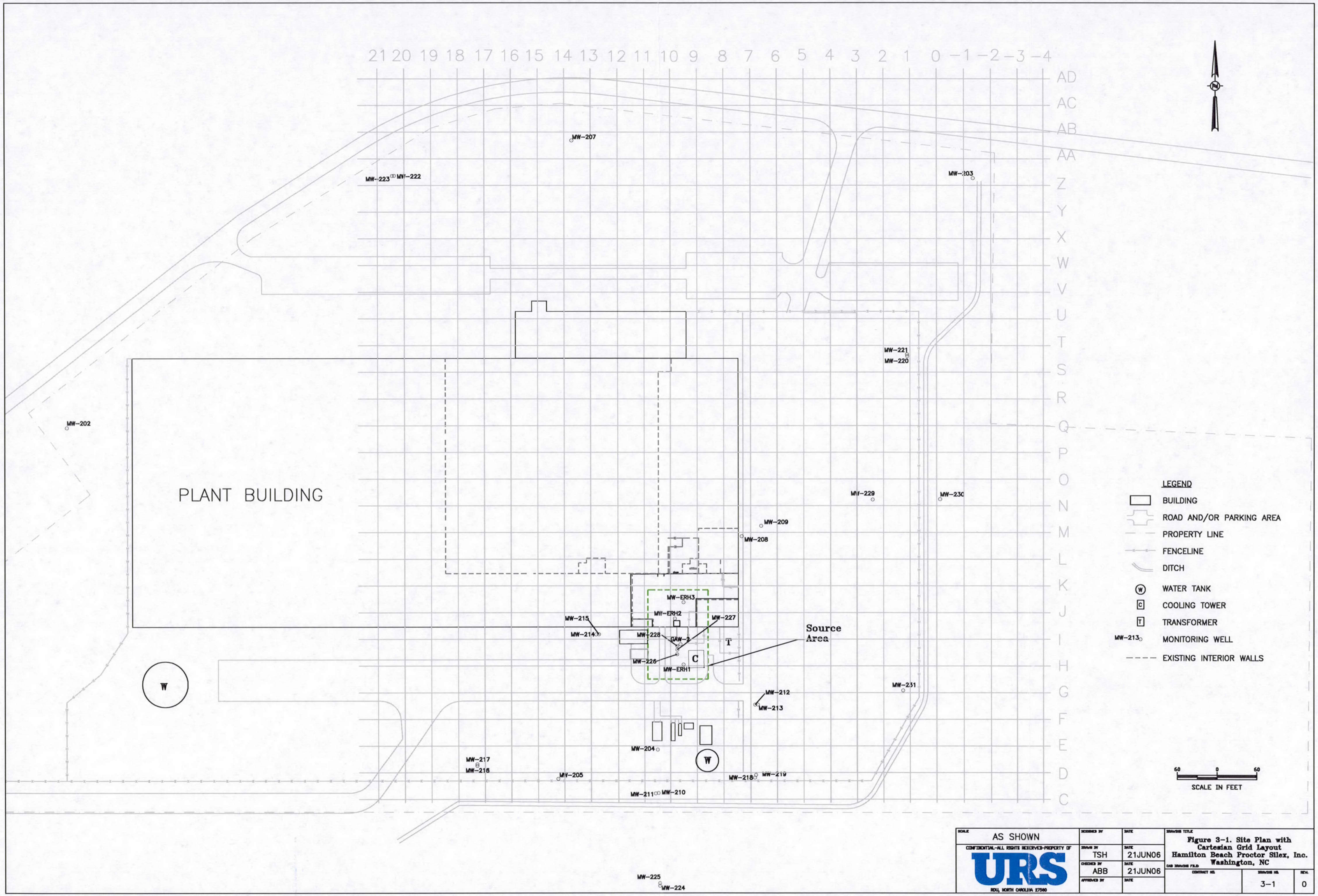
Underground utilities at the facility, which included electric, phone, water, sewer, and drain lines, were identified and marked by a subcontracted utility locating company. Although all utilities were marked during the field work, hand auger holes were advanced to a depth of 5 feet in some areas near the east side of the plant to verify that offset from the utility was sufficient.

Overhead utilities were identified in the east parking lot and inside the building. However, because of their height, these utilities did not affect operations and required no special precaution while working under them.

3.5 Grid Layout

Prior to initiating sampling activities, a Cartesian grid was established and staked over the site. A 40-foot x 40-foot cell size was chosen to coincide with the uniform spacing of footings and structural columns for the building. Gridlines were located so that structural columns would fall in the middle of the 40-foot squares and sampling locations would not fall near building supports. As shown in Figure 3-1, all north/south grid lines were labeled numerically from the east to the west with Gridline 0 falling close to the east ditch line, and Gridline 1 falling just inside the facility fence line. East/west gridlines were labeled alphabetically (south to north) with Gridline C roughly coinciding with the south property boundary. Because of the chosen grid spacing, the grid was, by design, square to the building.

To locate the grid in the field, the first gridlines established were Gridline 7 and Gridline G. All other gridlines were measured and laid out off of these two lines. Because the grid layout was first developed in the office, a field quality control check was performed by measuring the distance between selected gridlines and easily identifiable site structures. For example: Gridline 1 was intended to occur 3 feet inside the security fence located on the east side of the property and, upon grid layout, was confirmed to fall at this location. Several other



SCALE	DESIGNED BY	DATE	DRAWING TITLE
AS SHOWN			Figure 3-1. Site Plan with Cartesian Grid Layout Hamilton Beach Proctor Silex, Inc. Washington, NC
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS RDU, NORTH CAROLINA 27560	DRAWN BY TSH	DATE 21JUN06	CAD DRAWING FILE
	CHECKED BY ABB	DATE 21JUN06	CONTRACT NO.
	APPROVED BY	DATE	DRAWING NO. 3-1 REV. 0

Figure 3-1. Site Plan with Cartesian Grid Layout
Hamilton Beach Proctor Silex, Inc.
Washington, NC

locations were chosen to verify the layout, and all locations checked in the field as plotted in the office.

The lettering and numbering of gridlines provided a system for identifying sample locations. Typically, sample locations were chosen to coincide with grid nodes. For example, Sample N-7 would be identified by the intersection of Gridline N and Gridline 7. Gridlines were also used to assist in establishing injection points as described in the injection plan.

Section 4.0

4.0 SUPPLEMENTAL SAMPLING

Injection of ZVI slurry is a passive, in situ technology that requires that the ZVI contact the COCs for remediation to be successful. To be cost effective, the level of slurry injection must be commensurate with the level of COCs.

Conditions at the former HB◊PS site are complex in that COCs occur within two hydrostratigraphic units characterized by different groundwater flow directions and COC distribution patterns. Conceptual models of the two units based on site assessment data were more than adequate for their intended purpose during the early stages of plume delineation. However, data gaps with respect to supporting design of an in situ remediation system were identified during the pilot study, and a supplemental sampling approach was proposed at that time. This preliminary approach, updated by subsequent monitoring data and the results from additional work in and around the source area, was the starting point for the supplemental sampling described below.

4.1 Sampling Approach

Supplemental sampling of groundwater and soil began on February 11, 2005 and was completed by March 4, 2005. Some limited sampling was performed after this time to finalize the injection plan and to prepare for ZVI slurry injection.

As described earlier, a Cartesian grid was established to assist in determining COC distribution. Site plans incorporating the grid were used to plot analytical data separately for Unit A and Unit B. As analytical data became available, the figures were updated so that COC distribution and the location of plume boundaries were refined as the supplemental sampling progressed. By using these figures on a daily basis, it was a simple matter to direct future sampling to the appropriate locations and efficiently fill the data gaps.

Based on earlier assessment results, supplemental sampling in Unit A targeted groundwater occurring between 8 and 12 feet below land surface. Therefore, no effort was made to vertically profile the COC distribution over this narrow depth interval. Sixty-eight implants, described in Section 4.2, were installed to sample groundwater and delineate the plume in Unit A. Figure 4-1 shows the location of the implants and other groundwater sampling points installed in Unit A.

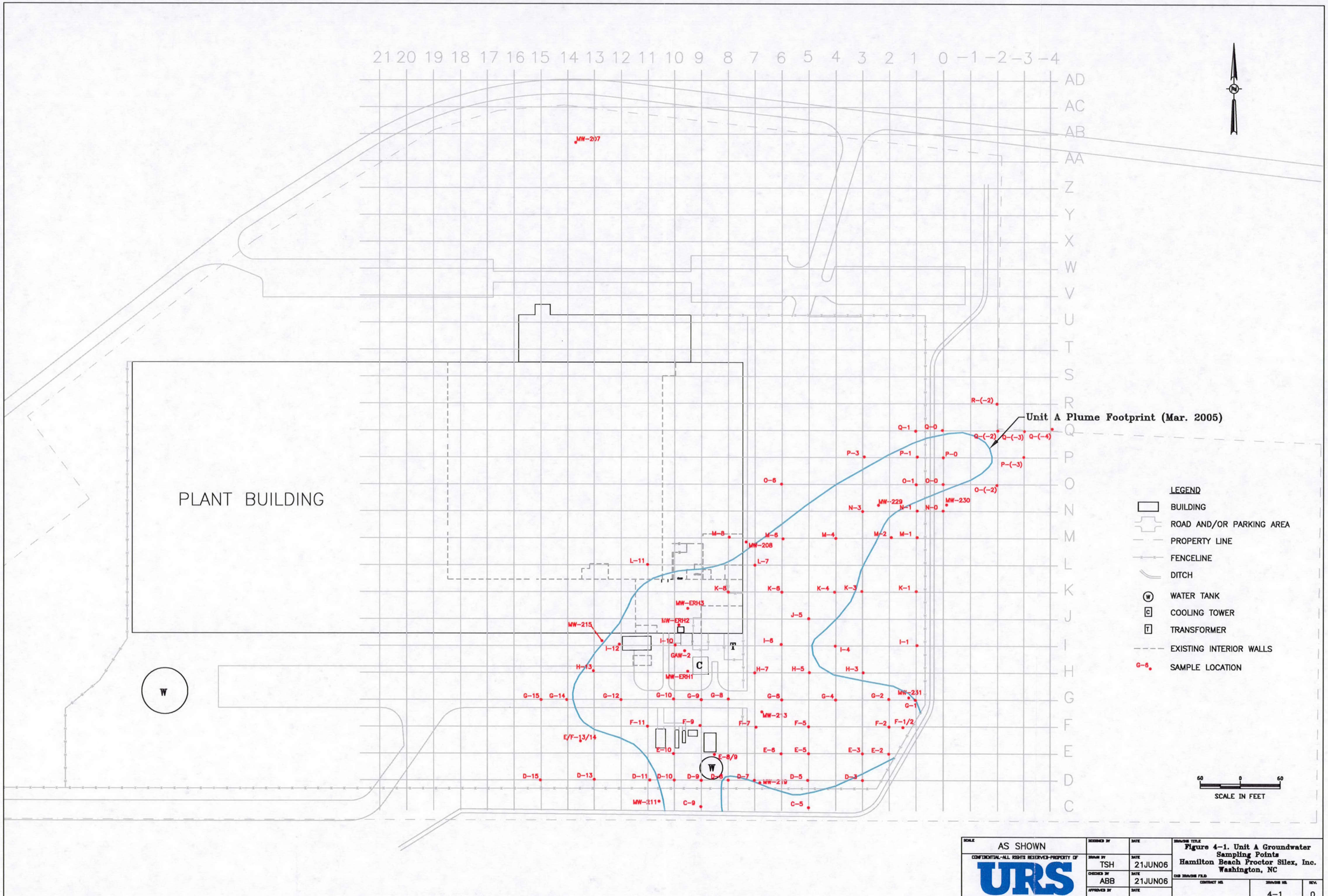


Figure 4-1. Unit A Groundwater Sampling Points
Hamilton Beach Proctor Silex, Inc.
Washington, NC

Assessment results indicated that a confining layer located at the base of Unit B had limited the lower extent of COCs. Also, it was anticipated that the maximum COC concentrations within Unit B would occur over a narrow depth interval. Guided by this information, vertical profiling of COC concentrations in Unit B was conducted utilizing a screen point sampler as described in Section 4.2. At each sampling location, the screen point sampler was driven to the lowest sampling point and a groundwater sample collected. The sampler was then raised to the next sampling point and another groundwater sample was collected. Four to five depth-discrete groundwater samples were collected at each sampling location using this procedure.

The results of vertical profiling indicated that the maximum concentrations of COCs within Unit B were typically found at a depth interval between 21 and 25 feet below land surface. This narrow depth interval was then targeted so that additional groundwater sampling using implants could rapidly delineate the horizontal extent of the plume in Unit B. Up to 16 implants per day were installed and sampled to determine COC distribution and to delineate the plume in Unit B. Historic plume data were used to identify initial sampling locations. Gridlines transecting the plume were selected and implants were installed at every other grid point along these lines, extending beyond the anticipated edges of the plume. In this way, data were collected pertaining to how COC concentrations varied horizontally across the plume, and new sample points could then be selected to define boundaries more closely.

Over the course of supplemental sampling, 108 screen point samples and/or implants were completed in Unit B. Figure 4-2 shows the location of most of the 108 groundwater sampling locations in Unit B. Some locations that did not add significant information regarding the plume boundary were not plotted to maintain figure clarity.

Soil samples were also collected and analyzed during supplemental sampling. Soil sampling procedures are summarized in Section 4.3. The distribution of COCs in groundwater was used to select the soil boring locations. Typically soil borings were sampled continuously including both the unsaturated and saturated zones, and extended down to 30 feet below land surface. In all, 132 soil samples were collected from 12 borings. The soil boring locations are shown on Figure 4-3.

4.2 Groundwater Sampling

During supplemental sampling, groundwater was collected using screen point samplers, temporary implants, and monitoring wells. Each of these techniques is described below.

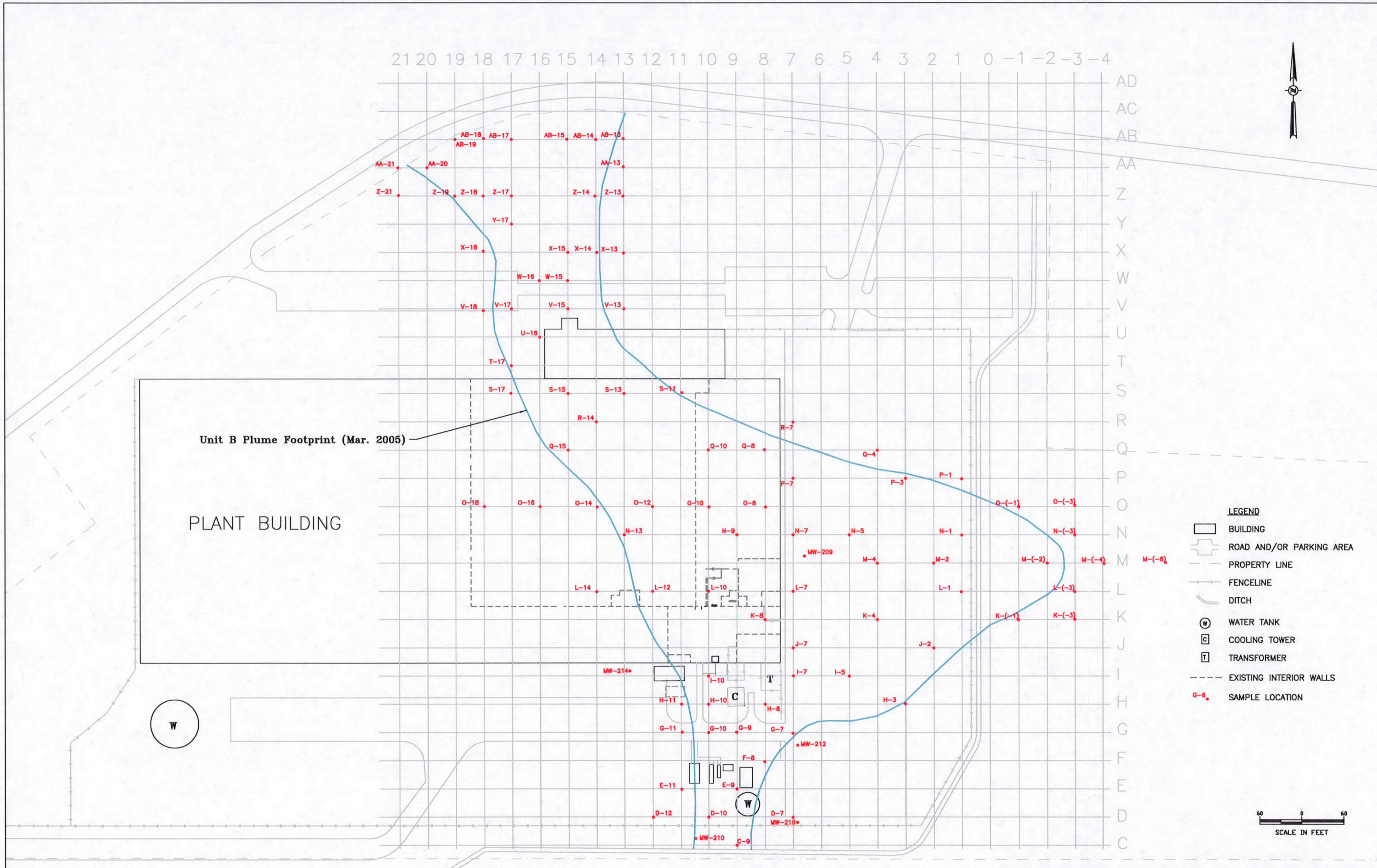


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Figure 4-2. Unit B Groundwater Sampling Points
Hamilton Beach Proctor Silex, Inc.
Washington, NC

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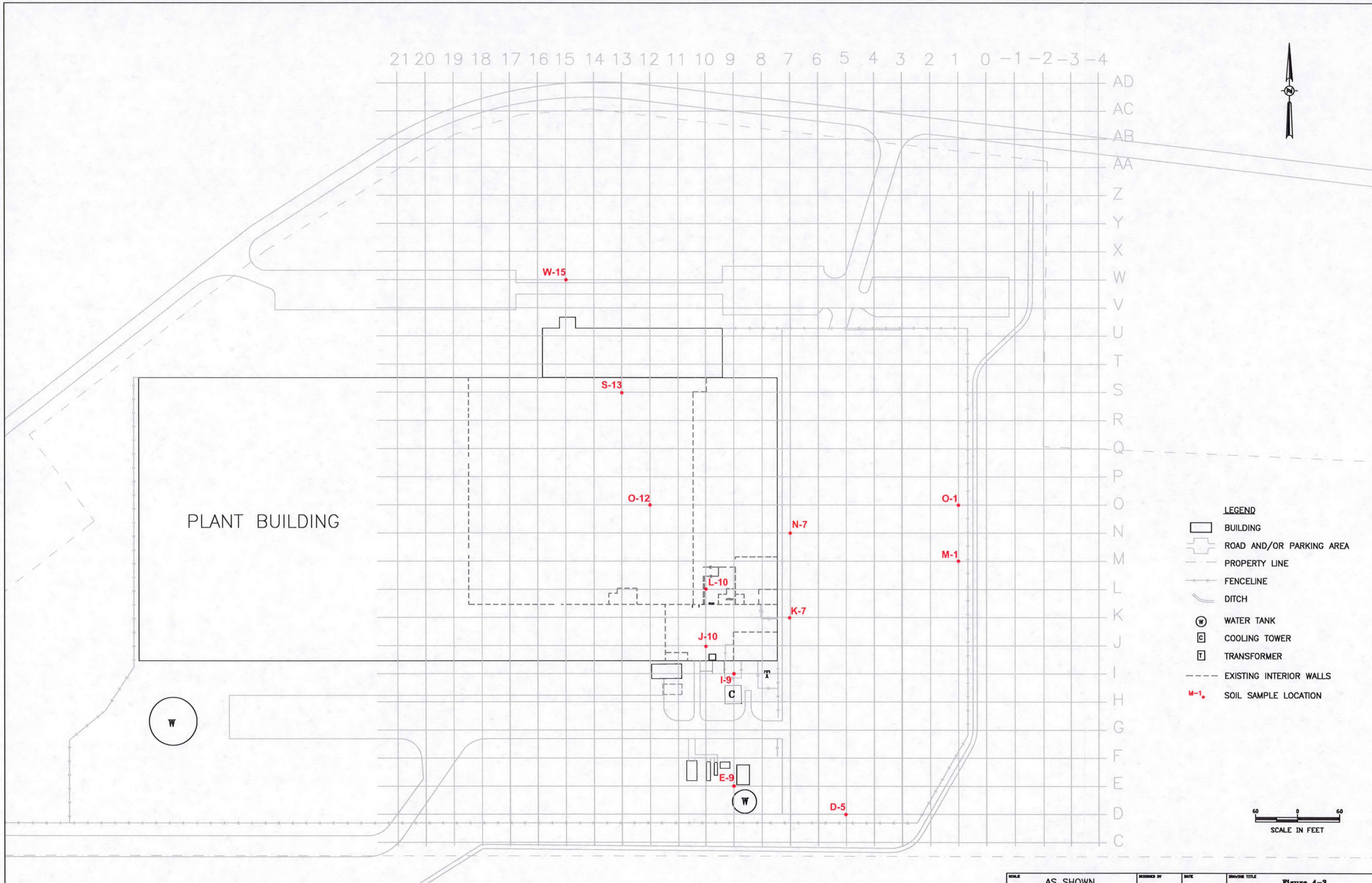

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CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS RDU, NORTH CAROLINA 27560	DRAWN BY TSH	DATE 20JUN06	**Figure 4-3. Soil Sampling Points Hamilton Beach Proctor Silex, Inc. Washington, NC**		
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4.2.1 Screen Point Sampling

Screen point sampling was used to define the vertical distribution of COCs in Unit B. It is a technique in which the sampling tool is driven to the desired depth to collect a grab sample. The sampler consists of a 4-foot section of slotted screen enclosed inside a sleeve. Once advanced to the desired depth, the screen is exposed by retracting the sleeve. Tubing is then inserted into the drill string and pushed down into the sampler screen. A peristaltic pump is then attached to the tubing and groundwater is withdrawn.

4.2.2 Implants

Temporary implants are micro-wells consisting of 5/8-inch polyethylene tubing with a sand pack surrounding the perforated lower section of the tubing. The implant is installed by sliding the tubing down the drill rod, threading it into an expendable point on the bottom of the drill string, and withdrawing the drill rod leaving the implant behind. In Unit B, no artificial sand pack was needed because the sandy formation collapsed around the tubing as the rods were removed. In Unit A, silica sand was poured into the borehole to a point above the perforations after removing the rods. For all implants, bentonite chips were used to seal the borehole above the sand pack.

Sampling from implants was used exclusively to delineate the limits of the plume in each unit. In Unit B, sampling began with screen point samplers and then implants were used to finish determining the limits of the plume. To sample the implants, ¼-inch polyethylene tubing was inserted into the implant and pushed to the bottom. A peristaltic pump was then attached to the smaller tubing and groundwater was collected at the surface. The yield of implants in Unit B was sufficient to allow sample collection immediately after purging. However, the low yield of implants in Unit A required that sampling be delayed for several hours after having been purged dry.

4.2.3 Monitoring Wells

Several existing monitoring wells were also used to assist with plume delineation. The wells were sampled according to accepted practices using bailers for 2-inch wells and using a peristaltic pump for 1-inch wells.

4.3 Soil Sampling

Continuous soil cores were collected at each selected location using either the GeoProbe® dual tube system or the 4-foot Macro-Core® sampler. The Macro-Core® sampler was selected for use in Unit B because it is a sealed sampler that can overcome the heaving sand that is typical of Unit B.

Soil lithology was logged and visual observations pertaining to soil color and photoionization detector readings were recorded. Samples were collected from each core at 2-foot intervals and submitted to the mobile laboratory for analysis. In addition, any potentially impacted intervals between the regularly-spaced samples were also collected and analyzed.

Soil sampling depths were adjusted based on the analytical results of previously collected samples. Many cores were continuous from the surface to the confining layer at the bottom of Unit B. Based on historical results, only minor levels of COCs were expected below this depth. Current analytical results, which confirm this conclusion, are provided in Section 5.

The depths for ZVI slurry injection specified in the injection plan were selected based largely on the soil sampling data.

4.4 Decontamination Procedure

Drilling rods and sampling tools were decontaminated in a bucket by brushing with a cleaning solution of Alconox® and water. The rods and tools were then rinsed in three buckets of clean water. Rinse water was changed after cleaning approximately 250 feet of rod. Water in the second rinse bucket was routinely sampled and analyzed for COCs. When significant levels of COCs were present in this sample, the cleaning solution was replaced. All decontamination waste was containerized in drums and managed as described below.

4.5 Investigation-Derived Waste (IDW)

The following waste types were generated during supplemental sampling:

- Spent samples (soil and groundwater);
- Purge water from screen point samplers, implants, and monitoring wells;
- Rinse water from decontamination; and
- Used PPE.

Waste streams were segregated with all liquids being containerized separately from solids. Used PPE was accumulated in plastic bags and placed into a roll-off designated for this and other trash. All other waste that was generated throughout the sampling period was containerized in 55-gallon drums and placed in the waste shed at the facility. As drums were filled, samples were collected for analysis to characterize the waste. All waste was disposed of according to established procedures and applicable state and federal laws.

Section 5.0

5.0 SAMPLE ANALYSIS

Sample analysis was an important component of supplemental sampling, test injection sampling, and quality control sampling during ZVI slurry injection. Initially, next day analytical results were needed to support supplemental sampling and an onsite field laboratory was required. Once quality control for ZVI slurry injection became established, next day results were no longer important, and use of the field lab was discontinued. This section identifies the analytical test methods and briefly discusses the analytical results.

5.1 Field Laboratory

A field laboratory operated by RPI was used to analyze samples collected during the initial few months of the fieldwork when next day analytical results were required. The mobile laboratory contained a gas chromatography-mass spectrometry unit for analyzing volatile organic compounds (VOCs), an ultraviolet-visible spectrophotometer for analyzing iron, and a pH meter that could be used with specific ion electrodes for analyzing chloride.

5.2 Test Methods

Sample analysis was performed by the following methods:

- VOCs by Method 8260B;
- Chloride by Orion Electrode (specific ion electrode) – Manufacturer's method;
- Chloride by Method 300.1 – Ion Chromatography; and
- Ferrous iron by ultraviolet-visible spectroscopy – Standard Methods 3500-Fe B.

To the extent feasible, the field lab was set up to perform the same methods utilized by the outside laboratory. An exception was the use of the Orion Electrode method to analyze chloride onsite. Because the ion chromatograph was not available when supplemental sampling began, the electrode method was selected as an alternative due to its ease of use in the field. Therefore, samples collected in February and March were analyzed for chloride by the electrode method. Later samples were shipped to an off-site ion chromatograph for chloride analysis.

5.3 Analytical Results

This section addresses the analytical results from the supplemental sampling. First, the organization and presentation of the tabulated analytical data are described. Second, changes to the conceptual model of the plume in each of the hydrostratigraphic units are identified and discussed.

5.3.1 Laboratory Data

The analytical data tables are included in Appendix A and contain all of the analytical results generated onsite during supplemental sampling. The results are organized by hydrostratigraphic unit and sample type, such that the first table contains all groundwater data for Unit A, and the second table contains all groundwater data for Unit B. The third table contains soil data. Because of the way supplemental sampling progressed and because data were reported in an ongoing fashion, the groundwater results are organized by date rather than by grid location. VOCs are reported in parts per billion (µg/L or µg/kg).

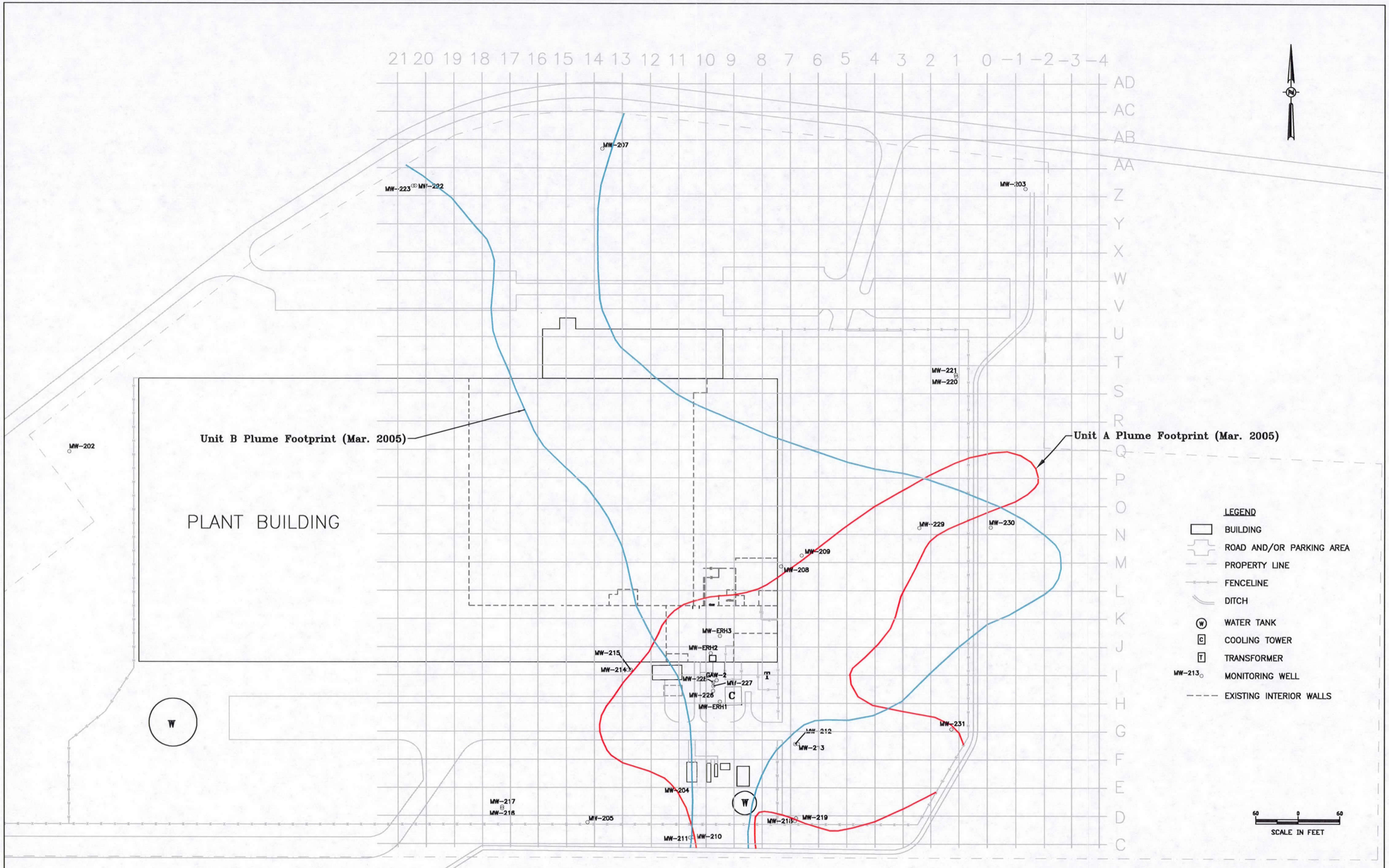
5.3.2 Results of Sampling

As explained earlier, the purpose of supplemental sampling was to more accurately delineate the horizontal and vertical extent of the plume. After supplemental sampling was completed, it became evident that revisions to the footprint of the plume within each unit were required. Figure 5-1 shows the revised plume footprints in Units A and B relative to each other based upon the supplemental sampling results. The footprints represent areas within which at least one COC exceeded its respective groundwater standard. Figure 5-2, which has been excerpted from the CAP, shows the estimated plume footprints based on site assessment data. It is not surprising that revisions to the original plume footprints were required as the latest estimates are based on hundreds of closely spaced sample points whereas the original estimates were prepared based on a relatively small number of assessment sample points.

Unit A Description

A comparison of the original plume footprint in Unit A (Figure 5-2) with that shown in Figure 5-1 indicates that the extent was reasonably well estimated on the northern edge inside the building and along the lobe extending to the northeast. Toward the south ditch the plume footprint was determined to be only about 80 feet wide, rather than 200 feet as originally estimated. However, the largest difference from the original footprint turned out to be the presence of COCs to the east and southeast of the known source area and the identification of hotspots near grid points D-9, E-5, and N-3. Over all, the revised plume footprint in Unit A encompasses 158,000 square feet and represents an increase in area of about 33 percent over the originally estimated footprint.

The distribution of COCs in Unit A is shown in Figure 5-3, which illustrates the total concentration of chlorinated COCs in the unit. Figure 5-3 differs somewhat from the plume footprint map because different contouring criteria were applied. The distribution of COCs in



SCALE: AS SHOWN	DESIGNED BY	DATE	DRAWING TITLE: Figure 5-1. Site Plan with Final Plume Footprints Hamilton Beach Proctor Silex, Inc. Washington, NC	
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS	DRAWN BY: TSH	DATE: 21JUN06		
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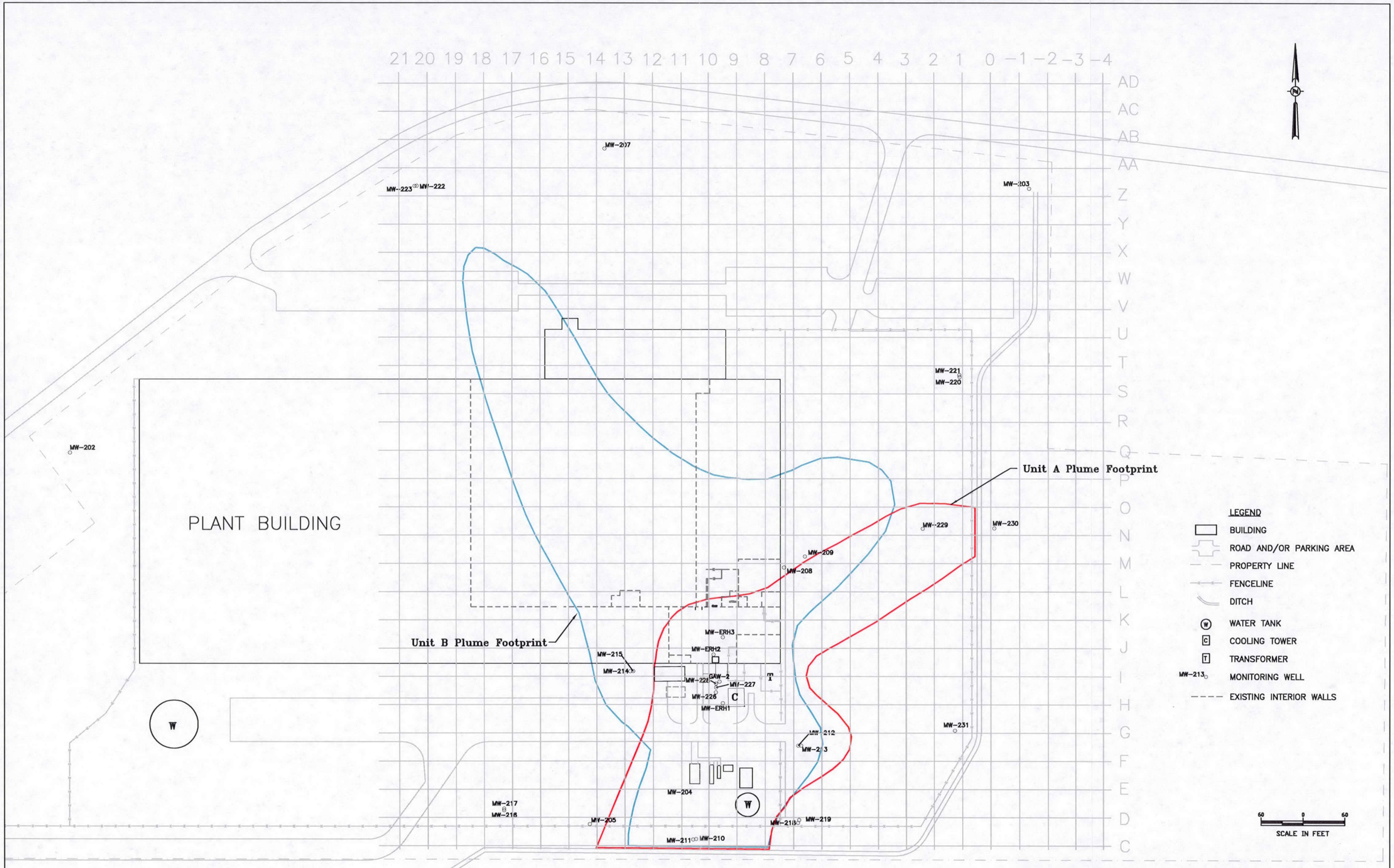

SCALE	DESIGNED BY	DATE	DRAWING TITLE
AS SHOWN	SN	30AUG02	**Figure 5-2. Original Plume Footprints Hamilton Beach Proctor Silex, Inc. Washington, NC**
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS RDU, NORTH CAROLINA 27560	DRAWN BY TSH	DATE 09SEP02	CAD DRAWING FILE
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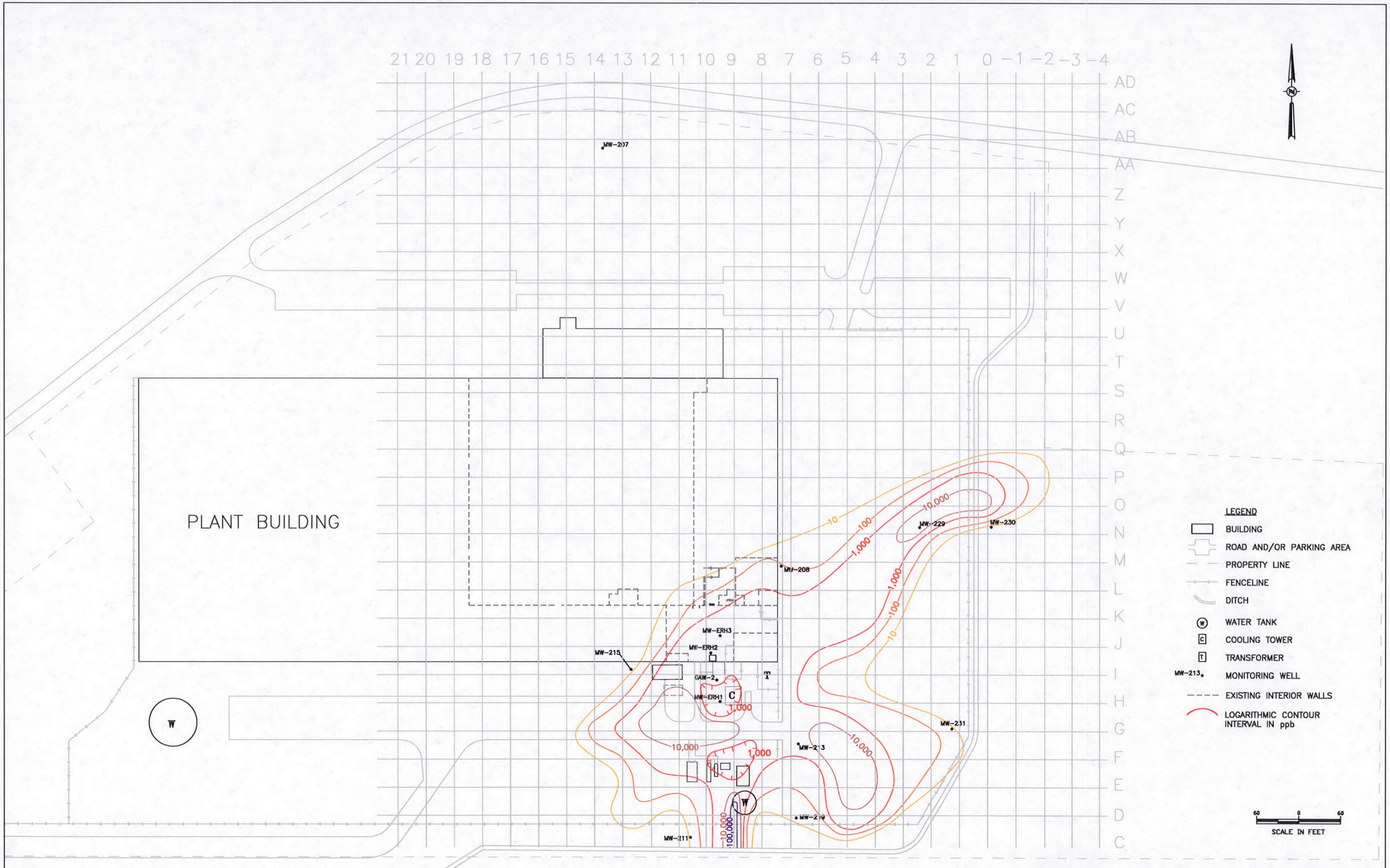

SCALE	DESIGNED BY	DATE	DRAWING TITLE
AS SHOWN			**Figure 5-3. Total Chlorinated VOCs in Unit A Hamilton Beach Proctor Silex, Inc. Washington, NC**
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Unit A is characterized by several hot spots in addition to the source area. The first of the hot spots is located near the water tank at grid point D-9. Groundwater at this location exhibited nearly 160 parts per million (ppm) of total chlorinated VOCs including 132 ppm of trichloroethene (TCE) and 21 ppm of cis-1,2-dichloroethene (cDCE). However, the hot spot is localized as groundwater from grid points D-8 and D-10 exhibited only low levels of these compounds and groundwater from implant E-8/9 exhibited only 2.2 ppm of TCE and just over 1 ppm of cDCE. Another hot spot was identified at grid point E-5; however, TCE is not the predominant COC as the analytical results at this location were different. The concentration of total chlorinated VOCs in groundwater was over 81 ppm with 1,1,1-trichloroethane (111TCA) reported at 34 ppm and daughter compounds, 1,1-dichloroethane (11DCA) and 1,1-dichloroethene (11DCE), reported at 10 ppm and 35 ppm, respectively. Again, the hot spot was localized showing a rapid decrease in COC concentrations in all directions. Finally, a hot spot appears to occur within the eastern lobe of the plume in Unit A, extending from grid points N-3 to O-1. Groundwater from this location exhibited as much as 27 ppm of total chlorinated VOCs including cDCE at 16 to 18 ppm and 11DCA at 4 to 6 ppm. This localized hot spot appears to be relatively narrow. As described in a later section, ZVI slurry injection at each hot spot utilized closer grid spacing and increased loading of RID to compensate for the higher mass of COCs.

The vertical distribution of COCs in Unit A is confined to a relatively narrow interval that is a function of proximity to the source or hot spots. At the hot spot surrounding grid point E-5, VOCs were spread from 6 to 14 feet below land surface. Similarly, close to the original source, VOCs extended from 6 to 12 feet below land surface. Outside these areas, the majority of VOCs were detected in an interval from 8 to 12 feet below land surface.

Unit B Description

A comparison of the original plume footprint in Unit B (Figure 5-2) with that of Figure 5-1 indicates several principal differences. As in Unit A, the plume footprint toward the south ditch was determined to be only about 80 feet wide, rather than 200 feet as originally estimated. However, the largest differences in the plume footprint within Unit B were evident at the northern and eastern lobes. The northern lobe of the plume extends farther north and is wider near its leading edge than originally estimated. Similarly, the eastern lobe also extends farther and is wider than initially estimated. Overall, the revised plume footprint in Unit B encompasses approximately 307,400 square feet and represents an increase in area of about 34 percent over the originally estimated footprint.

As in Unit A, the distribution of COCs in Unit B is characterized by a hot spot located outside of the source area as shown in Figure 5-4. The hot spot is located near the water tank at grid point E-9. Groundwater at this hot spot exhibited over 14 ppm of total chlorinated VOCs including 8 ppm of TCE and 5 ppm of cDCE. This hot spot in Unit B is attributed to the downward migration of COCs from the hot spot identified in Unit A overlying the location. This conclusion is supported by the northerly direction of groundwater flow in Unit B and by groundwater analytical data from grid points G-9, G-11, and H-11, which suggest that no direct connection exists in Unit B between the hot spot and the source area.

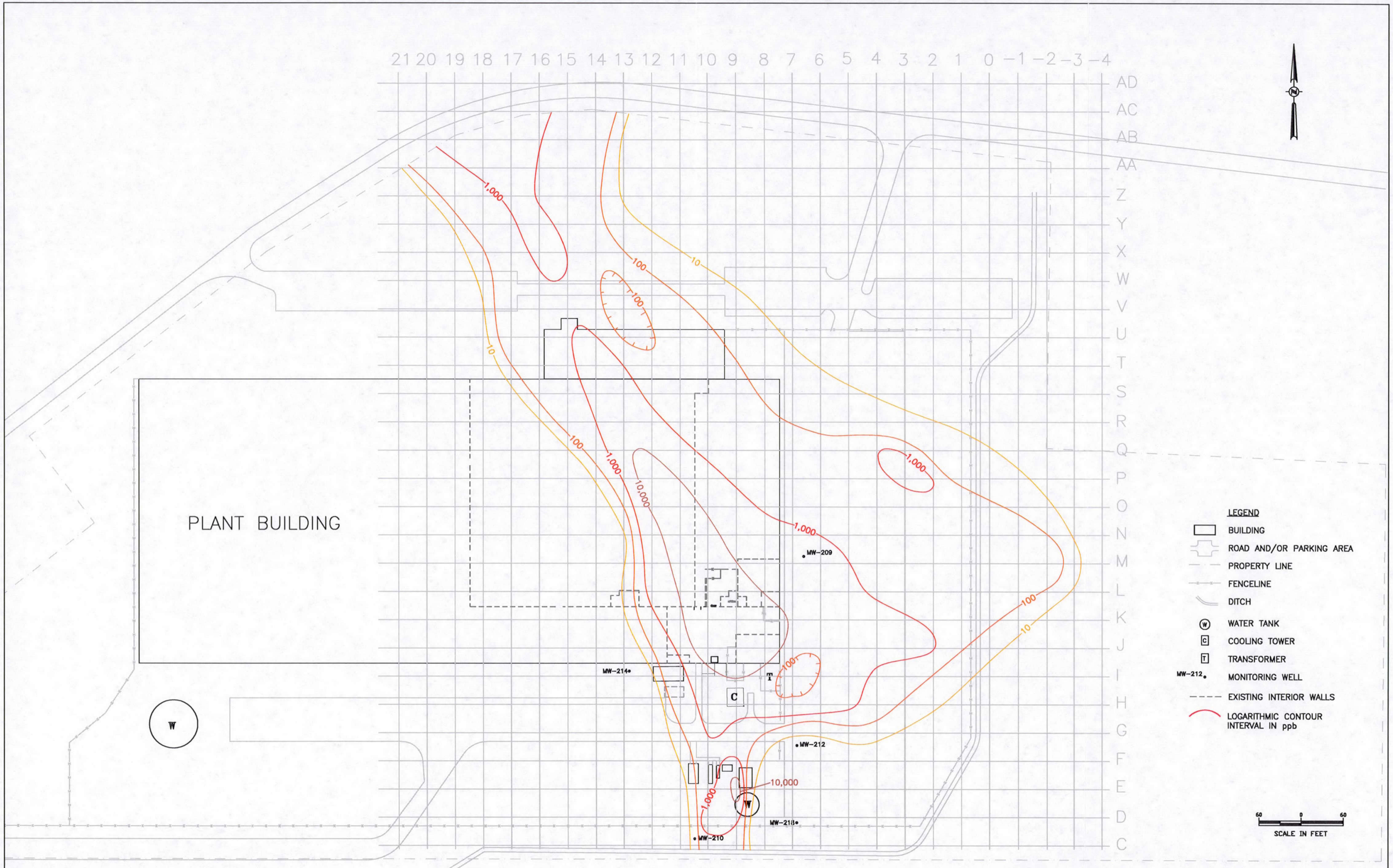
The vertical distribution of COCs in Unit B varies with location on the site. Nearest the source area, COCs occur continuously from Unit A into the top of Unit B. However, at locations some distance from the source area, COCs are absent or present in only low concentrations in the transition zone between the clay deposits typical of Unit A and the sand deposits characteristic of Unit B. The COCs in Unit B underlying the southern part of the site occur from between 18 and 20 feet below land surface to about 30 feet below land surface. To the north, however, surface elevation differences cause the COCs within Unit B to be deeper, ranging from between 27 and 29 feet below land surface to about 32 or 33 feet below land surface.

5.4 Quality Control

The quality of sample collection and analysis was evaluated through the following methods.

- Performance Evaluation sample analysis (low and high concentrations);
- Split sample analysis at an off-site fixed lab; and
- Field duplicate sample analysis.

Following mobilization of the field lab to the site, testing was carried out to verify the performance of the analytical instrumentation. Standard procedure included meeting all method-specific quality assurance/quality control criteria such as 5-point calibrations and analysis of independent standards as laboratory control samples for verification of calibration standards. Beyond this, a performance evaluation sample was analyzed within the first few days of operation. The performance evaluation results were reported at the end of February and are included in Appendix B. As detailed in the report, results were in excellent agreement with the performance sample values.



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AS SHOWN			Figure 5-4. Total Chlorinated VOCs in Unit B Hamilton Beach Proctor Silex, Inc. Washington, NC
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At several points during supplemental sampling, split samples were collected and submitted to a fixed lab for comparison with data generated by the field lab. Splits were collected on February 16, 2005, February 22, 2005, and March 4, 2005. In each case, the full suite of reported compounds was compared and a summary of the results is provided in Appendix C. Aside from differences due to sample dilution, no significant differences were noted between data from the two labs.

Section 6.0

6.0 TEST INJECTION

Test injections were completed in Units A and B to evaluate a new, time-saving injection tip and to determine the optimum volume of injectant and the appropriate spacing between injection points.

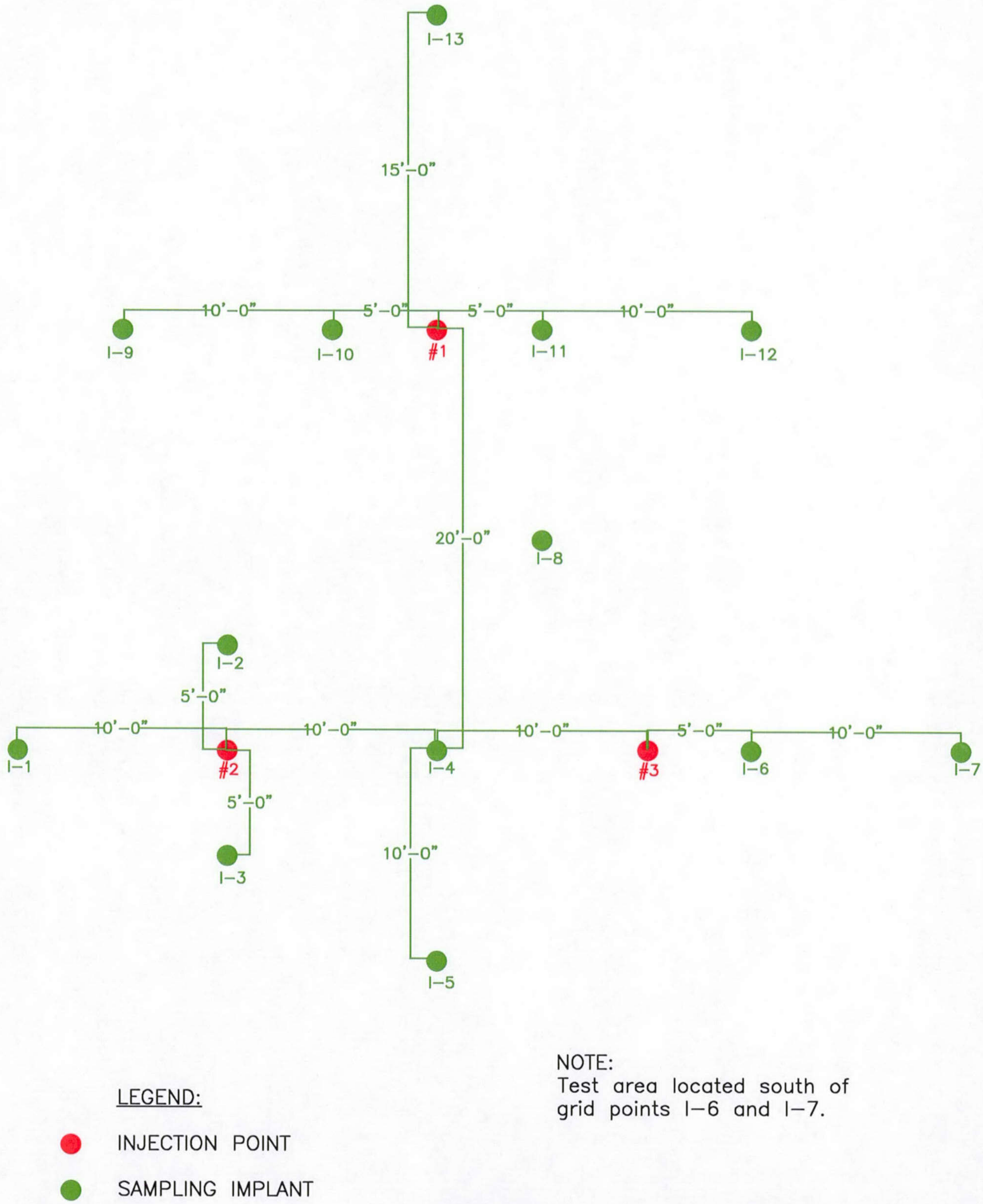
6.1 Test Injection in Unit A

Pilot study results had suggested that a grid spacing over 15 feet was impractical and that no more than 70 gallons of injectant could be introduced without causing significant leakage to the surface. Test injection in Unit A focused on determining the optimum spacing between injection points and the maximum volume of injectant that could be introduced without breaking through at land surface. Another objective of the current test was to evaluate a new injection tip that had the potential to greatly simplify the injection process, reducing the time and labor associated with the numerous injections planned in this unit.

A total of 14 injection points were advanced on a 15-foot grid spacing, and various volumes of slurry were injected at each of the targeted depths. As described in Section 9, injection in Unit A was performed in a "top-down" fashion and targeted a depth interval from 7 to 12 feet below land surface. Throughout injection, evidence indicating surface breakthrough was monitored. Initial results were promising; however, as more points were advanced and seepage pathways were created, cross-communication between pathways began to become an issue. As a result, the total volume of injectant tolerated by the formation began to fall, and it became evident that no more than 60 gallons of injectant should be specified in the final Injection Plan. Also, based on the test results, the largest grid spacing practical in Unit A is 15 feet, a result generally consistent with the finding of the pilot study.

6.2 Test Injection in Unit B

Test injection in Unit B evaluated both vertical and horizontal spacing. Three injection points were located using 20-foot grid spacing. Also, 13 strategically placed implants were installed targeting a depth interval between 21 and 26 feet. The locations of the implants with respect to the injection points are shown on Figure 6-1. Each injection point received three injections, vertically spaced every 3 feet with the targeted depths of adjacent points staggered by 1.5 feet so that overlap might be detected during the test. Slurry was injected from the bottom-



SCALE	DESIGNED BY	DATE	DRAWING TITLE
AS SHOWN			**Figure 6-1. Unit B Test Grid to Evaluate Effective Radius of Influence of Injections**
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up. Injections in points #1 and #2 were completed at 26 feet, 22.5 feet, and at 19.5 feet. In point #2, injections were completed at 24, 21, and 18 feet. As shown in the figure, each point had at least one implant located 5 feet away, and a combination of implants at distances of 10 to 15 feet.

Injectant was prepared according to the draft Injection Plan with 160 pounds of RID mixed into 500 gallons of polymer. Testing then proceeded as follows. Injection rods were installed in each of the three injection points, initially targeting the deepest injection interval. Starting at point #1, no more than 80 gallons of slurry was injected. After the required volume of ZVI slurry was injected, samples were collected from selected implants. Due to the dark color of the molasses in the ZVI slurry, injectant was easily identifiable. Samples were also analyzed for iron. Injection then continued with the addition of no more than another 120 gallons of ZVI slurry after which a second set of samples was collected from most if not all of the implants. Subsequently, injection was continued and followed by collection of a third set of samples. This process was repeated in the two remaining injection points, completing injection in the lowermost intervals before raising the rods and injecting ZVI slurry in the upper intervals. Testing continued throughout the day and ultimately slurry was injected at all three targeted depths in each injection point. Because the implants from which samples were collected were installed at different depths, information pertaining to radial mixing and the effective thickness of treatment as injectant propagated throughout the formation was obtained.

Upon evaluation of the test results, the following conclusions were reached. A pressure gradient was established very quickly as slurry was injected. A pressure head of at least 6 feet of water (approximately 3 pounds per square inch) resulted from injections. The distribution of injectant was not uniform as differing effects were observed at different directions from the injection point. In spite of the observed differences, sufficient data was obtained to allow the estimated "radius of influence" to be determined so that injection volume could be specified for a grid spacing of 15 feet to 25 feet.

Section 7.0

7.0 FINAL INJECTION PLAN

In situ remediation succeeds when effective contact occurs between the COCs and the injectant. Effective contact implies that the injectant persists in an active state for enough time to degrade the COCs and reduce their concentrations to the targeted cleanup standards. This also requires that injection be performed where COCs reside. This section summarizes the steps taken to translate the site characterization data and the results of supplemental sampling into the final injection plan included as Appendix D.

7.1 Segment the Plume

Knowing where COCs exist and identifying hot spots within the plume were critical to developing an effective injection plan. A principle objective of supplemental sampling was focused on defining the plume boundary, typically to within 25 feet or less, and to detecting hot spots. Therefore, the first step in final injection plan development was to subdivide the overall plume into areas where COC concentrations were reasonably uniform, such as the areas within individual isopleths on the plume isoconcentration map.

7.2 Assign Grid Spacing for Each Segment

Once the plume was segmented, the next step was to choose the grid spacing within each area. Grid spacing is a cost-benefit trade-off. The closer that injection points are located to each other, the more uniform injectant distribution becomes, but at a higher cost. Other factors influencing the grid spacing are soil type and the depth of injection. Balancing these variables was the overriding reason for expending the effort described above with test injections in both Unit A and Unit B. Ultimately, the greatest grid spacing practical was specified in the injection plan to minimize cost.

7.3 Determine Injection Loading

With the grid spacing established, the volume of injectant associated with certain grid spacing was determined. The amount of iron required was based on the estimated COC mass within each segment of the plume. Prevailing wisdom in the industry is that the more iron that is injected, the better the results based on the fact that the destruction of chlorinated compounds by iron takes place on the metallic surface. Other reactions such as oxidation and anaerobic corrosion can also occur in the subsurface and consume iron. Because these competing demands on the iron are difficult to quantify, overloading with iron is commonly employed.

At several locations, injection was designed to establish barriers to COC migration. At these locations, injectant loading was increased and grid spacing was reduced to address potential long-term transport of COCs from upgradient source areas. As shown on Figures 7-1 and 7-2, barriers were established within plume hot spots and near the facility boundary on the north, south, and east.

The injection plan summary table (Table 7-1) specified the amount of iron to be added at each injection point.

7.4 Determine Injection Interval

Finally, the number of injection intervals and the vertical distance between them at each injection point was determined and specified from the results of supplemental sampling and test injection. Iron loading was calculated based on the maximum concentration of COCs measured during vertical profiling and applied across the entire impacted thickness. The vertical spacing specified in Table 7-1 were determined from the pilot study results and verified during test injection.

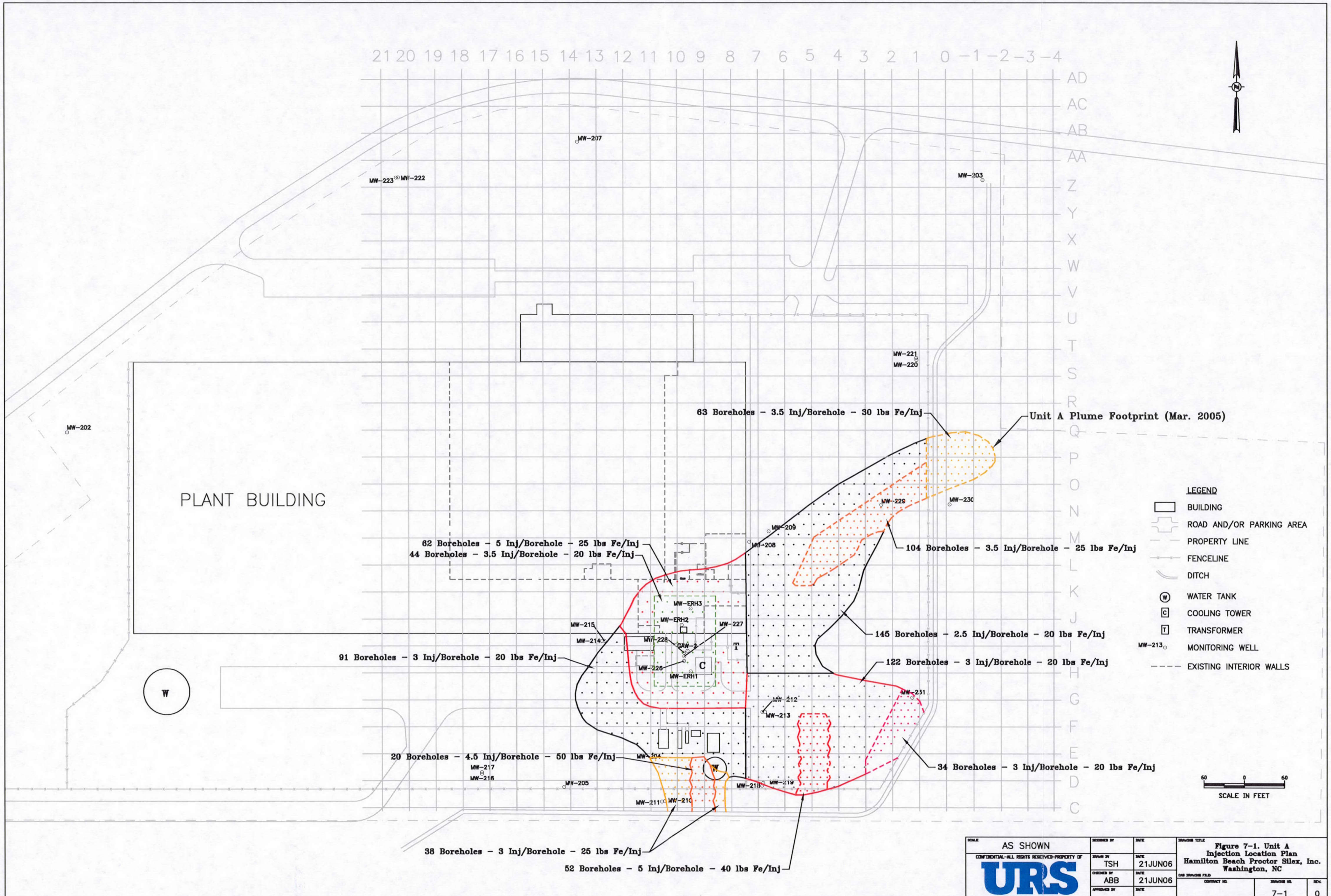

Figure 7-1. Unit A Injection Location Plan
Hamilton Beach Proctor Silex, Inc.
Washington, NC

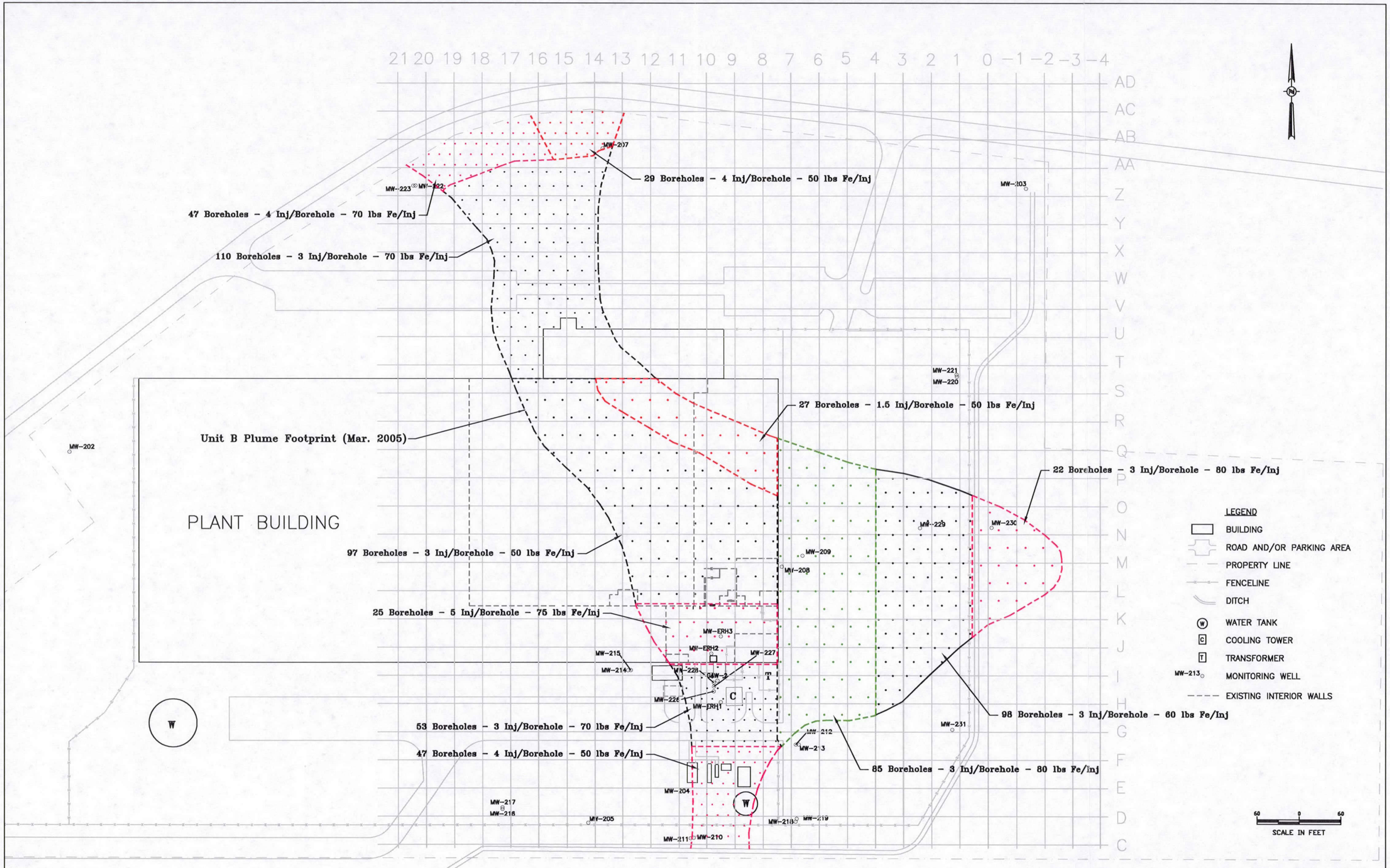

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Table 7-1. Injection Plan Summary Table

Plume Area	Grid Spacing (feet)	Number of Bore Holes	Injections/ Bore Hole	Number of Injections	Vertical Spacing	Volume (gallons/ injection)	Pounds-Fe/ Injection	Injection Depths	Total Pounds
Unit B - Outside Building									
*North Barrier W-half (2')	15	47	4	188	2'	125	60	22' to 28', and 23' to 29'	11,280
*North Barrier E-half (2')	15	29	4	116	2'	125	50	22' to 28', and 23' to 29'	5,800
Balance of Plume	20	110	3	330	3'	200	70	22' to 28', and 23.5' to 29.5'	23,100
Sub-total									
East Area (West of GL 4)-N	25	37	3	111	3'	250	80	21' to 27', and 22.5' to 28.5'	8,880
East Area (West of GL 4)-S	25	48	3	144	3'	250	80	18' to 24', and 19.5', 22.5', 26'	11,520
(East of GL 4)-N	20	32	3	96	3'	200	60	21' to 27', and 22.5' to 28.5'	5,760
(East of GL 4)-S	20	66	3	198	3'	200	60	18' to 24', and 19.5', 22.5', 26'	11,880
Out in the Woods	25	22	3	66	3'	250	80	18' to 24', and 19.5', 22.5', 25'	5,280
South Area (North 1/2)	15	53	3	159	3'	125	70	18' to 24', and 16.5' to 22.5'	11,130
South Area (South 1/2)	15	47	4	188	3'	125	50	18' to 27', and 16.5' to 25.5'	9,400
Unit B - Inside Building	(all 3')								
Source + adjacent Area	20	25	5	125	3'	200	75	18' to 30', and 19.5' to 31.5'	9,375
Main portion	25	97	3	291	3'	250	90	24' to 30', and 25.5' to 31.5'	26,190
North edge	20	27	1.5	41	3'	200	50	27' to 30', and 28.5'	2,025
**Sub-Total		640		2053					141,620
Unit A - South Area									
Source	15	44	3.5	154	2'	60	20	8" to 14', and 9' to 13'	3,080
Halo around source	15	62	5	310	2'	60	25	6' to 14', and 7' to 15'	7,750
Hot spot around D-9	10	20	4.5	90	2'	50	50	6' to 14', and 7' to 13'	4,500
Area around hot spot	10	38	3	114	2'	50	25	8' to 12', and 7' to 11'	2,850
Area in-between S & HS	15	91	3	273	2'	60	20	8' to 12', and 7' to 11'	5,460

Table 7-1. Injection Plan Summary Table (Continued)

Plume Area	Grid Spacing (feet)	Number of Bore Holes	Injections/ Bore Hole	Number of Injections	Vertical Spacing	Volume (gallons/ injection)	Pounds-Fe/ Injection	Injection Depths	Total Pounds
Unit A - East Area									
Far NE extension	10	63	3.5	221	2'	50	30	6' to 12', and 7' to 11'	6,615
Hot spot around E-5	10	52	5	260	2'	50	40	6' to 14', and 5' to 13'	10,400
SE corner along fence	10	32	3	96	2'	50	20	8' to 12', and 7' to 11'	1,920
Strip along hot channel	10	104	3.5	364	2'	50	25	6' to 12', and 7' to 11'	9,100
Balance N of GL "H"	15	149	2.5	373	2'	60	20	8' to 12', and 9' to 11'	7,450
Balance S of GL "H"	15	121	3	363	2'	60	20	8' to 12', and 7' to 11'	7,260
Unit A subtotal		776		2,617					66,385
Total		**1,416**		**4,670**					**208,005**

Section 8.0

8.0 PRE-INJECTION SITE PREPARATION

This section summarizes site preparation including equipment mobilization and sampling point installation.

8.1 Mobilization of Injection Equipment

Major equipment mobilized included the polymer mixing station, a holding tank for molasses storage, and the first injection trailer. The polymer mixing station was assembled, motor controls were mounted, and electrical wiring completed before the system was tested. Upon arrival of the first injection trailer, minor modifications were made to the process piping to enhance system performance. After testing the first trailer, similar modifications were made to the second injection trailer that arrived about three weeks later.

8.2 Installation of Implants

As described in Section 4, sampling implants were installed during supplemental sampling to better characterize the plume. Subsequently, additional sampling implants were installed in gaps within the implant network to monitor the injection of ZVI slurry. As a result, a reasonably uniform distribution of implants was established such that as injection progressed, no more than a day or two would pass without injecting past an implant. Following their installation, the new implants were sampled to establish a baseline concentration of the COCs.

8.3 Installation of New Wells

To overcome the possibility that sampling implants in Unit A might become dry during part of the year, ten new wells were installed throughout the plume within Unit A. The wells were constructed from standard 1-inch polyvinyl vinyl riser pipe and prepacked well screen. They were installed to a depth of 14 feet, slightly deeper than previous implants, to ensure the presence of groundwater throughout the year. Each well was finished within a flush-mounted vault and cover. The new well locations are shown on Figure 8-1.

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AS SHOWN			**Figure 8-1. Unit A New Well Locations Hamilton Beach Proctor Silex, Inc. Washington, NC**
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Section 9.0

9.0 DESCRIPTION OF SLURRY INJECTION

This section describes the injection of ZVI slurry and associated record keeping. Rather than reiterate information found in attached documents, such as the injection plan, brief summaries are provided in this report and the reader is referred to the appropriate documents for additional information.

9.1 Unit A Injection Technique

Slurry was injected into Unit A using a "top-down" technique. In this technique, slurry was first injected into the shallowest target interval creating a horizontal separation or fracture in the formation through which the slurry flowed. The injection rod and tip were then advanced to the next lower target interval and ZVI slurry was again injected. The procedure was repeated until injection was completed at the deepest target interval within each injection point location. When slurry is injected, the high hydraulic pressure measured initially will decrease as the fracture is developed and the pressure stabilizes at a reduced level as slurry flows into the formation. This pattern in pressure change is due to the fact that it requires less pressure to propagate a fracture than to initiate one. In utilizing the "top-down" technique, the injection rod sealed the upper fractures from the injection tip and ensured that a new fracture was formed at the targeted injection interval.

The pressure required to propagate a fracture in clayey formations is directly related to the depth of injection. This is because the orientation of the fractures is horizontal and the pressure is related to the force needed to lift the soil overlying the injection interval. As a fracture propagates, it takes the path of least resistance and the tendency is to migrate toward the surface. This limits the lateral spacing between injection points and the volume of slurry that can be injected, because some overlap of injectant is desired between adjacent injection point locations. Therefore, the vertical spacing between injection intervals was balanced between maximizing the number of fractures propagated while allowing sufficient margin of safety to avoid overlapping or otherwise compromising the seal between previous injection intervals.

The goal in injecting slurry is to provide the most effective contact with the COCs as possible. In clayey formations, this involves fracturing the soils with seams of injectant so that a 3-dimensional lattice is created. In the field, as slurry was injected, the pressure signature described above was the first evidence that the desired placement was occurring. Injection crews were instructed to monitor the initial high pressure and the subsequent pressure drop. Exceptions to this pattern indicated that leakage to an existing fracture had occurred or that the injection was being placed into a more sandy bed within the lower portion of Unit A. Leakage or breakthrough into existing fractures was regulated by adjusting the vertical spacing between the injection intervals. Throughout Unit A, ZVI slurry was injected every 2 feet in depth, lateral spacing did not exceed 15 feet, and the volume of slurry added was not more than 60 gallons per injection.

9.2 Unit B Injection Technique

Slurry was injected in Unit B using a "bottom-up" technique because it was the simplest and fastest injection method applicable in the sand deposit comprising the unit. In this technique, slurry was first injected into the deepest target interval, the injection rod and tip were then raised to the next higher target interval, and ZVI slurry was again injected. The procedure was repeated until injection was completed at the shallowest target interval within each injection point location. As the injection rod was raised, sand flowed into and filled the injection borehole. Unlike the clay deposits in Unit A, no fracture or tangible separation was formed in the sand deposits of Unit B. Rather, longitudinal and radial mixing took place as the slurry was injected into the unit. Therefore, the pressure required to force slurry in the Unit B did not vary significantly during injection. Consequently, it was not necessary to seal the injection tip from adjoining injection intervals.

Throughout Unit B, ZVI slurry was injected every 3 feet in depth, lateral spacing was between 15 and 25 feet, and the volume of slurry injected ranged from 125 to 250 gallons per injection depending on the lateral spacing selected.

9.3 Injection Point Locations

Several thousand injection points were required to inject ZVI slurry throughout the plume. Injection point locations for Unit A are shown on Figure 7-1 and those for Unit B are shown on Figure 7-2. As illustrated on the figures, injection grid spacing varied based on COC concentration in the area and the locations of the injection points with respect to the property boundary. For example, smaller grid spacing was used where COC concentrations were high, such as the hot spot around grid point E-5 in Unit A. Similar grid spacing was used in Unit A in the vicinity of grid point F-2 to establish a treatment barrier adjacent to the drainage ditch.

Injection points were located in the field and identified with marker paint by a member of the project team utilizing the established Cartesian grid. The locations of the points were independently verified by another member of the project team prior to beginning injection in an area. During injection, progress was monitored independently and results were reconciled at the completion of injection to ensure that no points were overlooked.

9.4 Record Keeping

Various records were kept throughout the course of the field work and were important in documenting the work performed.

9.4.1 Field Book

A detailed account of all work performed was kept in the field book. The field book was used to document both supplemental sampling as well as the slurry injection. The following information was recorded during supplemental sampling:

- Start and stop times for the day;
- Onsite field staff;
- Samples to be taken;
- Implants to be set;
- Sample times, IDs, and depths;
- Any occurrences that might affect the field work; and
- Various notes on client comments and site conditions.

The following information was recorded during slurry injection:

- Start and stop times for the day;
- Onsite field staff;
- Area(s) injected that day;
- Each injection as it was completed;
- The depth and slurry density of each injection;
- The amount of molasses used;
- Evidence of injection in implants or wells;
- Any occurrences that might affect the field work; and
- Various notes on client comments and site conditions.

In addition to the above information, the field book also contained pertinent phone numbers, dates and times of deliveries for materials, and detailed accounts of any deviations from the injection plan.

9.4.2 Daily Log

A daily log was completed at the end of each working day that summarized the work accomplished. Included on the log during slurry injection were the total amount of iron, molasses and polymer injected; as well as the number of injections completed and the injection intervals. In addition, any evidence of slurry in the implants and/or wells during injections was noted. The daily log was completed by the AST site manager and given to URS field personnel the following morning. URS would then check the sheet for accuracy and sign off on the work performed. Copies were kept by AST and URS as permanent records of the total iron and molasses injected.

9.4.3 Progress Reports

On a weekly basis, the daily logs were summarized into a progress report that described the field work performed over the week. Just as the daily reports were verified, the weekly summaries were approved by URS and copies retained for the file. These reports were formatted in the same manner as the daily logs and copies are included in Appendix E.

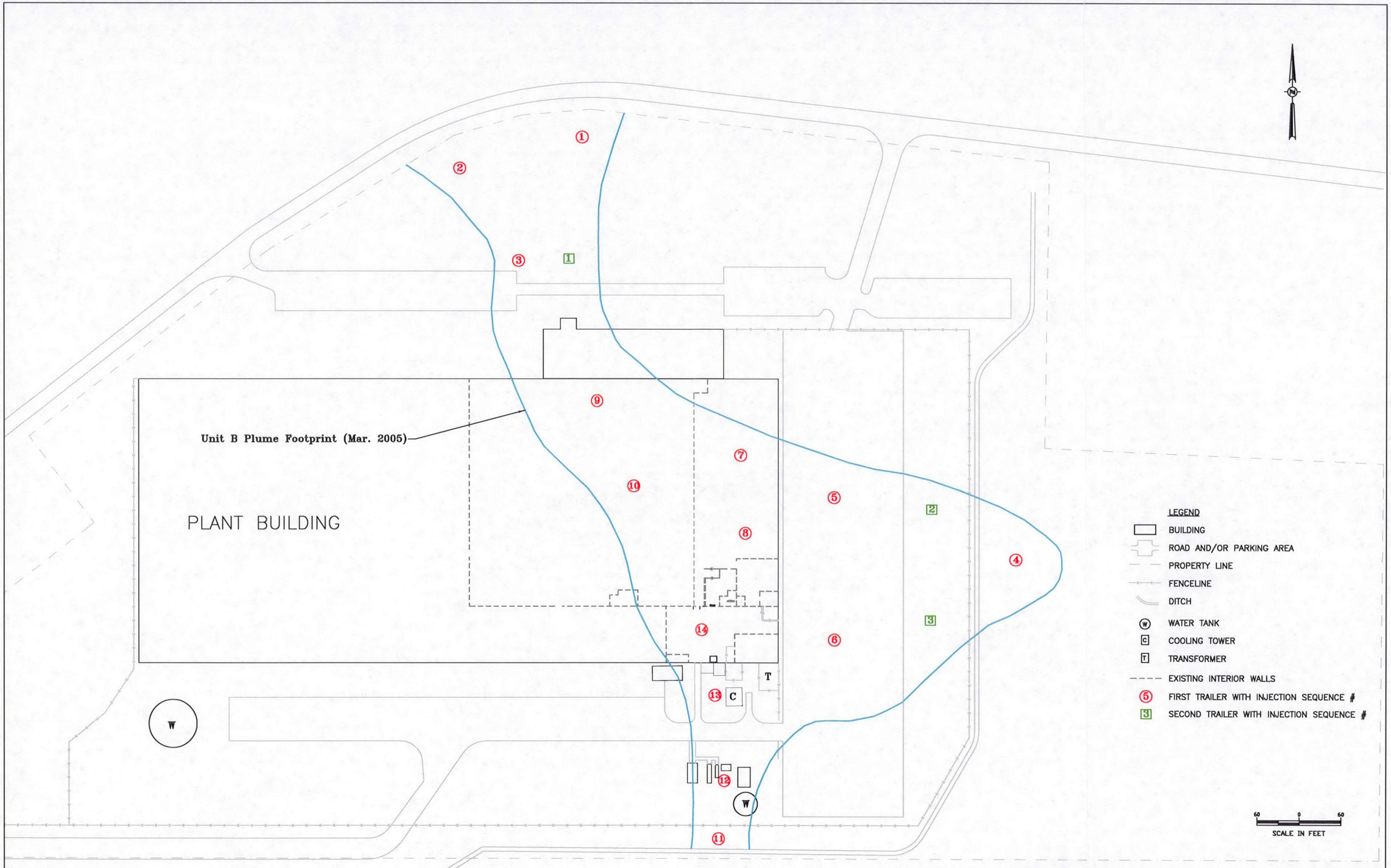
9.5 Injection Sequence

This section describes the sequence in which injection was completed. Figures 9-1 and 9-2 depict the movements of the injection trailers as injection progressed in Units A and B, respectively. The two trailers are distinguished by different colors, so the red numbers on the figures represent the first injection trailer and the green numbers represent the second injection trailer. The numbers represent the sequence in which injection occurred. Injection into Unit A using the first trailer began along the fence-line at the southeastern lobe of the plume as shown by red number 1. Injection then progressed to areas identified by red number 2, red number 3, and so on. Injection in the hotspot near Grid point E-5 (red number 4) was initiated only after injection had been completed in areas on either side, so that if any COCs were mobilized, they would be transported into an area in which ZVI slurry had already been injected. Also, injection at this hot spot was performed moving from south to north, away from the property boundary.

Injection into Unit A with the second trailer began at the northeastern lobe of the plume as shown by green number 1. The injection then progressed to the areas identified by green number 2, and then green number 3. According to this sequence, injection began at the downgradient plume edge and proceeded back toward the source area consistent with the injection plan. This approach of beginning injection at the plume boundary and progressing inward was effective in minimizing the potential spreading of COCs through the addition of thousands of gallons of water during injection.

Figure 9-2 depicts the sequence of slurry injection into Unit B. Injection began in the northern portion of the plume where barrier injection was initially completed before continuing injection toward the north side of the plant building. The trailers were then moved to the east end of the plume's eastern lobe and injection continued. Working together, the first and second

SCALE	DESIGNED BY	DATE	DRAWING TITLE
AS SHOWN			**Figure 9-1. Injection Sequence Unit A Hamilton Beach Proctor Silex, Inc. Washington, NC**
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS RDU, NORTH CAROLINA 27560	DRAWN BY TSH	DATE 21JUN06	CAD DRAWING FILE
	CHECKED BY ABB	DATE 21JUN06	CONTRACT NO. / DRAWING NO. 9-1 / REV. 0
	APPROVED BY	DATE	



SCALE: AS SHOWN	DESIGNED BY	DATE	DRAWING TITLE: **Figure 9-2. Injection Sequence Unit B Hamilton Beach Proctor Silex, Inc. Washington, NC**	
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS, RDU, NORTH CAROLINA 27560	DRAWN BY: TSH	DATE: 21JUN06	CAD DRAWING FILE	
	CHECKED BY: ABB	DATE: 21JUN06	CONTRACT NO.	DRAWING NO.: 9-2 — REV.: 0
	APPROVED BY	DATE		

trailer then proceeded to inject slurry within the eastern lobe of the plume underlying the parking lot and the adjacent grassed area. Next, the first trailer entered the plant building and completed injection in the order depicted on the figure. The first trailer then was once again moved outside to perform injection within Unit B in the southern lobe of the plume. Finally, injection was finished just inside the plant building at the former source area.

Slurry injection started on 23 March 2005 and finished on 9 August 2005. Dates associated with each stage of injection are shown on Table 9-1. This table is a modification of the injection table found in the injection plan and summarizes the "as-built treatment system." In all, 206,900 pounds of RID were injected throughout the plume in Unit A and Unit B for a total of 4,645 injections at 1,407 injection point locations.

9.6 Verification of Placement

The injection techniques used in each unit were selected to produce an essentially uniform distribution of ZVI throughout the formations that effectively contacted the COCs. The most common way to delineate the radius of influence surrounding each injection point is by sampling for the presence of injectant. Throughout injection, placement of the ZVI and molasses was monitored through the groundwater implants and monitoring wells. As injection was completed around any implant or monitor well, samples were collected.

On a regular basis, accumulated samples were packed into a cooler containing wet ice and shipped by overnight freight to the analytical laboratory for testing. Because baseline data had been obtained from every sampling point prior to commencing injection, any chemical changes in the samples were easily noted and documented. Several hundred samples were collected and analyzed during injection and the data was initially reviewed to verify the presence of injectant.

Another indication that injectant had reached the targeted zones was related to the short term effect produced when molasses was injected into the saturated subsurface. Molasses contains a large amount of sugars that are readily consumed by subsurface bacteria and this activity rapidly drove the formation into an anaerobic state. The anaerobic activity centered on fermentation of these sugars and produced a variety of alcohols and esters that can easily be detected analytically. Also, various gases, including carbon dioxide, are byproducts of fermentation, and the generation of this gas produced pressure in the subsurface. This pressure built to the point that groundwater was forced up and out of the implants as a stream or as foam

Table 9-1. "As Built" Injection Summary Table

Plume Area	Date Injected	Grid Spacing (feet)	Number of Bore Holes	Injections/ Bore Hole	Number of Injections	Vertical Spacing	Volume (gallons/ injection)	Pounds-Fe/ Injection	Total Pounds
Unit B - Outside Building									
North Barrier W-half	4/18-21/05	15	47	4	188	2'	125	60	11,280
North Barrier E-half	4/12-14/06	15	29	4	116	2'	125	50	5,800
Balance of Plume	4/21/05 - 5/2/05	20	109	3	327	3'	200	70	22,890
East Area (West of GL-4)-N	5/17-20/05	25	37	3	111	3'	250	80	8,880
East Area (West of GL-4)-S	5/23/05 - 6/1/05	25	48	3	144	3'	250	80	11,520
East Area (East of GL-4)-N	5/3-5/05 - 5/17/05	20	32	3	96	3'	200	60	5,760
East Area (East of GL-4)-S	5/18-24/05	20	64	3	192	3'	200	60	11,520
Out in the Woods	5/3-5/05	25	22	3	66	3'	250	80	5,280
South Area (North 1/2)	7/12-19/05	15	53	3	159	3'	125	70	11,130
South Area (South 1/2)	7/6-12/05	15	47	4	188	3'	125	50	9,400
Unit B - Inside Building									
Source + Adjacent Area	8/4-9/05	20	25	5	125	3'	200	75	9,375
Main Portion	6/3-9/05 - 6/16-7/1/05	25	96	3	288	3'	250	90	25,920
North Edge	6/1-3/05 - 6/21/05	20	27	1.5	39	3'	200	50	1,950
Unit B - Subtotal			636		2039				140,705
Unit A - South Area									
Source	8/1-4/05	15	44	3.5	154	2'	60	20	3,080
Halo around the source	7/28-29 - 8/2-3/05	15	62	5	310	2'	60	25	7,750
Hot spot around D-9	7/6-7/05 - 7/15-18/05	10	20	4.5	90	2'	50	50	4,500
Area around the hot spot	7/6-7/05 - 7/18-1905	10	38	3	114	2'	50	25	2,850
Area in-betweeen S & HS	7/19-27/05	15	90	3	270	2'	60	20	5,400
Unit A - East Area									
Far NE extension	5/25-27/05	10	63	3.5	220	2'	50	30	6,630

Table 9-1. "As-Built" Injection Summary Table (Continued)

Plume Area	Date Injected	Grid Spacing (feet)	Number of Bore Holes	Injections/ Bore Hole	Number of Injections	Vertical Spacing	Volume (gallons/ injection)	Pounds-Fe/ Injection	Total Pounds
Hot spot around E-5	4/5-7/05	10	52	5	260	2'	50	40	10,400
SE Corner along fence	3/23-25/05	10	33	3	99	2'	50	20	1,980
Strip along hot channel	6/7-10/05	10	104	3.5	365	2'	50	25	9,125
Balance N of GL-H	6/3-6/05 - 6/10-14/05	15	141	2.5	352	2'	60	20	7,040
Balance S of GL-H	3/25/05 - 4/11/05	15	124	3	372	2'	60	20	7,440
Unit A - Subtotal			771		2,606				66,195
Total			**1,407**		**4,645**				**206,900**

created by gasses escaping from the injection zone. This pattern was routinely observed at implants throughout the injection of ZVI slurry and was characterized by the initial appearance of injectant followed, a day or two later, by groundwater or foam persisting for several days.

9.7 Routine Maintenance and Decontamination of Equipment

Continuous maintenance of equipment was performed to avoid excessive downtime and to complete slurry injection within the allotted time. Maintenance schedules provided by the manufacturers of each piece of equipment were incorporated into the overall program. Scheduled oil changes were performed on the transfer and injection pump motors, the generator, and the drill rig. The RID created a number of additional problems that required daily attention, due to settling in lines and causing critical parts in the injection system to malfunction.

Decontamination of drill rods and ancillary equipment was not required during slurry injection. However, some minimal cleaning was required so that rods would continue to thread together easily and not become difficult to disassemble. The injection hoses, piping, and direct push rods were cleaned once a day by flushing the system with clean water.

9.8 Deviations from the Injection Plan

All field changes and modifications to the injection were documented in the field records and involved either offsetting or eliminating injection points because of access constraints. Deviations from the injection plan in Unit B are summarized below:

- The northern barrier installation was shifted slightly to the south to avoid encroaching onto the city right-of-way. This shift affected all injection point locations in this segment of the plume and resulted in the elimination of one injection point.
- The injection point locations at the southeast corner of the plant building were adjusted because of the electrical substation.
- One injection point inside the plant building was eliminated due to access constraints.

Deviations from the injection plan in Unit A are summarized below:

- One proposed injection point located immediately outside the source area was eliminated to avoid damaging a drain pipe.
- One injection point was added along the fence in the southeast corner of the site to correct a discrepancy with the injection plan.
- As in Unit B, several injection points were eliminated because of the electrical substation.

- Injection at the hot spot near Grid Point E-5 was shifted to the south by one row to add greater coverage on the south side. Also, three injection points were added on the north end of this area to compensate for the shift.

Section 10.0

10.0 SITE RESTORATION AND DEMOBILIZATION

The goal of restoration was to return the site to the conditions that existed prior to injection. Since no major changes to site structures or utilities were required during the project, restoration was essentially limited to removing implants and repairing the small holes that penetrated asphalt and concrete across the site. A few modifications to the facility's electrical system in the form of power drops had been required and decommissioning of these was handled by HB◊PS.

10.1 Abandonment of Implants

Once injection was completed, implants not required to monitor the performance of the iron were abandoned. The tubing was removed leaving the expendable point behind. Once the tubing was removed, a grout prepared from Portland cement was poured into the borehole, filling any void space and creating an effective seal.

10.2 Floor and Pavement Patching

Many of the injection points penetrated asphalt and concrete and required patching. After injection was completed in an area and sufficient time had passed to allow subsurface pressure to dissipate, the holes were patched. Holes in the parking lot were repaired with cold asphalt patch. The holes were cleaned out to 4 inches below ground surface and then asphalt patch was applied to the hole. Driveways and concrete flooring inside the building were patched in a similar manner. The holes were first cleaned out to 4 inches below the surface and then patched with a concrete mix. Holes located in the grass were sealed with bentonite chips.

10.3 Injection of Excess Molasses

After the planned injection was completed, a small amount of molasses was left in the bulk storage tank. The excess molasses was mixed with water and injected as a 20 percent (volume/volume) solution into Unit B underlying the source area. This was accomplished the day after ZVI slurry injection was completed.

10.4 Equipment Decontamination and Demobilization

Before leaving the site, all of the injection equipment and tanks were thoroughly cleaned. Clean water was flushed throughout the injection system, including tanks, pumps, piping, and injection hoses. A similar cleaning process was performed on the polymer mixing station and molasses tank.

A pressure washer was used for final cleaning of all equipment. After pressure washing, the equipment was moved to staging areas for demobilization. Demobilization of the equipment was completed over several days. The first items removed from the site were the molasses tank, polymer mix station, excess polymer and RID, and injection hoses. The remaining items were packed on the injection and drill rig trailers and left the site one week after the field work was completed.

10.5 Final Inspection

A site walk was conducted to view all areas where injection had been conducted and to inspect the results of the clean-up and restoration. At this time, areas of the site that required further attention were noted. Following the correction of any deficiencies, a follow-up inspection was conducted to verify completion of this final phase of the work.

Section 11.0

11.0 REFERENCES

Radian International LLC, 1999. *Comprehensive Site Assessment Report, Hamilton Beach◊Proctor-Silex, Inc., Washington, North Carolina*, January.

URS Corporation-NC, 2002. *Corrective Action Plan, Hamilton Beach◊Proctor-Silex, Inc., Washington, North Carolina*, October.

URS Corporation-NC and Thermal Remediation Services, Inc., 2005. *Final Report, Electrical Resistance Heating Operation, Chlorinated Solvent Source Removal, Hamilton Beach◊Proctor-Silex, Inc., Washington, NC*, March.

Appendix A

APPENDIX A

SUPPLEMENTAL SAMPLING RESULTS

Appendix A-1
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	GAW - 2	K - 4	M - 4	Q - 1	O - 1	M - 1	K - 1	P - 1
Sample Depth		8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'
Date Sampled/Analyzed	2/11/2005	2/11/2005	2/12/2005	2/12/2005	2/12/2005	2/12/2005	2/12/2005	2/14/2005
(Units = ug/L)								
Vinyl Chloride	12 (5)	5.4 (0.5)	5.7 (0.5)	ND (0.5)	21 (5)	ND (0.5)	ND (0.5)	4.9 (0.5)
Chloroethane	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	1.8 (0.5)
1,1-Dichloroethene	613 (5)	260 (5)	145 (0.5)	ND (0.5)	1328 (5)	ND (0.5)	ND (0.5)	164 (0.5)
trans-Dichloroethene	6.7 (5)	3.9 (0.5)	5.6 (0.5)	ND (0.5)	36 (5)	ND (0.5)	ND (0.5)	14 (0.5)
1,1-Dichloroethane	19 (5)	500 (5)	853 (5)	ND (0.5)	4070 (50)	0.8 (0.5)	ND (0.5)	673 (5)
cis-Dichloroethene	421 (5)	585 (5)	1877 (5)	ND (0.5)	16090 (50)	3.9 (0.5)	ND (0.5)	2150 (5)
Chloroform	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (5)	7.2 (0.5)	24 (0.5)	ND (0.5)	116 (5)	ND (0.5)	ND (0.5)	18 (0.5)
1,1,1-Trichloroethane	ND (5)	4.7 (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	261 (5)	127 (0.5)	2.5 (0.5)	ND (0.5)	7 (5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (5)	1.4 (0.5)	3.2 (0.5)	ND (0.5)	13 (5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (10)	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (10)	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)
Naphthalene	93 (50)	ND (5)	5 (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries (%)								
Dibromofluoromethane	103	99	103	102	103	109	108	110
d8-Toluene	98	96	100	97	99	97	99	97
Bromofluorobenzene	97	95	99	96	102	91	102	101

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	G - 4	N - 1	D - 7	D - 9	D - 11	D - 13	D - 15	I - 4
Sample Depth	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'
Date Sampled/Analyzed	2/14/2005	2/14/2005	2/14/2005	2/15/2005	2/23/2005	2/15/2005	2/15/2005	2/14/2005
(Units = ug/L)								
Vinyl Chloride	2.6 (0.5)	ND (0.5)	ND (0.5)	107 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	29 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	1080 (5)	ND (0.5)	1.6 (0.5)	1340 (50)	ND (0.5)	6.9 (0.5)	1.2 (0.5)	0.9 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	331 (0.5)	ND (0.5)	0.7 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	43 (0.5)	0.7 (0.5)	7.0 (0.5)	1690 (50)	3.3 (0.5)	27 (0.5)	1.0 (0.5)	ND (0.5)
cis-Dichloroethene	1.6 (0.5)	0.9 (0.5)	0.7 (0.5)	21300 (50)	ND (0.5)	11 (0.5)	ND (0.5)	0.8 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	1.9 (0.5)	ND (0.5)	0.6 (0.5)	2.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	12 (0.5)	ND (0.5)	0.8 (0.5)	26 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	11 (0.5)	ND (0.5)	ND (0.5)	132,000	2.0 (0.5)	6.4 (0.5)	ND (0.5)	1.0 (0.5)
1,1,2-Trichloroethane	2.3 (0.5)	ND (0.5)	1.9 (0.5)	15 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	12 (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	33 (0.5)	ND (0.5)	0.6 (0.5)	2410 (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	6 (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	20 (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	5 (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries (%)								
Dibromofluoromethane	114	113	109	115	93	116	117	109
d8-Toluene	97	97	96	71	103	96	96	95
Bromofluorobenzene	101	101	100	109	81	102	101	94

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	I - 6	G - 6	M - 6	K - 6	O - 6	I - 12	G - 2	G - 8
Sample Depth	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'
Date Sampled/Analyzed	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/17/2005	2/17/2005	2/17/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	73 (0.5)	1.5 (0.5)	ND (10)	ND (0.5)	33 (0.5)	ND (0.5)	ND (50)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	2.4 (0.5)	226 (50)
1,1-Dichloroethene	22 (0.5)	7550 (50)	25 (0.5)	1080 (10)	ND (0.5)	26 (0.5)	114 (0.5)	3340 (50)
trans-Dichloroethene	ND (0.5)	4.9 (0.5)	ND (0.5)	ND (10)	ND (0.5)	14 (0.5)	ND (0.5)	ND (50)
1,1-Dichloroethane	9.6 (0.5)	1910 (50)	10 (0.5)	2810 (10)	0.8 (0.5)	227 (0.5)	28 (0.5)	ND (50)
cis-Dichloroethene	6.7 (0.5)	33 (0.5)	5.1 (0.5)	940 (10)	1.8 (0.5)	186 (0.5)	ND (0.5)	23 (50)
Chloroform	ND (0.5)	1.7 (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)
1,2-Dichloroethane	0.6 (0.5)	149 (0.5)	ND (0.5)	68 (10)	ND (0.5)	ND (0.5)	1.4 (0.5)	ND (50)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	380 (10)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)
Benzene	0.7 (0.5)	1.4 (0.5)	ND (0.5)	ND (50)	ND (0.5)	1.2 (0.5)	ND (0.5)	ND (50)
Trichloroethene	53 (0.5)	8550 (50)	3.9 (0.5)	2540 (10)	0.9 (0.5)	46 (0.5)	ND (0.5)	4730 (50)
1,1,2-Trichloroethane	ND (0.5)	277 (0.5)	ND (0.5)	19 (10)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)
d8-Toluene	ND (5)	278 (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (500)
Tetrachloroethene	ND (0.5)	13 (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)	100 (50)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (500)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (500)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (500)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)	ND (100)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (500)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)	ND (100)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (500)
Surrogate Recoveries (%)								
Dibromofluoromethane	120	119	119	121	118	11	115	120
d8-Toluene	94	93	95	94	94	97	96	97
Bromofluorobenzene	107	108	107	108	108	101	99	102

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	ERH-1	ERH-2	ERH-3	G - 10	G - 12	MW - 230	G - 14	E - 5
Sample Depth	10'	10'	10'	8' - 12'	8' - 12'	shallow	8' - 12'	8' - 12'
Date Sampled/Analyzed	2/17/2005	2/17/2005	2/17/2005	2/17/2005	2/17/2005	2/17/2005	2/19/2005	2/19/2005
(Units = ug/L)								
Vinyl Chloride	15 (0.5)	48 (5)	23 (5)	524 (50)	1170 (50)	ND (0.5)	1.5 (0.5)	22 (0.5)
Chloroethane	ND (0.5)	ND (5)	ND (5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	54 (0.5)
1,1-Dichloroethene	191 (0.5)	6060 (5)E	2537 (5)	11350 (50)	13080 (50)	0.7 (0.5)	7.1 (0.5)	35300 (50)
trans-Dichloroethene	1.8 (0.5)	13 (5)	12 (5)	ND (50)	63 (50)	ND (0.5)	ND (0.5)	22 (0.5)
1,1-Dichloroethane	14 (0.5)	39 (5)	5 (5)	2121 (50)	8260 (50)	0.6 (0.5)	19 (0.5)	10270 (50)
cis-Dichloroethene	197 (0.5)	125 (5)	234 (5)	3210 (50)	8910 (50)	ND (0.5)	1.5 (0.5)	27 (0.5)
Chloroform	ND (0.5)	ND (5)	ND (5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	32` (0.5)
1,2-Dichloroethane	ND (0.5)	ND (5)	ND (5)	67 (50)	212 (50)	ND (0.5)	ND (0.5)	281 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (5)	ND (5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	34050 (50)
Carbon Tetrachloride	ND (0.5)	ND (5)	ND (5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	4.9 (0.5)	9 (5)	13 (5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	6.5 (0.5)
Trichloroethene	6.7 (0.5)	1346 (5)	3265 (5)E	9210 (50)	6020 (50)	ND (0.5)	14 (0.5)	590 (50)
1,1,2-Trichloroethane	0.7 (0.5)	18 (5)	ND (5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	232 (0.5)
d8-Toluene	6.1 (5)	96 (50)	ND (5)	ND (500)	ND (500)	ND (5)	22 (5)	231 (5)
Tetrachloroethene	ND (0.5)	ND (5)	ND (5)	ND (50)	ND (50)	ND (0.5)	0.8 (0.5)	300 (50)
Ethylbenzene	ND (5)	ND (50)	ND (50)	ND (500)	ND (500)	ND (5)	ND (5)	7.5 (5)
m/p-Xylene	ND (5)	ND (50)	ND (50)	ND (500)	ND (500)	ND (5)	ND (5)	25 (5)
o-Xylene	ND (5)	ND (50)	ND (50)	ND (500)	ND (500)	ND (5)	ND (5)	17 (5)
n-Propylbenzene	ND (1)	ND (10)	ND (10)	ND (100)	ND (100)	ND (1)	ND (1)	1.1 (1)
1,2,4-Trimethylbenzene	ND (5)	ND (50)	ND (50)	ND (500)	ND (500)	ND (5)	ND (5)	11 (5)
4-Isopropyld8-Toluene	ND (1)	ND (10)	ND (10)	ND (100)	ND (100)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (50)	ND (50)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries (%)								
Dibromofluoromethane	115	96	100	120	117	113	100	100
d8-Toluene	96	98	100	97	96	95	99	103
Bromofluorobenzene	100	94	99	99	99	99	97	99

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	M - 2	M - 8	K - 8	G - 1	E - 3	D - 3	D - 5	L - 11
Sample Depth	8' - 12'	11' - 15'	11' - 15'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	11' - 15'
Date Sampled/Analyzed	2/19/2005	2/19/2005	2/19/2005	2/20/2005	3/1/2005	2/24/2005	2/20/2005	2/20/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	21 (5)	ND (0.5)
Chloroethane	ND (0.5)	1.3 (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)
1,1-Dichloroethene	1.0 (0.5)	4.7 (0.5)	1473 (50)	ND (0.5)	263 (0.5)	ND (0.5)	24,300 (5)	3.7 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	14 (5)	ND (0.5)
1,1-Dichloroethane	1.7 (0.5)	140 (0.5)	935 (50)	2.3 (0.5)	12 (0.5)	ND (0.5)	3127 (5)	7.7 (0.5)
cis-Dichloroethene	1.3 (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	12 (5)	9.5 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	6 (5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	2.7 (0.5)	ND (0.5)	205 (5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	1.7 (0.5)	90 (50)	ND (0.5)	ND (0.5)	ND (0.5)	126 (5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	1670 (50)	6.6 (0.5)	ND (0.5)	ND (0.5)	18 (5)	0.7 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)	92 (5)	ND (0.5)
d8-Toluene	ND (0.5)	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	70 (50)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (500)	0.6 (0.5)	0.9 (0.5)	ND (0.5)	530 (5)	2.3 (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (100)	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (100)	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (500)	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)
Surrogate Recoveries (%)								
Dibromofluoromethane	97	104	97	110	104	100	109	105
d8-Toluene	98	100	99	101	102	107	101	101
Bromofluorobenzene	99	95	95	89	92	86	93	90

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	G - 9	F - 9	D - 8	D - 10	E - 8/9	F - 7	H - 3	P - 3
Sample Depth	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'	8' - 12'
Date Sampled/Analyzed	2/22/2005	2/22/2005	3/1/2005	2/23/2005	2/23/2005	2/23/2005	2/23/2005	2/24/2005
(Units = ug/L)								
Vinyl Chloride	155 (5)	2.3 (0.5)	ND (0.5)	7.3 (0.5)	ND (10)	3.1 (0.5)	ND (0.5)	ND (0.5)
Chloroethane	6.2 (5)	8.1 (0.5)	ND (0.5)	6.8 (0.5)	ND (10)	8.8 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	14240 (50)	130 (0.5)	0.9 (0.5)	75 (0.5)	ND (10)	810 (10)	3.0 (0.5)	ND (0.5)
trans-Dichloroethene	240 (5)	1.3 (0.5)	ND (0.5)	3.3 (0.5)	68 (10)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	1500 (5)	102 (0.5)	ND (0.5)	84 (0.5)	16 (10)	54 (0.5)	1.2 (0.5)	1.3 (0.5)
cis-Dichloroethene	1730 (5)	89 (0.5)	ND (0.5)	362 (0.5)	1200 (10)	2.5 (0.5)	ND (0.5)	1.4 (0.5)
Chloroform	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	380 (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	4.7 (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	391 (5)	1.3 (0.5)	ND (0.5)	5.8 (0.5)	ND (10)	ND (0.5)	2.3 (0.5)	ND (0.5)
Carbon Tetrachloride	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	6350 (50)	3.8 (0.5)	ND (0.5)	206 (0.5)	2200 (10)	12 (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	111 (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (10)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (50)	ND (5)	ND (5)	ND (5)	ND (100)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	150 (5)	ND (0.5)	ND (0.5)	4.2 (0.5)	12 (10)	3.4 (0.5)	0.6 (0.5)	ND (0.5)
Ethylbenzene	ND (50)	ND (5)	ND (5)	ND (5)	ND (100)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (50)	ND (5)	ND (5)	ND (5)	ND (100)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (50)	ND (5)	ND (5)	ND (5)	ND (100)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (10)	ND (1)	ND (1)	ND (1)	ND (200)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (50)	ND (5)	ND (5)	ND (5)	ND (100)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (10)	ND (1)	ND (1)	ND (1)	ND (200)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (50)	ND (5)	ND (5)	ND (5)	ND (100)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries (%)								
Dibromofluoromethane	97	104	103	105	100	101	102	100
d8-Toluene	110	108	102	107	108	107	110	108
Bromofluorobenzene	88	89	88	88	89	88	87	86

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	K - 3	E/F - 13/14	G - 15	O - 0	P - 0	Q - 0	E - 6	F - 5
Sample Depth	8' - 12'	8' - 12'	8' - 12'	10' - 15'	10' - 15'	9' - 14'	8' - 12'	8' - 12'
Date Sampled/Analyzed	2/24/2005	2/24/2005	2/24/2005	3/1/2005	3/1/2005	3/1/2005	3/2/2005	3/2/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	19 (5)	2.1 (0.5)	ND (0.5)	2 (0.5)	77 (5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	28 (5)	0.5 (0.5)	ND (0.5)	3 (0.5)	ND (5)
1,1-Dichloroethene	1.9 (0.5)	ND (0.5)	ND (0.5)	867 (5)	81 (0.5)	ND (0.5)	333 (5)	26000 (100)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	37 (5)	11 (0.5)	ND (0.5)	ND (0.5)	14 (5)
1,1-Dichloroethane	6.2 (0.5)	0.6 (0.5)	1.5 (0.5)	2064 (5)	343 (0.5)	ND (0.5)	22 (0.5)	1320 (5)
cis-Dichloroethene	2.9 (0.5)	ND (0.5)	0.9 (0.5)	12,500 (50)	1050 (0.5)	0.9 (0.5)	1.1 (0.5)	33 (5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	58 (5)	9.9 (0.5)	ND (0.5)	9.5 (0.5)	217 (5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	34 (5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	0.7 (0.5)	ND (0.5)	ND (0.5)	ND (5)
Trichloroethene	ND (0.5)	ND (0.5)	2.4 (0.5)	8 (5)	ND (0.5)	ND (0.5)	0.7 (0.5)	50 (5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	48 (5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (50)	151 (50)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	117 (5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)	ND (10)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)	ND (10)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)	ND (50)
Surrogate Recoveries (%)								
Dibromofluoromethane	99	100	101	92	91	91	103	101
d8-Toluene	108	108	108	103	106	105	104	104
Bromofluorobenzene	84	86	85	85	84	85	90	86

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	-4 - Q	-3 - P	-2 - Q	-2 - O	N - 0	C - 9	H - 7	I - 10
Sample Depth	10' - 15'	10' - 15'	10' - 15'	8' - 13'	10' - 15'	8' - 12'	8' - 12'	8' - 12'
Date Sampled/Analyzed	3/2/2005	3/2/2005	3/2/2005	3/2/2005	3/2/2005	3/2/2005	3/4/2005	3/4/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	55 (50)	6.3 (5)	7.8 (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	223 (50)	10 (5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	4.9 (0.5)	ND (0.5)	4530 (50)	1230 (5)	2680 (50)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	58 (50)	ND (5)	3.2 (0.5)
1,1-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	6570 (50)	74 (5)	2.1 (0.5)
cis-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	2970 (50)	46 (5)	82 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND (5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	19 (5)	ND (0.5)
1,1,1-Trichloroethane	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	36080 (50)	ND (5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND (5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND (5)	6.6 (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	1.8 (0.5)	ND (0.5)	ND (0.5)	83600 (250)	378 (5)	430 (0.5)E
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (50)	ND (5)	1.4 (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (50)	11 (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1910 (50)	ND (5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (50)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (50)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (50)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (100)	ND (10)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (50)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (100)	ND (01)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (500)	ND (50)	ND (5)
Surrogate Recoveries (%)								
Dibromofluoromethane	98	97	98	104	105	108	97	97
d8-Toluene	103	105	105	106	105	103	104	105
Bromofluorobenzene	88	82	84	88	93	85	87	87

ND ( ) = Not detected at specified detection limit

Appendix A-1 (Continued)
Supplemental Sampling Results for Unit A
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	-2 - R	C - 5	-3 - Q	H - 13	E - 10	L - 7	N - 3
Sample Depth	8' - 13'	8' - 13'	8' - 13'	8' - 12'	8' - 12'	8' - 12'	8' - 12'
Date Sampled/Analyzed	3/3/2005	3/3/2005	3/3/2005	3/5/2005	3/5/2005	3/5/2005	3/5/2005
(Units = ug/L)							
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	12 (0.5)	18 (0.5)	0.9 (0.5)	38 (5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	23 (0.5)	ND (0.5)	ND (5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	31 (0.5)	117 (0.5)	50 (0.5)	3860 (5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)	2.6 (0.5)	0.6 (0.5)	79 D (5)
1,1-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	73 (0.5)	191 (0.5)	37 (0.5)	5840 (100)
cis-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	5.1 (0.5)	230 (0.5)	64 (0.5)	17260 (100)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	120 (5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	1.0 (0.5)	ND (5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	ND (0.5)	ND (5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	0.9 (0.5)	84 (0.5)	2.1 (0.5)	13 (5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	13 (5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	7 (5)	ND (5)	ND (50)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.9 (0.5)	ND (0.5)	ND (5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (10)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (01)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
Surrogate Recoveries (%)							
Dibromofluoromethane	108	100	102	98	101	95	97
d8-Toluene	99	101	102	103	103	101	100
Bromofluorobenzene	73	80	92	89	92	89	94

ND ( ) = Not detected at specified detection limit

Appendix A-2
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	U - 17	U - 17	U - 17	U - 17	U - 19	U - 18	X - 18	V - 15
Sample Depth	16' - 20'	21"- 25'	26' - 30'	31' - 35'	25' - 29'	25' - 29'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/11/2005	2/11/2005	2/11/2005	2/11/2005	2/11/2005	2/11/2005	2/12/2005	2/12/2005
(Units = ug/L)								
Vinyl Chloride	0.6 (0.5)	0.9 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.5 (0.5)	3.2 (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.6 (0.5)	2.3 (0.5)
1,1-Dichloroethene	8.6 (0.5)	14 (0.5)	ND (0.5)	ND (0.5)	2.1 (0.5)	3.0 (0.5)	6.8 (0.5)	70 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.3 (0.5)
1,1-Dichloroethane	67 (0.5)	92 (0.5)	1.3 (0.5)	ND (0.5)	0.9 (0.5)	2.3 (0.5)	53 (0.5)	369 (0.5)
cis-Dichloroethene	27 (0.5)	38 (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	29 (0.5)	201 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	1.7 (0.5)	2.8 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.4 (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	14 (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.5 (0.5)	0.9 (0.5)
1,1,2-Trichloroethane	ND (0.5)	0.7 (0.5)	0.7 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	8 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	10 (5)
Surrogate Recoveries								
Dibromofluoromethane	96	92	98	94	102	104	96	99
d8-Toluene	102	101	100	97	99	100	98	99
Bromofluorobenzene	104	98	98	95	100	100	98	98

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	N - 7	N - 7	N - 7	N - 7	T - 19	P - 7	R - 7	P - 3
Sample Depth	16' - 20'	21"- 25'	26' - 30'	31' - 35'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/11/2005	2/11/2005	2/11/2005	2/11/2005	2/12/2005	2/12/2005	2/12/2005	2/12/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	6.5 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	7.6 (0.5)	ND (0.5)	3.6 (0.5)
Chloroethane	ND (0.5)	6.2 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.9 (0.5)	ND (0.5)	2.7 (0.5)
1,1-Dichloroethene	ND (0.5)	187 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	10 (0.5)	3.8 (0.5)	77 (0.5)
trans-Dichloroethene	ND (0.5)	2.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.9 (0.5)
1,1-Dichloroethane	1.8 (0.5)	2600 (5)	5.3 (0.5)	0.5 (0.5)	0.5 (0.5)	144 (0.5)	32 (0.5)	355 (5)
cis-Dichloroethene	ND (0.5)	339 (0.5)	0.9 (0.5)	ND (0.5)	ND (0.5)	48 (0.5)	20 (0.5)	897 (5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	38 (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)	ND (0.5)	0.6 (0.5)	12 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	2.7 (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	2.0 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.8 (0.5)	1 (0.5)
1,1,2-Trichloroethane	ND (0.5)	0.7 (0.5)	ND (0.5)	ND (0.5)	1.5 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	6 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	0.8 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	7 (5)	5 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	101	100	100	101	100	100	100	117
d8-Toluene	99	99	100	99	98	96	98	100
Bromofluorobenzene	99	98	99	99	99	99	100	105

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	K - 10	K - 10	K - 10	K - 10	M - 4	M - 1	O - 1	Q - 1
Sample Depth	19' - 23'	24' - 29'	29' - 33'	34' - 38'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/12/2005	2/12/2005	2/12/2005	2/12/2005	2/12/2005	2/14/2005	2/14/2005	2/14/2005
(Units = ug/L)								
Vinyl Chloride	320 (100)	320 (100)	16 (5)	1.1 (0.5)	5.3 (0.5)	2.7 (0.5)	1.7 (0.5)	0.5 (0.5)
Chloroethane	ND (100)	ND (100)	7.7 (5)	0.7 (0.5)	2.9 (0.5)	3.3 (0.5)	1.9 (0.5)	ND (0.5)
1,1-Dichloroethene	5440 (100)	5060 (100)	14 (0.5)	ND (0.5)	381 (0.5)E	147 (0.5)	18 (0.5)	1.8 (0.5)
trans-Dichloroethene	180 (100)	150 (100)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	7760 (100)	7320 (100)	992 (5)	18 (0.5)	420 (0.5)E	389 (0.5)	184 (0.5)	34 (0.5)
cis-Dichloroethene	14440 (100)	13340 (100)	1150 (5)	28 (0.5)	3.5 (0.5)	1.6 (0.5)	115 (0.5)	17 (0.5)
Chloroform	ND (100)	ND (100)	101 (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	370 (100)	350 (100)	ND (5)	5.5 (0.5)	6.6 (0.5)	3.4 (0.5)	1.4 (0.5)	0.5 (0.5)
1,1,1-Trichloroethane	ND (100)	ND (100)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (100)	ND (100)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (100)	ND (100)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	2940 (100)	2540 (100)	12 (5)	0.9 (0.5)	0.7 (0.5)	ND (0.5)	0.7 (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (100)	ND (100)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (200)	ND (200)	ND (10)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (200)	ND (200)	ND (10)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (1000)	ND (1000)	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	109	107	112	103	107	107	107	114
d8-Toluene	98	98	96	99	100	97	98	98
Bromofluorobenzene	99	101	101	100	103	100	101	104

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	H - 5	L - 5	O - 10	O - 8	O - 12	O - 14	O - 16	O - 18
Sample Depth	21' - 25'	21' - 25'	22' - 27'	22' - 27'	22' - 27'	22' - 27'	22' - 27'	22' - 27'
Date Sampled/Analyzed	2/14/2005	2/14/2005	2/19/2005	2/19/2005	3/6/2005	2/19/2005	2/19/2005	2/19/2005
(Units = ug/L)								
Vinyl Chloride	10 (0.5)	6.2 (0.5)	26 (12)	2.1 (0.5)	2030 (50)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	8.2 (0.5)	2.4 (0.5)	29 (12)	34 (0.5)	14 (5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	863 (5)	264 (0.5)	1025 (12)	46 (0.5)	310 (5)	3.0 (0.5)	0.9 (0.5)	4.9 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	12 (12)	N0.6 (0.5)	32 (5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	583 (5)	353 (0.5)E	3950 (12)	600 (5)	5450 (50)	3.0 (0.5)	0.7 (0.5)	2.2 (0.5)
cis-Dichloroethene	1.9 (0.5)	475 (0.5)E	1740 (12)	51 (0.5)	2000 (5)	ND (0.5)	ND (0.5)	0.9 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (12)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	14 (0.5)	8.6 (0.5)	100 (12)	9.9 (0.5)	174 (5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (12)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (12)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (12)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	2.1 (0.5)	1.2 (0.5)	16 (12)	2.1 (0.5)	52 (50)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (12)	ND (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	11 (5)	ND (5)	ND (125)	ND (5)	66 (50)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	1.4 (0.5)	ND (0.5)	ND (12)	1.3 (0.5)	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (125)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (125)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (125)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (25)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (125)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (25)	ND (1)	ND (10)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (125)	ND (5)	ND (50)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	112	114	98	97	97	98	101	100
d8-Toluene	98	96	98	99	106	99	100	99
Bromofluorobenzene	100	102	95	95	88	97	97	96

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	Y - 15	AA - 15	V - 11	V - 13	K - 1	K - 4	Q - 5	I - 1
Sample Depth	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/15/2005	2/15/2005	2/15/2005	2/15/2005	2/14/2005	2/16/2005	2/16/2005	2/16/2005
(Units = ug/L)								
Vinyl Chloride	1.6 (0.5)	1.3 (0.5)	ND (0.5)	ND (0.5)	2.0 (0.5)	16 (0.5)	ND (0.5)	ND (0.5)
Chloroethane	3.0 (0.5)	3.0 (0.5)	1.1 (0.5)	ND (0.5)	4.2 (0.5)	42 (0.5)	0.7 (0.5)	ND (0.5)
1,1-Dichloroethene	41 (0.5)	30 (0.5)	1.8 (0.5)	0.6 (0.5)	139 (0.5)	1610 (10)	6.8 (0.5)	7.3 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	805 (5)	461 (0.5)E	113 (0.5)	11 (0.5)	374 (0.5)E	1080 (10)	55 (0.5)	5.5 (0.5)
cis-Dichloroethene	78 (0.5)	38 (0.5)	1.3 (0.5)	0.8 (0.5)	0.6 (0.5)	3.2 (0.5)	58 (0.5)	ND (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	17 (0.5)	8.7 (0.5)	1.1 (0.5)	ND (0.5)	4.6 (0.5)	29 (0.5)	1.1 (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	2.4 (0.5)	13 (0.5)	0.9 (0.5)	0.7 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	15 (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	114	114	117	119	112	116	117	121
d8-Toluene	97	96	96	96	96	95	93	93
Bromofluorobenzene	105	104	105	105	101	105	104	106

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	F - 10	F - 10	F - 10	F - 10	J - 5	E - 5	P - 1	N - 1
Sample Depth	16' - 20'	21' - 25'	26' - 30"	31' - 35'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/16/2005
(Units = ug/L)								
Vinyl Chloride	0.7 (0.5)	0.8 (0.5)	ND (0.5)	ND (0.5)	7.6 (0.5)	ND (0.5)	ND (0.5)	1.3 (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	66 (0.5)	ND (0.5)	ND (0.5)	1.6 (0.5)
1,1-Dichloroethene	3.0 (0.5)	1.6 (0.5)	0.6 (0.5)	ND (0.5)	1050 (50)	6.4 (0.5)	ND (0.5)	18 (0.5)
trans-Dichloroethene	0.6 (0.5)	2.7 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	1.2 (0.5)	1.5 (0.5)	ND (0.5)	ND (0.5)	394 (0.5)	1.0 (0.5)	18 (0.5)	184 (0.5)
cis-Dichloroethene	141 (0.5)	523 (50)	ND (0.5)	ND (0.5)	2.3 (0.5)	ND (0.5)	7.0 (0.5)	ND (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	21 (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	11 (0.5)	83 (0.5)	ND (0.5)	ND (0.5)	5.4 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	13 (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	111	108	99	122	119	122	122	124
d8-Toluene	96	96	99	92	93	93	92	93
Bromofluorobenzene	92	92	97	104	108	107	103	105

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Chemicals of Concern								
Identification No.	L - 1	D - 7	D - 8	D - 10	D - 12	I - 12	F - 7	G - 3
Sample Depth	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/16/2005	2/16/2005	2/17/2005	2/17/2005	2/17/2005	2/17/2005	2/17/2005	2/17/2005
(Units = ug/L)								
Vinyl Chloride	2.7 (0.5)	ND (0.5)	ND (0.5)	1.9 (0.5)	ND (0.5)	1.3 (0.5)	ND (0.5)	ND (0.5)
Chloroethane	5.2 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	136 (0.5)	ND (0.5)	ND (0.5)	5.5 (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	1.0 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	548 (0.5)	ND (0.5)	ND (0.5)	31 (0.5)	ND (0.5)	4.5 (0.5)	ND (0.5)	ND (0.5)
cis-Dichloroethene	1.6 (0.5)	ND (0.5)	ND (0.5)	870 (5)	0.6 (0.5)	0.5 (0.5)	ND (0.5)	ND (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	6.0 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	1.2 (0.5)	ND (0.5)	0.7 (0.5)	750 (5)	0.9 (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)
1,1,2-Trichloroethane	1.4 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	123	121	115	115	113	114	116	117
d8-Toluene	93	93	98	97	97	96	97	97
Bromofluorobenzene	105	105	102	101	102	103	102	101

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	G - 1	Z - 13	Z - 11	V - 9	J - 2	I - 4	I - 7	I - 9
Sample Depth	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/17/2005	2/17/2005	2/17/2005	2/17/2005	2/18/2005	2/18/2005	2/18/2005	2/18/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	3.8 (0.5)	1.6 (0.5)	0.6 (0.5)	33 (5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	16 (0.5)	4.2 (0.5)	0.7 (0.5)	ND (5)
1,1-Dichloroethene	0.6 (0.5)	ND (0.5)	ND (0.5)	0.5 (0.5)	420 (5)	93 (0.5)	14 (0.5)	4240 (50)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	13 (5)
1,1-Dichloroethane	ND (0.5)	6.4 (0.5)	0.6 (0.5)	28 (0.5)	560 (5)	145 (0.5)	95 (0.5)	5620 (50)
cis-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	ND (0.5)	17 (0.5)	380 (5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	15 (0.5)	2.5 (0.5)	2.5 (0.5)	113 (5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	63 (5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	31 (0.5)	N1.0 (0.5)	25 (0.5)	904 (5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)	ND (0.5)	31 (5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	187 (50)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	10 (0.5)	ND (0.5)	1.1 (0.5)	ND (5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (10)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (10)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (50)
Surrogate Recoveries								
Dibromofluoromethane	118	115	117	115	112	115	115	111
d8-Toluene	98	96	96	96	97	97	98	97
Bromofluorobenzene	103	99	97	94	102	104	106	102

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	I - 10	K - 8	L - 10	L - 12	L - 14	S - 11	S - 13	S - 17
Sample Depth	2/18/2005	2/18/2005	2/18/2005	2/18/2005	2/18/2005	2/18/2005	2/18/2005	2/18/2005
Date Sampled/Analyzed	21' - 25'	21' - 25'	22' - 27'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
(Units = ug/L)								
Vinyl Chloride	93 (5)	144 (0.5)	127 (0.5)	420 (5)	ND (0.5)	0.7 (0.5)	11 (0.5)	ND (0.5)
Chloroethane	ND (5)	19 (0.5)	13 (0.5)	13 (0.5)	ND (0.5)	12 (0.5)	5.8 (0.5)	ND (0.5)
1,1-Dichloroethene	1780 (5)	28100 (50)	14000 (50)	79 (0.5)	0.9 (0.5)	28 (0.5)	370 (0.5)E	1.3 (0.5)
trans-Dichloroethene	ND (5)	176 (0.5)	293 (0.5)	1.3 (0.5)	ND (0.5)	ND (0.5)	3.1 (0.5)	ND (0.5)
1,1-Dichloroethane	22 (5)	38600 (50)	28050 (50)	1840 (5)	2.3 (0.5)	170 (0.5)	1500 (0.5)E	1.9 (0.5)
cis-Dichloroethene	853 (5)	3820 (50)	26700 (50)	227 (0.5)	1.4 (0.5)	8.1 (0.5)	560 (0.5)E	0.6 (0.5)
Chloroform	ND (5)	68 (0.5)	48 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (5)	1100 (50)	1270 (50)	13 (0.5)	ND (0.5)	3.7 (0.5)	60 (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (5)	ND (0.5)	4860 (50)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (5)	5.6 (0.5)	6.2 (0.5)	2.0 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	720 (5)	6860 (50)	5430 (50)	1.5 (0.5)	0.7 (0.5)	0.9 (0.5)	0.7 (0.5)	ND (0.5)
1,1,2-Trichloroethane	31 (5)	263 (0.5)	292 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)
d8-Toluene	52 (50)	400 (5)E	460 (5)E	6 (5)	ND (5)	ND (5)	8.3 (5)	ND (5)
Tetrachloroethene	ND .5)	3.6 (0.5)	3.3 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (50)	ND (5)	6.3 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (50)	9.3 (5)	16 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (50)	8.7 (5)	15 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (10)	1.1 (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (50)	6 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (10)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (50)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	112	110	115	116	111	114	117	114
d8-Toluene	97	98	98	96	95	96	96	96
Bromofluorobenzene	103	103	103	102	101	99	100	98

ND ( ) = Not detected at specified detection limit

**Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.**

Identification No.	S - 15	-1 - M	-1 - M	-1 - M	-1 - M	AB - 15	X - 14	Z - 16
Sample Depth	22' - 27'	17' - 20'	21' - 25'	26' - 30'	31' - 35'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/22/2005	2/23/2005	2/23/2005	2/23/2005	2/23/2005	2/23/2005	2/23/2005	2/23/2005
(Units = ug/L)								
Vinyl Chloride	2.8 (0.5)	1.4 (0.5)	1.2 (0.5)	ND (0.5)	ND (0.5)	1.7 (0.5)	0.5 (0.5)	2.3 (0.5)
Chloroethane	0.9 (0.5)	2.1 (0.5)	1.5 (0.5)	ND (0.5)	ND (0.5)	5.7 (0.5)	1.5 (0.5)	4.2 (0.5)
1,1-Dichloroethene	40 (0.5)	95 (0.5)	58 (0.5)	ND (0.5)	ND (0.5)	48 (0.5)	12 (0.5)	72 (0.5)
trans-Dichloroethene	0.8 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	334 (0.5)	395 (0.5)	320 (0.5)	1.7 (0.5)	ND (0.5)	700 (5)	227 (0.5)	750 (5)
cis-Dichloroethene	161 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	52 (0.5)	8.5 (0.5)	129 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	9.3 (0.5)	1.8 (0.5)	1.3 (0.5)	ND (0.5)	ND (0.5)	8.3 (0.5)	3.0 (0.5)	16 (0.5)
1,1,1-Trichloroethane	ND (0.5)	3.3 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	1.1 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	0.7 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	102	100	100	101	97	93	94	101
d8-Toluene	101	110	109	109	110	109	111	110
Bromofluorobenzene	92	81	83	81	80	78	87	88

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	MW - 215	Q - 8	Q - 10	Q - 15	N - 13	H - 3	E - 11	G - 11
Sample Depth	shallow	22' - 27'	22' - 27'	22' - 27'	22' - 27'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	2/23/2005	2/24/2005	2/24/2005	2/24/2005	2/24/2005	2/24/2005	2/24/2005	2/24/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	9.7 (0.5)	1.4 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	1.3 (0.5)	49 (0.5)	ND (0.5)	ND (0.5)	3.3 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	2.6 (0.5)	9.8 (0.5)	134 (0.5)	6.0 (0.5)	5.8 (0.5)	9.7 (0.5)	ND (0.5)	1.7 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	2.8 (0.5)	218 (0.5)	243 (0.5)	3.0 (0.5)	1.0 (0.5)	75 (0.5)	ND (0.5)	ND (0.5)
cis-Dichloroethene	ND (0.5)	20 (0.5)	19 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	69 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	3.8 (0.5)	7.8 (0.5)	ND (0.5)	ND (0.5)	3.0 (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	1.3 (0.5)	0.6 (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	2.1 (0.5)	ND (0.5)	0.9 (0.5)	ND (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)	3.2 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	3.9 (0.5)	3.7 (0.5)	0.5 (0.5)	ND (0.5)	ND (0.5)	0.9 (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	99	102	100	98	104	100	101	98
d8-Toluene	109	109	110	109	109	108	108	107
Bromofluorobenzene	88	85	84	85	86	88	86	86

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	G - 7	-2 - M	-4 - M	-6 - M	-3 - K	-3 - L	-3 - N	-3 - O
Sample Depth	21' - 25'	17' - 22'	17' - 22'	17' - 22'	17' - 22'	17' - 22'	17' - 22'	17' - 22'
Date Sampled/Analyzed	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	8.4 (0.5)	12 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	2.9 (0.5)	160 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
cis-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	104	98	94	96	94	99	94	92
d8-Toluene	103	105	103	101	102	104	100	103
Bromofluorobenzene	90	79	79	77	80	76	77	80

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	-1 - O	-1 - K	Z - 18	AB - 17	C - 9	AB - 18	AB - 19	Z - 19
Sample Depth	17' - 22'	17' - 22'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	3/2/2005	3/2/2005	3/2/2005	3/2/2005	3/2/2005	3/3/2005	3/3/2005	3/3/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	3.2 (0.5)	4.8 (0.5)	ND (0.5)	12 (0.5)	15 (0.5)	1.4 (0.5)
Chloroethane	0.5 (0.5)	ND (0.5)	3.3 (0.5)	8 (0.5)	ND (0.5)	11 (0.5)	7 (0.5)	1.3 (0.5)
1,1-Dichloroethene	1.1 (0.5)	1.0 (0.5)	65 (0.5)	101 (0.5)	9.6 (0.5)	340 (5)	560 (5)	20 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	2.2 (0.5)	1.1 (0.5)	2.3 (0.5)	5.7 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	58 (0.5)	11 (0.5)	418 (0.5)	900 (5)	51 (0.5)	2125 (5)	3010 (5)	179 (0.5)
cis-Dichloroethene	ND (0.5)	ND (0.5)	271 (0.5)	353 (5)	199 (0.5)	1140 (5)	2000 (5)	90 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	18 (0.5)	33 (0.5)	ND (0.5)	74 (0.5)	90 (0.5)	5.0 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	7.4 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	0.7 (0.5)	0.5 (0.5)	87 (0.5)	0.6 (0.5)	0.8 (0.5)	1.0 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	103	107	105	103	95	98	95	100
d8-Toluene	106	107	107	105	106	100	101	101
Bromofluorobenzene	90	88	91	88	91	86	85	84

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	MW - 208	F - 8	AB - 14	Z - 21	AA - 21	AA - 20	H - 8	H - 11
Sample Depth	31' - 40'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	3/4/2005	3/4/2005	3/4/2005	3/4/2005	3/4/2005	3/4/2005	3/4/2005	3/4/2005
(Units = ug/L)								
Vinyl Chloride	ND (0.5)	ND (0.5)	1.1 (0.5)	ND (0.5)	ND (0.5)	1.4 (0.5)	11 (0.5)	19 (0.5)
Chloroethane	ND (0.5)	ND (0.5)	2.6 (0.5)	ND (0.5)	ND (0.5)	1 (0.5)	56 (0.5)	ND (0.5)
1,1-Dichloroethene	2.8 (0.5)	0.6 (0.5)	31 (0.5)	1.1 (0.5)	1.4 (0.5)	25 (0.5)	620 (25)	191 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.2 (0.5)	0.7 (0.5)
1,1-Dichloroethane	0.9 (0.5)	ND (0.5)	426 (0.5)	1.4 (0.5)	2.3 (0.5)	204 (0.5)	690 (25)	31 (0.5)
cis-Dichloroethene	ND (0.5)	1.5 (0.5)	24 (0.5)	1.0 (0.5)	1.3 (0.5)	99 (0.5)	56 (0.5)	236 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	5.6 (0.5)	ND (0.5)	ND (0.5)	5.1 (0.5)	1.5 (0.5)	1.1 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	3.7 (0.5)
Trichloroethene	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	1.6 (0.5)	0.8 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	16 (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	103	114	97	98	98	95	95	97
d8-Toluene	104	104	101	101	101	101	108	100
Bromofluorobenzene	93	89	85	86	87	88	87	89

ND ( ) = Not detected at specified detection limit

Appendix A-2 (Continued)
Supplemental Sampling Results for Unit B
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	E - 9	G - 9	I - 10
Sample Depth	21' - 25'	21' - 25'	21' - 25'
Date Sampled/Analyzed	3/4/2005	3/4/2005	3/4/2005
(Units = ug/L)			
Vinyl Chloride	2.7 (0.5)	ND (0.5)	165 (13)
Chloroethane	0.7 (0.5)	ND (0.5)	ND (13)
1,1-Dichloroethene	17 (0.5)	1.5 (0.5)	5310 (13)
trans-Dichloroethene	57 (0.5)	1.0 (0.5)	ND (13)
1,1-Dichloroethane	93 (0.5)	0.7 (0.5)	45 (13)
cis-Dichloroethene	5160 (25)	174 (0.5)	1840 (13)
Chloroform	ND (0.5)	ND (0.5)	ND (13)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (13)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (13)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (13)
Benzene	ND (0.5)	ND (0.5)	ND (13)
Trichloroethene	8720 (25)	6.7 (0.5)	1225 (13)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (13)
d8-Toluene	ND (5)	ND (5)	177 (125)
Tetrachloroethene	1.7 (0.5)	ND (0.5)	ND (13)
Ethylbenzene	ND (5)	ND (5)	ND (125)
m/p-Xylene	ND (5)	ND (5)	ND (125)
o-Xylene	ND (5)	ND (5)	ND (125)
n-Propylbenzene	ND (1)	ND (1)	ND (25)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (125)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (25)
Naphthalene	ND (5)	ND (5)	ND (125)
Surrogate Recoveries			
Dibromofluoromethane	93	102	105
d8-Toluene	102	102	101
Bromofluorobenzene	85	87	92

ND ( ) = Not detected at specified detection limit

Appendix A-3
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	K - 7	K - 7	K - 7	K - 7	K - 7	K - 7	K - 7
Sample Depth	4'	6'	8'	10'	12'	14'	16'
Date Analyzed	–	2/19/2005	2/19/2005	2/19/2005	2/19/2005	2/19/2005	2/23/2005
(Units = ug/kg)							
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	80 (50)	67 (50)	1.0 (0.5)	ND (0.5)	ND (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	0.6 (0.5)	0.5 (0.5)
cis-Dichloroethene	ND (0.5)	17 (0.5)	ND (50)	ND (50)	ND (0.5)	0.9 (0.5)	ND (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	20 (0.5)	10400 (50)	3010 (50)	ND (0.5)	0.9 (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	57 (50)	ND (50)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (100)	ND (100)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (100)	ND (100)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (500)	ND (500)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries							
Dibromofluoromethane		120	109	110	111	121	106
d8-Toluene		103	100	104	102	96	105
Bromofluorobenzene		84	92	91	80	72	80

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	K - 7	K - 7	K - 7	K - 7	K - 7	K - 7
Sample Depth	18'	21'	22'	24'	26'	28'
Date Analyzed	2/19/2005	2/19/2005	2/19/2005	2/19/2005	2/19/2005	2/19/2005
(Units = ug/kg)						
Vinyl Chloride	ND (25)	ND (25)	ND (25)	4 (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	90 (25)	200 (25)	2325 (25)	280 (25)	ND (0.5)	1.2 (0.5)
trans-Dichloroethene	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	280 (25)	250 (25)	535 (25)	415 (25)	0.6 (0.5)	4.1 (0.5)
cis-Dichloroethene	475 (25)	455 (25)	380 (25)	930 (25)	ND (0.5)	3.0 (0.5)
Chloroform	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (25)	ND (25)	ND (25)	2.2 (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (25)	ND (25)	1100 (25)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (25)	390 (25)	ND (25)	1.9 (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (25)	30 (25)	160 (25)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (25)	ND (25)	ND (25)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (25)	ND (25)	ND (25)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries						
Dibromofluoromethane	100	101	102	98	99	95
d8-Toluene	97	98	98	96	95	97
Bromofluorobenzene	94	94	97	94	88	91

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	N - 7	N - 7	N - 7	N - 7	N - 7	N - 7	N - 7	N - 7
Sample Depth	12'	14'	16'	18'	20'	22'	24'	26'
Date Analyzed	2/22/2005	2/22/2005	2/22/2005	2/22/2005	2/22/2005	2/22/2005	2/22/2005	2/22/2005
(Units = ug/kg)								
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.5 (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)
1,1-Dichloroethene	6.6 (0.5)	0.9 (0.5)	0.9 (0.5)	0.5 (0.5)	1.5 (0.5)	12 (0.5)	19 (0.5)	11 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	4.5 (0.5)	0.9 (0.5)	0.8 (0.5)	ND (0.5)	3.3 (0.5)	17 (0.5)	23 (0.5)	132 (0.5)
cis-Dichloroethene	0.9 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	2.0 (0.5)	ND (0.5)	17 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	2.5 (0.5)
1,1,1-Trichloroethane	6.1 (0.5)	0.7 (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	11 (0.5)	9.5 (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	2.3 (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	0.5 (0.5)	8.8 (0.5)	1.0 (0.5)	0.7 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	2.4 (0.5)	0.6 (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	12 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries								
Dibromofluoromethane	104	106	104	112	109	116	98	92
d8-Toluene	99	96	96	97	98	97	98	100
Bromofluorobenzene	84	74	77	73	82	78	78	85

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	I - 9	I - 9	I - 9	I - 9	I - 9	I - 9	I - 9	I - 9	I - 9	I - 9	I - 9
Sample Depth	3' - 3.5'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'
Date Analyzed	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005	2/21/2005
(Units = ug/kg)											**
Vinyl Chloride	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	35 (25)	ND (25)	33 (25)	ND (0.5)	ND (0.5)	ND (50)
Chloroethane	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (50)
1,1-Dichloroethene	520 (50)	187 (25)	1470 (50)	1590 (50)	2475 (25)	64500 (250)	2410 (25)	46050 (125)	1.7 (0.5)	1.0 (0.5)	68 (50)
trans-Dichloroethene	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	ND (25)	ND (25)	170 (25)	ND (0.5)	ND (0.5)	ND (50)
1,1-Dichloroethane	1000 (50)	45 (25)	235 (50)	240 (50)	400 (25)	17300 (250)	2665 (25)	15700 (125)	3.5 (0.5)	0.7 (0.5)	192 (50)
cis-Dichloroethene	1000 (50)	ND (25)	ND (50)	160 (50)	90 (25)	1280 (25)	175 (25)	2090 (25)	ND (0.5)	1.6 (0.5)	ND (50)
Chloroform	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	47 (25)	ND (25)	58 (25)	ND (0.5)	ND (0.5)	ND (50)
1,2-Dichloroethane	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	465 (25)	595 (25)	530 (25)	ND (0.5)	ND (0.5)	ND (50)
1,1,1-Trichloroethane	3400 (50)	625 (25)	ND (50)	ND (50)	ND (25)	785 (25)	9820 (25)	81100 (125)	1 (0.5)	0.8 (0.5)	570 (50)
Carbon Tetrachloride	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (50)
Benzene	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (50)
Trichloroethene	2030 (50)	2065 (25)	1250 (50)	5700 (50)	2550 (25)	62200 (25)	3850 (25)	17350 (125)	ND (0.5)	1.1 (0.5)	1790 (50)
1,1,2-Trichloroethane	ND (50)	ND (25)	ND (50)	ND (50)	ND (25)	285 (25)	170 (25)	275 (25)	ND (0.5)	ND (0.5)	ND (50)
d8-Toluene	ND (500)	ND (250)	ND (500)	ND (500)	ND (250)	2170 (250)	880 (250)	2580 (250)	ND (5)	ND (5)	ND (500)
Tetrachloroethene	150 (50)	66 (25)	ND (50)	ND (50)	45 (25)	105 (25)	ND (25)	45 (25)	ND (0.5)	0.6 (0.5)	110 (50)
Ethylbenzene	ND (500)	270 (250)	ND (500)	ND (500)	ND (250)	318 (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (500)
m/p-Xylene	560 (500)	460 (250)	ND (500)	ND (500)	515 (250)	750 (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (500)
o-Xylene	900 (500)	575 (250)	ND (500)	ND (500)	370 (250)	685 (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (500)
n-Propylbenzene	560 (100)	735 (50)	ND (100)	120 (100)	140 (50)	80 (50)	ND (50)	ND (50)	ND (1)	ND (1)	ND (100)
1,2,4-Trimethylbenzene	6500 (500)	2200 (250)	520 (500)	670 (500)	800 (250)	400 (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (500)
4-Isopropyld8-Toluene	ND (100)	420 (50)	ND (100)	ND (100)	ND (50)	ND (50)	ND (50)	ND (50)	ND (1)	ND (1)	ND (100)
Naphthalene	4700 (500)	543 (250)	ND (500)	630 (500)	270 (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (500)
Surrogate Recoveries											
Dibromofluoromethane	101	107	98	92	96	94	91	93	100	107	107
d8-Toluene	100	108	108	106	105	105	105	106	105	101	101
Bromofluorobenzene	95	99	85	87	84	82	81	81	80	83	90

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	O - 1	O - 1	O - 1	O - 1	O - 1	O - 1
Sample Depth	4'	6'	8'	10'	12'	14'
Date Analyzed	NA	2/19/2005	2/19/2005	2/19/2005	2/19/2005	2/19/2005
(Units = ug/kg)						
Vinyl Chloride	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
Chloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (25)	75 (25)	175 (25)	60 (25)	1 (0.5)
trans-Dichloroethene	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
1,1-Dichloroethane	ND (0.5)	ND (25)	153 (25)	590 (25)	205 (25)	1.2 (0.5)
cis-Dichloroethene	ND (0.5)	41 (25)	860 (25)	3330 (25)	1400 (25)	1.7 (0.5)
Chloroform	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	1.2 (0.5)
Carbon Tetrachloride	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
Benzene	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
Trichloroethene	ND (0.5)	630 (25)	1730 (25)	72 (25)	152 (25)	1.4 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
d8-Toluene	ND (5)	ND (250)	ND (250)	ND (250)	ND (250)	ND (5)
Tetrachloroethene	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (25)	ND (0.5)
Ethylbenzene	ND (5)	ND (250)	ND (250)	ND (250)	ND (250)	ND (5)
m/p-Xylene	ND (5)	ND (250)	ND (250)	ND (250)	ND (250)	ND (5)
o-Xylene	ND (5)	ND (250)	ND (250)	ND (250)	ND (250)	ND (5)
n-Propylbenzene	ND (1)	ND (50)	ND (50)	ND (50)	ND (50)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (250)	ND (250)	ND (250)	ND (250)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (50)	ND (50)	ND (50)	ND (50)	ND (1)
Naphthalene	ND (5)	ND (250)	ND (250)	ND (250)	ND (250)	ND (5)
Surrogate Recoveries						
Dibromofluoromethane		103	115	103	104	119
d8-Toluene		108	117	110	109	108
Bromofluorobenzene		88	81	89	90	79

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	O - 1	O - 1	O - 1	O - 1	O - 1	O - 1
Sample Depth	16'	18'	20'	22'	24'	26'
Date Analyzed	2/19/2005	–	2/19/2005	–	2/19/2005	2/19/2005
(Units = ug/kg)						
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	2.4 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	1.3 (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)	2.1 (0.5)	0.5 (0.5)
cis-Dichloroethene	0.8 (0.5)	ND (0.5)	1.8 (0.5)	ND (0.5)	1.5 (0.5)	1.2 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	0.7 (0.5)	ND (0.5)	1.3 (0.5)	ND (0.5)	0.9 (0.5)	1.6 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	0.7 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries						
Dibromofluoromethane	117		105		125	117
d8-Toluene	99		102		98	99
Bromofluorobenzene	83		77		79	79

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	J - 10	J - 10	J - 10	J - 10	J - 10	J - 10	J - 10	J - 10	J - 10
Sample Depth	4'	6'	8'	10'	12'	14'	16'	18'	20'
Date Analyzed	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005
(Units = ug/kg)									
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
1,1-Dichloroethene	ND. (0.5)	ND (0.5)	14 (0.5)	74 (0.5)	40 (0.5)	43 (0.5)	ND (0.5)	1175 (25)	ND (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	4.5 (0.5)	3.5 (0.5)	2.0 (0.5)	2.7 (0.5)	ND (0.5)	ND (25)	ND (0.5)
1,1-Dichloroethane	ND (0.5)	ND (0.5)	0.6 (0.5)	ND (0.5)	1.2 (0.5)	1.7 (0.5)	ND (0.5)	ND (25)	ND (0.5)
cis-Dichloroethene	ND (0.5)	2.4 (0.5)	300 (0.5)	180 (0.5)	101 (0.5)	173 (0.5)	7.7 (0.5)	1270 (25)	0.6 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	3.0 (0.5)	1.7 (0.5)	1.0 (0.5)	1 (0.5)	ND (0.5)	ND (25)	ND (0.5)
Trichloroethene	0.5 (0.5)	0.8 (0.5)	3.1 (0.5)	43 (0.5)	36 (0.5)	49 (0.5)	1.6 (0.5)	800 (25)	1.1 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	5.6 (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.0 (0.5)	ND (0.5)	ND (0.5)	ND (25)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (50)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	6.5 (5)	ND (5)	ND (5)	ND (250)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	19 (1)	1.4 (1)	ND (1)	ND (1)	ND (1)	ND (50)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	6.2 (5)	ND (5)	ND (5)	ND (250)	ND (5)
Surrogate Recoveries									
Dibromofluoromethane	97	97	103	102	114	100	152	90	113
d8-Toluene	106	105	104	105	96	101	98	106	104
Bromofluorobenzene	87	82	81	88	82	77	77	81	89

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	J - 10	J - 10	J - 10	J - 10	J - 10	J - 10	J - 10
Sample Depth	22'	24'	26'	28'	30'	32'	34'
Date Analyzed	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005	2/26/2005
(Units = ug/kg)							
Vinyl Chloride	ND (0.5)	ND (25)	41 (25)	ND (25)	ND (0.5)	3.5 (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (25)	2170 (25)	45 (25)	1.1 (0.5)	10 (0.5)	2.3 (0.5)
trans-Dichloroethene	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	0.6 (0.5)	ND (25)	1410 (25)	ND (25)	1.4 (0.5)	5.1 (0.5)	2.5 (0.5)
cis-Dichloroethene	1.3 (0.5)	ND (25)	305 (25)	335 (25)	42 (0.5)	508 (0.5)	3.0 (0.5)
Chloroform	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	2.9 (0.5)	7.1 (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	0.9 (0.5)
Carbon Tetrachloride	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	1.6 (0.5)	650 (25)	2470 (25)	200 (25)	3.8 (0.5)	37 (0.5)	3.8 (0.5)
1,1,2-Trichloroethane	2.9 (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (250)	285 (250)	ND (250)	ND (5)	13 (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (50)	ND (50)	ND (50)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (50)	ND (50)	ND (50)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries							
Dibromofluoromethane	95	89	90	93	99	100	101
d8-Toluene	108	105	107	106	107	104	103
Bromofluorobenzene	87	81	78	81	84	78	77

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	L - 10	L - 10	L - 10	L - 10	L - 10	L - 10	L - 10
Sample Depth	6'	8'	10'	12'	14'	16'	18'
Date Analyzed	2/27/2005	2/27/2005	2/27/2005	2/27/2005	3/5/2005	2/27/2005	2/27/2005
(Units = ug/kg)							
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
1,1-Dichloroethene	0.5 (0.5)	0.8 (0.5)	0.8 (0.5)	0.9 (0.5)	1.2 (0.5)	12 (0.5)	30 (25)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
1,1-Dichloroethane	1.9 (0.5)	1.9 (0.5)	2.3 (0.5)	3.4 (0.5)	1.7 (0.5)	35 (0.5)	160 (25)
cis-Dichloroethene	3.1 (0.5)	1.8 (0.5)	2.6 (0.5)	4.2 (0.5)	1.8 (0.5)	26 (0.5)	85 (25)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.2 (0.5)	ND (25)
1,1,1-Trichloroethane	0.5 (0.5)	0.9 (0.5)	ND (0.5)	0.7 (0.5)	0.7 (0.5)	1.3 (0.5)	ND (25)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
Trichloroethene	1.4 (0.5)	0.7 (0.5)	0.8 (0.5)	1.6 (0.5)	0.7 (0.5)	9.4 (0.5)	185 (25)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (25)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (50)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (50)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (250)
Surrogate Recoveries							
Dibromofluoromethane	104	113	118	115	122	127	86
d8-Toluene	105	106	108	108	97	92	109
Bromofluorobenzene	81	81	80	82	73	68	84

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	L - 10	L - 10	L - 10	L - 10	L - 10	L - 10	L - 10
Sample Depth	20'	22'	24'	26'	28'	30'	34'
Date Analyzed	2/27/2005	2/27/2005	2/27/2005	2/27/2005	2/27/2005	2/27/2005	2/27/2005
(Units = ug/kg)							
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	1.3 (0.5)	0.7 (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	4.1 (0.5)	0.6 (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	140 (25)	685 (25)	ND (25)	66 (0.5)	13 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	0.8 (0.5)	ND (0.5)
1,1-Dichloroethane	1.2 (0.5)	1.7 (0.5)	235 (25)	2240 (25)	840 (25)	545 (0.5)E	38 (0.5)
cis-Dichloroethene	1.2 (0.5)	2.0 (0.5)	370 (25)	1790 (25)	630 (25)	640 (0.5)E	70 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	3.0 (0.5)	27 (25)	60 (25)	83 (25)	70 (0.5)	11 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (25)	780 (25)	ND (25)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	1.3 (0.5)	100 (25)	280 (25)	79 (25)	22 (0.5)	0.9 (0.5)
1,1,2-Trichloroethane	ND (0.5)	0.6 (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (250)	ND (250)	ND (250)	15 (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (25)	ND (25)	ND (25)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (50)	ND (50)	ND (50)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (50)	ND (50)	ND (50)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (250)	ND (250)	ND (250)	ND (5)	ND (5)
Surrogate Recoveries							
Dibromofluoromethane	111	92	95	95	92	108	102
d8-Toluene	110	107	108	109	107	102	106
Bromofluorobenzene							

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	E - 9	E - 9	E - 9	E - 9	E - 9	E - 9	E - 9
Sample Depth	4'	6'	8'	10'	12'	14'	16'
Date Analyzed	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/7/2005	2/27/2005
(Units = ug/kg)							
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	1 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	0.9 (0.5)	29 (0.5)	7.4 (0.5)	25 (0.5)	2.5 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.3 (0.5)
1,1-Dichloroethane	1.2 (0.5)	ND (0.5)	2.6 (0.5)	91 (0.5)	3.6 (0.5)	68 (0.5)	4.0 (0.5)
cis-Dichloroethene	1.2 (0.5)	ND (0.5)	1.8 (0.5)	18 (0.5)	5.9 (0.5)	2.9 (0.5)	69 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	0.6 (0.5)	32 (0.5)	1 (0.5)	ND (0.5)	2.7 (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	0.7 (0.5)	ND (0.5)	3.5 (0.5)	73 (0.5)	4.4 (0.5)	ND (0.5)	83 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	0.7 (0.5)	20 (0.5)	2.2 (0.5)	ND (0.5)	0.9 (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries							
Dibromofluoromethane	121	107	109	108	115	102	106
d8-Toluene	109	105	107	104	102	101	101
Bromofluorobenzene	83	85	83	80	74	75	76

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	E - 9	E - 9	E - 9	E - 9	E - 9	E - 9	E - 9
Sample Depth	18'	20'	22'	24'	26'	28'	30'
Date Analyzed	2/27/2005	2/27/2005	3/5/2005	2/27/2005	2/27/2005	2/27/2005	2/27/2005
(Units = ug/kg)							
Vinyl Chloride	ND (0.5)	0.5 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	0.8 (0.5)	4.5 (0.5)	0.7 (0.5)	0.6 (0.5)	ND (0.5)	0.6 (0.5)	1.2 (0.5)
trans-Dichloroethene	1.3 (0.5)	23 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	2.8 (0.5)	15 (0.5)	ND (0.5)	2.1 (0.5)	1.8 (0.5)	1.2 (0.5)	2.0 (0.5)
cis-Dichloroethene	115 (0.5)	1140 (13)	2.9 (0.5)	14 (0.5)	10 (0.5)	2.1 (0.5)	1.5 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	1.0 (0.5)	0.5 (0.5)	1.0 (0.5)	1.0 (0.5)	0.6 (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	313 (0.5)	3680 (13)	14 (0.5)	41 (0.5)	30 (0.5)	1.6 (0.5)	1.7 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries							
Dibromofluoromethane	110	98	125	92	100	99	103
d8-Toluene	105	102	94	105	104	102	102
Bromofluorobenzene	80	71	75	79	77	76	72

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	W - 15	W - 15	W - 15	W - 15	W - 15	W - 15	W - 15	W - 15	W - 15
Sample Depth	15'	17'	19'	21'	23'	25'	27'	29'	31'
Date Analyzed	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/1/2005	3/5/2005	3/1/2005
(Units = ug/kg)									
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.8 (0.5)	1.8 (0.5)	ND (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.4 (0.5)	1.3 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	15 (0.5)	80 (0.5)	89 (0.5)	3.7 (0.5)	ND (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	1.3 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	141 (0.5)	760 (0.5)E	910 (0.5)E	107 (0.5)	4.3 (0.5)
cis-Dichloroethene	ND (0.5)	ND (0.5)	2.4 (0.5)	ND (0.5)	33 (0.5)	166 (0.5)	208 (0.5)	17 (0.5)	2.8 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	4 (0.5)	19 (0.5)	ND (0.5)	5.7 (0.5)	0.8 (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1 (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries									
Dibromofluoromethane	113	110	102	104	103	96	98	111	109
d8-Toluene	103	102	102	105	103	104	104	98	100
Bromofluorobenzene	83	82	81	83	80	85	84	87	79

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	D - 5	D - 5	D – 5	D - 5	D - 5	D - 5
Sample Depth	4'	6'	8'	10'	12'	14'
Date Analyzed	3/2/05	3/2/05	3/2/05	3/2/05	3/2/05	3/2/05
(Units = ug/kg)						
Vinyl Chloride	ND (0.5)	1.8 (0.5)	3.9 (0.5)	5.7 (0.5)	2.9 (0.5)	0.8 (0.5)
Chloroethane	ND (0.5)	0.9 (0.5)	ND (0.5)	2.3 (0.5)	ND (0.5)	ND (0.5)
1,1-Dichloroethene	22 (0.5)	3900 (0.5)E	7600 (0.5)E	3370 (25)	1720 (0.5)E	228 (0.5)
trans-Dichloroethene	ND (0.5)	2.6 (0.5)	5.8 (0.5)	3.3 (0.5)	0.7 (0.5)	ND (0.5)
1,1-Dichloroethane	2.7 (0.5)	360 (0.5)	810 (0.5)E	690 (25)	690 (0.5)E	128 (0.5)
cis-Dichloroethene	ND (0.5)	1.7 (0.5)	3.4 (0.5)	2.2 (0.5)	0.9 (0.5)	ND (0.5)
Chloroform	ND (0.5)	1.9 (0.5)	3.3 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	20 (0.5)	45 (0.5)	22 (0.5)	13 (0.5)	2.3 (0.5)
1,1,1-Trichloroethane	ND (0.5)	14 (0.5)	66 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	0.9 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	9 (0.5)	22 (0.5)	3.5 (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	8 (0.5)	18 (0.5)	2.5 (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	8.9 (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	3.8 (0.5)	168 (0.5)	470 (0.5)E	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries						
Dibromofluoromethane	104	116	115	105	124	105
d8-Toluene	103	103	103	98	95	97
Bromofluorobenzene	84	73	75	77	77	75

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	S - 13	S - 13	S - 13	S - 13	S - 13	S - 13	S - 13	S - 13	S - 13	S - 13
Sample Depth	15'	17'	19'	21'	23'	25'	27'	29'	31'	33'
Date Analyzed	3/3/2005	3/3/2005	3/3/2005	3/3/2005	3/3/2005	3/4/2005	3/4/2005	3/4/2005	3/4/2005	3/4/2005
(Units = ug/kg)										
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	3 (0.5)	1.6 (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	2.7 (0.5)	4.5 (0.5)	ND (0.5)
1,1-Dichloroethene	ND (0.5)	2.5 (0.5)	ND (0.5)	ND (0.5)	7.2 (0.5)	ND (0.5)	ND (0.5)	103 (0.5)	54 (0.5)	2.3 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)	1.5 (0.5)	ND (0.5)
1,1-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	62 (0.5)	4.6 (0.5)	2.1 (0.5)	910 (0.5)E	377 (0.5)	3.2 (0.5)
cis-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	10 (0.5)	1.2 (0.5)	1.5 (0.5)	154 (0.5)	84 (0.5)	0.8 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	ND (0.5)	3.5 (0.5)	19 (0.5)	10 (0.5)	ND (0.5)
1,1,1-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.8 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.1 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries										
Dibromofluoromethane	100	95	98	102	100	109	102	106	102	103
d8-Toluene	101	103	99	97	97	103	102	102	99	101
Bromofluorobenzene	82	83	77	69	68	86	88	89	82	84

ND ( ) = Not detected at specified detection limit

Appendix A-3 (Continued)
Supplemental Sampling Results for Soils
Hamilton Beach◊Proctor-Silex, Inc.

Identification No.	O - 12	O - 12	O - 12	O - 12	O - 12	O - 12	O - 12	O - 12	O - 12
Sample Depth	15'	17'	19'	21'	23'	25'	27'	29'	31'
Date Analyzed	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/6/2005	3/6/2005
(Units = ug/kg)									
Vinyl Chloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	3.5 (0.5)	ND (0.5)	4.9 (0.5)	ND (0.5)
Chloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	1.9 (0.5)	ND (0.5)	4.8 (0.5)	ND (0.5)
1,1-Dichloroethene	0.9 (0.5)	ND (0.5)	ND (0.5)	0.5 (0.5)	ND (0.5)	27 (0.5)	1.2 (0.5)	76 (0.5)	4.3 (0.5)
trans-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.7 (0.5)	ND (0.5)	1 (0.5)	ND (0.5)
1,1-Dichloroethane	0.6 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	318 (0.5)	2.7 (0.5)	373 (0.5)E	43 (0.5)
cis-Dichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	167 (0.5)	8.3 (0.5)	665 (0.5)E	181 (0.5)
Chloroform	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
1,2-Dichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	9 (0.5)	1.4 (0.5)	34 (0.5)	14 (0.5)
1,1,1-Trichloroethane	0.9 (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Carbon Tetrachloride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Benzene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Trichloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	5.2 (0.5)	ND (0.5)	4.2 (0.5)	1.5 (0.5)
1,1,2-Trichloroethane	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
d8-Toluene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	8 (5)	ND (5)
Tetrachloroethene	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
m/p-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
o-Xylene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
n-Propylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
1,2,4-Trimethylbenzene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
4-Isopropyld8-Toluene	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Naphthalene	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Surrogate Recoveries									
Dibromofluoromethane	109	116	106	107	147	105	123	108	104
d8-Toluene	108	102	107	104	101	103	99	99	102
Bromofluorobenzene	85	74	84	87	75	83	76	78	79

ND ( ) = Not detected at specified detection limit

Appendix B

APPENDIX B

PERFORMANCE EVALUATION REPORT

wibby environmental

NVLAP Lab Code 200615-0

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 800-886-5207
www.wibby.com

March 18, 2005

Mr. Scott Noland
Remediation Products Inc.
6390 Joyce Drive
Suite 150 West
Golden, CO 80403

Dear Scott,

Thank you for participating in the WP0105 Water Pollution Proficiency Testing Study. Enclosed is your final report which has been carefully reviewed by the PT specialists at Wibby Environmental.

For any analyte falling outside the established acceptance limits, our PT management staff would like to assist you in determining the most appropriate course of corrective action for your facility. Please contact us at any time if we may be of service to you. A final report for your laboratory has been sent to all accrediting agencies you requested at the time of data submittal.

Thank you again for participating in the WP0105 Water Pollution Proficiency Testing Study. We appreciate working with you and look forward to our next study.

Sincerely,

Keith Ward
PT/IT Manager

wibby environmental

NVLAP Lab Code 200615-0

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 800-886-5207
www.wibby.com

Report Definitions:

Assigned Value — The gravimetric true concentration of an analyte to be analyzed or an appropriate reference value whenever necessary.

Evaluation Limits — Acceptance and Warning Limits are derived from fixed limits, coefficients, constants and calculations stipulated in the National Standards for Water Proficiency Testing Study Criteria Documents (latest revision), the National Environmental Laboratory Accreditation Conference (NELAC) criteria (ref: 2001-06 NELAC PT FOT tables, NELAC PT Committee) and other documents distributed by state accrediting agencies as applicable.

Evaluation

Acceptable — The reported value falls within the Warning Limits.

Check for Error — The reported value falls outside the Warning Limits and within the Acceptance Limits.

Not Acceptable — The reported value falls outside the Acceptance Limits.

No Evaluation — The reported value is non-numeric and can not be evaluated.

NR — As required by the 2001 NELAC standards and requested by state authorities, any analyte purchased but not reported by your facility is listed as NR (Not Reported). This evaluation has no effect upon your laboratory's accreditation.

wibby environmental

NVLAP

NVLAP Lab Code 200615-0

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 800-886-5207
www.wibby.com

Final Report - Water Pollution Proficiency Testing

Study: WP0105

Opening Date: January 10, 2005 - Closing Date: February 24, 2005

Laboratory: Remediation Products Inc.
6390 Joyce Drive
Suite 150 West
Golden, CO 80403

Contact: Mr. Scott Noland

EPA Lab ID:

Volatiles (PT-VOA-WP) — Lot #: 8034-26

NELAC Code	Analyte	Method Code	Method Description	Units	Assigned Value	Result	Warning Limits	Acceptance Limits	Evaluation
4375	Benzene*	8260B		µg/L	114	117	93.3 - 135	82.8 - 146	Acceptable
4395	Bromodichloromethane*			µg/L	0.00				NR
4400	Bromoform*	8260B		µg/L	12.6	14	8.98 - 15.8	7.28 - 17.5	Acceptable
4950	Bromomethane			µg/L	0.00				NR
4455	Carbon tetrachloride*			µg/L	0.00				NR
4475	Chlorobenzene*	8260B		µg/L	23.2	24	18.9 - 27.3	16.8 - 29.4	Acceptable
4485	Chloroethane	8260B		µg/L	40.0	35	24.8 - 55.0	17.3 - 62.5	Acceptable
4505	Chloroform*			µg/L	0.00				NR
4960	Chloromethane			µg/L	0.00				NR
4575	Dibromochloromethane*	8260B		µg/L	38.4	42	29.6 - 46.7	25.4 - 51.0	Acceptable
4610	1,2 Dichlorobenzene*	8260B		µg/L	71.4	74	57.2 - 83.3	50.6 - 89.9	Acceptable
4615	1,3 Dichlorobenzene*	8260B		µg/L	89.9	91	71.8 - 104	63.9 - 111	Acceptable
4620	1,4 Dichlorobenzene*	8260B		µg/L	37.7	40	29.7 - 44.9	25.9 - 48.7	Acceptable
4640	1,1-Dichloroethene	8260B		µg/L	13.9	13	8.91 - 20.8	5.94 - 23.7	Acceptable
4635	1,2 Dichloroethane*	8260B		µg/L	138	146	109 - 168	94.9 - 182	Acceptable
4700	trans-1,2-Dichloroethene			µg/L	0.00				NR
4655	1,2-Dichloropropane	8260B		µg/L	95.9	103	74.2 - 112	64.7 - 122	Acceptable
4685	trans-1,3-Dichloropropene	8260B		µg/L	63.5	71	33.7 - 83.1	21.4 - 95.4	Acceptable
4765	Ethylbenzene*	8260B		µg/L	91.4	94	70.5 - 110	60.6 - 120	Acceptable
4975	Methylene Chloride*			µg/L	0.00				NR
5110	1,1,2,2-Tetrachloroethane	8260B		µg/L	24.7	28	17.4 - 31.2	13.9 - 34.7	Acceptable
5115	Tetrachloroethene*	8260B		µg/L	94.8	92	72.5 - 111	62.8 - 121	Acceptable
5140	Toluene*	8260B		µg/L	55.4	57	44.7 - 64.2	39.9 - 69.1	Acceptable
5160	1,1,1-Trichloroethane*	8260B		µg/L	73.5	72	55.6 - 88.8	47.3 - 97.1	Acceptable
5165	1,1,2-Trichloroethane	8260B		µg/L	117	133	91.4 - 140	79.2 - 152	Acceptable
5170	Trichloroethene*	8260B		µg/L	64.1	64	48.4 - 75.9	41.5 - 82.8	Acceptable
5175	Trichlorofluoromethane			µg/L	0.00				NR
5235	Vinyl chloride			µg/L	0.00				NR

Analytes marked with an "*" are included in Wibby Environmental's NIST NVLAP Scope of Accreditation.

wibby environmental

NVLAP Lab Code 200615-0

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100
Golden, CO 80403

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Final Report - Water Pollution Proficiency Testing

Study: WP0105

Opening Date: January 10, 2005 - Closing Date: February 24, 2005

Laboratory: Remediation Products Inc.
6390 Joyce Drive
Suite 150 West
Golden, CO 80403

Contact: Mr. Scott Noland

EPA Lab ID:

Volatiles (PT-VOA-WP) cont'd — **Lot #: 8034-26**

NELAC Code	Analyte	Method Code	Method Description	Units	Assigned Value	Result	Warning Limits	Acceptance Limits	Evaluation
5260	Xylenes, total	8260B		µg/L	47.1	52	32.8 - 59.0	26.3 - 65.5	Acceptable
Additional State Specific Analytes									
4320	Acetonitrile			µg/L	<5				NR
4325	Acrolein			µg/L	86.3			47.5 - 125	NR
4340	Acrylonitrile			µg/L	<5				NR
4450	Carbon disulfide			µg/L	<5				NR
4500	2-Chloroethylvinylether			µg/L	<5				NR
4570	1,2-Dibromo-3-chloropropane (DBCP)	8260B		µg/L	94.6	101		52.0 - 137	Acceptable
4585	1,2-Dibromoethane (EDB)	8260B		µg/L	145	173		79.7 - 210	Acceptable
4595	Dibromomethane			µg/L	<5				NR
4625	Dichlorodifluoromethane			µg/L	<5				NR
4630	1,1-Dichloroethane			µg/L	<5				NR
4645	cis-1,2-Dichloroethene			µg/L	<5				NR
4680	cis-1,3-Dichloropropylene			µg/L	<5				NR
4860	2-Hexanone			µg/L	<5				NR
4995	4-Methyl-2-pentanone (MIBK)			µg/L	92.2			46.1 - 138	NR
5100	Styrene	8260B		µg/L	90.5	103		72.4 - 109	Acceptable
5105	1,1,1,2-Tetrachloroethane	8260B		µg/L	140	142		112 - 168	Acceptable
5180	1,2,3-Trichloropropane	8260B		µg/L	28.6	33		14.3 - 42.9	Acceptable
5225	Vinyl acetate			µg/L	<5				NR

Analytes marked with an "*" are included in Wibby Environmental's NIST NVLAP Scope of Accreditation.

Appendix C

APPENDIX C

SPLIT SAMPLE COMPARISON

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 1	DL	O - 1	DL	Average DL	*5x Average DL*	Relative Percent Difference	Absolute Difference	2x Average DL	Action
Sample Depth	8' - 12'		8' - 12'							
Date Sampled/Analyzed	**2/12/2005**		**2/16/2005**							
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*		(µg/L)	(µg/L)	
(Units = µg/L)			DF = 500							
1,1,1-Trichloroethane	ND	5	ND	39.4	22.2	*111*	0	0	44	
1,1,2-Trichloroethane	**13**	5	ND	29.8	17.4	*87*	200	13	34.8	None, absoluted difference <2x Average DL
1,1-Dichloroethane	**4070**	50	**6400**	38.2	44.1	*220.5*	45	2330	88.2	None, RPD ≤50%
1,1-Dichloroethene	**1328**	5	**2820**	52.4	28.7	*143.5*	**72**	1492	57.4	**J-flag results, RPD >50%.** Poor precision due to sample dilution.
1,2,4-Trimethylbenzene	ND	50	ND	34.2	42.1	*210.5*	0	0	84	
1,2-Dichloroethane	**116**	5	**166**	25	15	*75*	35	50	30	None, RPD ≤50%
4-Isopropyltoluene	ND	10	ND	36.1	23.05	*115.25*	0	0	46	
Benzene	ND	5	ND	27.4	16.2	*81*	0	0	32	
Carbon Tetrachloride	ND	5	ND	58.3	31.65	*158.25*	0	0	63	
Chloroethane	ND	5	ND	59.6	32.3	*161.5*	0	0	65	
Chloroform	ND	5	ND	38.2	21.6	*108*	0	0	43	
cis-Dichloroethene	**16090**	50	**26900**	27.3	38.65	*193.25*	**50**	10810	77.3	None, RPD ≤50%
Ethylbenzene	ND	50	ND	46.2	48.1	*240.5*	0	0	96	
m/p-Xylene	ND	50	ND	76.1	63.05	*315.25*	0	0	126	
Naphthalene	ND	50	ND	250	150	*750*	0	0	300	
n-Propylbenzene	ND	10	ND	41.9	25.95	*129.75*	0	0	52	
o-Xylene	ND	50	ND	25	37.5	*187.5*	0	0	75	
Tetrachloroethene	ND	5	ND	39.7	22.35	*111.75*	0	0	45	
Toluene	ND	50	ND	27.8	38.9	*194.5*	0	0	78	
trans-1,2-Dichloroethene	**36**	5	**60.7**	40.9	22.95	*114.75*	51	24.7	45.9	
Trichloroethene	**7**	5	ND	40.2	22.6	*113*	200	7	45.2	None, absoluted difference <2x Average DL
Vinyl Chloride	**21**	5	ND	53.8	29.4	*147*	200	21	58.8	None, poor precision attributed to sample dilution
Methylene Chloride	na		**216**	25	25	*125*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 1		O - 1						2x	
Sample Depth	8' - 12'		8' - 12'		Average	*5x Average*	Relative	Absolute	Average	
Date Sampled/Analyzed	**2/16/2005**	DL	**2/16/2005**	DL	DL	*DL*	Percent	Difference	DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 500							
1,1,1-Trichloroethane	ND	25	ND	39.4	32.2	*161*	0	0	64	
1,1,2-Trichloroethane	ND	25	ND	29.8	27.4	*137*	0	0	54.8	
1,1-Dichloroethane	**4057**	25	**6400**	38.2	31.6	*158*	45	2343	63.2	None, RPD ≤50%
1,1-Dichloroethene	**2045**	25	**2820**	52.4	38.7	*193.5*	32	775	77.4	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	250	ND	34.2	142.1	*710.5*	0	0	284	
1,2-Dichloroethane	**112**	25	**166**	25	25	*125*	39	54	50	**J, Absolute difference >2x DL**
4-Isopropyltoluene	ND	50	ND	36.1	43.05	*215.25*	0	0	86	
Benzene	ND	25	ND	27.4	26.2	*131*	0	0	52	
Carbon Tetrachloride	ND	25	ND	58.3	41.65	*208.25*	0	0	83	
Chloroethane	ND	25	ND	59.6	42.3	*211.5*	0	0	85	
Chloroform	ND	25	ND	38.2	31.6	*158*	0	0	63	
cis-1,2-Dichloroethene	**16105**	250	**26900**	27.3	138.65	*693.25*	50	10795	277.3	
Ethylbenzene	ND	250	ND	46.2	148.1	*740.5*	0	0	296	
m/p-Xylene	ND	250	ND	76.1	163.05	*815.25*	0	0	326	
Naphthalene	ND	250	ND	250	250	*1250*	0	0	500	
n-Propylbenzene	ND	50	ND	41.9	45.95	*229.75*	0	0	92	
o-Xylene	ND	250	ND	25	137.5	*687.5*	0	0	275	
Tetrachloroethene	ND	25	ND	39.7	32.35	*161.75*	0	0	65	
Toluene	ND	250	ND	27.8	138.9	*694.5*	0	0	278	
trans-1,2-Dichloroethene	**44**	25	**60.7**	40.9	32.95	*164.75*	32	16.7	65.9	None, abs difference ≤2x DL
Trichloroethene	**38**	25	ND	40.2	32.6	*163*	200	38	65.2	None, abs difference ≤2x DL
Vinyl Chloride	ND	25	ND	53.8	39.4	*197*	0	0	78.8	
Methylene Chloride	na		**216**	25	25	*125*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 6		O - 6							
Sample Depth	8' - 12'		8' - 12'						2x	
Date Sampled/Analyzed	2/16/2005	DL	2/16/2005	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Result	(μg/L)	Result	(μg/L)	(μg/L)	*(μg/L)*	Difference	(μg/L)	(μg/L)	Action
(Units = μg/L)			DF = 1							
1,1,1-Trichloroethane	ND	0.5	ND	0.0789	0.28945	*1.44725*	0	0	1	
1,1,2-Trichloroethane	ND	0.5	ND	0.0596	0.2798	*1.399*	0	0	1	
1,1-Dichloroethane	**0.8**	0.5	**0.794**	0.0765	0.456833	*2.2841667*	1	0.006	0.91367	None, absoluted difference <2x Average DL
1,1-Dichloroethene	ND	0.5	ND	0.105	0.3025	*1.5125*	0	0	1	
1,2,4-Trimethylbenzene	ND	5	ND	0.0685	2.53425	*12.67125*	0	0	5	
1,2-Dichloroethane	ND	0.5	ND	0.05	0.275	*1.375*	0	0	1	
4-Isopropyltoluene	ND	1	ND	0.0722	0.5361	*2.6805*	0	0	1	
Benzene	ND	0.5	**0.122**	0.0548	0.2256	*1.128*	0	0.122	0.4512	
Carbon Tetrachloride	ND	0.5	ND	0.117	0.3085	*1.5425*	0	0	1	
Chloroethane	ND	0.5	ND	0.119	0.3095	*1.5475*	0	0	1	
Chloroform	ND	0.5	ND	0.0764	0.2882	*1.441*	0	0	1	
cis-1,2-Dichloroethene	**1.8**	0.5	**1.97**	0.0545	0.8415	*4.2075*	9	0.17	1.683	None, absoluted difference <2x Average DL
Ethylbenzene	ND	5	ND	0.0924	2.5462	*12.731*	0	0	5	
m/p-Xylene	ND	5	ND	0.152	2.576	*12.88*	0	0	5	
Naphthalene	ND	5	ND	0.5	2.75	*13.75*	0	0	6	
n-Propylbenzene	ND	1	ND	0.0838	0.5419	*2.7095*	0	0	1	
o-Xylene	ND	5	ND	0.05	2.525	*12.625*	0	0	5	
Tetrachloroethene	ND	0.5	ND	0.0795	0.28975	*1.44875*	0	0	1	
Toluene	ND	5	**0.408**	0.0556	1.8212	*9.106*	200	0.408	3.6424	
trans-1,2-Dichloroethene	ND	0.5	**0.238**	0.0818	0.273267	*1.3663333*	200	0.238	0.54653	
Trichloroethene	**0.9**	0.5	**0.346**	0.0804	0.3088	*1.544*	89	0.554	0.6176	None, absoluted difference <2x Average DL
Vinyl Chloride	ND	0.5	ND	0.108	0.304	*1.52*	0	0	1	
Acetone	na		**3.64**	0.541	0.541	*2.705*				

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	L-10		L-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B							
Date Sampled/Analyzed	**2/18/2005**	DL	**2/22/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	2x Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 100, 1000							
1,1,1-Trichloroethane	**4860**	50	**8050**	6.29	28.145	*140.725*	49	3190	56	None, RPD ≤50%
1,1,2-Trichloroethane	**292**	0.5	**193**	17.4	8.95	*44.75*	41	99	17.9	None, RPD ≤50%
1,1-Dichloroethane	**28050**	50	**39700**	56.7	53.35	*266.75*	34	11650	106.7	None, RPD ≤50%
1,1-Dichloroethene	**14000**	50	**13400**	133	91.5	*457.5*	4	600	183	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	5	ND	18.8	11.9	*59.5*	0	0	24	
1,2-Dichloroethane	**1270**	50	**1280**	5.82	27.91	*139.55*	1	10	56	None, RPD ≤50%
4-Isopropyltoluene	ND	1	ND	19.6	10.3	*51.5*	0	0	21	
Benzene	**6.2**	0.5	ND	6.97	3.735	*18.675*	200	6.2	7	None, absoluted difference <2x Average DL
Carbon Tetrachloride	ND	0.5	ND	13	6.75	*33.75*	0	0	14	
Chloroethane	**13**	0.5	ND	14.2	7.35	*36.75*	200	13	15	None, absoluted difference <2x Average DL
Chloroform	**48**	0.5	**43.6**	15.2	7.85	*39.25*	10	4.4	16	None, RPD ≤50%
cis-1,2-Dichloroethene	**26700**	50	**34700**	71	60.5	*302.5*	26	8000	121	None, RPD ≤50%
Ethylbenzene	**6.3**	5	ND	14.9	9.95	*49.75*	200	6.3	20	None, absoluted difference <2x Average DL
m/p-Xylene	**16**	5	ND	29.7	17.35	*86.75*	200	16	35	None, absoluted difference <2x Average DL
Naphthalene	ND	5	ND	38	21.5	*107.5*	0	0	43	
n-Propylbenzene	ND	1	ND	18.4	9.7	*48.5*	0	0	19	
o-Xylene	**15**	5	ND	14	9.5	*47.5*	200	15	19	None, absoluted difference <2x Average DL
Tetrachloroethene	**3.3**	0.5	ND	16.1	8.3	*41.5*	200	3.3	17	None, absoluted difference <2x Average DL
Toluene	**460 E**	5	**966**	12.4	8.7	*43.5*	71	506	17	**J-flag results, RPD >50%**
trans-1,2-Dichloroethene	**293**	0.5	**380**	8.78	4.64	*23.2*	26	87	9.28	None, RPD ≤50%
Trichloroethene	**5430**	50	**5320**	10.9	30.45	*152.25*	2	110	60.9	None, RPD ≤50%
Vinyl Chloride	**127**	0.5	**135**	8.02	4.26	*21.3*	6	8	8.52	None, RPD ≤50%
Acetone	na		**1050**	105	105	*525*				
2-Butanone (MEK)	na		**4020**	186	186	*930*				
Methylene chloride	na		**142**	5.61	5.61	*28.05*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	L-10		L-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**2/22/2005**	DL	**2/22/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 100, 1000							
1,1,1-Trichloroethane	**5480**	100	**8050**	6.29	53.145	*265.725*	38	2570	106.29	None, RPD ≤50%
1,1,2-Trichloroethane	**192**	100	**193**	17.4	58.7	*293.5*	1	1	117.4	None, absolute diff ≤2x DL
1,1-Dichloroethane	**34020**	100	**39700**	56.7	78.35	*391.75*	15	5680	156.7	None, RPD ≤50%
1,1-Dichloroethene	**10714**	100	**13400**	133	116.5	*582.5*	22	2686	233	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	500	ND	18.8	259.4	*1297*	0	0	518.8	
1,2-Dichloroethane	**1482**	100	**1280**	5.82	52.91	*264.55*	15	202	105.82	None, RPD ≤50%
4-Isopropyltoluene	ND	200	ND	19.6	109.8	*549*	0	0	219.6	
Benzene	ND	100	ND	6.97	53.485	*267.425*	0	0	106.97	
Carbon Tetrachloride	ND	100	ND	13	56.5	*282.5*	0	0	113	
Chloroethane	ND	100	ND	14.2	57.1	*285.5*	0	0	114.2	
Chloroform	ND	100	**43.6**	15.2	57.6	*288*	0	0	115.2	
cis-1,2-Dichloroethene	**26900**	100	**34700**	71	85.5	*427.5*	25	7800	171	None, RPD ≤50%
Ethylbenzene	ND	500	ND	14.9	257.45	*1287.25*	0	0	514.9	
m/p-Xylene	ND	500	ND	29.7	264.85	*1324.25*	0	0	529.7	
Naphthalene	ND	500	ND	38	269	*1345*	0	0	538	
n-Propylbenzene	ND	200	ND	18.4	109.2	*546*	0	0	218.4	
o-Xylene	ND	500	ND	14	257	*1285*	0	0	514	
Tetrachloroethene	ND	100	ND	16.1	58.05	*290.25*	0	0	116.1	
Toluene	ND	500	**966**	12.4	256.2	*1281*	200	966	512.4	**J-flag results; absolute diff >2x DL.** Poor precision due to sample dilution.
trans-1,2-Dichloroethene	**316**	100	**380**	8.78	54.39	*271.95*	18	64	108.78	None, RPD ≤50%
Trichloroethene	**4168**	100	**5320**	10.9	55.45	*277.25*	24	1152	110.9	None, RPD ≤50%
Vinyl Chloride	**128**	100	**135**	8.02	54.01	*270.05*	5	7	108.02	None, absolute diff ≤2x DL
Acetone	na		**1050**	105	105	*525*				
2-Butanone (MEK)	na		**4020**	186	186	*930*				
Methylene chloride	na		**142**	5.61	5.61	*28.05*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	S-15		S-15							
Sample Depth	22' - 27'		22' - 27'							
Date Sampled/Analyzed	**2/22/2005**	DL (µg/L)	**2/22/2005**						2x	
	Result		Result	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
(Units = µg/L)			DF = 1 & 10	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
1,1,1-Trichloroethane	ND	0.5	ND	0.0629	0.28145	*1.40725*	0	0	1	
1,1,2-Trichloroethane	ND	0.5	ND	0.174	0.337	*1.685*	0	0	1	
1,1-Dichloroethane	**334**	0.5	**371**	0.567	124.02233	*620.11167*	10	37	248.045	None, absoluted difference <2x Average DL
1,1-Dichloroethene	**40**	0.5	**54.7**	0.133	18.444333	*92.221667*	31	14.7	37	None, absoluted difference <2x Average DL
1,2,4-Trimethylbenzene	ND	5	ND	0.188	2.594	*12.97*	0	0	5	
1,2-Dichloroethane	**9.3**	0.5	**9.89**	0.0582	3.4827333	*17.413667*	6	0.59	7	None, absoluted difference <2x Average DL
4-Isopropyltoluene	ND	1	ND	0.196	0.598	*2.99*	0	0	1	
Benzene	ND	0.5	ND	0.0697	0.28485	*1.42425*	0	0	0.5697	
Carbon Tetrachloride	ND	0.5	ND	0.13	0.315	*1.575*	0	0	1	
Chloroethane	**0.9**	0.5	ND	0.142	0.321	*1.605*	200	0.9	1	None, absoluted difference <2x Average DL
Chloroform	ND	0.5	ND	0.152	0.326	*1.63*	0	0	1	
cis-1,2-Dichloroethene	**161**	0.5	**180**	0.71	60.403333	*302.01667*	11	19	120.807	None, absoluted difference <2x Average DL
Ethylbenzene	ND	5	ND	0.149	2.5745	*12.8725*	0	0	5	
m/p-Xylene	ND	5	**0.109**	0.297	1.802	*9.01*	200	0.109	4	None, absoluted difference <2x Average DL
Naphthalene	ND	5	ND	0.38	2.69	*13.45*	0	0	5	
n-Propylbenzene	ND	1	ND	0.184	0.592	*2.96*	0	0	1	
o-Xylene	ND	5	ND	0.14	2.57	*12.85*	0	0	5	
Tetrachloroethene	ND	0.5	ND	0.161	0.3305	*1.6525*	0	0	1	
Toluene	ND	5	**0.702**	0.124	1.942	*9.71*	200	0.7	3.884	None, blank contamination
trans-1,2-Dichloroethene	**0.8**	0.5	**1.16**	0.0878	0.5826	*2.913*	37	0.36	1.1652	None, absoluted difference <2x Average DL
Trichloroethene	**1.1**	0.5	**0.878**	0.109	0.4956667	*2.4783333*	22	0.222	0.99133	None, absoluted difference <2x Average DL
Vinyl Chloride	**2.8**	0.5	**4.03**	0.0802	1.5367333	*7.6836667*	36	1.23	3	None, absoluted difference <2x Average DL
Acetone	na		**2.92**	1.05	1.05	*5.25*				
Carbon Disulfide	na		**0.179**	0.016	0.016	*0.08*				
Methylene chloride	na		**0.509**	0.0561	0.0561	*0.2805*				Blank contamination
1,1,2-Trichlorotrifluoroethane	na		**0.219**	0.0786	0.0786	*0.393*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 03-04-05

Chemicals of Concern

I.D. No.	I-10		I-10							
Sample Depth	8' - 12'		8' - 12'							
Unit	B		B							
Date Sampled/Analyzed	**3/4/2005**		**3/4/2005**							
	Field Result	DL (µg/L)	STL Result	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
(Units = µg/L)										
1,1,1-Trichloroethane	ND	0.5	ND	0.789	0.6445	*3.2225*	0	0	1	
1,1,2-Trichloroethane	**1.4**	0.5	**2.87**	0.596	0.548	*2.74*	69	1.47	1.096	**J-flag results; absolute difference is >2x average DL**
1,1-Dichloroethane	**2.1**	0.5	**2.76**	0.765	0.6325	*3.1625*	27	0.66	1.265	None, absolute difference ≤2x average DL
1,1-Dichloroethene	**2680**	50	**2850**	10.5	30.25	*151.25*	6	170	60.5	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	5	ND	0.685	2.8425	*14.2125*	0	0	6	
1,2-Dichloroethane	ND	0.5	ND	0.5	0.5	*2.5*	0	0	1	
4-Isopropyltoluene	ND	1	ND	0.722	0.861	*4.305*	0	0	2	
Benzene	**6.6**	0.5	**7.56**	0.548	0.524	*2.62*	14	0.96	1	None, RPD ≤50%
Carbon Tetrachloride	ND	0.5	ND	1.17	0.835	*4.175*	0	0	2	
Chloroethane	ND	0.5	ND	1.19	0.845	*4.225*	0	0	2	
Chloroform	ND	0.5	ND	0.764	0.632	*3.16*	0	0	1	
cis-1,2-Dichloroethene	**82**	0.5	**104**	0.545	0.5225	*2.6125*	24	22	1.045	None, RPD ≤50%
Ethylbenzene	ND	5	ND	0.924	2.962	*14.81*	0	0	6	
m/p-Xylene	ND	5	**1.07**	1.52	3.26	*16.3*	0	1.07	7	None, absolute difference ≤2x average DL
Naphthalene	ND	5	ND	5	5	*25*	0	0	10	
n-Propylbenzene	ND	1	ND	0.838	0.919	*4.595*	0	0	2	
o-Xylene	ND	5	**0.88**	0.5	2.75	*13.75*	0	0.88	6	None, absolute difference ≤2x average DL
Tetrachloroethene	ND	0.5	ND	0.795	0.6475	*3.2375*	0	0	1	
Toluene	**11**	5	**14.8**	0.556	2.778	*13.89*	29	3.8	6	None, absolute difference ≤2x average DL
trans-1,2-Dichloroethene	**3.2**	0.5	**3.79**	0.818	0.659	*3.295*	17	0.59	1.318	None, absolute difference ≤2x average DL
Trichloroethene	**430**	0.5	**392**	0.804	0.652	*3.26*	9	38	1.304	None, RPD ≤50%
Vinyl Chloride	**7.8**	0.5	**12.4**	1.08	0.79	*3.95*	46	4.6	1.58	None, RPD ≤50%
Acetone	na		**3580**	54.1	54.1	*270.5*				
2-Butanone (MEK)	na		**943**	14.2	14.2	*71*				
MIBK	na		**13.6**	5	5	*25*				
Methylene chloride	na		**4.28**	0.5	0.5	*2.5*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 03-04-05

Chemicals of Concern

I.D. No.	I-10		I-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B							
Date Sampled/Analyzed	**3/4/2005**		**3/4/2005**							
	Field Result	DL (µg/L)	STL Result	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
(Units = µg/L)										
1,1,1-Trichloroethane	ND	13	ND	0.789	6.8945	*34.4725*	0	0	14	
1,1,2-Trichloroethane	ND	13	ND	0.596	6.798	*33.99*	0	0	13.596	
1,1-Dichloroethane	**45**	13	**18.6**	0.765	6.8825	*34.4125*	83	**26.4**	13.765	**J-flag results; absolute difference is >2x average DL.** Poor precision may be due to sample dilution.
1,1-Dichloroethene	**5310**	13	**4920**	10.5	11.75	*58.75*	8	390	23.5	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	125	**1.62**	0.685	62.8425	*314.2125*	0	1.62	126	None, absolute difference ≤2x average DL
1,2-Dichloroethane	ND	13	ND	0.5	6.75	*33.75*	0	0	14	
4-Isopropyltoluene	ND	25	ND	0.722	12.861	*64.305*	0	0	26	
Benzene	ND	13	**8.26**	0.548	6.774	*33.87*	0	8.26	14	None, absolute difference ≤2x average DL
Carbon Tetrachloride	ND	13	ND	1.17	7.085	*35.425*	0	0	14	
Chloroethane	ND	13	ND	1.19	7.095	*35.475*	0	0	14	
Chloroform	ND	13	ND	0.764	6.882	*34.41*	0	0	14	
cis-1,2-Dichloroethene	**1840**	13	**2100**	5.45	9.225	*46.125*	13	260	18.45	None, RPD ≤50%
Ethylbenzene	ND	125	**5.95**	0.924	62.962	*314.81*	0	5.95	126	None, absolute difference ≤2x average DL
m/p-Xylene	ND	125	**14.4**	1.52	63.26	*316.3*	0	14.4	127	None, absolute difference ≤2x average DL
Naphthalene	ND	125	ND	5	65	*325*	0	0	130	
n-Propylbenzene	ND	25	ND	0.838	12.919	*64.595*	0	0	26	
o-Xylene	ND	125	**17.6**	**0.5**	62.75	*313.75*	0	17.6	126	None, absolute difference ≤2x average DL
Tetrachloroethene	ND	13	ND	0.795	6.8975	*34.4875*	0	0	14	
Toluene	**177**	125	**160**	0.556	62.778	*313.89*	10	17	126	None, absolute difference ≤2x average DL
trans-1,2-Dichloroethene	ND	13	**5.97**	0.818	6.909	*34.545*	0	5.97	13.818	None, absolute difference ≤2x average DL
Trichloroethene	**1225**	13	**826**	0.804	6.902	*34.51*	39	399	13.804	None, RPD ≤50%
Vinyl Chloride	**165**	13	**213**	1.08	7.04	*35.2*	25	48	14.08	None, RPD ≤50%
Acetone	na		**600**	5.41	5.41	*27.05*				
2-Butanone (MEK)	na		**567**	14.2	14.2	*71*				
2-Hexanone	na		**16.2**	3	3	*15*				
MTBE	na		**1.17**	0.5	0.5	*2.5*				
MIBK	na		**7.72**	5	5	*25*				
Methylene chloride	na		**4.76**	0.5	0.5	*2.5*				Blank contamination

DF = Dilution Factor
DL = Detection Limit
na = Not Available

J = Estimated Value
ND = Not Detected
µg/L = Micrograms per Liter

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 1		O - 1							
Sample Depth	8' - 12'		8' - 12'		Average	5x Average	Relative	Absolute	2x Average	
Date Sampled/Analyzed	**2/12/2005**	DL	**2/16/2005**	DL	DL	DL	Percent	Difference	DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	(µg/L)	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 500							
1,1,1-Trichloroethane	ND	5	ND	39.4	22.2	111	0	0	44	
1,1,2-Trichloroethane	**13**	5	ND	29.8	17.4	87	200	13	34.8	None, absoluted difference <2x Average DL
1,1-Dichloroethane	**4070**	50	**6400**	38.2	44.1	220.5	45	2330	88.2	None, RPD ≤50%
1,1-Dichloroethene	**1328**	5	**2820**	52.4	28.7	143.5	**72**	1492	57.4	**J-flag results, RPD >50%.** Poor precision due to sample dilution.
1,2,4-Trimethylbenzene	ND	50	ND	34.2	42.1	210.5	0	0	84	
1,2-Dichloroethane	**116**	5	**166**	25	15	75	35	50	30	None, RPD ≤50%
4-Isopropyltoluene	ND	10	ND	36.1	23.05	115.25	0	0	46	
Benzene	ND	5	ND	27.4	16.2	81	0	0	32	
Carbon Tetrachloride	ND	5	ND	58.3	31.65	158.25	0	0	63	
Chloroethane	ND	5	ND	59.6	32.3	161.5	0	0	65	
Chloroform	ND	5	ND	38.2	21.6	108	0	0	43	
cis-Dichloroethene	**16090**	50	**26900**	27.3	38.65	193.25	**50**	10810	77.3	None, RPD ≤50%
Ethylbenzene	ND	50	ND	46.2	48.1	240.5	0	0	96	
m/p-Xylene	ND	50	ND	76.1	63.05	315.25	0	0	126	
Naphthalene	ND	50	ND	250	150	750	0	0	300	
n-Propylbenzene	ND	10	ND	41.9	25.95	129.75	0	0	52	
o-Xylene	ND	50	ND	25	37.5	187.5	0	0	75	
Tetrachloroethene	ND	5	ND	39.7	22.35	111.75	0	0	45	
Toluene	ND	50	ND	27.8	38.9	194.5	0	0	78	
trans-1,2-Dichloroethene	**36**	5	**60.7**	40.9	22.95	114.75	51	24.7	45.9	
Trichloroethene	**7**	5	ND	40.2	22.6	113	200	7	45.2	None, absoluted difference <2x Average DL
Vinyl Chloride	**21**	5	ND	53.8	29.4	147	200	21	58.8	None, poor precision attributed to sample dilution
Methylene Chloride	na		**216**	25	25	125				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 1		O - 1							
Sample Depth	8' - 12'		8' - 12'						2x	
Date Sampled/Analyzed	**2/16/2005**	DL	**2/16/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 500							
1,1,1-Trichloroethane	ND	25	ND	39.4	32.2	*161*	0	0	64	
1,1,2-Trichloroethane	ND	25	ND	29.8	27.4	*137*	0	0	54.8	
1,1-Dichloroethane	**4057**	25	**6400**	38.2	31.6	*158*	45	2343	63.2	None, RPD ≤50%
1,1-Dichloroethene	**2045**	25	**2820**	52.4	38.7	*193.5*	32	775	77.4	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	250	ND	34.2	142.1	*710.5*	0	0	284	
1,2-Dichloroethane	**112**	25	**166**	25	25	*125*	39	54	50	**J, Absolute difference >2x DL**
4-Isopropyltoluene	ND	50	ND	36.1	43.05	*215.25*	0	0	86	
Benzene	ND	25	ND	27.4	26.2	*131*	0	0	52	
Carbon Tetrachloride	ND	25	ND	58.3	41.65	*208.25*	0	0	83	
Chloroethane	ND	25	ND	59.6	42.3	*211.5*	0	0	85	
Chloroform	ND	25	ND	38.2	31.6	*158*	0	0	63	
cis-1,2-Dichloroethene	**16105**	250	**26900**	27.3	138.65	*693.25*	50	10795	277.3	
Ethylbenzene	ND	250	ND	46.2	148.1	*740.5*	0	0	296	
m/p-Xylene	ND	250	ND	76.1	163.05	*815.25*	0	0	326	
Naphthalene	ND	250	ND	250	250	*1250*	0	0	500	
n-Propylbenzene	ND	50	ND	41.9	45.95	*229.75*	0	0	92	
o-Xylene	ND	250	ND	25	137.5	*687.5*	0	0	275	
Tetrachloroethene	ND	25	ND	39.7	32.35	*161.75*	0	0	65	
Toluene	ND	250	ND	27.8	138.9	*694.5*	0	0	278	
trans-1,2-Dichloroethene	**44**	25	**60.7**	40.9	32.95	*164.75*	32	16.7	65.9	None, abs difference ≤2x DL
Trichloroethene	**38**	25	ND	40.2	32.6	*163*	200	38	65.2	None, abs difference ≤2x DL
Vinyl Chloride	ND	25	ND	53.8	39.4	*197*	0	0	78.8	
Methylene Chloride	na		**216**	25	25	*125*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 6		O - 6							
Sample Depth	8' - 12'		8' - 12'							
Date Sampled/Analyzed	2/16/2005		2/16/2005							
	Result	DL (µg/L)	Result	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
(Units = µg/L)			DF = 1							
1,1,1-Trichloroethane	ND	0.5	ND	0.0789	0.28945	*1.44725*	0	0	1	
1,1,2-Trichloroethane	ND	0.5	ND	0.0596	0.2798	*1.399*	0	0	1	
1,1-Dichloroethane	**0.8**	0.5	**0.794**	0.0765	0.456833	*2.2841667*	1	0.006	0.91367	None, absoluted difference <2x Average DL
1,1-Dichloroethene	ND	0.5	ND	0.105	0.3025	*1.5125*	0	0	1	
1,2,4-Trimethylbenzene	ND	5	ND	0.0685	2.53425	*12.67125*	0	0	5	
1,2-Dichloroethane	ND	0.5	ND	0.05	0.275	*1.375*	0	0	1	
4-Isopropyltoluene	ND	1	ND	0.0722	0.5361	*2.6805*	0	0	1	
Benzene	ND	0.5	**0.122**	0.0548	0.2256	*1.128*	0	0.122	0.4512	
Carbon Tetrachloride	ND	0.5	ND	0.117	0.3085	*1.5425*	0	0	1	
Chloroethane	ND	0.5	ND	0.119	0.3095	*1.5475*	0	0	1	
Chloroform	ND	0.5	ND	0.0764	0.2882	*1.441*	0	0	1	
cis-1,2-Dichloroethene	**1.8**	0.5	**1.97**	0.0545	0.8415	*4.2075*	9	0.17	1.683	None, absoluted difference <2x Average DL
Ethylbenzene	ND	5	ND	0.0924	2.5462	*12.731*	0	0	5	
m/p-Xylene	ND	5	ND	0.152	2.576	*12.88*	0	0	5	
Naphthalene	ND	5	ND	0.5	2.75	*13.75*	0	0	6	
n-Propylbenzene	ND	1	ND	0.0838	0.5419	*2.7095*	0	0	1	
o-Xylene	ND	5	ND	0.05	2.525	*12.625*	0	0	5	
Tetrachloroethene	ND	0.5	ND	0.0795	0.28975	*1.44875*	0	0	1	
Toluene	ND	5	**0.408**	0.0556	1.8212	*9.106*	200	0.408	3.6424	
trans-1,2-Dichloroethene	ND	0.5	**0.238**	0.0818	0.273267	*1.3663333*	200	0.238	0.54653	
Trichloroethene	**0.9**	0.5	**0.346**	0.0804	0.3088	*1.544*	89	0.554	0.6176	None, absoluted difference <2x Average DL
Vinyl Chloride	ND	0.5	ND	0.108	0.304	*1.52*	0	0	1	
Acetone	na		**3.64**	0.541	0.541	*2.705*				

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	L-10		L-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**2/18/2005**	DL	**2/22/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 100, 1000							
1,1,1-Trichloroethane	**4860**	50	**8050**	6.29	28.145	*140.725*	49	3190	56	None, RPD ≤50%
1,1,2-Trichloroethane	**292**	0.5	**193**	17.4	8.95	*44.75*	41	99	17.9	None, RPD ≤50%
1,1-Dichloroethane	**28050**	50	**39700**	56.7	53.35	*266.75*	34	11650	106.7	None, RPD ≤50%
1,1-Dichloroethene	**14000**	50	**13400**	133	91.5	*457.5*	4	600	183	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	5	ND	18.8	11.9	*59.5*	0	0	24	
1,2-Dichloroethane	**1270**	50	**1280**	5.82	27.91	*139.55*	1	10	56	None, RPD ≤50%
4-Isopropyltoluene	ND	1	ND	19.6	10.3	*51.5*	0	0	21	
Benzene	**6.2**	0.5	ND	6.97	3.735	*18.675*	200	6.2	7	None, absoluted difference <2x Average DL
Carbon Tetrachloride	ND	0.5	ND	13	6.75	*33.75*	0	0	14	
Chloroethane	**13**	0.5	ND	14.2	7.35	*36.75*	200	13	15	None, absoluted difference <2x Average DL
Chloroform	**48**	0.5	**43.6**	15.2	7.85	*39.25*	10	4.4	16	None, RPD ≤50%
cis-1,2-Dichloroethene	**26700**	50	**34700**	71	60.5	*302.5*	26	8000	121	None, RPD ≤50%
Ethylbenzene	**6.3**	5	ND	14.9	9.95	*49.75*	200	6.3	20	None, absoluted difference <2x Average DL
m/p-Xylene	**16**	5	ND	29.7	17.35	*86.75*	200	16	35	None, absoluted difference <2x Average DL
Naphthalene	ND	5	ND	38	21.5	*107.5*	0	0	43	
n-Propylbenzene	ND	1	ND	18.4	9.7	*48.5*	0	0	19	
o-Xylene	**15**	5	ND	14	9.5	*47.5*	200	15	19	None, absoluted difference <2x Average DL
Tetrachloroethene	**3.3**	0.5	ND	16.1	8.3	*41.5*	200	3.3	17	None, absoluted difference <2x Average DL
Toluene	**460 E**	5	**966**	12.4	8.7	*43.5*	71	506	17	**J-flag results, RPD >50%**
trans-1,2-Dichloroethene	**293**	0.5	**380**	8.78	4.64	*23.2*	26	87	9.28	None, RPD ≤50%
Trichloroethene	**5430**	50	**5320**	10.9	30.45	*152.25*	2	110	60.9	None, RPD ≤50%
Vinyl Chloride	**127**	0.5	**135**	8.02	4.26	*21.3*	6	8	8.52	None, RPD ≤50%
Acetone	na		**1050**	105	105	*525*				
2-Butanone (MEK)	na		**4020**	186	186	*930*				
Methylene chloride	na		**142**	5.61	5.61	*28.05*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	L-10		L-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**2/22/2005**	DL	**2/22/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 100, 1000							
1,1,1-Trichloroethane	**5480**	100	**8050**	6.29	53.145	*265.725*	38	2570	106.29	None, RPD <u><</u>50%
1,1,2-Trichloroethane	**192**	100	**193**	17.4	58.7	*293.5*	1	1	117.4	None, absolute diff <u><</u>2x DL
1,1-Dichloroethane	**34020**	100	**39700**	56.7	78.35	*391.75*	15	5680	156.7	None, RPD <u><</u>50%
1,1-Dichloroethene	**10714**	100	**13400**	133	116.5	*582.5*	22	2686	233	None, RPD <u><</u>50%
1,2,4-Trimethylbenzene	ND	500	ND	18.8	259.4	*1297*	0	0	518.8	
1,2-Dichloroethane	**1482**	100	**1280**	5.82	52.91	*264.55*	15	202	105.82	None, RPD <u><</u>50%
4-Isopropyltoluene	ND	200	ND	19.6	109.8	*549*	0	0	219.6	
Benzene	ND	100	ND	6.97	53.485	*267.425*	0	0	106.97	
Carbon Tetrachloride	ND	100	ND	13	56.5	*282.5*	0	0	113	
Chloroethane	ND	100	ND	14.2	57.1	*285.5*	0	0	114.2	
Chloroform	ND	100	**43.6**	15.2	57.6	*288*	0	0	115.2	
cis-1,2-Dichloroethene	**26900**	100	**34700**	71	85.5	*427.5*	25	7800	171	None, RPD <u><</u>50%
Ethylbenzene	ND	500	ND	14.9	257.45	*1287.25*	0	0	514.9	
m/p-Xylene	ND	500	ND	29.7	264.85	*1324.25*	0	0	529.7	
Naphthalene	ND	500	ND	38	269	*1345*	0	0	538	
n-Propylbenzene	ND	200	ND	18.4	109.2	*546*	0	0	218.4	
o-Xylene	ND	500	ND	14	257	*1285*	0	0	514	
Tetrachloroethene	ND	100	ND	16.1	58.05	*290.25*	0	0	116.1	
Toluene	ND	500	**966**	12.4	256.2	*1281*	200	966	512.4	**J-flag results; absolute diff >2x DL.** Poor precision due to sample dilution.
trans-1,2-Dichloroethene	**316**	100	**380**	8.78	54.39	*271.95*	18	64	108.78	None, RPD <u><</u>50%
Trichloroethene	**4168**	100	**5320**	10.9	55.45	*277.25*	24	1152	110.9	None, RPD <u><</u>50%
Vinyl Chloride	**128**	100	**135**	8.02	54.01	*270.05*	5	7	108.02	None, absolute diff <u><</u>2x DL
Acetone	na		**1050**	105	105	*525*				
2-Butanone (MEK)	na		**4020**	186	186	*930*				
Methylene chloride	na		**142**	5.61	5.61	*28.05*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	S-15	DL (µg/L)	S-15	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
Sample Depth	22' - 27'		22' - 27'							
Date Sampled/Analyzed	**2/22/2005**		**2/22/2005**							
	Result		Result							
(Units = µg/L)			DF = 1 & 10							
1,1,1-Trichloroethane	ND	0.5	ND	0.0629	0.28145	*1.40725*	0	0	1	
1,1,2-Trichloroethane	ND	0.5	ND	0.174	0.337	*1.685*	0	0	1	
1,1-Dichloroethane	**334**	0.5	**371**	0.567	124.02233	*620.11167*	10	37	248.045	None, absoluted difference <2x Average DL
1,1-Dichloroethene	**40**	0.5	**54.7**	0.133	18.444333	*92.221667*	31	14.7	37	None, absoluted difference <2x Average DL
1,2,4-Trimethylbenzene	ND	5	ND	0.188	2.594	*12.97*	0	0	5	
1,2-Dichloroethane	**9.3**	0.5	**9.89**	0.0582	3.4827333	*17.413667*	6	0.59	7	None, absoluted difference <2x Average DL
4-Isopropyltoluene	ND	1	ND	0.196	0.598	*2.99*	0	0	1	
Benzene	ND	0.5	ND	0.0697	0.28485	*1.42425*	0	0	0.5697	
Carbon Tetrachloride	ND	0.5	ND	0.13	0.315	*1.575*	0	0	1	
Chloroethane	**0.9**	0.5	ND	0.142	0.321	*1.605*	200	0.9	1	None, absoluted difference <2x Average DL
Chloroform	ND	0.5	ND	0.152	0.326	*1.63*	0	0	1	
cis-1,2-Dichloroethene	**161**	0.5	**180**	0.71	60.403333	*302.01667*	11	19	120.807	None, absoluted difference <2x Average DL
Ethylbenzene	ND	5	ND	0.149	2.5745	*12.8725*	0	0	5	
m/p-Xylene	ND	5	**0.109**	0.297	1.802	*9.01*	200	0.109	4	None, absoluted difference <2x Average DL
Naphthalene	ND	5	ND	0.38	2.69	*13.45*	0	0	5	
n-Propylbenzene	ND	1	ND	0.184	0.592	*2.96*	0	0	1	
o-Xylene	ND	5	ND	0.14	2.57	*12.85*	0	0	5	
Tetrachloroethene	ND	0.5	ND	0.161	0.3305	*1.6525*	0	0	1	
Toluene	ND	5	**0.702**	0.124	1.942	*9.71*	200	0.7	3.884	None, blank contamination
trans-1,2-Dichloroethene	**0.8**	0.5	**1.16**	0.0878	0.5826	*2.913*	37	0.36	1.1652	None, absoluted difference <2x Average DL
Trichloroethene	**1.1**	0.5	**0.878**	0.109	0.4956667	*2.4783333*	22	0.222	0.99133	None, absoluted difference <2x Average DL
Vinyl Chloride	**2.8**	0.5	**4.03**	0.0802	1.5367333	*7.6836667*	36	1.23	3	None, absoluted difference <2x Average DL
Acetone	na		**2.92**	1.05	1.05	*5.25*				
Carbon Disulfide	na		**0.179**	0.016	0.016	*0.08*				
Methylene chloride	na		**0.509**	0.0561	0.0561	*0.2805*				Blank contamination
1,1,2-Trichlorotrifluoroethane	na		**0.219**	0.0786	0.0786	*0.393*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 03-04-05

Chemicals of Concern

I.D. No.	I-10		I-10							
Sample Depth	8' - 12'		8' - 12'							
Unit	B		B							
Date Sampled/Analyzed	**3/4/2005**		**3/4/2005**							
	Field Result	DL (μg/L)	STL Result	DL (μg/L)	Average DL (μg/L)	*5x Average DL (μg/L)*	Relative Percent Difference	Absolute Difference (μg/L)	2x Average DL (μg/L)	Action
(Units = μg/L)										
1,1,1-Trichloroethane	ND	0.5	ND	0.789	0.6445	*3.2225*	0	0	1	
1,1,2-Trichloroethane	**1.4**	0.5	**2.87**	0.596	0.548	*2.74*	69	1.47	1.096	**J-flag results; absolute difference is >2x average DL**
1,1-Dichloroethane	**2.1**	0.5	**2.76**	0.765	0.6325	*3.1625*	27	0.66	1.265	None, absolute difference ≤2x average DL
1,1-Dichloroethene	**2680**	50	**2850**	10.5	30.25	*151.25*	6	170	60.5	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	5	ND	0.685	2.8425	*14.2125*	0	0	6	
1,2-Dichloroethane	ND	0.5	ND	0.5	0.5	*2.5*	0	0	1	
4-Isopropyltoluene	ND	1	ND	0.722	0.861	*4.305*	0	0	2	
Benzene	**6.6**	0.5	**7.56**	0.548	0.524	*2.62*	14	0.96	1	None, RPD ≤50%
Carbon Tetrachloride	ND	0.5	ND	1.17	0.835	*4.175*	0	0	2	
Chloroethane	ND	0.5	ND	1.19	0.845	*4.225*	0	0	2	
Chloroform	ND	0.5	ND	0.764	0.632	*3.16*	0	0	1	
cis-1,2-Dichloroethene	**82**	0.5	**104**	0.545	0.5225	*2.6125*	24	22	1.045	None, RPD ≤50%
Ethylbenzene	ND	5	ND	0.924	2.962	*14.81*	0	0	6	
m/p-Xylene	ND	5	**1.07**	1.52	3.26	*16.3*	0	1.07	7	None, absolute difference ≤2x average DL
Naphthalene	ND	5	ND	5	5	*25*	0	0	10	
n-Propylbenzene	ND	1	ND	0.838	0.919	*4.595*	0	0	2	
o-Xylene	ND	5	**0.88**	0.5	2.75	*13.75*	0	0.88	6	None, absolute difference ≤2x average DL
Tetrachloroethene	ND	0.5	ND	0.795	0.6475	*3.2375*	0	0	1	
Toluene	**11**	5	**14.8**	0.556	2.778	*13.89*	29	3.8	6	None, absolute difference ≤2x average DL
trans-1,2-Dichloroethene	**3.2**	0.5	**3.79**	0.818	0.659	*3.295*	17	0.59	1.318	None, absolute difference ≤2x average DL
Trichloroethene	**430**	0.5	**392**	0.804	0.652	*3.26*	9	38	1.304	None, RPD ≤50%
Vinyl Chloride	**7.8**	0.5	**12.4**	1.08	0.79	*3.95*	46	4.6	1.58	None, RPD ≤50%
Acetone	na		**3580**	54.1	54.1	*270.5*				
2-Butanone (MEK)	na		**943**	14.2	14.2	*71*				
MIBK	na		**13.6**	5	5	*25*				
Methylene chloride	na		**4.28**	0.5	0.5	*2.5*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 03-04-05

Chemicals of Concern

I.D. No.	I-10		I-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**3/4/2005**	DL	**3/4/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)										
1,1,1-Trichloroethane	ND	13	ND	0.789	6.8945	*34.4725*	0	0	14	
1,1,2-Trichloroethane	ND	13	ND	0.596	6.798	*33.99*	0	0	13.596	
1,1-Dichloroethane	**45**	13	**18.6**	0.765	6.8825	*34.4125*	83	**26.4**	13.765	**J-flag results; absolute difference is >2x average DL.** Poor precision may be due to sample dilution.
1,1-Dichloroethene	**5310**	13	**4920**	10.5	11.75	*58.75*	8	390	23.5	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	125	**1.62**	0.685	62.8425	*314.2125*	0	1.62	126	None, absolute difference ≤2x average DL
1,2-Dichloroethane	ND	13	ND	0.5	6.75	*33.75*	0	0	14	
4-Isopropyltoluene	ND	25	ND	0.722	12.861	*64.305*	0	0	26	
Benzene	ND	13	**8.26**	0.548	6.774	*33.87*	0	8.26	14	None, absolute difference ≤2x average DL
Carbon Tetrachloride	ND	13	ND	1.17	7.085	*35.425*	0	0	14	
Chloroethane	ND	13	ND	1.19	7.095	*35.475*	0	0	14	
Chloroform	ND	13	ND	0.764	6.882	*34.41*	0	0	14	
cis-1,2-Dichloroethene	**1840**	13	**2100**	5.45	9.225	*46.125*	13	260	18.45	None, RPD ≤50%
Ethylbenzene	ND	125	**5.95**	0.924	62.962	*314.81*	0	5.95	126	None, absolute difference ≤2x average DL
m/p-Xylene	ND	125	**14.4**	1.52	63.26	*316.3*	0	14.4	127	None, absolute difference ≤2x average DL
Naphthalene	ND	125	ND	5	65	*325*	0	0	130	
n-Propylbenzene	ND	25	ND	0.838	12.919	*64.595*	0	0	26	
o-Xylene	ND	125	**17.6**	**0.5**	62.75	*313.75*	0	17.6	126	None, absolute difference ≤2x average DL
Tetrachloroethene	ND	13	ND	0.795	6.8975	*34.4875*	0	0	14	
Toluene	**177**	125	**160**	0.556	62.778	*313.89*	10	17	126	None, absolute difference ≤2x average DL
trans-1,2-Dichloroethene	ND	13	**5.97**	0.818	6.909	*34.545*	0	5.97	13.818	None, absolute difference ≤2x average DL
Trichloroethene	**1225**	13	**826**	0.804	6.902	*34.51*	39	399	13.804	None, RPD ≤50%
Vinyl Chloride	**165**	13	**213**	1.08	7.04	*35.2*	25	48	14.08	None, RPD ≤50%
Acetone	na		**600**	5.41	5.41	*27.05*				
2-Butanone (MEK)	na		**567**	14.2	14.2	*71*				
2-Hexanone	na		**16.2**	3	3	*15*				
MTBE	na		**1.17**	0.5	0.5	*2.5*				
MIBK	na		**7.72**	5	5	*25*				
Methylene chloride	na		**4.76**	0.5	0.5	*2.5*				Blank contamination

DF = Dilution Factor
DL = Detection Limit
na = Not Available

J = Estimated Value
ND = Not Detected
µg/L = Micrograms per Liter

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 1		O - 1						2x	
Sample Depth	8' - 12'		8' - 12'		Average	*5x Average*	Relative	Absolute	Average	
Date Sampled/Analyzed	**2/12/2005**	DL	**2/16/2005**	DL	DL	*DL*	Percent	Difference	DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 500							
1,1,1-Trichloroethane	ND	5	ND	39.4	22.2	*111*	0	0	44	
1,1,2-Trichloroethane	**13**	5	ND	29.8	17.4	*87*	200	13	34.8	None, absoluted difference <2x Average DL
1,1-Dichloroethane	**4070**	50	**6400**	38.2	44.1	*220.5*	45	2330	88.2	None, RPD ≤50%
1,1-Dichloroethene	**1328**	5	**2820**	52.4	28.7	*143.5*	**72**	1492	57.4	**J-flag results, RPD >50%.** Poor precision due to sample dilution.
1,2,4-Trimethylbenzene	ND	50	ND	34.2	42.1	*210.5*	0	0	84	
1,2-Dichloroethane	**116**	5	**166**	25	15	*75*	35	50	30	None, RPD ≤50%
4-Isopropyltoluene	ND	10	ND	36.1	23.05	*115.25*	0	0	46	
Benzene	ND	5	ND	27.4	16.2	*81*	0	0	32	
Carbon Tetrachloride	ND	5	ND	58.3	31.65	*158.25*	0	0	63	
Chloroethane	ND	5	ND	59.6	32.3	*161.5*	0	0	65	
Chloroform	ND	5	ND	38.2	21.6	*108*	0	0	43	
cis-Dichloroethene	**16090**	50	**26900**	27.3	38.65	*193.25*	**50**	10810	77.3	None, RPD ≤50%
Ethylbenzene	ND	50	ND	46.2	48.1	*240.5*	0	0	96	
m/p-Xylene	ND	50	ND	76.1	63.05	*315.25*	0	0	126	
Naphthalene	ND	50	ND	250	150	*750*	0	0	300	
n-Propylbenzene	ND	10	ND	41.9	25.95	*129.75*	0	0	52	
o-Xylene	ND	50	ND	25	37.5	*187.5*	0	0	75	
Tetrachloroethene	ND	5	ND	39.7	22.35	*111.75*	0	0	45	
Toluene	ND	50	ND	27.8	38.9	*194.5*	0	0	78	
trans-1,2-Dichloroethene	**36**	5	**60.7**	40.9	22.95	*114.75*	51	24.7	45.9	
Trichloroethene	**7**	5	ND	40.2	22.6	*113*	200	7	45.2	None, absoluted difference <2x Average DL
Vinyl Chloride	**21**	5	ND	53.8	29.4	*147*	200	21	58.8	None, poor precision attributed to sample dilution
Methylene Chloride	na		**216**	25	25	*125*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 1		O - 1							
Sample Depth	8' - 12'		8' - 12'							
Date Sampled/Analyzed	**2/16/2005**		**2/16/2005**							
	Field Result	DL (µg/L)	STL Result	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
(Units = µg/L)			DF = 500							
1,1,1-Trichloroethane	ND	25	ND	39.4	32.2	*161*	0	0	64	
1,1,2-Trichloroethane	ND	25	ND	29.8	27.4	*137*	0	0	54.8	
1,1-Dichloroethane	**4057**	25	**6400**	38.2	31.6	*158*	45	2343	63.2	None, RPD ≤50%
1,1-Dichloroethene	**2045**	25	**2820**	52.4	38.7	*193.5*	32	775	77.4	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	250	ND	34.2	142.1	*710.5*	0	0	284	
1,2-Dichloroethane	**112**	25	**166**	25	25	*125*	39	54	50	**J, Absolute difference >2x DL**
4-Isopropyltoluene	ND	50	ND	36.1	43.05	*215.25*	0	0	86	
Benzene	ND	25	ND	27.4	26.2	*131*	0	0	52	
Carbon Tetrachloride	ND	25	ND	58.3	41.65	*208.25*	0	0	83	
Chloroethane	ND	25	ND	59.6	42.3	*211.5*	0	0	85	
Chloroform	ND	25	ND	38.2	31.6	*158*	0	0	63	
cis-1,2-Dichloroethene	**16105**	250	**26900**	27.3	138.65	*693.25*	50	10795	277.3	
Ethylbenzene	ND	250	ND	46.2	148.1	*740.5*	0	0	296	
m/p-Xylene	ND	250	ND	76.1	163.05	*815.25*	0	0	326	
Naphthalene	ND	250	ND	250	250	*1250*	0	0	500	
n-Propylbenzene	ND	50	ND	41.9	45.95	*229.75*	0	0	92	
o-Xylene	ND	250	ND	25	137.5	*687.5*	0	0	275	
Tetrachloroethene	ND	25	ND	39.7	32.35	*161.75*	0	0	65	
Toluene	ND	250	ND	27.8	138.9	*694.5*	0	0	278	
trans-1,2-Dichloroethene	**44**	25	**60.7**	40.9	32.95	*164.75*	32	16.7	65.9	None, abs difference ≤2x DL
Trichloroethene	**38**	25	ND	40.2	32.6	*163*	200	38	65.2	None, abs difference ≤2x DL
Vinyl Chloride	ND	25	ND	53.8	39.4	*197*	0	0	78.8	
Methylene Chloride	na		**216**	25	25	*125*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-16-05

Chemicals of Concern

Identification No.	O - 6	DL (µg/L)	O - 6	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
Sample Depth	8' - 12'		8' - 12'							
Date Sampled/Analyzed	2/16/2005		2/16/2005							
	Result		Result							
(Units = µg/L)			DF = 1							
1,1,1-Trichloroethane	ND	0.5	ND	0.0789	0.28945	*1.44725*	0	0	1	
1,1,2-Trichloroethane	ND	0.5	ND	0.0596	0.2798	*1.399*	0	0	1	
1,1-Dichloroethane	**0.8**	0.5	**0.794**	0.0765	0.456833	*2.2841667*	1	0.006	0.91367	None, absoluted difference <2x Average DL
1,1-Dichloroethene	ND	0.5	ND	0.105	0.3025	*1.5125*	0	0	1	
1,2,4-Trimethylbenzene	ND	5	ND	0.0685	2.53425	*12.67125*	0	0	5	
1,2-Dichloroethane	ND	0.5	ND	0.05	0.275	*1.375*	0	0	1	
4-Isopropyltoluene	ND	1	ND	0.0722	0.5361	*2.6805*	0	0	1	
Benzene	ND	0.5	**0.122**	0.0548	0.2256	*1.128*	0	0.122	0.4512	
Carbon Tetrachloride	ND	0.5	ND	0.117	0.3085	*1.5425*	0	0	1	
Chloroethane	ND	0.5	ND	0.119	0.3095	*1.5475*	0	0	1	
Chloroform	ND	0.5	ND	0.0764	0.2882	*1.441*	0	0	1	
cis-1,2-Dichloroethene	**1.8**	0.5	**1.97**	0.0545	0.8415	*4.2075*	9	0.17	1.683	None, absoluted difference <2x Average DL
Ethylbenzene	ND	5	ND	0.0924	2.5462	*12.731*	0	0	5	
m/p-Xylene	ND	5	ND	0.152	2.576	*12.88*	0	0	5	
Naphthalene	ND	5	ND	0.5	2.75	*13.75*	0	0	6	
n-Propylbenzene	ND	1	ND	0.0838	0.5419	*2.7095*	0	0	1	
o-Xylene	ND	5	ND	0.05	2.525	*12.625*	0	0	5	
Tetrachloroethene	ND	0.5	ND	0.0795	0.28975	*1.44875*	0	0	1	
Toluene	ND	5	**0.408**	0.0556	1.8212	*9.106*	200	0.408	3.6424	
trans-1,2-Dichloroethene	ND	0.5	**0.238**	0.0818	0.273267	*1.3663333*	200	0.238	0.54653	
Trichloroethene	**0.9**	0.5	**0.346**	0.0804	0.3088	*1.544*	89	0.554	0.6176	None, absoluted difference <2x Average DL
Vinyl Chloride	ND	0.5	ND	0.108	0.304	*1.52*	0	0	1	
Acetone	na		**3.64**	0.541	0.541	*2.705*				

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	L-10		L-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**2/18/2005**	DL	**2/22/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 100, 1000							
1,1,1-Trichloroethane	**4860**	50	**8050**	6.29	28.145	*140.725*	49	3190	56	None, RPD ≤50%
1,1,2-Trichloroethane	**292**	0.5	**193**	17.4	8.95	*44.75*	41	99	17.9	None, RPD ≤50%
1,1-Dichloroethane	**28050**	50	**39700**	56.7	53.35	*266.75*	34	11650	106.7	None, RPD ≤50%
1,1-Dichloroethene	**14000**	50	**13400**	133	91.5	*457.5*	4	600	183	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	5	ND	18.8	11.9	*59.5*	0	0	24	
1,2-Dichloroethane	**1270**	50	**1280**	5.82	27.91	*139.55*	1	10	56	None, RPD ≤50%
4-Isopropyltoluene	ND	1	ND	19.6	10.3	*51.5*	0	0	21	
Benzene	**6.2**	0.5	ND	6.97	3.735	*18.675*	200	6.2	7	None, absoluted difference <2x Average DL
Carbon Tetrachloride	ND	0.5	ND	13	6.75	*33.75*	0	0	14	
Chloroethane	**13**	0.5	ND	14.2	7.35	*36.75*	200	13	15	None, absoluted difference <2x Average DL
Chloroform	**48**	0.5	**43.6**	15.2	7.85	*39.25*	10	4.4	16	None, RPD ≤50%
cis-1,2-Dichloroethene	**26700**	50	**34700**	71	60.5	*302.5*	26	8000	121	None, RPD ≤50%
Ethylbenzene	**6.3**	5	ND	14.9	9.95	*49.75*	200	6.3	20	None, absoluted difference <2x Average DL
m/p-Xylene	**16**	5	ND	29.7	17.35	*86.75*	200	16	35	None, absoluted difference <2x Average DL
Naphthalene	ND	5	ND	38	21.5	*107.5*	0	0	43	
n-Propylbenzene	ND	1	ND	18.4	9.7	*48.5*	0	0	19	
o-Xylene	**15**	5	ND	14	9.5	*47.5*	200	15	19	None, absoluted difference <2x Average DL
Tetrachloroethene	**3.3**	0.5	ND	16.1	8.3	*41.5*	200	3.3	17	None, absoluted difference <2x Average DL
Toluene	**460 E**	5	**966**	12.4	8.7	*43.5*	71	506	17	**J-flag results, RPD >50%**
trans-1,2-Dichloroethene	**293**	0.5	**380**	8.78	4.64	*23.2*	26	87	9.28	None, RPD ≤50%
Trichloroethene	**5430**	50	**5320**	10.9	30.45	*152.25*	2	110	60.9	None, RPD ≤50%
Vinyl Chloride	**127**	0.5	**135**	8.02	4.26	*21.3*	6	8	8.52	None, RPD ≤50%
Acetone	na		**1050**	105	105	*525*				
2-Butanone (MEK)	na		**4020**	186	186	*930*				
Methylene chloride	na		**142**	5.61	5.61	*28.05*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	L-10		L-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**2/22/2005**	DL	**2/22/2005**	DL	Average DL	*5x Average DL*	Relative Percent	Absolute Difference	Average DL	
	Field Result	(µg/L)	STL Result	(µg/L)	(µg/L)	*(µg/L)*	Difference	(µg/L)	(µg/L)	Action
(Units = µg/L)			DF = 100, 1000							
1,1,1-Trichloroethane	**5480**	100	**8050**	6.29	53.145	*265.725*	38	2570	106.29	None, RPD ≤50%
1,1,2-Trichloroethane	**192**	100	**193**	17.4	58.7	*293.5*	1	1	117.4	None, absolute diff ≤2x DL
1,1-Dichloroethane	**34020**	100	**39700**	56.7	78.35	*391.75*	15	5680	156.7	None, RPD ≤50%
1,1-Dichloroethene	**10714**	100	**13400**	133	116.5	*582.5*	22	2686	233	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	500	ND	18.8	259.4	*1297*	0	0	518.8	
1,2-Dichloroethane	**1482**	100	**1280**	5.82	52.91	*264.55*	15	202	105.82	None, RPD ≤50%
4-Isopropyltoluene	ND	200	ND	19.6	109.8	*549*	0	0	219.6	
Benzene	ND	100	ND	6.97	53.485	*267.425*	0	0	106.97	
Carbon Tetrachloride	ND	100	ND	13	56.5	*282.5*	0	0	113	
Chloroethane	ND	100	ND	14.2	57.1	*285.5*	0	0	114.2	
Chloroform	ND	100	**43.6**	15.2	57.6	*288*	0	0	115.2	
cis-1,2-Dichloroethene	**26900**	100	**34700**	71	85.5	*427.5*	25	7800	171	None, RPD ≤50%
Ethylbenzene	ND	500	ND	14.9	257.45	*1287.25*	0	0	514.9	
m/p-Xylene	ND	500	ND	29.7	264.85	*1324.25*	0	0	529.7	
Naphthalene	ND	500	ND	38	269	*1345*	0	0	538	
n-Propylbenzene	ND	200	ND	18.4	109.2	*546*	0	0	218.4	
o-Xylene	ND	500	ND	14	257	*1285*	0	0	514	
Tetrachloroethene	ND	100	ND	16.1	58.05	*290.25*	0	0	116.1	
Toluene	ND	500	**966**	12.4	256.2	*1281*	200	**966**	512.4	**J-flag results; absolute diff >2x DL.** Poor precision due to sample dilution.
trans-1,2-Dichloroethene	**316**	100	**380**	8.78	54.39	*271.95*	18	64	108.78	None, RPD ≤50%
Trichloroethene	**4168**	100	**5320**	10.9	55.45	*277.25*	24	1152	110.9	None, RPD ≤50%
Vinyl Chloride	**128**	100	**135**	8.02	54.01	*270.05*	5	7	108.02	None, absolute diff ≤2x DL
Acetone	na		**1050**	105	105	*525*				
2-Butanone (MEK)	na		**4020**	186	186	*930*				
Methylene chloride	na		**142**	5.61	5.61	*28.05*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 02-22-05

Chemicals of Concern

I.D. No.	S-15		S-15							
Sample Depth	22' - 27'		22' - 27'							
Date Sampled/Analyzed	**2/22/2005**	DL (µg/L)	**2/22/2005**							
	Result		Result							
(Units = µg/L)			DF = 1 & 10	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
1,1,1-Trichloroethane	ND	0.5	ND	0.0629	0.28145	*1.40725*	0	0	1	
1,1,2-Trichloroethane	ND	0.5	ND	0.174	0.337	*1.685*	0	0	1	
1,1-Dichloroethane	**334**	0.5	**371**	0.567	124.02233	*620.11167*	10	37	248.045	None, absoluted difference <2x Average DL
1,1-Dichloroethene	**40**	0.5	**54.7**	0.133	18.444333	*92.221667*	31	14.7	37	None, absoluted difference <2x Average DL
1,2,4-Trimethylbenzene	ND	5	ND	0.188	2.594	*12.97*	0	0	5	
1,2-Dichloroethane	**9.3**	0.5	**9.89**	0.0582	3.4827333	*17.413667*	6	0.59	7	None, absoluted difference <2x Average DL
4-Isopropyltoluene	ND	1	ND	0.196	0.598	*2.99*	0	0	1	
Benzene	ND	0.5	ND	0.0697	0.28485	*1.42425*	0	0	0.5697	
Carbon Tetrachloride	ND	0.5	ND	0.13	0.315	*1.575*	0	0	1	
Chloroethane	**0.9**	0.5	ND	0.142	0.321	*1.605*	200	0.9	1	None, absoluted difference <2x Average DL
Chloroform	ND	0.5	ND	0.152	0.326	*1.63*	0	0	1	
cis-1,2-Dichloroethene	**161**	0.5	**180**	0.71	60.403333	*302.01667*	11	19	120.807	None, absoluted difference <2x Average DL
Ethylbenzene	ND	5	ND	0.149	2.5745	*12.8725*	0	0	5	
m/p-Xylene	ND	5	**0.109**	0.297	1.802	*9.01*	200	0.109	4	None, absoluted difference <2x Average DL
Naphthalene	ND	5	ND	0.38	2.69	*13.45*	0	0	5	
n-Propylbenzene	ND	1	ND	0.184	0.592	*2.96*	0	0	1	
o-Xylene	ND	5	ND	0.14	2.57	*12.85*	0	0	5	
Tetrachloroethene	ND	0.5	ND	0.161	0.3305	*1.6525*	0	0	1	
Toluene	ND	5	**0.702**	0.124	1.942	*9.71*	200	0.7	3.884	None, blank contamination
trans-1,2-Dichloroethene	**0.8**	0.5	**1.16**	0.0878	0.5826	*2.913*	37	0.36	1.1652	None, absoluted difference <2x Average DL
Trichloroethene	**1.1**	0.5	**0.878**	0.109	0.4956667	*2.4783333*	22	0.222	0.99133	None, absoluted difference <2x Average DL
Vinyl Chloride	**2.8**	0.5	**4.03**	0.0802	1.5367333	*7.6836667*	36	1.23	3	None, absoluted difference <2x Average DL
Acetone	na		**2.92**	1.05	1.05	*5.25*				
Carbon Disulfide	na		**0.179**	0.016	0.016	*0.08*				
Methylene chloride	na		**0.509**	0.0561	0.0561	*0.2805*				Blank contamination
1,1,2-Trichlorotrifluoroethane	na		**0.219**	0.0786	0.0786	*0.393*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 03-04-05

Chemicals of Concern

I.D. No.	I-10		I-10							
Sample Depth	8' - 12'		8' - 12'							
Unit	B		B							
Date Sampled/Analyzed	**3/4/2005**		**3/4/2005**							
	Field Result	DL (µg/L)	STL Result	DL (µg/L)	Average DL (µg/L)	*5x Average DL (µg/L)*	Relative Percent Difference	Absolute Difference (µg/L)	2x Average DL (µg/L)	Action
(Units = µg/L)										
1,1,1-Trichloroethane	ND	0.5	ND	0.789	0.6445	*3.2225*	0	0	1	
1,1,2-Trichloroethane	**1.4**	0.5	**2.87**	0.596	0.548	*2.74*	69	1.47	1.096	**J-flag results; absolute difference is >2x average DL**
1,1-Dichloroethane	**2.1**	0.5	**2.76**	0.765	0.6325	*3.1625*	27	0.66	1.265	None, absolute difference ≤2x average DL
1,1-Dichloroethene	**2680**	50	**2850**	10.5	30.25	*151.25*	6	170	60.5	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	5	ND	0.685	2.8425	*14.2125*	0	0	6	
1,2-Dichloroethane	ND	0.5	ND	0.5	0.5	*2.5*	0	0	1	
4-Isopropyltoluene	ND	1	ND	0.722	0.861	*4.305*	0	0	2	
Benzene	**6.6**	0.5	**7.56**	0.548	0.524	*2.62*	14	0.96	1	None, RPD ≤50%
Carbon Tetrachloride	ND	0.5	ND	1.17	0.835	*4.175*	0	0	2	
Chloroethane	ND	0.5	ND	1.19	0.845	*4.225*	0	0	2	
Chloroform	ND	0.5	ND	0.764	0.632	*3.16*	0	0	1	
cis-1,2-Dichloroethene	**82**	0.5	**104**	0.545	0.5225	*2.6125*	24	22	1.045	None, RPD ≤50%
Ethylbenzene	ND	5	ND	0.924	2.962	*14.81*	0	0	6	
m/p-Xylene	ND	5	**1.07**	1.52	3.26	*16.3*	0	1.07	7	None, absolute difference ≤2x average DL
Naphthalene	ND	5	ND	5	5	*25*	0	0	10	
n-Propylbenzene	ND	1	ND	0.838	0.919	*4.595*	0	0	2	
o-Xylene	ND	5	**0.88**	0.5	2.75	*13.75*	0	0.88	6	None, absolute difference ≤2x average DL
Tetrachloroethene	ND	0.5	ND	0.795	0.6475	*3.2375*	0	0	1	
Toluene	**11**	5	**14.8**	0.556	2.778	*13.89*	29	3.8	6	None, absolute difference ≤2x average DL
trans-1,2-Dichloroethene	**3.2**	0.5	**3.79**	0.818	0.659	*3.295*	17	0.59	1.318	None, absolute difference ≤2x average DL
Trichloroethene	**430**	0.5	**392**	0.804	0.652	*3.26*	9	38	1.304	None, RPD ≤50%
Vinyl Chloride	**7.8**	0.5	**12.4**	1.08	0.79	*3.95*	46	4.6	1.58	None, RPD ≤50%
Acetone	na		**3580**	54.1	54.1	*270.5*				
2-Butanone (MEK)	na		**943**	14.2	14.2	*71*				
MIBK	na		**13.6**	5	5	*25*				
Methylene chloride	na		**4.28**	0.5	0.5	*2.5*				Blank contamination

Hamilton Beach Proctor Silex
Treatment Pre-design Study
Comparison of Field and Lab Results
Samples Collected for Lab Analysis on 03-04-05

Chemicals of Concern

I.D. No.	I-10		I-10							
Sample Depth	21' - 25'		21' - 25'							
Unit	B		B						2x	
Date Sampled/Analyzed	**3/4/2005**	DL	**3/4/2005**	DL	Average	*5x Average*	Relative	Absolute	Average	
	Field Result	(µg/L)	STL Result	(µg/L)	DL (µg/L)	*DL (µg/L)*	Percent Difference	Difference (µg/L)	DL (µg/L)	Action
(Units = µg/L)										
1,1,1-Trichloroethane	ND	13	ND	0.789	6.8945	*34.4725*	0	0	14	
1,1,2-Trichloroethane	ND	13	ND	0.596	6.798	*33.99*	0	0	13.596	
1,1-Dichloroethane	**45**	13	**18.6**	0.765	6.8825	*34.4125*	83	26.4	13.765	**J-flag results; absolute difference is >2x average DL.** Poor precision may be due to sample dilution.
1,1-Dichloroethene	**5310**	13	**4920**	10.5	11.75	*58.75*	8	390	23.5	None, RPD ≤50%
1,2,4-Trimethylbenzene	ND	125	**1.62**	0.685	62.8425	*314.2125*	0	1.62	126	None, absolute difference ≤2x average DL
1,2-Dichloroethane	ND	13	ND	0.5	6.75	*33.75*	0	0	14	
4-Isopropyltoluene	ND	25	ND	0.722	12.861	*64.305*	0	0	26	
Benzene	ND	13	**8.26**	0.548	6.774	*33.87*	0	8.26	14	None, absolute difference ≤2x average DL
Carbon Tetrachloride	ND	13	ND	1.17	7.085	*35.425*	0	0	14	
Chloroethane	ND	13	ND	1.19	7.095	*35.475*	0	0	14	
Chloroform	ND	13	ND	0.764	6.882	*34.41*	0	0	14	
cis-1,2-Dichloroethene	**1840**	13	**2100**	5.45	9.225	*46.125*	13	260	18.45	None, RPD ≤50%
Ethylbenzene	ND	125	**5.95**	0.924	62.962	*314.81*	0	5.95	126	None, absolute difference ≤2x average DL
m/p-Xylene	ND	125	**14.4**	1.52	63.26	*316.3*	0	14.4	127	None, absolute difference ≤2x average DL
Naphthalene	ND	125	ND	5	65	*325*	0	0	130	
n-Propylbenzene	ND	25	ND	0.838	12.919	*64.595*	0	0	26	
o-Xylene	ND	125	**17.6**	**0.5**	62.75	*313.75*	0	17.6	126	None, absolute difference ≤2x average DL
Tetrachloroethene	ND	13	ND	0.795	6.8975	*34.4875*	0	0	14	
Toluene	**177**	125	**160**	0.556	62.778	*313.89*	10	17	126	None, absolute difference ≤2x average DL
trans-1,2-Dichloroethene	ND	13	**5.97**	0.818	6.909	*34.545*	0	5.97	13.818	None, absolute difference ≤2x average DL
Trichloroethene	**1225**	13	**826**	0.804	6.902	*34.51*	39	399	13.804	None, RPD ≤50%
Vinyl Chloride	**165**	13	**213**	1.08	7.04	*35.2*	25	48	14.08	None, RPD ≤50%
Acetone	na		**600**	5.41	5.41	*27.05*				
2-Butanone (MEK)	na		**567**	14.2	14.2	*71*				
2-Hexanone	na		**16.2**	3	3	*15*				
MTBE	na		**1.17**	0.5	0.5	*2.5*				
MIBK	na		**7.72**	5	5	*25*				
Methylene chloride	na		**4.76**	0.5	0.5	*2.5*				Blank contamination

DF = Dilution Factor
DL = Detection Limit
na = Not Available

J = Estimated Value
ND = Not Detected
µg/L = Micrograms per Liter

Appendix D

APPENDIX D

INJECTION PLAN

Injection Plan

Hamilton Beach◊Proctor-Silex, Inc.
Washington, North Carolina

Prepared for:

Hamilton Beach◊Proctor-Silex, Inc.
4421 Waterfront Drive
Glen Allen, Virginia 23060

Prepared by:

URS Corporation – North Carolina
1600 Perimeter Park Drive, Suite 400
Morrisville, NC 27560

and

AST Environmental, Inc.
1115 Delaware Avenue, Suite 300
Lexington, KY 40505

and

Remediation Products, Inc.
6390 Joyce Drive, Suite 150 West
Golden, CO 80403

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

AST	AST Environmental, Inc.
bgs	below Ground Surface
gpm	Gallons per Minute
HASP	Health and Safety Plan
HB◊PS	Hamilton Beach◊Proctor-Silex
hp	Horse Power
RPI	Remediation Products, Inc.
UIC	Underground Injection Control
URS	URS Corporation-North Carolina

1.0 INTRODUCTION

This plan addresses procedures for injecting slurry consisting of Zero Valent Iron and molasses into the subsurface at the former Hamilton Beach◊Proctor-Silex (HB◊PS) facility located in Washington, North Carolina. Slurry injection is being conducted as a corrective action to address chlorinated compounds dissolved in groundwater underlying the site.

1.1 Site Background

The site is a former manufacturing facility that utilized degreasing solvents, which have affected soil and groundwater. Source area remediation was completed in July 2004 using electrical resistance heating. A plume of dissolved chlorinated compounds occurs in two upper hydrostratigraphic units present at the site: a surficial groundwater unit (Unit A) that extends from approximately 3 feet below ground surface (bgs) to 12 feet bgs and a semi-confined aquifer (Unit B) that extends from about 14 feet bgs to an average depth of 35 feet bgs. Initial work at the site included supplemental sampling to confirm the vertical and horizontal extent of the plume in Units A and B. Results obtained from the supplemental sampling formed the basis for this Injection Plan.

Within Unit A, the plume extends from the source area to the south, toward a drainage ditch. Two lobes of the plume also extend to the northeast and southeast beneath the employee parking lot. The northeast lobe crosses beneath the drainage ditch and extends a short distance into the woods. In total, the area of the plume within Unit A is approximately 158,000 square feet. The plume within Unit B extends south from the source area, roughly mirroring the overlying portion of the plume in Unit A. The plume in Unit B extends northward under the plant building to the yard areas in front of the plant building. In addition, a portion of the plume within Unit B extends eastward beyond the parking lot into the woods. The total area of the plume in Unit B is approximately 307,400 square feet. A figure showing the plume boundary in each of the two units is included in Section 4 of this plan.

The principal chlorinated organic compounds in groundwater at the site are 1,1-dichloroethene, trichloroethene, 1,1-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, and cis-1,2-dichloroethene.

1.2 Purpose

The purpose of this injection plan is to provide a detailed set of instructions for the field crew beginning with the layout of the site and including site logistics through a description of the procedure for injecting iron slurry. Specific objectives are listed below.

- Provide detailed instructions for implementing full-scale injection.
- Describe the injection grid layout so that the field crew can easily locate planned injection points within the plume area.
- Provide injection parameters including targeted iron poundage, slurry volumes per injection, injection grid spacing, and number of injections per point throughout Unit A and Unit B.
- Describe site logistics and recommend locations for staging equipment and supplies.
- Discuss process parameters associated with slurry preparation and installation.
- Detail the plan for performance monitoring and discuss lines of communication throughout the fieldwork.

1.3 Work Days and Hours

Work days and hours for the investigation will be Monday through Saturday from 7:00 AM until dark. Once the injection work begins, AST Environmental, Inc. (AST), the injection contractor, will work on a staggered schedule where two long weeks (Monday through Saturday) are followed by a short week and then a 4-day weekend to give field personnel time at home. The injection work is scheduled to last for approximately 6 months, and AST will rotate crews into and out of the field in accordance with the above schedule. Close coordination with URS Corporation – North Carolina (URS) will occur weekly so that everyone is kept informed of scheduled activities and breaks.

After-hours access to the site, if needed, will be coordinated through URS.

1.4 Routine Field Reports

A Daily Field Report will be filled out at the end of each day detailing the number of injections completed and the pounds of material injected at the site for that day. Any problems or issues worthy of notation will be included on the field report for that day. The field report will be signed by the AST Site Supervisor and the appropriate URS Site Supervisor for that day.

A summary of activities will be prepared each week. This report will highlight work accomplished along with a brief description of plume areas involved. This information is critical to the monitoring plan as selection of sample points will be based on where injections have been completed and where new implants/wells that have been installed.

1.5 Plan Review

All AST personnel will review the site specific Health and Safety Plan (HASP) prepared for this project prior to working on site. The AST Site Supervisor is responsible for enforcing this requirement as personnel are rotated into the field. In addition, the URS health and safety plan will be read by all personnel on site. The URS Site Supervisor will maintain copies of the HASP and other relevant documents on site at a designated location in the plant. Finally, this Injection Plan should be reviewed by all key field personnel.

1.6 Permits

An Underground Injection Control (UIC) permit for Class V injection wells has been obtained by URS for the injection work to be performed. In addition, the State of North Carolina requires a certified well contractor be present on-site during all sampling and injection work. AST has engaged a certified driller as required by the state's administrative code.

2.0 SITE PREPARATION

This section discusses those activities that must be addressed before full scale injection can begin.

2.1 Staging Equipment and Supplies

Most of the materials and supplies will be staged inside the plant building. This is particularly important for the storage of the iron powder and polymer as moisture can render the materials unusable. Injection equipment can be stored outside in the east parking lot and south of the plant building. Bulk molasses will be held in a 10,000 gallon tank and placement inside is unlikely. As a result, it must be located outside in an area where no injections are planned. A final determination must be made in the field with the approval of Impressions (the current building occupant) and URS.

AST has located six possible staging locations for injection equipment and mixing tanks. These staging areas were picked with the intention of providing easy access to the different areas of the plume. The plan is to move the injection trailer and mixing tanks as little as possible and to run injection hoses from the staging areas to the different injection locations. The staging locations will be finalized once on site with the selection criteria being proximity to water and availability of power.

At some point, injection will be performed inside the building. Based on experience during supplemental sampling, existing ventilation is inadequate to prevent build up of exhaust fumes. Consequently, an exhaust manifold will be constructed that can be affixed to the injection trailers and connected to existing exhaust blowers. This will limit where injection trailers may be staged, and may impact obtaining sufficient water to support production.

2.2 Water

There are a number of fire hydrants located around the site, and it is anticipated that water can be withdrawn from them. This was the case during the pilot study. One limitation of this water system is that it is part of the building's fire protection system, and alarms are triggered whenever a sudden pressure drop is sensed. The alarm for the system must be disabled at the beginning and re-set at the end of each workday.

A tour of the plant building indicated that various ¾-inch taps are conveniently located near required staging locations inside. A larger line will probably be needed and this can be realized with modifications to the 2-inch lines feeding overhead sprinklers. At present, it is not clear what will be required and a final determination will be made in the field. It is estimated that 5,000 to 7,000 gallons of water per crew-day will be required for injections. For that period of time when 2-crews are on site, 13,000 to 14,000 gallons of water may be used each day.

2.3 Power

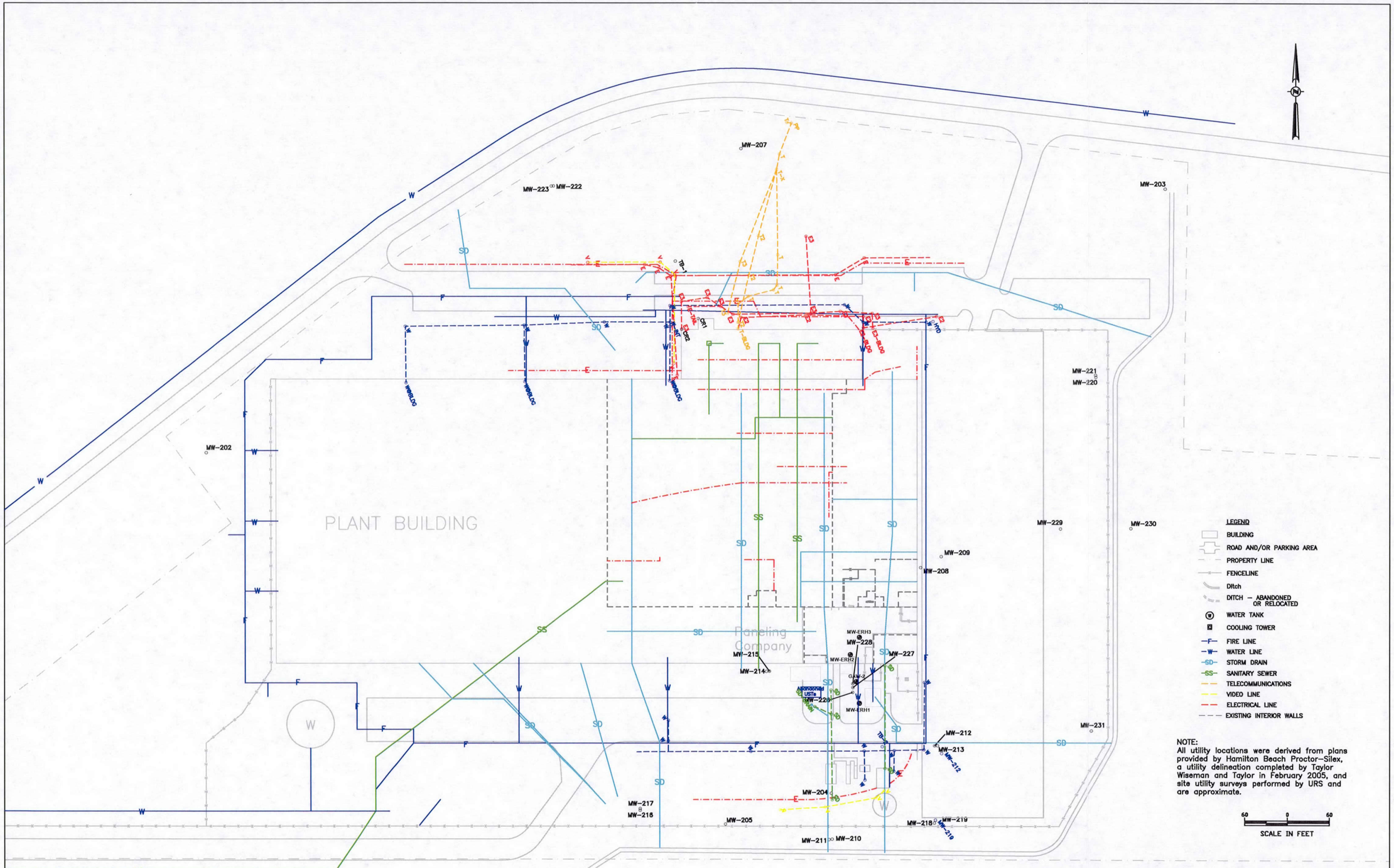
For the most part, the equipment is self-contained with generators installed on each trailer to power various motors and a gasoline engine to power the main injection pumps. The one exception is the polymer mixing equipment that can be wired for either 240-volt or 480-volt, 3-phase power. Based on discussions with HB◊PS, 480-volt, 3-phase power is readily available within the building and temporary power drops can be easily provided. AST has procured a long drop cord to run power from the building out to remote staging areas.

2.4 Site Security

There are fences and gates surrounding the HB◊PS site, and the gates are kept locked from approximately 7:00 PM to 7:00 AM. Even though HB◊PS operations are minimal, activity associated with a building lessee, Impressions, is very high. As a result, the gates are frequently open on Saturday and employees are often present on Sunday. There are no security guards at the site; however with normal site activity, there is almost always someone around. Further, the site is in a good location and theft or vandalism is not common in the area. For all of these reasons, even though security is minimal, it is not expected to be an issue.

2.5 Utility Location

This is an active site with waterlines, sewer, phone cable, electrical, and gas lines at many locations. A utility plan was prepared by URS and was available for use in the field. Further, due to the age of some information and the high number of underground structures on the property, URS contracted with an outside firm to mark utilities inside and outside the plant building and generated an updated drawing early in the initial sampling work. A utility figure is included as Figure 2-1. The injection plan calls for over 1400 injection boreholes across the site. Numerous treatment areas contain underground pipelines or other structures, and injection point layout will need to be adjusted accordingly. As a standard practice, initial injection point layout should be verified by a second person to ensure that pipelines or other structures are not damaged.



SCALE: AS SHOWN	DESIGNED BY	DATE	DRAWING TITLE: **Figure 2–1. Utility Location Map Hamilton Beach Proctor Silex, Inc. Washington, NC**
CONFIDENTIAL–ALL RIGHTS RESERVED–PROPERTY OF URS, RDU, NORTH CAROLINA 27560	DRAWN BY: TSH	DATE: 11FEB05	CAD DRAWING FILE
	CHECKED BY: ABB	DATE: 11FEB05	CONTRACT NO. / DRAWING NO.: 2–1 / REV.: 0
	APPROVED BY	DATE	

Inside the building, there are a number of items to be aware of. There is a heating, ventilating, and air conditioning unit in the southeastern corner of the building. There will most likely be some overhead pipes, vents and other utility lines that need to be avoided. There are structural columns set every 40 feet within the plant building with footings that extend around the column. No injections will take place within 8 feet of these structures.

An initial site walk of the plant will take place prior to commencing sampling or injection work. During the site walk, notations will be made on the site plan of particular lines, pipes, wires and structures that need to be avoided while the injection/investigation work is taking place on site. No work will be performed within the active manufacturing areas occupied by Impressions or the HB◊PS Offices in the northeastern corner of the building.

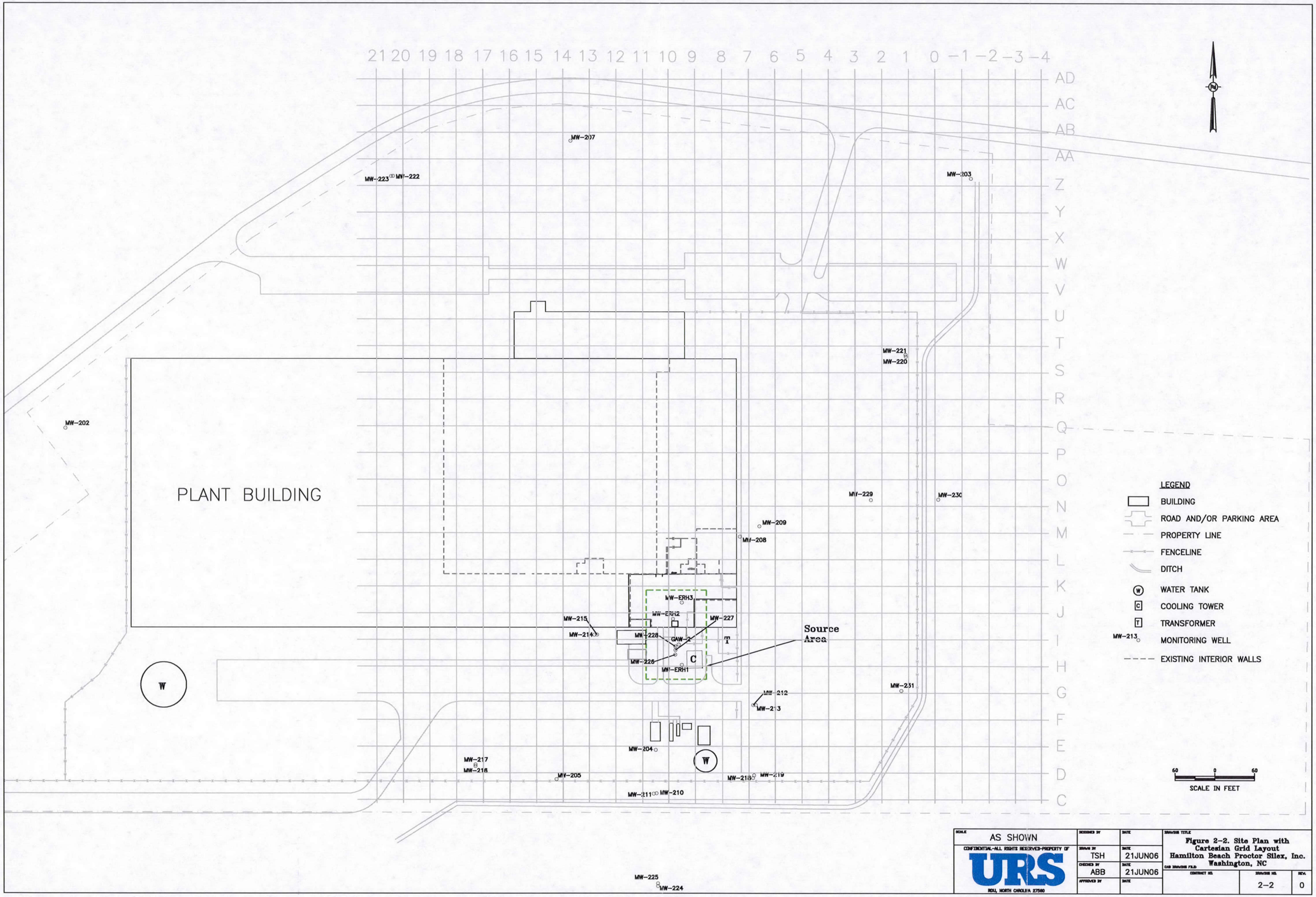
2.6 Grid Layout and Sampling Locations

Grid layout was established to assist with supplemental sampling and consisted of a Cartesian grid with 40-foot spacing. The spacing was chosen to match the layout of structural columns inside the building. The grid-lines were adjusted so that building columns were at the center of each grid square and since typical sampling locations would be at grid-nodes, column footings would not interfere with sampling work. This grid will also be used to aid in the location of plume boundaries and injection point layout when treatment commences.

The grid was oriented in accordance with the building so that initial layout lines were oriented with respect to the east and south exterior walls of the plant building. As such, a north-south line (grid-line 7) is located 20 feet east of the east exterior wall and an east-west line (grid-line "I") is located 20 feet south of the south exterior wall. The balance of the grid was laid out with respect to these initial lines. The complete grid is shown on Figure 2-2.

As shown on the map, grid-lines running north-south are numbered from 1 (at the east fence line) to 21 toward the west. Grid-lines running east-west are denoted with letters from "C" at the south fence line) to "Z" out toward the north ditch along Springs Road. Grid-lines extended to the north of "Z" were denoted as "AA", "AB", "AC" and so on while lines to the east of grid-line 1 were labeled as grid-line 0, -1, -2, -3, and so on. Grid-line 0 (zero) was roughly parallel the ditch along the east fence and located on the east side of the ditch.

Above details related to sampling are important as on-going monitoring will occur throughout the injection phase of the project and injection crews will need to know where


21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 −1 −2 −3 −4
AD AC AB AA Z Y X W V U T S R Q P O N M L K J I H G F E D C
PLANT BUILDING
MW−207
MW−223
MW−222
MW−203
MW−221
MW−220
MW−202
MW−229
MW−230
MW−209
MW−208
MW−ERH3
MW−ERH2
MW−215
MW−214
MW−228
GAW−2
MW−227
MW−226
MW−ERH1
Source Area
MW−212
MW−213
MW−231
MW−204
MW−217
MW−216
MW−205
MW−218
MW−219
MW−211
MW−210
MW−225
MW−224
LEGEND
BUILDING
ROAD AND/OR PARKING AREA
PROPERTY LINE
FENCELINE
DITCH
WATER TANK
COOLING TOWER
TRANSFORMER
MONITORING WELL
EXISTING INTERIOR WALLS
60 0 60
SCALE IN FEET
SCALE AS SHOWN
CONFIDENTIAL−ALL RIGHTS RESERVED−PROPERTY OF
URS
RDU, NORTH CAROLINA 27560
DESIGNED BY
DATE
DRAWN BY TSH
DATE 21JUN06
CHECKED BY ABB
DATE 21JUN06
APPROVED BY
DATE
DRAWING TITLE
Figure 2−2. Site Plan with Cartesian Grid Layout
Hamilton Beach Proctor Silex, Inc.
Washington, NC
CAD DRAWING FILE
CONTRACT NO.
DRAWING NO. 2−2
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monitoring points are located and their correct identification. This will ensure data quality and prevent mismatching base-line data as injection progresses.

3.0 SLURRY PREPARATION AND THE INJECTION PROCESS

3.1 Polymer Solutions

For efficiency, polymer solutions will be premixed and temporarily stored in tanks located as close to the water supply as possible, and within reach of the injection trailers by transfer hoses. The mixing tank, which is equipped with a 3-horse power electric mixer, water inlet fittings, and eductor for addition of the polymer, is capable of mixing 1000-gallon batches. A high-volume liquid transfer pump and valve manifold is interconnected between tanks to enable the addition of water and transfer of polymer between the various storage tanks. Demand for polymer will vary depending on location within the plume and will range from a high of perhaps 15,000 gallons per day (when 2-crews are working) to a low of around 3,000 gallons per day for a single crew working in Unit A.

The polymer selected for this project is an anionic high molecular weight polyacrylamide (Superfloc® A-130 HMW) supplied by Cytec (see the HASP for Material Safety Data Sheet and product description). The purpose of the polymer solution is to help keep the iron powder suspended during the injection process and ensure efficient transport with injected fluid throughout the formation. As the polymer dissolves, the solution viscosity increases. Typically, solution properties will be fully developed within 30 to 45 minutes. The dissolution process is a strong function of temperature and will take longer during cooler weather. To check the mix, scoop a bit of solution up in one hand and carefully allow the liquid to drain through the fingers while watching for small transparent beads. The small beads are bits of polymer that have not dissolved. Clearly, if they are present, the solution is not fully developed and mixing will continue.

An overview of the preparation procedure is as follows. The mixing tank must be filled with clean water and the mixer started. Then, using the transfer pump, water is recycled from the mixing tank through the eductor back into the tank. The eductor is configured with a sliding gate valve at the funnel base. Once water is flowing through the eductor, the gate valve can be opened (air will be drawn in due to vacuum created by the Venturi action). A measured portion of polymer is slowly poured into the funnel so that it is drawn into the eductor and blown into the mixing tank. If the polymer is added too quickly or if the eductor is operated at a flow rate below that specified by the manufacturer, clumps will be formed. This will not cause the solution to be unusable, but will require an extended period of time for mixing. Based on preliminary testing, 4.4 pounds of polymer is required for each 1000 gallon batch of solution. This mix may be adjusted in the field to account for changing process conditions or slurry behavior.

Because demand is high when two crews are working and each batch takes from 30 to 45 minutes to fully develop, the mixing tank must be closely watched so that transfer to a storage tank takes place as soon as possible. This allows a fresh batch to be started without delay. Production demand could consume 12 to 16 batches of polymer per day, and with the time required for mixing, no time for idle mixing is available.

3.2 Slurry Preparation

The high-pressure injection pump is sensitive to a variety of suction and discharge line conditions. The following conditions should be achieved to ensure optimum pump performance.

- If at all possible, a positive head should be maintained on the suction line at all times.
- Entrained air should be minimized as pump cavitation can result.
- A slight (25 to 50 pounds per square inch) back pressure should be maintained in the discharge line.
- The suction line should be as short and fitting-free as possible.

The first two items are the most important for slurry preparation.

The injection trailer mixing tank is constructed with baffles to minimize the development of vortexes. These baffles are very effective when the tank is full or nearly so. However, as the liquid level in the tank drops, the propensity to entrain air due to vortexing increases and at some point is unavoidable. As a result, testing with water must be conducted to determine the effective operational volume. Also, since the pump works best when a positive head is available, the effective dead volume must be at least large enough so that the liquid level in the tank never drops below the pump suction height. At least, this condition should not occur except during maintenance or at other times when the mixing tank is being emptied. This minimum dead volume must be maintained during routine operation. As a result, when "filling the mixing tank" is discussed, this means that the incremental volume above this dead volume is being filled.

In its simplest form, mixing slurry involves adding a measured amount of iron dust to a specified volume of polymer solution while mixing to keep the iron suspended. The targeted pounds of iron and slurry volume per injection vary widely depending on where injections are being performed. As an example, in the next section, 20 pounds of iron per 50 gallons of polymer solution is specified for injections into Unit A; so if the dead volume is 200 gallons, this means 300 gallons are available for injections. If we started with an empty tank and no iron were present, 200 pounds of iron would need to be added to 500 gallons of polymer solution. During the day when injections had been ongoing, 300 gallons of polymer solution and 120 pounds of iron would be added.

Just as with the polymer mixing tank, an eductor is connected to the slurry mixing tank for transfer of iron dust into the tank. The slurry mixing tank is filled with polymer solution, and the mixer engaged. A pump capable of moving the manufacturer's specified volume (gallons per minute [gpm]) through the eductor is used to recycle polymer solution from the mixing tank through the eductor and back into the tank. The gate valve at the funnel base can be opened, and iron powder slowly poured into the funnel. The iron dust is very dense and must be added slowly to avoid plugging the eductor Venturi throat. Should this happen, polymer solution will shoot up from the funnel, possibly causing injury to the operator or nearby personnel. An eyewash bottle will be kept nearby as iron powder in the eyes can be very uncomfortable. Also, be aware that as iron is added to the mixing tank, the slurry will become quite abrasive. As a result, do not recycle slurry through the eductor any longer than is absolutely necessary. Failure to follow this guideline will cause early failure of the Venturi nozzle.

The essential steps involved in slurry preparation are very simple, and the only complexities develop when changing slurry density (average pounds iron per gallon slurry), as the dead volume must now be taken into account, or when starting injections for the first time in the morning. Using the same example, consider the situation where each 50 gallons of slurry contained 20 pounds of iron and now the plan calls for 40 pounds of iron in every 50 gallons. In addition, the mixing tank still contains 200 gallons of the old mix. The dead volume now contains 80 pounds of iron, but based on the new mix, 160 pounds are required. Now when the mixing tank is filled, 320 pounds of iron must be added, 80 pounds to make up the shortage in the dead volume and 240 pounds for the 300 gallons of solution added to the tank.

At the end of the day, the mixer and pump are disengaged and the tank is allowed to sit for 15 to 20 minutes so that iron dust can settle out. Once the iron has settled out, the used polymer solution is pumped from the tank and discarded, making room for fresh polymer in the morning. The amount of iron present in the tank should be recorded so that when work starts the next day, this iron is taken into account when the first fresh batch is prepared. It is safe to allow unused iron to sit in the mixing tank, covered with polymer for a day or two. However, if the equipment will sit idle for several days it is best to clean the iron out as it tends to become cemented when damp/wet. Severe damage could result to the equipment if clumps or shards of cemented iron were suspended and sucked into the pump.

3.3 Injection Process

The injection pump trailer is equipped with a positive displacement pump capable of delivering up to 40-gallons-per-minute at pressures in excess of 1,000 pounds per square inch. Process tanks located on the trailer will include a 500-gallon iron-slurry mixing tank and a 500-gallon holding tank for premixed polymer. Pump suction is directly connected to the slurry mixing tank, and the discharge is controlled through a valve manifold so slurry can be recycled back into the mixing tank or directed out to an injection well.

A standard 1.25-inch direct-push drill rod is used for injecting. An injection tip or expendable point is attached to the drill string, and the rod is driven to the desired depth. An injection head is then threaded securely onto the rod. The injection head has a valve and quick-connect coupling to facilitate rapid connection to the injection pump discharge hose. Once the slurry is mixed, the injection head valve is opened, the pump is engaged, and the discharge line is pressured up. If an expendable point is being used, the injection rod is withdrawn slightly to shed the point. Pressure rapidly builds until a fracture or fissure is created in the formation. The pressure then drops and the fracture or fissure moves outward from the point of injection as additional slurry is pumped into the well. The above description is reasonably close to reality when the soil consists of silts and or clays, as in Unit A. When injecting into saturated sand, behavior is very different. No fracture or separation is created; rather, slurry movement creates radial mixing as the injection progresses. Hydraulic effects can be important as true displacement of groundwater can take place, particularly when injecting into a confined aquifer. Because of the mixing that occurs, a thicker seam or zone is impacted during injection, and this may allow the vertical spacing to be relaxed.

Co-injection of molasses is important to catalyze the reductive dechlorination process and to manage generation of daughter products so that long-term buildup does not occur. To conserve labor and time, the molasses is fed directly into the injection pump during injection of the iron slurry rather than completing injection of this material after installing the iron, as was done during the pilot study. Care must be taken to keep molasses out of the mixing tank, because even small amounts will completely destroy the viscosity created by the polymer. This will adversely affect the settling rate of the iron dust and make it more difficult to inject the iron. The best way to prevent this is to adjust the bypass pressure setting to a value at least 250 pounds per square inch over the normal operating pressures observed during injections at the site in Units A and B. This will eliminate the possibility of low pressure bleed-back into the mixing tank through the bypass valve.

The injection technique will vary depending on how the formation responds and whether Unit A or Unit B is involved. In Unit A, a top/down technique is required. This means that the injections must begin at the shallowest targeted depth and proceed downward. When the drill rod is pushed into Unit A soils and then withdrawn, the borehole remains open. The soil does not collapse as the rod is withdrawn. If a previous injection seam or pathway is available, slurry will preferentially flow into this seam as less pressure is required to propagate an existing seam than is required to open a new fracture or seam. As a result, as injections proceed, the injection rod must be advanced to lower depths in order to seal off previous seams and force new fractures to be formed. For example, the injection rod is driven to a depth of 6 feet, slurry is injected at this depth, and then the rod would be pushed to 8 feet. Again slurry is installed, and the rod is advanced. This process is repeated until slurry has been installed at the lowest targeted depth (11 to 15 feet depending on the location within Unit A).

In Unit B, the situation is different as the targeted treatment zone consists primarily of sand. In this case, seams are not formed. Instead, radial mixing occurs as injected slurry is forced into the formation and moves away from the injection tip. Further, as the injection rod is withdrawn, the sands flow back into the void, effectively sealing off any lower pathway that had existed. As a result, injections in this unit can and should be performed using a bottom/up technique. Injection rods are initially advanced to the lowest targeted depth (24 to 31.5 feet depending on location within Unit B). Once the prescribed volume of slurry has been emplaced, the rod is withdrawn by 2 or 3 feet and the next injection completed. This process is continued until slurry has been emplaced at all targeted depths.

After injection of a batch, fresh polymer solution is transferred into the slurry tank, mixed and then a small volume is injected to flush a majority of the iron dust from the system. Although this will not completely flush iron powder from hoses, it will significantly reduce the amount of iron that can settle out during the delay in action while a new batch of slurry is prepared. If iron powder is allowed to accumulate in the high pressure hose, plugging can occur during normal operations and a considerable effort is required to clean out the lines.

When slurry is injected into a formation, a fair amount of backpressure can form that tends to dissipate over a period of time. As a result, an injection well (drill rod) cannot normally be removed immediately after injection of slurry. Residual pressure in the formation is checked by opening the injection head valve. Once pressure dissipates, the rod is removed and the borehole sealed with bentonite. Since Unit B is a semi-confined aquifer, hydraulic pressure due to injected liquids is transmitted for a considerable distance. This pressure will often cause groundwater to be pushed out of implants or wells that are located nearby. Wells should remain capped and the plug inspected periodically to check for leakage. The inner tubing should be removed from implants and the outer tube plugged or, as an alternative, small buckets may be used to retain any groundwater that may bleed from the tubing. Caution should be taken as groundwater seeping from implants or from wells may contain dissolved organic compounds and must be handled and disposed of according to site requirements detailed in the project Health and Safety Plans.

4.0 PLANNED INJECTIONS

Major concerns associated with the proposed injection work are as follows:

- Ensuring that no significant expansion of the plume results from slurry injections; and
- Ensuring that slurry is placed within the affected zones so that effective contact with the dissolved organic compounds occurs.

The first concern is most easily addressed by working from clean areas (or areas of low dissolved organic compound concentrations) and moving toward the source area or other areas where high concentrations of compounds exist. Simply stated, injections should progress from the outside (plume boundary) inward. The second concern is a quality control issue, and the only way to verify placement is through sampling. A multitude of temporary implants were installed during the supplemental investigation work, and it is through sampling of these implants that slurry placement will be monitored. Each of these issues will be discussed in the following sections along with details associated with layout of injection grids, the number of points within each area, injection depths, injection volume, and pounds of iron per injection.

4.1 Treatment Strategy

The overall treatment strategy includes consideration of the following.

- Weather Conditions;
- Staging of Equipment;
- Minimizing non-injection activities or interruptions due to unnecessary movement of equipment; and
- Concern for movement of dissolved compounds toward areas of lower concentration.

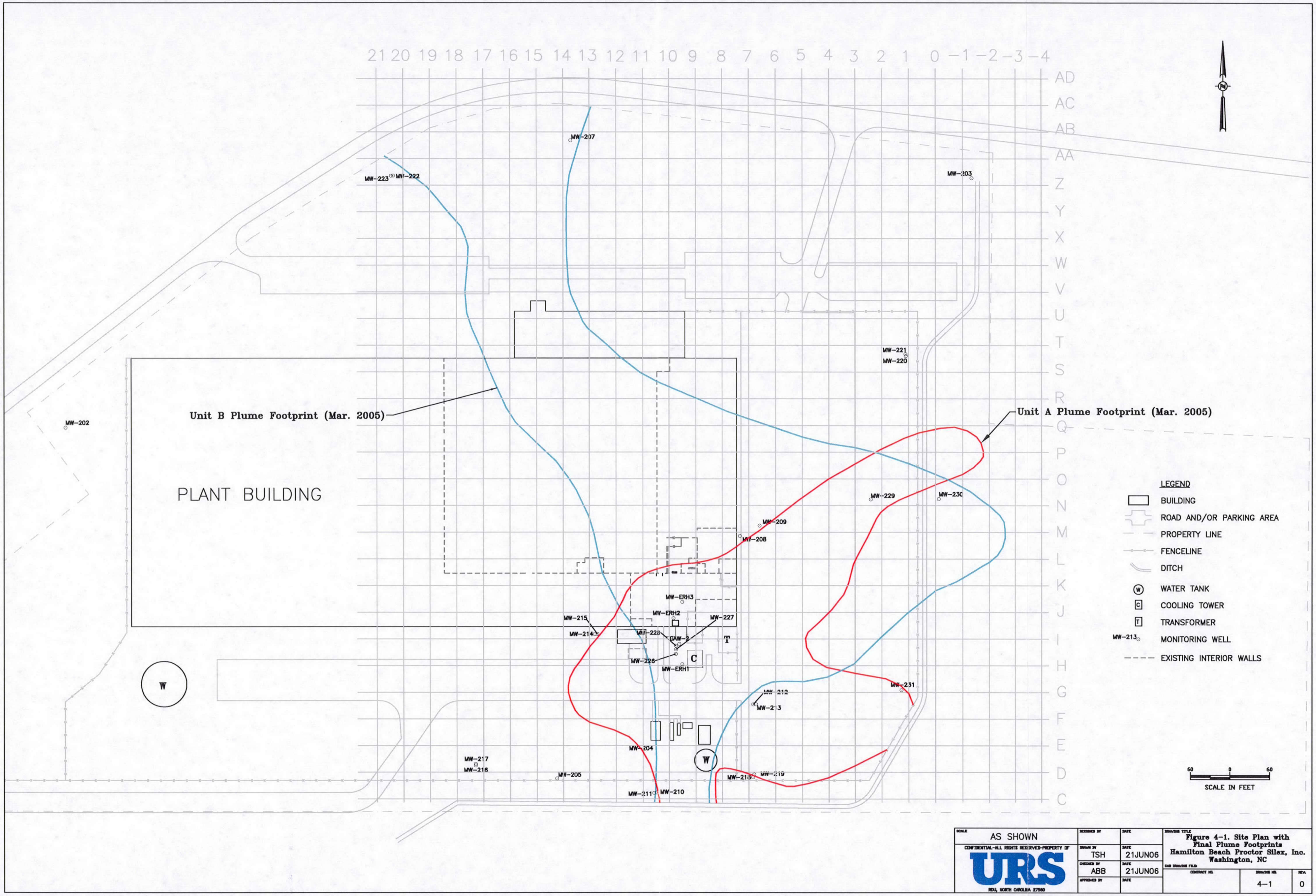
In general, groundwater movement is slow, so that it makes little difference if treatment within any given region is completed through a continuous or discontinuous effort. As a result, one can vary injection locations to a certain degree to take advantage of existing conditions or to create fortuitous situations. For example, persistent rainfall can very easily make it difficult to work in the grass area north of the plant building, out in the woods, or in the regions on the southern edge of the plume. However, such potential weather delays can be overcome if work can be continued somewhere in the east parking lot or inside the building. This requires careful contingency planning in that equipment is staged so that at least two areas can be reached. The greatest limitation is the polymer and slurry mixing tanks, because a considerable effort is required to move them, and there must be access to water and power in the new location.

The first step in the injection process will be to conduct test injections in both Units A and B. Work completed during the pilot study in Unit A indicated that injection volumes needed to be optimized, since breakthrough to the surface was problematic. Further, the technique developed during the pilot study was slow and labor intensive. Since that time, several injection tips have been developed, which may or may not be successful in overcoming these difficulties. As a result, test injections will be necessary to determine what volume of slurry can be injected without breakthrough or significant seepage to the surface. Also, selected injection tips will need to be evaluated to determine which, if any, can be used for successful injections in site soils using a top/down technique without plugging or leakage around the rod.

Because of Unit B lithology, it should be possible to increase the grid spacing from the 10-foot spacing used during the pilot study to as much as 25 feet. Inside the building, a larger grid will be particularly useful, since it is desirable to minimize the volume of water injected. Consequently, some injection work will be required to balance these variables and determine what minimum volume is required to achieve a 7.5-foot or 10-foot or 15-foot average radius of influence. Although the final location of test injection grids will be determined in the field, it is likely that this work can be performed south of the building in the east parking lot. As a result, the polymer mixing area should initially be set-up toward the south end of the plant building just inside the gate entrance to the east parking lot next to the fire hydrant.

Figure 4-1 shows the updated footprints of the plume based on the results of supplemental sampling. The figure illustrates that portions of the plume in Unit B extend to the north, south, and in the east, beneath the woods. The figure also shows that the plume in Unit A not only extends to the south, but also to the east with one lobe located almost due east along the south fence line and a second lobe extending to the northeast and ultimately terminating beneath the woods.

In general, the plan is to begin injections at the edge of the plume and progress toward the plant building and source area to contain the dissolved organic compounds and minimize the potential for plume expansion. As a result, the lobes of the plume located to the north and east, particularly those extending to the woods should be addressed early on, weather permitting. For example injection could begin at the southeast lobe of the plume in Unit A and proceed westward from the outer fence toward the plant building. Once injections progress out of the grass areas



21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 -1 -2 -3 -4
AD AC AB AA Z Y X W V U T S R Q P O N M L K J I H G F E D C
PLANT BUILDING
Unit B Plume Footprint (Mar. 2005)
Unit A Plume Footprint (Mar. 2005)
MW-207
MW-223
MW-222
MW-203
MW-221
MW-220
MW-202
MW-229
MW-230
MW-209
MW-208
MW-ERH3
MW-ERH2
MW-215
MW-214
MW-228
GAW-2
MW-227
MW-226
MW-ERH1
MW-231
MW-212
MW-213
MW-204
MW-217
MW-216
MW-205
MW-218
MW-219
MW-211
MW-210
W
C
T
LEGEND
BUILDING
ROAD AND/OR PARKING AREA
PROPERTY LINE
FENCELINE
DITCH
WATER TANK
COOLING TOWER
TRANSFORMER
MW-213
MONITORING WELL
EXISTING INTERIOR WALLS
60 0 60
SCALE IN FEET
AS SHOWN
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF
URS
RDU, NORTH CAROLINA 27560
TSH
21JUN06
ABB
21JUN06
Figure 4-1. Site Plan with
Final Plume Footprints
Hamilton Beach Proctor Silex, Inc.
Washington, NC
4-1
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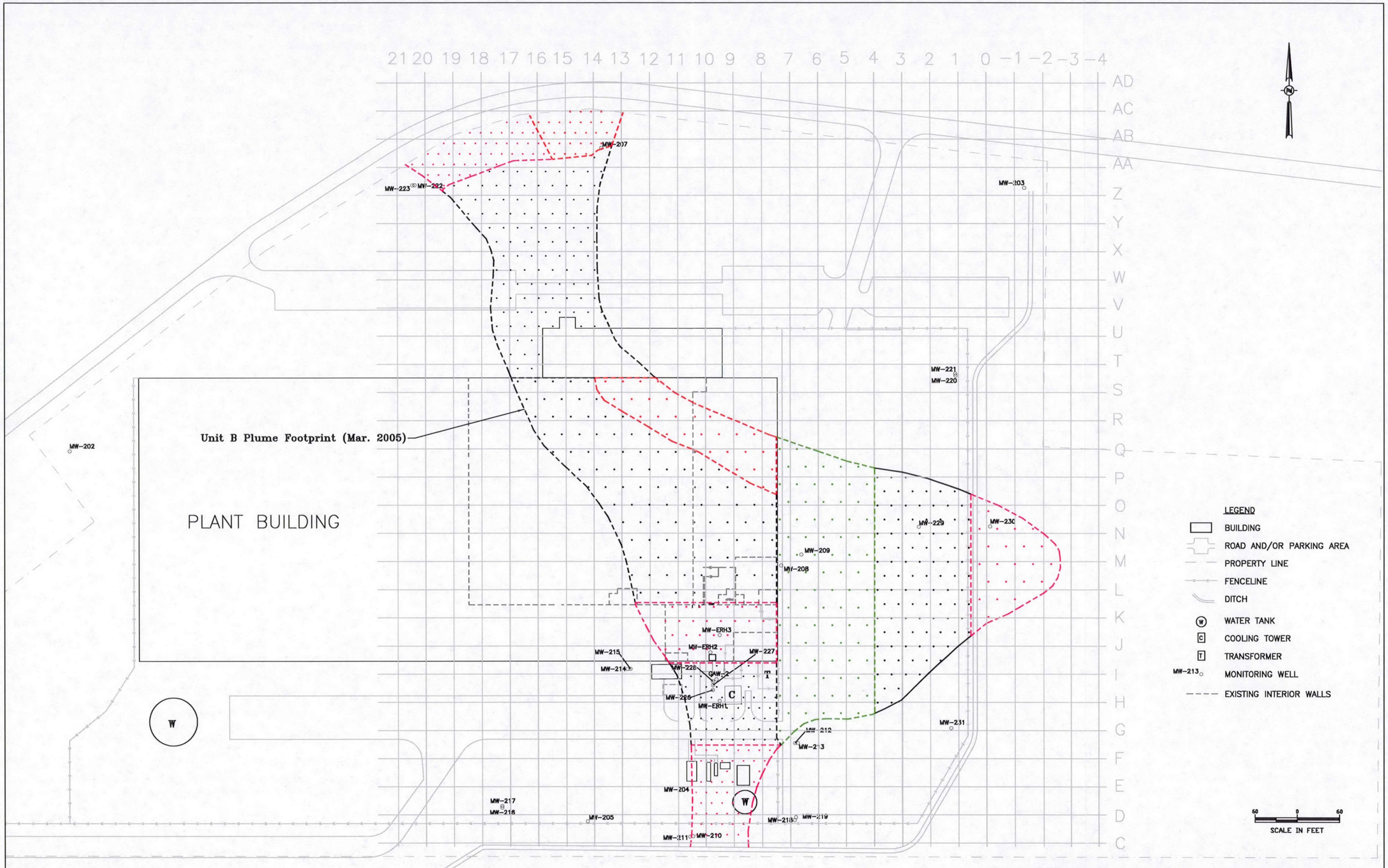
and onto the pavement, this may be an advantageous stopping point in Unit A allowing a shift to the north lobe of the plume in Unit B. If the polymer mixing tank farm is repositioned to the north end of the east parking lot, polymer transfer lines could reach to the front of the building or east toward the woods. This position would also service a portion of the injection points located inside the building. Ideally, all injection work to the north in front of the building and located east of the fence in the woods should be completed before the end of April. At this point, a large percentage of the remaining injection work will be either inside the building or on paved areas. This will provide the best opportunity to manage potentially adverse weather conditions by scheduling much of the inside work during the heat and high humidity in July and August.

During May and June, injection will be completed from the east fence line (corresponding to grid-line 1) west to the plant building and from the south (grid-line "C") to grid-line "H". For those areas where the plume occurs in both Unit A and Unit B, normally it would not matter which was treated first, or if the upper and lower zones were worked concurrently. Unfortunately, grid spacing and injection volumes in Unit A are different from those in Unit B, so it is not practical to perform the injections simultaneously. As a result, to avoid confusion, it will be most efficient to approach the units separately. Ultimately, the last injections will occur in and around the source area.

For purposes of this plan, a preliminary design based on the pilot study and results from supplemental sampling has been completed. Supplemental sampling enabled the plume boundary to be better defined and provided data pertaining to the vertical distribution of dissolved organic compounds. Based on these data, the plume in each unit was divided into a series of regions. For each region, injection details include grid spacing, the number of injection boreholes, vertical spacing between successive injections, the volume of slurry and pounds iron per injection, and the targeted injection depths. A summary of this preliminary design is provided in Table 4-1. The preliminary design calls for a total of 4,670 injections to be completed at 1,416 boreholes and the installation of 208,005 pounds of iron. Once test injections have been completed, grid spacing and other key injection parameters can be finalized. This could affect the number of boreholes and injections but should not affect the total amount of iron installed.

4.1.1 Unit B Injections

Figure 4-2 shows the planned locations of the injection points for Unit B. Areas illustrated on the figure correspond to plume areas identified in Table 4-1. Injection specifications for each plume area are summarized in the table. Unit B injection will be



SCALE: AS SHOWN	DESIGNED BY:	DATE:	DRAWING TITLE: **Figure 4-2. Unit B Proposed Injection Locations Hamilton Beach Proctor Silex, Inc. Washington, NC**
CONFIDENTIAL-ALL RIGHTS RESERVED-PROPERTY OF URS, RDU, NORTH CAROLINA 27560	DRAWN BY: TSH	DATE: 21JUN06	CAD DRAWING FILE:
	CHECKED BY: ABB	DATE: 21JUN06	CONTRACT NO.:
	APPROVED BY:	DATE:	DRAWING NO.: 4-2 — REV.: 0

Table 4-1. Injection Plan Summary Table

Plume Area	Grid Spacing (feet)	Number of Bore Holes	Injections/ Bore Hole	Number of Injections	Vertical Spacing	Volume (gallons/ injection)	Pounds-Fe / Injection	Injection Depths	Total pounds of Iron
Unit B - Outside Building									
*North Barrier W-half (2')	15	47	4	188	2'	125	60	22' to 28', and 23' to 29'	11,280
*North Barrier E-half (2')	15	29	4	116	2'	125	50	22' to 28', and 23' to 29'	5,800
Balance of Plume	20	110	3	330	3'	200	70	22' to 28', and 23.5' to 29.5'	23,100
Sub-total									
East Area (West of GL 4)-N	25	37	3	111	3'	250	80	21' to 27', and 22.5' to 28.5'	8,880
East Area (West of GL 4)-S	25	48	3	144	3'	250	80	18' to 24', and 19.5', 22.5', 26'	11,520
(East of GL 4)-N	20	32	3	96	3'	200	60	21' to 27', and 22.5' to 28.5'	5,760
(East of GL 4)-S	20	66	3	198	3'	200	60	18' to 24', and 19.5', 22.5', 26'	11,880
Out in the Woods	25	22	3	66	3'	250	80	18' to 24', and 19.5', 22.5', 25'	5,280
South Area (North 1/2)	15	53	3	159	3'	125	70	18' to 24', and 16.5' to 22.5'	11,130
South Area (South 1/2)	15	47	4	188	3'	125	50	18' to 27', and 16.5' to 25.5'	9,400
Unit B - Inside Building	(all 3')								
Source + adjacent Area	20	25	5	125	3'	200	75	18' to 30', and 19.5' to 31.5'	9,375
Main portion	25	97	3	291	3'	250	90	24' to 30', and 25.5' to 31.5'	26,190
North edge	20	27	1.5	41	3'	200	50	27' to 30', and 28.5'	2,025
**Sub-Total		640		2053					141,620
Unit A - South Area									
Source	15	44	3.5	154	2'	60	20	8" to 14', and 9' to 13'	3,080
Halo around source	15	62	5	310	2'	60	25	6' to 14', and 7' to 15'	7,750
Hot spot around D-9	10	20	4.5	90	2'	50	50	6' to 14', and 7' to 13'	4,500
Area around hot spot	10	38	3	114	2'	50	25	8' to 12', and 7' to 11'	2,850
Area in-between S & HS	15	91	3	273	2'	60	20	8' to 12', and 7' to 11'	5,460

Table 4-1. Injection Plan Summary Table (Continued)

Plume Area	Grid Spacing (feet)	Number of Bore Holes	Injections/ Bore Hole	Number of Injections	Vertical Spacing	Volume (gallons/ injection)	Pounds-Fe / Injection	Injection Depths	Total pounds of Iron
Unit A - East Area									
Far NE extension	10	63	3.5	221	2'	50	30	6' to 12', and 7' to 11'	6,615
Hot spot around E-5	10	52	5	260	2'	50	40	6' to 14', and 5' to 13'	10,400
SE corner along fence	10	32	3	96	2'	50	20	8' to 12', and 7' to 11'	1,920
Strip along hot channel	10	104	3.5	364	2'	50	25	6' to 12', and 7' to 11'	9,100
Balance N of GL "H"	15	149	2.5	373	2'	60	20	8' to 12', and 9' to 11'	7,450
Balance S of GL "H"	15	121	3	363	2'	60	20	8' to 12', and 7' to 11'	7,260
Unit A subtotal		776		2,617					66,385
Total		**1,416**		**4,670**					**208,005**

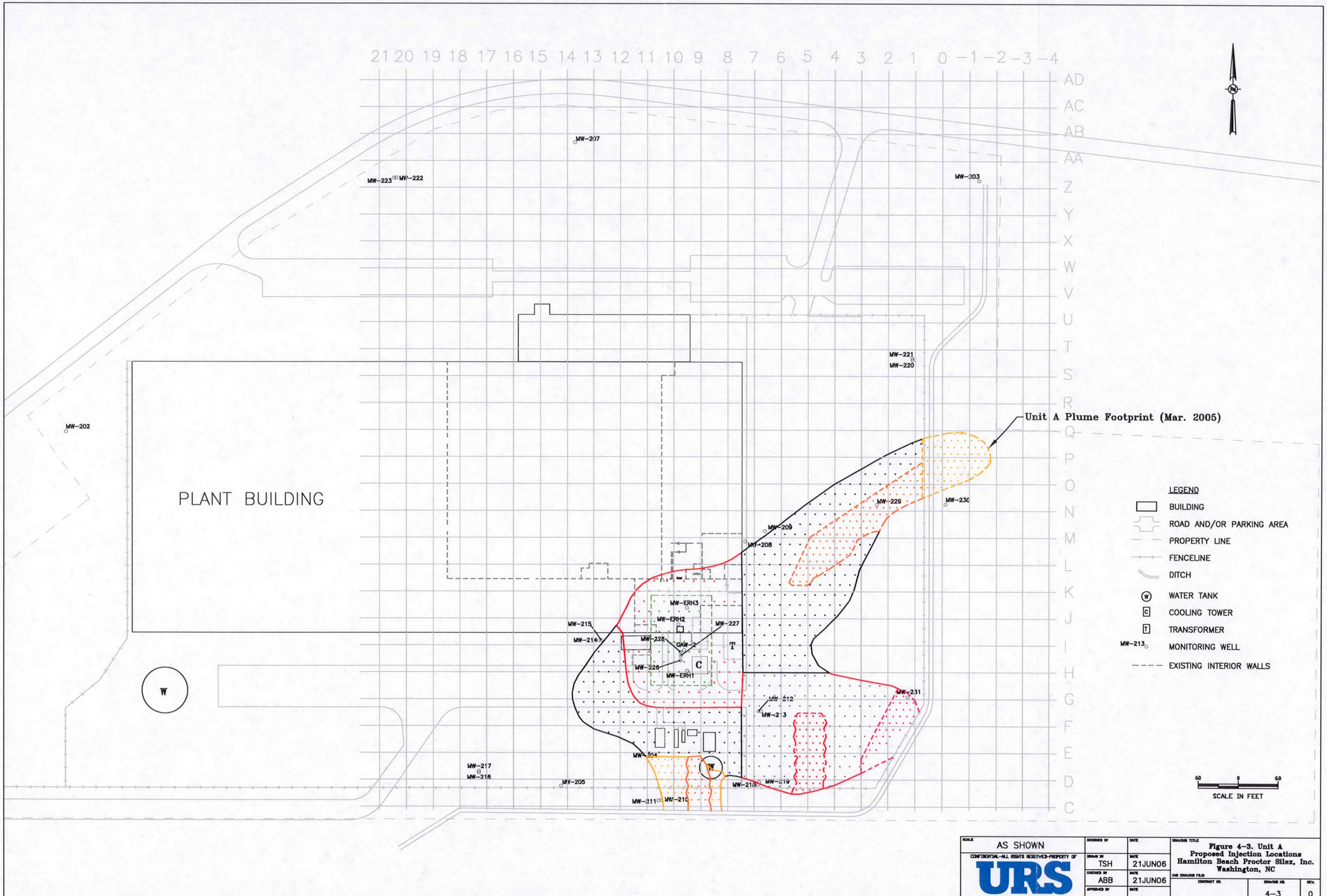
performed using a bottom/up technique by pushing to the lowest targeted depth, performing an injection and then raising the rod in 2 or 3-foot increments and performing another injection. This bottom/up injection technique can be used because of the sandy soil conditions present. As the rod is raised, the formation collapses behind the point effectively, sealing off the lower injection pathway and ensuring proper placement of slurry at the next depth interval.

4.1.2 Unit A Injections

Figure 4-3 shows the planned locations of the injection points for Unit A. Areas illustrated on the figure correspond to plume areas identified in Table 4-1. Injection specifications for each plume area are summarized in the table. Injection into Unit A will be performed using a top/down technique. An experimental injection tip will be evaluated as an alternative to the system employed during pilot study injections. If successful, this tip will allow the rod to be advanced to the first targeted depth, and the first injection to be completed. The rod can then be driven 2 feet to the next targeted depth without any pressure in the line, and the next injection installed. This process will be repeated until the lowest depth injection is completed. The ability to drive injection rod down without any bypass pressure from the injection pump will be a significant improvement over the previous injection process in this unit. Should this injection tip not be workable, the proven injection technique (for Unit A) described in the "ZVI Pilot Test Report" will be utilized.

4.1.3 Co-Injection of Molasses

Benefits derived from installation of molasses along with the iron powder were demonstrated during the pilot study. During the pilot study, injection of molasses was accomplished after installation of iron slurry was completed because of an interaction with the thixotrophic agent used to keep the iron suspended. This technique is not practical during full-scale injection as the time and expense of independent injections would be prohibitive. As a result, a variable feed system was designed to pressure feed molasses at prescribed rates directly into the main injection pump suction line. Effective mixing is accomplished as the slurry moves through the pump and the resulting mixture is rapidly discharged through the injection rod into the formation. Since the injection pump is normally displacing over 30 gallons of slurry per minute, the time of contact between the viscous iron slurry and the molasses before injection into the subsurface is roughly one second. Once placed into the formation, loss of viscosity is desirable so the molasses provides an added benefit over and above its role in fermentation and control of toxic daughter products.



PLANT BUILDING
Unit A Plume Footprint (Mar. 2005)
MW-202
MW-203
MW-205
MW-207
MW-208
MW-209
MW-210
MW-211
MW-212
MW-213
MW-214
MW-215
MW-217
MW-218
MW-219
MW-220
MW-221
MW-222
MW-223
MW-226
MW-227
MW-228
MW-229
MW-230
MW-231
MW-ERH1
MW-ERH2
MW-ERH3
GAW-2
LEGEND
BUILDING
ROAD AND/OR PARKING AREA
PROPERTY LINE
FENCELINE
DITCH
WATER TANK
COOLING TOWER
TRANSFORMER
MONITORING WELL
EXISTING INTERIOR WALLS
SCALE IN FEET
AS SHOWN
URS
TSH 21JUN06
ABB 21JUN06
Figure 4-3. Unit A Proposed Injection Locations Hamilton Beach Proctor Silex, Inc. Washington, NC
4-3
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The feed system consists of a positive displacement gear pump powered by a variable speed motor. When the systems were first installed on the injection pump trailers, volumetric flow rates were measured at various speed settings. These data were then used to match the molasses feed rate to injection pump settings so that injectate always contained roughly 7 to 10% molasses. Preliminary testing of the feed system will be performed during the test injections. Any final calibration of the feed settings can be completed at that time.

4.2 Injection Layout

The layout and location of injection points will not be difficult as the original gridlines and layout markers for the Cartesian grid constructed for supplemental sampling are still visible and can be used to great advantage. As a result, within the individual plume areas, inspection of the injection plan figures allows the injection points to be readily located with respect to this grid.

Once established in the field, the injection points will be checked against the summary table to verify the correct numbers of points have been located and against the injection plan figures to verify that the correct alignment has been established. Finally, the injection point locations will be checked independently by a second project team member against ground markings and site records to verify the absence of underground utilities.

4.3 Verification Sampling

As injection progresses, regular sampling of groundwater will be performed for quality control purposes. Existing implants (installed during supplemental sampling) and monitoring wells will be used for this purpose; however some additional implants will need to be installed to fill in gaps within the plume footprints. Any new implants will be installed and baseline samples collected prior to commencing injections in the area. As injections proceed, samples will be collected from wells or implants located outside or on the plume edges to check for migration of dissolved organic compounds. If evidence of migration is noted, it may be necessary to adjust the order or sequence of injections within the region. Next, samples will be taken from wells and or implants where injections have been completed. In the short term, these samples can be used to look for the presence of injectant and for byproducts of fermentation. Detection of these indicators will mean that injectant has been placed at targeted depths and that the distribution or radius of influence is acceptable. In the absence of these indicators, adjustment of injection parameters may be required. This sampling of perimeter points and internal points will be an ongoing process so that placement of iron is checked throughout the project. The identity of points and frequency of sampling will be coordinated with URS and Remediation Products, Inc. (RPI). Samples will be kept under refrigeration and may be accumulated for short periods of time. Depending on production and timing, all samples will be cleared from refrigerator storage once per week and shipped by overnight express to RPI for analysis.

5.0 DECONTAMINATION

The field work associated with this project involves several tasks and decontamination procedures will be different depending on what is being done. For the purpose of this plan, only those procedures pertaining to planned injection work will be discussed. During injection of iron slurries, it is not generally important to clean tooling between usages for removal of chemicals; rather, it is only required to ensure efficient use and reuse of injection tooling. For example, it can become difficult to thread injection rod together when the threads are caked with iron dust. As a result, the primary objective of injection tooling decontamination is simply to remove soil/mud, iron powder, and other foreign matter from tool surfaces. However, it must be kept in mind that incidental contact with chlorinated organic compounds may occur when injecting at, or near the source area. For these areas, more extensive decontamination procedures should be followed such as those described in the HASP.

Under normal conditions, rinse water can be used for an extended time and soap is not needed. Again, the mobile lab can be used to assist with use and disposal decisions to establish guidelines during the early phases of the project.

6.0 SITE RESTORATION

It is intended that the site be restored to its original condition at the end of the project. All holes in the building floor will be patched with concrete. Any grassy areas that have been disturbed will be restored to their natural condition. Pressure washing will take place to restore any stained concrete to its original state. All refuse from the work will be properly disposed of, and the site will be left looking as it did before the project began.

The site must be routinely policed to prevent any unsightly accumulation of trash or debris. Refuse roll-offs are located on site that can be used by AST for disposal of normal trash.

Appendix E

APPENDIX E

PROGRESS REPORTS

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 4/4-9/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ted Keen
Equip. Operator	Ben Fisher
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	12120 #
Molasses	1550 gal.
Polymer	91.8 #

Summary of Weekly Activities:

This week the new injection pump was installed and tested before injections began, and the motor on the molasses pump was also changed to achieve the correct amount of molasses in injections. Injections were completed in the E parking lot area, with the focus being the hot spot around E-5 and the below GL-H. 52 bore holes were completed in the hot spot around E-5, and each hole had 5 injections. The depths of these injections were 5-13', and 6-14', with an injection every 2'. There was a small area in the hot spot where a sand lens was hit and injections had to be modified to keep the injection tip from becoming plugged. The iron loadings in this area were 40# Fe for every 50 gallons of slurry. 46 bore holes were completed in area below GL-H. Injections in this area have been completed uo to GL-H up til GL-6, where the injections have been completed to GL-F. Each of these bore holes received 3 injections, and the iron loadings were 20# Fe for every 60 gallon of slurry. The injection depths were 8-12' and 7-11' with injections occurring every 2'. While injecting in these areas communications was seen with implants at D-5, E-5, F-5, F-7, E-6, H-5, and G-6.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 4/11-14/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Jared Rogers
Equip. Operator	Ben Fisher
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	6880#
Molasses	1550 gal.
Polymer	91.8 #

Summary of Weekly Activities:

This week injections began south of GL-H in Unit A. After the completion of this area, which was a total of 18 bore holes, with 3 injections per hole. The iron loadings were 20# Fe/ 60 gal of slurry, and the depths injected were 7-11' and 8-12' with an injection every 2'. Communication was seen in this area with implants H-7, G-8, G-9 and an abandoned ERH point. Once completing this area, the polymer mix station was moved to the front of the building and implants were set in Unit B for performance monitoring. Injections began in Unit-B in the E-half of the N Barrier, with 29 bore holes injected to complete this area. The iron loadings were 50# Fe/ 125 gal of slurry. There were 4 injections per bore hole; the depths were 28-22' and 29-23', with injections were shot every 2'.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 4/18-23/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Jared Rogers
Equip. Operator	Ben Fisher
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	14850#
Molasses	2665 gal.
Polymer	156#

Summary of Weekly Activities:

This week injections began in the W-half of the N Barrier in Unit B. In total 47 bore holes were shot to complete this area. There were 4 injections per every hole, and the iron loadings in each was 60# Fe/ 125 gal. of polymer slurry. The injections depths alternated between 28-22' and 29-23', with an injection every 2'. While injecting communication was seen in the implants at AB-17,18,&19, AA-20, &21. Once this area was completed injections moved to the remaining portion of the N plume in Unit B. A total of 17 bore holes were completed; the region these injections took place was from the injection line just below GL-AA to just below GL-Z, and from the W plume boundary to the injection row just beyond GL-16. Each bore hole received 3 injections, with an iron loading of 70# Fe/ 200 gal. of polymer slurry. The depths were staggered from 28-22' and 29.5-23..5', and injecting at heights every 3'. The implants at Z-16 and 17 displayed communication shile injections were being done. It should also be noted that there was a change to the injection scheme in the field because of boundary problems. The last 2 points on the injection line above GL-AB had to be eliminated because of being in the road right of way. These points were moved to the injection row above GL-Z, where on point on the 20' centers was eliminated to accomadate these points. This point will be added in later where it is seen fit. Several tasks were also completed this week in preparation for the second crew arriving on Monday; including the shanging of the molasses motors, and the use of both injection trailers.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 4/25-29/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Jared Rogers
Equip. Operator	Ben Fisher
Equip. Operator	Stuart Outten/Larry Opper
Equip. Operator	Claudio Ramon
Equip. Operator	Labrinson Holmes
Equip. Operator	ToddHolmes

Materials Used	Amount
Zero-Valent Iron	18270#
Molasses	4330 gal.
Polymer	241.7 #

Summary of Weekly Activities:

All this week injections took place in the N extension Unit B plume. Two trailers were used this week, with the exception of Monday, which was used to familiarize everyone with all of the systems. For the week 87 bore holes were completed, with 3 injections per each bore hole. The iron loadings were 70# Fe/ 200 gallon of polymer slurry. Injection depths alternated between 28-22' and 29.5-23.5', and injections took place every 3'. While injecting in this area, three injection points heaved sand from the ground after the rods were pulled and injections completed around them. These three points were in the same vacinity above GL-W and between GL-16 and GL-17. Communication with implants occurred all week, with the following implants dispensing water while injecting: Y-17, Z-14, W-16, X-15, X-14, V-18, V-17, V-15, U-16, S-17, S-15, S-13, and Q-15. There are 5 bore holes left to complete in the main portion of the N plume, and after they are completed on Monday, then the polymer mix station will be moved to the E parking lot because the next injections will take place in Unit B out in the woods. Also set this week where 9 of the 10 pre-sand packed wells. The only well not set was P-0, which will be set before injections take place out in the woods.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 5/2-5/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ted Keen
Equip. Operator	Ben Fisher
Equip. Operator	Stuart Outten
Equip. Operator	Claudio Ramon
Equip. Operator	Labrinson Holmes
Equip. Operator	Todd Holmes

Materials Used	Amount
Zero-Valent Iron	11010 #
Molasses	2850 gal.
Polymer	162.5 #

Summary of Weekly Activities:

This week injections took place in three separate areas of the plume. Monday was used to finish up the injections in the main portion of the N plume for Unit B. 5 bore holes were injected to complete the area, the iron loadings were 70 # Fe/ 200 gallons of polymer slurry. Three injections were done in each of the bore holes, and the depths alternated between 28-22' and 29.5-23.5', with the rods being pulled up every 3'. Once these injections were completed; the polymer mix station was moved to the NE corner of the plant just S of the Hamilton Beach loading dock, additional implants were set and sampled, and a molasses transfer pump was installed on the holding tank. The next three days were used to inject in the E Unit B plume. One trailer was used to complete the injections in the woods. There were 22 bore holes injected to finish the injections in the wood, with an iron loading of 80# Fe/ 250 gallons of polymer slurry. The injected depths alternated between 24', 21', 18' and 25', 22.5', and 19.5'. The tenth and final pre-sand packed well was also set while the drill rig was in the woods at P-0. The second trailer worked in the area E of GL-4 in the N portion. Here there were 26 bore holes completed, with 3 injections per holes and the depths alternated between 27-21' and 28.5-22.5'. The iron loadings in this area were 60# Fe/ 200 gallons of polymer slurry. While injecting communication was seen with the implants at O-2, O-4, N-3, N-1, M-4, M-2, P-1, L-1, and -2-M. The mixer on the second trailer had an o-ring shear on Wednseday and it slowed production for a half a day.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 5/23-27/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil/ Tom Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Jason Luckett
Equip. Operator	Stuart Outten/ Larry Opper
Equip. Operator	Claudio Ramon
Equip. Operator	Labrinson Holmes
Equip. Operator	Todd Holmes

Materials Used	Amount
Zero-Valent Iron	20190 #
Molasses	4390 gal.
Polymer	251.2 #

Summary of Weekly Activities:

This week injections took place in three separate areas of the plume. The area E of GL-4 S in Unit B was completed, with 22 bore holes being injections. The iron loadings in this area was 60# Fe/ 200 gallons of slurry. Another Unit B area injected was W of GL-4 S area, and 40 bore holes were completed in this area. The iron loadings are 80# Fe/ 250 gallon of slurry; in each of these areas the depths were 24-18', and 26, 22.5, 19.5'. The third area injected was the Northwest corner of Unit A in the woods. There were 63 bore holes injected in this area, with 32 holes receiving 4 injctions and 31 getting 3 injections. The depths injected were 7-11' ,and 6-12', and the iron loadings in this area were 30# Fe/ 50 gallons of slurry. Communication was seen with the implants at

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 6/1-3/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Jason Luckett
Equip. Operator	Stuart Outten
Equip. Operator	Claudio Ramon
Equip. Operator	Labrinson Holmes
Equip. Operator	Todd Holmes

Materials Used	Amount
Zero-Valent Iron	6560 #
Molasses	1700 gal.
Polymer	96.3 #

Summary of Weekly Activities:

This week injections took place in four separate areas of the plume. The area W of GL-4 S in Unit B was completed, with 12 bore holes being injected. The iron loadings in this area was 80# Fe/ 250 gallons of slurry. Another Unit B area injected was the N Barrier inside, and 8 bore holes were completed in this area. 4 of these holes received 2 injections and the other 4 received 1 injection.The iron loadings were 50# Fe 200 gallon of slurry, and the depths were 30-27',and 28.5'. The Unit B main portion was also injected with 4 bore holes injected in this area, with a slurry loading of 90#Fe/250 gallons. The depths injected for this area is 30-24' and 31.5-25.5'. The Unit A area injected was the balance N of GL-H, with 33 bore holes injected. 19 of these bore holes received 2 injections and 14 received 3, the depths of injections were 9-11' and 8-12', with an iron loading of 20# Fe/ 60 gallons of slurry. On 6/2/05 there were no injections due to inclement weather.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 6/6-10/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Jason Luckett
Equip. Operator	Stuart Outten
Equip. Operator	Claudio Ramon
Equip. Operator	Labrinson Holmes
Equip. Operator	Todd Holmes

Materials Used	Amount
Zero-Valent Iron	17325 #
Molasses	3410 gal.
Polymer	191.9 #

Summary of Weekly Activities:

This week injections took place in three separate areas of the plume. The Main Portion inside in Unit B was injected, with 22 bore holes being injected. The iron loadings in this area were 90# Fe/ 250 gallons of slurry, and injection depths of 30-24' and 31.4-25.5'. In Unit A the Balance N of GL-H was injected with 45 bore being completed, and 22 of these holes received 2 injections and the other 23 received 3.
the depths of injection for this area were 9-11' and 8-12', with iron loadings of 20# fe/ 60 gallons od slurry.
The stirp along the hot channel in the East Parking lot was injected and completed with 104 bore holes finished. In this area 53 bore holes received 4 injections and the other 51 received 3 injections apiece. The depths of injections were 7-11' and 6-12' with an iron loading of 25#Fe/50 gallons of slurry. 6/8/05 marked the last day of injections with two crews.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 6/13-16/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Jason Luckett
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	4710 #
Molasses	1180 gal.
Polymer	65.1 #

Summary of Weekly Activities:

This week injections took place in two separate areas of the plume. The Main Portion inside in Unit B was injected, with 6 bore holes being injected. The iron loadings in this area were 90# Fe/ 250 gallons of slurry, and injection depths of 30-24' and 31.4-25.5'. In Unit A the Balance N of GL-H was injected with 63 bore being completed, and 30 of these holes received 2 injections and the other 33 received 3. the depths of injection for this area were 9-11' and 8-12', with iron loadings of 20# fe/ 60 gallons od slurry. These injections marked the completion of the E-parking lot area. On 6/15/05 all of the bore holes in the east parking lot were patched and the polymer station was moved to comduct more injections.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach	Date: 6/20-24/2005
Location: Washington, NC	Project No.: 5090
Client: URS	

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	10490 #
Molasses	2525 gal.
Polymer	139.1 #

Summary of Weekly Activities:

This week injections took place in two separate areas of the plume. The Main Portion inside in Unit B was injected, with 45 bore holes being completed. The iron loadings in this area were 90# Fe/ 250 gallons of slurry, and injection depths of 30-24' and 31.4-25.5'. The N Barrier of the plume inside was also injected and completed. There 13 bore holes finished in this area with 6 holes receiving 2 injections and the rest getting 1 injection. The depths of injection were 30-27' and 28.5', and the iron loaadings for the area were 50#FE/ 200 gallons of slurry.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 6/2705 - 7/1/2005
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	7830 #
Molasses	1775 gal.
Polymer	100.8 #

Summary of Weekly Activities:

This week injections took place inone area of the plume. The Main Portion inside in Unit B was completed. In the area 29 bore holes being completed. The iron loadings in this area were 90# Fe/ 250 gallons of slurry, and injection depths of 30-24' and 31.4-25.5'. On 6/28/05 the polymer station was once again moved, and there were thunderstorms at the end of two days that slowed down progress for the week.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 7/6-8/05
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	7775 #
Molasses	1360 gal.
Polymer	77.4 #

Summary of Weekly Activities:

This week injections took place in three areas of the plume. Starting on 7/6/05 the drill rig was moved to the south side of the fence were it completed all of the injections there. This include both Unit A and Unit B injections. After these were completed more Unit B injections were shot. The Unit B area worked was on the South side the South 1/2 with 27 injections being completed. All of these holes received 4 injections and the depths of injection were 27-18' and 25.5-16.5', and the iron loadings were 50#/125 gallons of slurry. One of the Unit A areas worked was the Hotspot around D-9 and there were 7 injections completed in this area with 4 bore holes getting 4 injections and the rest receiving 5. The iron loadings here were 50#/ 50 gallons of slurry, and the depths were 7-13' and 6-14'. The other Unit A area worked was the halo around the hotspot and 11 bore holes were completed, with each hole receiving 3 injections. The iron loadings were 25#/ 50 gallons of slurry and the depths alternated between 8-12' and 7-11'.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 7/11-15/05
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	14560 #
Molasses	2300 gal.
Polymer	130.4 #

Summary of Weekly Activities:

This week injections took place in three areas of the plume. In Unit B the South side-South 1/2 was injected with 20 injections being completed. All of these holes received 4 injections and the depths of injection were 27-18' and 25.5-16.5'; with iron loadings of 50#/125 gallons of slurry. This completed the area out. Then the North 1/2 on the south side in Unit B was injected with 46 bore holes being completed, and each of the bore holes received 3 injections. The iron loadings for the area were70#Fe/ 125 gallons of slurry, and the depths injected were 22.5-16.5' and 24-17'. In Unit A the hotspot around D-9 was injected with 4 bore holes being completed in this area with 2 bore holes getting 4 injections and the rest receiving 5. The iron loadings here were 50#Fe/ 50 gallons of slurry, and the depths were 7-13' and 6-14'. Activites on the 13th were halted due to thunderstroms, and on the 15th there was an issue with the concrete coring bit that had to be fixed.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 7/18-20/05
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Ben Fisher
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	7045 #
Molasses	1090 gal.
Polymer	61.3 #

Summary of Weekly Activities:

This week injections took place in four areas of the plume. In Unit B the South side-North 1/2 was injected with 7 injections being completed. All of these holes received 3 injections and the depths of injection were 24-17' and 22.5-16.5'; with iron loadings of 70#/125 gallons of slurry. This completed the area out. Then two Unit A areas were injected and completed. The hotspot around D-9 was finished with 9 bore holes being ijnjected, 4 bore holes getting 4 injections and the rest receiving 5. The iron loadings here were 50#Fe/ 50 gallons of slurry, and the depths were 7-13' and 6-14'. The next area injected and completed was the area around the hotspot at D-9, and here there were 27 injections completed and each bore hole received 3 injections with an iron loading of 25#Fe/ 50 gallons of slurry. The depths injected for the area were 8-12' and 7-11'. The last area worked during the week was the area in between the source and the the hotspot and in this area there were 25 injections completed. Each of the bore holes got 3 injections and the iron loading was 20#Fe/ 60 gallons of slurry, and the depths were 8-12' and 7-11'.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 7/25-29/05
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	8775 #
Molasses	1925 gal.
Polymer	108.3 #

Summary of Weekly Activities:

This week injections took place in two areas of the plume, with only Unit A being worked. The area in between the source and the hotspot was injected and completed, in this area 65 bore holes were shot. Each of the bore holes got 3 injections and the iron loading was 20#Fe/ 60 gallons of slurry, and the depths were 8-12' and 7-11'. The other Unit A area worked was the Halo around the Source and 39 bore holes were injected in this area. The bore holes in this area each received 5 injections and the depths of injection alternated between 6-14' and 7-15'. The iron loadings for the area were 25#Fe/ 60 gallons of slurry.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 8/1-5/05
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	9355 #
Molasses	2070 gal.
Polymer	116.4 #

Summary of Weekly Activities:

This week injections took place in three areas of the plume, with Unit A and B being worked. In Unit A the halo around the source and the source were both injected and completed. To finish the halo around the source there were 23 injections completed, and each bore hole received 5 injections. The iron loadings for the area was 25#Fe/ 60 gallons of slurry and the depths injected were 6-14' and 7-15'. To finish the source the number of bore holes completed was 44, and of half these were 4 injections and the other half received 3 injections. The depths of the injections alternated between 8-14' and 9-13', and the iron loadings were 20#Fe/ 60 gallons slurry. The Unit B area worked was the source and adjacent area inside the building and there were 9 bore holes completed, with each hole receiving 5 injections. The injection depths alternated between 18-30' and 19.5-31.5', with iron loadings of 75#Fe/ 200 gallons of slurry.

AST ENVIRONMENTAL, INC.
WEEKLY REPORT

Project: Hamilton Beach
Location: Washington, NC
Client: URS

Date: 8/8-9/05
Project No.: 5090

Personnel	Name
Site Manager	Brad Guilfoil
Equip. Operator	Andy Bosak
Equip. Operator	Stuart Outten
Equip. Operator	
Equip. Operator	
Equip. Operator	
Equip. Operator	

Materials Used	Amount
Zero-Valent Iron	6000 #
Molasses	1625 gal.
Polymer	74 #

Summary of Weekly Activities:

This week marked the end of the nanoscale iron injections. The source area in Unit B was completed with 16 bore holes being injected, with 5 injections per bore hole. The iron loadings were 75#/ 200 gallons of slurry, and the depths of the injections alternate between 18-30' and 19.5-31.5'. After all of the injections were completed, site clean-up was conducted. This include the injection of an extra 100 gallons of molasses in the Unit B source area.