Former Champion Products Facility

200 NORTH MAIN ST., PERRY
WYOMING COUNTY, NEW YORK

Site Management Plan

NYSDEC Site Number: V000189-9

Prepared for:
Hanesbrands Inc.
1000 Hanes Mill Road
Winston-Salem, NC 27105

Prepared by:
Antea™ Group
5788 Widewaters Pkwy.
Syracuse, NY 13214
800-477-7411

Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date
1.0	3-13-13	Initial Submittal	APPROVED By Maurice F. Moore at 12:30 pm, Mar 19, 2013

MARCH 2013

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at the Former Champion Products Facility (hereinafter referred to as the “Site” or “site”) under the New York State (NYS) Voluntary Cleanup Program (VCP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Voluntary Cleanup Agreement (VCA) for Site # V000189-9, which was executed on March 9, 2000.

1.1.1 General

Champion Products, Inc. (Champion) entered into a VCA with the NYSDEC to remediate an approximately 26-acre property located in the Village of Perry, Wyoming County, New York. This VCA required the Remedial Party, Champion, to investigate and remediate contaminated media at the site. The general site location and surveyed boundaries of this approximately 26-acre site are illustrated on Figures 1 and 2, respectively. The boundaries of the site are more fully described in the Metes and Bounds site description that is part of the Declaration of Covenants and Restrictions (Appendix 1).

After completion of the remedial work described in the Final Remediation Work Plan, dated February 11, 2000, some contamination was left in the subsurface at this site, which is hereafter referred to as remaining contamination. This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Declaration of Covenants and Restrictions is extinguished in accordance with ECL Article 71, Title

36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Antea™ Group, on behalf of Hanesbrands Inc. in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. Hanesbrands Inc. is completing the activities of Champion Products, Inc. under the VCA for the site. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Declaration of Covenants and Restrictions for the site.

1.1.2 Purpose

The site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the site remedy to control exposure to the remaining contamination during the use of the site to ensure protection of public health and the environment. A Declaration of Covenants and Restrictions, recorded with the Wyoming County Clerk, will require compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Declaration of Covenants and Restrictions for contamination that remains at the site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Declaration of Covenants and Restrictions and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action, including: (1) implementation and management of all ECs and ICs; (2) operation and maintenance of all mitigation and cover systems; (3) performance of periodic inspections, and submittal of Periodic Review Reports; and (4) defining criteria for termination of mitigation system operations.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; and (3) an Operation and Maintenance Plan for implementation of mitigation systems.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Declaration of Covenants and Restrictions. Failure to properly implement the SMP is a violation of the VCA, which is grounds for revocation of the Release and Covent Not to Sue;
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the VCA (Index #V000189-9) for the site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to NYSDEC's project manager. In accordance with the Declaration of Covenants and Restrictions for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The site is located in the Village of Perry, County of Wyoming, New York and is identified as situate on Lot 28, WM. Shepard's Subdivision of the Ogden Tract in the Village of Perry (Figure 2). The site was identified in 2000, in the VCA, by the Wyoming County Tax Map Identifier number 88.20-3-15, which number was in effect when the site was sold in 1998. A 1.74 acre portion of the building used as a warehouse was not included in that Tax Map Identifier number and is therefore not a part of the site

(Figure 2). The Tax Map Identifier numbers have changed since the site was sold in 1998. The site is now part of Tax Map Identifier number 88.20-3-16.1. The site is an approximately 26-acre area bounded by North Main St., commercial properties and residential properties to the north, vacant wooded land to the south, farmland and residential properties to the east, and residential properties and North Genesee St. to the west (Figures 1 and 2). The boundaries of the site are more fully described in the Metes and Bounds description provided in Appendix 1.

1.2.2 Site History

The former Champion facility was owned and operated from 1955 until 1998 by Champion, an affiliate of the Sara Lee Corporation. In 1998, the property was sold to SMG Development LLC (SMG), the current owner of the site. Following the sale, Champion leased the building from SMG and continued operations at the site until December 2001. In January 2002, American Classic Outfitters (ACO) was formed and has operated at the site as a tenant from January 2002 through November 30, 2009. ACO then sold its business to Liede of New York which has continued the same type of operations as ACO and is the current tenant at the site. Irrespective of ownership, the facility has been primarily used since 1955 for the manufacture of print screen apparel and custom sports apparel for sports teams and retail sale.

The onsite building was constructed by Champion after it acquired the site in the 1950's, and has been improved with various additions and renovations since the initial construction. The portion of the building that is on the site is approximately 75,000 square feet (s.f.) in size.

1.2.3 Geologic Conditions

The site is underlain by a mixture of approximately 14 feet to 16 feet of unconsolidated deposits consisting of sandy silts and clays to fine to medium sands and gravels. The unconsolidated deposits are underlain by a shale bedrock unit. A geologic cross section is shown in Appendix 2.

A shallow water table groundwater system is present at depths of between 4 feet and 12 feet below grade in the mixed unconsolidated deposits located beneath the site.

Groundwater flow beneath the western area of the site was generally to the east with some variations and a minor deflection to the southeast near the southwest corner of the building. The average groundwater gradient is approximately 0.16 ft/ft. Groundwater flow maps for May 2007 and March 2008 are presented in Appendix 2.

Groundwater occurs in the bedrock at depths of approximately 24 feet to 34 feet below grade. As there were only two bedrock monitoring wells installed onsite bedrock groundwater flow direction cannot be identified. Historic groundwater data between paired bedrock and overburden monitoring wells indicated that a downward vertical groundwater gradient was present at the site.

Groundwater at the site is not utilized by the facility and there are no known water supply wells located within 1,000 feet of the site.

An intermittent unnamed stream is located immediately west and south of the site. Flow in the stream varies with response to precipitation, melting snow and groundwater discharge. The stream is classified by NYSDEC as a Class D surface water body.

1.3 SUMMARY OF SITE INVESTIGATION FINDINGS

Previous investigations performed at the site which were used to characterize environmental conditions at the site between 1998 and 2008 are summarized below.

<u>Summary of Environmental Assessments Report – July 1998</u>

A Phase I Environmental Site Assessment (ESA) was conducted at the site in May 1998, by Delta Environmental Consultants, Inc. (Delta, aka Antea Group), to document site conditions and determine areas of environmental concern for the site and surrounding properties. Based on the results of the Phase I, two areas were identified for further assessment (Appendix 2). These areas included:

- The screen wash collection vault; and
- The Frontage Road area (northwest of the Site), where a gasoline station and/or garage was reportedly operated at one time.

Phase II ESA Report – May 1998

Delta conducted a Phase II Environmental Assessment (Phase II) at the site in May 1998 to address findings of the Phase I ESA. As part of the investigation, six soil borings (SB-1 to SB-6) were installed and soil and groundwater samples were collected for laboratory analysis (Appendix 2). Findings of the Phase II indicated the following:

- Frontage Road Area: Volatile Organic Compounds (VOCs) were detected in one soil sample; however, concentrations were below NYSDEC TAGM 4046 recommended soil cleanup objectives (SCOs). VOCs were not detected in groundwater samples.
- Screen Wash Vault: VOCs were not detected in soil samples; however, three VOCs, including 1,1-dichloroethane (1,1-DCA), tetrachloroethene (PCE) and 1,1,1-tetrachloroethene (TCA), were detected in groundwater samples at concentrations exceeding NYSDEC groundwater quality standards.

Analytical data tables are presented in Appendix 2.

Supplementary Phase II Assessment Report – June 1998

Delta conducted a Supplementary Phase II at the site in June 1998 to address findings of VOC impacted groundwater in the screen wash vault during the May 1998 Phase II. As part of the investigation, six monitoring wells (MW-101 to MW-105 and MW-201) were installed onsite and soil and groundwater samples were collected from each boring and well for laboratory analysis (Appendix 2). Findings of the Supplemental Phase II indicated the following:

- TCA and chloroethane were detected in two groundwater samples at concentrations above NYSDEC groundwater quality standards.
- VOCs (1,1-DCA, TCA, xylenes and toluene) were detected in one soil sample at concentrations above TAGM SCOs.
- VOCs (acetone, methylene chloride, methyl ethyl ketone and PCE) were detected in the contents of the screen wash vault.

- VOCs were not detected in surface water and sediment samples collected from the unnamed stream.

Analytical data tables are presented in Appendix 2.

Phase III and IV Investigation Report – August 1998

Delta conducted additional site assessment in July 1998 to further assess the manual screen wash process and an additional area of concern related to a former petroleum bulk storage/distribution facility located to the northeast of the site. As part of the investigation, nine soil borings (SB-7 to SB-15) were installed and soil samples were collected from each boring for laboratory analysis (Appendix 2). Groundwater samples were collected from select soil borings and six onsite monitoring wells (MW-101 to MW-105 and MW-201) for laboratory analysis. Fluid samples were also collected from the process piping to and from the concrete vault and sanitary sump located near MW-105. Findings of the investigation indicated the following:

- VOCs including 1,1-DCA, toluene, xylenes were detected in soil samples collected from two soil borings located in the screen wash area at concentrations above TAGM SCOs.
- VOCs including 1,1-DCA, 1,2-dichloroethane (1,2-DCA), cis-1,2-dichloroethene (cis-1,2-DCE), toluene, TCA, ethylbenzene, PCE, TCA, acetone, methylene chloride, chloroethane, and 1,1,2,2-tetrachloroethene were detected in groundwater samples collected from soil borings in the screen wash area at concentrations above NYSDEC groundwater quality standards.
- VOCs were detected in onsite groundwater samples collected from monitoring wells; however, concentrations were below NYSDEC groundwater quality standards.
- Gasoline based VOCs were detected in two soil samples collected across the former gasoline station area at concentrations below TAGM SCOs.
- Ethylbenzene, toluene and xylenes were detected in one groundwater sample collected across the former gasoline station area at a concentration above the NYSDEC groundwater quality standards.

- VOCs were detected in the influent sample (acetone) entering the screen wash vault. Additionally, VOCs including acetone, methylene chloride, MEK and PCE were detected in vault and effluent samples.

Analytical data tables are presented in Appendix 2.

<u>Phase IV Investigation – August 1998</u>

Delta conducted additional site assessment in August 1998 to further assess groundwater conditions onsite. The assessment included the installation of nine overburden monitoring wells (MW-106 to MW-114) and one bedrock monitoring well (MW-202), installation of three soil borings (SB-19 to SB-21), and collection of groundwater samples from thirteen monitoring wells and one boring.

<u>Phase V Investigation – November 1998</u>

Delta collected groundwater samples from thirteen monitoring wells and installed one additional monitoring well (MW-115) onsite in November 1998 to further assess site groundwater quality.

<u>Final Remediation Work Plan – February 2000</u>

A Final Remediation Work Plan was prepared by Delta in February 2000. The purpose of the work plan was to summarize site investigation (SI) activities performed at the site and to propose remedial activities to remove VOCs from soil and groundwater onsite. The work plan was submitted to NYSDEC to allow for remediation of the site under the VCP. The SI was performed to better determine the nature and extent of impacts present in onsite soil and groundwater. Subsequent to the SI, a dual-phase vacuum extraction (DPVE) pilot test was performed to evaluate the use of this technology. A feasibility analysis of remedial alternatives was also conducted and recommended the installation of a dual phase extraction system at the site to address VOC impacted soil and groundwater onsite in the area of the screen wash vault.

<u>Final Engineering Report – March 2001</u>

The Final Engineering Report was prepared by Delta and Submitted to NYSDEC in March 2000. The report served to update the status of the remedial alternatives that were outlined in the Final Remediation Work Plan. Operation of the DPVE system began in July 2000 and between that time and March 2001 modifications were made to increase the amount of VOCs and water extracted from the system. Additionally, the report documented remedial activities conducted in the Former Empty Drum Storage area to address VOC (PCE) impacts in soils (Appendix 2). Remediation in Former Empty Drum Storage Area is further detailed in Section 1.4.1.

Site Characterization Study – February 2003

In February 2003, Delta conducted a Site Characterization Study (SCS) to obtain soil samples from the Former Manual Screen Wash Area and the Current Screen Wash Area, which were located proximate to impacted areas identified in the Final Remediation Work Plan. Objectives of the SCS were to better determine the nature and extent of impacted soils onsite and to determine the effectiveness of remediation by the DPVE system. Findings of the investigation indicated the following:

- A review of soil analytical data collected from both screen wash areas indicated that between July 2000 and February 2003, the DPVE system had removed approximately 51 to 99.9 percent of VOCs from soil located within the DPVE extraction wells radius of influence.
- Toluene, xylenes and carbon disulfide were identified in soil samples at three locations (SCRW-5, SCRW-8 and SCRW-10) beneath the Former Manual Screen Wash Area at concentrations in excess of TAGM SCOs. Concentrations of toluene and xylenes in the remaining soil samples located within the DPVE extraction well radius of influence for this area were below TAGM SCOs.
- Analytical data for soil samples collected from the Current Screen Wash Area did not indicate the presence of VOCs in excess of TAGM SCOs; therefore, soil located within this area was not considered to be the source of dissolved phase VOCs previously observed in monitoring well MW-107.
- A review of available groundwater analytical data indicated that between July 2000 and February 2003, the concentrations of VOCs in groundwater within the Former Manual Screen Wash Area decreased by approximately 78 to 100 percent

within the DVPE extraction wells radius of influence. However, the data also indicated that VOCs continued to be detected in monitoring wells (SCRW-05 and MW-106) located outside of the extraction wells radius of influence.

- VOCs were detected in groundwater samples collected from three extraction wells (DVE-103, DVE-104 and DVE-105) at concentrations below NYSDEC groundwater quality standards.

Analytical data and sampling locations are presented in Appendix 2.

Based on the findings of the SCS, modifications to the DPVE system were recommended to enhance the removal of the remaining VOCs that had been identified in soil and groundwater across the treatment area. Following implementation of the recommended modifications, treatment continued onsite with some additional modifications to the system until the system was shutdown in February 2007.

Soil Vapor Intrusion Study – March 2007

In March 2007, Delta conducted a baseline Soil Vapor Intrusion (SVI) Study at the site in accordance with the NYSDEC and New York State Department of Health (NYSDOH) approved SVI Work Plan dated March 12, 2007. The objectives of the SVI Study were to: 1) evaluate the potential exposure pathway from soil vapor intrusion from beneath the northwest portion of the facility where VOCs were documented to be present in soil and groundwater, 2) to determine baseline sub-slab and indoor air conditions prior to the performance of proposed sub-slab soil sampling within the remaining source area, and 3) to evaluate the potential for VOC rebound in groundwater following shutdown of the DPVE system. Findings of the investigation indicated the following:

- Four VOCs (dichlorofluoromethane, chloromethane, trichlorofluoromethane, and methylene chloride) were detected in the outdoor, upwind air sample at low concentrations.

- Two VOCs (methylene chloride and n-hexane) were generally detected at higher concentrations in indoor ambient air samples versus their corresponding sub-slab air samples.

- Concentrations of methylene chloride detected in four of the five ambient indoor air samples ranged from 4,900 ug/m^3 to 8,700 ug/m^3 and exceeded the NYSDOH Indoor Air Guideline of 60 ug/m^3.

- Concentrations of methylene chloride detected in sub-slab air samples ranged from 31 ug/m^3 to 900 ug/m^3 and were generally lower than those detected in the ambient indoor air samples by one to two orders of magnitude.

- Concentrations of n-hexane detected in ambient indoor air samples ranged from 110 ug/m^3 to 250 ug/m^3 and generally exceeded their corresponding sub-slab air sample concentrations by approximately one order of magnitude.

- VOCs detected in sub-slab samples at concentrations notably higher than corresponding ambient indoor air samples included TCA, PCE, 1,1-DCA, cyclohexane, and methyl ethyl ketone (MEK).

- Concentrations of PCE detected in two ambient indoor air samples (IA-3 @ 300 ug/m^3 and IA-5 @ 220 ug/m^3) exceeded the NYSDOH Air Guideline Value of 100 ug/m^3.

- Sub-slab concentrations of PCE at two sub-slab sample locations (SS-3 @ 630 ug/m^3 and SS-5 @ 1,500 ug/m^3) were higher than corresponding ambient indoor air sample concentrations.

- PCE was in three other sub-slab samples (SS-1, SS-2, and SS-4) at concentrations of 81 ug/m^3, 660 ug/m^3 and 390 ug/m^3, respectively.

Based upon the findings of the baseline SVI Study Delta concluded the following.

- There was no association between VOCs detected in upwind outdoor air and ambient indoor air samples.

- Methylene chloride and PCE were detected in ambient indoor air samples at concentrations that exceeded their respective NYSDOH Indoor Air Guidelines. However, concentrations of these VOCs in ambient indoor air samples were well below the OSHA Permissible Exposure Limits.

- Current operations more than likely contributed to the detection of some compounds in the ambient indoor air samples, most notably methylene chloride, n-hexane, and PCE. This is consistent with findings from the pre-sampling chemical inventory, a review of MSDSs of onsite products in use, and the chemical odors noted during sampling.

- Indoor air concentrations of methylene chloride and n-hexane generally exceeded corresponding sub-slab vapor concentration by at least an order of magnitude indicating the likely association with operations.

- PCE concentrations were notably higher in sub-slab air samples than corresponding indoor air samples. While some of the PCE in the indoor air samples may be associated with infiltration from the sub-slab, current site activities may also have contributed to the detection of PCE in indoor air samples.

- Analytical data (indoor air and sub-slab air) indicated that TCA, DCA, cyclohexane, and MEK were detected at the same sub-slab locations where elevated concentrations of PCE were detected. However, none of these VOCs were reported in indoor air samples at the detection limits reported, indicating that a potential incomplete exposure pathway from sub-slab vapor existed.

The SVI Report is presented in Appendix 2.

<u>Sub-Slab Soil Investigation – May 2007</u>

In May 2007, Delta installed five sub-slab soil borings in the area of the Former Manual Screen Wash and Current Screen Wash to assess current soil conditions in screen wash areas where VOC impacts were observed in soils during the February 2003 SCS (Appendix 2). Findings were summarized in the Sub-Slab Investigation and Remediation Summary Report (See Below and Section 1.4.3).

<u>Annual Groundwater Sampling – May 2007 & March 2008</u>

On May 30, 2007 and March 11, 2008, groundwater samples and groundwater elevation measurements were collected from select onsite monitoring wells to evaluate groundwater conditions and flow patterns following the shutdown of the DPVE remedial system. Findings were summarized in the Sub-Slab Investigation and Remediation Summary Report (See Below and Section 1.4.3).

Sub-Slab Investigation and Remediation Summary Report – November 2008

In November 2008, Delta submitted a Sub-Slab Investigation and Remediation Summary Report to NYSDEC to document remedial activities performed at the site since 2000 and to determine if the remedial activities were successful in achieving applicable remedial objectives. SSI findings indicated that remedial activities had effectively reduced VOC concentrations in saturated soils beneath known source areas to levels that meet and/or closely approximate the most stringent Part 375 SCOs (unrestricted use and protection of groundwater). Reductions in VOCs concentrations in soils are a direct result of effective removal of source materials by the remedial system. Groundwater analytical data supported these findings by showing continuing decreases in VOC concentrations in groundwater across the known source areas. As the remedial system had removed source materials there has been a trend towards significant reductions of VOCs in groundwater. While concentrations of VOCs in groundwater were slightly above applicable NYSDEC groundwater standards, continuing VOC reductions in groundwater indicated that natural attenuation has been occurring across impacted areas following shutdown of the remedial system. Based on available analytical data it was indicated that natural attenuation will continue at the site and further reductions in VOCs concentrations in groundwater will occur without the need for active remediation. The SSI Report is provided in Appendix 2 and results and extent of remaining VOC impacts in soil and groundwater are further discussed in Section 1.4.3.

1.4 SUMMARY OF REMEDIAL ACTIONS

The site was remediated in accordance with the NYSDEC-approved Final Remediation Work Plan, dated February 11, 2000 and Proposed Remedial Work Plan for Soil Vapor Remediation dated April 2011.

The following is a summary of the Remedial Actions performed at the site:

1. Excavation of the former screen wash vault and soil exceeding TAGM SCOs was performed in the Screen Vault area in May 1999 (See Section 1.4.1);

2. Excavation of soil exceeding TAGM SCOs was performed in the Former Empty Drum Storage Area in November 2000 to a depth of 14 feet below grade (See Section 1.4.1);
3. Installation and operation of a DPVE system occurred between 2000 and 2007 to address VOCs in soil and groundwater (See Section 1.4.2);
4. Installation and startup of a sub slab depressurization system to address sub slab soil vapor occurred in 2011. The system is currently operating;
5. Execution and recording of a Declaration of Covenants and Restrictions to restrict land use and prevent future exposure to any contamination remaining at the site.
6. The use of cover system to limit exposure to remaining VOC impacts; and
7. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) inspections, (3) operation and maintenance and (4) reporting;

Remedial activities at the site are ongoing.

1.4.1 Removal of Contaminated Materials from the Site

In May 1999 and November 2000 impacted materials were removed from the Screen Vault Area and Former Empty Drum Storage Area to address VOC impacts in those areas of the site. A summary of the remedial activities conducted in each area is presented below.

Screen Vault Area

During the week of May 3, 1999 the existing screen vault was removed and replaced with a double walled fiberglass tank and trash pump. Prior to removal the screen wash vault was cleaned and associated wastes disposed offsite. Additionally, two feet of soil were removed from the sidewalls and base of the vault and disposed offsite. Approximately 23 tons of soil and concrete were disposed offsite at the CWM Model City, NY facility as non-hazardous material.

Following removal six soil samples were collected from the excavation (four sidewall and two bottoms) to verify soil conditions. VOCs were detected in several soil samples; however, concentrations were well below TAGM SCOs. A summary of the work performed, analytical data and a map of the excavation area is presented in Appendix 2. No further action was required in this area.

Former Empty Drum Storage Area

On November 9, 2000, 185.74 tons of soil containing VOCs were removed from the former empty drum storage area and disposed offsite at the CWM Model City, NY facility as non-hazardous material. Soil was excavated from a depth of between 6 feet and 14 feet below grade across an area approximately 45 feet long by 25 feet wide. Upon completion eleven soil samples were collected and analyzed for VOCs to confirm soil conditions. Of these samples, PCE was detected in one sample at a concentration above the TAGM SCOs. Additional excavation was not continued in this area due to the presence of the building. Overall soil from grade to 12 feet in depth did not contain VOCs that exceeded the TAGM SCOs for PCE or any other VOCs. A summary of the work performed, analytical data and a map of the excavation area is presented in Appendix 2

The report concluded that the absence of VOCs in the upper 12 feet of the soil zone as well as the proximity to the building eliminated a direct contact exposure pathway. Clean backfill is present across this area from a depth of grade to 6 feet below grade. Based on the available data, no further action was recommended to address soil and groundwater in the area.

1.4.2 Site-Related Treatment Systems

Treatment systems were installed onsite in 2000 to address VOC impacts in soil and groundwater and in 2011 to address sub slab vapors. A summary of these systems and their status is presented below.

Dual Phase Vapor Extraction System Operations – 2000 to 2007

In July 2000, Delta installed a dual phase vacuum extraction system (DPVE) onsite to address VOC impacts in soil and groundwater in the Former Manual Screen

Wash Area and the Current Screen Wash Area. In February 2007, the DPVE was shutdown in accordance with the NYSDEC approved System Shutdown Plan dated February 27, 2007. Shutdown of the system was approved based on system monitoring data that indicated the DPVE system had effectively reduced VOC concentrations across the impacted area of the site by an average of 87 percent. The shutdown plan and corresponding site data are presented in Appendix 2.

SVI Mitigation System

Following submittal of the November Sub-Slab Investigation and Remediation Summary Report, NYSDEC requested further remedial action at the site to address soil vapor below the sub-slab surface in remedial areas. In May 2009, it was agreed to proceed with a review of alternatives and development of a work plan for installation of a sub-slab depressurization system at the site in limited areas. In May 2010 remedial areas were agreed to with NYSDEC and NYSDOH and an outline for testing and installation was developed. It was agreed that following installation of the system NYSDEC would initiate steps to close the site under the VCP.

In March 2011 a design for a sub-slab depressurization system was submitted to NYSDEC and NYSDOH for approval. Upon acceptance by NYSDEC (April 2011), the system was installed onsite and was operational by April 21, 2011 (Appendix 2).

The sub slab depressurization system is currently in operation at the site and a figure showing the location of the system is presented in Appendix 2.

1.4.3 Remaining Contamination

The extent of remaining impacts in soil and groundwater at the site are defined in the Sub-Slab Investigation and Remediation Summary Report, dated November 2008. The objectives of the report was to: 1) update the findings of the 2003 SCS, 2) compare the 2007 SSI results to the currently applicable NYSDEC Remedial Program SCOs and assess current site conditions, and 3) evaluate the SSI findings and results of other historic and recent evaluations at the site and determine if onsite remedial activities were successful and had achieved applicable remedial objectives.

As part of the SSI report soil and groundwater analytical data for samples collected from the Former Manual Screen Wash area and the Current Screen Wash Area during the 2003 SCS, the 2007 SSI, and the 2007 and 2008 groundwater sampling events, were reviewed to evaluate the effectiveness of previously implemented remedial activities across these areas of the site and to determine current conditions in soil and groundwater in these areas following shutdown of the DPVE remedial system. These data were reviewed and compared to the NYSDEC specified and currently applicable Part 375 SCOs and NYSDEC Class GA groundwater standards, which NYSDEC indicated were applicable to the site for further evaluation of data. The PART 375 SCOs include SCOs that are based on current, intended or reasonable intended land uses for impacted sites.

1.4.3.1 Remaining Contamination - Soils

A summary of remaining VOC impacts in soils at the site is detailed below. Analytical data and figures detailing locations are presented in Appendix 3.

Current Screen Wash Area

In February 2003, eight soil borings (CSW-01 to CSW-07 and MM-1) were installed across the Current Screen Wash Area to determine if residual phase VOCs were present in the vicinity of monitoring well MW-107 and extraction well DVE-107. A review of the analytical data indicated that acetone was detected in six of the 16 soil samples collected at concentrations (between 55 ppb and 75 ppb), which were slightly in excess of the unrestricted use and protection of groundwater SCOs (50 ppm) for acetone. Exceedances of the acetone SCO were only observed in soil samples that were collected from the saturated zone at depths ranging from 8.5 feet to 14.5 feet below grade. Acetone was not detected in soil samples collected in the unsaturated zone at concentrations above unrestricted use and protection of groundwater SCOs. VOCs were not detected in any of the soil samples at concentrations in excess of restricted use SCOs (residential, restricted-residential, commercial and industrial).

In May 2007, two soil borings (GSB-1 and GSB-2) were installed across the Current Screen Wash Area to determine if the remedial system had effectively reduced concentrations of VOCs in soils across this area between 2003 and 2007. A review of the analytical data indicated that VOCs were not detected in any of the five saturated zone soil samples analyzed from the soil borings at concentrations in excess of any of the Part 375 SCOs. In addition, acetone was not detected in any of the soil samples. Based on a comparison of the 2003 and 2007 soil analytical data it was concluded that saturated soils in this area of the site met the most stringent Part 375 SCOs (unrestricted use and protection of groundwater) and that remediation activities were effective in reducing VOC impacts in soils across this area of the site.

Former Manual Screen Wash Area

In February 2003, 10 soil borings (SCRW-01 to SCRW-10) were installed across the Former Manual Screen Wash Area to obtain soil samples proximate to impacted areas that were previously identified onsite in an effort to better determine the nature and extent of VOC impacts in soils across this area of the site. The soil sampling data were also used to evaluate the effectiveness of the remedial system, which had been in operation since July 2000. A review of the analytical data indicated that up to four VOCs including acetone (three samples), carbon disulfide (one sample), toluene (three samples), and xylenes (two samples) were detected in 7 of the 19 soil samples at concentrations in excess of the unrestricted use and protection of groundwater SCOs. Carbon disulfide does not have a Part 375 SCO; therefore, under these circumstances NYSDEC recommends using a TAGM 4046 SCO for evaluation purposes. Exceedances of VOCs in soils were detected in soil samples collected from the saturated zone at depths ranging from 9 feet to 15 feet below grade. VOCs were not detected in any soil samples in the unsaturated soils at concentrations in excess of any SCOs.

In May 2007, three soil borings (GSB-3, GSB-4 and GSB-5) were installed across the Former Manual Screen Wash Area to determine if the remedial system had reduced concentrations of VOCs in soils across this area between 2003 and 2007. A review of the analytical data indicated that VOCs were detected in two of the ten saturated zone soil samples analyzed from these soil borings at concentrations slightly in excess of Part 375 unrestricted use and/or protection of groundwater SCOs. Acetone was detected in a duplicate sample (GSB-6) at a concentration of 53 ppb, which barely exceeded the 50 ppb unrestricted use and protection of groundwater SCOs. This sample was a duplicate sample of GSB-3 at the same depth interval and while acetone was detected in the GSB-3 sample, it did not exceed the unrestricted use or protection of groundwater SCO for acetone. In addition, xylenes (m and p) were detected in sample GSB-4 (10 feet to 12 feet) and the reanalyzed sample for that depth interval (GSB-4RI) at concentrations (280 ppb and 300 ppb, respectively) that barely exceeded the 260 ppb SCO for unrestricted use. VOCs were not detected in any samples at concentrations in excess of the restricted use SCOs (residential, restricted-residential, commercial, and industrial). Based on a comparison of the 2003 and 2007 soil analytical data it was concluded that soils in this area of the site meet and/or very closely approximate the most stringent Part 375 SCOs (unrestricted use and protection of groundwater) and that remediation had been effective in reducing VOC impacts in soils across this area of the site.

Summary of Remaining Soil Impacts

In 2003, the areal extent of VOC impacts across the Current Screen Wash Area was estimated to encompass approximately 8,400 square feet (sf) and the areal extent across the Former Manual Screen Wash Area was estimated to encompass approximately 5,600 sf. Total VOC concentrations in saturated soil samples beneath the Current Screen Wash Area ranged from 41 ppb to 75 ppb and beneath the Former Manual Screen Wash Area from 0 ppb to 19,600 ppb. VOCs were not detected in any soil samples from the unsaturated zone beneath either area at concentrations in excess of any of the Part 375 SCOs; therefore, unsaturated zone soils were not considered to be an area of concern at the site.

In 2007 VOCs were not detected in saturated soils beneath the building in the Current Screen Wash Area at concentrations in excess of any of the Part 375 SCOs. In the Former Manual Screen Wash Area, acetone was detected in one saturated zone soil sample (a duplicate) at a concentration barely in excess of Part 375 unrestricted use and protection of groundwater SCOs, while xylenes were detected in a second sample at concentrations slightly in excess of the unrestricted use SCOs. Data indicated that since 2003 the areal extent of VOC impacts across the Current Screen Wash Area had been reduced by 100 percent. VOCs detected in the 2007 soil samples were at concentrations that were significantly below the most stringent SCOs.

The 2007 analytical data also indicated that the areal extent of VOC impacts across the Former Manual Screen Wash Area had been reduced by approximately 94 percent to an area of approximately 360 square feet that was tightly centered around soil borings GSB-3 and GSB-4. Previous soil samples (SCRW-8 and SCRW-10) that had been collected from immediately adjacent soil borings in 2003 had total VOC concentrations of 6,800 ppb and 19,600 ppb, respectively. In 2007, total VOC concentrations in samples from soil borings GSB-3 and GSB-4 had decreased by between 92 and 99 percent to concentrations of between 205 ppb and 567 ppb, respectively.

Overall, the 2007 SSI analytical data indicated that the remedial activities conducted at the Site were effective in significantly reducing VOC concentrations in saturated soils beneath known source areas to concentrations that met and/or very closely approximated the most stringent Part 375 SCOs (unrestricted use and protection of groundwater). Based on these findings it was clear that the source areas onsite have been effectively remediated by the treatment activities.

1.4.3.2 Remaining Contamination - Groundwater

A summary of remaining VOC impacts in groundwater at the site is detailed below. Analytical data and figures detailing locations are presented in Appendix 3.

Groundwater analytical data from the 2003 SCS indicated that VOCs were detected in five groundwater samples (MW-105, MW-106, MW-107, CSW-01 and SCRW-05) at concentrations in excess of NYSDEC Class GA groundwater quality standards. Impacts to groundwater were indicated in wells located in the Current Screen Wash Area (CSW-01 and MW-107) and the Former Manual Screen Wash Area (MW-105, MW-106 and SCRW-05). Total VOC concentrations in these samples ranged from 21 ppb to 3,850 ppb. VOCs detected in the groundwater samples above applicable groundwater standards included; chloroethane, chloroform, TCA, DCA, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and isopropyl benzene.

In May 2007 groundwater samples were collected from wells located across the Current Screen Wash Area and Former Manual Screen Wash Area to evaluate the effectiveness of the remedial treatment activities. A review of the analytical data from this sampling event indicated that VOCs were detected in four groundwater samples

(MW-106, MW-107, CSW-01 and SCRW-05) at concentrations in excess of NYSDEC Class GA groundwater standards. Total VOC concentrations in these samples ranged from 19.8 ppb to 447 ppb. A comparison to the 2003 groundwater analytical data indicated that total VOC concentrations in wells MW-105, MW-106, MW-107, CSW-01 and SCRW-05 decreased by between 62 percent (CSW-01) and 97 percent (MW-106). The analytical data also indicated that the largest decreases in total VOC concentrations occurred in wells MW-106 (1,188 ppb in 2003 to 35.8 ppb in 2007) and SCRW-05 (3,850 ppb in 2003 and 447 ppb in 2007), which in 2003 had the highest total VOC concentrations. Based on a comparison of the 2003 and 2007 groundwater analytical data it was concluded that remedial activities were effective in significantly reducing VOC concentrations in groundwater beneath impacted areas of the site.

In March 2008 groundwater samples were collected from wells located across the Current Screen Wash Area and Former Manual Screen Wash Area to evaluate groundwater conditions onsite following the shutdown of the remedial system in February 2007. A review of the analytical data from this sampling event indicated that VOCs were detected in five groundwater samples (MW-101, MW-106, MW-107, CSW-01 and SCRW-05) at concentrations in excess of NYSDEC Class GA groundwater standards. Total VOC concentrations in these samples ranged from 13.4 ppb to 176 ppb. A comparison to the 2007 groundwater analytical data indicated that total VOC concentrations continued to decrease in wells MW-107, CSW-01 and SCRW-05 and that a slight rebound had occurred in well MW-106. A comparison of data for well MW-101 could not be made as this well was not sampled in 2007; however, compared to 2003 data, total VOC concentrations were observed to remain similar. Overall analytical data from this sampling event generally indicated that VOC concentrations in groundwater beneath affected areas of the site continued to decrease following shut down of the remedial system. These continuing decreases suggest that natural attenuation is occurring and that further reductions can be expected.

Summary of Remaining Groundwater Impacts

Overall, between 2003 and 2008 total VOC concentrations in wells located across the Current Screen Wash Area and Former Manual Screen Wash Area have shown a steadily decreasing trend in total concentrations. Since 2003 VOC concentrations have decreased between 72 percent and 96 percent in wells MW-105 (91.5 percent), MW-106 (91 percent), MW-107 (93 percent), CSW-01 (72 percent) and SCRW-05 (96 percent). The largest decreases in total VOC concentrations were noted in wells MW-106 and SCRW-05, which were located in the Former Manual Screen Wash Area. These wells had the highest overall concentrations of total VOCs detected in them in 2003 (MW-106 @1,188 ppb and SCRW-05 @ 3,850 ppb) and have shown the greatest overall declines in total VOC concentrations through 2008.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

VOC impacted soil, groundwater and soil vapor are present beneath limited areas of the site; therefore, ECs and ICs are required at the site to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides the following:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Declaration of Covenants and Restrictions;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan (EWP) for the proper handling of remaining impacts that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover Systems

Exposure to the remaining limited VOC impacts in soil/fill at the site is prevented by the use of two types of cover systems. In the former empty drum storage area, which is located outside of the south central area of the building, the soil cover system is comprised of a minimum of 6 feet of “clean” soil backfill (Figure 3). In the interior of the building in areas including the former manual screen wash and current screen wash areas, the cover system is comprised of the building’s existing 4 -inch to 6-inch thick concrete floor slabs (Figure 3). Generally, soils beneath the concrete slabs are “clean” (PID readings <2 ppm, no staining, no odors) to depths of approximately 6 feet to 8 feet below grade across the majority of the areas. Note: soil samples were not collected for laboratory analysis from areas exhibiting limited or no impacts during sampling work. Soil impacts at the site are limited in extent to these areas.

The EWP presented in Appendix 4 describes the general procedures required to be implemented in the event any underlying remaining impacted materials are disturbed by activities conducted by the site owner. The EWP should be modified to address any specific activities planned by the property owner prior to the start of work. Modifications to the EWP must be approved by NYSDEC prior to the start of any planned activities that involve excavation within the impacted areas. Procedures for the inspection and maintenance of these cover systems are provided in the Monitoring and Maintenance Plans included in Sections 3 and 4, respectively of this SMP.

2.2.1.2 Sub-slab Depressurization System

Sub-slab depressurization systems (SSDS) were installed in three areas (SSDS-3, SSDS-4 and SSDS-5) at the site in April 2010 to address sub-slab soil vapor in areas of the site where previous indoor air and sub-slab vapor sampling indicated the presence of VOCs at concentrations in excess of the NYSDOH decision matrix recommended action levels for monitoring and/or mitigation (Figure 3). The SSDS at each area consists of a series of 2 to 3 sub slab suction points, installed in high permeability material, which are connected by 3 inch PVC piping to exterior mounted low volume blower units in each area that vents sub slab vapor to the outdoor air. Vacuum pressure at each suction point is measured by liquid filled U-tube manometers, which are installed on riser piping. The objective of the SSDS in each area is to create a vacuum field of at least 0.004" water column under the slab across each area to mitigate vapor intrusion. Each SSDS is designed to operate independently with continuous operation.

Procedures for operating and maintaining the SSDS are documented in the Operation and Maintenance Plan (Section 4). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the site, occurs.

The owner of the Site will give the Remedial Party access to perform the activities this SMP says it will perform.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1 Soil Cover Systems

The soil cover systems are a permanent control and the quality and integrity of these systems will be inspected at defined, regular intervals in perpetuity by the Remedial Party or designated representative.

2.2.2.2 Sub-slab Depressurization System

Operation of the active SSDS will not be discontinued unless prior written approval is granted by the NYSDEC. Periodic monitoring of sub slab vapors and indoor air quality in areas where the SSDS is operational is not required as part of the remedy by NYSDEC and New York State Department of Health (NYSDOH); however, it may be conducted at periodic intervals, as determined by the Remedial Party, to assess the need for continued operation of the SSDS. In the event that indoor air and sub slab vapor monitoring data indicate that the SSDS is no longer required, a proposal to discontinue the SSDS will be submitted by the Remedial Party to the NYSDEC and NYSDOH. Conditions that warrant discontinuing the use of the SSDS include: 1) verification sub slab soil vapor and indoor air analytical data that indicate that VOC concentrations are below the NYSDOH decision matrix criteria requiring mitigation, 2) indoor air sampling over a period of two supplemental sampling events (biannual or annual during heating season) indicating that VOC concentrations are below the NYSDOH decision matrix criteria requiring mitigation; and 3) a determination that the remedy has achieved a condition that is protective of human health and the environment.

2.3 INSTITUTIONAL CONTROLS

A series of ICs is required by the NYSDEC to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining VOC impacts by controlling disturbances of the impacted subsurface media; (3) limit the use and development of the site to commercial or industrial type usages, and (4) otherwise comply with the site restrictions in the Declaration of Covenants and Restrictions (Appendix 4). Adherence to the ICs on the site is required by the Declaration of Covenants and Restrictions and will be implemented under this Site Management Plan. ICs that apply to the Controlled Property (i.e., site) are:

- Compliance with the Declaration of Covenants and Restrictions and this SMP by the Grantor and the Grantor's successors and assigns;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP; and
- Information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP.

Institutional Controls identified in the Declaration of Covenants and Restrictions may not be discontinued without an amendment to or extinguishment of the Declaration of Covenants and Restrictions.

The site has a series of ICs in the form of site restrictions. Adherence to the ICs is required by the Declaration of Covenants and Restrictions. Site restrictions that apply to the Controlled Property (property) are:

- Unless prior written approval by NYSDEC or, if NYSDEC shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and health of the State's citizens, is first obtained, where contamination remains at the property subject to the provisions of the SMP, there shall be no construction, use or occupancy of the property that results in disturbance or excavation of the property which threatens the integrity of the ECs or which results in unacceptable human exposure to contaminated soils;
- The owner of the property shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of EC's required for the remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver from NYSDEC or Relevant Agency;
- The owner of the property shall prohibit the property from ever being used for purposes other than commercial or industrial use (excluding the use for childcare/day care facilities, hospitals, and residential health care facilities, vegetable gardens and farming; and also any development that does not comply with the soil vapor intrusion evaluation in Section 2.3.2 of the SMP without the express written waiver of such prohibition by NYSDEC or Relevant Agency;
- The owner of the property shall prohibit use of the groundwater underlying the property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from NYSDEC or Relevant Agency;
- The owner of the property shall continue in full force and effect any ICs and ECs required for the remedy and maintain such controls, unless the owner first

obtains permission to discontinue such controls by NYSDEC or Relevant Agency in compliance with the SMP; and

- The owner of the property will submit to NYSDEC or Relevant Agency a periodic certification, which will certify that the ICs and ECs put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

2.3.1 Excavation Work Plan

The site has been remediated for commercial and industrial type usage. Any future intrusive work that encounters or disturbs the remaining sub-grade VOC impacts, including any modifications or repairs to the existing cover systems will be performed in compliance with the EWP that is attached as Appendix 4 to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a site specific Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP), which will be prepared by the owner or a representative of the site owner on an as needed basis if intrusive work is planned. At this time intrusive work is not anticipated across areas that may be impacted. HASP and CAMP plans with be prepared by the site owner or their representatives prior to any anticipated intrusive work and will be developed based on the type of work to be conducted. The HASP and CAMP will be submitted with the notification provided in the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (Section 5).

The site owner and/or associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the ECs described in this SMP.

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located over areas that contain remaining VOC impacts and where the potential for soil vapor intrusion (SVI) has been identified (Figure 3), an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted by the site owner to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (un-validated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. Validated SVI data will be transmitted to the property owner within 30 days of validation. If any indoor air test results exceed NYSDOH guidelines, relevant NYSDOH fact sheets will be provided to all tenants and occupants of the property within 15 days of receipt of validated data.

SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the site will be conducted at the frequency specified in the SMP Monitoring Plan schedule by the Remedial Party or appointed representative. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Declaration of Covenants and Restrictions;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial system.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- Sixty day advance notice of any proposed changes in site use that are required under the terms of the VCA, 6NYCRR Part 375, and/or Environmental Conservation Law.

- Seven day advance notice of any proposed ground-intrusive activities pursuant to the EWP.
- Notice within forty-eight hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other ECs and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within seven days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within forty-five days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site (as defined in the Metes and Bound provide in Appendix 1 and shown on Figure 2) or the responsibility for implementing this SMP will include the following notifications:

- At least sixty days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the VCA, and all approved work plans and reports, including this SMP
- Within fifteen days after the transfer of all or part of the site, the new owner's name, contact representative and information will be confirmed in writing.

2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions. The facility and property owner are responsible for ensuring that contingency plans are in place for the site.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the owner or owner's representative(s) should contact the appropriate party from the contact list below. Emergency contact lists must be maintained in an easily accessible location at the site.

Table 1 Emergency Contact Numbers

Fire Department – Perry Village	911 or 585-237-2050
Police Department – Perry Village	911 or 585-237-5445
Dig Safe New York	811 or 800-962-7962 (3 day notice required)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Table 2 Antea Group Contact Numbers

Mark Schumacher / Senior Project Manager	315-552-9832 (office) or 315-263-1183 (cell)
Antea Group – Main Switchboard	800-477-7411

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 200 North Main St., Perry, NY

Nearest Hospital: Wyoming County Hospital

Hospital Address: 400 North Main Street, Warsaw, NY

Hospital Telephone: 585-786-2233

Directions to the Hospital:

1. Take right out of parking lot onto Main St.

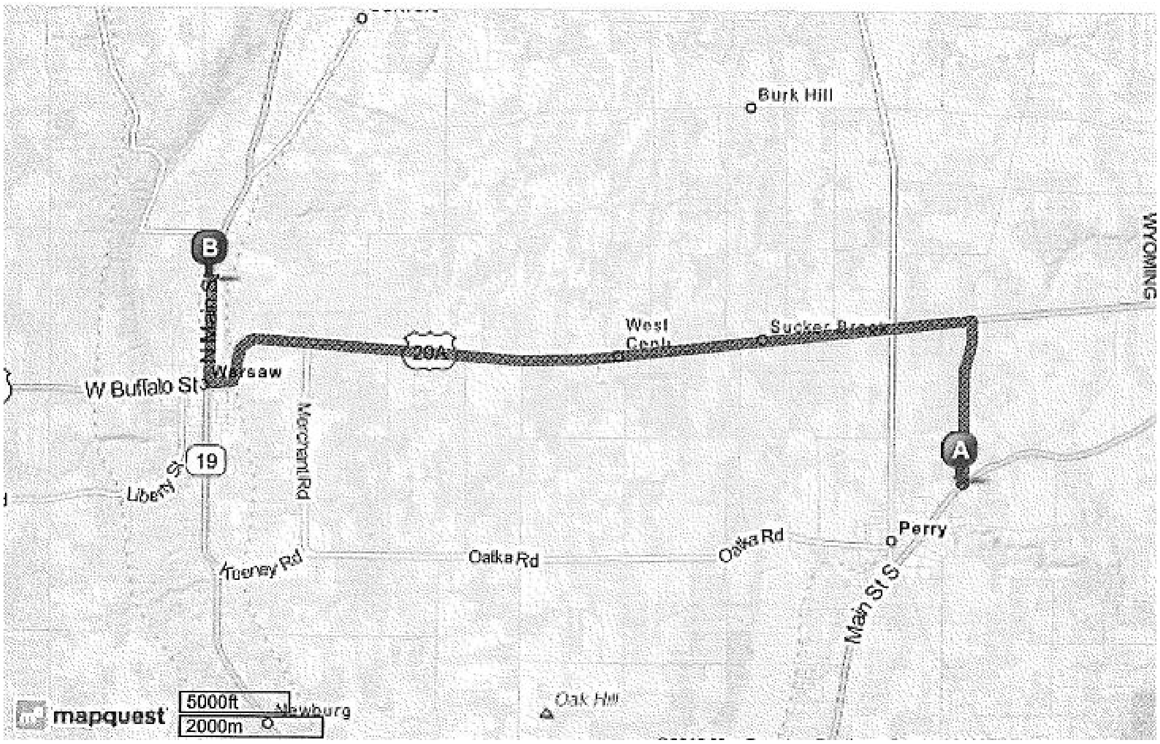
2. Take immediate left on Simmons Rd. and travel 1.6 miles.

3. At Route 20A turn left and travel 7.6 miles to ST RT 19 / North Main St.

4. Turn right on North Main St. and travel 1 mile. Hospital is on the right.

Total Distance: 10.10 miles Total Estimated Time: 15 minutes

Route to Hospital:



2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Tables 1 and 2). The list will also be posted prominently at the site and made readily available to all personnel at all times.

Procedures for spills and facility evacuation plans should be posted by the facility and property owner in a readily accessible area. The property owner is responsible for the preparation and updates of these plans.

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to mitigate the remaining VOC impacts at the site and is does not include environmental sampling programs. Monitoring and inspections of other Engineering Controls is described in Section 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

Monitoring of environmental media (soil, groundwater and air) is not required at this site as part of the approved remedy; therefore, this Monitoring Plan only describes the methods to be used for:

- Assessing the integrity of the cover systems; and
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address these items, this Monitoring Plan provides information on the following:

- Cover system inspections; and
- Annual site inspection and periodic certification.

Quarterly and annual monitoring/inspection of the performance of the remedy will be conducted by the Remedial Party or their representative for the duration of the remedy to assure ECs are effectively performing as designed. After five years the Remedial Party may request a change in frequency from NYSDEC and may only change the frequency with prior approval. Inspection programs are summarized in Table 3 and outlined in detail in Sections 3.2 and 3.3 below.

Table 3 Cover System and Site Inspection Schedule

Monitoring Program	Frequency	Areas	Control
Cover System Inspection	Quarterly	Interior/Exterior SSDS-3, 4, 5 and exterior soil cover	Cover Systems
Annual Inspection	Annual	Interior/Exterior SSDS-3, 4, 5 and exterior soil cover	Cover Systems and Site

3.2 COVER SYSTEM INSPECTIONS

Cover systems inspections (soil and concrete) will be performed quarterly, annually and after all severe weather conditions that may affect ECs by the Remedial Party or designated representative. All cover systems will be visually assessed to determine the integrity of the systems. In the event that cracking is noted in the concrete cover systems, smoke tubes will be used to determine if leakage to the subsurface is occurring. In the event that erosion or other disturbances to soil cover systems is noted a detailed assessment of the integrity of the cover will be conducted. During these inspections, an inspection form will be completed (Appendix 6). The form will compile sufficient information to assess the following:

- An evaluation of the condition and continued effectiveness of soil cover and concrete cover systems located outside and inside of the building;
- An evaluation of cracks and seals across the concrete cover system;
- An evaluation of the integrity of the soil cover system; and
- General site conditions at the time of the inspection.

3.3 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year by Remedial Party or their representative. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs. During these inspections, an inspection form will be completed (Appendix 6). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted;
- Compliance with schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

3.4 REPORTING REQUIREMENTS

Forms and any other information generated during regular inspections will be kept on file at the site. All forms, and other relevant reporting formats used during the inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

This Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. This Operation and Maintenance Plan includes:

- The steps necessary to allow individuals unfamiliar with the site to operate and maintain the SSDS systems; and
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDS is operated and maintained.

Information on non-mechanical Engineering Controls (i.e. cover systems) is provided in Section 3 - Engineering and Institutional Control Plan. A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP.

4.2 ENGINEERING CONTROL SYSTEM OPERATION AND MAINTENANCE

4.2.1 Sub-slab Depressurization System

Independent sub-slab depressurization systems were installed in three areas of the site (SS-3, SS-4 and SS-5) within the building's interior in April 2010 (Figure 3). The SSDS at each area consists of a series of 2 to 3 sub slab suction points, installed in high permeability material, which are connected by 3 inch PVC riser piping to exterior mounted Fan Tech HP220 or Radon Away GP501 blowers that are capable of moving 344 cfm of air at 0" WC. Each blower fan is mounted on the exterior of the building with a vent stack that rises above the level of the roof line. Inline gate valves are incorporated in each riser piper to control maximum vacuum distribution and balance flow, if required. Vacuum pressure at each suction point is measured by liquid filled U-tube manometers mounted on the vertical riser piping arrays. Each SSDS blower is wired into a dedicated sub panel with a dedicated circuit breaker that controls power to the system. Each riser pipe is individually labeled to denote that it is part of the SSDS and to denote flow direction. Details, specifications and layout of the SSDS for each area are presented in Appendix 7.

The design objective of the SSDS in each area is to create a vacuum field of at least 0.004” water column under the slab across each area to mitigate vapor intrusion. Each SSDS is designed to operate independently with continuous operation.

During installation, all floor cracks and penetrations larger than 1/16th of an inch in width and expansion and control joints across the mitigation areas were sealed with gun grade flowable urethane grade caulk and/or sealer to stop short circuiting of air flow.

4.2.1.1 Scope

The operation and maintenance requirements of the SSDS systems include quarterly inspections and/or, if needed more frequent checks to verify the individual systems are operational. Each SSDS is designed to run constantly, operator free and requires very little maintenance, if any. Once flows are balanced minimal, if any adjustments to the system are required. Operations checks include the following:

- Check blower fan for operation;
- Check electrical panel to verify circuit breaker not tripped;
- Verify air flow from riser pipes by opening and closing gate valves;
- Verify vacuum pressure at each suction point and manometer;
- Check interior and exterior accessible piping for cracks; and
- Check flooring for cracks.

4.2.1.2 System Start-Up and Testing

If for any reason the system is shutdown during its lifetime operating span the following activities will be conducted as part of a system restart. Prestart activities include:

- Verify the integrity of the piping systems and insure there are no cracks or other piping issues and check for leaks;
- Verify piping seals;
- Verify blowers are operational (i.e. fan turning);
- Verify exterior exhaust ports are clear;
- Verify power is available and circuit breakers are no tripped;
- Inspect gate vales and manometers; and
- Inspect flooring for cracks.

Following inspection of each SSDS, the systems are ready for restart and the following startup sequence can be initiated:

- Turn on power at breaker panel;
- Check and verify vacuum pressure at each riser pipe;
- Balance air flow using gate valves as necessary; and
- Check for short circuiting of air across floor slab area with smoke tubes.

The system testing described above will be conducted if, in the course of the SSDS lifetime, significant changes are made to the system, and the system must be restarted.

4.2.1.3 System Operation: Routine Operation Procedures

Each SSDS is designed to run constantly (24/7) and does not have controls that allow for operational changes to the blower fan output and vacuum draw capacity. If during the course of operations vacuum pressures become unbalanced in a mitigation area, the system gate values can be adjusted to balance the flow. No other routine maintenance is required.

4.2.1.4 System Operation: Routine Equipment Maintenance

Each SSDS was designed to require little to no routine maintenance. The blower fans are maintenance free fans and are not designed to be serviceable. If a blower fan fails it will be replaced with the same or similar unit. Piping is PVC schedule 40 and requires no maintenance other than sealing if a joint or seal fails. Gate valves and manometers require no maintenance unless they become stuck or clogged.

4.2.1.5 System Operation: Non-Routine Equipment Maintenance

In the event of decreased vacuum pressures and air flow from the SSDS an evaluation of the blower and piping will be initiated to determine if: 1) the blower is failing, 2) the manometers are operating correctly, 3) there is a leak in the above grade piping, and 4) the exhaust piping is obstructed. If any of these conditions occur the following may be initiated:

- In the event of blower failure the blower unit will be replaced;
- Manometers may be replaced and/or cleaned if operating improperly;
- Pipe seals will be repaired or piping replaced if cracked or leaking;
- Flooring will be sealed if air leakage is detected; and
- Obstructions will be cleared from the exhaust stack if present.

4.3 ENGINEERING CONTROL SYSTEM PERFORMANCE MONITORING

Three SSDS have been installed within the building to mitigate soil vapor intrusion into occupied spaces (Figure 3). System details are presented in Section 4.2.1. The SSDS were started in April 2010 and have been in constant operation since that time. Details of system monitoring requirements are provided in the following sections.

4.3.1 Monitoring Schedule

The SSDS will be inspected on a quarterly and annual basis for the duration of the remedy by the Remedial Party or their representative. Inspection frequency is subject to change with the approval of the NYSDEC. Unscheduled inspections may take place when a suspected failure of the SSDS has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

4.3.2 General Equipment Monitoring

A visual inspection of the complete system will be conducted during each monitoring event. SSDS system components to be monitored include, but are not limited to, the following:

- Vacuum blower;
- Electrical panel;
- System piping;
- Gate valves;
- Manometers; and
- Exhaust ports.

A complete list of components to be checked is provided in the Inspection Checklist, presented in Appendix 6. If any equipment readings are not within their typical range, any equipment is observed to be malfunctioning, or the system is not performing within specifications, maintenance and repair as per the Operation and Maintenance Plan are required immediately, and the SSDS restarted.

4.3.3 System Monitoring Devices and Alarms

The SSDS do not have warning devices and/or alarms to indicate that the systems are not operating properly.

4.4 MAINTENANCE AND PERFORMANCE MONITORING REPORTING REQUIREMENTS

Maintenance reports and any other information generated during regular operations at the site will be kept on-file on-site. All reports, forms, and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Periodic Review Report, as specified in the Section 5 of this SMP.

4.4.1 Routine Maintenance Reports

Checklists or forms will be completed during each routine maintenance event (Appendix 6). Checklists/forms will include, but not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;
- Maintenance activities conducted;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc. (attached to the checklist/form).

4.4.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a form will be completed which will include, but not be limited to, the following information:

- Date;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Presence of leaks;
- Date of leak repair;
- Other repairs or adjustments made to the system;

- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and,
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP by the Remedial Party or designated representative. At a minimum, a site-wide inspection will be conducted annually by the Remedial Party or their representative. Inspections of remedial components will also be conducted when a breakdown of any mitigation system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system which are contained in Appendix 6. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (Appendix 6). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all system maintenance reports, generated for the site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items,

- The site remedy continues to be protective of public health and the environment and is performing as designed.

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State, working on behalf of the Remedial Party or owner will prepare the following certification:

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the site is compliant with the Declaration of Covenants and Restrictions;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and

- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Designated Site Representative] [I have been authorized and designated by the Volunteer to sign this certification] for the site under the Voluntary Cleanup Agreement for Site # V000189-9

The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted by the Remedial Party or designated representative to the Department every year, beginning eighteen months after the Release and Covenant Not to Sue or equivalent document is issued. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix 1 (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the site during the reporting period in electronic format;
- A site evaluation, which includes the following:
  - The operation and the effectiveness of all mitigation units, etc., including identification of any needed repairs or modifications;

- Any new conclusions or observations regarding site contamination based on inspections;
- Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
- The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy and electronic format, to the NYSDEC Regional Office in which the site is located.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

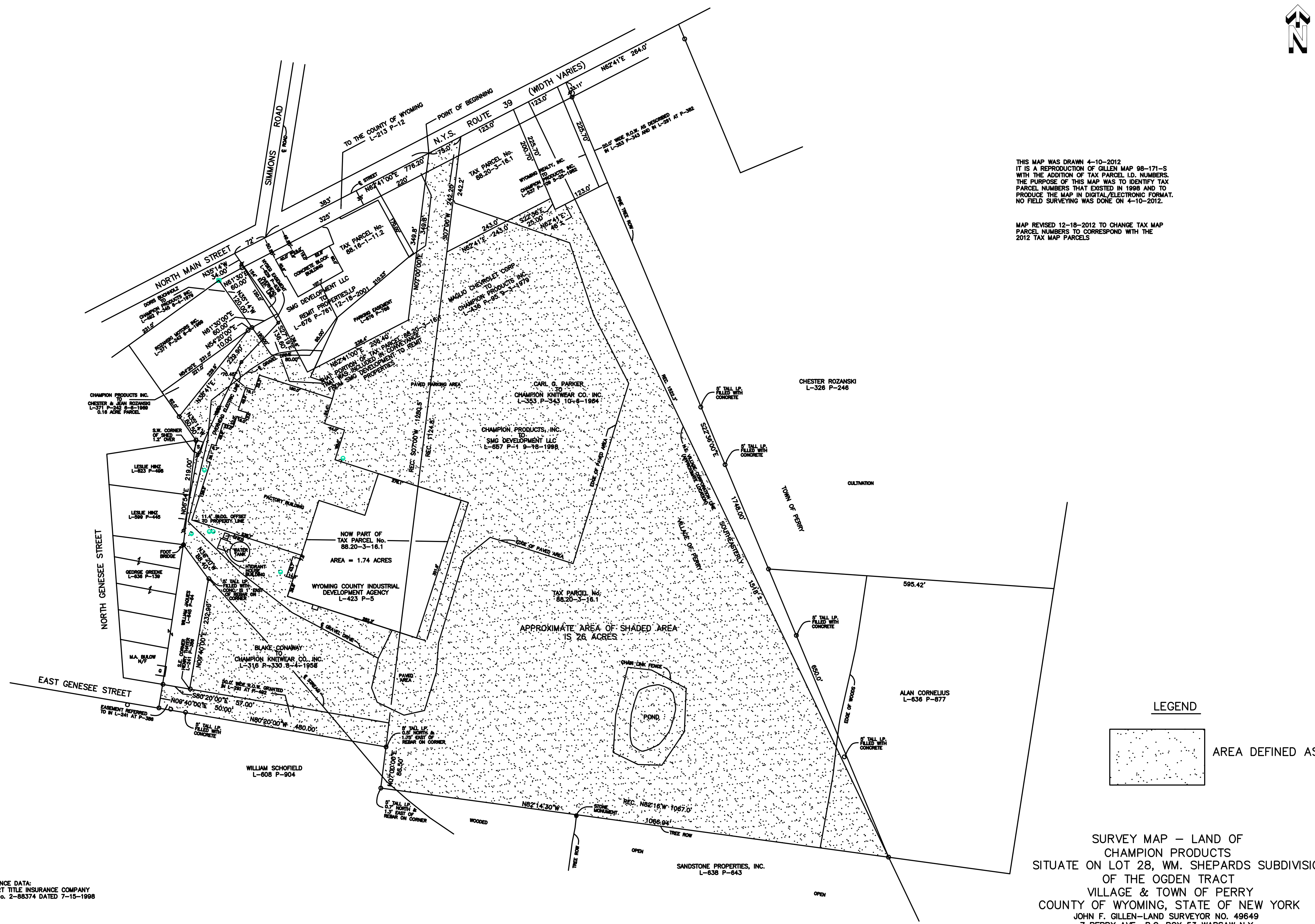
FIGURES

FIGURE 1-SITE LOCATION MAP

FORMER CHAMPION PRODUCTS FACILITY
200 N. MAIN STREET
PERRY, NY

PROJECT NO.: 1107427P	
DATE: 10/4/12	
PREPARED BY: MJS	
DRAWN BY: LKO	
REVIEWED BY: MJS	

anteagroup
5788 Widewaters Parkway
Syracuse, New York 13214



THIS MAP WAS DRAWN 4-10-2012
IT IS A REPRODUCTION OF GILLEN MAP 98-171-S
WITH THE ADDITION OF TAX PARCEL I.D. NUMBERS.
THE PURPOSE OF THIS MAP WAS TO IDENTIFY TAX
PARCEL NUMBERS THAT EXISTED IN 1998 AND TO
PRODUCE THE MAP IN DIGITAL/ELECTRONIC FORMAT.
NO FIELD SURVEYING WAS DONE ON 4-10-2012.

MAP REVISED 12-18-2012 TO CHANGE TAX MAP
PARCEL NUMBERS TO CORRESPOND WITH THE
2012 TAX MAP PARCELS

LEGEND

AREA DEFINED AS THE SITE

NOTE:
= MONITORING WELL

NOTE:
NEW IRON STAKES SHOWN THUS: (■)
EXISTING IRON STAKES SHOWN THUS: (O)

REFERENCE DATA:
STEWART TITLE INSURANCE COMPANY
TITLE No. 2-88374 DATED 7-15-1998

98-171-S
2012-36-S

REVISED 3-5-2013
REVISED 12-18-2012
REVISED 9-15-1998

SURVEY MAP – LAND OF
CHAMPION PRODUCTS
SITUATE ON LOT 28, WM. SHEPARDS SUBDIVISION
OF THE OGDEN TRACT
VILLAGE & TOWN OF PERRY
COUNTY OF WYOMING, STATE OF NEW YORK
JOHN F. GILLEN-LAND SURVEYOR NO. 49649
7 PERRY AVE., P.O. BOX 53 WARSAW N.Y.
(585)786-3960

225 112.5 0 112.5 225 ft
Scale: One inch equals approximately two hundred and twenty-five feet

FIGURE 2-SITE SURVEY MAP

FORMER CHAMPION PRODUCTS FACILITY
200 N. MAIN STREET
PERRY, NY

PROJECT NO.: 1107427P
DATE: 3/12/13
REVIEWED BY: MJS
FILE NAME: CHAMPION 2_3-2013

anteagroup
5788 Widewaters Parkway
Syracuse, New York 13214

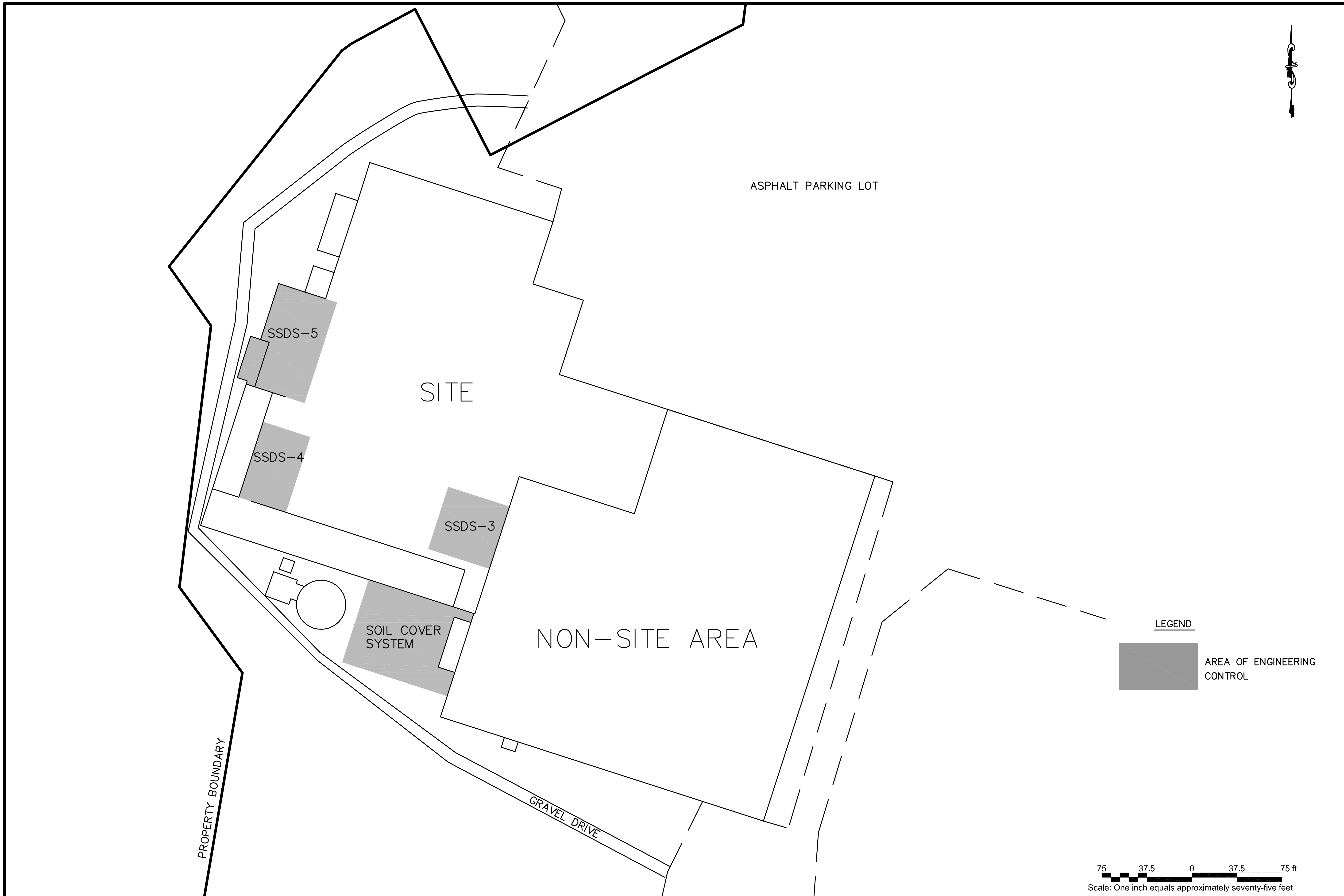


FIGURE 3- ENGINEERING CONTROL LOCATIONS
FORMER CHAMPION PRODUCTS FACILITY
200 N. MAIN STREET
PERRY, NY

PROJECT NO.: 1107427P
DATE: 10/4/12
PREPARED BY: MJS
DRAWN BY: LKO
REVIEWED BY: MJS

anteagroup
5788 Widewaters Parkway
Syracuse, New York 13214

APPENDIX 1

METES AND BOUNDS

APPENDIX A
DESCRIPTION OF LAND
SITUATE ON LOT 28, WM. SHEPARDS SUBDIVISION OF THE OGDEN TRACT
VILLAGE & TOWN OF PERRY
COUNTY OF WYOMING, STATE OF NEW YORK

Beginning in the center of North Main Street in the Village of Perry at the northwest corner of lands described in a deed from Blake Conaway to Champion Knitwear Co. Inc. in liber 316 at page 330, and being N62°41'00"E a distance of 383 feet from the intersection of North Main Street with the center of Simmons Road ;
Thence N62°41'00"E along the center of North Main Street a distance of 75.0 feet;
Thence S07°00'W a distance of 242.20 feet;
Thence N62°41'E a distance of 243.0 feet;
Thence S22°36'00"E a distance of 25.00 feet;
Thence N62°41'00"E a distance of 46 feet plus or minus to the northeast village corporation line ;
Thence southeasterly along the village corporation line a distance of 1518 feet plus or minus to the southeast corner of lands described in a deed from Carl G. Parker to Champion Knitwear Co. Inc. in liber 353 at page 343;
Thence N82°14'30"W a distance of 1066.94 feet to the southwest corner of lands deeded in liber 353 at page 343;
Thence N07°00'00"E a distance of 86.50 feet to the southeast corner of lands deeded in liber 316 at page 330 as aforesaid;
Thence N80°20'00"W a distance of 480.00 feet to the southwest corner thereof;
Thence N09°40'00"E a distance of 50.00 feet;
Thence S80°20'00"E a distance of 57.00 feet;
Thence N09°40'00"E a distance of 232.90 feet;
Thence N36°20'00"W a distance of 88.40 feet;
Thence N06°54'00"E a distance of 219.00 feet;
Thence N35°14'00"W a distance of 60.50 feet;
Thence N38°41'00"E a distance of 229.90 feet;
Thence N54°20'00"E a distance of 10.00 feet;
Thence N61°30'00"E a distance of 60.00 feet;
Thence S27°19'00"E a distance of 136.60 feet;
Thence N62°41'00"E a distance of 236.40 feet;
Thence N07°00'00"E a distance of 349.8 feet to the point of beginning.

Excepting therefrom 1.74 acres of land described in a deed from Champion Products Inc. to Wyoming County Industrial Development Agency in liber 423 at page 5.

Excepting therefrom land described in a deed from SMG Development LLC to Remit Properties, LP in liber 676 at page 761.

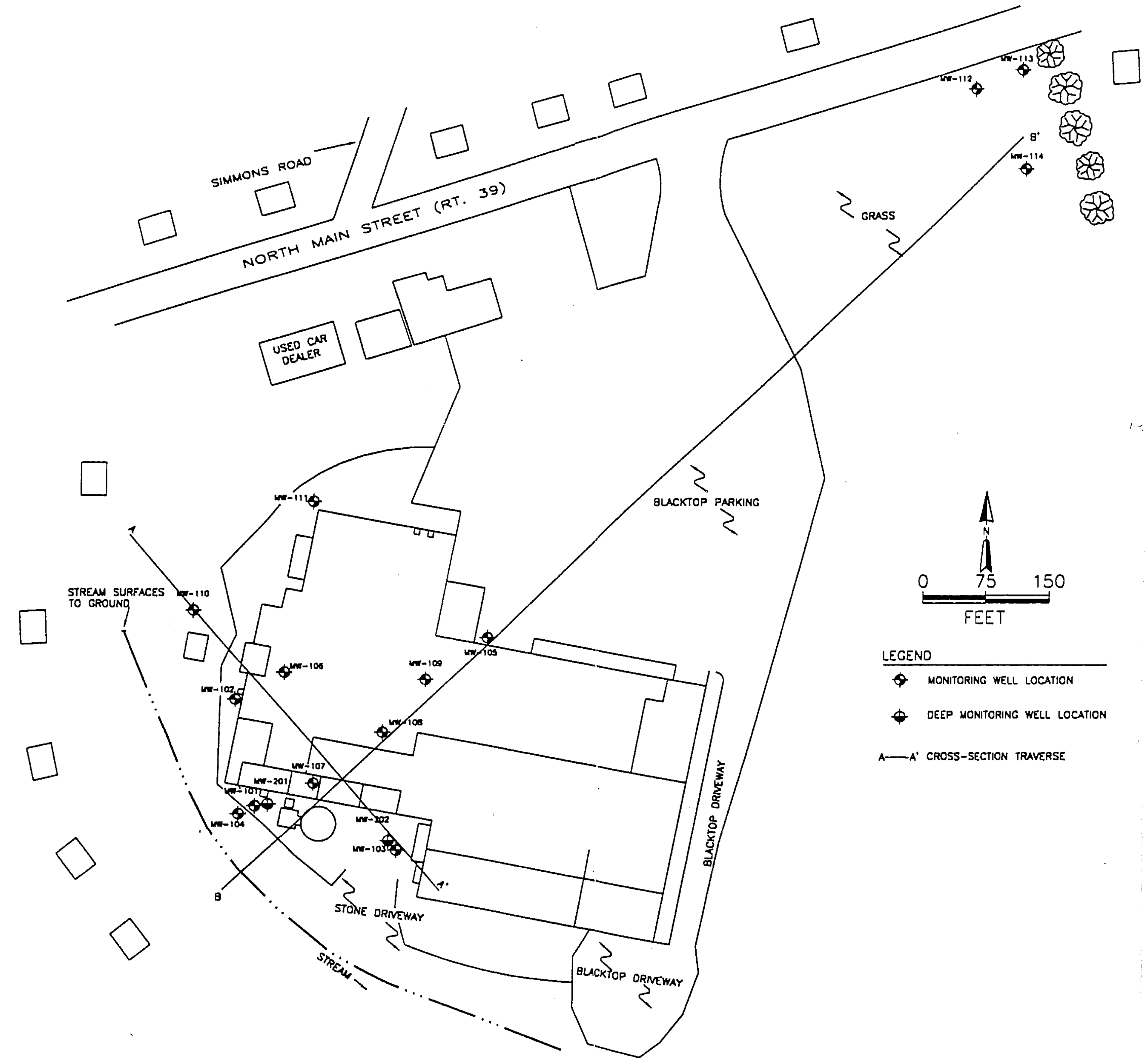
Containing within said bounds 26 Acres of land more or less.

APPENDIX 2

HISTORICAL DOCUMENTATION

List of Historical Documents

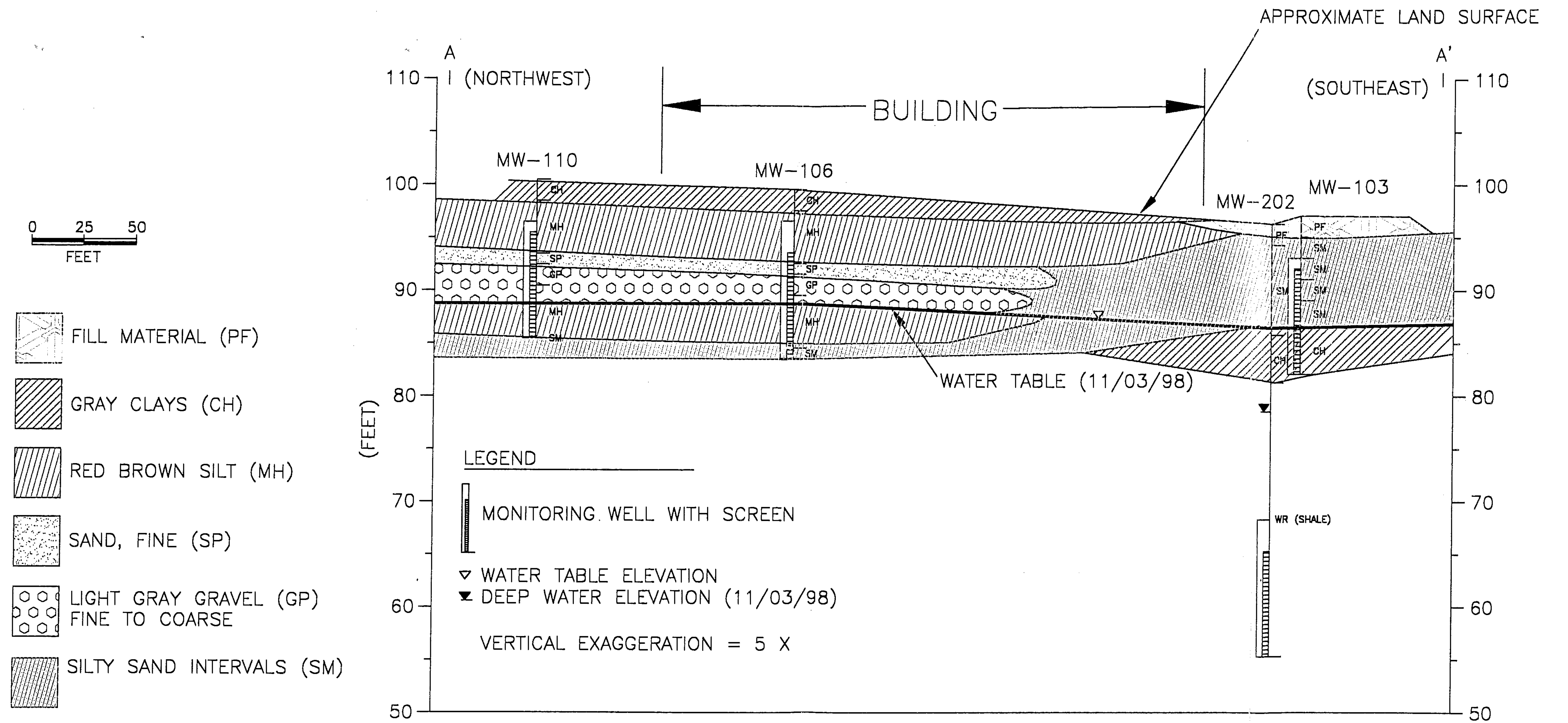
1) Cross Section Location Map, 4-23-99, Figure 4
2) Cross Section A – A', 4-23-99, Figure 5
3) Cross Section B – B', 4-23-99, Figure 6
4) Groundwater Elevation Contour Map, 5-15-07, Figure 3
5) Groundwater Elevation Contour Map, 3-11-08, Figure 4
6) Site Map, 7-23-98, Figure 1
7) Soil Boring Locations, 7-23-98, Detail A
8) Soil Boring Locations, 7-23-98, Detail B
9) Soil Analytical Results, July 1998, Table 1
10) Groundwater Analytical Results, July 1998, Table 2
11) Former Petroleum Facility – Soil and Groundwater Analytical Results, July 1998, Table 3
12) Process Fluid Analytical Results, July 1998, Table 4
13) Sample Location Map, 4-22-99, Figure 3
14) Report of Remedial Activities – Former Empty Drum Storage Area, 3-7-01
15) Results of February 2003 Site Characterization and Proposed Modifications to Final Remediation Work Plan, June 2003
16) Baseline Soil Vapor Intrusion Report, 6-8-2007
17) Screen Wash Vault Upgrade, 8-9-99
18) System Shutdown Plan, 2-27-07



Delta Environmental Consultants, Inc.

TITLE:
CROSS SECTION LOCATION MAP
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

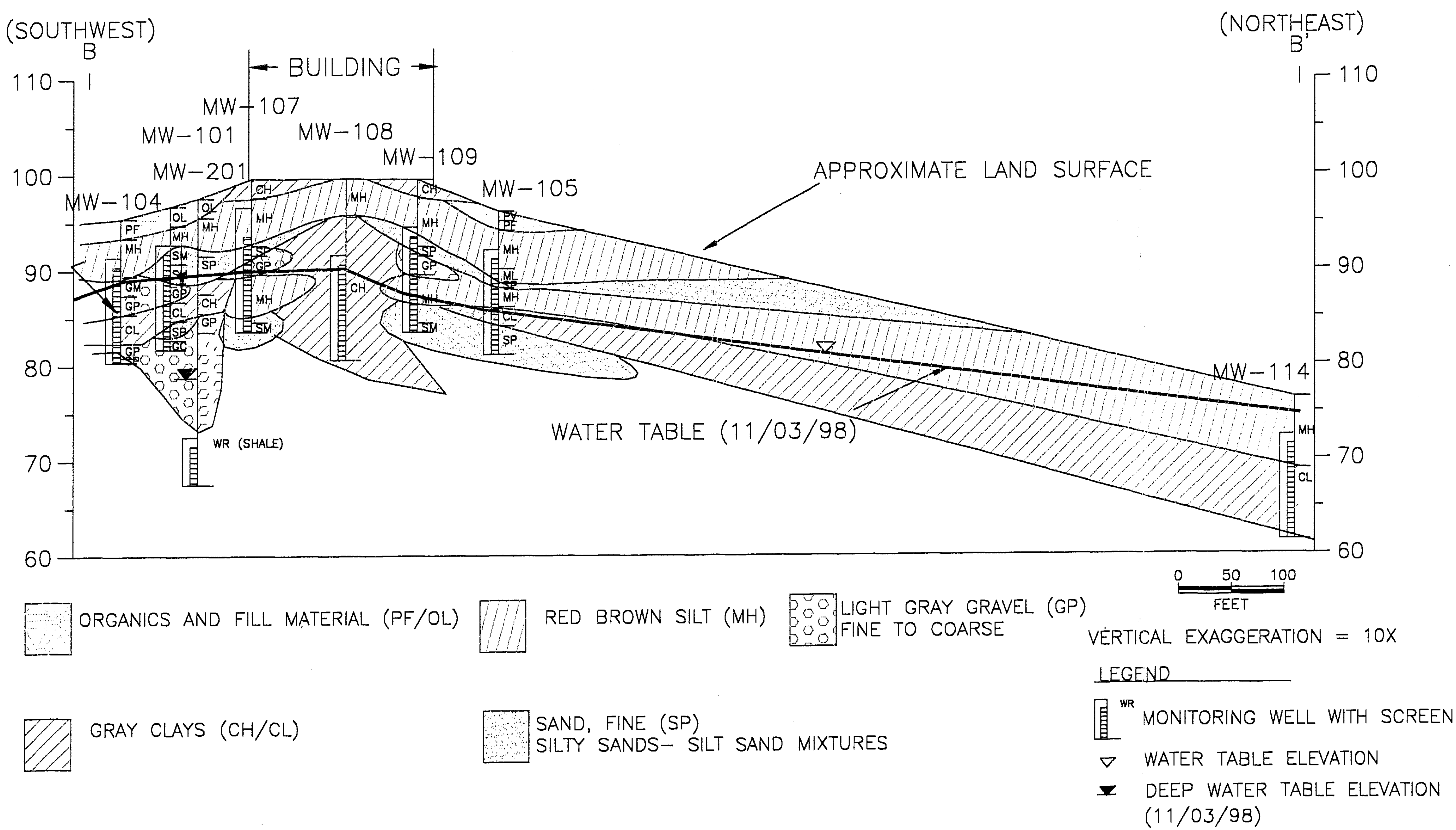
DWN: DD/HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	
DATE: 04/23/99	REV.:	FIGURE NO.: 4



Delta Environmental Consultants, Inc.

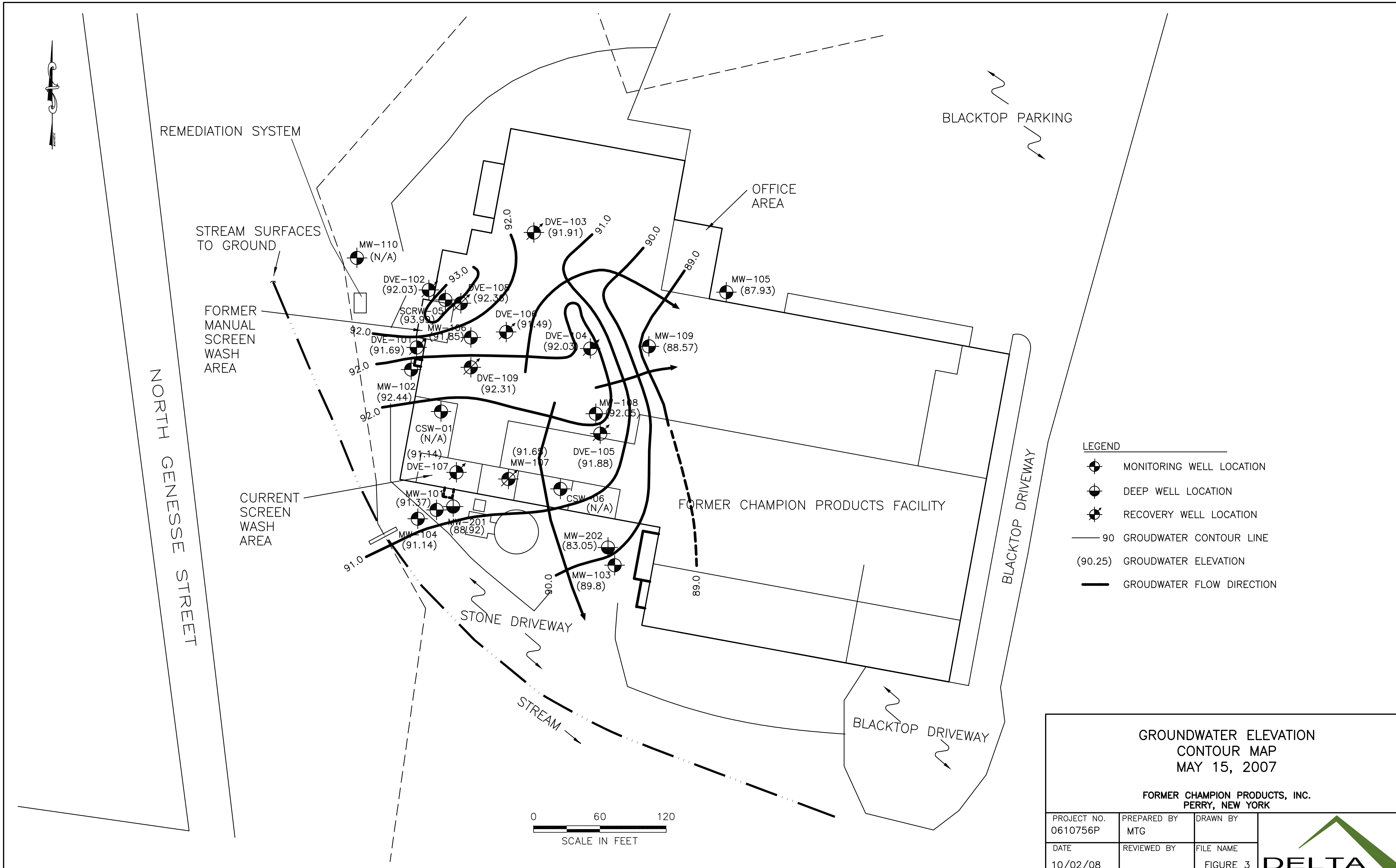
TITLE:
CROSS SECTION A – A'
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	
DATE: 04/23/99	REV.:	FIGURE NO.: 5

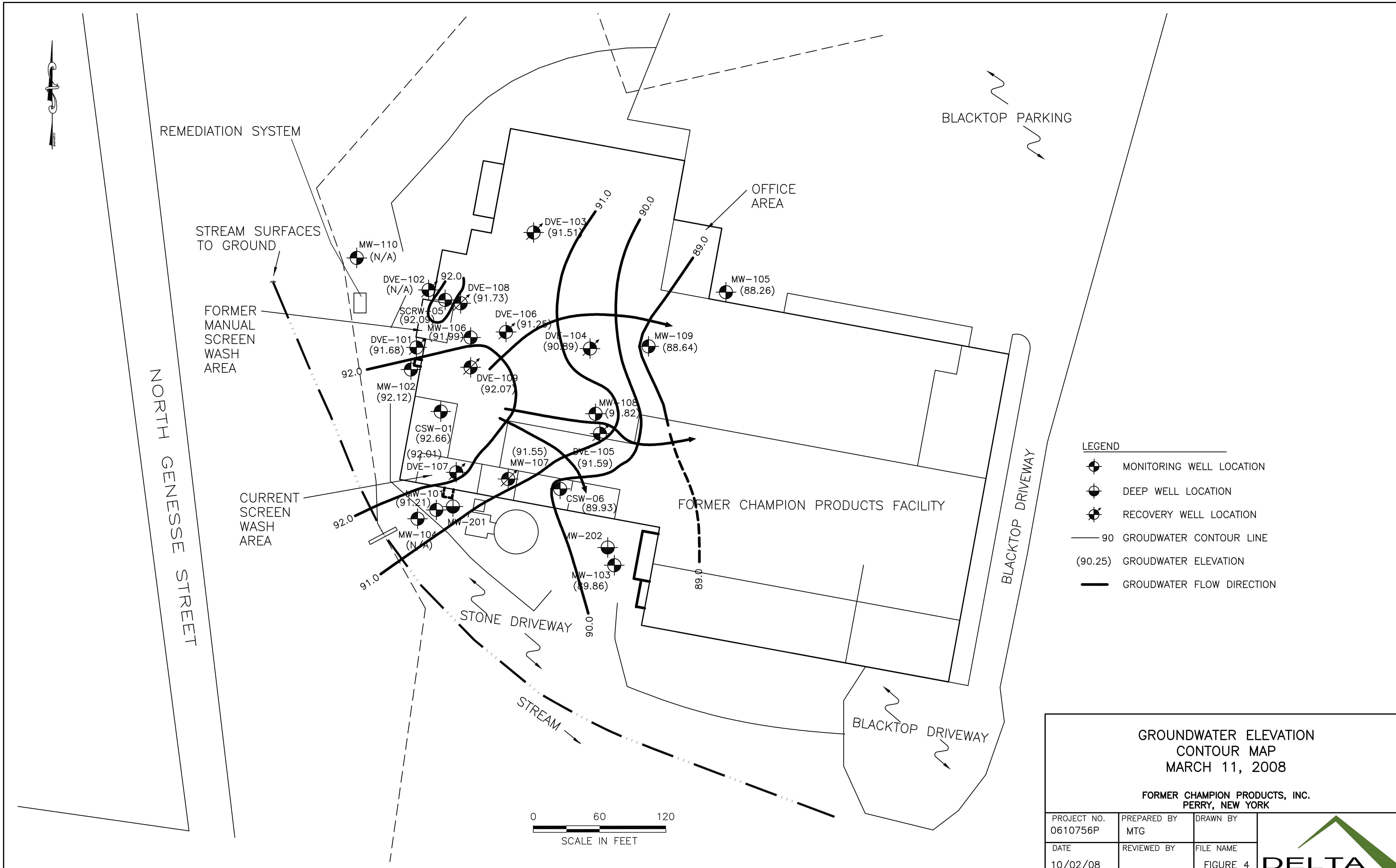


Delta Environmental Consultants, Inc.

TITLE:	DWN: HLW	DES.:	PROJECT NO.: S098-009
CROSS SECTION B – B' CHAMPION PRODUCTS FACILITY PERRY, NEW YORK	CHKD:	APPD:	FIGURE NO.: 6
	DATE: 04/23/99	REV.:	



REMEDIATION SYSTEM
STREAM SURFACES TO GROUND
FORMER MANUAL SCREEN WASH AREA
CURRENT SCREEN WASH AREA
NORTH GENESSE STREET
BLACKTOP PARKING
OFFICE AREA
FORMER CHAMPION PRODUCTS FACILITY
BLACKTOP DRIVEWAY
STONE DRIVEWAY
STREAM
MW-110 (N/A)
DVE-102 (92.03)
SCRW-05 (93.99)
DVE-103 (91.91)
DVE-106 (91.49)
DVE-104 (92.03)
MW-106 (91.85)
DVE-109 (92.31)
MW-102 (92.44)
CSW-01 (N/A)
DVE-107 (91.14)
MW-107 (91.65)
DVE-105 (91.88)
MW-108 (92.05)
MW-109 (88.57)
MW-105 (87.93)
MW-101 (91.37)
MW-201 (88.92)
MW-104 (91.14)
CSW-06 (N/A)
MW-202 (83.05)
MW-103 (89.8)
93.0
92.0
91.0
90.0
89.0
0 60 120
SCALE IN FEET
LEGEND
MONITORING WELL LOCATION
DEEP WELL LOCATION
RECOVERY WELL LOCATION
90 GROUDWATER CONTOUR LINE
(90.25) GROUNDWATER ELEVATION
GROUDWATER FLOW DIRECTION
GROUNDWATER ELEVATION CONTOUR MAP
MAY 15, 2007
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
PROJECT NO. 0610756P
PREPARED BY MTG
DRAWN BY
DATE 10/02/08
REVIEWED BY
FILE NAME FIGURE 3
DELTA

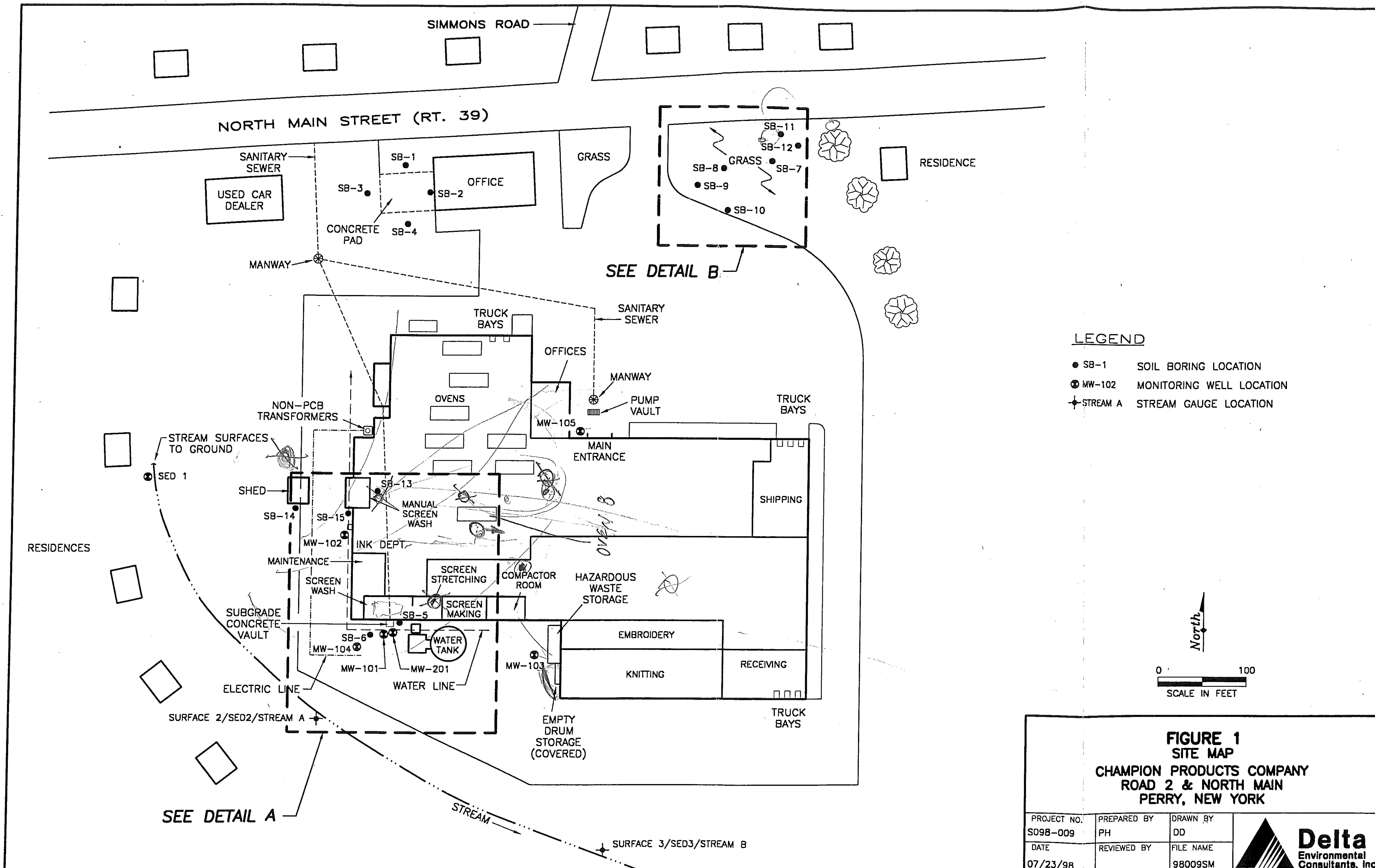


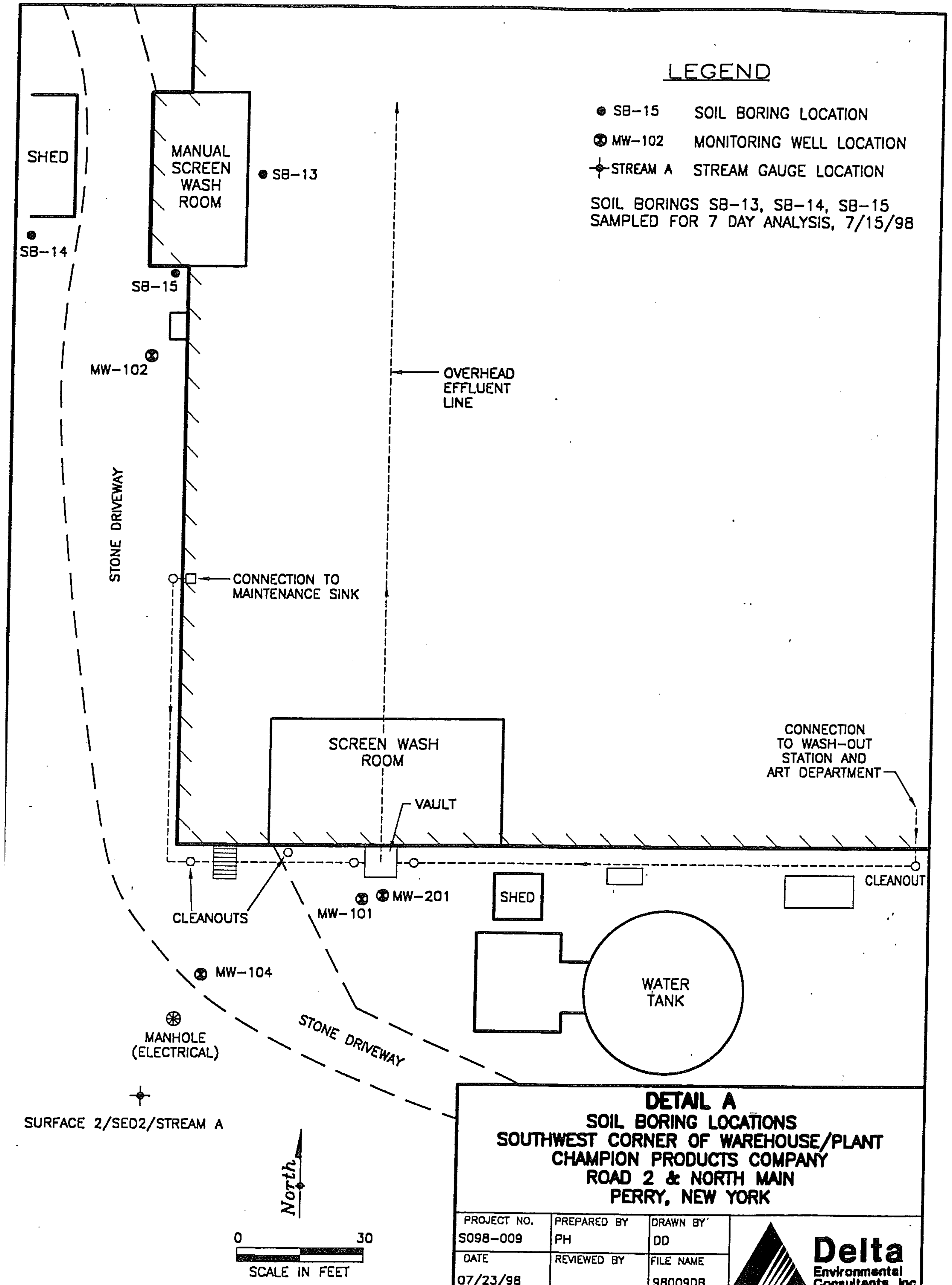
GROUNDWATER ELEVATION CONTOUR MAP
MARCH 11, 2008

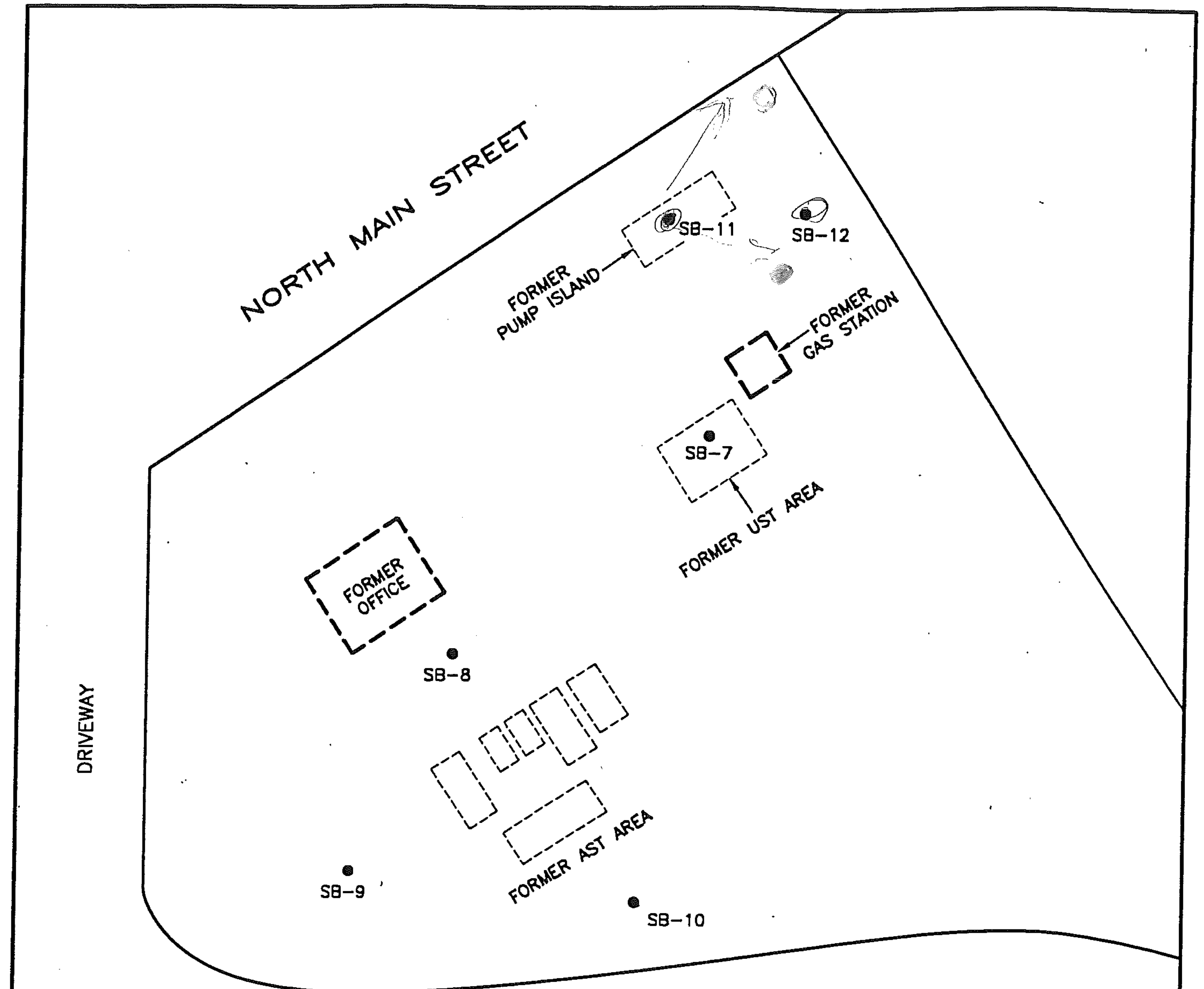
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK

PROJECT NO.	PREPARED BY	DRAWN BY
0610756P	MTG	
DATE	REVIEWED BY	FILE NAME
10/02/08		FIGURE 4

DELTA


SIMMONS ROAD
NORTH MAIN STREET (RT. 39)
SANITARY SEWER
USED CAR DEALER
SB-1
SB-3
SB-2
OFFICE
GRASS
CONCRETE PAD
SB-4
MANWAY
SB-11
SB-12
GRASS
SB-8
SB-7
SB-9
SB-10
RESIDENCE
SEE DETAIL B
TRUCK BAYS
SANITARY SEWER
OFFICES
MANWAY
PUMP VAULT
OVENS
NON-PCB TRANSFORMERS
MW-105
TRUCK BAYS
MAIN ENTRANCE
STREAM SURFACES TO GROUND
SED 1
SHED
SB-13
SB-14
SB-15
MANUAL SCREEN WASH
SHIPPING
RESIDENCES
MW-102
INK DEPT
MAINTENANCE
SCREEN WASH
SCREEN STRETCHING
COMPACTOR ROOM
HAZARDOUS WASTE STORAGE
SCREEN MAKING
SB-5
SUBGRADE CONCRETE VAULT
SB-6
WATER TANK
EMBROIDERY
MW-104
MW-101
MW-201
MW-103
KNITTING
RECEIVING
ELECTRIC LINE
WATER LINE
SURFACE 2/SED2/STREAM A
EMPTY DRUM STORAGE (COVERED)
TRUCK BAYS
SEE DETAIL A
STREAM
SURFACE 3/SED3/STREAM B
LEGEND
SB-1 SOIL BORING LOCATION
MW-102 MONITORING WELL LOCATION
STREAM A STREAM GAUGE LOCATION
North
0
100
SCALE IN FEET
FIGURE 1
SITE MAP
CHAMPION PRODUCTS COMPANY
ROAD 2 & NORTH MAIN
PERRY, NEW YORK
PROJECT NO.
S098-009
PREPARED BY
PH
DRAWN BY
DD
DATE
07/23/98
REVIEWED BY
FILE NAME
98009SM
Delta
Environmental Consultants, Inc.


LEGEND
SB-15 SOIL BORING LOCATION
MW-102 MONITORING WELL LOCATION
STREAM A STREAM GAUGE LOCATION
SOIL BORINGS SB-13, SB-14, SB-15 SAMPLED FOR 7 DAY ANALYSIS, 7/15/98
SHED
MANUAL SCREEN WASH ROOM
SB-13
SB-14
SB-15
MW-102
OVERHEAD EFFLUENT LINE
STONE DRIVEWAY
CONNECTION TO MAINTENANCE SINK
SCREEN WASH ROOM
VAULT
CONNECTION TO WASH-OUT STATION AND ART DEPARTMENT
CLEANOUT
CLEANOUTS
MW-101
MW-201
SHED
WATER TANK
MW-104
MANHOLE (ELECTRICAL)
STONE DRIVEWAY
SURFACE 2/SED2/STREAM A
North
0
30
SCALE IN FEET
DETAIL A
SOIL BORING LOCATIONS
SOUTHWEST CORNER OF WAREHOUSE/PLANT
CHAMPION PRODUCTS COMPANY
ROAD 2 & NORTH MAIN
PERRY, NEW YORK
PROJECT NO. S098-009
PREPARED BY PH
DRAWN BY DD
DATE 07/23/98
REVIEWED BY
FILE NAME 98009DB
Delta Environmental Consultants, Inc.

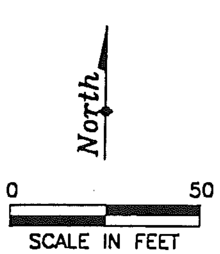


LEGEND

● SB-12 SOIL BORING LOCATION

SOIL BORINGS SB-7, SB-8, SB-9, SB-10
SAMPLED FOR 24 HR ANALYSIS, 7/15/98

SOIL BORINGS SB-11, SB-12
SAMPLED FOR 7 DAY ANALYSIS, 7/15/98



DETAIL B
SOIL BORING LOCATIONS
NORTHWEST CORNER PROPERTY
CHAMPION PRODUCTS COMPANY
ROAD 2 & NORTH MAIN
PERRY, NEW YORK

PROJECT NO.	PREPARED BY	DRAWN BY
S098-009	PH	DD
DATE	REVIEWED BY	FILE NAME
07/23/98		98009OA

Delta Environmental Consultants, Inc.

TABLES

X B

TABLE 1

SOIL ANALYTICAL RESULTS
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

DELTA PROJECT NO. S098-009

Sample ID	DEPTH (feet)	Date	VOLATILE ORGANICS (ug/kg)										
			Chloroethane	1, 1-Dichloroethane	cis-1,2-Dichloroethene	1, 2-Dichloroethane	1,1,1-Trichloroethane	Benzene	Tetrachloroethene	Toluene	Ethylbenzene	Styrene	Total Xylenes
SB-1	8-12	5/27/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SB-2	8-12	5/27/98	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
SB-3	8-12	5/27/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SB-4	8-12	5/27/98	< 3	< 3	< 3	< 3	17	< 3	8	< 3	< 3	< 3	< 3
SB-5	8-12	5/27/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SB-6	8-12	5/27/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SB-13	12-15	7/15/98	< 9	1,500	95	40	700	< 9	530	140,000	640	< 9	7,500
SB-14	12-15	7/15/98	< 4	< 4	< 4	14	72	< 4	110	8	< 4	< 4	65
SB-15	12-15	7/15/98	< 8	50	< 8	< 8	< 8	< 8	57	12,000	290	< 8	1,850
MW-101	14-15	6/22/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
MW-102	8-10	6/22/98	<30	700	<30	<30	1,000	<30	260	63,000	80	30	1,520
MW-103	14-15	6/22/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
MW-104	14-15	6/22/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
MW-105	14-15	6/22/98	34	11	7	<3	16	< 3	< 3	< 3	< 3	< 3	< 3
MW-201	20-21	6/22/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SED-1	0-1	6/23/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SED-2	0-1	6/23/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
SED-3	0-1	6/23/98	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
REGULATORY STANDARDS			1,900	200	300	100	760	60	1,400	1,500	5,500	NA	1,200

ug/kg = micrograms per kilogram or parts per billion.
NA = Regulatory standard not available or not established.
Regulatory Standards from Recommended Soil Clean-up Objectives to Protect Ground Water Quality - NYDEC - TAGM
Concentration exceeds regulatory standard.

APPENDIX A

APPENDIX B

TABLE 2
GROUND WATER ANALYTICAL RESULTS
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

DELTA PROJECT NO. S098-009

Sample ID	Date	Acetone	Methylene Chloride	2-Butanone (MEK)	2-Hexanone (MBK)	Chloroform	Chloroethane	1, 1-Dichoroethane (DCA)	1, 2-Dichloroethane	cis-1,2-Dichloroethene	Bromodichloromethane	Benzene	Toluene	Tetrachloroethene (PCE)	1,1,1-Trichloroethane (TCA)	1, 1, 2, 2-Tetrachloroethene	Ethylbenzene	Total Xylenes
		VOLATILE ORGANICS (ug/l)																
SB-3	5/27/98	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	3	<3	35	<3	<3	<3
SB-6	5/27/98	< 10	<3	<3	<3	<3	<3	90	<3	<3	<3	<3	3	13	35	<3	<3	<3
SB-13	7/15/98	< 100	530	< 100	< 100	<30	300	8,100	55	40	<30	<30	78,000	<30	80	<30	110	660
SB-14	7/15/98	31	<3	< 10	< 10	<3	<3	20	37	3	<3	<3	<3	34	250	<3	<3	48
SB-15	7/15/98	110	560	< 100	< 100	<30	87	3,500	71	60	<30	<30	<30	<30	350	24,000	38	420
MW-101	6/25/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	7/17/98	14*	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MW-102	6/25/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	7	<3	<3	<3
	7/17/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MW-103	6/25/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	7/17/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MW-104	6/25/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	7/17/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MW-105	6/25/98	12*	<3	< 10	< 10	6	59	4	<3	4	<3	<3	<3	<3	<3	<3	<3	<3
	7/17/98	<10	<3	< 10	< 10	<3	4	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MW-201	6/25/98	37	6 *	12	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
	7/17/98	87	<3	50	34	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Surface-1	6/23/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Surface-2	6/23/98	12 *	<3	11	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Surface-3	6/23/98	< 10	<3	< 10	< 10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
REGULATORY STANDARDS		50	5	50	50	7	5	5	0.6	5	5	5	5	5	5	5	5	1,200

ug/l = micrograms per liter or parts per billion
* Laboratory introduced
Regulatory Standards from NYDEC Water Quality Regulations and NYDEC - TAGM ground water standards.
Concentration exceeds regulatory standard.

APPENDIX A APPENDIX B

TABLE 3

FORMER PETROLEUM FACILITY
SOIL AND GROUND WATER ANALYTICAL RESULTS
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

Sample ID	DEPTH (feet)	Date	VOLATILE ORGANICS				INORGANICS
			Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead
			SOIL (ug/kg)				
SB- 7	13-15	7/15/98	< 4	< 4	< 4	< 4	< 13,000
SB-8	13-15	7/15/98	< 36	71	< 36	300	< 12,000
SB-9	13-15	7/15/98	< 3	< 3	< 3	< 3	17,000
SB-10	13-15	7/15/98	< 3	< 3	< 3	< 3	12,000
SB-11	6-8	7/15/98	8	270	7	1010	13,000
SB-12	13-15	7/15/98	< 3	< 3	< 3	< 3	< 11,000
SOIL STANDARDS *			60	5,500	1,500	1,200	30,000
			GROUND WATER (ug/l)				
SB- 7	9	7/15/98	< 3	< 3	4	< 3	
SB-9	9	7/15/98	< 3	< 3	5	< 3	
SB-11	9	7/15/98	3	320	7	779	
GROUND WATER STANDARDS **			5	5	5	300	

ug/kg = micrograms per kilogram of parts per billion
ug/l = micrograms per liter or parts per billion
* Soil standards from recommended soil clean-up objectives to protect ground water quality - NYDEC - TAGM
** Ground water standards from NYDEC Water Quality Regulations and NYDEC - TAGM ground water standards.

Concentration exceeds regulatory standard.

APPENDIX A

APPENDIX B

TABLE 4

PROCESS FLUID ANALYTICAL RESULTS
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

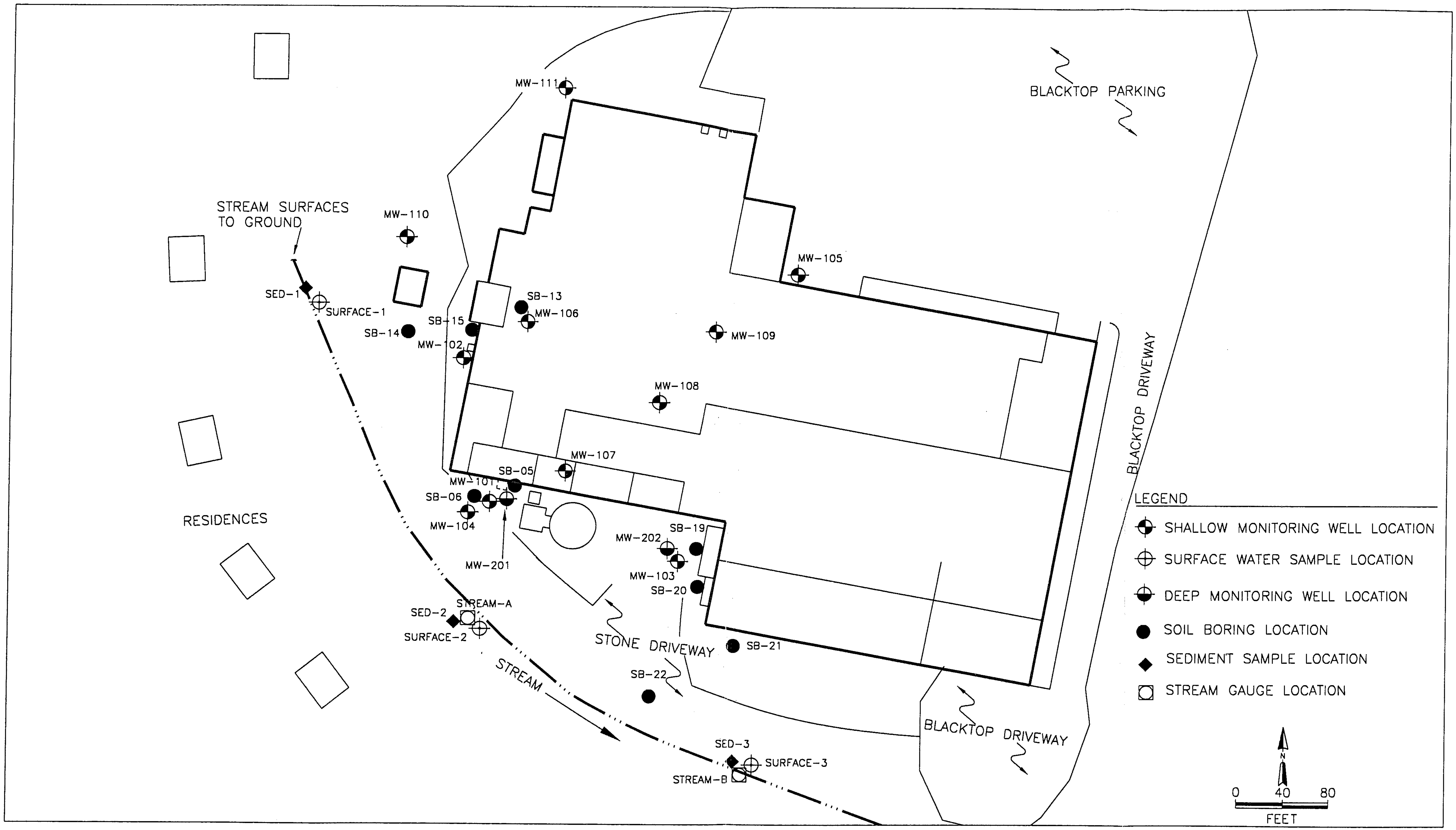
DELTA PROJECT NO. S098-009

Sample ID	Date	VOLATILE ORGANICS (ug/l)															
		Acetone	Methylene Chloride	2-Butanone	Chloroform	Chloroethane	1, 1-Dichoroethane	1, 2-Dichloroethane	cis-1,2-Dichloroethene	Bromodichloromethane	Benzene	Toluene	2-Hexanone	Tetrachloroethene	1,1,1-Trichloroethane	1, 1, 2, 2-Tetrachloroethene	Ethylbenzene	Total Xylenes
Vault	6/23/98	460	95	160	<30	<30	<30	<30	<30	< 30	< 30	<30	< 100	290	<30	< 30	< 30	< 30
Influent	7/17/98	170	< 30	< 100	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 100	< 30	< 30	< 30	< 30	< 30
Effluent	7/17/98	530	33	<100	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 100	41	< 30	< 30	< 30	< 30
Sump-1	7/17/98	78	< 3	< 10	< 3	< 3	< 3	< 3	< 3	5	< 3	< 3	< 10	< 3	< 3	< 3	< 3	< 3

ug/l = micrograms per liter or parts per billion.
Samples were obtained directly from plant processes and; therefore, are not subject to ground water quality standards.

APPENDIX A

APPENDIX B



Delta Environmental Consultants, Inc.

TITLE:
SAMPLE LOCATION MAP
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

DWN: DD/HLW	DES.:	PROJECT NO.: S098-013
CHKD:	APPD:	
DATE: 04/22/99	REV.:	FIGURE NO.: 3

REPORT OF REMEDIAL ACTIVITIES
FORMER EMPTY DRUM STORAGE AREA

CHAMPION PRODUCTS INC.
PERRY, NEW YORK
DEC SITE NO: V00018-9
DELTA PROJECT NO. S098-009

1.0 INTRODUCTION

Effective March 9, 2000, the New York Department of Environmental Conservation (Department) and Champion Products, Inc. entered into a Remedial Voluntary Cleanup Agreement (Agreement) for the above-referenced facility. In accordance with the Agreement, Champion is implementing the Final Remediation Workplan (Workplan) for the facility.

Part of the remedial strategy presented in the Workplan (see Section 2.8) included the excavation and off-site disposal of approximately 250 cubic yards of soil, from the former empty drum storage area (EDSA), that contained tetrachloroethene (PCE) in excess of the Department's Technical Assistance Guidance Manual (TAGM, Appendix A, Table 1) soil objective of 1,400 micrograms per kilogram (ug/kg). The remaining remedial activities, currently being performed, in accordance with the Agreement, include the operation and maintenance of a dual-phase vapor extraction system in the screen wash areas.

This document details the scope of work and results of the EDSA remediation activities performed during November 2000.

2.0 SOIL DELINEATION

As discussed in the Workplan, six soil samples were initially obtained from the EDSA in 1998 at depths ranging from 8–14 feet below ground surface (bgs). Each of the soil samples was analyzed for volatile organic compounds (VOCs) by EPA Method 8260. Tetrachloroethene was reported in soil sample SB-20 (obtained at a depth of 8 feet bgs) at a concentration (2,600 ug/kg) that exceeded the TAGM soil objective of 1,400 ug/kg.

Additional soil sampling was performed on June 10, 1999 to determine the extent and magnitude of PCE in excess of the TAGM soil objective. This sampling included advancing six additional Geoprobe borings (GP-101 through GP-106) to a depth of 15 feet bgs. Three soil samples were obtained from each boring and analyzed for VOCs. The soil samples were obtained at two-foot intervals from depths of 2-4 feet, 8-10 feet and 13-15 feet bgs. Figure 1 presents the 1998 and 1999 sample locations within the EDSA.

Chemistry data from the 18 soil samples obtained in June 1999 reported all VOC concentrations less than the TAGM soil objective. Analytical results from four areas within and adjacent to the EDSA (MW-103, MW-202, SB-21 and SB-22) indicate that ground water in this area does not contain levels of PCE, or any other targeted VOC, above the ground water quality standard.

Historical soil analytical results and ground water analytical results are presented in Tables 1 and 2, respectively.

3.0 SOIL EXCAVATION

On November 9, 2000 approximately 400 cubic yards of soil were excavated from within the areas shown on Figure 2. The excavation was advanced to a depth of 14 feet bgs. Prior to initiating excavation activities, the concrete pad, shown in Figure 1, and associated awning were removed in order to facilitate excavation of additional soil from beneath the former pad area. The soil between ground surface and a depth of 6 feet was removed and reused as backfill (based on previous soil delineation data).

Soil removed from below 6 feet to 14 feet was stockpiled covered with plastic. This material was transported to CWM Chemical Services facility (CWM) in Model City, New York on November 29, 2000 and disposed of as a non-hazardous media. The disposal manifests are included as Appendix A. Based on the information provided on the manifests, 185.74 tons (or approximately 245 cubic yards) of soil were transported to CWM.

Confirmatory sampling was performed to evaluate soil quality at the base and sidewalls of the excavation. Eleven soil samples were obtained from the excavation (seven from the sidewall and four from the bottom) and submitted to Upstate Laboratories, Inc. for analysis of VOCs by EPA Method 8260. Figure 2 shows the approximate location of each confirmatory sample collected. Field screening was performed during the remedial activities using an organic vapor monitor (OVM). The OVM readings are presented in Table 3.

The analytical results indicated that ten of the eleven samples did not contain PCE concentrations greater than the TAGM soil objective. Tetrachloroethene was detected at a concentration of 1,900 ug/kg at sidewall sample SW-1, located approximately 4 feet from the building and at a depth of 12 feet bgs. This concentration exceeds the TAGM soil objective of 1,400 ug/kg. Trichloroethene was also detected in SW-1 at a concentration of 230 ug/kg. This value is below the TAGM soil objective of 700 ug/kg. Additional excavation was not performed east of SW-1 or deeper than 14 feet due to the presence of the building. The analytical results are summarized in Table 4 and a copy of the laboratory analytical report is included in Appendix B.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the activities performed for this investigation, Delta concludes the following:

- Approximately 186 tons of soil containing VOCs were removed from the site and transferred to CWM's facility in Model City, NY for disposal.
- Eleven soil samples were obtained from the sidewalls and base of the excavation.
- One targeted analyte (PCE) was detected along the east sidewall (SW-1) in excess of the TAGM guidance value at a depth of 12 feet bgs. Additional vertical and lateral excavation was not performed due to the presence of the building.
- The analytical results obtained from ground water samples at monitoring wells MW-103 and MW-202 and soil borings SB-21 and SB-22 did not reveal the presence of targeted analytes above ground water quality standards.
- Soil from the ground surface to 12 feet bgs does not exceed the TAGM soil objective for PCE or any other targeted VOCs. The absence of VOCs from this zone and the presence of the adjacent building eliminate the direct contact exposure pathway.
- Total VOCs in the EDSA are below the recommended total VOC soil cleanup objective of 10,000 ug/kg, as discussed in Section 8.6 of the Workplan.

Based on the conclusions provided above, we recommend that no further action be required for the soil or ground water in the former empty drum storage area. Continued quarterly ground water monitoring will be performed at monitoring wells MW-103 and MW-202 as part of the ongoing activities associated with the dual phase vapor extraction system.

Please contact us if you have any questions or comments regarding the items contained in this document.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Heather Watson
Staff Scientist

3/7/01
Date

Stephen A. Zbur, P.G.
Project Manager

3/7/01
Date

TABLES

TABLE 1
HISTORICAL SOIL ANALYTICAL RESULTS
FORMER EMPTY DRUM STORAGE AREA
CHAMPION PRODUCTS INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 06/22/1998 thru 06/10/1999 - Inclusive
SAMPLE TYPE: Soil

SITE	DATE	DEPTH	Tetrachloro ethylene (ug/kg)	Toluene (ug/kg)	Trichloro ethylene (ug/kg)	Bromomethane (ug/kg)	Chloromethane (ug/kg)	cis-1,3-Dichloropropene (ug/kg)
Soil Quality			1400	1500	700			
GP-101	06/10/1999	2.00	<3	<3	8	<3	<3	<3
GP-101	06/10/1999	8.00	<3	<3	5	<3	<3	<3
GP-101	06/10/1999	13.00	<3	<3	9	<3	<3	<3
GP-102	06/10/1999	2.00	<3	<3	<3	39	18	<3
GP-102	06/10/1999	8.00	<3	<3	<3	<3	<3	<3
GP-102	06/10/1999	13.00	4	<3	<3	<3	<3	<3
GP-103	06/10/1999	2.00	<3	<3	<3	<3	<3	<3
GP-103	06/10/1999	8.00	<3	<3	<3	<3	<3	<3
GP-103	06/10/1999	13.00	<3	<3	<3	<3	<3	<3
GP-104	06/10/1999	2.00	200	<3	52	<3	<3	<3
GP-104	06/10/1999	8.00	400	<4	37	<4	<4	<4
GP-104	06/10/1999	13.00	1100	<3	<3	<3	<3	<3
GP-105	06/10/1999	2.00	<3	<3	<3	<3	<3	<3
GP-105	06/10/1999	8.00	<3	<3	<3	<3	<3	<3
GP-105	06/10/1999	13.00	<3	<3	<3	<3	<3	<3
GP-106	06/10/1999	2.00	<3	<3	<3	<3	<3	<3
GP-106	06/10/1999	8.00	<3	<3	<3	<3	<3	<3
GP-106	06/10/1999	13.00	<3	3	16	<3	<3	5
MW-103	06/22/1998	14.00	<3	<3	<3	<3	<3	<3

Soil Quality = NYDEC TAGM Soil Cleanup Objectives for Protection of Ground Water Quality

---=Not analyzed

TABLE 1
HISTORICAL SOIL ANALYTICAL RESULTS
FORMER EMPTY DRUM STORAGE AREA
CHAMPION PRODUCTS INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

ERIOD: From 06/22/1998 thru 06/10/1999 - Inclusive
AMPLE TYPE: Soil

SITE	DATE	DEPTH	Tetrachloro ethylene (ug/kg)	Toluene (ug/kg)	Trichloro ethylene (ug/kg)	Bromomethane (ug/kg)	Chloromethane (ug/kg)	cis-1,3-Dichloropropene (ug/kg)
Soil Quality			1400	1500	700			
MW-202	08/18/1998	10.00	24	<3	<3	<3	<3	<3
SB-19	08/18/1998	8.00	<3	<3	<3	<3	<3	<3
SB-20	08/18/1998	8.00	[2600]	<36	210	<36	<36	<36
SB-21	08/18/1998	8.00	<3	<3	<3	<3	<3	<3
SB-22	11/03/1998	10.00	<1	<1	<1	<1	<1	<1

Soil Quality = NYDEC TAGM Soil Cleanup Objectives for Protection of Ground Water Quality

[]=Greater than Action Level ---=Not analyzed

TABLE 2
GROUND WATER ANALYTICAL RESULTS
FORMER EMPTY DRUM STORAGE AREA
CHAMPION PRODUCTS INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

ERIOD: From 06/25/1998 thru 11/02/2000 - Inclusive
AMPLE TYPE: Water

SITE	DATE	Carbon disulfide (ug/l)	Methylene chloride (ug/l)	Tetrachloro ethylene (ug/l)	Toluene (ug/l)
WQS		50	5	5	5
GP-104	06/10/1999	<3	<3	<3	<3
MW-103	06/25/1998	<3	<3	<3	<3
MW-103	07/17/1998	<3	<3	<3	<3
MW-103	08/18/1998	<3	[16]	<3	[12]
MW-103	11/03/1998	<1	<1	<1	<1
MW-103	07/06/2000	<3	<3	3	<3
MW-103	11/02/2000	---	<0.50	3	<0.50
MW-202	08/21/1998	<3	<3	<3	<3
MW-202	11/05/1998	44	<1	<1	<1
MW-202	07/06/2000	<3	<3	<3	<3
MW-202	11/02/2000	---	<0.50	<0.50	<0.50
SB-21	08/18/1998	<3	<3	<3	<3
SB-22	11/03/1998	<1	<1	<1	<1

WQS= Water Quality Standards (6NYCRR, Table 1, cf. section 703.5)

[]=Greater than Action Level ---=Not analyzed

TABLE 3

FIELD OVM READINGS
FORMER EMPTY DRUM STORAGE AREA
NOVEMBER 9, 2000

Sample Location	Depth of Sample (feet bgs)	OVM Readings (ppm)
CS-1	14	0.0
CS-2	14	1.5
CS-3	14	0.0
CS-4	14	0.0
SW-1	12	1.3
SW-2	12	1.8
SW-3	12	0.5
SW-4	12	1.8
SW-5	12	2.1
SW-6	12	0.6
SW-7	12	0.3

TABLE 4
CONFIRMATORY SOIL ANALYTICAL RESULTS
FORMER EMPTY DRUM STORAGE AREA
CHAMPION PRODUCTS INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

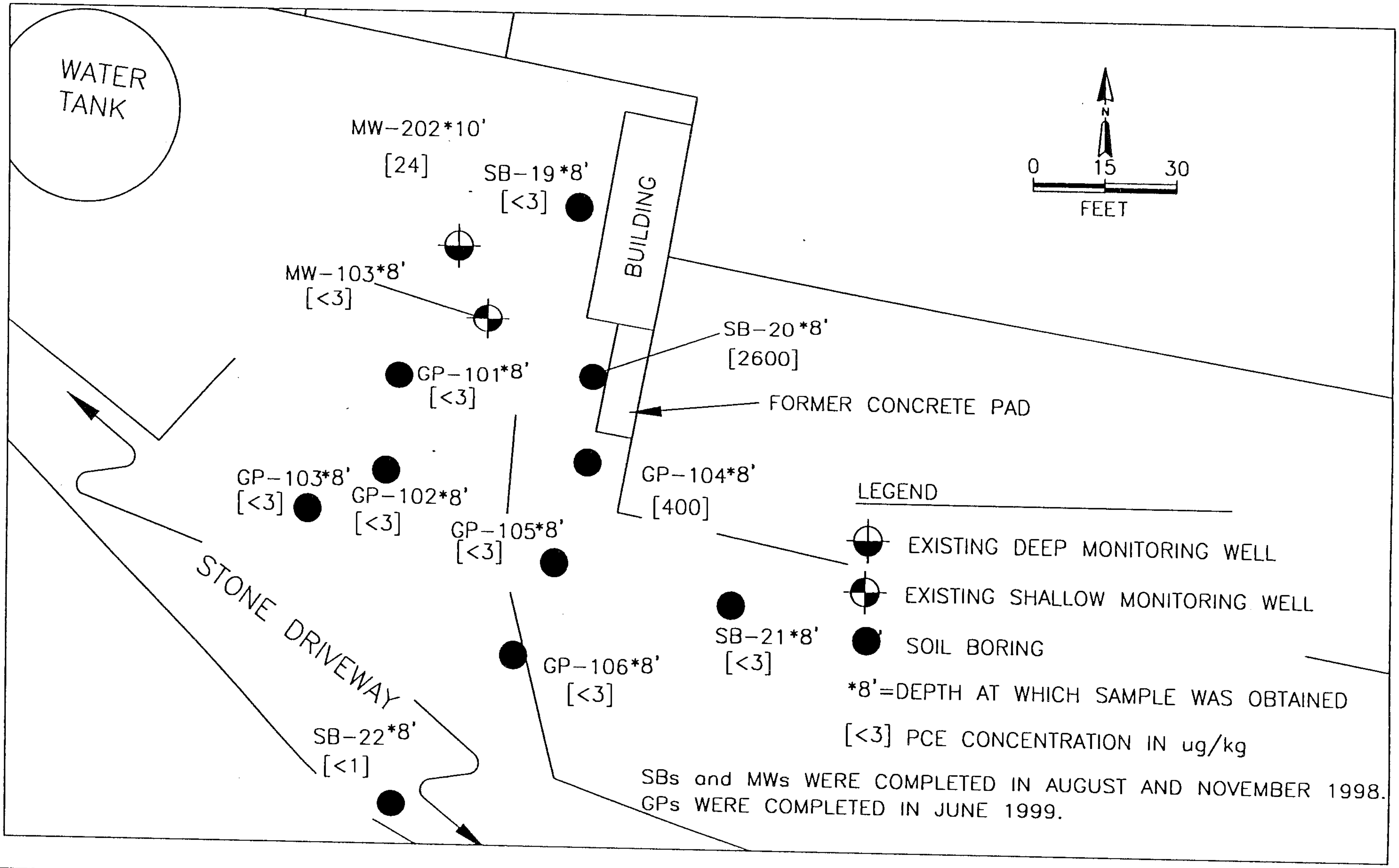
PERIOD: From 11/09/2000 thru 11/09/2000 - Inclusive
SAMPLE TYPE: Soil

SITE	DATE	DEPTH	Tetrachloro ethylene (ug/kg)	Trichloro ethylene (ug/kg)
Soil Quality			1400	700
CS-1	11/09/2000	14.00	37	<3
CS-2	11/09/2000	14.00	37	<3
CS-3	11/09/2000	14.00	4	<3
CS-4	11/09/2000	14.00	<3	<3
SW-1	11/09/2000	12.00	[1900]	230
SW-2	11/09/2000	12.00	150	<3
SW-3	11/09/2000	12.00	210	<17
SW-4	11/09/2000	12.00	8	<4.0
SW-5	11/09/2000	12.00	<3	<3
SW-6	11/09/2000	12.00	<3	<3
SW-7	11/09/2000	12.00	400	<17

Soil Quality = NYDEC TAGM Soil Cleanup Objectives for Protection of Ground Water Quality

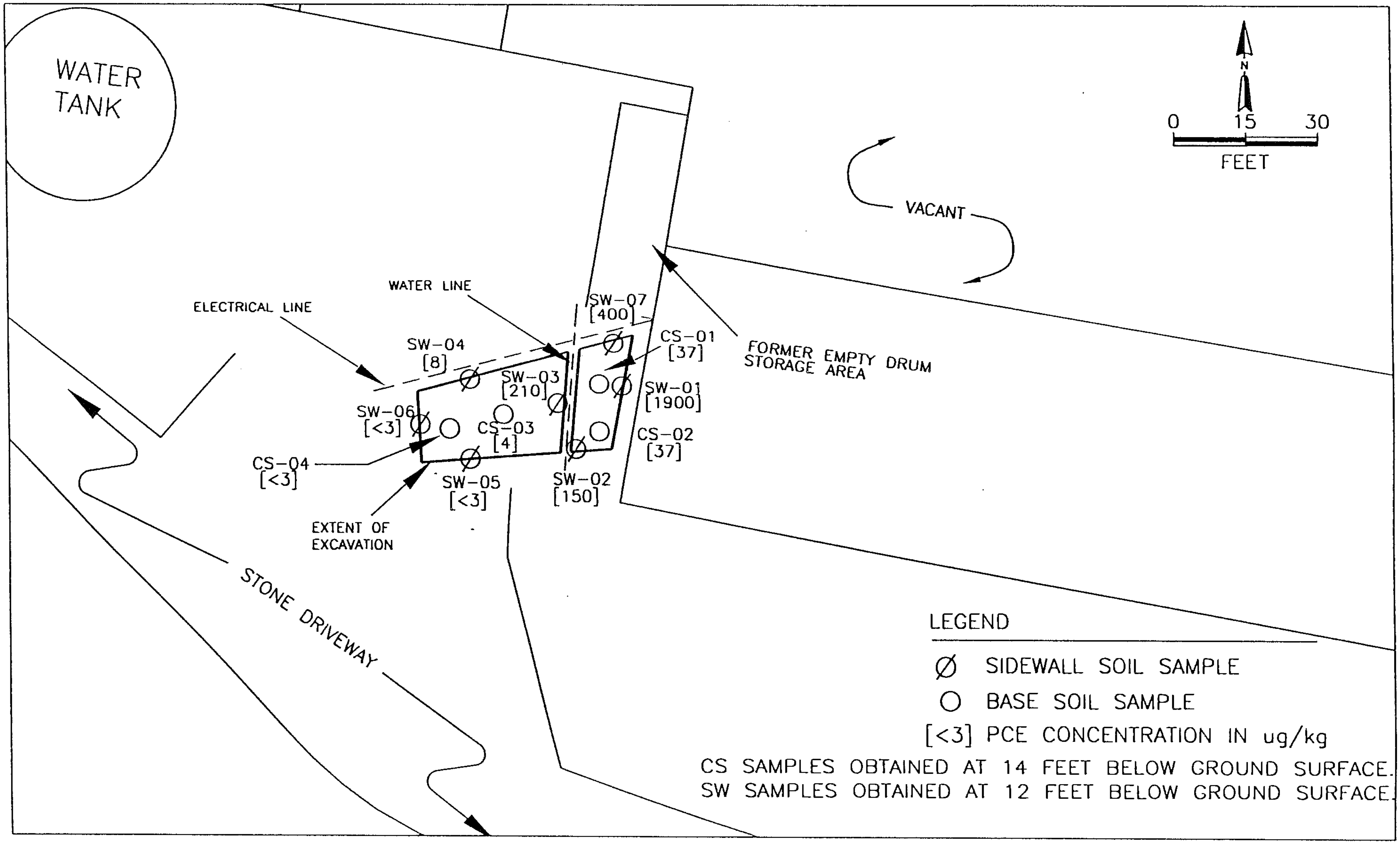
[]=Greater than Action Level ---=Not analyzed

FIGURES



Delta Environmental Consultants, Inc.

TITLE: SOIL CONCENTRATIONS-PCE FORMER EMPTY DRUM STORAGE AREA CHAMPION PRODUCTS COMPANY PERRY, NEW YORK	DWN: HLW	DES.:	PROJECT NO.: S098-009
	CHKD:	APPD:	
	DATE: 8/9/99	REV.:	FIGURE NO.: 1



Delta Environmental Consultants, Inc.

TITLE:

SOIL EXCAVATION AREA/ CONFIRMATORY SAMPLES
FORMER EMPTY DRUM STORAGE AREA
CHAMPION PRODUCTS COMPANY
PERRY, NEW YORK

DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	
DATE: 8/9/99	REV.:	FIGURE NO.: 2

RESULTS OF FEBRUARY 2003 SITE CHARACTERIZATION AND PROPOSED MODIFICATIONS TO FINAL REMEDIATION WORKPLAN

FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
DELTA PROJECT NO.: S098-009

Prepared by:

Delta Environmental Consultants, Inc.
4068 Mt. Royal Boulevard
Suite 225, Gamma Building
Allison Park, PA 15101

June 2003

Delta
Environmental
Consultants, Inc.

4068 Mt. Royal Boulevard
Suite 225-Gamma
Allison Park, Pennsylvania 15101-2951
USA
412/487-7700
FAX: 412/487-9785

June 5, 2003

New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Attention: Maurice Moore
Project Manager

Subject: **Results of February 2003 Site Characterization and Proposed Modifications to the Final Remediation Workplan**
Former Champion Products, Inc.
Perry, New York
DEC Site No. V000189-9
Delta Project No. S098-009

Dear Mr. Moore:

On behalf of Champion Products, Inc., Delta Environmental Consultants, Inc. is submitting the referenced report, which presents results of the additional site characterization (SC) performed in February 2003. We are also proposing specific modifications to the Final Remediation Workplan.

The SC resulted in collection of 35 soil samples and installation of three monitoring wells in the former and current screen wash areas. This assessment was conducted to evaluate the effectiveness of on-going remedial activities and determine the remaining concentrations of volatile organic compounds in the subsurface soil and groundwater.

Based on the data obtained from this SC, significant progress has been made to date towards achieving the site-specific cleanup goals. To further the remediation at the site, we are recommending implementation of specific modifications to the current configuration of the dual-phase vapor extraction system. We believe that these modifications will not only improve the remediation effort, but also move the project towards closure in the near future.

If you have any questions, please contact either of the undersigned.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Stephen A. Zbur, P.G.
Senior Consultant
(412) 487-7703

Anthony Savino
Senior Consultant
(914) 765-0258

Enclosure

/S098-009/Letter Report.doc

cc: George Johnson, Sara Lee
Ed Gagliardy, American Classic Outfitters
Maureen Crough, Sidley Austin Brown & Wood
Sam Gullo, SMG Development, Inc.
Paul Sylvestri, Harter Secrest & Emery, LLP
Harry Parker, Esq
Andrew English, NYSDEC
Gary Litwin, NYSDOH
Matt Forcucci, NYSDOH
John McMahon, NYSDEC

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

RESULTS OF FEBRUARY 2003 SITE CHARACTERIZATION AND PROPOSED MODIFICATIONS TO FINAL REMEDIATION WORKPLAN

FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
DEC SITE NO. V000189-9
DELTA PROJECT NO. S098-009

1.0 SCOPE OF WORK

On February 4 and 5, 2003, eighteen Geoprobe borings were advanced to depths ranging from 12 to 16 feet below ground surface (bgs). Eleven Geoprobe borings (SCRW-1 though SCRW-10 and MM-1) were advanced in the former manual screen wash area at the locations shown on Figure 1. The purpose of advancing these Geoprobe borings was to obtain soil samples from locations proximate to impacted areas that were identified in Final Remediation Workplan (Delta 2000) and to better determine the current extent and magnitude of impacted soil. In addition, the soil sampling results were used also determine the effectiveness to date of the on site remediation system.

The additional sampling was proposed in our Remediation Monitoring Report, October 2001 through September 2002 and the details of the sampling were presented in our Proposed Scope of Work and Schedule, which was submitted to the NYDEC on January 27, 2003.

Seven Geoprobe borings (CSW-1 through CSW-7) were advanced in the current screen wash area at the locations shown on Figure 1. These borings were advanced in order to obtain additional soil data to assist in determining if residual phase VOCs were present in the vicinity of monitoring well MW-107 and extraction well DVE-107.

Two soil samples were obtained from each Geoprobe boring (with the exception of SCRW-9) and submitted to Upstate Laboratories for analysis by EPA Method 8260. A copy of the laboratory report is presented as Appendix A. The soil sample from each boring that displayed the highest field organic vapor monitor (OVM) reading was submitted along with a second sample from the base of each boring. If elevated OVM readings were not observed at a Geoprobe boring, then a sample was collected from the higher permeable unit (sand/ gravel) that occurs between 8 and 12 feet bgs.

2.0 SOIL ANALYTICAL RESULTS

Table 1 presents the sample depth and targeted volatile organic compounds (VOCs) reported above laboratory analytical method detection limits. Review of Table 1 indicates concentrations of carbon disulfide, toluene and total xylenes are present in concentrations above Technical Assistance Guidance Manual (TAGM) 4046 soil cleanup objectives at four of the 21 sample locations within the former manual screen wash area. The remaining targeted VOCs are one to two orders of magnitude below the TAGM levels within the current screen wash area.

To evaluate the effectiveness of the on-going remedial activities within the former manual screen wash area, four Geoprobe borings (SCRW-1 through SCRW-3 and SCRW-7) were advanced at locations proximate to previous soil samples obtained in 1998 and presented in the Final Remediation Workplan. Review of Table 2 indicates a reduction of targeted analyte soil concentrations. The magnitude of reduction ranges from 51% to 99% from concentrations observed at the initial start-up of the remediation system.

Figure 2 illustrates the extent of VOCs in soil at concentrations above the TAGM levels in 1998 as compared to February 2003. Review of Figure 2 indicates a shrinking area of impacted soil.

Analytical results of the 14 soil samples obtained from the current screen wash area did not indicate the presence of VOCs above the TAGM soil cleanup objectives. 1-1-dichloroethane (DCA) and 1,1,1-trichloroethane (TCA) were not detected in soil samples CSW-5 and CSW-6 (located proximate to monitoring well MW-107, which continues to display increasing concentrations of dissolved DCA and TCA). The NYSDEC requested that the depth of contamination in the current screen wash area be determined since DCA and TCA have a density greater than water, and would tend to migrate through the vadose zone and saturated portions of the aquifer.
To determine if DCA and TCA were present at depth beneath the water table, Geoprobe boring CSW-6 was advanced to a depth of 16 feet bgs and a sample was collected from 15 – 15.5 ft bgs. The soil sample obtained from this boring did not contain VOCs above the laboratory detection limit.

DCA soil concentrations within the current screen wash area have been centrally located around MW-107. Current concentrations of DCA within the screen wash area have been reduced by 93% to a concentration below the laboratory analytical detection limit.

3.0 GROUND WATER ANALYTICAL RESULTS

As part of the February 2003 SC, three additional monitoring wells (CSW-01, CSW-06 and SCRW-05) were installed at the areas shown on Figure 1. These wells were installed to determine the lateral extent of dissolved VOCs within both screen wash areas. Each monitoring well was advanced to a depth of approximately 15 feet bgs and completed with 10 feet of one-inch PVC slotted screen. Boring logs and monitoring well construction characteristics are presented as Appendix B.

In February 2003, ground water samples were collected from all site monitoring wells, as part of the quarterly ground water sampling event. Table 3 presents a summary of ground water analytical results from the 2003 quarterly sampling event and contains all VOCs reported above the analytical method detection limit. The NYSDEC Class GA Ground Water Standard is also listed for each analyte. A summary of the VOCs detected in the ground water is presented below:

Analyte	Frequency of Detection	Range of Concentration (ug/l)	Detections That Exceed Ground Water Standard	NYSDEC Ground Water Standard (ug/l)
TCA	5/21	<0.50 - 79	3	5
DCA	8/21	<0.50 - 3500	5	5
1,2,4-Trimethylbenzene	4/21	<0.50 - 630	1	5
1,3,5-Trimethylbenzene	2/21	<0.50 - 140	1	5
Cumene	1/21	<0.50 - 26	1	5
1,1-Dichloroethene (DCE)	3/21	<0.50 - 38	1	5
Ethylbenzene	1/21	<0.50 - 0.6	0	5
Methylene chloride	6/21	<0.50 - 51	6	5
Naphthalene	2/21	<0.50 - 56	1	10
n-Butylbenzene	3/21	<0.50 - 270	1	5
n-Propylbenzene	1/21	<0.50 - 71	1	5
p-Cymene	1/21	<0.50 - 54	1	5
sec-Butylbenzene	1/21	<0.50 - 55	1	5

Analyte	Frequency of Detection	Range of Concentration (ug/l)	Detections That Exceed Ground Water Standard	NYSDEC Ground Water Standard (ug/l)
tert-Butylbenzene	1/21	<0.50 - 0.8	0	5
Tetrachloroethene	6/21	<0.50 - 18	1	5
Toluene	3/21	<0.50 - 7200	2	5
Xylene (total)	2/21	<1.0 - 51	2	5
1,1,1,2-Tetrachloroethane	1/21	<0.50 - 0.9	0	N/S
1,2,4-Trichlorobenzene	1/21	<0.50 - 490	1	5
Benzene	1/21	<0.50 - 1	1	1
Bromoform	1/21	<0.50 - 0.9	0	N/S
Chloroethane	2/21	<0.50 - 350	2	5
Chloroform	3/21	<0.50 - 10	2	7
Methyl chloride	2/21	<0.50 - 3	0	5

NS = No standard has been established.

All targeted VOCs continue to be below the analytical method detection limit or the NYSDEC ground water standards at seven of the water table monitoring wells (MW-101, MW-102, MW-104, MW-105, MW-108, MW-110 and CSW-06) and both telescoping monitoring wells (MW-201 and MW-202).

The on-going remedial activities have successfully reduced the dissolved phase VOC within the manual screen wash area. Ground water at monitoring wells MW-106, DVE-106 and SCRW-05 continue to exhibit dissolved concentrations of chlorinated VOCs (and associated degradation products) and non-chlorinated VOCs (which are constituents of mineral spirits) in excess of the NYSDEC ground water standards.

Table 4 presents the change in dissolved analyte concentration for VOCs that have displayed the highest concentration at each monitoring and extraction well. Review of Table 4 indicates that dissolved toluene was present at 48,000 micrograms per liter (ug/l) in ground water at monitoring well MW-106 in August 1998. The February 2003 data indicates a 99.94% decrease of toluene at monitoring well MW-106 since that time.

Dissolved isoconcentrations maps for toluene, DCA and TCA are presented in Figures 3 through 5, respectively. Review of these figures indicates ground water at SCRW-05 (located proximate to the former manual screen wash area) currently displays the greatest dissolved phase concentrations of toluene and DCA.

Ground water within the current screen wash area at monitoring well MW-107 continues to exhibit dissolved concentrations of chlorinated VOCs (DCA, TCA and DCE) in excess of the NYSDEC ground water standards. The greatest VOC concentration continues to be DCA at a concentration of 410 ug/l from the February 2003 sampling round. Historically, dissolved DCA concentrations at monitoring well MW-107 have increased from 350 ug/l at start up to 580 ug/l as of August 2002. After August 2002, DCA has been reduced by 30% to the current concentration of 410 ug/l.

Ground water at monitoring well MW-105 continues to display concentrations of DCA (14 ug/l) and TCA (7 ug/l) in excess of the NYSDEC ground water standard of 5 ug/l. These dissolved concentrations have persisted in ground water at this location since monitoring well MW-105 was installed in June 1998.

4.0 LIGHT NON-AQUEOUS PHASE LIQUID

Light non-aqueous phase liquids (LNAPL) have been observed on the water table at monitoring well MW-106 since August 2002. The LNAPL thicknesses have ranged from approximately 0.08 to 0.12 feet and the LNAPL resembles weathered mineral spirits. This appearance is consistent with LNAPL observed in extraction well DVE-101 after system startup in July and August 2000. LNAPL has not been observed in other monitoring or extraction wells, other than MW-106, since August 2000.

5.0 REMEDIAL GOALS

As discussed in the Final Remediation Workplan, the proposed soil cleanup target is total VOCs less than 10 mg/kg. This recommendation was proposed in accordance with TAGM procedures for determination of soil cleanup objectives (Part B: Procedure for Determination of Soil Cleanup Objectives). Proposed specific analyte soil cleanup objectives are either: 1) the TAGM recommended soil cleanup objective, or 2) 1 mg/kg, whichever is greater. Champion also reserves the right to request alternative remedial goals if it is determined that achievement of the proposed remedial goals is not feasible.

After the soil objectives have been obtained or determined not feasible for the site, ground water quality will be evaluated to determine the affect that remedial activities have had on the ground water based on source removal of residual phase VOCs in the soil. Specific ground water cleanup objectives will be proposed, if necessary, after the soil remediation is complete.

6.0 CONCLUSIONS

Based on the results of the February 2003 additional SC, we offer the following conclusions:

- The DPVE system has removed approximately 51% to 99.9% of the VOCs from soil in both screen wash areas within the extraction wells radius of influence since start-up in July 2000.
- Toluene, total xylenes and carbon disulfide continue to be present in the soil beneath the former manual screen wash area at concentrations in excess of the soil cleanup objective at locations SCRW-5, SCRW-8 and SCRW-10.
- Total xylenes and toluene concentrations have been reduced in the soil beneath the former manual screen wash area to levels below the TAGM recommended soil cleanup objective at areas within the extraction wells radius of influence.
- Dissolved phase VOCs within the former manual screen wash area have been reduced approximately 78% to 100% at areas within the extraction wells radius of influence.
- Dissolved phase VOCs continue to be present in ground water proximate to the former manual screen wash area at monitoring wells SCRW-05 and MW-106 (at areas outside of the extraction wells radius of influence).
- LNAPL continues to be present on the water table surface at monitoring well MW-106.
- Quarterly ground water analytical results from extraction wells DVE-103, DVE-104 and DVE-105 continue to indicate all targeted VOC concentrations are below the NYSDEC ground water quality standards.
- The results of the soil data obtained from the current screen wash area does not indicate the presence of DCA and TCA above the soil cleanup objective, therefore, soil within this area is not a source of dissolved phase VOC present in the ground water at monitoring well MW-107.

- Dissolved DCA concentrations within the current screen wash area are not present at levels above the ground water quality standard with the exception of MW-107.

7.0 RECOMMENDATIONS

Based on the conclusions referenced above, we recommend the following modifications to Final Remediation Workplan:

- To enhance the removal of residual and dissolved phase VOCs utilizing the existing extraction and treatment system, the following modifications should be made to the extraction configuration:
  - Extraction wells DVE-103, 104 and 105 should be removed from the extraction process due to the continued absence of VOCs above the NYSDEC ground water objectives.
  - Two additional extraction wells (DVE-108 and DVE-109) should be installed within the former manual screen wash area at the locations shown in Figure 6 and connected to the DPVE system.
  - Monitoring well MW-107 should be converted into an extraction well and also connected to the DPVE system to increase removal of dissolved phase VOCs at this location.
- After the additional extraction wells are installed and brought on-line, we propose to operate the DPVE system in the new configuration for one year or until recoveries from the new extraction wells have become asymptotic with time, whichever occurs earlier. At the completion of the additional O&M and quarterly ground water monitoring for such system operation, supplemental soil sampling will be performed at the locations that currently display VOCs in excess of the TAGM soil objectives in order to determine if clean up objectives have been met.
- After the additional soil sampling is completed, recommendations will be made with respect to achieving the proposed soil and ground water objectives or developing alternatives based on current and future exposure pathways, as provided in the Final Remediation Workplan.

8.0 SCHEDULE

The proposed DPVE system modifications will be completed in accordance with the following schedule:

Task	Completed by:
Installation of additional DPVE wells.	30 days following NYSDEC approval of the proposed modifications.
Connect DVE-108, DVE-109 and MW-107 to the DPVE extraction system and initiate revised extraction activities.	45 days after NYSDEC approval of the proposed modifications.

9.0 REMARKS

The observations and recommendations contained in this document represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry and engineering practices at this time for this location. Other than this, no other warranties are implied or intended.

This report was prepared by:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Stephen A. Zbur, P.G.
Senior Consultant

6/5/03
Date

Reviewed by:

Anthony Savino
Senior Consultant

6-5-03
Date

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
FEBRUARY 2003
Former Champion Products, Inc.
Perry, New York
Delta Project No. S098-009

FORMER MANUAL SCREEN WASH AREA

SAMPLE ID	DEPTH (FEET)	METHYLENE CHLORIDE	ACETONE	CARBON DISULFIDE	DCA	TCA	PCE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
SCRW-1	4.5 - 5.0	13	28	<3	<3	<3	<3	<3	<3	<3
	14 - 15	<3	45	<3	<3	<3	<3	<3	<3	<3
SCRW-2	9.0 - 9.5	<280	<950	<280	<280	<280	<280	<280	<280	<280
	14.5 - 15.0	<3	64	<3	<3	<3	<3	8	<3	5
SCRW-3	7.5 - 8.0	<3	37	<3	10	<3	<3	<3	<3	<3
	10.7 - 11.2	<280	<940	<280	<280	<280	<280	<280	<280	<280
SCRW-4	6.5 - 7.0	<3	19	<3	<3	<3	6	8	<3	5
	9.0 - 9.5	<3	30	<3	<3	7	200	<3	<3	<3
SCRW-5	9.0 - 9.5	<270	<920	<270	<270	<270	<270	300	<270	<270
	10.0 - 10.5	<280	<930	<280	<280	<280	<280	**2600**	<280	<280
SCRW-6	9.0 - 9.5	<3	86	<3	7	<3	4	13	8	10
	14.5 - 15.0	<3	46	<3	<3	<3	<3	5	<3	<3
SCRW-7	10.0 - 10.5	<16	110	<16	<16	<16	<16	270	<16	<16
	14.5 - 15.0	<3	39	<3	<3	<3	<3	120	<3	4
SCRW-8	8.0 - 8.5	<3	49	<3	22	<3	10	20	<3	5
	10.5 - 11.0	<540	<180	<540	<540	<540	<540	**4400**	<540	**2,040**
SCRW-9	6.5 - 7.0	<3	28	<3	<3	<3	<3	7	<3	<3
SCRW-10	9.0 - 9.5	<280	<930	**4800**	<280	<280	<280	<280	<280	<280
	10.5 - 11.0	<550	<1800	<550	<550	<550	<550	**13000**	610	**6,600**
MM-1	8.0 - 8.5	<3	41	<3	<3	<3	<3	<3	<3	<3
	11.0 - 11.5	<3	70	<4	11	7	**<4**	<4	<4	<3
SOIL CLEANUP OBJECTIVE		**100**	**110**	**2700**	**200**	**760**	**1400**	**1500**	**5500**	**1200**

All values are reported as micrograms per kilogram.
DCA = 1,1-dichloroethane
TCA = 1,1,1-trichloroethane
PCE = tetrachloroethene
Soil Cleanup Objective = Determination of soil cleanup objectives and cleanup levels, TAGM #4046

TABLE 1
SOIL ANALYTICAL RESULTS
FEBRUARY 2003
Former Champion Products, Inc.
Perry, New York
Delta Project No. S098-009

CURRENT SCREEN WASH AREA

SAMPLE ID	DEPTH (FEET)	METHYLENE CHLORIDE	ACETONE	CARBON DISULFIDE	DCA	TCA	PCE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
CSW-1	9.5 - 10.0	<3	40	<3	<3	<3	<3	5	<3	<6
	11.5 - 12.0	<3	58	<3	<3	<3	<3	<3	<3	<6
CSW-2	5.5 - 6.0	<3	36	<3	6	<3	<3	<3	<3	<6
	9.0 - 9.5	<3	50	<3	6	<3	<3	<3	<3	<6
CSW-3	7.0 - 7.5	11	45	<3	<3	<3	<3	<3	<3	<6
	9.5 - 10.0	<3	48	<4	<4	<4	<4	<4	<4	<8
CSW-4	10.2 - 10.6	<3	47	<3	<3	6	5	<3	<3	<6
	14.0 - 14.5	<3	61	<3	<3	<3	<3	<3	<3	<6
CSW-5	6.0 - 6.5	<3	26	<3	<3	<3	<3	<3	<3	<6
	13.0 - 13.5	<3	75	<3	<3	<3	<3	<3	<3	<6
CSW-6	8.5 - 9.0	<3	64	<3	<3	<3	<3	<3	<3	<6
	15.0 - 15.5	16	50	<3	<3	<3	<3	3	<3	<6
CSW-7	4 - 8	<3	24	<3	<3	<3	4	<3	<3	<6
	12 - 13	<3	55	<3	<3	<3	<3	<3	<3	<6
SOIL CLEANUP OBJECTIVE		**100**	**110**	**2700**	**200**	**760**	**1400**	**1500**	**5500**	**1200**

All values are reported as micrograms per kilogram.
DCA = 1,1-dichloroethane
TCA = 1,1,1-trichloroethane
PCE = tetrachloroethene
Soil Cleanup Objective = Determination of soil cleanup objectives and cleanup levels, TAGM #4046

TABLE 2
VOLATILE ORGANIC COMPOUNDS SOIL REDUCTIONS
1998 - 2003
Former Champion Products, Inc.
Perry, New York
Delta Project No. S098-009

FORMER MANUAL SCREEN WASH AREA							
1998 SAMPLE ID	**CONCENTRATION**	**2003 SAMPLE ID DEPTH 1**	**CONCENTRATION**	**% REDUCTION**	**2003 SAMPLE ID DEPTH 2**	**CONCENTRATION**	**% REDUCTION**
SB-13		**SCRW-07 (10.0 - 10.5)**			**SCRW-07 (14.5 - 15.0)**		
TOTAL XYLENES	7500	TOTAL XYLENES	16	99.8%	TOTAL XYLENES	4	99.9%
TOLUENE	140000	TOLUENE	270	99.8%	TOLUENE	120	99.9%
PCE	530	PCE	8	98.5%	PCE	1.5	99.7%
SB-15		**SCRW-01 (4.5 - 5.0)**			**SCRW-01 (14 - 15)**		
TOTAL XYLENES	1850	TOTAL XYLENES	3	99.8%	TOTAL XYLENES	3	99.8%
TOLUENE	12000	TOLUENE	1.5	100.0%	TOLUENE	1.5	100.0%
PCE	57	PCE	1.5	97.4%	PCE	1.5	97.4%
MW-106		**SCRW-03 (7.5 - 8.0)**			**SCRW-03 (10.7 - 11.2)**		
TOTAL XYLENES	1390	TOTAL XYLENES	3	99.8%	TOTAL XYLENES	280	79.9%
TOLUENE	16000	TOLUENE	1.5	100.0%	TOLUENE	140	99.1%
PCE	23	PCE	1.5	93.5%	PCE	140	N/A
MW-102		**SCRW-02 (9.0 - 9.5)**			**SCRW-02 (14.5 - 15.0)**		
TOTAL XYLENES	1660	TOTAL XYLENES	280	83.1%	TOTAL XYLENES	5	99.7%
TOLUENE	11000	TOLUENE	140	98.7%	TOLUENE	8	99.9%
PCE	290	PCE	140	51.7%	PCE	1.5	99.5%

CURRENT SCREEN WASH AREA							
1998 SAMPLE ID	**CONCENTRATION**	**2003 SAMPLE ID DEPTH 1**	**CONCENTRATION**	**% REDUCTION**	**2003 SAMPLE ID DEPTH 2**	**CONCENTRATION**	**% REDUCTION**
MW-107		**CSW-05 (6.0 - 6.5)**			**CSW-05 (13.0 - 13.5)**		
TOTAL XYLENES	2	TOTAL XYLENES	3	N/A	TOTAL XYLENES	3	N/A
TOLUENE	2	TOLUENE	1.5	N/A	TOLUENE	1.5	N/A
PCE	2	PCE	1.5	N/A	PCE	1.5	N/A
DCA	22	DCA	1.5	93.2%	DCA	1.5	93.2%
MW-101		**CSW-07 (4 - 8)**			**CSW-07 (12 - 13)**		
TOTAL XYLENES	1.5	TOTAL XYLENES	3	N/A	TOTAL XYLENES	3	N/A
TOLUENE	1.5	TOLUENE	1.5	N/A	TOLUENE	1.5	N/A
PCE	1.5	PCE	4	N/A	PCE	1.5	N/A
DCA	1.5	DCA	1.5	N/A	DCA	1.5	N/A

All values are reported as micrograms per kilogram.
DCA = 1,1-dichloroethane
TCA = 1,1,1-trichloroethane
PCE = tetrachloroethene
Red text indicates concentration is below the analytical detection limit.
Reported value is 1/2 the analytical detection limit.
N/A = % Reduction does not apply since the 1998 concentration for the selected analyte was below the analytical detection limit or the 2002 concentration was below the analytical detection limit, which is greater that the corresponding 1998 concentration

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,1,1-trichloro ethane (ug/l)	1,1-Dichloro ethane (ug/l)	1,2,4-Trimethyl benzene (ug/l)	1,3,5-Trimethyl benzene (ug/l)	Isopropyl benzene (ug/l)	Chloroethane (ug/l)	Chloroform (ug/l)
WQS		5	5	5	5	5	5	7
CSW-01	02/05/2003	[12]	[26]	3	0.7	<0.50	<0.50	[10]
CSW-06	02/06/2003	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
DVE-101	02/05/2003	1	0.6	0.6	<0.50	<0.50	<0.50	[7]
DVE-102	02/05/2003	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	1	<0.50	<0.50	<0.50	<0.50
DVE-107	02/05/2003	<0.50	0.9	<0.50	<0.50	<0.50	<0.50	<0.50
MW-101	02/05/2003	1	3	<0.50	<0.50	<0.50	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2
MW-105	02/05/2003	[7]	[14]	<0.50	<0.50	<0.50	<0.50	<0.50
MW-106	02/05/2003	<25	[340]	[630]	[140]	[26]	[27]	<25
MW-107	02/05/2003	[79]	[410]	<10	<10	<10	<10	<10
MW-108	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,1,1-trichloro ethane (ug/l)	1,1-Dichloro ethane (ug/l)	1,2,4-Trimethyl benzene (ug/l)	1,3,5-Trimethyl benzene (ug/l)	Isopropyl benzene (ug/l)	Chloroethane (ug/l)	Chloroform (ug/l)
WQS		5	5	5	5	5	5	7
MW-201	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
SCRW-05	02/05/2003	<250	[3500]	<250	<250	<250	[350]	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	cis-1,2-Dichloro ethylene (ug/l)	Ethylbenzene (ug/l)	Methylene chloride (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propyl benzene (ug/l)	4-Isopropyl toluene (ug/l)
WQS		5	5	5	10	5	5	5
CSW-01	02/05/2003	0.9	0.6	[12]	1	0.6	<0.50	<0.50
CSW-06	02/06/2003	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
DVE-101	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-102	02/05/2003	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	[11]	<0.50	<0.50	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	[10]	<0.50	<0.50	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-107	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-101	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-105	02/05/2003	2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-106	02/05/2003	<25	<25	[51]	[56]	[270]	[71]	[54]
MW-107	02/05/2003	[38]	<10	[26]	<10	<10	<10	<10
MW-108	02/05/2003	<0.50	<0.50	<0.50	<0.50	0.7	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	[8]	<0.50	<0.50	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	cis-1,2-Dichloro ethylene (ug/l)	Ethylbenzene (ug/l)	Methylene chloride (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propyl benzene (ug/l)	4-Isopropyl toluene (ug/l)
WQS		5	5	5	10	5	5	5
MW-201	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
SCRW-05	02/05/2003	<250	<250	<250	<250	<250	<250	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	sec-Butyl benzene (ug/l)	tert-Butyl benzene (ug/l)	Tetrachloro ethylene (ug/l)	Toluene (ug/l)	Xylene (total) (ug/l)	1,2,4-Trichloro benzene (ug/l)	Benzene (ug/l)
WQS		5	5	5	5	5	5	1
CSW-01	02/05/2003	<0.50	0.8	<0.50	3	[5]	<0.50	[1]
CSW-06	02/06/2003	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0
DVE-101	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
DVE-102	02/05/2003	<3.0	<3.0	<3.0	<3.0	<6.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	2	<0.50	<1.0	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	1	<0.50	<1.0	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
DVE-107	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-101	02/05/2003	<0.50	<0.50	2	<0.50	<1.0	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	[18]	<0.50	<1.0	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-105	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-106	02/05/2003	[55]	<25	<25	[30]	[51]	<25	<25
MW-107	02/05/2003	<10	<10	<10	<10	<20	<10	<10
MW-108	02/05/2003	<0.50	<0.50	0.6	<0.50	<1.0	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	0.9	<0.50	<1.0	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	sec-Butyl benzene (ug/l)	tert-Butyl benzene (ug/l)	Tetrachloro ethylene (ug/l)	Toluene (ug/l)	Xylene (total) (ug/l)	1,2,4-Trichloro benzene (ug/l)	Benzene (ug/l)
WQS		5	5	5	5	5	5	1
MW-201	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
SCRW-05	02/05/2003	<250	<250	<250	[7200]	<750	[490]	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Chloromethane (ug/l)	1,1,1,2-Tetra chloroethane (ug/l)	Bromoform (ug/l)
WQS		5		
CSW-01	02/05/2003	0.7	0.9	<0.50
CSW-06	02/06/2003	<5.0	<5.0	<5.0
DVE-101	02/05/2003	3	<0.50	<0.50
DVE-102	02/05/2003	<3.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	<0.50
DVE-107	02/05/2003	<0.50	<0.50	0.9
MW-101	02/05/2003	<0.50	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50
MW-105	02/05/2003	<0.50	<0.50	<0.50
MW-106	02/05/2003	<25	<25	<25
MW-107	02/05/2003	<10	<10	<10
MW-108	02/05/2003	<0.50	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Chloromethane (ug/l)	1,1,1,2-Tetra chloroethane (ug/l)	Bromoform (ug/l)
WQS		5		
MW-201	02/05/2003	<0.50	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50
SCRW-05	02/05/2003	<250	<250	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

---=Not analyzed

TABLE 4
PERCENT CHANGE IN DISSOLVED ANALYTE CONCENTRATION
Former Champion Products, Inc.
Perry, New York
Delta Project No: S098-009-5

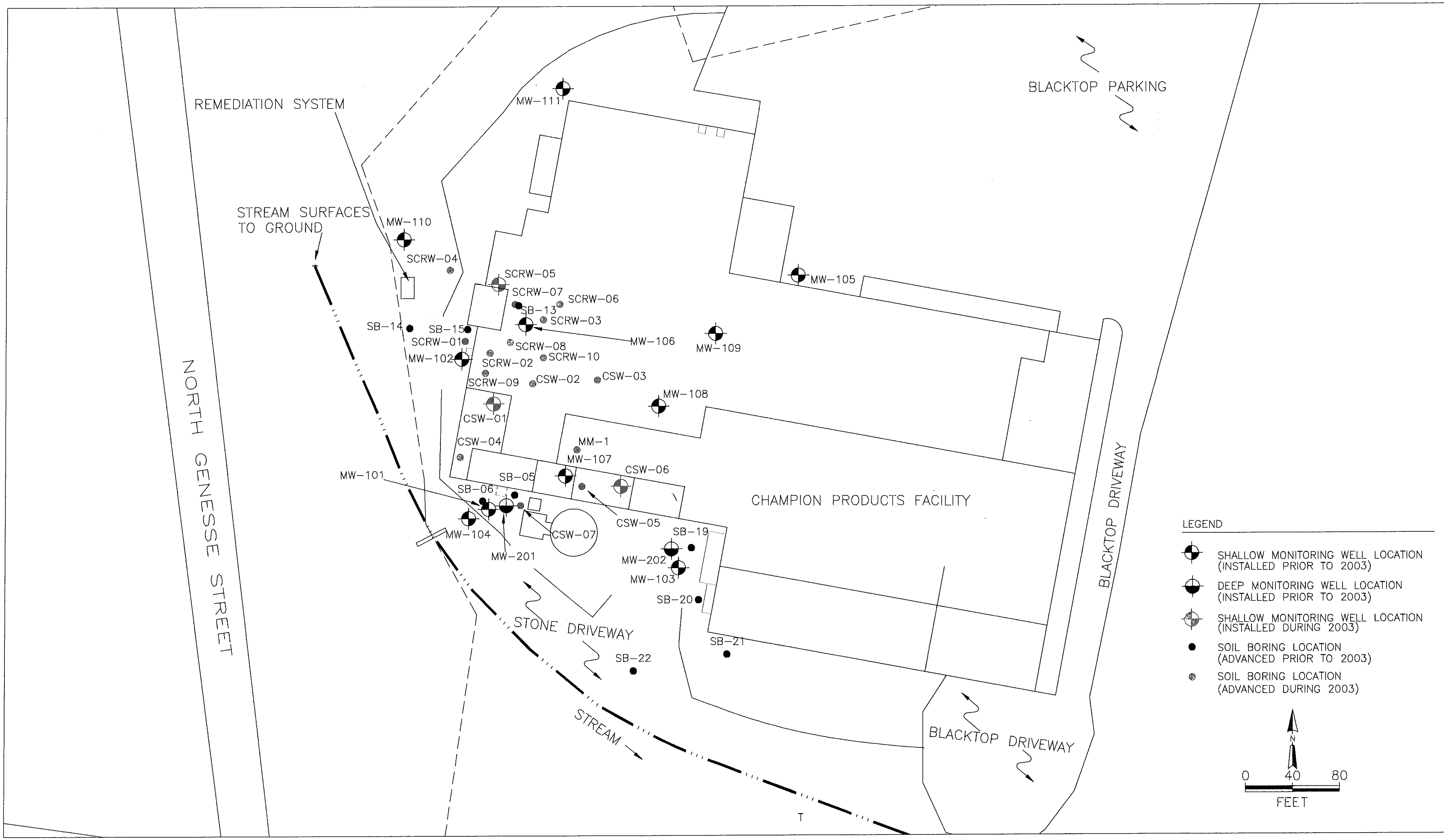
Monitoring Well	VOC with Highest Dissolved Concentration	Prior to System Startup			After System Startup											% change since start-up or well installation	
		Aug-98	Nov-98	Jul-00	Sep-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03		
DVE-101	Toluene	NI	NI	8,300	**15,000**	880	2,400	660	610	<5	<1	<0.5	0.25	0.25	0.25	100.00%	decrease
DVE-101	1,2,4-Trimethylbenzene	NI	NI	NA	**15,000**	320	200	67	<25	19	<1	<0.5	0.25	1	0.6	100.00%	decrease
DVE-101	n-Butylbenzene	NI	NI	NA	**15,000**	84	<50	<50	<25	<5	<3.0	6	0.25	0.7	0.25	100.00%	decrease
DVE-102	Toluene	NI	NI	7	NS	<0.5	6	5	**130**	<5	<3.0	<1	0.7	NS	1.5	78.57%	decrease
DVE-103	Methyl-ethyl-ketone	NI	NI	**45**	NS	NA	<10	<2.0	<10	<10	<10	<10	25	5	5	88.89%	decrease
DVE-104	Toluene	NI	NI	1.5	NS	<0.5	<0.5	<0.5	**25**	<0.5	<0.5	<0.5	0.25	0.25	0.25	83.33%	decrease
DVE-105	Methyl-ethyl-ketone	NI	NI	**38**	NS	NA	<10	<2.0	<10	<10	<10	<10	5	5	5	86.84%	decrease
DVE-106	Toluene	NI	NI	**2,900**	NS	75	<1.0	<1.0	2600	8	<2	<0.5	1	0.25	0.25	99.99%	decrease
DVE-107	1,1-Dichloroethane	NI	NI	10	NS	37	<0.5	3	**100**	27	0.8	<0.5	25	4	0.9	91.00%	decrease
MW-101	Chloromethane	<3	<1	**14**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4	0.25	0.25	98.21%	decrease
MW-102	Chloromethane	<3	<1	**24**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.25	98.96%	decrease
MW-103	Methylene chloride	**16**	<1	<3	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.25	98.44%	decrease
MW-104	Chloromethane	<3	<1	17	NS	8	15	3	23	**34**	<0.5	<0.5	0.25	180	0.25	98.53%	decrease
MW-105	Chloroethane	23	<1	**78**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.25	99.68%	decrease
MW-106	Toluene	**48,000**	6,100	24,000	NS	22,000	11,000	2,300	1,700	NS	670	69	900	120	30	99.94%	decrease
MW-106	1,1-Dichloroethane	15	**3,500**	2,100	NS	570	2,300	390	120	NS	125	160	125	53	340	90.29%	decrease
MW-107	1,1-Dichloroethane	130	290	350	NS	NS	380	240	250	320	540	550	**580**	200	410	17.14%	increase
MW-108	Methyl-ethyl-ketone	**69**	<5	<10	NS	NA	<10	<4.0	<50	<50	<10	<10	5	5	5	92.75%	decrease
MW-108	1,1,1-Trichloroethane	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<3.0	<3.0	<0.5	<0.5	0.25	0.25	0.25	83.33%	decrease
MW-108	1,1-Dichloroethane	<3	<1	1.5	NS	<0.5	4	<1.0	<3.0	<3.0	<0.5	<0.5	0.25	0.6	0.25	83.33%	decrease
MW-109	Toluene	<3	6.5	<3	NS	1	**55**	12	NS	NS	<3	<0.5	0.25	0.25	0.25	96.15%	decrease
MW-110	Tetrachloroethene	<3	<1	1.5	NS	<0.5	<0.5	<1.0	NS	NS	<0.5	<0.5	3	0.25	0.25	83.33%	decrease
MW-111	Chloroform	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<0.5	**0.7**	<0.5	<0.5	0.25	NS	NS	83.33%	decrease
MW-201	Methyl-ethyl-ketone	**50**	7.3	<10	NS	NA	<10	<4.0	<20	<20	<20	<10	5	5	5	90.00%	decrease
MW-201	1,1-Dichloroethane	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<0.5	**0.7**	0.25	0.25	83.33%	decrease
MW-202	Chloroform	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<0.5	<3.00	<0.5	<0.5	**2**	0.25	0.25	83.33%	decrease
SCRW-05	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3500**		
SCRW-05	Toluene	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**7200**		
CSW-01	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**26**		
CSW-06	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	2.5		

Notes:
All concentrations reported in micrograms per liter.
System startup occurred in July 2000.
NI = DVE-101 through DVE-107 were not installed until July 2000 and SCRW-05, CWS-01 and CSW-06 were not installed until February 2003.
NA = The ground water sample was not analyzed for this constituent.
NS = No sample obtained for this date.

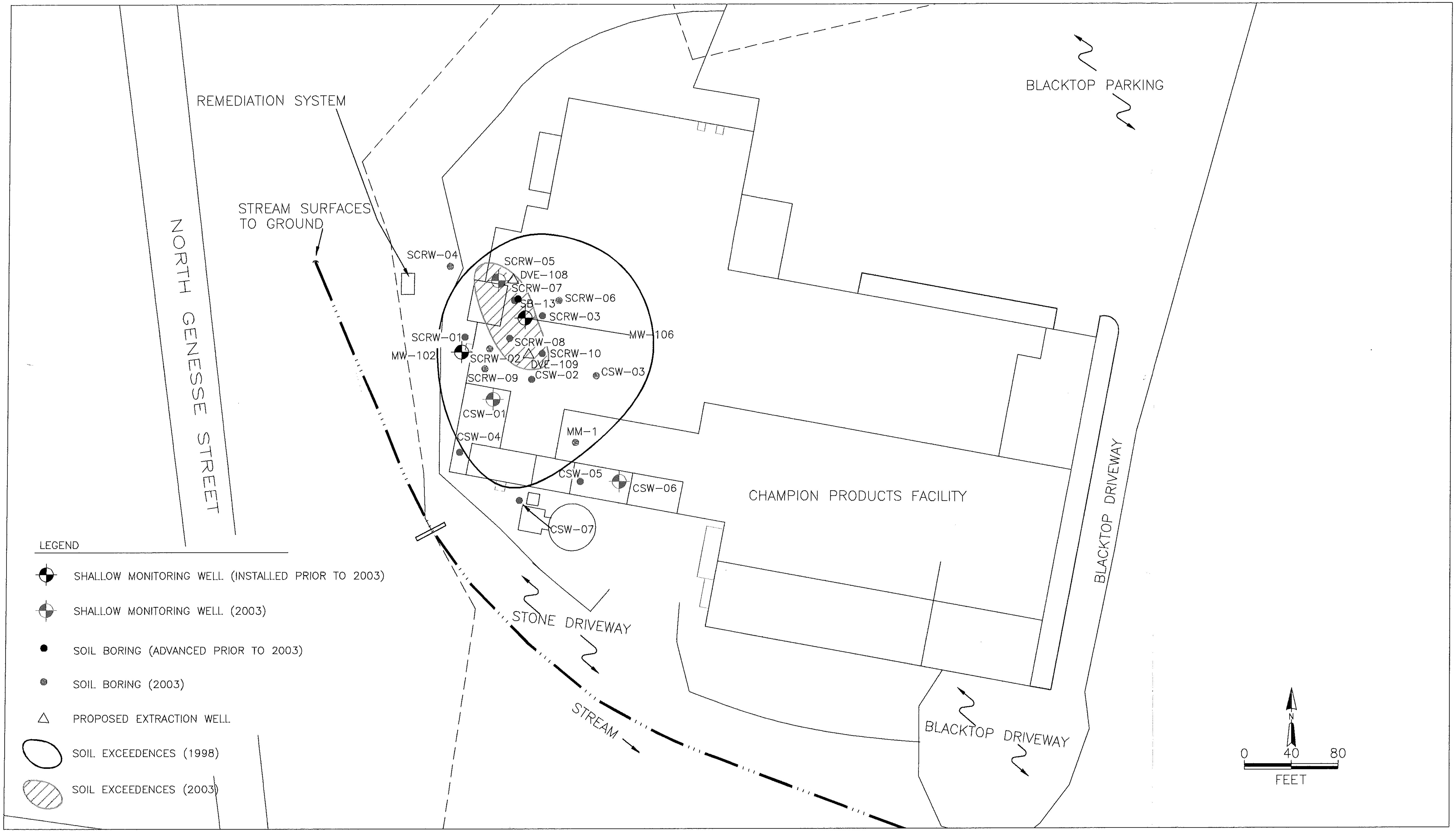
Concentrations reported below the detection limit are assumed to be 1/2 the detection limit for calculation purposes.
Bold = Highest concentration reported for this analyte.

2_% Change.xls

FIGURES



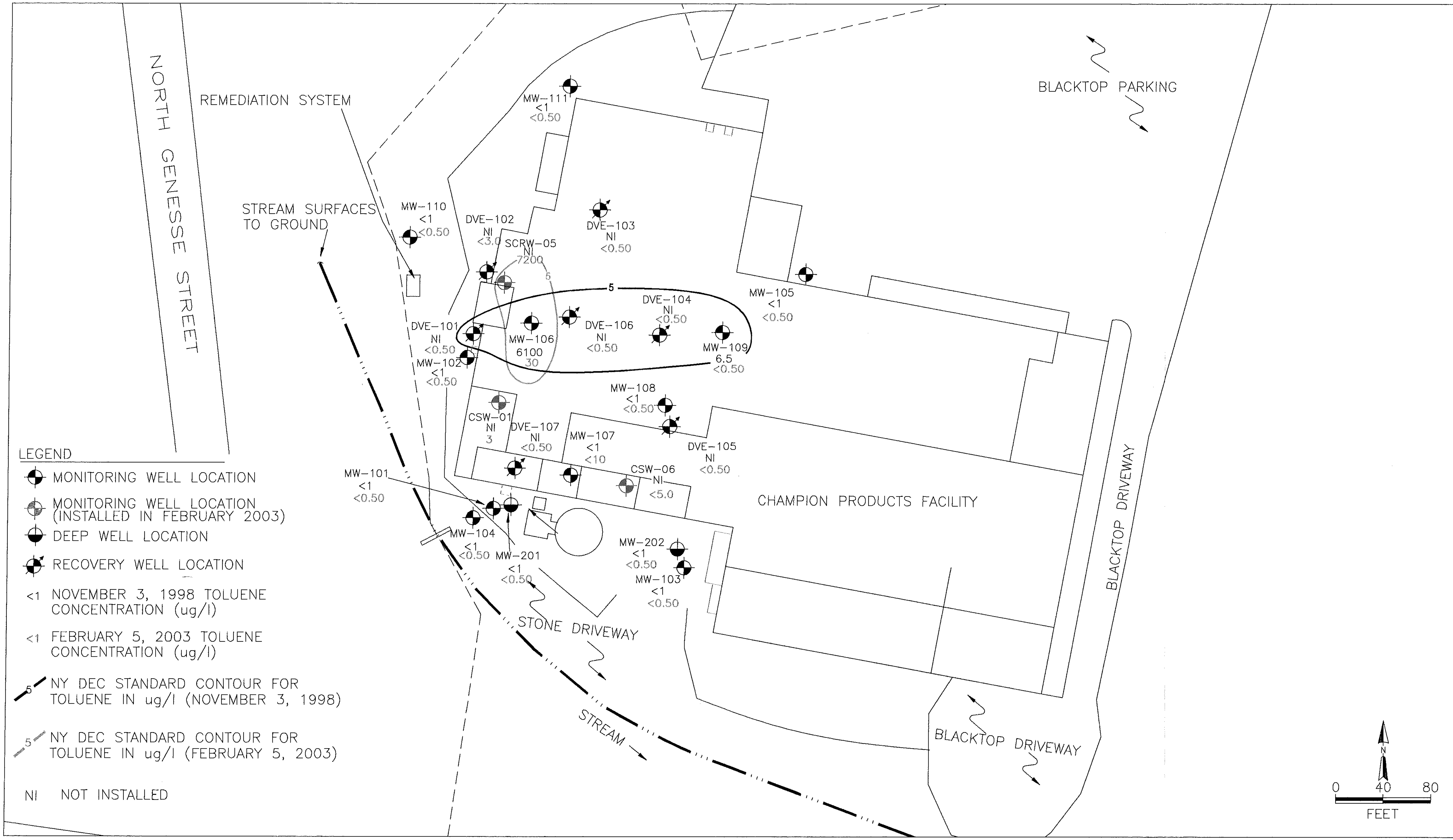
Delta Environmental Consultants, Inc.	TITLE: SITE MAP CHAMPION PRODUCTS COMPANY, INC. PERRY, NEW YORK	DWN: HLW CHKD: DATE: 4/7/03	DES.: APPD: REV.:	PROJECT NO.: S098-009 FIGURE NO.: 1



Delta Environmental Consultants, Inc.

TITLE:
AREA EXCEEDING TAGM CLEANUP CRITERIA: 1998 vs. 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK

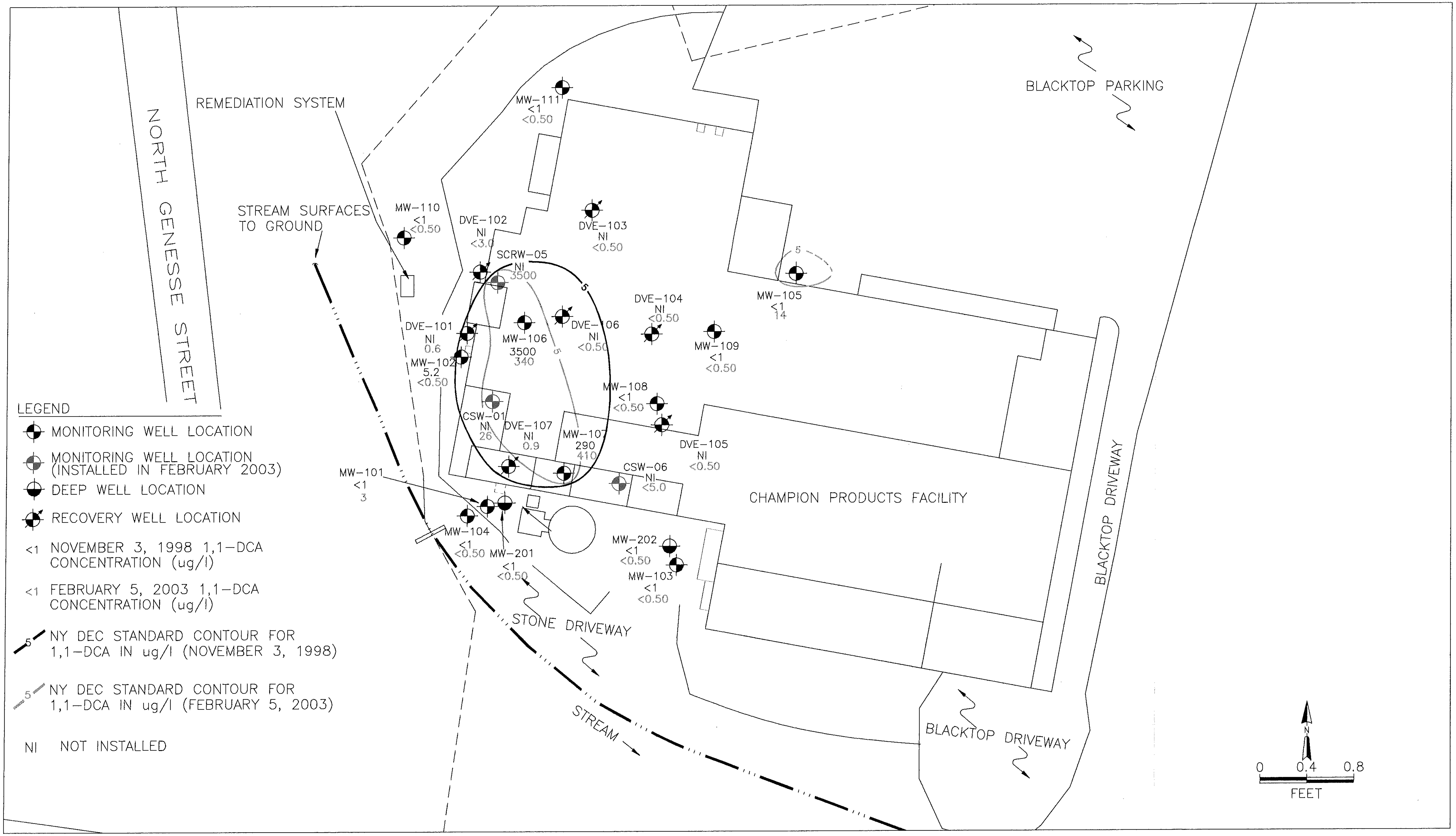
DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	
DATE: 4/10/03	REV.:	FIGURE NO.: 2



Delta Environmental Consultants, Inc.

TITLE:
ISOCONCENTRATION CONTOUR MAP: TOLUENE
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK

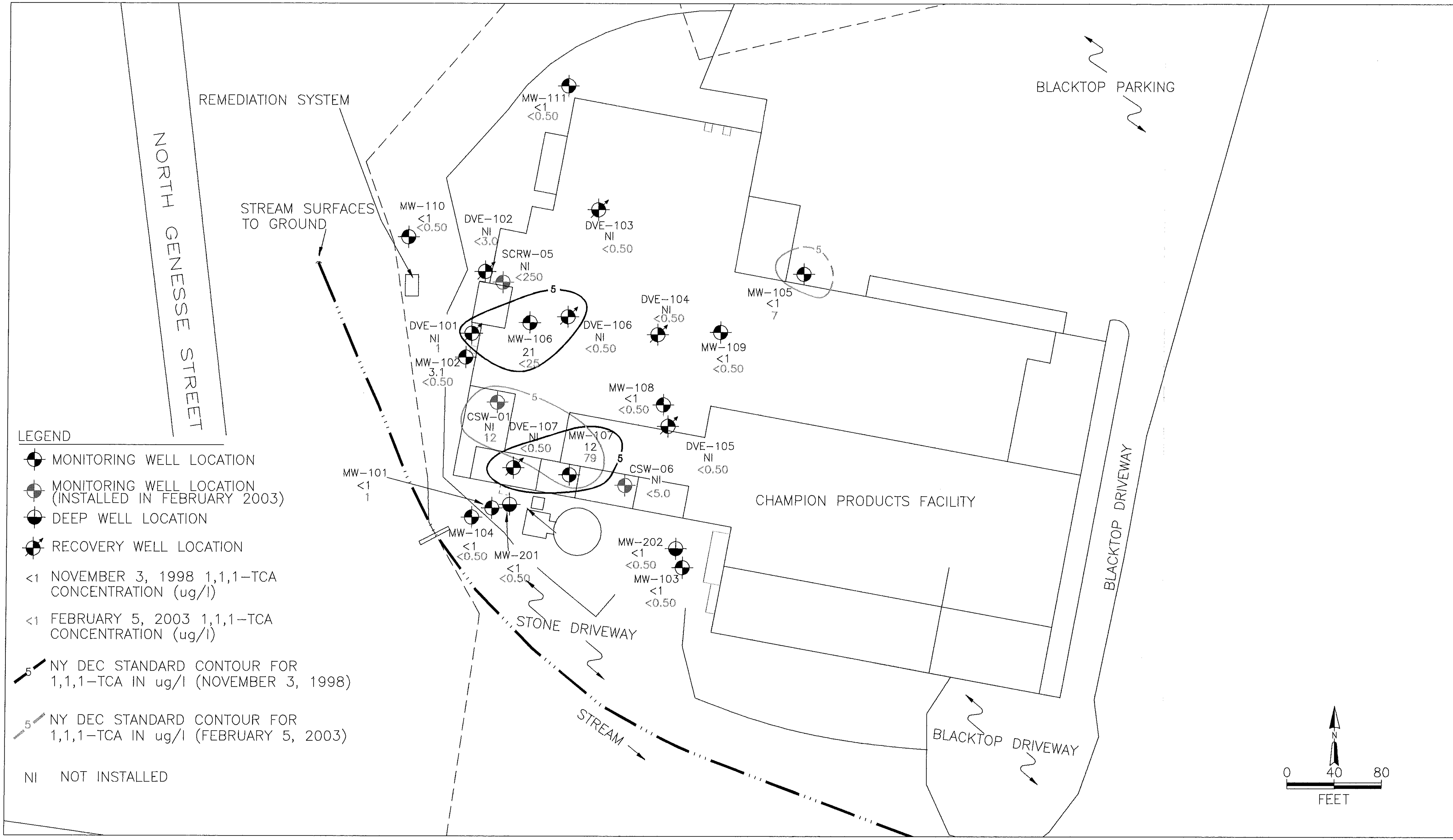
DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	
DATE: 4/9/03	REV.:	FIGURE NO.: 3



Delta Environmental Consultants, Inc.

TITLE: ISOCONCENTRATION CONTOUR MAP: 1,1-DCA
FORMER CHAMPION PRODUCT COMPANY, INC.
PERRY, NEW YORK

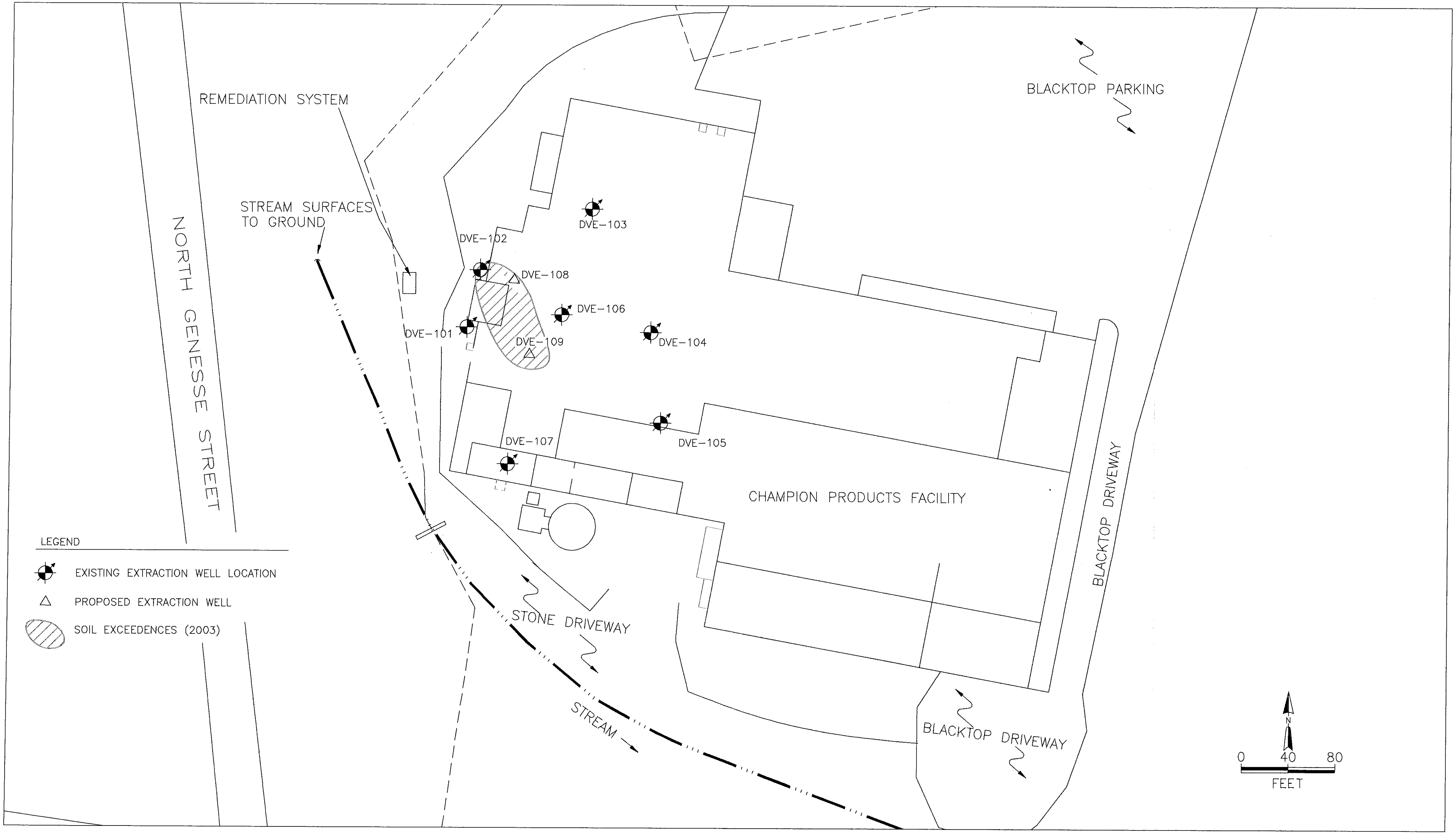
DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	
DATE: 4/9/03	REV.:	FIGURE NO.: 4



Delta Environmental Consultants, Inc.

TITLE:
ISOCONCENTRATION MAP: 1,1,1-TCA
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK

DWN: HLW	DES.:	PROJECT NO.: S098-009	
CHKD:	APPD:		
DATE: 4/9/03	REV.:	FIGURE NO.: 5	



Delta Environmental Consultants, Inc.

TITLE: PROPOSED EXTRACTION WELL LOCATIONS
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK

DWN: HLW	DES.:	PROJECT NO.: S098-009	
CHKD:	APPD:		
DATE: 4/30/03	REV.:	FIGURE NO.: 6	

June 8, 2007

Mr. Matt Forcucci
New York State Department of Health
584 Delaware Avenue
Buffalo, New York 14202

Subject: Baseline Soil Vapor Intrusion Report
Former Champion Products Facility
200 North Main Street, Perry, New York
VCP No. V000189-9
Delta Project No. 0610756P

DELTA

Dear Mr. Forcucci:

On behalf of the Hanesbrands, Inc., Delta Consultants (Delta) is presenting the following Baseline Soil Vapor Intrusion (SVI) Report for the above noted facility for review by the New York State Department of Health (NYSDOH).

SITE BACKGROUND

The former Champion Products facility was owned and operated from 1955 until 1998 by Champion, an affiliate of the Sara Lee Corporation. In 1998, the property was sold to SMG Development Corporation. Champion leased the building from SMG and continued operations until December 2001. American Classic Outfitters (ACO) was formed and commenced its operations in January 2002. The ACO operation is still ongoing. Irrespective of ownership, the facility has been primarily used since 1955 for the manufacture of print screen apparel for sports teams and retail sale.

Chlorinated and non-chlorinated solvents were identified in the soil and groundwater underlying the manufacturing and warehouse building. Champion Products entered into a Voluntary Cleanup Agreement in 2000 with the New York State Department of Environmental Conservation (NYSDEC) for the remediation of the site. Hanesbrands, Inc. is now performing the activities of Champion Products under the Agreement. Since 2000, several site investigations and remedial activities have occurred, including the design, installation and operation of a dual phase vapor extraction (DPVE) system.

The DPVE system was placed in operation in July 2000 and recently shutdown in February 2007, as significant reductions in volatile organic compound (VOC) levels have been achieved and it is unlikely that any additional benefit will be derived from the continued operation of the system. Site-wide dissolved phase VOC levels have decreased by an average of 87 percent since system start-up.

A Shutdown Plan for the DPVE system was submitted to NYSDEC on February 27, 2007. The Shutdown Plan was approved on March 5, 2007 and outlined activities envisioned for site closure, including the performance of a baseline survey to evaluate a potential for a SVI exposure pathway. This report was prepared pursuant to the Shutdown Plan.

84 Business Park Drive Suite 107 Armonk, New York 10504 USA
Phone 914.765.8180 / 800.477.7411 Fax 914.765.0250 www.deltaenv.com

SAMPLING PROGRAM DESCRIPTION

This evaluation was conducted consistent with a work plan prepared pursuant to the terms of the final NYSDOH Guidance for Evaluating Soil Vapor Intrusion in New York State, dated October 2006. The work plan was submitted to the NYSDOH on March 12, 2007 and approved on March 13, 2007. The tasks completed as part of this effort are summarized in the sections which follow.

Pre-Sampling Building Survey

A pre-sampling building inspection was conducted prior to the collection of soil vapor samples on March 23, 2007. The pre-sampling building inspection was conducted by Gregory Drumm, CIH (Delta) with assistance from Ms. Jan Newville (ACO). As part of this task, an evaluation was conducted of the building structure, floor layout, air flows and physical conditions; potential sources of indoor air contamination were identified, including an inventory of chemicals and products; a photoionization detector (PID) survey was conducted to evaluate potential sources, when discovered; and procedures established with ACO personnel to insure that optimum conditions would exist immediately prior to the collection of samples. As part of this task, the NYSDOH Indoor Air Quality & Building Inventory Form was completed (**Appendix A**).

Key results from the March 23, 2007 pre-sampling building survey were as follows:

- The building is a one-story industrial facility with an open floor plan production area (with mezzanine areas) and an attached office area. The structure is estimated to be approximately 50 years old.
- The facility is heated by natural gas with various ceiling-mounted duct works throughout the production area.
- Air discharges included large oven units, spray booths and exhaust ventilation in the southern area of the facility and bathroom ventilation discharges.
- Air infiltration was noted at the overhead door (raised several inches) in the screen wash/spray booth area, the north and south loading dock areas, and several wall openings (e.g., west men's restroom, custodial closet near offices).
- The facility appeared to have a slightly negative air balance.
- A variety of oils and lubricants, spray adhesives, spray silicone, and solvent-based materials were observed in use or in storage throughout the production areas. Gasoline-powered equipment was also observed inside the facility including a snowblower, chainsaw, and portable generator. A chemical inventory was performed of these materials (**Appendix B**).

ACO provided a set of Material Data Safety Sheets (MSDSs) that it identified as covering the materials used in the current ACO operations. Hanesbrand has not conducted an audit of the chemicals used in current operations. A review of the MSDSs identified the presence of the following VOCs:

- Hexane
- Acetone
- Isobutane
- Propane
- Dimethyl ether
- Methylene chloride (aka: dichloromethane)
- Tetrachlroethylene (PCE)
- Mineral spirits
- Aliphatic distillates
- Aliphatic hydrocarbons
- Terpenes
- Glycol ethers

Percent compositions of these VOCs are also provided in **Appendix B**.

Sampling Collection

Soil vapor samples were collected from a total of 6 locations on March 29, 2007 as depicted in **Figure 1**:

- Upwind sample (UW-1). Assuming a prevailing westerly wind pattern, the sample was collected outdoors and away from any obvious wind obstructions and/or sources of volatile chemicals (i.e. motor vehicles, oil storage tank farm facilities, other industrial operations, etc.).
- Five indoor air locations (IA-1 through IA-5)
- Five sub-slab locations (SS-1 through SS-5)

The indoor air and sub-slab samples were co-located as follows:

- One sample in the office area (IA-1/SS-1)
- One sample downgradient of the Former Manual Screen Wash Area (IA-2/SS-2). This area is also known as the Sewing Area.
- One sample downgradient of the Current Screen Wash Area (IA-3/SS-3). This area is also known as the Fabric Cut Area.
- One sample between monitoring wells CSW-01 and MW-107 and within the Current Screen Wash Area (IA-4/SS-4). This area is also known as the Storage Rack Area.
- One sample in the vicinity of monitoring well SCRW-05 and within the Former Manual Screen Wash Area (IA-5/SS-5). This area is also known as the T-Shirt Painting Area.

Sample collection procedures were as follows:

- The outdoor and indoor samples were collected at a height of approximately 4 feet.
- Sub-slab samples were collected consistent with the procedures for permanent sub-slab vapor probe installations as specified in NYSDOH SVI Guidance and the approved work plan. Sample locations were placed in areas mutually-agreed upon by Messrs. Matt Forcucci (NYSDOH) and Maurice Moore (NYSDEC) and site personnel. The designated sample locations closely matched with the locations proposed in the approved work plan.
- The installations were performed as follows:

    - Approximately 4-inch diameter holes were bored into concrete floor of the building. Borings were located away from building footers and in areas so as to minimize disruption of facility operations and egress routes.
    - Each hole was installed to a depth of approximately two-inches beneath the floor into the subgrade bedding materials.
    - The bottom inch of each hole was filled with glass bead material to serve to decrease the likelihood of collecting particulate matter during sampling.
    - One-quarter inch stainless steel tubing was inserted into the glass beads within each borehole.
    - Non-shrink grout was placed around the stainless steel tubing to reduce the likelihood for the introduction of ambient air during sampling. Beeswax was also used at several borehole locations to further assist with sealing as needed.
    - The top of the boreholes were fitted with a removal plug caps/covers.

- Helium was used as a tracer gas to confirm the integrity of the sub-slab vapor probe seal. A gas trap was made using plastic sheeting, duct taped to the floor. Teflon tubing was connected to the vapor probe outlet, threaded through the plastic and connected to a helium gas monitor. Tubing from a helium gas cylinder was placed beneath the plastic sheeting. When the sheet had visibly risen from the pressure supplied by the helium gas, the gas flow was shut off and the levels of helium were monitored for 5 minutes. If no helium was detected, the seal was considered satisfactory. If helium was detected, the seal was inspected and any cracks were sealed with beeswax and the seal retested until a satisfactory seal was confirmed.
- Prior to sample collection from the sub-slab probe locations, three sample volumes were purged from the sub-slab space at each location.

- Outdoor air, indoor air, and sub-slab vapor samples were collected using clean and certified 6-liter Summa® canisters at each location for a period ranging from 10 to 13 hours.
- Twelve-hour flow rate controllers were used. Flow rates ranged from 7.4-7.8 milliliters per minute (ml/min).
- Sample log sheets were completed for each sample (**Appendix C**).
- Chain of custody forms were used to track canister and sample shipments (**Appendix D**).

Prior to sampling, arrangements were made with site personnel to insure that the following conditions existed prior to the collection of samples:

- The HVAC system was operated under normal conditions at normal indoor temperatures at least 24 hours prior to and during the sampling event in a manner that represented normal conditions and building occupancy conditions.
- Unnecessary building ventilation was avoided 24 hours prior to and during sampling.
- Maintenance activities were avoided prior to and during the sampling event (e.g. painting, vehicle maintenance, smoking in the building, etc.).

Sample Analysis

Sample analytical procedures differed slightly from the approved work plan in order to permit the analysis of a more complete list of site-related VOCs.

Prior to the collection of samples, a comparison was made between the list of parameters routinely monitored at the site, the EPA Method TO-15 list and the list provided in the work plan. The work plan list, referred to as the STL Burlington NYS VI Compound List, provides for low-level analytical procedures to measure VOCs [(i.e tetrachloroethene (PCE), trichloroethene (TCE), carbon tetrachloride (CCl_4) and 1,1,1-trichloroethane (TCA)] at detection limits less than the action levels specified in the NYSDOH Decision Matrices. The comparison indicated that a more extensive list of VOCs (the TO-15 list plus naphthalene) would require analysis to insure that most of the parameters routinely monitored at the site were tested for in the SVI samples.

All samples were analyzed by EPA Method TO-15 with low-level analysis to provide lower detection limits for TCE and CCl_4. Severn Trent Laboratories (STL), Burlington, VT, a NYSDOH ELAP-certified laboratory, was retained by Delta to provided the canisters and perform the laboratory analyses.

The laboratory results from the sampling effort are provided in **Appendix D**.

Data Usability Summary Report

A data usability summary report (DUSR) was prepared and consists of an evaluation of the analytical data to determine if the data met the site and project-specific criteria for data quality and use. The DUSR report is provided in **Appendix E**.

Key findings of the DUSR report were as follows:

- The data package provided contained the documentation required by the NYSDEP Analytical Services Protocol (ASP).
- Proper chain of custody procedures were followed.
- The overall performance of the analyses was acceptable.

The followings data are considered usable, but were flagged as "J" or "estimated" as follows:

- The positive result for dichlorodifluoromethane was flagged as "J" in sample UW-1 because the percent difference (D) for this compound was above the allowable maximum in the associated initial calibration and the percent recoveries were above the quality control (QC) limits in LCS/LCSD CA041807LCS.

- The non-detected results for 1,2,4-trimethlybenzene were flagged as "J" for samples UW-1, IA-2, IA-3, IA-5, SS-3, SS-4 and SS-5 since one of the 2 percent recoveries were below QC limits in LCS/LCSD CA041807LCS.

RESULTS

PID Readings

As part of the Pre-Sampling Building Survey, PID readings were obtained at various locations throughout the facility. These results are noted in **Appendix B** and ranged from zero to 8 parts per million (ppm). No PID readings were detected in Reception/Office Area or the Custodial Closet. PID readings between zero and 0.4 ppm were noted at the North Dock, Knitting Area, Embroidery Area, Sewing, Oven Areas, the Ink Room and the Mezzanine and Upstairs Office. PID readings between 0.5 and 1 ppm were observed in the Men's Restroom (west of the Production Area), the Pattern Making/Screen Wash, the Printing Area Flammable Cabinet, the Maintenance Area and the Maintenance Flammables Cabinet #1. The highest PID levels were detected in the Maintenance Flammable Cabinet #2 (3 to 8 ppm).

Odors

During the performance of the sampling effort, odors were observed and recorded in the sample logs (**Appendix C**) at the following locations:

- Location IA-4/SS-4 (Storage Rack Area) – Faint paint smell
- Location IA-5/SS-5 (T-Shirt Painting Area) – Chemical smell

Analytical Results

Analytical results from the sampling effort are summarized in **Tables 1** through **3.** **Table 1** and **Table 2** present the results in micrograms per cubic meter (ug/m^3) and parts per billion by volume (ppbv), respectively. **Table 3** presents the low-level analytical results for TCE and CCl_4.

Elevated levels of methylene chloride in indoor air resulted in sample dilution and elevated reporting limits. The elevated reporting limits made comparison to available NYSDOH criteria limited, since in many cases, the reporting limits, although non-detect, exceeded the available criteria.

The results indicated the following:

- The outdoor air, upwind sample location (UW-1) showed low levels for only four compounds – dichlorofluoromethane (3 ug/m^3), chloromethane (1.1 ug/ m^3), trichlorofluoromethane (1.3 ug/m^3), and methylene chloride (2 ug/m^3).
- Compounds identified with notably higher indoor air concentrations as compared to the corresponding sub-slab sample locations included methylene chloride and n-hexane.
- Four of the five indoor air sample locations exceeded the NYSDOH Indoor Air Guideline of 60 ug/m^3 for methylene chloride (range 4900-8700 ug/m^3).
- Sub-slab levels of methylene chloride were generally lower than indoor air levels by one to two orders of magnitude (range 31-900 ug/m^3).
- Detectable indoor air levels of n-hexane (110 to 250 ug/m^3) generally exceeded corresponding sub-slab levels by approximately an order of magnitude.
- Compounds identified with notably higher sub-slab sample levels than the corresponding indoor air levels included TCA, PCE, 1,1-dichloroethane (DCA), cyclohexane, and MEK.
- PCE levels for two indoor air sample locations, IA-3 and IA-5, exceeded the NYSDOH Air Guideline Value of 100 ug/m^3 at 300 and 220 ug/m^3, respectively.
- Sub-slab levels of PCE at the two corresponding sub-slab sample locations, SS-3 and SS-5, were higher than the indoor air at 630 and 1500 ug/m^3, respectively. Other sub-slab levels of PCE were 81 ug/m^3 at SS-1, 660 ug/m^3 at SS-2 and 390 ug/m^3 at SS-4.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the findings of the baseline SVI survey conducted on March 29, 2007, the following conclusions are provided:

- No direct association is apparent between the compounds detected in the outdoor and indoor air samples.
- The indoor air results for methylene chloride and PCE exceeded the NYSDOH Air Guidelines for indoor air. However, the levels detected are well below the OSHA Permissible Exposure Limits of 87,750 ug/m^3 (25 ppm) and 678,330 ug/m^3 (100 ppm), respectively.
- Current ACO operations more than likely contributed to the detection of some compounds in the indoor air samples, most notably methylene chloride, n-hexane, and PCE. This is consistent with findings from the pre-sampling chemical inventory, a review of MSDSs of on-site products in use, and the chemical odors noted during sampling.
- Indoor air concentrations of methylene chloride and n-hexane generally exceeded corresponding sub-slab vapor concentration by at least an order of magnitude indicating the likely association with ACO operations.
- PCE was notably higher in sub-slab samples than corresponding indoor air samples. While some of the PCE in the indoor air samples may be associated with infiltration from the sub-slab, current manufacturing and production processes may also have contributed to PCE indoor air levels observed.
- Looking at the data set as a whole, several other compounds (TCA, DCA, cyclohexane, and MEK) were found at the same locations as the elevated sub-slab PCE observations. These compounds have elevated sub-slab vapor concentrations (up to 7600 ug/m^3 for TCA); however, none of these compounds were noted in indoor air at the detection limits reported indicating a potential incomplete exposure pathway from sub-slab vapor.

The following recommendations are provided:

- Assessment of the SVI results should be considered in conjunction with the results of the pending Sub-Slab Soil Investigation work, also being conducted as part of the Shutdown Plan.
- The methylene chloride and PCE indoor air results should be considered in conjunction with the fact that those chemicals are used in the workplace and the indoor air results were well below the OSHA Permissible Exposure Limits.

CLOSING

We trust that the enclosed report is informative. Please do not hesitate to contact us with any questions at (914) 765-0258 or by e-mail at asavino@deltaenv.com.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Anthony Savino

Anthony Savino
Senior Consultant

Enclosures:	Table 1	SVI Sample Results (ug/m^3)
	Table 2	SVI Sample Results (ppbv)
	Table 3	SVI Sample Results Low-Level TO-15 Analysis
	Figure 1	Soil Vapor Intrusion Sample Location Map
	Appendix A	NYSDOH Indoor Air Quality & Building Inventory Form
	Appendix B	Chemical Inventory
	Appendix C	SVI Sample Log Forms

Appendix D Laboratory Report
Appendix E Data Usability Summary Report (DUSR)

cc: Tommy Thompson, Hanesbrands
Maureen Crough, Sidley Austin LLP
Sam Gullo, American Classic Outfitters
Paul Sylvestri, Harter Secrest & Emery, LLP
Martin Doster, NYSDEC
Maurice Moore, NYSDEC
Ed Belmore, NYSDEC
Jim Charles, NYSDEC
Gary Litwin, NYSDOH

TABLES

Table 1
Hanesbrands, Perry, NY
SVI Sample Results
(ug/m^3)

Sample ID	UW-1 Outdoor	IA-1 Indoor	SS-1 Sub-slab	IA-2 Indoor	SS-2 Sub-slab	IA-3 Indoor	SS-3 Sub-slab	IA-4 Indoor	SS-4 Sub-slab	IA-5 Indoor	SS-5 Sub-slab
Dilution Factor	0.8	0.8	1.5	60.7	4.0	79.9	3.0	84.0	66.5	40.0	5.93
Parameter											
Dichlorodifluoromethane	3 J	3.4	3.7 U	150 U	9.9 U	200 U	7.4 U	210 U	160 U	99 U	15 U
1,2-Dichlorotetrafluoroethane	1.1 U	1.1 U	2.1 U	84 U	5.6 U	110 U	4.2 U	120 U	91 U	56 U	8.4 U
Chloromethane	1.1	0.99	1.5 U	62 U	4.1 U	83 U	3.1 U	87 U	68 U	41 U	6.2 U
Vinyl Chloride	0.41 U	0.41 U	0.77 U	31 U	2 U	41 U	1.5 U	43 U	33 U	20 U	3.1 U
1,3-Butadiene	0.88 U	0.88 U	1.7 U	66 U	4.4 U	88 U	3.3 U	93 U	73 U	44 U	6.6 U
Bromomethane	0.62 U	0.62 U	1.2 U	47 U	3.1 U	62 U	2.3 U	66 U	50 U	31 U	4.7 U
Chloroethane	1.1 U	1.1 U	2 U	79 U	5.3 U	110 U	4 U	110 U	87 U	53 U	7.9 U
Bromoethene	0.7 U	0.7 U	1.3 U	52 U	3.5 U	70 U	2.6 U	74 U	57 U	35 U	5.2 U
Trichlorofluoromethane	1.3	14	6.2	67 U	16	90 U	18	96 U	73 U	45	15
Freon TF	1.2 U	1.2 U	2.3 U	92 U	6.1 U	120 U	4.6 U	130 U	100 U	61 U	9.2 U
1,1-Dichloroethene	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	59	32 U	4.8 U
Acetone	9.5 U	22	55	710 U	62	950 U	81	1000 U	780 U	480 U	120
Isopropyl Alcohol	9.8 U	9.8 U	18 U	740 U	49 U	980 U	37 U	1000 U	810 U	490 U	74 U
Carbon Disulfide	1.2 U	1.2 U	3.7	93 U	6.2 U	120 U	4.7 U	130 U	100 U	62 U	9.3 U
3-Chloropropene	1.3 U	1.3 U	2.3 U	94 U	6.3 U	130 U	4.7 U	130 U	100 U	63 U	9.4 U
Methylene Chloride	2	35	31	**5200**	59	**8700**	270	**5900**	900	**4900**	120
tert-Butyl Alcohol	12 U	12 U	27	910 U	61 U	1200 U	45 U	1300 U	1000 U	610 U	91 U
Methyl tert-Butyl Ether	1.4 U	1.4 U	2.7 U	110 U	7.2 U	140 U	5.4 U	150 U	120 U	72 U	11 U
trans-1,2-Dichloroethene	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	52 U	32 U	4.8 U
n-Hexane	1.4 U	1.4 U	2.6 U	110	7 U	160	6.7	160	120 U	250	11 U
1,1-Dichloroethane	0.65 U	0.65 U	1.2 U	49 U	3.2 U	65 U	2.4 U	69 U	1300	32 U	180
1,2-Dichloroethene (total)	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	52 U	32 U	4.8 U
Methyl Ethyl Ketone	1.2 U	3.8	11	88 U	10	120 U	7.7	120 U	97 U	59 U	14
cis-1,2-Dichloroethene	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	52 U	32 U	4.8 U
Tetrahydrofuran	12 U	12 U	22 U	880 U	59 U	1200 U	44 U	1200 U	970 U	590 U	88 U
Chloroform	0.78 U	0.78 U	88	59 U	27	78 U	28	83 U	63 U	39 U	41
1,1,1-Trichloroethane	0.87 U	0.87 U	98	65 U	22	87 U	220	93 U	7600	44 U	1200
Cyclohexane	0.55 U	0.55 U	4.1	41 U	2.8 U	55 U	7.6	59 U	210	28 U	38
Carbon Tetrachloride	1 U	1 U	1.9 U	75 U	5 U	100 U	3.8 U	110 U	82 U	50 U	7.5 U
2,2,4-Trimethylpentane	0.75 U	0.75 U	1.4 U	56 U	3.7 U	75 U	2.8 U	79 U	61 U	37 U	5.6 U
Benzene	0.51 U	0.51 U	2.6	38 U	2.6 U	51 U	2.8	54 U	42 U	26 U	3.8 U
1,2-Dichloroethane	0.65 U	0.65 U	1.2 U	49 U	3.2 U	65 U	2.4 U	69 U	53 U	32 U	4.9 U
n-Heptane	0.66 U	0.66 U	1.2 U	49 U	3.3 U	66 U	3.9	70 U	53 U	33 U	4.9
Trichloroethene	0.86 U	0.86 U	16	64 U	4.3 U	86 U	3.2 U	91 U	70 U	43 U	24
1,2-Dichloropropane	0.74 U	0.74 U	1.4 U	55 U	3.7 U	74 U	2.8 U	79 U	60 U	37 U	5.5 U
1,4-Dioxane	14 U	14 U	27 U	1100 U	72 U	1400 U	54 U	1500 U	1200 U	720 U	110 U
Bromodichloromethane	1.1 U	1.1 U	5.1	80 U	5.4 U	110 U	4 U	110 U	87 U	54 U	8 U
cis-1,3-Dichloropropene	0.73 U	0.73 U	1.4 U	54 U	3.6 U	73 U	2.7 U	77 U	59 U	36 U	5.4 U
Methyl Isobutyl Ketone	1.6 U	1.6 U	86	120 U	82	160 U	45	170 U	140 U	82 U	140
Toluene	0.6 U	1.5	8.3	45 U	5.7	60 U	8.3	64 U	49 U	30 U	7.2
trans-1,3-Dichloropropene	0.73 U	0.73 U	1.4 U	54 U	3.6 U	73 U	2.7 U	77 U	59 U	36 U	5.4 U
1,1,2-Trichloroethane	0.87 U	0.87 U	1.6 U	65 U	4.4 U	87 U	3.3 U	93 U	71 U	44 U	6.5 U
Tetrachloroethene	1.1 U	1.7	81	81 U	660	**300**	630	120 U	390	**220**	1500
Methyl Butyl Ketone	1.6 U	1.6 U	210	120 U	410	160 U	94	170 U	140 U	82 U	940
Dibromochloromethane	1.4 U	1.4 U	2.6 U	100 U	6.8 U	140 U	5.1 U	140 U	110 U	68 U	10 U
1,2-Dibromoethane	1.2 U	1.2 U	2.3 U	92 U	6.1 U	120 U	4.6 U	130 U	100 U	61 U	9.2 U
Chlorobenzene	0.74 U	0.74 U	1.4 U	55 U	3.7 U	74 U	2.8 U	78 U	60 U	37 U	5.5 U
Ethylbenzene	0.69 U	0.69 U	2.3	52 U	4.8	69 U	2.7	74 U	56 U	35 U	5.2 U
Xylene (m,p)	1.7 U	1.7 U	4.8	130 U	8.7 U	170 U	7.8	180 U	140 U	87 U	13 U
Xylene (o)	0.69 U	0.69 U	1.5	52 U	3.5 U	69 U	2.6 U	74 U	56 U	35 U	5.2 U
Xylene (total)	0.69 U	0.69 U	6.5	52 U	3.5 U	69 U	7.8	74 U	56 U	35 U	5.2 U
Styrene	0.68 U	0.68 U	1.3 U	51 U	3.4 U	68 U	2.6 U	72 U	55 U	34 U	5.1 U
Bromoform	1.7 U	1.7 U	3.1 U	120 U	8.3 U	170 U	6.2 U	180 U	130 U	83 U	12 U
1,1,2,2-Tetrachloroethane	1.1 U	1.1 U	2.1 U	82 U	5.5 U	110 U	4.1 U	120 U	89 U	55 U	8.2 U
4-Ethyltoluene	0.79 U	0.79 U	2.1	59 U	3.9 U	79 U	2.9 U	84 U	64 U	39 U	5.9 U
1,3,5-Trimethylbenzene	0.79 U	0.79 U	1.5 U	59 U	3.9 U	79 U	2.9 U	84 U	64 U	39 U	5.9 U
2-Chlorotoluene	0.83 U	0.83 U	1.6 U	62 U	4.1 U	83 U	3.1 U	88 U	67 U	41 U	6.2 U
1,2,4-Trimethylbenzene	0.79 U	0.79 U	3.1	59 U	3.9 U	79 U	2.9 U	84 U	64 U	39 U	5.9 U
1,3-Dichlorobenzene	0.96 U	0.96 U	1.8 U	72 U	4.8 U	96 U	3.6 U	100 U	78 U	48 U	7.2 U
1,4-Dichlorobenzene	0.96 U	0.96 U	3.9	72 U	5.1	96 U	3.6 U	100 U	78 U	48 U	7.2 U
1,2-Dichlorobenzene	0.96 U	0.96 U	1.8 U	72 U	4.8 U	96 U	3.6 U	100 U	78 U	48 U	7.2 U
1,2,4-Trichlorobenzene	3 UJ	3 U	5.6 U	220 UJ	15 U	300 UJ	11 UJ	310 U	240 UJ	150 UJ	22 UJ
Hexachlorobutadiene	1.7 U	1.7 U	3.2 U	130 U	8.5 U	170 U	6.4 U	180 U	140 U	85 U	13 U
Naphthalene	2.1 U	2.1 U	3.9 U	160 U	10 U	210 U	7.9 U	220 U	170 U	100 U	16 U

Notes:

1. All concentrations in micrograms per cubic meter (ug/m^3)
2. U = Not detected at reporting limit
3. J = Estimated based upon DUSR
4. Bold value indicates exceedance of NYSDOH Indoor Air Guideline Value; methylene chloride = 60 ug/m^3; tetrachloroethene = 100 ug/m^3.

Table 2
Hanesbrands, Perry, NY
SVI Sample Results
(ppbv)

Sample ID	UW-1 Outdoor	IA-1 Indoor	SS-1 Sub-slab	IA-2 Indoor	SS-2 Sub-slab	IA-3 Indoor	SS-3 Sub-slab	IA-4 Indoor	SS-4 Sub-slab	IA-5 Indoor	SS-5 Sub-slab
Dilution Factor	0.8	0.8	1.5	60.7	4.0	79.9	3.0	84.0	66.5	40.0	5.93
Parameter											
Dichlorodifluoromethane	0.61 J	0.68	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
1,2-Dichlorotetrafluoroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Chloromethane	0.52	0.48	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Vinyl Chloride	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,3-Butadiene	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Bromomethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Chloroethane	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Bromoethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Trichlorofluoromethane	0.24	2.5	1.1	12 U	2.9	16 U	3.2	17 U	13 U	8	2.6
Freon TF	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,1-Dichloroethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	15	8 U	1.2 U
Acetone	4 U	9.1	23	300 U	26	400 U	34	420 U	330 U	200 U	51
Isopropyl Alcohol	4 U	4 U	7.5 U	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Carbon Disulfide	0.4 U	0.4 U	1.2	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
3-Chloropropene	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Methylene Chloride	0.59	10	8.9	1500	17	2500	77	1700	260	1400	34
tert-Butyl Alcohol	4 U	4 U	9	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Methyl tert-Butyl Ether	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
trans-1,2-Dichloroethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
n-Hexane	0.4 U	0.4 U	0.75 U	32	2 U	46	1.9	45	33 U	71	3 U
1,1-Dichloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	330	8 U	44
1,2-Dichloroethene (total)	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Methyl Ethyl Ketone	0.4 U	1.3	3.8	30 U	3.5	40 U	2.6	42 U	33 U	20 U	4.7
cis-1,2-Dichloroethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Tetrahydrofuran	4 U	4 U	7.5 U	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Chloroform	0.16 U	0.16 U	18	12 U	5.6	16 U	5.8	17 U	13 U	8 U	8.4
1,1,1-Trichloroethane	0.16 U	0.16 U	18	12 U	4	16 U	41	17 U	1400	8 U	220
Cyclohexane	0.16 U	0.16 U	1.2	12 U	0.8 U	16 U	2.2	17 U	62	8 U	11
Carbon Tetrachloride	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
2,2,4-Trimethylpentane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Benzene	0.16 U	0.16 U	0.81	12 U	0.8 U	16 U	0.89	17 U	13 U	8 U	1.2 U
1,2-Dichloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
n-Heptane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.96	17 U	13 U	8 U	1.2
Trichloroethene	0.16 U	0.16 U	3	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	4.4
1,2-Dichloropropane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,4-Dioxane	4 U	4 U	7.5 U	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Bromodichloromethane	0.16 U	0.16 U	0.76	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Methyl Isobutyl Ketone	0.4 U	0.4 U	21	30 U	20	40 U	11	42 U	33 U	20 U	33
Toluene	0.16 U	0.4	2.2	12 U	1.5	16 U	2.2	17 U	13 U	8 U	1.9
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,1,2-Trichloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Tetrachloroethene	0.16 U	0.25	12	12 U	98	44	93	17 U	57	33	220
Methyl Butyl Ketone	0.4 U	0.4 U	51	30 U	99	40 U	23	42 U	33 U	20 U	230
Dibromochloromethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2-Dibromoethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Chlorobenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Ethylbenzene	0.16 U	0.16 U	0.53	12 U	1.1	16 U	0.63	17 U	13 U	8 U	1.2 U
Xylene (m,p)	0.4 U	0.4 U	1.1	30 U	2 U	40 U	1.8	42 U	33 U	20 U	3 U
Xylene (o)	0.16 U	0.16 U	0.35	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Xylene (total)	0.16 U	0.16 U	1.5	12 U	0.8 U	16 U	1.8	17 U	13 U	8 U	1.2 U
Styrene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Bromoform	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,1,2,2-Tetrachloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
4-Ethyltoluene	0.16 U	0.16 U	0.42	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,3,5-Trimethylbenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
2-Chlorotoluene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2,4-Trimethylbenzene	0.16 U	0.16 U	0.63	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,3-Dichlorobenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,4-Dichlorobenzene	0.16 U	0.16 U	0.65	12 U	0.84	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2-Dichlorobenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2,4-Trichlorobenzene	0.4 UJ	0.4 U	0.75 U	30 UJ	2 U	40 UJ	1.5 UJ	42 U	33 UJ	20 UJ	3 UJ
Hexachlorobutadiene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Naphthalene	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U

Notes:

1. All concentrations in parts per billion by volume (ppbv)
2. U = Not detected at reporting limit
3. J = Estimated based upon DUSR

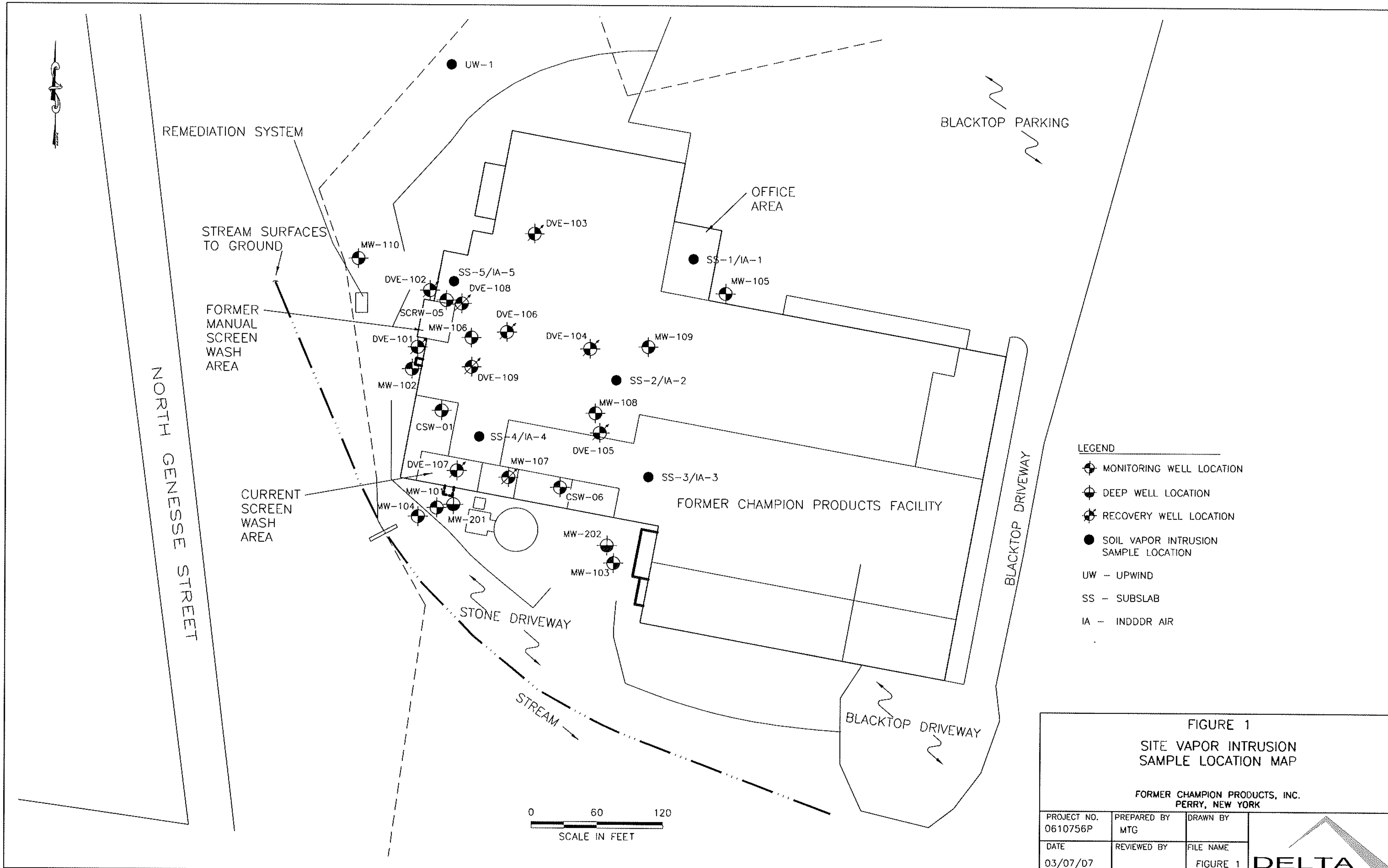
Table 3
Hanesbrands, Perry, NY
SVI Sample Results
Low-Level TO-15 Analysis

Sample ID	UW-1 Outdoor	IA-1 Indoor
Dilution Factor	4.0	4.0
Parameter (ppbv)		
Carbon Tetrachloride	0.061	0.064
Trichloroethene	0.04 U	0.04 U
Parameter (ug/m^3)		
Carbon Tetrachloride	0.38	0.4
Trichloroethene	0.21 U	0.21 U

Notes:

1. U = Not detected at reporting limit

FIGURES


UW-1
REMEDIATION SYSTEM
BLACKTOP PARKING
OFFICE AREA
STREAM SURFACES TO GROUND
MW-110
DVE-103
SS-1/IA-1
MW-105
DVE-102
SS-5/IA-5
DVE-108
FORMER MANUAL SCREEN WASH AREA
SCRW-05
DVE-106
MW-106
DVE-101
DVE-104
MW-109
DVE-109
MW-102
SS-2/IA-2
MW-108
CSW-01
SS-4/IA-4
DVE-105
NORTH GENESSE STREET
DVE-107
MW-107
SS-3/IA-3
CURRENT SCREEN WASH AREA
MW-101
CSW-06
MW-104
MW-201
FORMER CHAMPION PRODUCTS FACILITY
MW-202
MW-103
BLACKTOP DRIVEWAY
STONE DRIVEWAY
STREAM
BLACKTOP DRIVEWAY
LEGEND
MONITORING WELL LOCATION
DEEP WELL LOCATION
RECOVERY WELL LOCATION
SOIL VAPOR INTRUSION SAMPLE LOCATION
UW – UPWIND
SS – SUBSLAB
IA – INDDDR AIR
0 60 120
SCALE IN FEET
FIGURE 1
SITE VAPOR INTRUSION SAMPLE LOCATION MAP
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
PROJECT NO. 0610756P
PREPARED BY MTG
DRAWN BY
DATE 03/07/07
REVIEWED BY
FILE NAME FIGURE 1
DELTA

APPENDIX A

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Corey Drumm Date/Time Prepared Mar 23, 2007

Preparer's Affiliation Delta Consultants Phone No. 315 445 0224

Purpose of Investigation Soil Vapor Investigation

1. OCCUPANT:

Interviewed: Y / N

Last Name: Hanesbrands, Inc First Name: (American Classic Outfitters)

Address: 200 North Main Street, Perry, NY

County: Wyoming

Home Phone: X Office Phone: 585 237 6111

Number of Occupants/persons at this location ~95 Age of Occupants adults

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: ______ First Name: ______

Address: ______

County: ______

Home Phone: ______ Office Phone: ______

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ______

If the property is residential, type? (Circle appropriate response) N/A

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______

If multiple units, how many? X various additions, bldg/site shared w/ other businesses

If the property is commercial, type?

Business Type(s) Print Screen Apparel

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? X

Other characteristics:

Number of floors 1 plus mezzanine area   Building age 50 the addition 30 the

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

N/A

Airflow near source

exhaust from oven, (screen wash) spray booths, bathroom vents to outside

see diagram "Air Flows"

Outdoor air infiltration

at docks, janitor closet from office area, men's room (west) screen wash overhead door raised several inches

Infiltration into air ducts

office areas - HVAC ducts w/return air

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:		wood frame	concrete	stone	brick
b. Basement type:	N/A	full	crawlspace	slab	other ________
c. Basement floor:	"	concrete	dirt	stone	other ________
d. Basement floor:	"	uncovered	covered	covered with ____________	
e. Concrete floor:		unsealed	sealed	some sealed with ____________	
f. Foundation walls:	NA	poured	block	stone	other ________
g. Foundation walls:	NA	unsealed	sealed	sealed with ____________	
h. The basement is:	NA	wet	damp	dry	moldy
i. The basement is:	NA	finished	unfinished	partially finished	
j. Sump present?	NA	Y / N			

k. Water in sump? NA Y / N / not applicable

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

monitoring wells, water piping in some area – nothing notably significant

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other ________

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: nat. gas

Boiler/furnace located in: Basement Outdoors Main Floor Other roof mounts

Air conditioning: Central Air Window units Open Windows None space heaters

offices & prod'n

Are there air distribution ducts present? Y/N in office + production areas

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Noted air currents in bldg:

(1) from top of office area (crawl space) into janitor closet (2) infiltration from north docks, (3) bathroom exhausts to roof (4) towards spray booths/screen wash, (5) infiltrate from under dock door in screen wash, (6) south dock flow into sewing (7) own units – exhausting

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	N/A
1st Floor	~95
2nd Floor	N/A
3rd Floor	N/A
4th Floor	N/A

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify snowblower at North end docks w/ gas can

d. Has the building ever had a fire? Y / N When? ________

e. Is a kerosene or unvented gas space heater present? Y / N Where? various

f. Is there a workshop or hobby/craft area? Y / N Where & Type? N/A

g. Is there smoking in the building? Y / N How frequently? ________

h. Have cleaning products been used recently? Y / N When & Type? only routine janitorial

i. Have cosmetic products been used recently? Y / N When & Type? ________

j. **Has painting/staining been done in the last 6 months?** Y / N Where & When? ________

k. **Is there new carpet, drapes or other textiles?** Y / N Where & When? ________

l. **Have air fresheners been used recently?** Y / N When & Type? bathrooms

m. **Is there a kitchen exhaust fan?** N/A Y / N If yes, where vented? ________

n. **Is there a bathroom exhaust fan?** Y / N If yes, where vented? roof

o. **Is there a clothes dryer?** yes new maint Y / N If yes, is it vented outside? Y / N

p. **Has there been a pesticide application?** Y / N When & Type? ________

Are there odors in the building? Y / N
If yes, please describe: natural gas exhaust (slight?), slight solvent in some areas

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? see inventory

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: ________
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: ________

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: ________

10. RELOCATION INFORMATION (for oil spill residential emergency)

N/A

a. **Provide reasons why relocation is recommended:** ________

b. **Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

c. **Responsibility for costs associated with reimbursement explained?** Y / N

d. **Relocation package provided and explained to residents?** Y / N

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

(No basement) see attachments

First Floor:

see attachments

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

see workplan + associated attachments

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: PID Mini RAE 2000 (10.6)

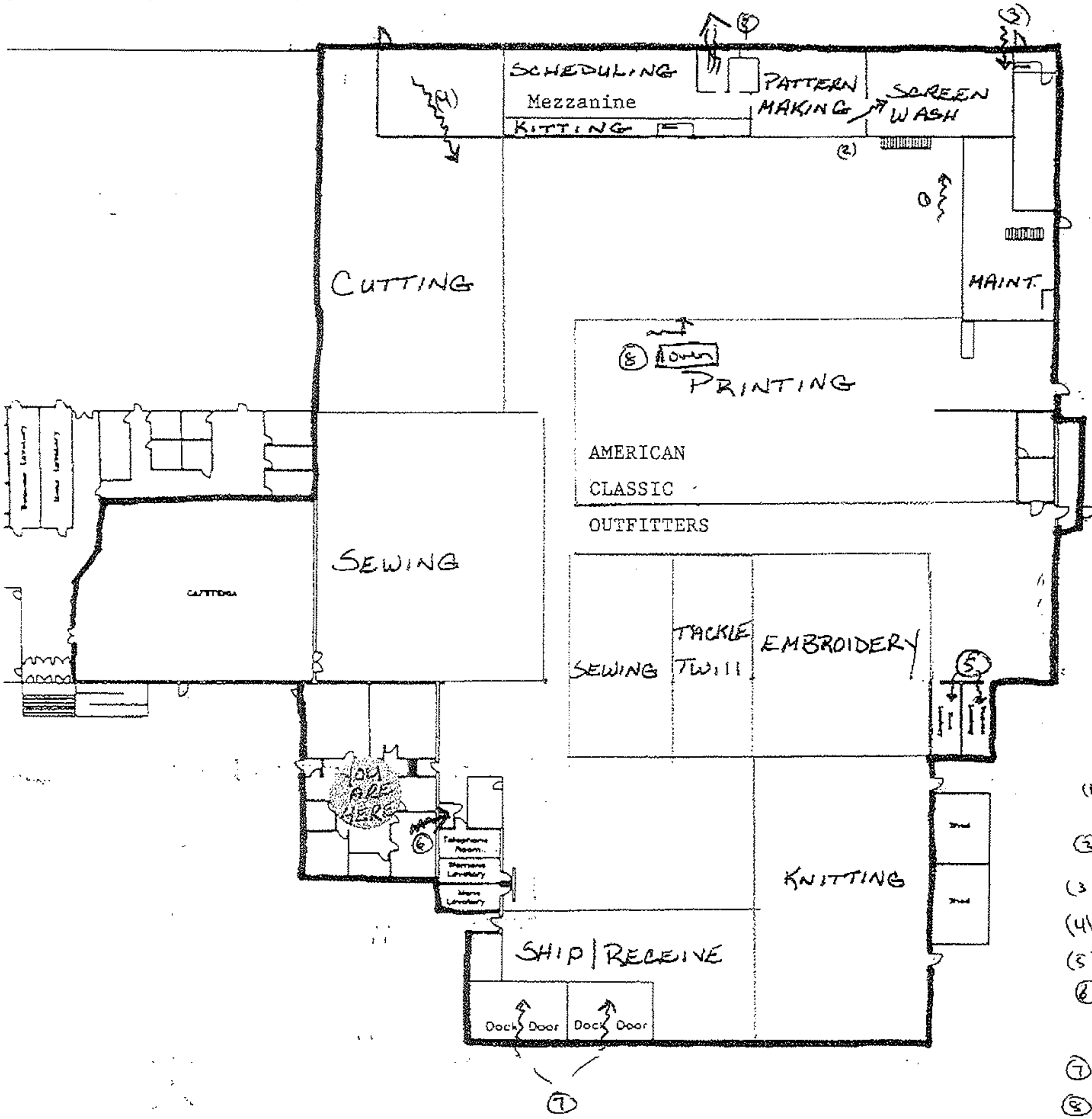
List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
	(detailed on separate list)					

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**
** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Air Flows
3/23/07

(#) ⟿ air flow



EMERGENCY EXITS

1 Main Entrance
2 Employee Entrance
3 Knitting
4 Knitting
5 Ink Room
6 Maintenance Shop
7 Screen Making
8 Cutting
9 Cafeteria

EMPLOYEES SHOULD EXIT THROUGH THE CLOSEST EXIT DOOR AND PROCEED TO THE DESIGNATED MEETING SPOT IN THE PARKING LOT.

(1) towards screen wash
- exhausts on spray booths
(2) towards screen wash
(3) infiltration under dock door
(4) unused dock area towards cutting
(5) bathroom vents exhaust to roof
(6) from top of offices - infiltration into janitors closet
(7) infiltration from docks
(8) oven draws in air, exhaust to roof
(9) exhaust ventilation to outside

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Corey Drumm Date/Time Prepared Mar 23, 2017

Preparer's Affiliation Delta Consultants Phone No. 315 445 0224

Purpose of Investigation Soil Vapor Investigation

1. OCCUPANT:

Interviewed: Y / N

Last Name: Hanesbrands, Inc First Name: (American Classic Outfitters)

Address: 200 North Main Street, Perry, NY

County: Wyoming

Home Phone: X Office Phone: 585 237 6111

Number of Occupants/persons at this location ~95 Age of Occupants adults

2. OWNER OR LANDLORD: (Check if same as occupant ✓)

Interviewed: Y / N

Last Name: ________ First Name: ________

Address: ________

County: ________

Home Phone: ________ Office Phone: ________

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: ________

If the property is residential, type? (Circle appropriate response) N/A

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:______

If multiple units, how many? X various additions, bldg/site shared w/ other businesses

If the property is commercial, type?

Business Type(s) Print Screen Apparel

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? X

Other characteristics:

Number of floors 1 plus mezzanine area   Building age 50 yr addition 30 yr

Is the building insulated? Y / N   How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

N/A

Airflow near source

exhaust from oven, (screen wash) spray booths, bathroom vents to outside

see diagram "Air Flows"

Outdoor air infiltration

at docks, ~~[illegible]~~ janitor closet from office area, men's room (west) screen wash overhead door raised several inches

Infiltration into air ducts

office areas - HVAC ducts w/return air

APPENDIX B

Hanesbrands – Perry, NY
March 23, 2007

SVI -- Chemical Inventory

Reception/Office Area: *PID = 0.0 ppm*
- 1 spray can CRC Silicone Lubricant
- 1 qt isopropyl alcohol
- 1 spray can static-gard
- 1 bottle lemon oil

Custodial Closet (near door to offices from plant): *PID = 0.0 ppm*
- 2 – 1 gal bottles Lysol anti-bacterial cleaner
- 1 gal Windex
- 2 – 1 gal Nugget "Pine Odor" cleaner
- 1 spray can silicone
- 1 spray cane "Duster Plus"
- 3 – 5 gal pails "Husky 911 Non-Chlorinated Industrial Solvent (glycol ethers)

North Dock Area: *PID = 0.2 ppm (at gas tank)*
- walk behind snowblower

Knitting: *PID = 0.2 ppm*
- 6-8 gal misc. oils on cart in 3 containers
- 1 can spray silicone
- light machine oil used to lubricate equipment in area
- 1 spray can wasp/hornet spray

Embroidery – Work Bench: *PID = 0.0 ppm*
- 1 spray can 3M Citrus Base Cleaner
    - 70-80% d-limonene
    - 10-20% propane
    - 7-13% trade secret surfactant
- 1 grease gun
- 1 spray can WD-40
- 1 can Teflon lubricant
- 1 qt can unknown solvent
- 1 pint Marvel mystery Oil

Embroidery – Embroidery Machines: *PID = 0.2 ppm*
- several small bottles machine oil
- several cans of spray adhesive (Camie300)
    - 45% hexane
    - 20% acetone
    - 15% isobutane
    - 10% propane
    - 5% dimethyl ether
- several spray cans of WD-40
- several cans of lithium grease

Men's Restroom (west production area): *PID = 0.5 ppm*
- wall mounted air freshner/deodorizer
- 1 spray can deodorizer/air freshner

Sewing: *PID = 0.1to 0.2 ppm*
- Several spray cans WD-40
- Several spray cans wasp/hornet spray

SVI -- Chemical Inventory

- Several cans spray adhesive (Camie 300)
- Several spray cans silicone
- Several spray cans CRC Contact Cleaner
    - 0-60% 1-methoxy-nonafluuorobutane
    - 0-60% 1-methoxy-nonaisofluuorobutane
    - 0-60% decafluoropentane
    - 30-50% difluoroethane
- Several applicators for machine oil
- 1+ gal "Champion Blend" Solvent
- 1 solvent rag container (w/Triple Blend?)

<u>Oven Area</u>: *PID = 0.2 ppm*
- 1 spray can Suave Hair Spray
- 1 pint isopropyl alcohol
- 2 small bottles stain remover
- several spray cans of spray adhesive (Camie 300)
- several spray cans of spot remover
- 2 – 1 gal containers of "Champion Blend" (aka Triple Blend) solvent
    - unknown % MeCl
    - unknown % PCE
- 1 solvent rag container (w/Triple Blend?)
- 2 gal +/- Press Wash (propylene glycol methyl ether)

<u>Cutting</u>:
- several spray cans silicone lube

<u>Pattern Making/Screen Wash</u>: *PID = 0.4 – 0.5 ppm*
- 1 qt ink wash
- 1 spray can room freshner/deodorizer
- 4 -1 gal cans Liquid Seal Solvent (MeCl based)
    - 85% methylene chloride (dichloromethane)
- 3 cans Liquid Seal catalyst
- 1 gal hydraulic oil
- 2 qts motor oil
- 2 – 55 gal drums Sunrise 2250 Stencil Reclaimer (open bung on one drum) – *PID = 0.6 ppm*
    - 1-10% sodium metaperiodate
- 2 – 55 gal drums Sunrise 2440 Ink Degradent (open bung on one drum)
- 1 – 55 gal drum Sunrise 500 Degreaser (open bung)
    - none listed

<u>Flammables Cabinet – Printing Area</u>: *PID = 0.6 ppm*
- 6-8 spray cans CRC Food Grade Silicone
- 3-4 spray cans Spray Adhesive (Camie 300)
- 6 – 5 gal pails Viscosity Reducer
    - <1.5% mineral spirits
- 3 – 5 gal pails Multi-Tech Reducer/Thinner
    - 100% aliphatic distillates

Hanesbrands – Perry, NY
March 23, 2007

SVI -- Chemical Inventory

Printing (Oven): *PID = 0.2 ppm*

- several spray cans Spray Adhesive (Camie 300)
- small tub hand cleaner
- Numerous inks in area
- 1 – 55 gal drum (mostly empty) ICC 872 Spray/Wip
    - <50% proprietary glycol ethers
    - >10% aliphatic hydrocarbon
    - >10% terpenes
- Empty/open container Press Wash – *PID > 10 ppm at bung*

Ink Room: *PID = 0.3 ppm*

- 100's of containers/ gallons of various inks – inks listed as non-VOC

Maintenance Area: *PID = 0.5 ppm*

- 1 qt pulling lube
- 4 -5 gal Amstone "Filler Sealer"
- Oily rag/solvent can
- 5000 Watt Portable generator (gasoline)
- Several spray cans WD-40
- Solvent parts cleaner (mineral spirits based)
- Open cutting oil reservoir on band saw

Maintenance Flammables Cabinet #1: *PID = 0.8 ppm*

- 6 – 1 gal cans misc paint/adhesive/shellac
- 2 – 3 gall gas can
- chain saw
- 5 gal press oil
- 5 spray cans clipper blade lube
- 8 spray cans vinyl strippable protective coating
- 5 gal hydraulic fluid

Maintenance Flammables Cabinet #2: *PID = 3 - 8 ppm*

- 15 misc spray cans (WD-40, silicone, flea killer, Teflon lube, etc.)
- 20 spray cans CRC Food Grade Silicone
- 1 gas can w/2-3 gal
- 2 – 5 gal containers hydraulic fluid
- 3 – 1 gal containers primer cold process cement
- 2 qts motor oil
- 1 qt MinWax stain
- 1 gal Fibre-Hair Plastic Filler

Mezzanine & Upstairs Office: *PID = 0.2 ppm*

- several misc. spray cans (Pledge, Static-Gard, spray adhesive, etc)

Notes:

1. ppm = parts per million
2. Products with MSDSs indicating VOCs and other organic compounds are highlighted in yellow

APPENDIX C

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ____________________
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: U W-1 Sample Location: NORTH OF BUILDING

Sample Type: [ ] Soil Gas [✓] Outdoor Air [ ] Near Slab [ ] Sub-Slab [ ] Indoor

Sample Depth (ft. bgs): ________ Sample Height (ft): 50'

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ________

Canister Size (L): 6 Canister ID: 3434 Flow Controller ID: 4505
Flow Rate: ________

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ________

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
3/29	10:45	Install Probe/Locate Sampler	
		Purge Probe	Method: ________ # of Purge Volumes ________
3/29	10:56	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	8:50	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [ ] Yes [✓] No If "yes," identify gas used: ______________

	Temperature (°F)		Pressure (Inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
Cool, SUNNY

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [✓] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:
Delivery Truck was near sampler @ around 3pm.

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: IA-1 Sample Location: OFFICE SPACE

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [ ] Sub-Slab [✓] Indoor

Sample Depth (ft. bgs): ______ Sample Height (ft): 50"

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: ______ Flow Controller ID: ______
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	10:35	Install Probe/Locate Sampler	
	10:40	Purge Probe	Method: ______ # of Purge Volumes ______
	10:58	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	9:08 pm	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [ ] Yes [✓] No If "yes," identify gas used: ____________

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [ ] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: SS-1 Sample Location: OFFICE SPACE

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [✓] Sub-Slab [ ] Indoor

Sample Depth (ft. bgs): 2" BELOW SLAB Sample Height (ft): ______

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 4326 Flow Controller ID: 3763
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	10:35	Install Probe/Locate Sampler	
	10:40	Purge Probe	Method: VACUUM # of Purge Volumes 3 VOLUMES
	10:58	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	9:00PM	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [✓] Yes [ ] No If "yes," identify gas used: HELIUM

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [✓] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: I A-7 Sample Location: SEWING AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [ ] Sub-Slab [✓] Indoor

Sample Depth (ft. bgs): ______ Sample Height (ft): 50"

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 4072 Flow Controller ID: 37767
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	5:30	Install Probe/Locate Sampler	
	5:50	Purge Probe	Method: Vacuum Pump # of Purge Volumes 3
	6:00AM	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	4:00PM	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [ ] Yes [X] No If "yes," identify gas used: ____________

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [X] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [ ] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:
SEWING PERSISTED THROUGHOUT SAMPLING EVENT

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: SS-4 Sample Location: SEWING AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [✓] Sub-Slab [ ] Indoor

Sample Depth (ft. bgs): 2" Below Slab Sample Height (ft): ______

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 2862 Flow Controller ID: 2839
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	5:30	Install Probe/Locate Sampler	
	5:50	Purge Probe	Method: VACUUM # of Purge Volumes 3
	6:00AM	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	4:00PM	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [✓] Yes [ ] No If "yes," identify gas used: Helium

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [X] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY, & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [✓] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:
SEWING PERSISTED THROUGHOUT SAMPLING EVENT

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 24, 2007

SAMPLE INFORMATION IA-3

Sample ID: ~~EA~~ ~~2~~ IA 3 Sample Location: FABRIC CUTTING AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [ ] Sub-Slab [✓] Indoor

Sample Depth (ft. bgs): ______ Sample Height (ft): 50"

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 4379 Flow Controller ID: 2837
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	9:15	Install Probe/Locate Sampler	
		Purge Probe	Method: ______ # of Purge Volumes ______
	9:34	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	9:08	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [ ] Yes [✓] No If "yes," identify gas used: ____________

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [✓] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ____________________
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: ~~SS-2~~ ~~SS-3~~ SS-3 Sample Location: FABRIC CUTTING AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [✓] Sub-Slab [ ] Indoor

Sample Depth (ft. bgs): 2" Below Slab Sample Height (ft): ____________

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ____________________

Canister Size (L): 6 Canister ID: 4148 Flow Controller ID: 2767
Flow Rate: ____________

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ____________

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
3/	9:15	Install Probe/Locate Sampler	
	9:20	Purge Probe	Method: Vacuum # of Purge Volumes 3
	9:34	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	9:08	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [✓] Yes [ ] No If "yes," identify gas used: HELIUM

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [ ] Yes [✓] No

If "yes," describe:

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler:
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: ~~IA-3~~ IA-4 Sample Location: STORAGE RACK AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [ ] Sub-Slab [✓] Indoor

Sample Depth (ft. bgs): ______ Sample Height (ft): 50"

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 4209 Flow Controller ID: 3383
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	6:40	Install Probe/Locate Sampler	
	7:00 AM	Purge Probe	Method: Vacuum # of Purge Volumes 3
	7:10 AM	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	5:10	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [ ] Yes [✓] No If "yes," identify gas used: ____________

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [✓] Yes [ ] No

If "yes," describe:
FAINT PAINT SMELL

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:
SAMPLING OCCURRED NEAR T-SHIRT TEMPLATE CLEANING AREA.

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: ~~SS-3~~ SS-4 Sample Location: STORAGE RACK AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [✓] Sub-Slab [ ] Indoor

Sample Depth (ft. bgs): 2" Below Slab Sample Height (ft): ______

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 4331 Flow Controller ID: 4503
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
	6:40	Install Probe/Locate Sampler	
	7:00	Purge Probe	Method: Vacuum # of Purge Volumes 3
	7:10	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	5:10	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [✓] Yes [ ] No If "yes," identify gas used: HELIUM

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [✓] Yes [ ] No

If "yes," describe:
FAINT PAINT SMELL

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:
SAMPLING OCCURRED NEAR T-SHIRT TEMPLATE CLEANING AREA

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: ______
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: ~~IA-1~~ IA-5 Sample Location: T-SHIRT PAINTING AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [ ] Sub-Slab [✓] Indoor

Sample Depth (ft. bgs): ______ Sample Height (ft): 50"

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify): ______

Canister Size (L): 6 Canister ID: 2670 Flow Controller ID: 4042
Flow Rate: ______

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify): ______

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
3/29	7:18	Install Probe/Locate Sampler	
3/29	~~7:20~~	Purge Probe	Method: ______ # of Purge Volumes ______
3/29	7:39	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	5:39	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

DELTA

Was a tracer gas used? [ ] Yes [ ] No If "yes," identify gas used: ____________________

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [✓] Yes [ ] No

If "yes," describe:
CHEMICAL SMELL

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:

DELTA

SOIL VAPOR INTRUSION SAMPLE LOG

Client Name: *Hanesbrands, Inc.*
Project Name: *Former Champion Products SVI*
Project Number: *0610756P*
Sampler: SS-4
Date: March 29, 2007

SAMPLE INFORMATION

Sample ID: ~~SS-4~~ SS-5 Sample Location: T-SHIRT PAINTING AREA

Sample Type: [ ] Soil Gas [ ] Outdoor Air [ ] Near Slab [✓] Sub-Slab [ ] Indoor

Sample Depth (ft. bgs): 2" Below Slab Sample Height (ft):

Sampler Type: [ ] Tedlar Bag [ ] Sorbent Tube [✓] Stainless Steel Canister
[ ] Other (specify):

Canister Size (L): 6 Canister ID: 3527 Flow Controller ID: 3294
Flow Rate:

Analytical Method: [ ] TO-14 [✓] TO-15 [ ] Other (specify):

Laboratory: *Severn Trent Laboratories*

SAMPLING DATA

Date	Time	Activity	Comments/Data
3/29	7:15	Install Probe/Locate Sampler	
3/29	7:30	Purge Probe	Method: Vacuum # of Purge Volumes 3 VOLUMES
3/29	7:39	Start Sample	
		Start Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
		Interim Vacuum & Flow Rate	
	8:39	End Sample	
		End Vacuum & Flow Rate	
		Duration of Sampling	
		Volume of Air Sampled	

Was a tracer gas used? [✓] Yes [ ] No If "yes," identify gas used: HELIUM

	Temperature (°F)		Pressure (inches Hg)	
	Interior	Ambient	Interior	Ambient
Start				
Finish				

OBSERVATIONS:

Weather Conditions:

Was there any significant precipitation within 12 hours prior to (or during) the sampling event?
[ ] Yes [✓] No If "yes," describe:

Describe the general weather conditions at the time of sampling:
SUNNY & COOL

Odors:

Was there any noticeable odors either prior to (or during) the sampling event? [✓] Yes [ ] No

If "yes," describe:
CHEMICAL SMELL

Other Activities:

Provide any other information that may be pertinent to the sampling event that may assist in the data interpretation process:

APPENDIX D

APPENDIX E

ALPHA GEOSCIENCE
Geology
Hydrology
Remediation
Water Supply

May 4, 2007

Mr. Tony Savino
Delta Environmental Consultants, Inc.
84 Business Park Drive, Suite 107
Armonk, New York 10504

Re: Data Validation Report
Hanesbrand Project
March 2007 Air Sampling Event

Dear Mr. Savino:

The data usability summary report and QA/QC review are attached to this letter for the Hanesbrand Project, March 2007 air sampling event. The data for STL Burlington, SDG no. NY119362 were acceptable with some minor issues that are identified and discussed in the validation summaries. There were no data that were flagged unusable (R) in this data pack.

A list of common data validation acronyms is attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Delta Environmental Consultants, Inc.

Sincerely,
Alpha Geoscience

Donald Anné

Donald Anné
Senior Chemist

DCA:dca
attachments

Z:\projects\2007\07600 - 07620\07612-hanesbrand\hanesbrand-1.ltr.wpd

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.

J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

ALPHA
GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

Data Usability Summary Report
for STL Burlington, SDG No. NY119362

11 Air Samples
Collected March 29, 2007

Prepared by: Donald Anné
May 10, 2007

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results of TO15 volatile analyses for 11 air samples.

The overall performances of the analyses are acceptable. STL Burlington did fulfill the requirements of the analytical method.

The data are acceptable with minor issues that are identified in the accompanying data validation review. The following data were flagged:

- The positive result for dichlorodifluoromethane was flagged as "estimated" (J) in sample UW-1 because the %D for dichlorodifluoromethane was above the allowable maximum in the associated initial calibration and the percent recoveries were above QC limits in LCS/LCSD CA041807LCS.

- The "not detected" results for 1,2,4-trichlorobenzene were flagged as "estimated" (J) in the following samples because 1 of 2 percent recoveries was below QC limits in LCS/LCSD CA041807LCS.

IA-2	SS-3	IA-3	SS-4	IA-4	SS-5
IA-5	UW-1				

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

ALPHA GEOSCIENCE

Geology

Hydrology

Remediation

Water Supply

QA/QC Review of Volatiles Data for
STL Burlington, SDG No. NY119362

11 Air Samples
Collected March 29, 2007

Prepared by: Donald Anné
May 4, 2007

Holding Times: Samples were analyzed within the EPA recommended holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.050) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRF10s and RRF0.1s for target compounds were above the allowable minimum (0.050), as required.

The %Ds for dichlorodifluoromethane (44.4%) and methyl butyl ketone (32.3%) were above the allowable maximum (30%) on 04-18-07 (CFJ10DV). Positive results for these two compounds should be considered estimated (J) in associated samples.

Blanks: The analyses of method blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Laboratory Control Sample: The relative percent differences (RPDs) were below the allowable maximum and the percent recoveries (%Rs) were within QC limits for LCS/LCSDs EA041807LCS and CA041707LCS.

The RPDs were below the allowable maximum, but the %Rs for dichlorodifluoromethane were above QC limits and 1 of 2 %Rs for 1,2,4-trichlorobenzene was below QC limits for LCS/LCSD CA041807LCS. Positive results for dichlorodifluoromethane and all results for 1,2,4-trichlorobenzene should be considered estimated (J) in associated samples.

Compound ID: Checked compounds were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

Z:\projects\2007\07600 - 07620\07612-hanesbrand\ny119362.t15.wpd a level approximately one to three feet above the top of the screen interval. A bentonite seal ranging in thickness from one to four feet was placed above the sand pack and the remaining annular space was grouted to the surface with cement grout. Each telescoping well was also completed with a locking cap and protective manway cover. Monitoring well construction details are included as Appendix A.

The soil cuttings derived from the drilling process were containerized in 55-gallon drums and were disposed of as a non-hazardous media at Chem-Waste Management's (CWM) Model City, NY facility. The Non-Hazardous Waste Manifests are included as Appendix F. The drilling equipment was steam cleaned prior to and between all monitoring well locations to minimize the possibility of cross-contamination. Decontamination fluids were also containerized in 55-gallon drums.

The monitoring well locations were professionally surveyed by Leonard A. Gardner, a New York licensed surveyor, for horizontal and vertical control. An arbitrary benchmark of 100 feet was established and the relative elevation of the ground surface and the monitoring wells measuring points were referenced to this benchmark, as presented in Table 1.

2.5.3 Ground Water Sampling

Ground water samples were obtained from the various monitoring wells on two to four occasions between May and November 1998. The ground water samples were obtained by bailing three to five well volumes of standing water from each well casing prior to obtaining the samples. All ground water samples were placed in ice and packed in coolers for shipment to the analytical laboratory. The purge and development water was placed in 55-gallon drums.

2.5.4 Sediment and Surface Water Sampling

Three surface water (Surface-1 through Surface-3) and three sediment samples (SED-1 through SED-3) were obtained from the stream in June 1998. The surface water samples were obtained by placing the sample jar directly into the water and the sediment samples were obtained using a hand auger.

2.5.5 Process Material Sampling

Three process samples were obtained from the screen wash vault during June and July 1998. A water sample from an electrical vault was obtained in July 1998 and an additional influent sample was obtained in March 1999. The process samples included obtaining liquid samples of the influent and effluent and a sample of the sludge that is present in the bottom of the screen wash vault. The liquid samples were obtained by placing the sample jar directly beneath the drain line and sludge sample was obtained using a stainless steel ladle.

2.5.6 Screen Wash Vault Upgrade

During the week of May 3, 1999 the existing concrete screen wash vault was removed and replaced with a 600-gallon, double-wall fiberglass tank and a trash pump. Since the tank is part of a wastewater treatment system, it is not subject to Federal or State underground storage tank regulations.

Prior to removal, the screen wash vault was cleaned by removing all liquids and sludges. The vault interior was then entered using confined space procedures in order to remove the remaining vault contents. Water removed from the vault was discharged to the Village of Perry POTW consistent with the on-going wastewater discharge from the vault that occurs during daily operations. Sludge removed from the tank was containerized into 55-gallon drums, and analyzed for hazardous waste characteristics. The analytical results from the sludge are presented in Appendix G. The sludge did not display the characteristics of a hazardous waste.

Upon removal of the vault, two feet of soil were removed from the sidewalls and the base of the vault. The excavated soil and the screen wash vault were replaced. Approximately 23 tons of soil and concrete and the four drums of sludge were disposed of by CWM at their Model City, NY facility as a non-hazardous media. The CWM Transporter Log and Non-Hazardous Waste Manifests are included as Appendix F.

Six soil samples were obtained from the excavation (one from each sidewall and two from bottom of vault after the soil removal was complete). Figure 10 presents the locations of the screen wash vault closure soil samples. The soil samples were sent to Upstate Laboratories, Inc. and analyzed for VOCs by EPA Method 8260. During the excavation process, field screening of the excavated soil was performed with a field organic vapor monitor (OVM) to determine if additional excavation of the soil was necessary. OVM readings were not observed above 1 part per million.

Stained soil was observed beneath the influent line and covered an area of approximately 1 foot x 1 foot. This material was excavated and placed into the roll-off. The existing PVC influent lines were replaced with galvanized steel lines. No other soil staining was observed during removal.

2.5.7 Former Empty Drum / Hazardous Waste Storage Area

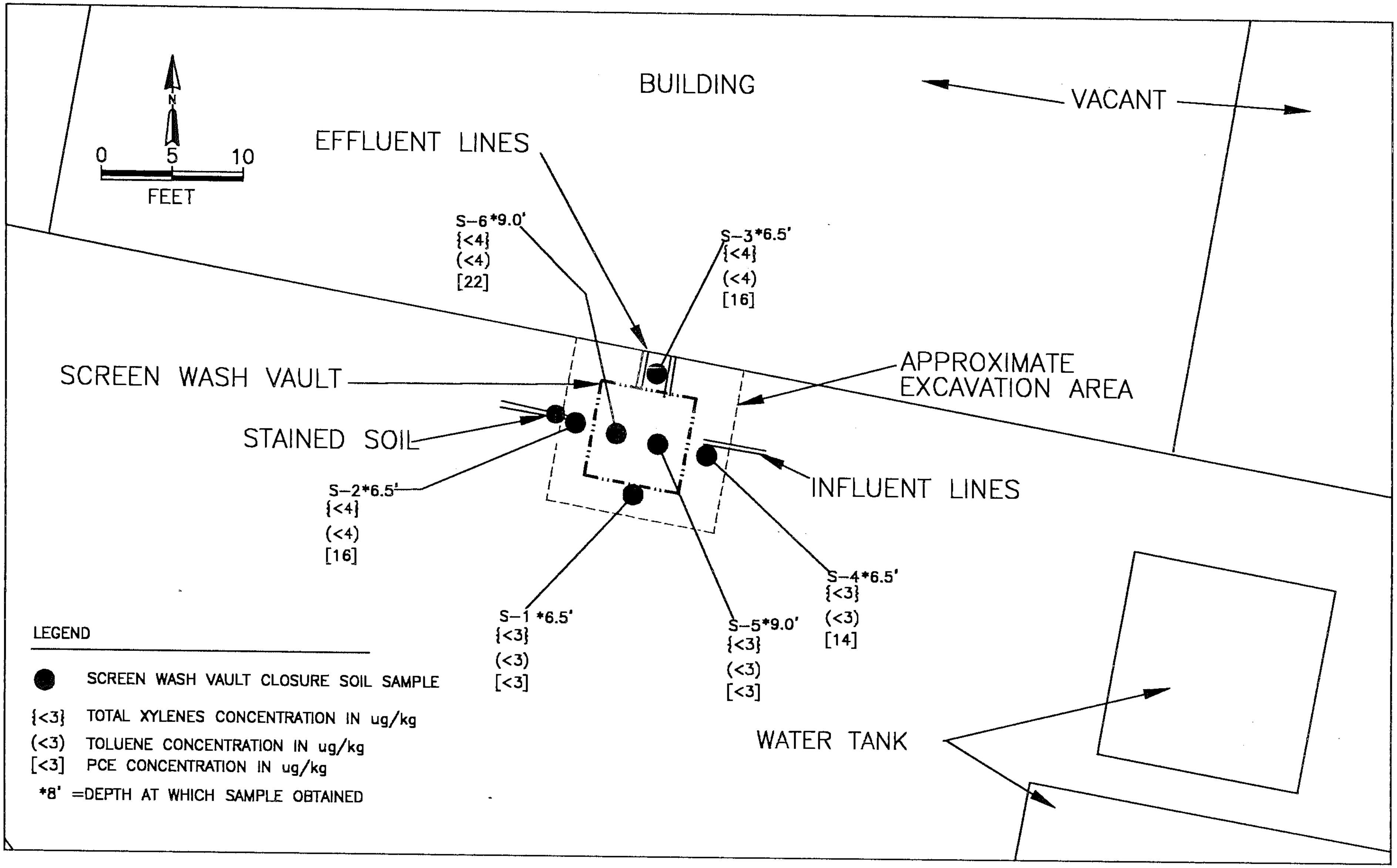
As discussed in previous sections of this Remediation Workplan, spent mineral spirits and paint thinner were containerized in drums and stored on the south side of the warehouse/manufacturing building (previously referred to as the former empty drum / hazardous waste storage area). During the 1998 investigations, six soil samples were initially obtained in this area at depths ranging from 8 – 14 feet bgs. Each of the soil samples was analyzed for VOCs by EPA Method 8260. Tetrachloroethene (PCE) was reported in soil sample SB-20 at a concentration that exceeds the Department's Technical Assistance Guidance Manual (TAGM) soil objective (TAGM, Appendix A, Table 1).

To address the PCE in excess of the TAGM soil objective at the location of SB-20, additional soil sampling was performed on June 10, 1999. The purpose of the soil sampling was to determine the extent and magnitude of PCE in excess of the TAGM soil objective.

Six additional Geoprobe borings (GP-101 through GP-106) were advanced to a depth of 15 feet bgs at the locations illustrated in Figure 11. Three soil samples were obtained from each boring and submitted to Upstate Laboratories, Inc. for VOC analysis by EPA Method 8260. The soil samples were obtained at two-foot intervals from depths of 2-4 feet, 8-10 feet, and 13-15 feet bgs.

2.5.8 Air Monitoring

Air monitoring was performed before and during extraction well installation. During the week of July 2, 1999 one passive air monitor was placed at each of the five interior extraction well installation locations for a minimum period of eight hours. The samples were used to provide a baseline to compare air samples obtained during well installation. During the time of the extraction well installation, one passive air monitor was placed at the exact location of the previous passive sample. Sampling with the passive air monitor began prior to initiation of well



Delta Environmental Consultants, Inc.

TITLE: SCREEN WASH VAULT CLOSURE SOIL CONCENTRATIONS–TOTAL XYLENES, TOLUENE AND PCE SCREEN WASH AREA CHAMPION PRODUCTS COMPANY PERRY, NEW YORK	DWN: HLW	DES.:	PROJECT NO.: S098-009
	CHKD:	APPD:	FIGURE NO.: 12
	DATE: 8/9/99	REV.:	

February 27, 2007

Mr. Maurice Moore
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: **System Shutdown Plan**
Former Champion Products, Inc.
Perry, New York
DEC Site No.: V000189-9
Delta Project No.: 0610756P

DELTA

Dear Maurice:

As a follow-up to our telephone calls of February 5 and 20, 2007, the following correspondence has been prepared for the shutdown of the dual phase vapor extraction (DPVE) treatment system for the above noted site. Review and approval of this shutdown plan is requested.

SHUTDOWN PLAN

The current DPVE system has been in operation at the Perry, NY site since July 2000. Significant reductions in contamination have been achieved and it is unlikely that any additional benefit will be derived from the continued operation of the system.

As noted in Table 1, site-wide dissolved phase volatile organic compound (VOC) levels have decreased by an average of 87% since system start-up. Isoconcentration maps are presented in Figure 1 showing the decreased extent of dissolved toluene (which is the VOC reported as having the highest dissolved concentration prior to system start-up) and 1,1-dichloroethane (which is the most prevalent VOC at the site prior to system start-up).

Given the progress made towards remediation, the shutdown plan is as follows:

- Shutdown and mothball the system by the end of February 2007.
- Submit work plans to NYSDEC for the performance of a baseline soil vapor intrusion (SVI) survey and sub-slab soil sampling to determine the levels of any residual contamination in the saturated zone.
- Perform the SVI work prior to the end of the heating season (March 31st).
- Perform the sub-slab soil sampling work.
- Perform limited groundwater sampling during February 2007 at monitoring wells CSW-01, MW-107 and SCRW-05.
- Perform follow-up groundwater sampling on a semi-annual basis in May and November 2007 to see if rebound occurs as compared to the previously collected data.

- Review the data to determine if anything else needs to be done to treat the source zone or address SVI.
- Prepare a report of the findings with recommendations to NYSDEC.

Table 2 presents the groundwater monitoring plan that will be followed after the limited February 2007 event.

CLOSING

Departmental approval of the shutdown plan is requested. Please contact us with any questions.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Anthony Savino
Project Manager

Enclosures

cc: Tommy Thompson, Hanesbrands
Maureen Crough, Sidley Austin Brown & Wood
Sam Gullo, American Classic Outfitters
Paul Sylvestri, Harter Secrest & Emery, LLP
Harry Parker, Esq
Martin Doster, NYSDEC
Ed Belmore, NYSDEC
Jim Charles, NYSDEC
Gary Litwin, NYSDOH
Matt Forcucci, NYSDOH
Johnnie Ho, Delta Consultants

TABLE 1
PERCENT CHANGE IN ANALYTE CONCENTRATION
Former Champion Products, Inc.
Perry, New York
Delta Product No. 0610756P

Monitoring Well	VOC with Highest Dissolved Concentration	Prior to System Startup			After System Startup																	
		Aug-98	Nov-98	Jul-00	Sep-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03	May-03	Aug-03	Nov-03	Feb-04	May-04	Aug-04	Nov-04
DVE-101	Toluene	NI	NI	8,300	**15,000**	880	2400	660	610	<5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	18	6	<1	1.9	<1
DVE-101	1,2,4-Trimethylbenzene	NI	NI	NA	**15,000**	320	200	67	<25	19	<1	<0.5	<0.5	1	0.6	2	9	3	<1	<1	<1	<1
DVE-101	n-Butylbenzene	NI	NI	NA	**15,000**	84	<50	<50	<25	<5	<3.0	6	<0.5	0.7	<0.5	<0.5	2	<1	<1	<1	<1	<1
DVE-102	Toluene	NI	NI	7	NS	<0.5	6	5	**130**	<5	<3.0	<1	0.7	NS	<3	<1	<1	9	NS	<1	1.8	<1
DVE-103	Methyl-ethyl-ketone	NI	NI	**45**	NS	NA	<10	<2.0	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	<10	NS	NS	NS
DVE-104	Toluene	NI	NI	<3	NS	<0.5	<0.5	<0.5	**25**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1
DVE-105	Methyl-ethyl-ketone	NI	NI	**38**	NS	NA	<10	<2.0	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5	NS	NS	NS
DVE-106	Toluene	NI	NI	**2,900**	NS	75	<1.0	<1.0	2600	8	<2	<0.5	1	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1
DVE-107	1,1-Dichloroethane	NI	NI	10	NS	37	<0.5	3	**100**	27	0.8	<0.5	25	4	0.9	<0.5	<1	<1	<1	<1	<1	<1
DVE-108	Chloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**590**	24	<1	<5	7.4	1.2
DVE-108	Toluene	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**6,500**	44	<1	<5	<5	3.1
DVE-108	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**980**	300	<1	110	90	4.4
DVE-109	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	38	23	2	<1	17	**60**
DVE-109	Toluene	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**23**	<2	8	<1	1	11
MW-101	Chloromethane	<3	<1	**14**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4	<0.5	<0.5	<0.5	<1	1	<1	NS	<1	NS
MW-102	Chloromethane	<3	<1	**24**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	3	NS	NS	<1	NS
MW-103	Methylene chloride	**16**	<1	<3	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	NS	NS	<1	NS
MW-104	Chloromethane	<3	<1	17	NS	8	15	3	23	**34**	<0.5	<0.5	<0.5	180	<0.5	<0.5	<1	3	NS	NS	<1	NS
MW-105	Chloroethane	23	<1	**78**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	NS	NS	<1	NS
MW-106	Toluene	**48,000**	6,100	24,000	NS	22,000	11,000	2,300	1,700	NS	670	69	900	120	30	570	1,000	1,600	1,800	280	1,300	130
MW-106	1,1-Dichloroethane	<30	**3,500**	2,100	NS	570	2,300	390	120	NS	<250	160	<250	53	340	2,200	1,000	740	390	50	360	130
MW-107	1,1-Dichloroethane	130	290	350	NS	NS	380	240	250	320	540	550	**580**	200	410	430	390	140	210	160	160	190
MW-108	Methyl-ethyl-ketone	**69**	<5	<10	NS	NA	<10	<4.0	<50	<50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
MW-108	1,1,1-Trichloroethane	<3	<1	<3	NS	<0.5	<0.5	<1.0	<3.0	<3.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<1	<1
MW-108	1,1-Dichloroethane	<3	<1	<3	NS	<0.5	4	<1.0	<3.0	<3.0	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<1	<1	<1	<1	<1	<1
MW-109	Toluene	<3	6.5	<3	NS	1	**55**	12	NS	NS	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	NS	<1	NS
MW-110	Tetrachloroethene	<3	<1	<3	NS	<0.5	<0.5	<1.0	NS	NS	<0.5	<0.5	3	<0.5	<0.5	<0.5	<1	<1	NS	NS	<1	NS
MW-111	Chloroform	<3	<1	<3	NS	<0.5	<0.5	<1.0	<0.5	**0.7**	<0.5	<0.5	<0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-201	Methyl-ethyl-ketone	**50**	7.3	<10	NS	NA	<10	<4.0	<20	<20	<20	<10	<10	<10	<10	<10	<10	<10	<10	NS	<10	NS
MW-201	1,1-Dichloroethane	<3	<1	<3	NS	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<0.5	**0.7**	<0.5	<0.5	<0.5	<1	<1	<1	NS	<1	NS
MW-202	Chloroform	<3	<1	<3	NS	<0.5	<0.5	<1.0	<0.5	<3.00	<0.5	<0.5	**2**	<0.5	<0.5	<0.5	<1	<1	NS	NS	<1	NS
SCRW-05	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3,500**	3,200	2,200	2,700	1,400	1,200	980	450
SCRW-05	Toluene	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	7,200	7,000	11,000	**13,000**	8,200	4,400	6,000	2,000
CSW-01	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	26	30	27	44	18	20	7.1	1.8
CSW-01	1,1,1-Trichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	12	12	12	**18**	9	7.8	2.3	<1
CSW-06	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**2.5**	<0.5	<1	<1	1	1	<1	<1

Notes:
All concentrations reported in micrograms per liter.
System startup occurred in July 2000.
NI = DVE-101 through DVE-107 were installed July 2000; SCRW-05, CWS-01 and CSW-06 were installed February 2003; DVE-108 and DVE-109 were installed August 2003.
NA = The ground water sample was not analyzed for this constituent.
NS = No sample obtained for this date.
DRY= Sample could not be obtained due to lack of sufficient water column.
Bold = Highest concentration reported for this analyte.

TABLE 1
PERCENT CHANGE IN ANALYTE CONCENTRATION
Former Champion Products, Inc.
Perry, New York
Delta Product No. 0610756P

Monitoring Well	VOC with Highest Dissolved Concentration	Prior to System Startup Aug-98	Nov-98	Jul-00	Feb-05	May-05	Aug-05	Nov-05	Feb-06	May-06	Aug-06	Nov-06	% change since start-up or well installation	
DVE-101	Toluene	NI	NI	8,300	<1	<1	<1	<1	<1	<1	1.3	<1	99.99%	decrease
DVE-101	1,2,4-Trimethylbenzene	NI	NI	NA	<1	<1	<1	<1	<1	<1	<1	<1	99.99%	decrease
DVE-101	n-Butylbenzene	NI	NI	NA	<1	<1	<1	<1	<1	<1	<1	<1	99.99%	decrease
DVE-102	Toluene	NI	NI	7	1.1	<1	<1	<1	<1	<1	<1	<1	85.71%	decrease
DVE-103	Methyl-ethyl-ketone	NI	NI	**45**	NS	NS	<10	<10	NS	NS	<10	NS	77.78%	decrease
DVE-104	Toluene	NI	NI	<3	<1	<1	<1	<1	<1	<1	<1	<1	66.67%	decrease
DVE-105	Methyl-ethyl-ketone	NI	NI	**38**	NS	NS	5	NS	NS	NS	<5	NS	86.84%	decrease
DVE-106	Toluene	NI	NI	**2,900**	<1	<1	1.6	NS	<1	<1	<1	<1	99.97%	decrease
DVE-107	1,1-Dichloroethane	NI	NI	10	<1	3.3	40	11	3.3	<1	<1	<1	90.00%	decrease
DVE-108	Chloroethane	NI	NI	NI	<1	<9	<5	<1	<1	<1	<1	<1	99.83%	decrease
DVE-108	Toluene	NI	NI	NI	<1	3.1	53	<1	<1	<1	<1	<1	99.98%	decrease
DVE-108	1,1-Dichloroethane	NI	NI	NI	<1	4.1	13	<1	1.1	<1	<1	<1	99.90%	decrease
DVE-109	1,1-Dichloroethane	NI	NI	NI	12	10	<1	<1	<1	<1	<1	<1	97.37%	decrease
DVE-109	Toluene	NI	NI	NI	<5	<1	1.6	<1	<1	<1	<1	<1	95.65%	decrease
MW-101	Chloromethane	<3	<1	**14**	NS	NS	<1	NS	NS	NS	<1	NS	92.86%	decrease
MW-102	Chloromethane	<3	<1	**24**	NS	NS	<1	NS	NS	NS	<1	NS	95.83%	decrease
MW-103	Methylene chloride	**16**	<1	<3	NS	NS	<1	NS	NS	NS	<1	NS	93.75%	decrease
MW-104	Chloromethane	<3	<1	17	NS	NS	<1	NS	NS	NS	<1	NS	94.12%	decrease
MW-105	Chloroethane	23	<1	**78**	<1	<1	<1	<1	<1	<1	<1	<1	98.72%	decrease
MW-106	Toluene	**48,000**	6,100	24,000	64	29	10	10	<1	<1	<1	<1	100.00%	decrease
MW-106	1,1-Dichloroethane	<30	**3,500**	2,100	<50	84	23	10	<1	<1	<1	<20	99.43%	decrease
MW-107	1,1-Dichloroethane	130	290	350	180	240	160	130	64	60	22	41	68.46%	decrease
MW-108	Methyl-ethyl-ketone	**69**	<5	<10	<10	<10	<10	<10	<1	<1	<1	<1	98.55%	decrease
MW-108	1,1,1-Trichloroethane	<3	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	66.67%	decrease
MW-108	1,1-Dichloroethane	<3	<1	<3	<1	<1	<1	<1	<1	<1	<1	<1	66.67%	decrease
MW-109	Toluene	<3	6.5	<3	NS	NS	NS	NS	NS	NS	NS	NS	84.62%	decrease
MW-110	Tetrachloroethene	<3	<1	<3	NS	NS	NS	NS	NS	NS	<1	NS	66.67%	decrease
MW-111	Chloroform	<3	<1	<3	NS	NS	NS	NS	NS	NS	NS	NS	66.67%	decrease
MW-201	Methyl-ethyl-ketone	**50**	7.3	<10	NS	NS	<10	NS	NS	NS	<10	NS	80.00%	decrease
MW-201	1,1-Dichloroethane	<3	<1	<3	NS	NS	<1	NS	NS	NS	<1	NS	66.67%	decrease
MW-202	Chloroform	<3	<1	<3	NS	NS	<1	NS	NS	NS	<1	NS	66.67%	decrease
SCRW-05	1,1-Dichloroethane	NI	NI	NI	260	220	DRY	280	270	490	350	18	99.49%	decrease
SCRW-05	Toluene	NI	NI	NI	2,000	1,500	DRY	1,700	1,900	2,800	2,400	<10	99.86%	decrease
CSW-01	1,1-Dichloroethane	NI	NI	NI	1.4	24	DRY	16	12	5.7	6.7	<2	92.31%	decrease
CSW-01	1,1,1-Trichloroethane	NI	NI	NI	14	DRY	DRY	10	9.2	3	4.8	<2	83.33%	decrease
CSW-06	1,1-Dichloroethane	NI	NI	NI	<1	<1	<100	<1	<1	<1	<1	<1	60.00%	decrease

Notes:
All concentrations reported in micrograms per liter.
System startup occurred in July 2000.
NI = DVE-101 through DVE-107 were installed July 2000; SCRW-05, CW:
NA = The ground water sample was not analyzed for this constituent.
NS = No sample obtained for this date.
DRY= Sample could not be obtained due to lack of sufficient water columr
Bold = Highest concentration reported for this analyte.

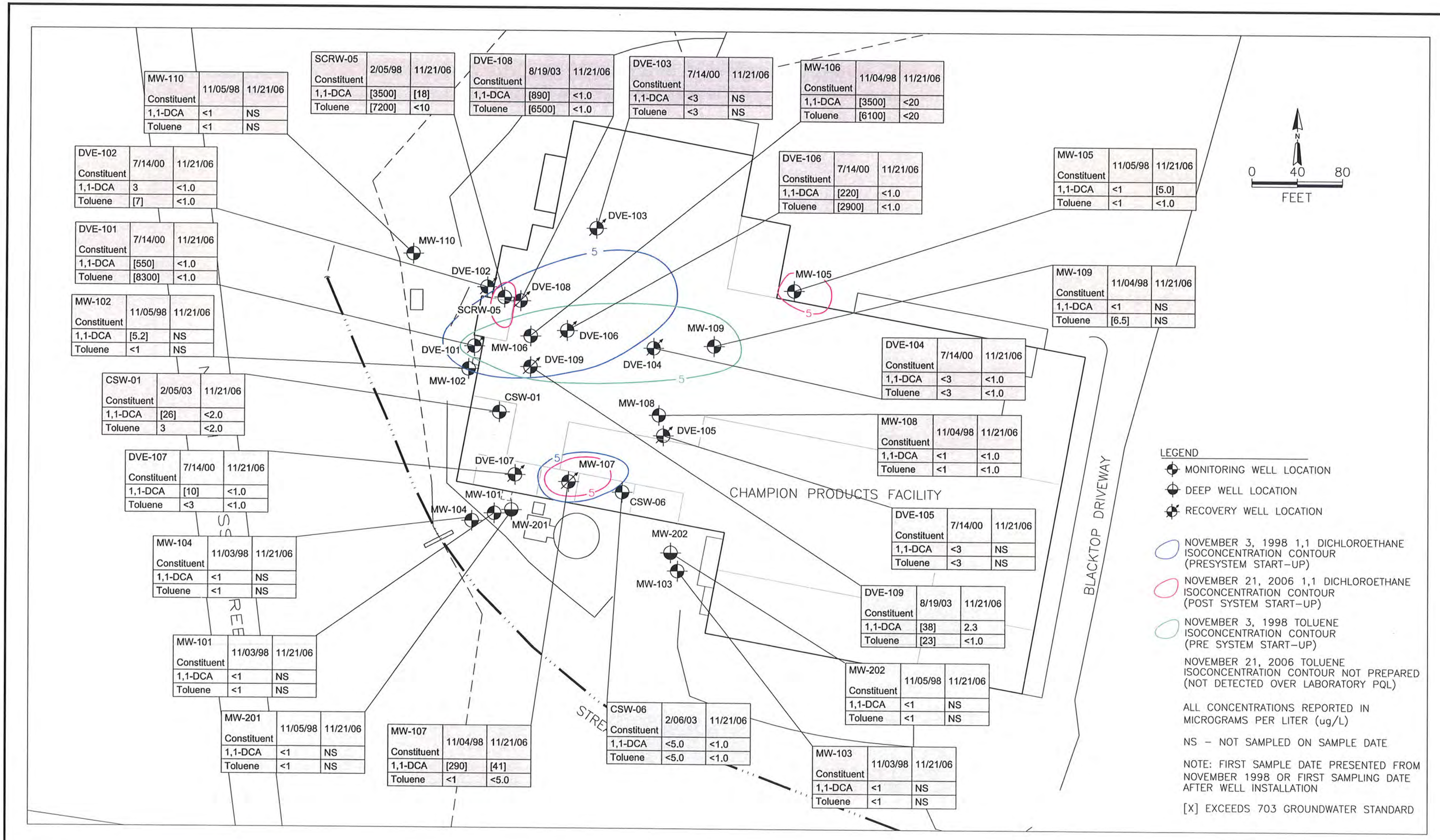
Average sitewide VOC concentration decrease: 87.25%

TABLE 2
GROUNDWATER MONITORING PLAN
Former Champion Products, Inc.
Perry, New York
DEC Site No.: V000189-9
February 2007

Current Quarterly Monitoring Network[1]	Current Annual Monitoring Network[2]
DVE-101	DVE-103
DVE-102	DVE-105
DVE-104	MW-101
DVE-106	MW-102
DVE-107	MW-103
DVE-108	MW-104
DVE-109	MW-109
MW-105	MW-110
MW-106	MW-201
MW-107	MW-202
MW-108	
CSW-01	
CSW-06	
SCRW-05	

Proposed Semi-Annual Monitoring Network[3]	Proposed Annual Monitoring Network[4]
DVE-101	DVE-103
DVE-102	DVE-105
DVE-104	MW-101
DVE-106	MW-102
DVE-107	MW-103
DVE-108	MW-104
DVE-109	MW-109
MW-105	MW-110
MW-106	MW-201
MW-107	MW-202
MW-108	
CSW-01	
CSW-06	
SCRW-05	

[1] Effective May 2004. Quarterly events were conducted in February, May and November.
[2] Effective May 2004. Annual events were conducted in August and include all monitoring wells sampled quarterly plus the annual wells listed.
[3] Proposed implementation May 2007.
[4] Proposed implementation May 2007. The annual event will be conducted in November and will include all wells sampled in May plus the annual wells listed.



DELTA

TITLE:
ISOCONCENTRATION CONTOUR MAP: 1,1-DICHLOROETHANE AND TOLUENE
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK

DWN: BV	DES.:	PROJECT NO.: 0610-756-P
CHKD:	APPD:	
DATE: 12/15/06	REV.:	FIGURE NO.: 1

APPENDIX 3

SUB SLAB INVESTIGATION
AND
REMEDIAL SUMMARY REPORT

SUB-SLAB INVESTIGATION AND REMEDIATION SUMMARY REPORT

Former Champion Products Facility
200 North Main Street
Perry, New York

VCP No. V000189-9
Delta Project No. 0610756P

November 10, 2008

Prepared for:

Hanesbrands, Inc.
1000 Hanes Mill Road
Winston-Salem, NC 27105

Prepared by:

Mr. Mark J. Schumacher
Senior Project Manager

Reviewed by:

Mr. Scott Bryant
Senior Project Manager

DELTA
104 Jamesville Road, Syracuse, New York 13214
315.445.0224 800.477.7411

TABLE OF CONTENTS

FIGURES

TABLES

TABLE OF CONTENTS continued

ATTACHMENTS

Note: Due to its size, Attachment 3 includes only the analytical data summary and not the full Category B data deliverable package. The full backup package is available upon request.

SUB-SLAB INVESTIGATION AND REMEDIATION SUMMARY REPORT
VCP NO. V000189-9

FORMER CHAMPION PRODUCTS FACILITY
200 NORTH MAIN STREET
PERRY, NEW YORK
DELTA PROJECT NO. 0610756P

1.0 INTRODUCTION

This report summarizes the activities performed and results of the Sub-slab Soil Investigation (SSI) and groundwater sampling events that were performed at the subject site (hereinafter the "Site") by Delta Consultants (Delta) on behalf of Hanesbrands, Inc. (HBI) in 2007 and 2008. The report also compares results from these activities with historic field observations as well as historic soil and groundwater analytical data and presents a summary of current Site conditions. SSI work was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved SSI Work Plan (dated April 26, 2007). Groundwater monitoring was conducted in accordance with the NYSDEC approved groundwater sampling plan dated January 22, 2007.

1.1 Objectives

The objectives of this report are to: 1) update the findings of the 2003 Site Characterization Study, 2) compare the 2007 SSI results to the applicable Remedial Program Soil Cleanup Objectives (SCOs) and assess current Site conditions, and 3) evaluate the SSI findings and results of other historic and recent evaluations at the Site and determine if onsite remedial activities have been successful and have achieved applicable remedial objectives.

1.2 Organization

This document presents the Sub-Slab Investigation and Remediation Summary Report for the Site and is organized as follows.

- A description of the overall project objectives and report organization (*Section 1.0*);
- A summary of site background and previous investigations and remedial work conducted at the Site *(Section 2.0)*;
- A description of the SSI work performed at the Site *(Section 3.0)*;
- A summary of 2007 and 2008 groundwater sampling activities *(Section 4.0)*;
- A summary of findings *(Section 5)* ;and
- Conclusions and recommendations *(Section 6.0)*.

2.0 SITE BACKGROUND

The former Champion Products (Champion) facility was owned and operated from 1955 until 1998 by Champion, an affiliate of the Sara Lee Corporation. In 1998, the property was sold to SMG Development Corporation. Following the sale, Champion leased the building from SMG and continued operations at the Site until December 2001. In January 2002, American Classic Outfitters (ACO) was formed and has operated at the Site since that time. Irrespective of ownership, the facility has been primarily used since 1955 for the manufacture of print screen apparel for sports teams and retail sale. A site plan of the facility is presented on Figure 1.

In March 2000, Champion entered into a Voluntary Cleanup Agreement (VCA) with NYSDEC for the remediation of soil and groundwater underlying the facility, which was impacted by chlorinated and non-chlorinated volatile organic compounds (VOCs). In accordance with the VCA, Champion implemented the remedial strategy presented in the NYSDEC-approved Final Remediation Work Plan (submitted on February 11, 2000). The Work Plan included installation, operation and maintenance of a dual phase vacuum extraction (DPVE) system and excavation and disposal of impacted soil from the Former Empty Drum Storage Area. HBI is now performing the activities initiated by Champion under the VCA.

2.1 Previous Investigations and Remedial Activities

A brief summary of the previous investigation and remedial activities, which were conducted at the Site between 2000 and 2007, are described below. Information referenced in this section has previously been provided to NYSDEC and is not provided in this report unless otherwise noted.

2.1.1 Dual Phase Vacuum Extraction System Operations

In July 2000, a DPVE system was installed to address VOC impacts in soil and groundwater in the Former Manual Screen Wash Area and the Current Screen Wash Area (Figure 1). In February 2007, the DPVE was shutdown in accordance with the NYSDEC approved System Shutdown Plan dated February 27, 2007. Shutdown of the system was approved based on system monitoring data that indicated the DPVE system had effectively reduced VOC concentrations across the impacted area of the Site by an average of 87 percent. Monitoring data also indicated that by 2007 VOC reductions had reached an asymptotic state and it was clear that continued operation of the system was not likely to achieve additional benefits in VOC reductions.

2.1.2 Site Characterization Study, February 2003

In February 2003, a Site Characterization Study (SCS) was performed to obtain soil samples from the Former Manual Screen Wash Area and the Current Screen Wash Area, which were located proximate to impacted areas identified in the Final Remediation Work Plan (February 2000). Objectives of the SCS were to better determination the nature and extent of impacted soils onsite and to determine the effectiveness of remediation by the DPVE system. During the SCS, 18 soil borings were installed onsite to depths of up to 16 feet below grade with 35 soil samples being analyzed for VOCs (Attachment 1). Groundwater samples were also collected from all onsite monitoring wells during the SCS. The following briefly summarizes the findings of the SCS.

- A review of soil analytical data collected from both screen wash areas indicated that between July 2000 and February 2003, the DPVE system had removed approximately 51 to 99.9 percent of VOCs from soil located within the DPVE extraction wells radius of influence.
- Toluene, xylenes and carbon disulfide were identified in soil samples at three locations (SCRW-5, SCRW-8 and SCRW-10) beneath the Former Manual Screen Wash Area at concentrations in excess of TAGM 4046 recommended soil cleanup objectives (SCOs). Concentrations of toluene and xylenes in the remaining soil samples located within the DPVE extraction well radius of influence for this area were below applicable TAGM 4046 SCOs.
- Analytical data for soil samples collected from the Current Screen Wash Area did not indicate the presence of VOCs in excess of TAGM 4046 SCOs; therefore, soil located within this area was not considered to be the source of dissolved phase VOCs previously observed in monitoring well MW-107.
- A review of available groundwater analytical data indicated that between July 2000 and February 2003, the concentrations of VOCs in groundwater within the Former Manual Screen Wash Area decreased by approximately 78 to 100 percent within the DVPE extraction wells radius of influence. However, the data also indicated that VOCs continued to be detected in monitoring wells (SCRW-05 and MW-106) located outside of the extraction wells radius of influence.
- VOCs were detected in groundwater samples collected from three extraction wells (DVE-103, DVE-104 and DVE-105) at concentrations below NYSDEC Class GA groundwater quality standards.

Based on the findings of the SCS, Delta recommended modifications to the DPVE system to enhance the removal of the remaining VOCs that had been identified in soil and groundwater across the treatment area. Following implementation of the recommended modifications, treatment continued onsite with some additional modifications to the system until the system was shutdown in February 2007.

Note: At the time of the SCS, soil sample analytical results were compared to the applicable NYSDEC recommended SCOs presented in TAGM 4046. On December 14, 2006, the 6 NYCRR Subpart 375-6 (Part 375) Remedial Program SCOs became effective and have thus superseded the TAGM 4046 SCO. NYSDEC has indicated to Delta that the Part 375 SCOs are now applicable to the Site; therefore, in future sections of this report all available soil analytical data will be referenced to and compared to the Part 375 SCOs.

2.1.3 Baseline Soil Vapor Intrusion Study, June 2007

In March 2007, a baseline Soil Vapor Intrusion (SVI) Study was conducted at the Site in accordance with the NYSDEC and New York State Department of Health (NYSDOH) approved SVI Work Plan dated March 12, 2007. The objectives of the SVI Study were to: 1) evaluate the potential exposure pathway from soil vapor intrusion from beneath the northwest portion of the facility where VOCs are documented to be present in soil and groundwater, 2) to determine baseline sub-slab and indoor air conditions prior to the performance of proposed sub-slab soil sampling within the remaining source area, and 3) to evaluate the potential for VOC rebound in groundwater following shutdown of the DPVE system. As part of the SVI Study, a pre-sampling building survey and chemical inventory were conducted followed by the collection of one upwind outdoor ambient air sample, five indoor ambient air samples, and five sub-slab air samples (Attachment 1). The following briefly summarizes the findings of the SVI Study.

- Four VOCs (dichlorofluoromethane, chloromethane, trichlorofluoromethane, and methylene chloride) were detected in the outdoor, upwind air sample at low concentrations.
- Two VOCs (methylene chloride and n-hexane) were generally detected at higher concentrations in indoor ambient air samples versus their corresponding sub-slab air samples.
- Concentrations of methylene chloride detected in four of the five ambient indoor air samples ranged from 4,900 ug/m^3 to 8,700 ug/m^3 and exceeded the NYSDOH Indoor Air Guideline of 60 ug/m^3.
- Concentrations of methylene chloride detected in sub-slab air samples ranged from 31 ug/m^3 to 900 ug/m^3 and were generally lower than those detected in the ambient indoor air samples by one to two orders of magnitude.
- Concentrations of n-hexane detected in ambient indoor air samples ranged from 110 ug/m^3 to 250 ug/m^3 and generally exceeded their corresponding sub-slab air sample concentrations by approximately one order of magnitude.
- VOCs detected in sub-slab samples at concentrations notably higher than corresponding ambient indoor air samples included 1,1,1-trichloroethane (TCA), tetrachloroethene (PCE), 1,1-dichloroethane (DCA), cyclohexane, and methyl ethyl ketone (MEK).
- Concentrations of PCE detected in two ambient indoor air samples (IA-3 @ 300 ug/m^3 and IA-5 @ 220 ug/m^3) exceeded the NYSDOH Air Guideline Value of 100 ug/m^3.
- Sub-slab concentrations of PCE at two sub-slab sample locations (SS-3 @ 630 ug/m^3 and SS-5 @ 1,500 ug/m^3) were higher than corresponding ambient indoor air sample concentrations.
- PCE was in three other sub-slab samples (SS-1, SS-2, and SS-4) at concentrations of 81 ug/m^3, 660 ug/m^3 and 390 ug/m^3, respectively.

Based upon the findings of the baseline SVI Study Delta concluded the following.

- There was no association between VOCs detected in upwind outdoor air and ambient indoor air samples.
- Methylene chloride and PCE were detected in ambient indoor air samples at concentrations that exceeded their respective NYSDOH Indoor Air Guidelines. However, concentrations of these VOCs in ambient indoor air samples were well below the OSHA Permissible Exposure Limits.
- Current ACO operations more than likely contributed to the detection of some compounds in the ambient indoor air samples, most notably methylene chloride, n-hexane, and PCE. This is consistent with findings from the pre-sampling chemical inventory, a review of MSDSs of onsite products in use, and the chemical odors noted during sampling.
- Indoor air concentrations of methylene chloride and n-hexane generally exceeded corresponding sub-slab vapor concentration by at least an order of magnitude indicating the likely association with ACO operations.
- PCE concentrations were notably higher in sub-slab air samples than corresponding indoor air samples. While some of the PCE in the indoor air samples may be associated with infiltration from the sub-slab, current manufacturing and production processes may also have contributed to the detection of PCE in indoor air samples.
- A review of the analytical data (indoor air and sub-slab air) indicated that several other VOCs (TCA, DCA, cyclohexane, and MEK) were also detected at the same sub-slab locations where elevated concentrations of PCE were detected. However, none of these VOCs were reported in indoor air samples at the detection limits reported, which indicated that a potential incomplete exposure pathway from sub-slab vapor existed.

3.0 SUB-SLAB SOIL INVESTIGATION

On May 19, 2007, five sub-slab soil borings (GSB-1 to GSB-5) were installed in the area of the Former Manual Screen Wash and Current Screen Wash to assess current soil conditions in screen wash areas where VOC impacts were observed in soils during the February 2003 SCS (Figure 2).

3.1 Soil Boring Installations

Soil borings were installed through the concrete floor within the building to a maximum depth of 16 feet below grade using “direct-push” soil sampling techniques. Soil samples were collected continuously from grade to the final depth of each boring. Following collection, all soil samples were logged by Delta’s onsite geologist, and screened in the field with a photoionization detector (PID) to assess the potential presence for VOCs. Soil descriptions along with field observations and results of field screening are presented on the soil boring logs included in Attachment 2. Upon completion, drill cuttings were used to backfill the soil borings and concrete patch was applied to repair holes through the concrete floor slab.

3.1.1 Soil Sampling

Soil samples were selected for laboratory analysis based on visual observations, odors, and PID head-space screening. Samples exhibiting the highest PID readings (a minimum of two per boring) were selected from each boring for analysis. Fourteen soil samples and one duplicate sample were analyzed for VOCs (EPA 8021 list by EPA Method 8260) by Severn Trent Laboratories (STL) located in Amherst, New York. STL is a New York State Department of Health (NYSDOH) Environmental Laboratory Program (ELAP) certified laboratory that uses analytical procedures that are consistent with the latest NYSDEC Analytical Services Protocol (ASP).

3.2 Data Validation

Analytical results were reported using NYSDEC ASP 2000 Category A deliverables. In accordance with the NYSDEC-approved SSI Work Plan, site-specific quality assurance/quality control (QA/QC) samples, including matrix spike (MS) and matrix spike duplicate (MSD) samples were not collected. Following receipt, analytical data was checked by Delta for completeness and accuracy; and was validated by a NYSDEC-approved data validation chemist and a Data Usability Summary Report (DUSR) was prepared. Laboratory analytical data is presented in Attachment 3 and the DUSR is presented in Attachment 4.

3.3 Data Evaluation

Following receipt of validated data, analytical data were checked for completeness and accuracy by Delta and data summary tables were prepared (Table 1). Soil analytical data were compared to 6NYCRR Part 375 SCOs.

3.4 Soil Boring Results

3.4.1 Geology

Soil boring samples indicated that the concrete floor beneath the investigation area was underlain by approximately 0.75-foot of sub-base gravel fill followed by up to approximately 14.75 feet of a mixed sand and gravel unit with varying minor fractions of silt and/or clay (Attachment 2). Unconsolidated soils in the upper seven feet of the boring were observed to be dry. Soils below seven feet in depth were wet.

These unconsolidated deposits were underlain by a bedrock unit at depths ranging from 13.9 feet to 16 feet below grade. Previously installed deep monitoring wells at the Site indicate that the underlying bedrock unit is composed of shale.

3.2.2 Field Screening

Field screening of soil samples indicated that there was no evidence of staining in any of the soil samples; however, "solvent-type" odors and elevated PID readings (>5ppm) were observed in three of the five soil borings (GSB-2, 3 and 4). Impacts to soils were generally detected in the saturated zone; whereas, soils in the unsaturated zone typically did not show evidence of impacts. A summary of the field observations are presented below.

- **GSB-1**: PID readings were observed at levels that were no higher that 4.7 ppm (12 feet to 13.9 feet) and there was no evidence of odors.
- **GSB-2**: PID readings were elevated between 8 feet and 14 feet in depth (180 ppm @ 8 feet to 10 feet, 10.4 ppm @ 10 feet to 12 feet, and 68.7 ppm @ 12 feet to 14 feet). Solvent-type odors were also noted in samples from 8 feet to 14 feet in depth.
- **GSB-3**: PID readings were elevated between 8 feet and 16 feet in depth (85 ppm @ 8 feet to 10 feet, 1,082 ppm @ 10 feet to 12 feet, 420 ppm @ 12 feet to 14 feet, and 38 ppm @ 14 feet to 16 feet). Solvent-type odors were also noted in samples from 8 feet to 16 feet in depth with strong odors being noted in the 10 foot to 12 foot depth interval.
- **GSB-4**: PID readings were elevated between 8 feet and 14.8 feet in depth (1,189 ppm @ 8 feet to 10 feet, 1,313 ppm @ 10 feet to 12 feet, and 336 ppm @ 12 feet to 14.8 feet). Solvent-type odors were also noted in samples from 8 feet to 14.8 feet in depth with strong odors being noted in the 8 foot to 12 foot depth interval.
- **GSB-5**: PID readings were slightly elevated between 8 feet and 14 feet in depth (32 ppm @ 8 feet to 10 feet, 25 ppm @ 10 feet to 12 feet, and 36 ppm @ 12 feet to 14 feet). Little to no odors were noted in samples from 8 feet to 14 feet in depth.

3.5 Soil Analytical Results

Soil analytical results are presented on Table 1, along with a comparison of the analytical data to Part 375 SCOs, which include SCOs that are based upon current, intended or reasonably intended land uses for impacted sites. Soil analytical data collected during the SSI were compared to both unrestricted use and restricted use SCOs. Unrestricted use SCOs represent the concentration of a contaminant in soil which, when achieved at a site, will require no use restrictions for the protection of public health, groundwater or ecological resources due to the presence of contaminants at the site. Restricted use SCOs are protective of public health at every restricted use site where contamination has been identified in soil above the protection limit for a particular use (residential, restricted-residential, commercial or industrial). In addition, SCOs for the protection of groundwater resources were also considered. A review of the soil analytical data indicated the following.

- VOCs were not detected in any samples at concentrations in excess of the restricted use SCOs (residential, restricted-residential, commercial, and industrial).
- VOCs were detected in two samples (GSB-6 @ 10 feet to 12 feet and GSB-4 @ 10 feet to 12 feet) at concentrations barely in excess of their respective unrestricted use SCOs. Acetone was detected in duplicate sample GSB-6 at a concentration of 53 ppb, which barely exceeded the 50 ppb unrestricted use SCO. This sample is a duplicate sample of GSB-3 from the same depth

interval, and while acetone was detected in the GSB-3 sample, it did not exceed the unrestricted use SCO for acetone. Xylenes (m and p) were detected in sample GSB-4 (280 ppb) and a re-analyzed sample GSB-4RI (300 ppb) at concentrations that barely exceeded the 260 ppb unrestricted use SCO.

- Acetone was detected in sample GSB-6 at a concentration, which barely exceeded the 50 ppb protection of groundwater SCO. This sample is a duplicate sample of GSB-3 from the same depth interval, and while acetone was detected in the GSB-3 sample, it did not exceed the protection of groundwater SCO.

4.0 GROUNDWATER MONITORING – 2007 AND 2008

On May 30, 2007 and March 11, 2008, groundwater samples and groundwater elevation measurements were collected from select onsite monitoring wells to evaluate groundwater conditions and flow patterns following the shutdown of the DPVE remedial system.

4.1 Groundwater Sampling

Groundwater samples were collected from fourteen wells (DVE-101, DVE-102, DVE-104, DVE-106, DVE-107, DVE-108, DVE-109, MW-105, MW-106, MW-107, MW-108, CSW-01, CSW-06, AND SCRW-05) during the May 2007 sampling event and from twenty one wells (DVE-101, DVE-103, DVE-104, DVE-105, DVE-106, DVE-107, DVE-108, DVE-109, MW-101, MW-102, MW-103, MW-105, MW-106, MW-107, MW-108, MW-109, MW-201, MW-202, CSW-01, CSW-06, AND SCRW-05) during the March 2008 sampling event. A groundwater sample was not collected from well DVE-102 during the March 2008 sampling event because the well could not be located under heavy snow cover at the time of sampling.

Groundwater samples from each monitoring event were analyzed for VOCs (EPA 8021 list by EPA Method 8260) by Upstate Laboratories, Inc. (ULI) located in Syracuse, New York. ULI is a New York State Department of Health (NYSDOH) Environmental Laboratory Program (ELAP) certified laboratory that uses analytical procedures that are consistent with the latest NYSDEC Analytical Services Protocol (ASP). Laboratory analytical data is presented in Attachment 5.

4.2 Data Evaluation

Following receipt, analytical data were checked for completeness and accuracy by Delta and data summary tables were prepared. Analytical data were not validated. Analytical data were compared to NYSDEC TOGS 1.1.1 ambient water quality standards and guidance values, which are derived from 6 NYCRR Parts 700-705, Water Quality Regulations.

4.3 Groundwater Flow

A shallow water table groundwater flow system is present in the mixed sand and gravel deposits located beneath the Site. Groundwater flow maps for May 30, 2007 and March 11, 2008 are presented on Figure 3 and Figure 4, respectively.

A review of the May 2007 groundwater flow map indicated that groundwater flow beneath the western area of the Site was generally to the east with some variations and a minor deflection to the southeast near the southwest corner of the building. The groundwater gradient was approximately 0.16 ft/ft.

A review of the March 2008 groundwater flow map indicated that groundwater flow beneath the western area of the Site was generally to the east with a minor deflection to the southeast near the southwest corner of the building. The groundwater gradient was approximately 0.17 ft/ft.

Groundwater flow conditions observed during the 2007 and 2008 monitoring events were consistent with groundwater flow direction and gradients historically observed at the Site.

4.4 Groundwater Analytical Results

Groundwater analytical data are presented on Table 2 along with a comparison to NYSDEC Class GA groundwater standards.

4.4.1 May 2007 Groundwater Analytical Results

A review of the May 30, 2007 groundwater analytical data indicate that between two and seven VOCs were detected in four (MW-106, MW-107, CSW-01 and SCRW-05) of the 14 wells sampled at concentrations in excess of applicable groundwater standards. Total VOC concentrations ranged from 19.8 ppb to 447 ppb. VOCs detected in the groundwater samples above applicable groundwater standards included; chloroethane, methylene chloride, TCA, DCA, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and vinyl chloride.

4.4.2 March 2008 Groundwater Analytical Results

A review of the March 11, 2008 groundwater analytical data indicate that between one and five VOCs were detected in five (MW-101, MW-106, MW-107, CSW-01and SCRW-05) of the 21 wells sampled at concentrations in excess of applicable groundwater standards. Total VOC concentrations ranged from 13.4 ppb to 176 ppb. VOCs detected in the groundwater samples above applicable groundwater standards included; chloroethane, TCA, DCA, 1,2,4-trimethylbenzene, cis-1,2-dichloroethene (cis-1,2-DCE), n-butylbenzene, and vinyl chloride.

5.0 SUMMARY OF FINDINGS

Soil and groundwater analytical data for samples collected from the Former Manual Screen Wash area and the Current Screen Wash Area during the 2003 SCS, the 2007 SSI, and the 2007 and 2008 groundwater sampling events, were reviewed to evaluate the effectiveness of previously implemented remedial activities across these areas of the Site and to determine current conditions in soil and groundwater in these areas following shutdown of the DPVE remedial system. A review and summary of the available data and comparison to the applicable Part 375 SCOs and NYSDEC Class GA groundwater standards is presented in the following sections.

5.1 Soil Sampling Findings

Soil sampling data collected during the 2003 SCS and 2007 SSI were compared to the Part 375 SCOs as these are the current SCOs which NYSDEC has indicated are applicable to the Site.

5.1.1 Current Screen Wash Area

In February 2003, eight soil borings (CSW-01 to CSW-07 and MM-1) were installed across the Current Screen Wash Area to determine if residual phase VOCs were present in the vicinity of monitoring well MW-107 and extraction well DVE-107 (Figure 2). A review of the analytical data indicated that one VOC (acetone) was detected in six of the 16 soil samples collected at concentrations (between 55 ppb and 75 ppb), which were slightly in excess of the unrestricted use and protection of groundwater SCOs (50 ppm) for acetone (Table 3). Exceedences of the acetone SCO were only observed in soil samples that were collected from the saturated zone at depths ranging from 8.5 feet to 14.5 feet below grade. Acetone was not detected in soil samples collected in the unsaturated zone at concentrations above unrestricted use and protection of groundwater SCOs. VOCs were not detected in any of the soil samples at concentrations in excess of restricted use SCOs (residential, restricted-residential, commercial and industrial).

In May 2007, two soil borings (GSB-1 and GSB-2) were installed across the Current Screen Wash Area to determine if the remedial system had effectively reduced concentrations of VOCs in soils across this area between 2003 and 2007 (Figure 2). A review of the analytical data indicated that VOCs were not detected in any of the five saturated zone soil samples analyzed from the soil borings at concentrations in excess of any of the Part 375 SCOs (Table 1). In addition, it should be noted that acetone was not detected in any of the soil samples. Based on a comparison of the 2003 and 2007 soil analytical data it is concluded that saturated soils in this area of the Site meet the most stringent Part 375 SCOs (unrestricted use and protection of groundwater) and that remediation activities were effective in reducing VOC impacts in soils across this area of the Site.

5.1.2 Former Manual Screen Wash Area

In February 2003, 10 soil borings (SCRW-01 to SCRW-10 were installed across the Former Manual Screen Wash Area to obtain soil samples proximate to impacted areas that were previously identified onsite in an effort to better determine the nature and extent of VOC impacts in soils across this area of the Site (Figure 2). The soil sampling data were also used to evaluate the effectiveness of the remedial system, which had been in operation since July 2000. A review of the analytical data indicated that up to four VOCs including acetone (three samples), carbon disulfide (one sample), toluene (three samples), and xylenes (two samples) were detected in 7 of the 19 soil samples at concentrations in excess of the unrestricted use and protection of groundwater SCOs (Table 3). Note: Carbon disulfide does not have a Part 375 SCO; however, under these circumstances NYSDEC recommends using a TAGM 4046 SCO for evaluation purposes. Exceedences of VOCs in soils were detected in soil samples collected from the saturated zone at depths ranging from 9 feet to 15 feet below grade. VOCs were not detected in any soil samples in the unsaturated soils at concentrations in excess of any SCOs.

In May 2007, three soil borings (GSB-3, GSB-4 and GSB-5) were installed across the Former Manual Screen Wash Area to determine if the remedial system had reduced concentrations of VOCs in soils across this area between 2003 and 2007 (Figure 2). A review of the analytical data indicated that VOCs were detected in two of the ten saturated zone soil samples analyzed from these soil borings at concentrations slightly in excess of Part 375 unrestricted use and/or protection of groundwater SCOs (Table 1). Acetone was detected in a duplicate sample (GSB-6) at a concentration of 53 ppb, which barely exceeded the 50 ppb unrestricted use and protection of groundwater SCOs. This sample was a duplicate sample of GSB-3 at the same depth interval and while acetone was detected in the GSB-3 sample, it did not exceed the unrestricted use or protection of groundwater SCO for acetone. In addition, xylenes (m and p) were detected in sample GSB-4 (10 feet to 12 feet) and the reanalyzed sample for that depth interval (GSB-4RI) at concentrations (280 ppb and 300 ppb, respectively) that barely exceeded the 260 ppb SCO for unrestricted use. VOCs were not detected in any samples at concentrations in excess of the restricted use SCOs (residential, restricted-residential, commercial, and industrial). Based on a comparison of the 2003 and 2007 soil analytical data it is concluded that soils in this area of the Site meet and/or very closely approximate the most stringent Part 375 SCOs (unrestricted use and protection of groundwater) and that remediation has been effective in reducing VOC impacts in soils across this area of the Site.

5.2 Soil Sampling Summary

A review of soil analytical data from the 2003 SCS indicated that VOCs were detected in saturated soils beneath the building in the Current Screen Wash Area (8.5 feet to 14.5 feet) and the Former Manual Screen Wash Area (9 feet to 15 feet) at concentrations in excess of Part 375 unrestricted use and protection of groundwater SCOs. In 2003, the areal extent of VOC impacts across the Current Screen Wash Area was estimated to encompass approximately 8,400 square feet (sf) and the areal extent across the Former Manual Screen Wash Area was estimated to encompass approximately 5,600 sf (Figure 5). Total VOC concentrations in saturated soil samples beneath the Current Screen Wash Area ranged from 41 ppb to 75 ppb and beneath the Former Manual Screen Wash Area from 0 ppb to 19,600 ppb (Table 3). VOCs were not detected in any soil samples from the unsaturated zone beneath either area at concentrations in excess of any of the Part 375 SCOs; therefore, unsaturated zone soils were not considered to be an area of concern at the Site.

A review of soil analytical data from the 2007 SSI indicated that VOCs were not detected in saturated soils beneath the building in the Current Screen Wash Area at concentrations in excess of any of the Part 375 SCOs. In the Former Manual Screen Wash Area, acetone was detected in one saturated zone soil sample (a duplicate) at a concentration barely in excess of Part 375 unrestricted use and protection of groundwater SCOs, while xylenes were detected in a second sample at concentrations slightly in excess of the unrestricted use SCOs. The analytical data also indicated that the areal extent of VOC impacts across the Current Screen Wash Area had been reduced by 100 percent (Figure 5). VOCs detected in the 2007 soil samples were at concentrations that were significantly below the most stringent SCOs. In addition, the analytical data indicated that the areal extent of VOC impacts across the Former Manual Screen Wash Area had been reduced by approximately 94 percent to an area of approximately 360 square feet that was tightly centered around soil borings GSB-3 and GSB-4 (Figure 5). Previous soil samples (SCRW-8 and SCRW-10) that had been collected from immediately adjacent soil borings in 2003 had total VOC concentrations of 6,800 ppb and 19,600 ppb, respectively. In 2007, total VOC concentrations in samples from soil borings GSB-3 and GSB-4 had decreased by between 92 and 99 percent to concentrations of between 205 ppb and 567 ppb, respectively.

Overall, the 2007 SSI analytical data indicated that the remedial activities conducted at the Site were effective in significantly reducing VOC concentrations in saturated soils beneath known source areas to concentrations that met and/or very closely approximate the most stringent Part 375 SCOs (unrestricted use and protection of groundwater). Based on these findings it is clear that the source areas onsite have been effectively remediated by the treatment activities.

5.3 Groundwater Sampling Summary

Groundwater analytical data from the 2003 SCS indicated that VOCs were detected in five groundwater samples (MW-105, MW-106, MW-107, CSW-01 and SCRW-05) at concentrations in excess of NYSDEC Class GA groundwater quality standards (Table 4). Impacts to groundwater were indicated in wells located in the Current Screen Wash Area (CSW-01 and MW-107) and the Former Manual Screen Wash Area (MW-105, MW-106 and SCRW-05). Total VOC concentrations in these samples ranged from 21 ppb to 3,850 ppb. VOCs detected in the groundwater samples above applicable groundwater standards included; chloroethane, chloroform, TCA, DCA, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and isopropyl benzene.

In May 2007 groundwater samples were collected from wells located across the Current Screen Wash Area and Former Manual Screen Wash Area to evaluate the effectiveness of the remedial treatment activities. A review of the analytical data from this sampling event indicated that VOCs were detected in four groundwater samples (MW-106, MW-107, CSW-01 and SCRW-05) at concentrations in excess of NYSDEC Class GA groundwater standards (Table 2). Total VOC concentrations in these samples ranged from 19.8 ppb to 447 ppb. A comparison to the 2003 groundwater analytical data indicated that total VOC concentrations in wells MW-105, MW-106, MW-107, CSW-01 and SCRW-05 decreased by between 62 percent (CSW-01) and 97 percent (MW-106). The analytical data also indicated that the largest decreases in total VOC concentrations occurred in wells MW-106 (1,188 ppb in 2003 to 35.8 ppb in 2007) and SCRW-05 (3,850 ppb in 2003 and 447 ppb in 2007), which in 2003 had the highest total VOC concentrations. Based on a comparison of the 2003 and 2007 groundwater analytical data it can be concluded that remedial activities were effective in significantly reducing VOC concentrations in groundwater beneath impacted areas of the Site.

In March 2008 groundwater samples were collected from wells located across the Current Screen Wash Area and Former Manual Screen Wash Area to evaluate groundwater conditions onsite following the shutdown of the remedial system in February 2007. A review of the analytical data from this sampling event indicated that VOCs were detected in five groundwater samples (MW-101, MW-106, MW-107, CSW-01 and SCRW-05) at concentrations in excess of NYSDEC Class GA groundwater standards (Table 2). Total VOC concentrations in these samples ranged from 13.4 ppb to 176 ppb. A comparison to the 2007 groundwater analytical data indicated that total VOC concentrations continued to decrease in wells MW-107, CSW-01 and SCRW-05 and that a slight rebound had occurred in well MW-106. A comparison of data for well MW-101 could not be made as this well was not sampled in 2007; however, compared to 2003 data, total VOC concentrations were observed to remain similar. Overall analytical data from this sampling event generally indicated that VOC concentrations in groundwater beneath affected areas of the Site continued to decrease following shut down of the remedial system. These continuing decreases suggest that natural attenuation is occurring and that further reductions can be expected.

Overall, between 2003 and 2008 total VOC concentrations in wells located across the Current Screen Wash Area and Former Manual Screen Wash Area have shown a steadily decreasing trend in total concentrations. Since 2003 VOC concentrations have decreased between 72 percent and 96 percent in wells MW-105 (91.5 percent), MW-106 (91 percent), MW-107 (93 percent), CSW-01 (72 percent) and SCRW-05 (96 percent). The largest decreases in total VOC concentrations were noted in wells MW-106 and SCRW-05, which were located in the Former Manual Screen Wash Area. These wells had the highest overall concentrations of total VOCs detected in them in 2003 (MW-106 @1,188 ppb and SCRW-05 @ 3,850 ppb) and have shown the greatest overall declines in total VOC concentrations through 2008.

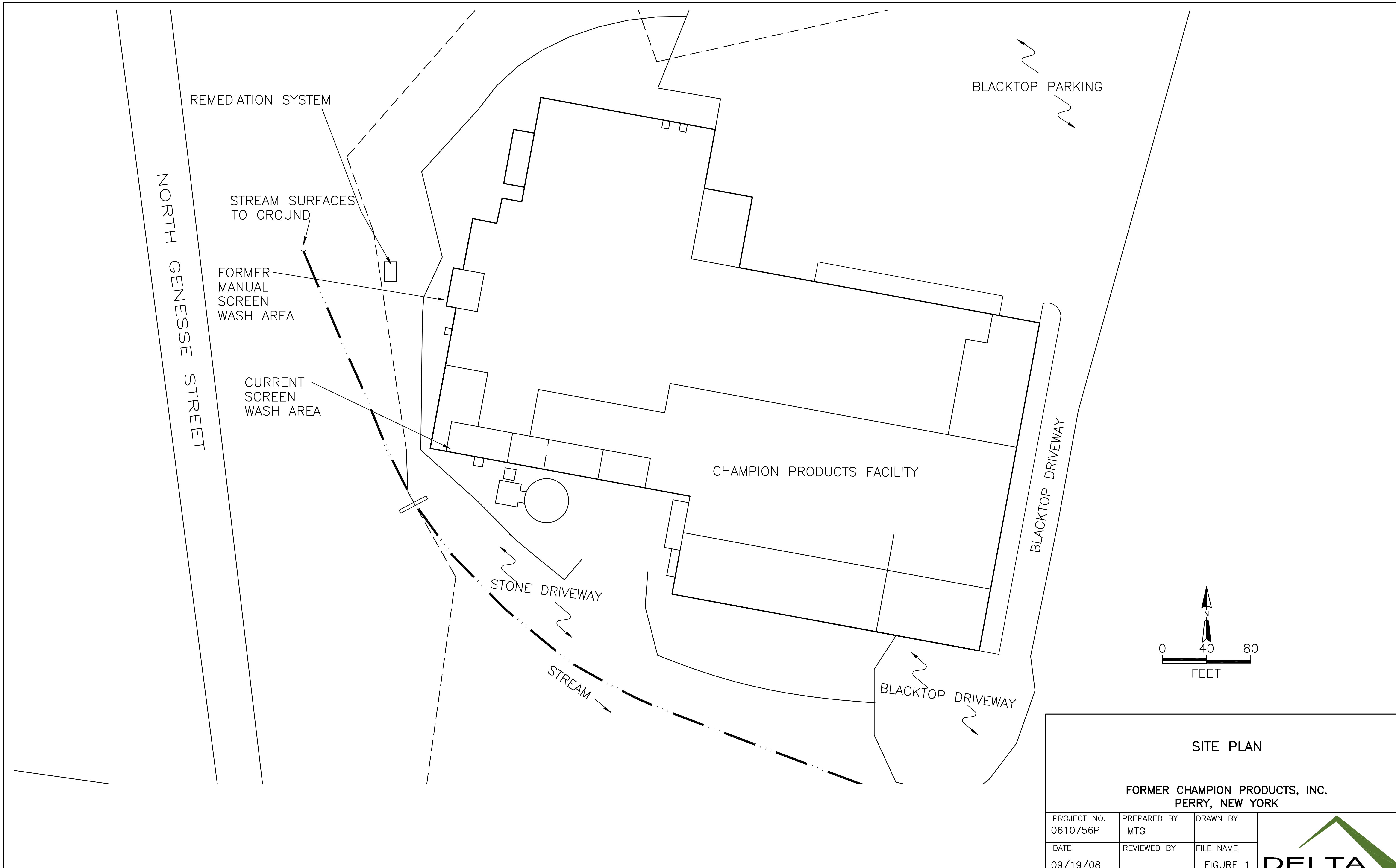
6.0 CONCLUSIONS AND RECOMMENDATIONS

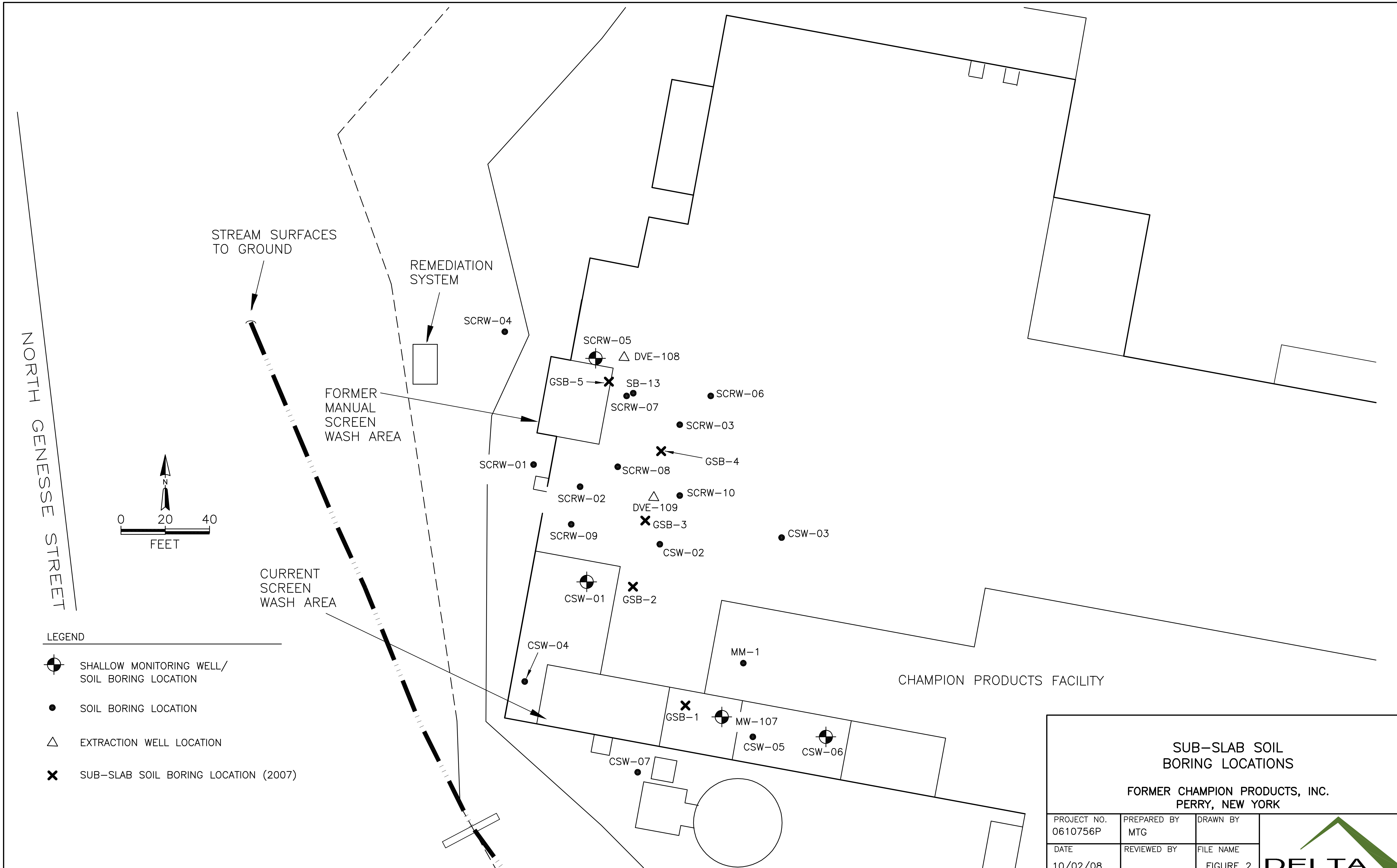
SSI findings indicated that remedial activities have effectively reduced VOC concentrations in saturated soils beneath known source areas to levels that meet and/or closely approximate the most stringent Part 375 SCOs (unrestricted use and protection of groundwater). Reductions in VOCs concentrations in soils are a direct result of effective removal of source materials by the remedial system. Groundwater analytical data support these findings by showing continuing decreases in VOC concentrations in groundwater across the known source areas. As the remedial system has removed source materials there has been a trend towards significant reductions of VOCs in groundwater. While concentrations of VOCs in groundwater are still slightly above applicable NYSDEC groundwater standards, continuing VOC reductions in groundwater indicate that natural attenuation has been occurring across impacted areas following shutdown of the remedial system. Based on available analytical data it is Delta's opinion that natural attenuation will continue at the Site and further reductions in VOCs concentrations in groundwater will occur without the need for active remediation.

Soil and groundwater analytical data have shown that site remediation activities have effectively reduced VOC impacts in soil and groundwater onsite to levels that meet and/or slightly exceed applicable soil and groundwater goals. Soil vapor sampling has also shown that there is an incomplete pathway from the subsurface to the interior of the building and that the remaining impacts in soil and groundwater do not pose a risk to indoor air quality. Based on these findings Delta believes that the goals of the remedial activities have been met and that remaining limited impacts at the Site do not pose a risk. Therefore, on behalf of HBI, Delta requests that a "No Further Action" letter be issued for the Site and that remediation be considered complete.

This report was prepared by **DELTA CONSULTANTS**.

FIGURES


REMEDIATION SYSTEM
BLACKTOP PARKING
NORTH GENESSE STREET
STREAM SURFACES TO GROUND
FORMER MANUAL SCREEN WASH AREA
CURRENT SCREEN WASH AREA
CHAMPION PRODUCTS FACILITY
BLACKTOP DRIVEWAY
STONE DRIVEWAY
STREAM
BLACKTOP DRIVEWAY
N
0 40 80
FEET
SITE PLAN
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
PROJECT NO.
0610756P
PREPARED BY
MTG
DRAWN BY
DATE
09/19/08
REVIEWED BY
FILE NAME
FIGURE 1
DELTA

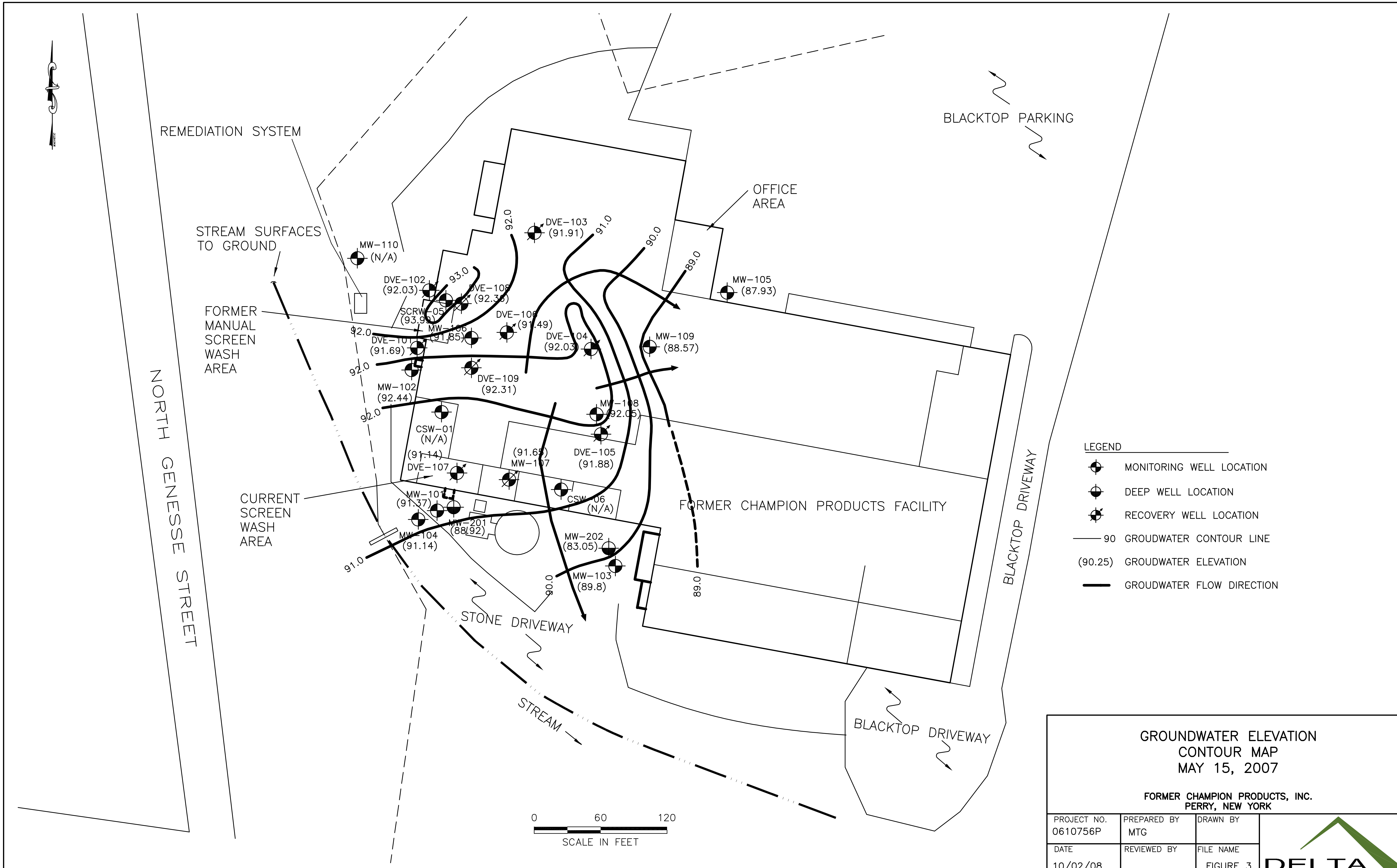


SUB-SLAB SOIL BORING LOCATIONS

FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK

PROJECT NO.	PREPARED BY	DRAWN BY
0610756P	MTG	
DATE	REVIEWED BY	FILE NAME
10/02/08		FIGURE 2

DELTA

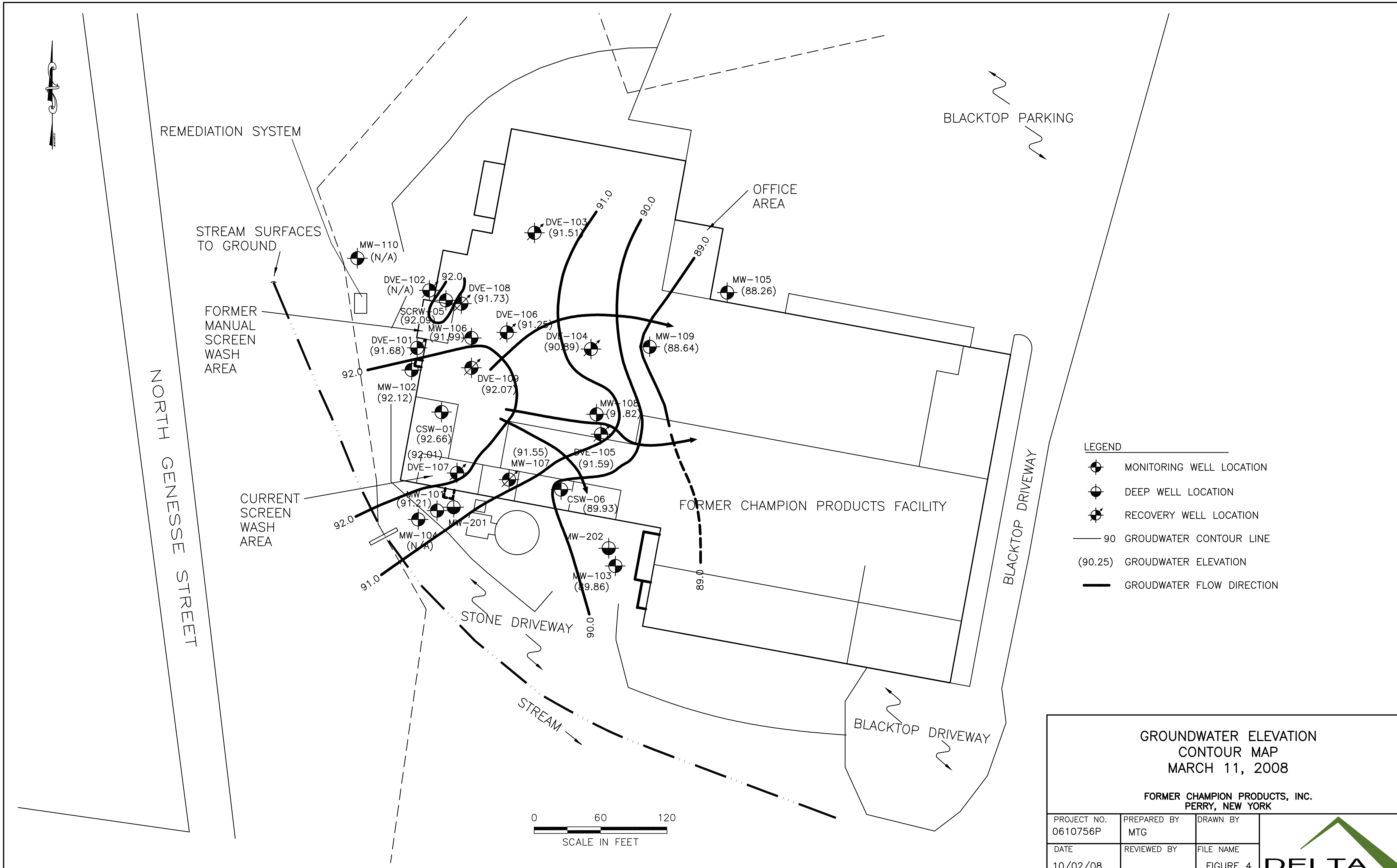


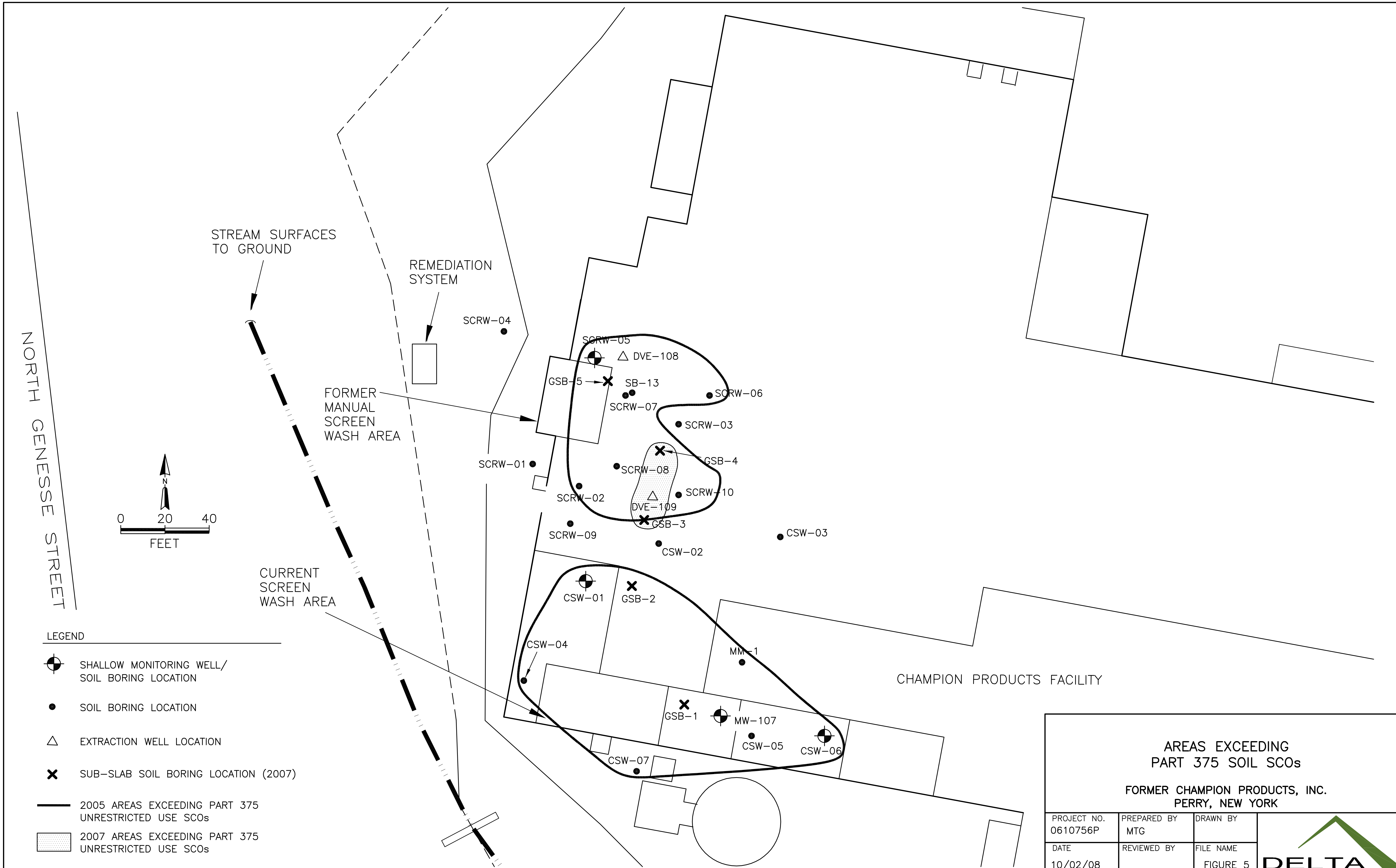
GROUNDWATER ELEVATION CONTOUR MAP
MAY 15, 2007

FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK

PROJECT NO.	PREPARED BY	DRAWN BY
0610756P	MTG	
DATE	REVIEWED BY	FILE NAME
10/02/08		FIGURE 3

DELTA


REMEDIATION SYSTEM
STREAM SURFACES TO GROUND
FORMER MANUAL SCREEN WASH AREA
CURRENT SCREEN WASH AREA
NORTH GENESSE STREET
BLACKTOP PARKING
OFFICE AREA
MW-110 (N/A)
DVE-103 (91.51)
DVE-102 (N/A)
DVE-108 (91.73)
SCRW-05 (92.09)
DVE-106 (91.25)
MW-106 (91.99)
DVE-101 (91.68)
DVE-104 (90.89)
MW-109 (88.64)
MW-105 (88.26)
MW-102 (92.12)
DVE-109 (92.07)
CSW-01 (92.66)
MW-108 (91.82)
(92.01)
DVE-107
(91.55) MW-107
DVE-105 (91.59)
CSW-06 (89.93)
MW-101 (91.21)
MW-201
MW-104 (N/A)
MW-202
MW-103 (89.86)
92.0
91.0
90.0
89.0
FORMER CHAMPION PRODUCTS FACILITY
STONE DRIVEWAY
STREAM
BLACKTOP DRIVEWAY
LEGEND
MONITORING WELL LOCATION
DEEP WELL LOCATION
RECOVERY WELL LOCATION
90 GROUNDWATER CONTOUR LINE
(90.25) GROUNDWATER ELEVATION
GROUNDWATER FLOW DIRECTION
0 60 120
SCALE IN FEET
GROUNDWATER ELEVATION CONTOUR MAP
MARCH 11, 2008
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
PROJECT NO. 0610756P
PREPARED BY MTG
DRAWN BY
DATE 10/02/08
REVIEWED BY
FILE NAME FIGURE 4
DELTA


STREAM SURFACES TO GROUND
REMEDIATION SYSTEM
SCRW-04
SCRW-05
DVE-108
GSB-5
SB-13
SCRW-06
SCRW-07
SCRW-03
FORMER MANUAL SCREEN WASH AREA
GSB-4
SCRW-01
SCRW-08
SCRW-10
SCRW-02
DVE-109
GSB-3
SCRW-09
CSW-03
CSW-02
NORTH GENESSE STREET
N
0 20 40
FEET
CURRENT SCREEN WASH AREA
CSW-01
GSB-2
CSW-04
MM-1
CHAMPION PRODUCTS FACILITY
GSB-1
MW-107
CSW-05
CSW-06
CSW-07
LEGEND
SHALLOW MONITORING WELL/ SOIL BORING LOCATION
SOIL BORING LOCATION
EXTRACTION WELL LOCATION
SUB-SLAB SOIL BORING LOCATION (2007)
2005 AREAS EXCEEDING PART 375 UNRESTRICTED USE SCOs
2007 AREAS EXCEEDING PART 375 UNRESTRICTED USE SCOs
AREAS EXCEEDING PART 375 SOIL SCOs
FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
PROJECT NO. 0610756P
PREPARED BY MTG
DRAWN BY
DATE 10/02/08
REVIEWED BY
FILE NAME FIGURE 5
DELTA

TABLES

TABLE 1
May 2007 Soil Sample Analytical Results
Volatile Organic Compounds
Former Champion Products, Inc, Perry, NY

PARAMETER	Part 375 Unrestricted Use Soil Cleanup Objectives (ppb)	Part 375 - Restricted Use - Soil Cleanup Objectives (ppb): Protection of Public Health: Residential	Restricted-Residential	Commercial	Industrial	Protection of Groundwater	SAMPLE ID / Sample Depth (feet): GSB-1 (10' - 12')	GSB-1 (12' - 14')	GSB-2 (8' - 10')	GSB-2 (10' - 12')	GSB-2 (12' - 14')	GSB-3 (8' - 10')	GSB-3 (10' - 12')	GSB-6 (1) (10' - 12')	GSB-3 (14' - 16')	GSB-4 (8' - 10')	GSB-4 (10' - 12')	GSB-4 RI* (10' - 12')	GSB-4 (12' - 15')	GSB-5 (8' - 10')	GSB-5 (10' - 12')	GSB-5 (12' - 14')
Volatile Organic Compounds (ppb)																						
Chloromethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Bromomethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Vinyl Chloride	20	210	900	13,000	27,000	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Chloroethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2 J	ND J	2 J	ND	ND	ND
Methylene Chloride	50	51,000	100,000	500,000	1,000,000	50	25 B	ND	ND	27 B	ND	23 B	ND	86 B	ND	ND	ND	ND	ND	ND	22 B	ND
Acetone	50	100,000	100,000	500,000	1,000,000	50	ND	ND	ND	ND	ND	ND	29 J	**53 J**	ND	ND	ND J	ND	ND	ND	25 J	ND
Carbon Disulfide	NS	NS	NS	NS	NS	NS	ND	3 J	3 J	2 J	3 J	3 J	15 J	14 J	2 J	2 J	3 J	12 J	4 J	2 J	3 J	3 J
2-Butanone	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
1,1-Dichloroethene	330	100,000	100,000	500,000	1,000,000	330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
1,1-Dichloroethane	270	19,000	26,000	240,000	480,000	270	ND	ND	18	ND	20	ND	ND	ND	ND	6	2 J	ND J	1 J	20	2 J	7
trans-1,2-Dichloroethene	190	100,000	100,000	500,000	1,000,000	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
cis-1,2-Dichloroethene	250	59,000	100,000	500,000	1,000,000	250	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Chloroform	370	10,000	49,000	350,000	700,000	370	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
1,2-Dichloroethane	20	2,300	36,100	30,000	60,000	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
1,1,1-Trichloroethane	680	100,000	100,000	500,000	1,000,000	680	ND	ND	8	2 J	18	ND	ND	ND	ND	ND	ND J	ND J	ND	7	ND	3 J
Carbon Tetrachloride	760	1,400	2,400	22,000	44,000	760	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Bromodichloromethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
1,2-Dichloropropane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
cis-1,3-Dichloropropene	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Trichloroethene	470	10,000	21,000	200,000	400,000	470	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Dibromochloromethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
1,1,2-Trichloroethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Benzene	60	2,900	4,800	44,000	89,000	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
trans-1,3-Dichloropropene	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Bromoform	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
4-Methyl-2-Pentanone	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
2-Hexanone	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Tetrachloroethene	1,300	5,500	19,000	150,000	300,000	1,300	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 J	ND J	ND J	ND	1 J	ND	ND
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Toluene	700	100,000	100,000	500,000	1,000,000	700	ND	ND	ND	ND	2 J	ND	17 J	15 J	ND	81	67 J	50 J	17	89	ND	46
Chlorobenzene	1,100	100,000	100,000	500,000	1,000,000	1,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND J	ND J	ND	ND	ND	ND
Ethylbenzene	1,000	30,000	41,000	390,000	780,000	1,000	ND	ND	ND	ND	ND	ND	7 J	6 J	ND	ND	43 J	39 J	6	ND	ND	ND
Styrene	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6 J	ND J	ND	ND	ND	ND
m/p-Xylenes	260	100,000	100,000	500,000	1,000,000	1,600	ND	ND	ND	ND	ND	ND	42	33 J	ND	4 J	**280 J**	**300 J**	42	ND	ND	ND
o-Xylene	260	100,000	100,000	500,000	1,000,000	1,600	ND	ND	ND	ND	ND	ND	95	77	ND	9	160 J	210 J	28	ND	ND	ND

Notes:
ND: Compound not detected.
NS: No Standard.

Organic Data Qualifers:
J: Estimated Value.
B: Analyte identified in blank.

50 Analyte detected at a concentration in excess of Unrestricted Use SCO.

50 Analyte detected at a concentration in excess of Protection of Groundwater SCO.

(1): GSB-6 is a duplicate of sample GSB-3 (10' - 12').
*: Sample GSB-4 RI (10' - 12') is a reanalysis of sample GSB-4 (10' - 12'), which was run by the laboratory due to a surrogate control limit issue. The reanalysis had the same issue, which is noted as being potentially the result of a matrix effect. Both results have been shown.

TABLE 2
Groundwater Sample Analytical Results
May 2007 and March 2008
Former Champion Products, Inc. Perry, NY

PARAMETER	NYSDEC Class GA Groundwater Standard (ppb)	May 30, 2007 Groundwater Sample Analytical Results — SAMPLE ID: DVE-101	DVE-102	DVE-103	DVE-104	DVE-105	DVE-106	DVE-107	DVE-108	DVE-109	MW-101	MW-102	MW-103	MW-105	MW-106	MW-107	MW-108	MW-109	MW-201	MW-202	CSW-01	CSW-06	SCRW-05
Volatile Organic Compounds (ppb)																							
Chloroethane	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	**11**	ND	ND	NS	NS	NS	ND	ND	**150**
Methylene Chloride	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	3.2	ND	NS	NS	NS	ND	ND	**33**
Chloroform	7	ND	ND	NS	ND	NS	ND	1.3	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	2	ND	**37**	ND	NS	NS	NS	**7.8**	ND	**13**
1,1-Dichloroethane	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	3.4	**7.8**	**28**	ND	NS	NS	NS	**12**	ND	**48**
1,2,4-Trimethylbenzene	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	**17**	ND	ND	NS	NS	NS	ND	ND	**180**
1,3,5-Trimethylbenzene	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	**12**
cis-1,2-Dichloroethene	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND
m,p-Xylene	5	ND	ND	NS	ND	NS	ND	1.8	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND
n-Butylbenzene	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND
Tetrachloroethene	5	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND
Vinyl Chloride	2	ND	ND	NS	ND	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	ND	ND	NS	NS	NS	ND	ND	**11**

PARAMETER	NYSDEC Class GA Groundwater Standard (ppb)	March 11, 2008 Groundwater Sample Analytical Results — SAMPLE ID: DVE-101	DVE-102	DVE-103	DVE-104	DVE-105	DVE-106	DVE-107	DVE-108	DVE-109	MW-101	MW-102	MW-103	MW-105	MW-106	MW-107	MW-108	MW-109	MW-201	MW-202	CSW-01	CSW-06	SCRW-05
Volatile Organic Compounds (ppb)																							
Chloroethane	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12**	ND	ND	ND	ND	ND	ND	ND	**10**
Methylene Chloride	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	NS	ND	ND	ND	ND	1.1	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	**6.7**	ND	ND	ND	ND	**16**	ND	ND	ND	ND	**6.3**	ND	**10**
1,1-Dichloroethane	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	2.8	ND	ND	1.8	**17**	**20**	ND	ND	ND	ND	**8.2**	ND	**94**
1,2,4-Trimethylbenzene	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**73**	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**40**
m,p-Xylene	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	NS	ND	ND	ND	ND	ND	ND	ND	3.9	ND	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**22**

Notes:

ND: Compound not detected.

NS: Not sampled.

$\boxed{\textbf{5}}$ Analyte detected at concentration in excess of NYSDEC Class GA Groundwater Standard.

TABLE 3
February 2003 Soil Sample Analytical Results
Volatile Organic Compounds
Former Champion Products, Inc, Perry, NY

PARAMETER	TAGM 4046 Soil Cleanup Objectives (ppb)	Part 375 Unrestricted Use Soil Cleanup Objectives (ppb)	Part 375 - Restricted Use - Soil Cleanup Objectives (ppb): Protection of Public Health: Residential	Restricted-Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Groundwater	SAMPLE ID / Sample Depth (feet): Current Screen Wash Area: CSW-01 (9.5' - 10')	CSW-01 (11.5' - 12')	CSW-02 (5.5 ' - 6')	CSW-02 (9' - 9.5')	CSW-03 (7' - 7.5')	CSW-03 (9.5' - 10')	CSW-04 (10.2' -10.6')	CSW-04 (14' - 14.5')	CSW-05 (6' - 6.5')	CSW-05 (13' - 13.5')	CSW-06 (8.5' - 9')	CSW-06 (15' - 15.5')	CSW-07 (4' - 8')	CSW-07 (12' - 13')	MM-1 (8' - 8.5')	MM-1 (11' - 11.5')	Former Manual Screen Wash Area: SCRW-01 (4.5 '- 5')	SCRW-01 (14' - 15')
Volatile Organic Compounds (ppb)																										
Methylene Chloride	NA	50	51,000	100,000	500,000	1,000,000	12,000	50	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	16	ND	ND	ND	ND	13	ND
Acetone	NA	50	100,000	100,000	500,000	1,000,000	2,200	50	40	**58**	36	50	45	48	47	**61**	26	**75**	**64**	50	24	**55**	41	**70**	28	45
Carbon Disulfide	2,700	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichlorethane	NA	270	19,000	26,000	240,000	480,000	NS	270	ND	ND	6	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	ND
1,1,1-Trichloroethane	NA	680	100,000	100,000	500,000	1,000,000	NS	680	ND	ND	ND	ND	ND	ND	6	ND	ND	ND	ND	ND	ND	ND	ND	7	ND	ND
Tetrachloroethene	NA	1,300	5,500	19,000	150,000	300,000	2,000	1,300	ND	ND	ND	ND	ND	ND	5	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	ND
Toluene	NA	700	100,000	100,000	500,000	1,000,000	36,000	700	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	ND	ND	ND	ND	ND
Ethylbenzene	NA	1,000	30,000	41,000	390,000	780,000	NS	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	NA	260	100,000	100,000	500,000	1,000,000	260	1,600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PARAMETER	TAGM 4046 Soil Cleanup Objectives (ppb)	Part 375 Unrestricted Use Soil Cleanup Objectives (ppb)	Part 375 - Restricted Use - Soil Cleanup Objectives (ppb): Protection of Public Health: Residential	Restricted-Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Groundwater	SAMPLE ID / Sample Depth (feet): Former Manual Screem Wash Area: SCRW-02 (9' - 9.5')	SCRW-02 (14.5' - 15')	SCRW-03 (7.5' - 8')	SCRW-03 (10.7' - 11.2')	SCRW-04 (6.5' - 7')	SCRW-04 (9' - 9.5')	SCRW-05 (9' - 9.5')	SCRW-05 (10' - 10.5')	SCRW-06 (9' - 9.5')	SCRW-06 (14.5' - 15')	SCRW-07 (10' - 10.5')	SCRW-07 (14.5' - 15')	SCRW-08 (8' - 8.5')	SCRW-08 (10.5' - 11')	SCRW-09 (6.5' - 7')	SCRW-10 (9' - 9.5')	SCRW-10 (10.5' - 11')
Volatile Organic Compounds (ppb)																									
Methylene Chloride	NA	50	51,000	100,000	500,000	1,000,000	12,000	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	NA	50	100,000	100,000	500,000	1,000,000	2,200	50	ND	**64**	37	ND	19	30	ND	ND	**86**	46	**110**	39	49	ND	28	ND	ND
Carbon Disulfide	2,700	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4,800**	ND
1,1-Dichlorethane	NA	270	19,000	26,000	240,000	480,000	NS	270	ND	ND	10	ND	ND	ND	ND	ND	7	ND	ND	ND	22	ND	ND	ND	ND
1,1,1-Trichloroethane	NA	680	100,000	100,000	500,000	1,000,000	NS	680	ND	ND	ND	ND	ND	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	NA	1,300	5,500	19,000	150,000	300,000	2,000	1,300	ND	ND	ND	ND	6	200	ND	ND	4	ND	ND	ND	10	ND	ND	ND	ND
Toluene	NA	700	100,000	100,000	500,000	1,000,000	36,000	700	ND	8	ND	ND	8	ND	300	**2,600**	13	5	270	120	20	**4,400**	7	ND	**13,000**
Ethylbenzene	NA	1,000	30,000	41,000	390,000	780,000	NS	1,000	ND	ND	ND	ND	ND	ND	ND	ND	8	ND	ND	ND	ND	ND	ND	ND	610
Xylenes, Total	NA	260	100,000	100,000	500,000	1,000,000	260	1,600	ND	5	ND	ND	5	ND	ND	ND	10	ND	ND	4	5	**2,400**	ND	ND	**6,600**

Notes:
ND: Compound not detected.
NS: No Standard.
NA: Not applicable as a Part 375 SCO is available.

Organic Data Qualifers:
J: Estimated Value.
B: Analyte identified in blank.

When a soil cleanup objective (SCO) is not available in 6NYCRR Part 375, NYSDEC recommends using a TAGM SCO for comparison purposes.

50 Analyte detected at a concentration in excess of Unrestricted Use SCO.

50 Analyte detected at a concentration in excess of Protection of Groundwater SCO.

50 Analyte detected at a concentration in excess of TAGM 4046 SCO.

TABLE 4
Groundwater Sample Analytical Results
February 2003
Former Champion Products, Inc. Perry, NY

PARAMETER	NYSDEC Class GA Groundwater Standard (ppb)	February 2003 Groundwater Sample Analytical Results — SAMPLE ID																					
		DVE-101	DVE-102	DVE-103	DVE-104	DVE-105	DVE-106	DVE-107	DVE-108	DVE-109	MW-101	MW-102	MW-103	MW-105	MW-106	MW-107	MW-108	MW-109	MW-201	MW-202	CSW-01	CSW-06	SCRW-05
Volatile Organic Compounds (ppb)																							
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	**27**	ND	ND	ND	ND	ND	ND	ND	**350**
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	7	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**	ND	ND
1,1,1-Trichloroethane	5	1	ND	ND	ND	ND	ND	ND	NI	NI	1	ND	ND	**7**	**25**	**79**	ND	ND	ND	ND	**12**	ND	ND
1,1-Dichloroethane	5	0.6	ND	ND	ND	ND	ND	0.9	NI	NI	3	ND	ND	**14**	**340**	**410**	ND	ND	ND	ND	**26**	ND	**3,500**
1,2,4-Trimethylbenzene	5	0.6	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	**630**	ND	ND	ND	ND	ND	3	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	1	ND	NI	NI	ND	ND	ND	ND	**140**	ND	ND	ND	ND	ND	0.7	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	5	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropyl benzene	5	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	**26**	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND	ND	NI	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ND: Compound not detected.

NS: Not sampled.

NI: Well not installed at date of sampling.

$\boxed{\mathbf{5}}$ Analyte detected at concentration in excess of NYSDEC Class GA Groundwater Standard.

ATTACHMENT 1

SUPPORT DOCUMENTATION

RESULTS OF FEBRUARY 2003 SITE CHARACTERIZATION AND PROPOSED MODIFICATIONS TO FINAL REMEDIATION WORKPLAN

FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
DELTA PROJECT NO.: S098-009

Prepared by:

Delta Environmental Consultants, Inc.
4068 Mt. Royal Boulevard
Suite 225, Gamma Building
Allison Park, PA 15101

June 2003

Delta Environmental Consultants, Inc.

4068 Mt. Royal Boulevard
Suite 225-Gamma
Allison Park, Pennsylvania 15101-2951
USA
412/487-7700
FAX: 412/487-9785

June 5, 2003

New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Attention: Maurice Moore
Project Manager

Subject: **Results of February 2003 Site Characterization and Proposed Modifications to the Final Remediation Workplan**
Former Champion Products, Inc.
Perry, New York
DEC Site No. V000189-9
Delta Project No. S098-009

Dear Mr. Moore:

On behalf of Champion Products, Inc., Delta Environmental Consultants, Inc. is submitting the referenced report, which presents results of the additional site characterization (SC) performed in February 2003. We are also proposing specific modifications to the Final Remediation Workplan.

The SC resulted in collection of 35 soil samples and installation of three monitoring wells in the former and current screen wash areas. This assessment was conducted to evaluate the effectiveness of on-going remedial activities and determine the remaining concentrations of volatile organic compounds in the subsurface soil and groundwater.

Based on the data obtained from this SC, significant progress has been made to date towards achieving the site-specific cleanup goals. To further the remediation at the site, we are recommending implementation of specific modifications to the current configuration of the dual-phase vapor extraction system. We believe that these modifications will not only improve the remediation effort, but also move the project towards closure in the near future.

If you have any questions, please contact either of the undersigned.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Stephen A. Zbur, P.G.
Senior Consultant
(412) 487-7703

Anthony Savino
Senior Consultant
(914) 765-0258

Enclosure

/S098-009/Letter Report.doc

cc: George Johnson, Sara Lee
Ed Gagliardy, American Classic Outfitters
Maureen Crough, Sidley Austin Brown & Wood
Sam Gullo, SMG Development, Inc.
Paul Sylvestri, Harter Secrest & Emery, LLP
Harry Parker, Esq
Andrew English, NYSDEC
Gary Litwin, NYSDOH
Matt Forcucci, NYSDOH
John McMahon, NYSDEC

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

RESULTS OF FEBRUARY 2003 SITE CHARACTERIZATION AND PROPOSED MODIFICATIONS TO FINAL REMEDIATION WORKPLAN

FORMER CHAMPION PRODUCTS, INC.
PERRY, NEW YORK
DEC SITE NO. V000189-9
DELTA PROJECT NO. S098-009

1.0 SCOPE OF WORK

On February 4 and 5, 2003, eighteen Geoprobe borings were advanced to depths ranging from 12 to 16 feet below ground surface (bgs). Eleven Geoprobe borings (SCRW-1 though SCRW-10 and MM-1) were advanced in the former manual screen wash area at the locations shown on Figure 1. The purpose of advancing these Geoprobe borings was to obtain soil samples from locations proximate to impacted areas that were identified in Final Remediation Workplan (Delta 2000) and to better determine the current extent and magnitude of impacted soil. In addition, the soil sampling results were used also determine the effectiveness to date of the on site remediation system.

The additional sampling was proposed in our Remediation Monitoring Report, October 2001 through September 2002 and the details of the sampling were presented in our Proposed Scope of Work and Schedule, which was submitted to the NYDEC on January 27, 2003.

Seven Geoprobe borings (CSW-1 through CSW-7) were advanced in the current screen wash area at the locations shown on Figure 1. These borings were advanced in order to obtain additional soil data to assist in determining if residual phase VOCs were present in the vicinity of monitoring well MW-107 and extraction well DVE-107.

Two soil samples were obtained from each Geoprobe boring (with the exception of SCRW-9) and submitted to Upstate Laboratories for analysis by EPA Method 8260. A copy of the laboratory report is presented as Appendix A. The soil sample from each boring that displayed the highest field organic vapor monitor (OVM) reading was submitted along with a second sample from the base of each boring. If elevated OVM readings were not observed at a Geoprobe boring, then a sample was collected from the higher permeable unit (sand/ gravel) that occurs between 8 and 12 feet bgs.

2.0 SOIL ANALYTICAL RESULTS

Table 1 presents the sample depth and targeted volatile organic compounds (VOCs) reported above laboratory analytical method detection limits. Review of Table 1 indicates concentrations of carbon disulfide, toluene and total xylenes are present in concentrations above Technical Assistance Guidance Manual (TAGM) 4046 soil cleanup objectives at four of the 21 sample locations within the former manual screen wash area. The remaining targeted VOCs are one to two orders of magnitude below the TAGM levels within the current screen wash area.

To evaluate the effectiveness of the on-going remedial activities within the former manual screen wash area, four Geoprobe borings (SCRW-1 through SCRW-3 and SCRW-7) were advanced at locations proximate to previous soil samples obtained in 1998 and presented in the Final Remediation Workplan. Review of Table 2 indicates a reduction of targeted analyte soil concentrations. The magnitude of reduction ranges from 51% to 99% from concentrations observed at the initial start-up of the remediation system.

Figure 2 illustrates the extent of VOCs in soil at concentrations above the TAGM levels in 1998 as compared to February 2003. Review of Figure 2 indicates a shrinking area of impacted soil.

Analytical results of the 14 soil samples obtained from the current screen wash area did not indicate the presence of VOCs above the TAGM soil cleanup objectives. 1-1-dichloroethane (DCA) and 1,1,1-trichloroethane (TCA) were not detected in soil samples CSW-5 and CSW-6 (located proximate to monitoring well MW-107, which continues to display increasing concentrations of dissolved DCA and TCA). The NYSDEC requested that the depth of contamination in the current screen wash area be determined since DCA and TCA have a density greater than water, and would tend to migrate through the vadose zone and saturated portions of the aquifer.
To determine if DCA and TCA were present at depth beneath the water table, Geoprobe boring CSW-6 was advanced to a depth of 16 feet bgs and a sample was collected from 15 – 15.5 ft bgs. The soil sample obtained from this boring did not contain VOCs above the laboratory detection limit.

DCA soil concentrations within the current screen wash area have been centrally located around MW-107. Current concentrations of DCA within the screen wash area have been reduced by 93% to a concentration below the laboratory analytical detection limit.

3.0 GROUND WATER ANALYTICAL RESULTS

As part of the February 2003 SC, three additional monitoring wells (CSW-01, CSW-06 and SCRW-05) were installed at the areas shown on Figure 1. These wells were installed to determine the lateral extent of dissolved VOCs within both screen wash areas. Each monitoring well was advanced to a depth of approximately 15 feet bgs and completed with 10 feet of one-inch PVC slotted screen. Boring logs and monitoring well construction characteristics are presented as Appendix B.

In February 2003, ground water samples were collected from all site monitoring wells, as part of the quarterly ground water sampling event. Table 3 presents a summary of ground water analytical results from the 2003 quarterly sampling event and contains all VOCs reported above the analytical method detection limit. The NYSDEC Class GA Ground Water Standard is also listed for each analyte. A summary of the VOCs detected in the ground water is presented below:

Analyte	Frequency of Detection	Range of Concentration (ug/l)	Detections That Exceed Ground Water Standard	NYSDEC Ground Water Standard (ug/l)
TCA	5/21	<0.50 - 79	3	5
DCA	8/21	<0.50 - 3500	5	5
1,2,4-Trimethylbenzene	4/21	<0.50 - 630	1	5
1,3,5-Trimethylbenzene	2/21	<0.50 - 140	1	5
Cumene	1/21	<0.50 - 26	1	5
1,1-Dichloroethene (DCE)	3/21	<0.50 - 38	1	5
Ethylbenzene	1/21	<0.50 - 0.6	0	5
Methylene chloride	6/21	<0.50 - 51	6	5
Naphthalene	2/21	<0.50 - 56	1	10
n-Butylbenzene	3/21	<0.50 - 270	1	5
n-Propylbenzene	1/21	<0.50 - 71	1	5
p-Cymene	1/21	<0.50 - 54	1	5
sec-Butylbenzene	1/21	<0.50 - 55	1	5

Analyte	Frequency of Detection	Range of Concentration (ug/l)	Detections That Exceed Ground Water Standard	NYSDEC Ground Water Standard (ug/l)
tert-Butylbenzene	1/21	<0.50 - 0.8	0	5
Tetrachloroethene	6/21	<0.50 - 18	1	5
Toluene	3/21	<0.50 - 7200	2	5
Xylene (total)	2/21	<1.0 - 51	2	5
1,1,1,2-Tetrachloroethane	1/21	<0.50 - 0.9	0	N/S
1,2,4-Trichlorobenzene	1/21	<0.50 - 490	1	5
Benzene	1/21	<0.50 - 1	1	1
Bromoform	1/21	<0.50 - 0.9	0	N/S
Chloroethane	2/21	<0.50 - 350	2	5
Chloroform	3/21	<0.50 - 10	2	7
Methyl chloride	2/21	<0.50 - 3	0	5

NS = No standard has been established.

All targeted VOCs continue to be below the analytical method detection limit or the NYSDEC ground water standards at seven of the water table monitoring wells (MW-101, MW-102, MW-104, MW-105, MW-108, MW-110 and CSW-06) and both telescoping monitoring wells (MW-201 and MW-202).

The on-going remedial activities have successfully reduced the dissolved phase VOC within the manual screen wash area. Ground water at monitoring wells MW-106, DVE-106 and SCRW-05 continue to exhibit dissolved concentrations of chlorinated VOCs (and associated degradation products) and non-chlorinated VOCs (which are constituents of mineral spirits) in excess of the NYSDEC ground water standards.

Table 4 presents the change in dissolved analyte concentration for VOCs that have displayed the highest concentration at each monitoring and extraction well. Review of Table 4 indicates that dissolved toluene was present at 48,000 micrograms per liter (ug/l) in ground water at monitoring well MW-106 in August 1998. The February 2003 data indicates a 99.94% decrease of toluene at monitoring well MW-106 since that time.

Dissolved isoconcentrations maps for toluene, DCA and TCA are presented in Figures 3 through 5, respectively. Review of these figures indicates ground water at SCRW-05 (located proximate to the former manual screen wash area) currently displays the greatest dissolved phase concentrations of toluene and DCA.

Ground water within the current screen wash area at monitoring well MW-107 continues to exhibit dissolved concentrations of chlorinated VOCs (DCA, TCA and DCE) in excess of the NYSDEC ground water standards. The greatest VOC concentration continues to be DCA at a concentration of 410 ug/l from the February 2003 sampling round. Historically, dissolved DCA concentrations at monitoring well MW-107 have increased from 350 ug/l at start up to 580 ug/l as of August 2002. After August 2002, DCA has been reduced by 30% to the current concentration of 410 ug/l.

Ground water at monitoring well MW-105 continues to display concentrations of DCA (14 ug/l) and TCA (7 ug/l) in excess of the NYSDEC ground water standard of 5 ug/l. These dissolved concentrations have persisted in ground water at this location since monitoring well MW-105 was installed in June 1998.

4.0 LIGHT NON-AQUEOUS PHASE LIQUID

Light non-aqueous phase liquids (LNAPL) have been observed on the water table at monitoring well MW-106 since August 2002. The LNAPL thicknesses have ranged from approximately 0.08 to 0.12 feet and the LNAPL resembles weathered mineral spirits. This appearance is consistent with LNAPL observed in extraction well DVE-101 after system startup in July and August 2000. LNAPL has not been observed in other monitoring or extraction wells, other than MW-106, since August 2000.

5.0 REMEDIAL GOALS

As discussed in the Final Remediation Workplan, the proposed soil cleanup target is total VOCs less than 10 mg/kg. This recommendation was proposed in accordance with TAGM procedures for determination of soil cleanup objectives (Part B: Procedure for Determination of Soil Cleanup Objectives). Proposed specific analyte soil cleanup objectives are either: 1) the TAGM recommended soil cleanup objective, or 2) 1 mg/kg, whichever is greater. Champion also reserves the right to request alternative remedial goals if it is determined that achievement of the proposed remedial goals is not feasible.

After the soil objectives have been obtained or determined not feasible for the site, ground water quality will be evaluated to determine the affect that remedial activities have had on the ground water based on source removal of residual phase VOCs in the soil. Specific ground water cleanup objectives will be proposed, if necessary, after the soil remediation is complete.

6.0 CONCLUSIONS

Based on the results of the February 2003 additional SC, we offer the following conclusions:

- The DPVE system has removed approximately 51% to 99.9% of the VOCs from soil in both screen wash areas within the extraction wells radius of influence since start-up in July 2000.
- Toluene, total xylenes and carbon disulfide continue to be present in the soil beneath the former manual screen wash area at concentrations in excess of the soil cleanup objective at locations SCRW-5, SCRW-8 and SCRW-10.
- Total xylenes and toluene concentrations have been reduced in the soil beneath the former manual screen wash area to levels below the TAGM recommended soil cleanup objective at areas within the extraction wells radius of influence.
- Dissolved phase VOCs within the former manual screen wash area have been reduced approximately 78% to 100% at areas within the extraction wells radius of influence.
- Dissolved phase VOCs continue to be present in ground water proximate to the former manual screen wash area at monitoring wells SCRW-05 and MW-106 (at areas outside of the extraction wells radius of influence).
- LNAPL continues to be present on the water table surface at monitoring well MW-106.
- Quarterly ground water analytical results from extraction wells DVE-103, DVE-104 and DVE-105 continue to indicate all targeted VOC concentrations are below the NYSDEC ground water quality standards.
- The results of the soil data obtained from the current screen wash area does not indicate the presence of DCA and TCA above the soil cleanup objective, therefore, soil within this area is not a source of dissolved phase VOC present in the ground water at monitoring well MW-107.

- Dissolved DCA concentrations within the current screen wash area are not present at levels above the ground water quality standard with the exception of MW-107.

7.0 RECOMMENDATIONS

Based on the conclusions referenced above, we recommend the following modifications to Final Remediation Workplan:

- To enhance the removal of residual and dissolved phase VOCs utilizing the existing extraction and treatment system, the following modifications should be made to the extraction configuration:
  - Extraction wells DVE-103, 104 and 105 should be removed from the extraction process due to the continued absence of VOCs above the NYSDEC ground water objectives.
  - Two additional extraction wells (DVE-108 and DVE-109) should be installed within the former manual screen wash area at the locations shown in Figure 6 and connected to the DPVE system.
  - Monitoring well MW-107 should be converted into an extraction well and also connected to the DPVE system to increase removal of dissolved phase VOCs at this location.
- After the additional extraction wells are installed and brought on-line, we propose to operate the DPVE system in the new configuration for one year or until recoveries from the new extraction wells have become asymptotic with time, whichever occurs earlier. At the completion of the additional O&M and quarterly ground water monitoring for such system operation, supplemental soil sampling will be performed at the locations that currently display VOCs in excess of the TAGM soil objectives in order to determine if clean up objectives have been met.
- After the additional soil sampling is completed, recommendations will be made with respect to achieving the proposed soil and ground water objectives or developing alternatives based on current and future exposure pathways, as provided in the Final Remediation Workplan.

8.0 SCHEDULE

The proposed DPVE system modifications will be completed in accordance with the following schedule:

Task	Completed by:
Installation of additional DPVE wells.	30 days following NYSDEC approval of the proposed modifications.
Connect DVE-108, DVE-109 and MW-107 to the DPVE extraction system and initiate revised extraction activities.	45 days after NYSDEC approval of the proposed modifications.

9.0 REMARKS

The observations and recommendations contained in this document represent our professional opinions. These opinions were arrived at in accordance with currently accepted industry and engineering practices at this time for this location. Other than this, no other warranties are implied or intended.

This report was prepared by:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Stephen A. Zbur, P.G.
Senior Consultant

6/5/03
Date

Reviewed by:

Anthony Savino
Senior Consultant

6-5-03
Date

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
FEBRUARY 2003
Former Champion Products, Inc.
Perry, New York
Delta Project No. S098-009

FORMER MANUAL SCREEN WASH AREA

SAMPLE ID	DEPTH (FEET)	METHYLENE CHLORIDE	ACETONE	CARBON DISULFIDE	DCA	TCA	PCE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
SCRW-1	4.5 - 5.0	13	28	<3	<3	<3	<3	<3	<3	<3
	14 - 15	<3	45	<3	<3	<3	<3	<3	<3	<3
SCRW-2	9.0 - 9.5	<280	<950	<280	<280	<280	<280	<280	<280	<280
	14.5 - 15.0	<3	64	<3	<3	<3	<3	8	<3	5
SCRW-3	7.5 - 8.0	<3	37	<3	10	<3	<3	<3	<3	<3
	10.7 - 11.2	<280	<940	<280	<280	<280	<280	<280	<280	<280
SCRW-4	6.5 - 7.0	<3	19	<3	<3	<3	6	8	<3	5
	9.0 - 9.5	<3	30	<3	<3	7	200	<3	<3	<3
SCRW-5	9.0 - 9.5	<270	<920	<270	<270	<270	<270	300	<270	<270
	10.0 - 10.5	<280	<930	<280	<280	<280	<280	**2600**	<280	<280
SCRW-6	9.0 - 9.5	<3	86	<3	7	<3	4	13	8	10
	14.5 - 15.0	<3	46	<3	<3	<3	<3	5	<3	<3
SCRW-7	10.0 - 10.5	<16	110	<16	<16	<16	<16	270	<16	<16
	14.5 - 15.0	<3	39	<3	<3	<3	<3	120	<3	4
SCRW-8	8.0 - 8.5	<3	49	<3	22	<3	10	20	<3	5
	10.5 - 11.0	<540	<180	<540	<540	<540	<540	**4400**	<540	**2,040**
SCRW-9	6.5 - 7.0	<3	28	<3	<3	<3	<3	7	<3	<3
SCRW-10	9.0 - 9.5	<280	<930	**4800**	<280	<280	<280	<280	<280	<280
	10.5 - 11.0	<550	<1800	<550	<550	<550	<550	**13000**	610	**6,600**
MM-1	8.0 - 8.5	<3	41	<3	<3	<3	<3	<3	<3	<3
	11.0 - 11.5	<3	70	<4	11	7	<4	<4	<4	<3
SOIL CLEANUP OBJECTIVE		**100**	**110**	**2700**	**200**	**760**	**1400**	**1500**	**5500**	**1200**

All values are reported as micrograms per kilogram.
DCA = 1,1-dichloroethane
TCA = 1,1,1-trichloroethane
PCE = tetrachloroethene
Soil Cleanup Objective = Determination of soil cleanup objectives and cleanup levels, TAGM #4046

TABLE 1
SOIL ANALYTICAL RESULTS
FEBRUARY 2003
Former Champion Products, Inc.
Perry, New York
Delta Project No. S098-009

CURRENT SCREEN WASH AREA

SAMPLE ID	DEPTH (FEET)	METHYLENE CHLORIDE	ACETONE	CARBON DISULFIDE	DCA	TCA	PCE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
CSW-1	9.5 - 10.0	<3	40	<3	<3	<3	<3	5	<3	<6
	11.5 - 12.0	<3	58	<3	<3	<3	<3	<3	<3	<6
CSW-2	5.5 - 6.0	<3	36	<3	6	<3	<3	<3	<3	<6
	9.0 - 9.5	<3	50	<3	6	<3	<3	<3	<3	<6
CSW-3	7.0 - 7.5	11	45	<3	<3	<3	<3	<3	<3	<6
	9.5 - 10.0	<3	48	<4	<4	<4	<4	<4	<4	<8
CSW-4	10.2 - 10.6	<3	47	<3	<3	6	5	<3	<3	<6
	14.0 - 14.5	<3	61	<3	<3	<3	<3	<3	<3	<6
CSW-5	6.0 - 6.5	<3	26	<3	<3	<3	<3	<3	<3	<6
	13.0 - 13.5	<3	75	<3	<3	<3	<3	<3	<3	<6
CSW-6	8.5 - 9.0	<3	64	<3	<3	<3	<3	<3	<3	<6
	15.0 - 15.5	16	50	<3	<3	<3	<3	3	<3	<6
CSW-7	4 - 8	<3	24	<3	<3	<3	4	<3	<3	<6
	12 - 13	<3	55	<3	<3	<3	<3	<3	<3	<6
SOIL CLEANUP OBJECTIVE		**100**	**110**	**2700**	**200**	**760**	**1400**	**1500**	**5500**	**1200**

All values are reported as micrograms per kilogram.
DCA = 1,1-dichloroethane
TCA = 1,1,1-trichloroethane
PCE = tetrachloroethene
Soil Cleanup Objective = Determination of soil cleanup objectives and cleanup levels, TAGM #4046

TABLE 2
VOLATILE ORGANIC COMPOUNDS SOIL REDUCTIONS
1998 - 2003
Former Champion Products, Inc.
Perry, New York
Delta Project No. S098-009

FORMER MANUAL SCREEN WASH AREA							
1998 SAMPLE ID	**CONCENTRATION**	**2003 SAMPLE ID DEPTH 1**	**CONCENTRATION**	**% REDUCTION**	**2003 SAMPLE ID DEPTH 2**	**CONCENTRATION**	**% REDUCTION**
SB-13		**SCRW-07 (10.0 - 10.5)**			**SCRW-07 (14.5 - 15.0)**		
TOTAL XYLENES	7500	TOTAL XYLENES	16	99.8%	TOTAL XYLENES	4	99.9%
TOLUENE	140000	TOLUENE	270	99.8%	TOLUENE	120	99.9%
PCE	530	PCE	8	98.5%	PCE	1.5	99.7%
SB-15		**SCRW-01 (4.5 - 5.0)**			**SCRW-01 (14 - 15)**		
TOTAL XYLENES	1850	TOTAL XYLENES	3	99.8%	TOTAL XYLENES	3	99.8%
TOLUENE	12000	TOLUENE	1.5	100.0%	TOLUENE	1.5	100.0%
PCE	57	PCE	1.5	97.4%	PCE	1.5	97.4%
MW-106		**SCRW-03 (7.5 - 8.0)**			**SCRW-03 (10.7 - 11.2)**		
TOTAL XYLENES	1390	TOTAL XYLENES	3	99.8%	TOTAL XYLENES	280	79.9%
TOLUENE	16000	TOLUENE	1.5	100.0%	TOLUENE	140	99.1%
PCE	23	PCE	1.5	93.5%	PCE	140	N/A
MW-102		**SCRW-02 (9.0 - 9.5)**			**SCRW-02 (14.5 - 15.0)**		
TOTAL XYLENES	1660	TOTAL XYLENES	280	83.1%	TOTAL XYLENES	5	99.7%
TOLUENE	11000	TOLUENE	140	98.7%	TOLUENE	8	99.9%
PCE	290	PCE	140	51.7%	PCE	1.5	99.5%

CURRENT SCREEN WASH AREA							
1998 SAMPLE ID	**CONCENTRATION**	**2003 SAMPLE ID DEPTH 1**	**CONCENTRATION**	**% REDUCTION**	**2003 SAMPLE ID DEPTH 2**	**CONCENTRATION**	**% REDUCTION**
MW-107		**CSW-05 (6.0 - 6.5)**			**CSW-05 (13.0 - 13.5)**		
TOTAL XYLENES	2	TOTAL XYLENES	3	N/A	TOTAL XYLENES	3	N/A
TOLUENE	2	TOLUENE	1.5	N/A	TOLUENE	1.5	N/A
PCE	2	PCE	1.5	N/A	PCE	1.5	N/A
DCA	22	DCA	1.5	93.2%	DCA	1.5	93.2%
MW-101		**CSW-07 (4 - 8)**			**CSW-07 (12 - 13)**		
TOTAL XYLENES	1.5	TOTAL XYLENES	3	N/A	TOTAL XYLENES	3	N/A
TOLUENE	1.5	TOLUENE	1.5	N/A	TOLUENE	1.5	N/A
PCE	1.5	PCE	4	N/A	PCE	1.5	N/A
DCA	1.5	DCA	1.5	N/A	DCA	1.5	N/A

All values are reported as micrograms per kilogram.
DCA = 1,1-dichloroethane
TCA = 1,1,1-trichloroethane
PCE = tetrachloroethene
Red text indicates concentration is below the analytical detection limit.
Reported value is 1/2 the analytical detection limit.
N/A = % Reduction does not apply since the 1998 concentration for the selected analyte was below the analytical detection limit or the 2002 concentration was below the analytical detection limit, which is greater that the corresponding 1998 concentration

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,1,1-trichloro ethane (ug/l)	1,1-Dichloro ethane (ug/l)	1,2,4-Trimethyl benzene (ug/l)	1,3,5-Trimethyl benzene (ug/l)	Isopropyl benzene (ug/l)	Chloroethane (ug/l)	Chloroform (ug/l)
WQS		5	5	5	5	5	5	7
CSW-01	02/05/2003	[12]	[26]	3	0.7	<0.50	<0.50	[10]
CSW-06	02/06/2003	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
DVE-101	02/05/2003	1	0.6	0.6	<0.50	<0.50	<0.50	[7]
DVE-102	02/05/2003	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	1	<0.50	<0.50	<0.50	<0.50
DVE-107	02/05/2003	<0.50	0.9	<0.50	<0.50	<0.50	<0.50	<0.50
MW-101	02/05/2003	1	3	<0.50	<0.50	<0.50	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2
MW-105	02/05/2003	[7]	[14]	<0.50	<0.50	<0.50	<0.50	<0.50
MW-106	02/05/2003	<25	[340]	[630]	[140]	[26]	[27]	<25
MW-107	02/05/2003	[79]	[410]	<10	<10	<10	<10	<10
MW-108	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	1,1,1-trichloro ethane (ug/l)	1,1-Dichloro ethane (ug/l)	1,2,4-Trimethyl benzene (ug/l)	1,3,5-Trimethyl benzene (ug/l)	Isopropyl benzene (ug/l)	Chloroethane (ug/l)	Chloroform (ug/l)
WQS		5	5	5	5	5	5	7
MW-201	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
SCRW-05	02/05/2003	<250	[3500]	<250	<250	<250	[350]	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	cis-1,2-Dichloro ethylene (ug/l)	Ethylbenzene (ug/l)	Methylene chloride (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propyl benzene (ug/l)	4-Isopropyl toluene (ug/l)
WQS		5	5	5	10	5	5	5
CSW-01	02/05/2003	0.9	0.6	[12]	1	0.6	<0.50	<0.50
CSW-06	02/06/2003	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
DVE-101	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-102	02/05/2003	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	[11]	<0.50	<0.50	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	[10]	<0.50	<0.50	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DVE-107	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-101	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-105	02/05/2003	2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-106	02/05/2003	<25	<25	[51]	[56]	[270]	[71]	[54]
MW-107	02/05/2003	[38]	<10	[26]	<10	<10	<10	<10
MW-108	02/05/2003	<0.50	<0.50	<0.50	<0.50	0.7	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	[8]	<0.50	<0.50	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	cis-1,2-Dichloro ethylene (ug/l)	Ethylbenzene (ug/l)	Methylene chloride (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propyl benzene (ug/l)	4-Isopropyl toluene (ug/l)
WQS		5	5	5	10	5	5	5
MW-201	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
SCRW-05	02/05/2003	<250	<250	<250	<250	<250	<250	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	sec-Butyl benzene (ug/l)	tert-Butyl benzene (ug/l)	Tetrachloro ethylene (ug/l)	Toluene (ug/l)	Xylene (total) (ug/l)	1,2,4-Trichloro benzene (ug/l)	Benzene (ug/l)
WQS		5	5	5	5	5	5	1
CSW-01	02/05/2003	<0.50	0.8	<0.50	3	[5]	<0.50	[1]
CSW-06	02/06/2003	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0
DVE-101	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
DVE-102	02/05/2003	<3.0	<3.0	<3.0	<3.0	<6.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	2	<0.50	<1.0	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	1	<0.50	<1.0	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
DVE-107	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-101	02/05/2003	<0.50	<0.50	2	<0.50	<1.0	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	[18]	<0.50	<1.0	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-105	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-106	02/05/2003	[55]	<25	<25	[30]	[51]	<25	<25
MW-107	02/05/2003	<10	<10	<10	<10	<20	<10	<10
MW-108	02/05/2003	<0.50	<0.50	0.6	<0.50	<1.0	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	0.9	<0.50	<1.0	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	sec-Butyl benzene (ug/l)	tert-Butyl benzene (ug/l)	Tetrachloro ethylene (ug/l)	Toluene (ug/l)	Xylene (total) (ug/l)	1,2,4-Trichloro benzene (ug/l)	Benzene (ug/l)
WQS		5	5	5	5	5	5	1
MW-201	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50
SCRW-05	02/05/2003	<250	<250	<250	[7200]	<750	[490]	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

[x]=Greater than Action Level ---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Chloromethane (ug/l)	1,1,1,2-Tetra chloroethane (ug/l)	Bromoform (ug/l)
WQS		5		
CSW-01	02/05/2003	0.7	0.9	<0.50
CSW-06	02/06/2003	<5.0	<5.0	<5.0
DVE-101	02/05/2003	3	<0.50	<0.50
DVE-102	02/05/2003	<3.0	<3.0	<3.0
DVE-103	02/05/2003	<0.50	<0.50	<0.50
DVE-104	02/05/2003	<0.50	<0.50	<0.50
DVE-105	02/05/2003	<0.50	<0.50	<0.50
DVE-106	02/05/2003	<0.50	<0.50	<0.50
DVE-107	02/05/2003	<0.50	<0.50	0.9
MW-101	02/05/2003	<0.50	<0.50	<0.50
MW-102	02/05/2003	<0.50	<0.50	<0.50
MW-103	02/05/2003	<0.50	<0.50	<0.50
MW-104	02/05/2003	<0.50	<0.50	<0.50
MW-105	02/05/2003	<0.50	<0.50	<0.50
MW-106	02/05/2003	<25	<25	<25
MW-107	02/05/2003	<10	<10	<10
MW-108	02/05/2003	<0.50	<0.50	<0.50
MW-109	02/05/2003	<0.50	<0.50	<0.50
MW-110	02/05/2003	<0.50	<0.50	<0.50

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

---=Not analyzed

TABLE 3
GROUND WATER ANALYTICAL RESULTS
FEBRUARY 2003
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK
DELTA PROJECT NO. S098-009

PERIOD: From 02/05/2003 thru 02/06/2003 - Inclusive
SAMPLE TYPE: Water

SITE	DATE	Chloromethane (ug/l)	1,1,1,2-Tetra chloroethane (ug/l)	Bromoform (ug/l)
WQS		5		
MW-201	02/05/2003	<0.50	<0.50	<0.50
MW-202	02/05/2003	<0.50	<0.50	<0.50
SCRW-05	02/05/2003	<250	<250	<250

WQS= Water Quality Standard (6NYRR, Table 4, cf. section 703.5) If WQS empty, then no standard promulgated.

---=Not analyzed

TABLE 4
PERCENT CHANGE IN DISSOLVED ANALYTE CONCENTRATION
Former Champion Products, Inc.
Perry, New York
Delta Project No: S098-009-5

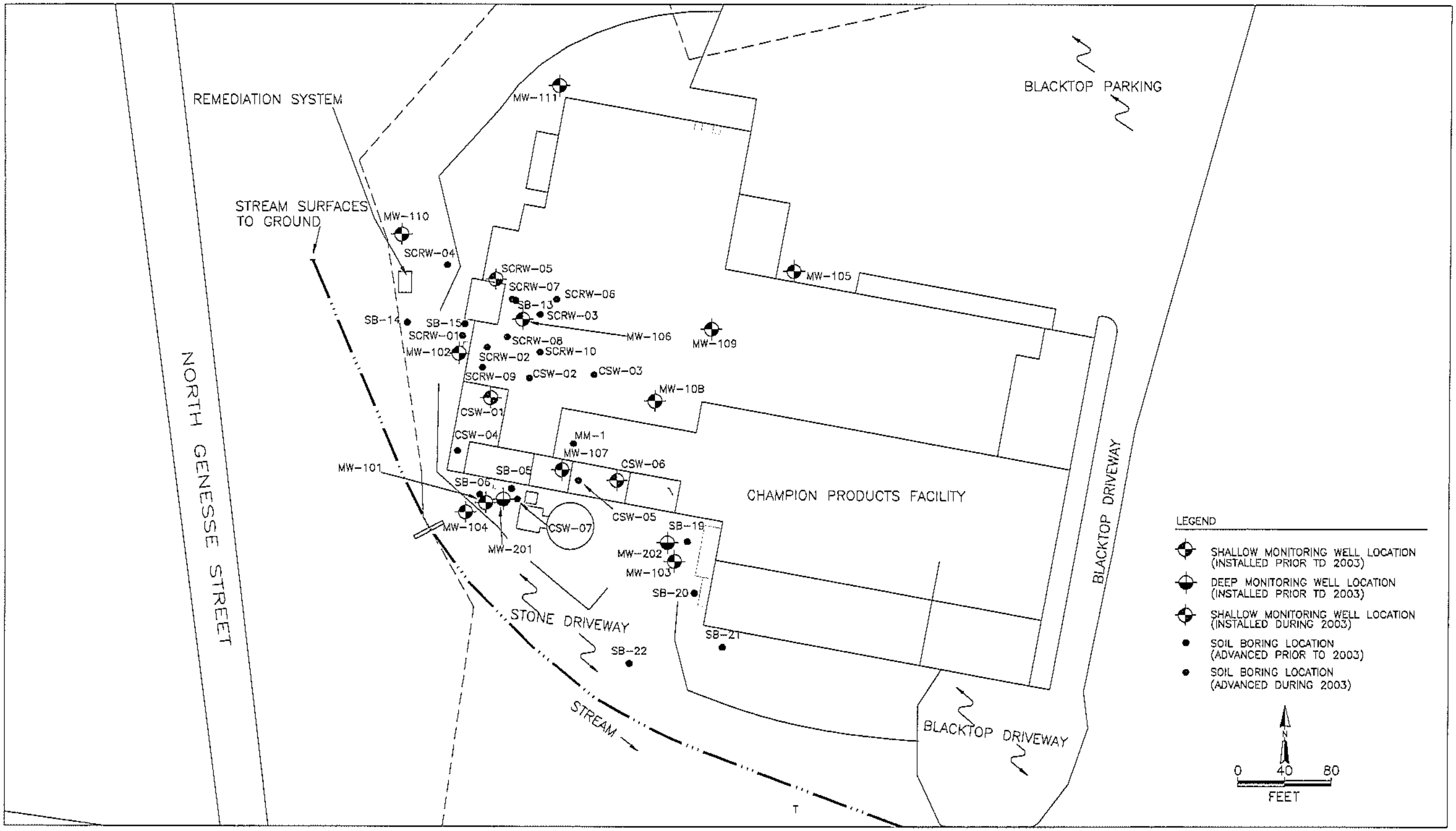
Monitoring Well	VOC with Highest Dissolved Concentration	Prior to System Startup Aug-98	Nov-98	Jul-00	After System Startup Sep-00	Nov-00	Feb-01	May-01	Aug-01	Nov-01	Feb-02	May-02	Aug-02	Nov-02	Feb-03	% change since start-up or well installation	
DVE-101	Toluene	NI	NI	8,300	**15,000**	880	2,400	660	610	<5	<1	<0.5	0.25	0.25	0.25	100.00%	decrease
DVE-101	1,2,4-Trimethylbenzene	NI	NI	NA	**15,000**	320	200	67	<25	19	<1	<0.5	0.25	1	0.6	100.00%	decrease
DVE-101	n-Butylbenzene	NI	NI	NA	**15,000**	84	<50	<50	<25	<5	<3.0	6	0.25	0.7	0.25	100.00%	decrease
DVE-102	Toluene	NI	NI	7	NS	<0.5	6	5	**130**	<5	<3.0	<1	0.7	NS	1.5	78.57%	decrease
DVE-103	Methyl-ethyl-ketone	NI	NI	**45**	NS	NA	<10	<2.0	<10	<10	<10	<10	25	5	5	88.89%	decrease
DVE-104	Toluene	NI	NI	1.5	NS	<0.5	<0.5	<0.5	**25**	<0.5	<0.5	<0.5	0.25	0.25	0.25	83.33%	decrease
DVE-105	Methyl-ethyl-ketone	NI	NI	**38**	NS	NA	<10	<2.0	<10	<10	<10	<10	5	5	5	86.84%	decrease
DVE-106	Toluene	NI	NI	**2,900**	NS	75	<1.0	<1.0	2600	8	<2	<0.5	1	0.25	0.25	99.99%	decrease
DVE-107	1,1-Dichloroethane	NI	NI	10	NS	37	<0.5	3	**100**	27	0.8	<0.5	25	4	0.9	91.00%	decrease
MW-101	Chloromethane	<3	<1	**14**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4	0.25	0.25	98.21%	decrease
MW-102	Chloromethane	<3	<1	**24**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.25	98.96%	decrease
MW-103	Methylene chloride	**16**	<1	<3	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.25	98.44%	decrease
MW-104	Chloromethane	<3	<1	17	NS	8	15	3	23	**34**	<0.5	<0.5	0.25	180	0.25	98.53%	decrease
MW-105	Chloroethane	23	<1	**78**	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.25	0.25	0.25	99.68%	decrease
MW-106	Toluene	**48,000**	6,100	24,000	NS	22,000	11,000	2,300	1,700	NS	670	69	900	120	30	99.94%	decrease
MW-106	1,1-Dichloroethane	15	**3,500**	2,100	NS	570	2,300	390	120	NS	125	160	125	53	340	90.29%	decrease
MW-107	1,1-Dichloroethane	130	290	350	NS	NS	380	240	250	320	540	550	**580**	200	410	17.14%	increase
MW-108	Methyl-ethyl-ketone	**69**	<5	<10	NS	NA	<10	<4.0	<50	<50	<10	<10	5	5	5	92.75%	decrease
MW-108	1,1,1-Trichloroethane	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<3.0	<3.0	<0.5	<0.5	0.25	0.25	0.25	83.33%	decrease
MW-108	1,1-Dichloroethane	<3	<1	1.5	NS	<0.5	4	<1.0	<3.0	<3.0	<0.5	<0.5	0.25	0.6	0.25	83.33%	decrease
MW-109	Toluene	<3	6.5	<3	NS	1	**55**	12	NS	NS	<3	<0.5	0.25	0.25	0.25	96.15%	decrease
MW-110	Tetrachloroethene	<3	<1	1.5	NS	<0.5	<0.5	<1.0	NS	NS	<0.5	<0.5	3	0.25	0.25	83.33%	decrease
MW-111	Chloroform	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<0.5	**0.7**	<0.5	<0.5	0.25	NS	NS	83.33%	decrease
MW-201	Methyl-ethyl-ketone	**50**	7.3	<10	NS	NA	<10	<4.0	<20	<20	<20	<10	5	5	5	90.00%	decrease
MW-201	1,1-Dichloroethane	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<0.5	**0.7**	0.25	0.25	83.33%	decrease
MW-202	Chloroform	<3	<1	1.5	NS	<0.5	<0.5	<1.0	<0.5	<3.00	<0.5	<0.5	**2**	0.25	0.25	83.33%	decrease
SCRW-05	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**3500**		
SCRW-05	Toluene	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**7200**		
CSW-01	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**26**		
CSW-06	1,1-Dichloroethane	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	**2.5**		

Notes:
All concentrations reported in micrograms per liter.
System startup occurred in July 2000.
NI = DVE-101 through DVE-107 were not installed until July 2000 and SCRW-05, CWS-01 and CSW-06 were not installed until February 2003.
NA = The ground water sample was not analyzed for this constituent.
NS = No sample obtained for this date.

Concentrations reported below the detection limit are assumed to be 1/2 the detection limit for calculation purposes.
Bold = Highest concentration reported for this analyte.

2_% Change.xls

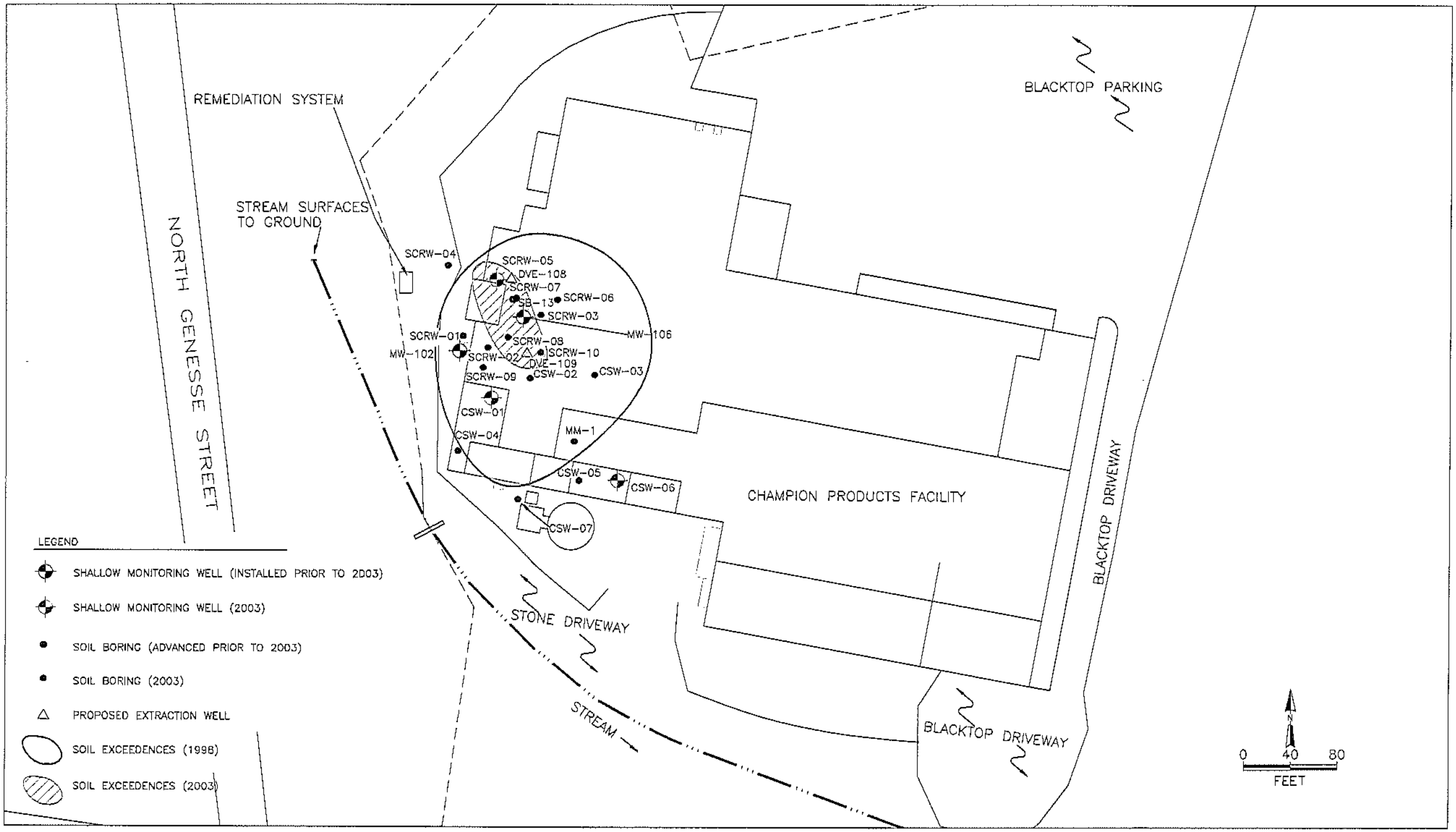
FIGURES



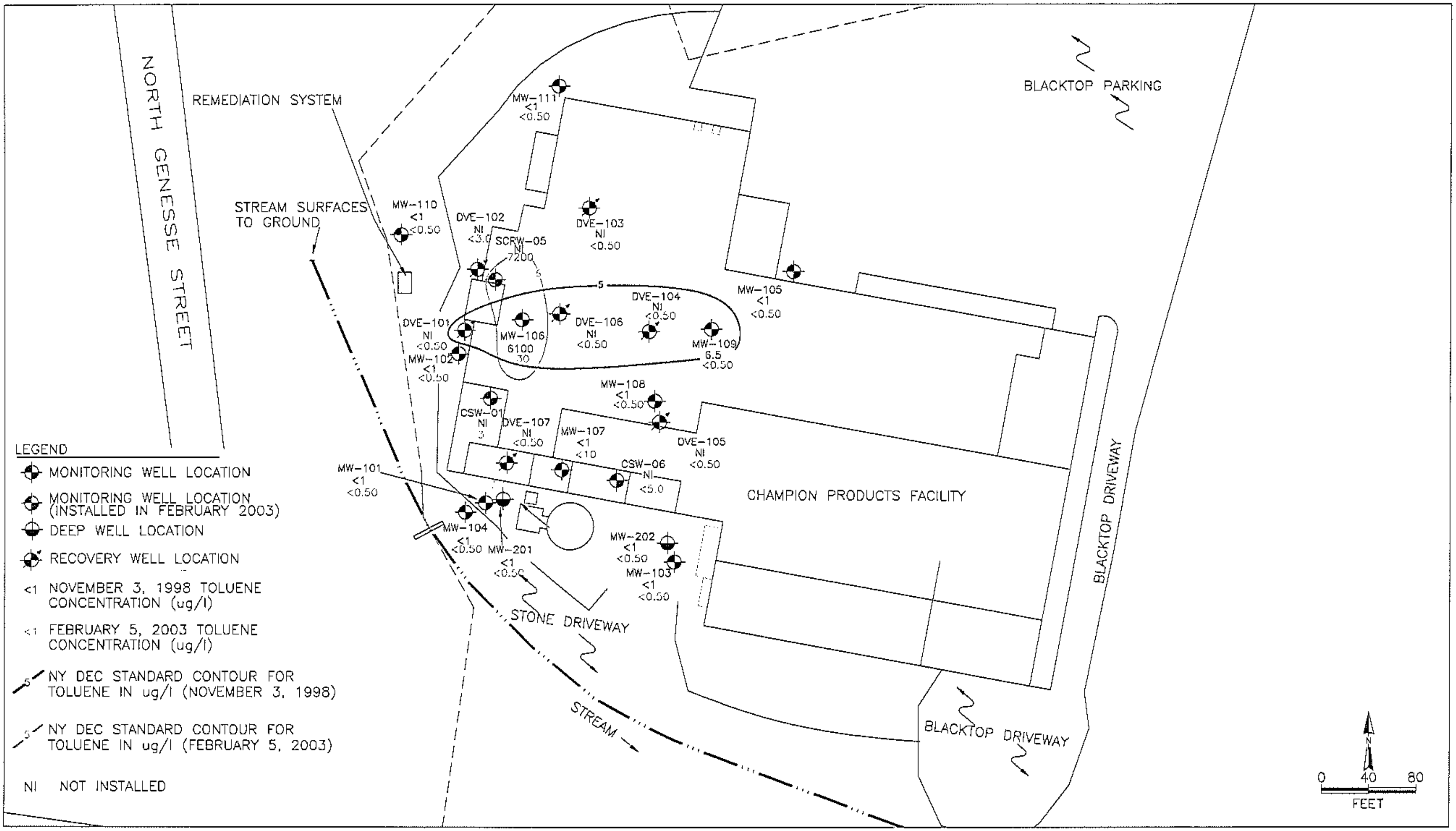
Delta Environmental Consultants, Inc.

TITLE:
SITE MAP
CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK

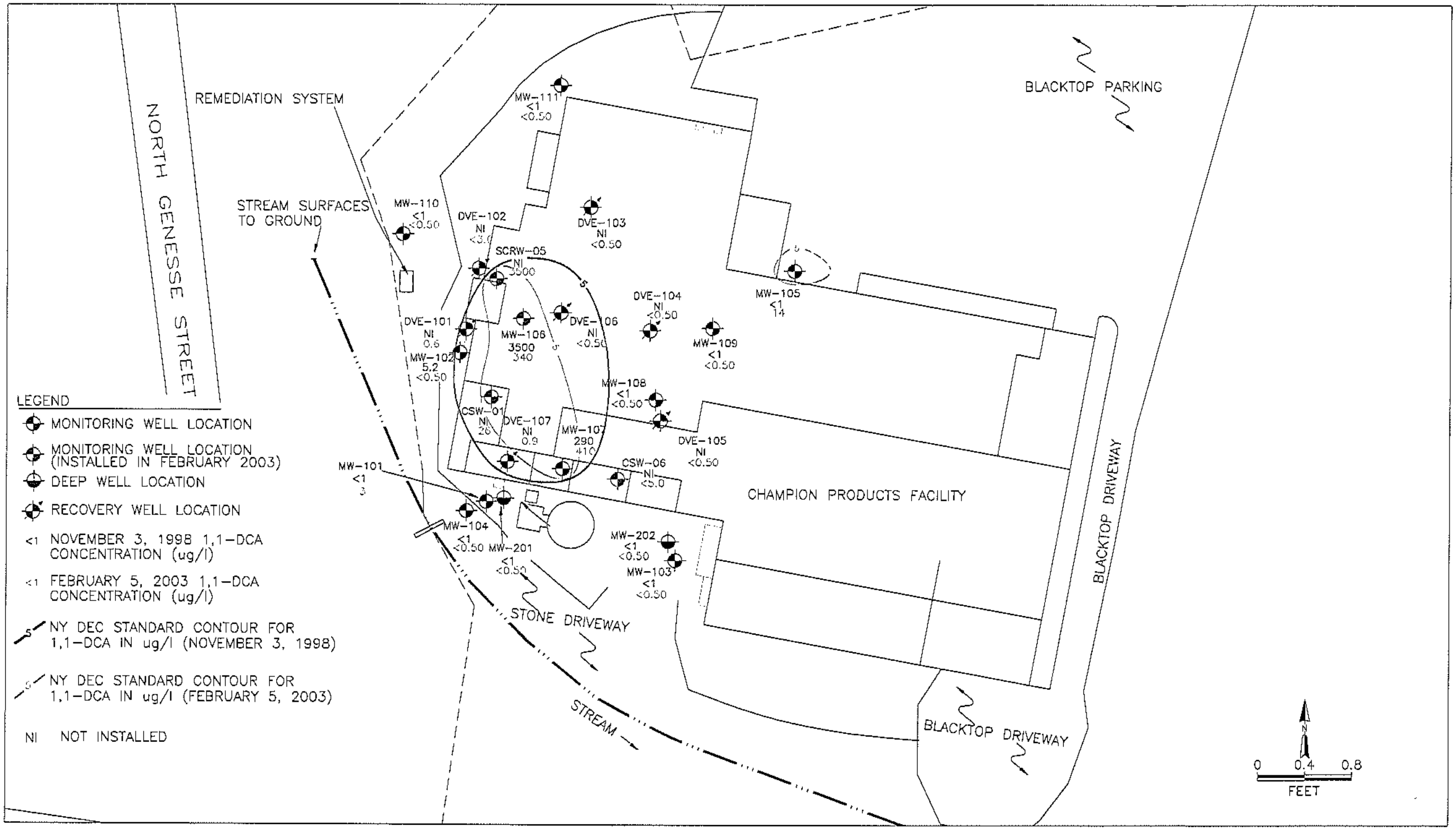
DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	FIGURE NO.: 1
DATE: 4/7/03	REV.:	



Delta Environmental Consultants, Inc.	TITLE: AREA EXCEEDING TAGM CLEANUP CRITERIA: 1998 vs. 2003 FORMER CHAMPION PRODUCTS COMPANY, INC. PERRY, NEW YORK	DWN: HLW CHKD: DATE: 4/10/03	DES.: APPD: REV.:	PROJECT NO.: S098-009 FIGURE NO.: 2



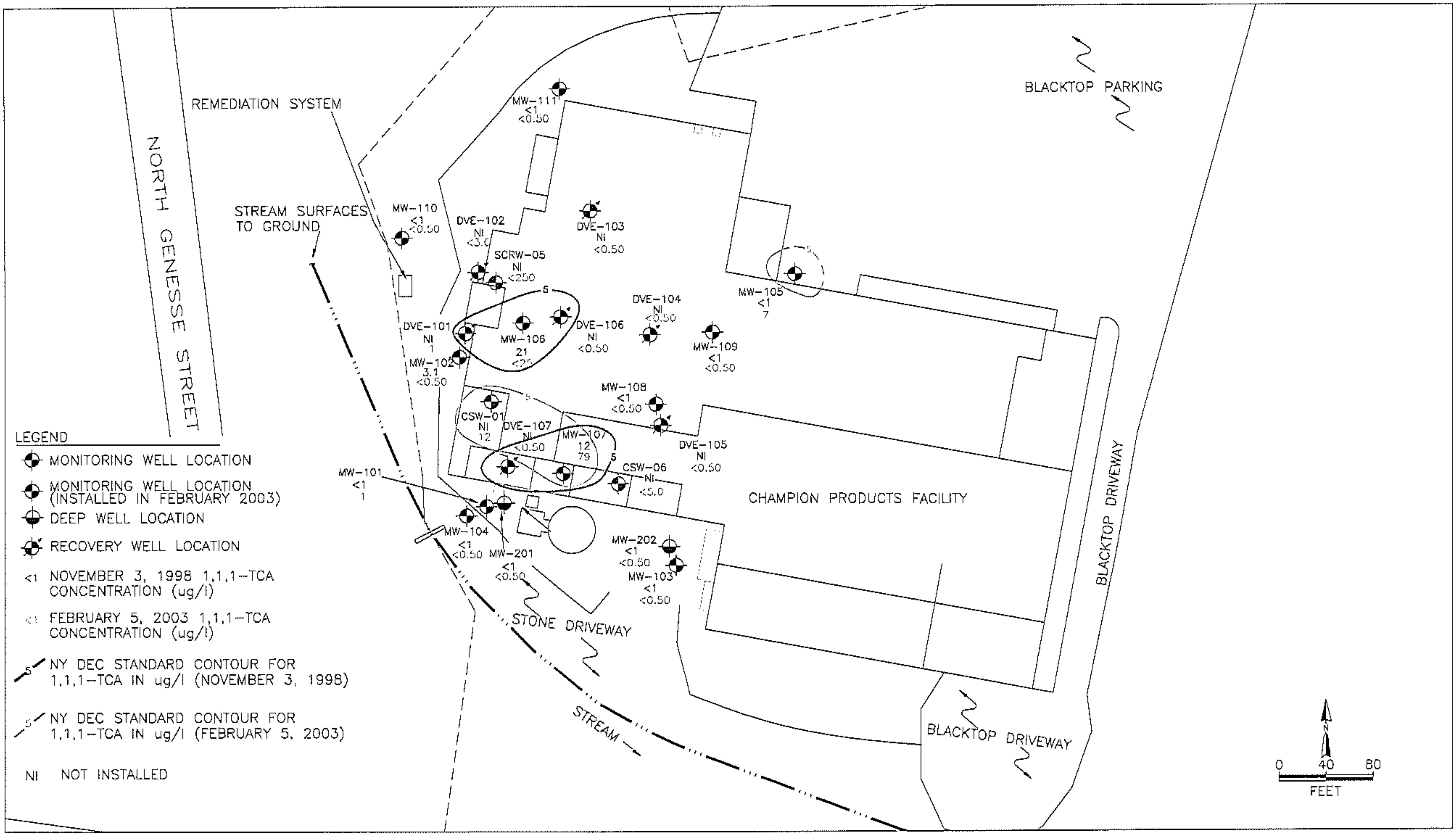
Delta Environmental Consultants, Inc.	TITLE: ISOCONCENTRATION CONTOUR MAP: TOLUENE FORMER CHAMPION PRODUCTS COMPANY, INC. PERRY, NEW YORK	DWN: HLW CHKD: DATE: 4/9/03	DES.: APPD: REV.:	PROJECT NO.: S098-009 FIGURE NO.: 3



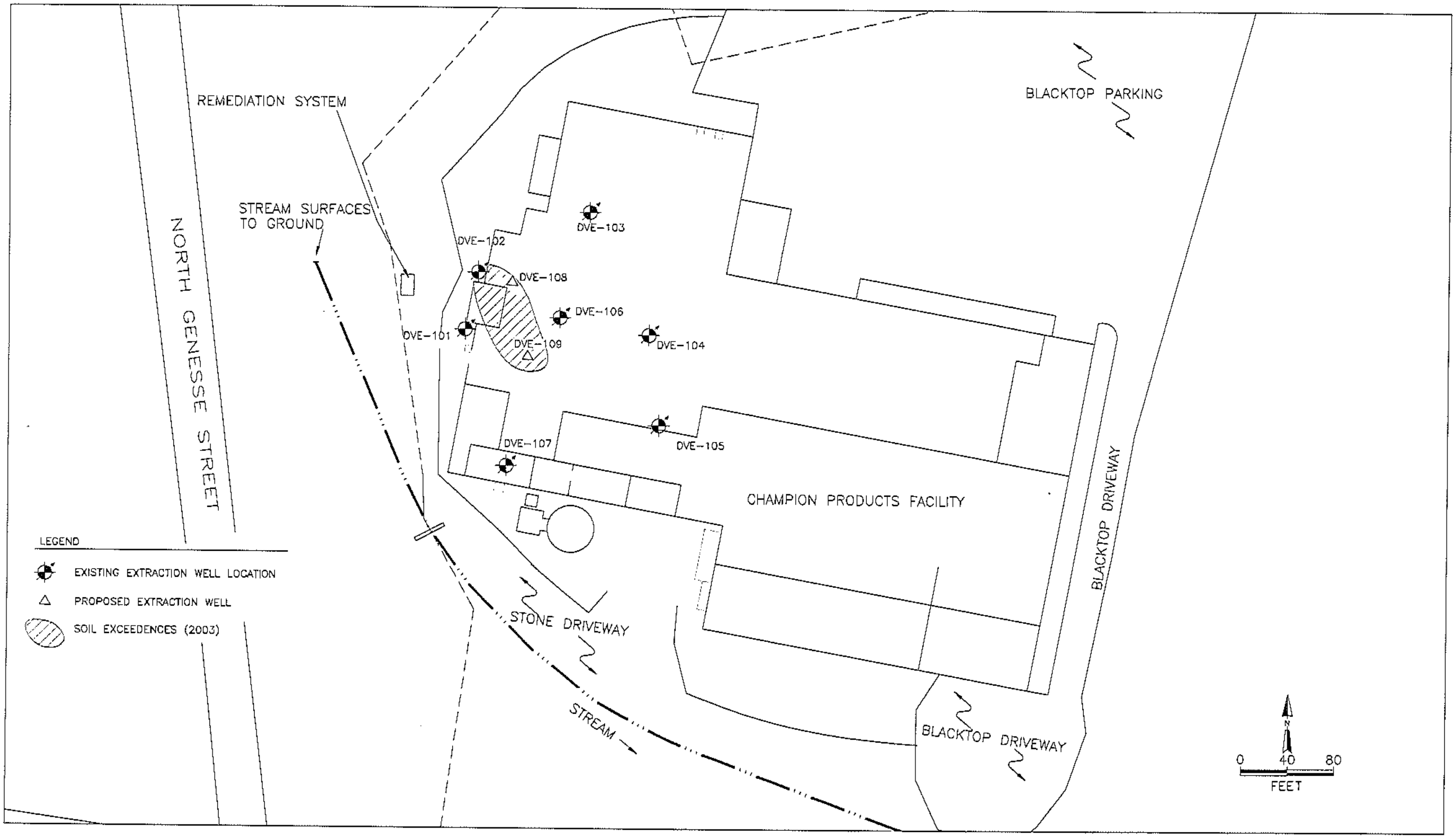
Delta Environmental Consultants, Inc.

TITLE: ISOCONCENTRATION CONTOUR MAP: 1,1-DCA
FORMER CHAMPION PRODUCT COMPANY, INC.
PERRY, NEW YORK

DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	FIGURE NO.: 4
DATE: 4/9/03	REV.:	



Delta Environmental Consultants, Inc.	TITLE: ISOCONCENTRATION MAP: 1,1,1-TCA FORMER CHAMPION PRODUCTS COMPANY, INC. PERRY, NEW YORK	DWN: HLW	DES.:	PROJECT NO.: S098-009
		CHKD:	APPD:	
		DATE: 4/9/03	REV.:	FIGURE NO.: 5



Delta Environmental Consultants, Inc.

TITLE: PROPOSED EXTRACTION WELL LOCATIONS
FORMER CHAMPION PRODUCTS COMPANY, INC.
PERRY, NEW YORK

DWN: HLW	DES.:	PROJECT NO.: S098-009
CHKD:	APPD:	FIGURE NO.: 6
DATE: 4/30/03	REV.:	

June 8, 2007

Mr. Matt Forcucci
New York State Department of Health
584 Delaware Avenue
Buffalo, New York 14202

Subject: Baseline Soil Vapor Intrusion Report
Former Champion Products Facility
200 North Main Street, Perry, New York
VCP No. V000189-9
Delta Project No. 0610756P

DELTA

Dear Mr. Forcucci:

On behalf of the Hanesbrands, Inc., Delta Consultants (Delta) is presenting the following Baseline Soil Vapor Intrusion (SVI) Report for the above noted facility for review by the New York State Department of Health (NYSDOH).

SITE BACKGROUND

The former Champion Products facility was owned and operated from 1955 until 1998 by Champion, an affiliate of the Sara Lee Corporation. In 1998, the property was sold to SMG Development Corporation. Champion leased the building from SMG and continued operations until December 2001. American Classic Outfitters (ACO) was formed and commenced its operations in January 2002. The ACO operation is still ongoing. Irrespective of ownership, the facility has been primarily used since 1955 for the manufacture of print screen apparel for sports teams and retail sale.

Chlorinated and non-chlorinated solvents were identified in the soil and groundwater underlying the manufacturing and warehouse building. Champion Products entered into a Voluntary Cleanup Agreement in 2000 with the New York State Department of Environmental Conservation (NYSDEC) for the remediation of the site. Hanesbrands, Inc. is now performing the activities of Champion Products under the Agreement. Since 2000, several site investigations and remedial activities have occurred, including the design, installation and operation of a dual phase vapor extraction (DPVE) system.

The DPVE system was placed in operation in July 2000 and recently shutdown in February 2007, as significant reductions in volatile organic compound (VOC) levels have been achieved and it is unlikely that any additional benefit will be derived from the continued operation of the system. Site-wide dissolved phase VOC levels have decreased by an average of 87 percent since system start-up.

A Shutdown Plan for the DPVE system was submitted to NYSDEC on February 27, 2007. The Shutdown Plan was approved on March 5, 2007 and outlined activities envisioned for site closure, including the performance of a baseline survey to evaluate a potential for a SVI exposure pathway. This report was prepared pursuant to the Shutdown Plan.

SAMPLING PROGRAM DESCRIPTION

This evaluation was conducted consistent with a work plan prepared pursuant to the terms of the final NYSDOH Guidance for Evaluating Soil Vapor Intrusion in New York State, dated October 2006. The work plan was submitted to the NYSDOH on March 12, 2007 and approved on March 13, 2007. The tasks completed as part of this effort are summarized in the sections which follow.

Pre-Sampling Building Survey

A pre-sampling building inspection was conducted prior to the collection of soil vapor samples on March 23, 2007. The pre-sampling building inspection was conducted by Gregory Drumm, CIH (Delta) with assistance from Ms. Jan Newville (ACO). As part of this task, an evaluation was conducted of the building structure, floor layout, air flows and physical conditions; potential sources of indoor air contamination were identified, including an inventory of chemicals and products; a photoionization detector (PID) survey was conducted to evaluate potential sources, when discovered; and procedures established with ACO personnel to insure that optimum conditions would exist immediately prior to the collection of samples. As part of this task, the NYSDOH Indoor Air Quality & Building Inventory Form was completed (**Appendix A**).

Key results from the March 23, 2007 pre-sampling building survey were as follows:

- The building is a one-story industrial facility with an open floor plan production area (with mezzanine areas) and an attached office area. The structure is estimated to be approximately 50 years old.
- The facility is heated by natural gas with various ceiling-mounted duct works throughout the production area.
- Air discharges included large oven units, spray booths and exhaust ventilation in the southern area of the facility and bathroom ventilation discharges.
- Air infiltration was noted at the overhead door (raised several inches) in the screen wash/spray booth area, the north and south loading dock areas, and several wall openings (e.g., west men's restroom, custodial closet near offices).
- The facility appeared to have a slightly negative air balance.
- A variety of oils and lubricants, spray adhesives, spray silicone, and solvent-based materials were observed in use or in storage throughout the production areas. Gasoline-powered equipment was also observed inside the facility including a snowblower, chainsaw, and portable generator. A chemical inventory was performed of these materials (**Appendix B**).

ACO provided a set of Material Data Safety Sheets (MSDSs) that it identified as covering the materials used in the current ACO operations. Hanesbrand has not conducted an audit of the chemicals used in current operations. A review of the MSDSs identified the presence of the following VOCs:

- Hexane
- Acetone
- Isobutane
- Propane
- Dimethyl ether
- Methylene chloride (aka: dichloromethane)
- Tetrachlroethylene (PCE)
- Mineral spirits
- Aliphatic distillates
- Aliphatic hydrocarbons
- Terpenes
- Glycol ethers

Percent compositions of these VOCs are also provided in **Appendix B**.

Sampling Collection

Soil vapor samples were collected from a total of 6 locations on March 29, 2007 as depicted in **Figure 1**:

- Upwind sample (UW-1). Assuming a prevailing westerly wind pattern, the sample was collected outdoors and away from any obvious wind obstructions and/or sources of volatile chemicals (i.e. motor vehicles, oil storage tank farm facilities, other industrial operations, etc.).
- Five indoor air locations (IA-1 through IA-5)
- Five sub-slab locations (SS-1 through SS-5)

The indoor air and sub-slab samples were co-located as follows:

- One sample in the office area (IA-1/SS-1)
- One sample downgradient of the Former Manual Screen Wash Area (IA-2/SS-2). This area is also known as the Sewing Area.
- One sample downgradient of the Current Screen Wash Area (IA-3/SS-3). This area is also known as the Fabric Cut Area.
- One sample between monitoring wells CSW-01 and MW-107 and within the Current Screen Wash Area (IA-4/SS-4). This area is also known as the Storage Rack Area.
- One sample in the vicinity of monitoring well SCRW-05 and within the Former Manual Screen Wash Area (IA-5/SS-5). This area is also known as the T-Shirt Painting Area.

Sample collection procedures were as follows:

- The outdoor and indoor samples were collected at a height of approximately 4 feet.
- Sub-slab samples were collected consistent with the procedures for permanent sub-slab vapor probe installations as specified in NYSDOH SVI Guidance and the approved work plan. Sample locations were placed in areas mutually-agreed upon by Messrs. Matt Forcucci (NYSDOH) and Maurice Moore (NYSDEC) and site personnel. The designated sample locations closely matched with the locations proposed in the approved work plan.
- The installations were performed as follows:
    - Approximately 4-inch diameter holes were bored into concrete floor of the building. Borings were located away from building footers and in areas so as to minimize disruption of facility operations and egress routes.
    - Each hole was installed to a depth of approximately two-inches beneath the floor into the subgrade bedding materials.
    - The bottom inch of each hole was filled with glass bead material to serve to decrease the likelihood of collecting particulate matter during sampling.
    - One-quarter inch stainless steel tubing was inserted into the glass beads within each borehole.
    - Non-shrink grout was placed around the stainless steel tubing to reduce the likelihood for the introduction of ambient air during sampling. Beeswax was also used at several borehole locations to further assist with sealing as needed.
    - The top of the boreholes were fitted with a removal plug caps/covers.
- Helium was used as a tracer gas to confirm the integrity of the sub-slab vapor probe seal. A gas trap was made using plastic sheeting, duct taped to the floor. Teflon tubing was connected to the vapor probe outlet, threaded through the plastic and connected to a helium gas monitor. Tubing from a helium gas cylinder was placed beneath the plastic sheeting. When the sheet had visibly risen from the pressure supplied by the helium gas, the gas flow was shut off and the levels of helium were monitored for 5 minutes. If no helium was detected, the seal was considered satisfactory. If helium was detected, the seal was inspected and any cracks were sealed with beeswax and the seal retested until a satisfactory seal was confirmed.
- Prior to sample collection from the sub-slab probe locations, three sample volumes were purged from the sub-slab space at each location.

- Outdoor air, indoor air, and sub-slab vapor samples were collected using clean and certified 6-liter Summa® canisters at each location for a period ranging from 10 to 13 hours.
- Twelve-hour flow rate controllers were used. Flow rates ranged from 7.4-7.8 milliliters per minute (ml/min).
- Sample log sheets were completed for each sample (**Appendix C**).
- Chain of custody forms were used to track canister and sample shipments (**Appendix D**).

Prior to sampling, arrangements were made with site personnel to insure that the following conditions existed prior to the collection of samples:

- The HVAC system was operated under normal conditions at normal indoor temperatures at least 24 hours prior to and during the sampling event in a manner that represented normal conditions and building occupancy conditions.
- Unnecessary building ventilation was avoided 24 hours prior to and during sampling.
- Maintenance activities were avoided prior to and during the sampling event (e.g. painting, vehicle maintenance, smoking in the building, etc.).

Sample Analysis

Sample analytical procedures differed slightly from the approved work plan in order to permit the analysis of a more complete list of site-related VOCs.

Prior to the collection of samples, a comparison was made between the list of parameters routinely monitored at the site, the EPA Method TO-15 list and the list provided in the work plan. The work plan list, referred to as the STL Burlington NYS VI Compound List, provides for low-level analytical procedures to measure VOCs [(i.e tetrachloroethene (PCE), trichloroethene (TCE), carbon tetrachloride (CCl_4) and 1,1,1-trichloroethane (TCA)] at detection limits less than the action levels specified in the NYSDOH Decision Matrices. The comparison indicated that a more extensive list of VOCs (the TO-15 list plus naphthalene) would require analysis to insure that most of the parameters routinely monitored at the site were tested for in the SVI samples.

All samples were analyzed by EPA Method TO-15 with low-level analysis to provide lower detection limits for TCE and CCl_4. Severn Trent Laboratories (STL), Burlington, VT, a NYSDOH ELAP-certified laboratory, was retained by Delta to provided the canisters and perform the laboratory analyses.

The laboratory results from the sampling effort are provided in **Appendix D**.

Data Usability Summary Report

A data usability summary report (DUSR) was prepared and consists of an evaluation of the analytical data to determine if the data met the site and project-specific criteria for data quality and use. The DUSR report is provided in **Appendix E**.

Key findings of the DUSR report were as follows:

- The data package provided contained the documentation required by the NYSDEP Analytical Services Protocol (ASP).
- Proper chain of custody procedures were followed.
- The overall performance of the analyses was acceptable.

The followings data are considered usable, but were flagged as "J" or "estimated" as follows:

- The positive result for dichlorodifluoromethane was flagged as "J" in sample UW-1 because the percent difference (D) for this compound was above the allowable maximum in the associated initial calibration and the percent recoveries were above the quality control (QC) limits in LCS/LCSD CA041807LCS.

- The non-detected results for 1,2,4-trimethlybenzene were flagged as "J" for samples UW-1, IA-2, IA-3, IA-5, SS-3, SS-4 and SS-5 since one of the 2 percent recoveries were below QC limits in LCS/LCSD CA041807LCS.

RESULTS

PID Readings

As part of the Pre-Sampling Building Survey, PID readings were obtained at various locations throughout the facility. These results are noted in **Appendix B** and ranged from zero to 8 parts per million (ppm). No PID readings were detected in Reception/Office Area or the Custodial Closet. PID readings between zero and 0.4 ppm were noted at the North Dock, Knitting Area, Embroidery Area, Sewing, Oven Areas, the Ink Room and the Mezzanine and Upstairs Office. PID readings between 0.5 and 1 ppm were observed in the Men's Restroom (west of the Production Area), the Pattern Making/Screen Wash, the Printing Area Flammable Cabinet, the Maintenance Area and the Maintenance Flammables Cabinet #1. The highest PID levels were detected in the Maintenance Flammable Cabinet #2 (3 to 8 ppm).

Odors

During the performance of the sampling effort, odors were observed and recorded in the sample logs **(Appendix C)** at the following locations:

- Location IA-4/SS-4 (Storage Rack Area) – Faint paint smell
- Location IA-5/SS-5 (T-Shirt Painting Area) – Chemical smell

Analytical Results

Analytical results from the sampling effort are summarized in Tables **1** through **3.** **Table 1** and **Table 2** present the results in micrograms per cubic meter (ug/m^3) and parts per billion by volume (ppbv), respectively. **Table 3** presents the low-level analytical results for TCE and CCl_4.

Elevated levels of methylene chloride in indoor air resulted in sample dilution and elevated reporting limits. The elevated reporting limits made comparison to available NYSDOH criteria limited, since in many cases, the reporting limits, although non-detect, exceeded the available criteria.

The results indicated the following:

- The outdoor air, upwind sample location (UW-1) showed low levels for only four compounds – dichlorofluoromethane (3 ug/m^3), chloromethane (1.1 ug/ m^3), trichlorofluoromethane (1.3 ug/m^3), and methylene chloride (2 ug/m^3).
- Compounds identified with notably higher indoor air concentrations as compared to the corresponding sub-slab sample locations included methylene chloride and n-hexane.
- Four of the five indoor air sample locations exceeded the NYSDOH Indoor Air Guideline of 60 ug/m^3 for methylene chloride (range 4900-8700 ug/m^3).
- Sub-slab levels of methylene chloride were generally lower than indoor air levels by one to two orders of magnitude (range 31-900 ug/m^3).
- Detectable indoor air levels of n-hexane (110 to 250 ug/m^3) generally exceeded corresponding sub-slab levels by approximately an order of magnitude.
- Compounds identified with notably higher sub-slab sample levels than the corresponding indoor air levels included TCA, PCE, 1,1-dichloroethane (DCA), cyclohexane, and MEK.
- PCE levels for two indoor air sample locations, IA-3 and IA-5, exceeded the NYSDOH Air Guideline Value of 100 ug/m^3 at 300 and 220 ug/m^3, respectively.
- Sub-slab levels of PCE at the two corresponding sub-slab sample locations, SS-3 and SS-5, were higher than the indoor air at 630 and 1500 ug/m^3, respectively. Other sub-slab levels of PCE were 81 ug/m^3 at SS-1, 660 ug/m^3 at SS-2 and 390 ug/m^3 at SS-4.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the findings of the baseline SVI survey conducted on March 29, 2007, the following conclusions are provided:

- No direct association is apparent between the compounds detected in the outdoor and indoor air samples.
- The indoor air results for methylene chloride and PCE exceeded the NYSDOH Air Guidelines for indoor air. However, the levels detected are well below the OSHA Permissible Exposure Limits of 87,750 ug/m^3 (25 ppm) and 678,330 ug/m^3 (100 ppm), respectively.
- Current ACO operations more than likely contributed to the detection of some compounds in the indoor air samples, most notably methylene chloride, n-hexane, and PCE. This is consistent with findings from the pre-sampling chemical inventory, a review of MSDSs of on-site products in use, and the chemical odors noted during sampling.
- Indoor air concentrations of methylene chloride and n-hexane generally exceeded corresponding sub-slab vapor concentration by at least an order of magnitude indicating the likely association with ACO operations.
- PCE was notably higher in sub-slab samples than corresponding indoor air samples. While some of the PCE in the indoor air samples may be associated with infiltration from the sub-slab, current manufacturing and production processes may also have contributed to PCE indoor air levels observed.
- Looking at the data set as a whole, several other compounds (TCA, DCA, cyclohexane, and MEK) were found at the same locations as the elevated sub-slab PCE observations. These compounds have elevated sub-slab vapor concentrations (up to 7600 ug/m^3 for TCA); however, none of these compounds were noted in indoor air at the detection limits reported indicating a potential incomplete exposure pathway from sub-slab vapor.

The following recommendations are provided:

- Assessment of the SVI results should be considered in conjunction with the results of the pending Sub-Slab Soil Investigation work, also being conducted as part of the Shutdown Plan.
- The methylene chloride and PCE indoor air results should be considered in conjunction with the fact that those chemicals are used in the workplace and the indoor air results were well below the OSHA Permissible Exposure Limits.

CLOSING

We trust that the enclosed report is informative. Please do not hesitate to contact us with any questions at (914) 765-0258 or by e-mail at asavino@deltaenv.com.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Anthony Savino
Anthony Savino
Senior Consultant

Enclosures:	Table 1	SVI Sample Results (ug/m^3)
	Table 2	SVI Sample Results (ppbv)
	Table 3	SVI Sample Results Low-Level TO-15 Analysis
	Figure 1	Soil Vapor Intrusion Sample Location Map
	Appendix A	NYSDOH Indoor Air Quality & Building Inventory Form
	Appendix B	Chemical Inventory
	Appendix C	SVI Sample Log Forms

Appendix D Laboratory Report
Appendix E Data Usability Summary Report (DUSR)

cc: Tommy Thompson, Hanesbrands
Maureen Crough, Sidley Austin LLP
Sam Gullo, American Classic Outfitters
Paul Sylvestri, Harter Secrest & Emery, LLP
Martin Doster, NYSDEC
Maurice Moore, NYSDEC
Ed Belmore, NYSDEC
Jim Charles, NYSDEC
Gary Litwin, NYSDOH

TABLES

Table 1
Hanesbrands, Perry, NY
SVI Sample Results
(ug/m^3)

Sample ID	UW-1 Outdoor	IA-1 Indoor	SS-1 Sub-slab	IA-2 Indoor	SS-2 Sub-slab	IA-3 Indoor	SS-3 Sub-slab	IA-4 Indoor	SS-4 Sub-slab	IA-5 Indoor	SS-5 Sub-slab
Dilution Factor	0.8	0.8	1.5	60.7	4.0	79.9	3.0	84.0	66.5	40.0	5.93
Parameter											
Dichlorodifluoromethane	3 J	3.4	3.7 U	150 U	9.9 U	200 U	7.4 U	210 U	160 U	99 U	15 U
1,2-Dichlorotetrafluoroethane	1.1 U	1.1 U	2.1 U	84 U	5.6 U	110 U	4.2 U	120 U	91 U	56 U	8.4 U
Chloromethane	1.1	0.99	1.5 U	62 U	4.1 U	83 U	3.1 U	87 U	68 U	41 U	6.2 U
Vinyl Chloride	0.41 U	0.41 U	0.77 U	31 U	2 U	41 U	1.5 U	43 U	33 U	20 U	3.1 U
1,3-Butadiene	0.88 U	0.88 U	1.7 U	66 U	4.4 U	88 U	3.3 U	93 U	73 U	44 U	6.6 U
Bromomethane	0.62 U	0.62 U	1.2 U	47 U	3.1 U	62 U	2.3 U	66 U	50 U	31 U	4.7 U
Chloroethane	1.1 U	1.1 U	2 U	79 U	5.3 U	110 U	4 U	110 U	87 U	53 U	7.9 U
Bromoethene	0.7 U	0.7 U	1.3 U	52 U	3.5 U	70 U	2.6 U	74 U	67 U	35 U	5.2 U
Trichlorofluoromethane	1.3	14	6.2	67 U	16	90 U	18	96 U	73 U	45	15
Freon TF	1.2 U	1.2 U	2.3 U	92 U	6.1 U	120 U	4.6 U	130 U	100 U	61 U	9.2 U
1,1-Dichloroethene	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	59	32 U	4.8 U
Acetone	9.5 U	22	55	710 U	62	950 U	81	1000 U	780 U	480 U	120
Isopropyl Alcohol	9.8 U	9.8 U	18 U	740 U	49 U	980 U	37 U	1000 U	810 U	490 U	74 U
Carbon Disulfide	1.2 U	1.2 U	3.7	93 U	6.2 U	120 U	4.7 U	130 U	100 U	62 U	9.3 U
3-Chloropropene	1.3 U	1.3 U	2.3 U	94 U	6.3 U	130 U	4.7 U	130 U	100 U	63 U	9.4 U
Methylene Chloride	2	35	31	**5200**	59	**8700**	270	**5900**	900	**4900**	120
tert-Butyl Alcohol	12 U	12 U	27	910 U	61 U	1200 U	45 U	1300 U	1000 U	610 U	91 U
Methyl tert-Butyl Ether	1.4 U	1.4 U	2.7 U	110 U	7.2 U	140 U	5.4 U	150 U	120 U	72 U	11 U
trans-1,2-Dichloroethene	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	52 U	32 U	4.8 U
n-Hexane	1.4 U	1.4 U	2.6 U	110	7 U	160	6.7	160	120 U	250	11 U
1,1-Dichloroethane	0.65 U	0.65 U	1.2 U	49 U	3.2 U	65 U	2.4 U	69 U	1300	32 U	180
1,2-Dichloroethene (total)	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	52 U	32 U	4.8 U
Methyl Ethyl Ketone	1.2 U	3.8	11	88 U	10	120 U	7.7	120 U	97 U	59 U	14
cis-1,2-Dichloroethene	0.63 U	0.63 U	1.2 U	48 U	3.2 U	63 U	2.4 U	67 U	52 U	32 U	4.8 U
Tetrahydrofuran	12 U	12 U	22 U	880 U	59 U	1200 U	44 U	1200 U	970 U	590 U	88 U
Chloroform	0.78 U	0.78 U	88	59 U	27	78 U	28	83 U	63 U	39 U	41
1,1,1-Trichloroethane	0.87 U	0.87 U	98	65 U	22	87 U	220	93 U	7600	44 U	1200
Cyclohexane	0.55 U	0.55 U	4.1	41 U	2.8 U	55 U	7.6	69 U	210	28 U	38
Carbon Tetrachloride	1 U	1 U	1.9 U	76 U	5 U	100 U	3.8 U	110 U	82 U	50 U	7.5 U
2,2,4-Trimethylpentane	0.75 U	0.75 U	1.4 U	56 U	3.7 U	75 U	2.8 U	79 U	61 U	37 U	5.6 U
Benzene	0.51 U	0.51 U	2.6	38 U	2.6 U	51 U	2.8	54 U	42 U	26 U	3.8 U
1,2-Dichloroethane	0.65 U	0.65 U	1.2 U	49 U	3.2 U	65 U	2.4 U	69 U	53 U	32 U	4.9 U
n-Heptane	0.66 U	0.66 U	1.2 U	49 U	3.3 U	66 U	3.9	70 U	53 U	33 U	4.9
Trichloroethene	0.86 U	0.86 U	16	64 U	4.3 U	86 U	3.2 U	91 U	70 U	43 U	24
1,2-Dichloropropane	0.74 U	0.74 U	1.4 U	55 U	3.7 U	74 U	2.8 U	79 U	60 U	37 U	5.5 U
1,4-Dioxane	14 U	14 U	27 U	1100 U	72 U	1400 U	54 U	1500 U	1200 U	720 U	110 U
Bromodichloromethane	1.1 U	1.1 U	5.1	80 U	5.4 U	110 U	4 U	110 U	87 U	54 U	8 U
cis-1,3-Dichloropropene	0.73 U	0.73 U	1.4 U	54 U	3.6 U	73 U	2.7 U	77 U	59 U	36 U	5.4 U
Methyl Isobutyl Ketone	1.6 U	1.6 U	86	120 U	82	160 U	45	170 U	140 U	82 U	140
Toluene	0.6 U	1.5	8.3	45 U	5.7	60 U	8.3	64 U	49 U	30 U	7.2
trans-1,3-Dichloropropene	0.73 U	0.73 U	1.4 U	54 U	3.6 U	73 U	2.7 U	77 U	59 U	36 U	5.4 U
1,1,2-Trichloroethane	0.87 U	0.87 U	1.6 U	65 U	4.4 U	87 U	3.3 U	93 U	71 U	44 U	6.5 U
Tetrachloroethene	1.1 U	1.7	81	81 U	660	300	630	120 U	390	220	1500
Methyl Butyl Ketone	1.6 U	1.6 U	210	120 U	410	160 U	94	170 U	140 U	82 U	940
Dibromochloromethane	1.4 U	1.4 U	2.6 U	100 U	6.8 U	140 U	5.1 U	140 U	110 U	68 U	10 U
1,2-Dibromoethane	1.2 U	1.2 U	2.3 U	92 U	6.1 U	120 U	4.6 U	130 U	100 U	61 U	9.2 U
Chlorobenzene	0.74 U	0.74 U	1.4 U	55 U	3.7 U	74 U	2.8 U	78 U	60 U	37 U	5.5 U
Ethylbenzene	0.69 U	0.69 U	2.3	52 U	4.8	69 U	2.7	74 U	56 U	35 U	5.2 U
Xylene (m,p)	1.7 U	1.7 U	4.8	130 U	8.7 U	170 U	7.8	180 U	140 U	87 U	13 U
Xylene (o)	0.69 U	0.69 U	1.5	52 U	3.5 U	69 U	2.6 U	74 U	56 U	35 U	5.2 U
Xylene (total)	0.69 U	0.69 U	6.5	52 U	3.5 U	69 U	7.8	74 U	56 U	35 U	5.2 U
Styrene	0.68 U	0.68 U	1.3 U	51 U	3.4 U	68 U	2.6 U	72 U	55 U	34 U	5.1 U
Bromoform	1.7 U	1.7 U	3.1 U	120 U	8.3 U	170 U	6.2 U	180 U	130 U	83 U	12 U
1,1,2,2-Tetrachloroethane	1.1 U	1.1 U	2.1 U	82 U	5.5 U	110 U	4.1 U	120 U	89 U	55 U	8.2 U
4-Ethyltoluene	0.79 U	0.79 U	2.1	59 U	3.9 U	79 U	2.9 U	84 U	64 U	39 U	5.9 U
1,3,5-Trimethylbenzene	0.79 U	0.79 U	1.5 U	59 U	3.9 U	79 U	2.9 U	84 U	64 U	39 U	5.9 U
2-Chlorotoluene	0.83 U	0.83 U	1.6 U	62 U	4.1 U	83 U	3.1 U	88 U	67 U	41 U	6.2 U
1,2,4-Trimethylbenzene	0.79 U	0.79 U	3.1	59 U	3.9 U	79 U	2.9 U	84 U	64 U	39 U	5.9 U
1,3-Dichlorobenzene	0.96 U	0.96 U	1.8 U	72 U	4.8 U	96 U	3.6 U	100 U	78 U	48 U	7.2 U
1,4-Dichlorobenzene	0.96 U	0.96 U	3.9	72 U	5.1	96 U	3.6 U	100 U	78 U	48 U	7.2 U
1,2-Dichlorobenzene	0.96 U	0.96 U	1.8 U	72 U	4.8 U	96 U	3.6 U	100 U	78 U	48 U	7.2 U
1,2,4-Trichlorobenzene	3 UJ	3 U	5.6 U	220 UJ	15 U	300 UJ	11 UJ	310 U	240 UJ	150 UJ	22 UJ
Hexachlorobutadiene	1.7 U	1.7 U	3.2 U	130 U	8.5 U	170 U	6.4 U	180 U	140 U	85 U	13 U
Naphthalene	2.1 U	2.1 U	3.9 U	160 U	10 U	210 U	7.9 U	220 U	170 U	100 U	16 U

Notes:

1. All concentrations in micrograms per cubic meter (ug/m^3)
2. U = Not detected at reporting limit
3. J = Estimated based upon DUSR
4. Bold value indicates exceedance of NYSDOH Indoor Air Guideline Value; methylene chloride = 60 ug/m^3; tetrachloroethene = 100 ug/m^3

Table 2
Hanesbrands, Perry, NY
SVI Sample Results
(ppbv)

Sample ID	UW-1 Outdoor	IA-1 Indoor	SS-1 Sub-slab	IA-2 Indoor	SS-2 Sub-slab	IA-3 Indoor	SS-3 Sub-slab	IA-4 Indoor	SS-4 Sub-slab	IA-5 Indoor	SS-5 Sub-slab
Dilution Factor	0.8	0.8	1.5	60.7	4.0	79.9	3.0	84.0	66.5	40.0	5.93
Parameter											
Dichlorodifluoromethane	0.61 J	0.68	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
1,2-Dichlorotetrafluoroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Chloromethane	0.52	0.48	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Vinyl Chloride	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,3-Butadiene	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Bromomethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Chloroethane	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Bromoethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Trichlorofluoromethane	0.24	2.5	1.1	12 U	2.9	16 U	3.2	17 U	13 U	8	2.6
Freon TF	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,1-Dichloroethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	15	8 U	1.2 U
Acetone	4 U	9.1	23	300 U	26	400 U	34	420 U	330 U	200 U	51
Isopropyl Alcohol	4 U	4 U	7.5 U	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Carbon Disulfide	0.4 U	0.4 U	1.2	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
3-Chloropropene	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
Methylene Chloride	0.59	10	8.9	1500	17	2500	77	1700	260	1400	34
tert-Butyl Alcohol	4 U	4 U	9	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Methyl tert-Butyl Ether	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U
trans-1,2-Dichloroethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
n-Hexane	0.4 U	0.4 U	0.75 U	32	2 U	46	1.9	45	33 U	71	3 U
1,1-Dichloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	330	8 U	44
1,2-Dichloroethene (total)	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Methyl Ethyl Ketone	0.4 U	1.3	3.8	30 U	3.5	40 U	2.6	42 U	33 U	20 U	4.7
cis-1,2-Dichloroethene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Tetrahydrofuran	4 U	4 U	7.5 U	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Chloroform	0.16 U	0.16 U	18	12 U	5.6	16 U	5.8	17 U	13 U	8 U	8.4
1,1,1-Trichloroethane	0.16 U	0.16 U	18	12 U	4	16 U	41	17 U	1400	8 U	220
Cyclohexane	0.16 U	0.16 U	1.2	12 U	0.8 U	16 U	2.2	17 U	62	8 U	11
Carbon Tetrachloride	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
2,2,4-Trimethylpentane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Benzene	0.16 U	0.16 U	0.81	12 U	0.8 U	16 U	0.89	17 U	13 U	8 U	1.2 U
1,2-Dichloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
n-Heptane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.96	17 U	13 U	8 U	1.2
Trichloroethene	0.16 U	0.16 U	3	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	4.4
1,2-Dichloropropane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,4-Dioxane	4 U	4 U	7.5 U	300 U	20 U	400 U	15 U	420 U	330 U	200 U	30 U
Bromodichloromethane	0.16 U	0.16 U	0.76	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Methyl Isobutyl Ketone	0.4 U	0.4 U	21	30 U	20	40 U	11	42 U	33 U	20 U	33
Toluene	0.16 U	0.4	2.2	12 U	1.5	16 U	2.2	17 U	13 U	8 U	1.9
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,1,2-Trichloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Tetrachloroethene	0.16 U	0.25	12	12 U	98	44	93	17 U	57	33	220
Methyl Butyl Ketone	0.4 U	0.4 U	51	30 U	99	40 U	23	42 U	33 U	20 U	230
Dibromochloromethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2-Dibromoethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Chlorobenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Ethylbenzene	0.16 U	0.16 U	0.53	12 U	1.1	16 U	0.63	17 U	13 U	8 U	1.2 U
Xylene (m,p)	0.4 U	0.4 U	1.1	30 U	2 U	40 U	1.8	42 U	33 U	20 U	3 U
Xylene (o)	0.16 U	0.16 U	0.35	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Xylene (total)	0.16 U	0.16 U	1.5	12 U	0.8 U	16 U	1.8	17 U	13 U	8 U	1.2 U
Styrene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Bromoform	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,1,2,2-Tetrachloroethane	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
4-Ethyltoluene	0.16 U	0.16 U	0.42	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,3,5-Trimethylbenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
2-Chlorotoluene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2,4-Trimethylbenzene	0.16 U	0.16 U	0.63	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,3-Dichlorobenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,4-Dichlorobenzene	0.16 U	0.16 U	0.65	12 U	0.84	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2-Dichlorobenzene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
1,2,4-Trichlorobenzene	0.4 UJ	0.4 U	0.75 U	30 UJ	2 U	40 UJ	1.5 UJ	42 U	33 UJ	20 UJ	3 UJ
Hexachlorobutadiene	0.16 U	0.16 U	0.3 U	12 U	0.8 U	16 U	0.6 U	17 U	13 U	8 U	1.2 U
Naphthalene	0.4 U	0.4 U	0.75 U	30 U	2 U	40 U	1.5 U	42 U	33 U	20 U	3 U

Notes:

1. All concentrations in parts per billion by volume (ppbv)
2. U = Not detected at reporting limit
3. J = Estimated based upon DUSR

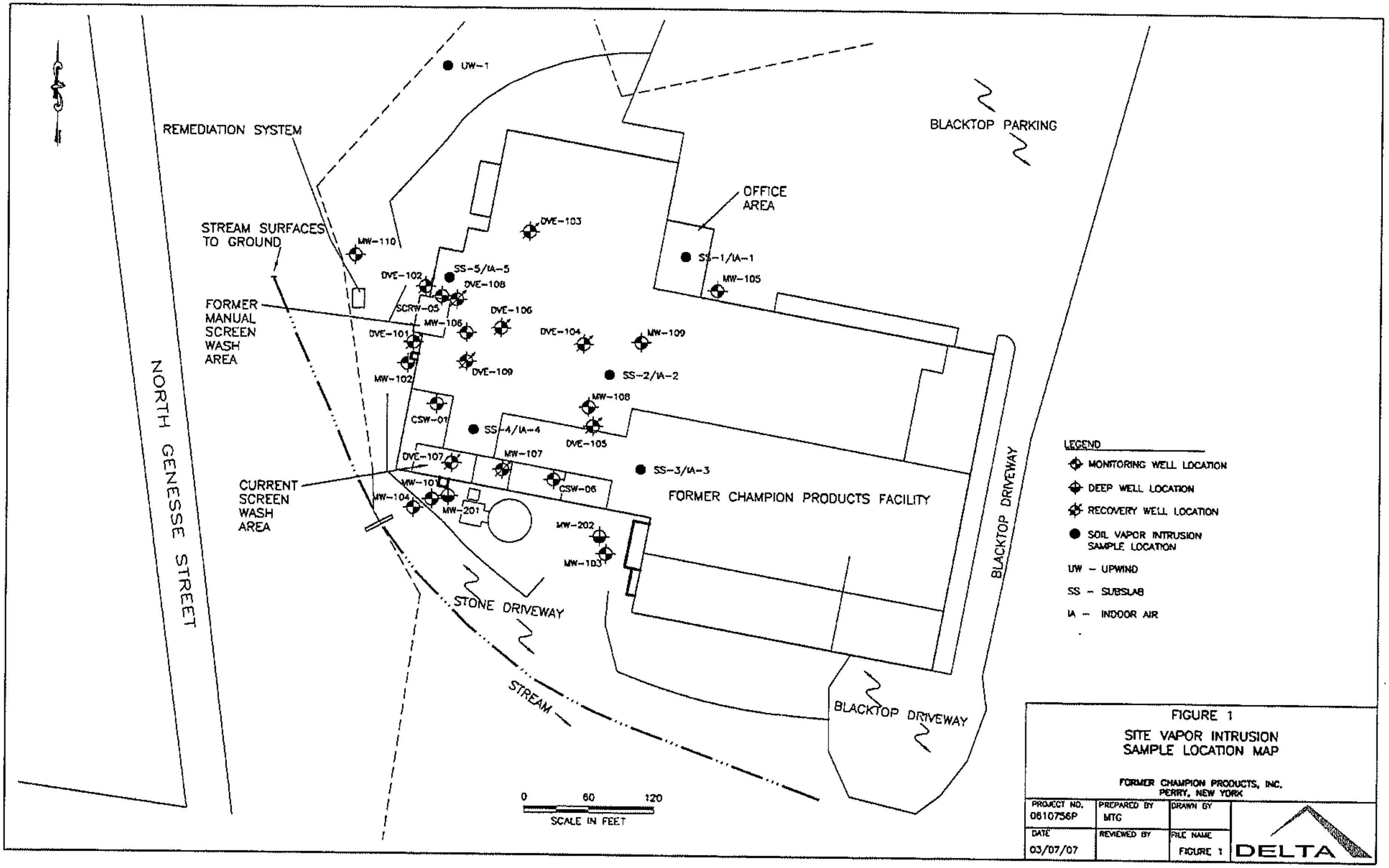
Table 3
Hanesbrands, Perry, NY
SVI Sample Results
Low-Level TO-15 Analysis

Sample ID	UW-1 Outdoor	IA-1 Indoor
Dilution Factor	4.0	4.0
Parameter (ppbv)		
Carbon Tetrachloride	0.061	0.064
Trichloroethene	0.04 U	0.04 U
Parameter (ug/m^3)		
Carbon Tetrachloride	0.38	0.4
Trichloroethene	0.21 U	0.21 U

Notes:

1. U = Not detected at reporting limit

FIGURES



REMEDIATION SYSTEM
STREAM SURFACES TO GROUND
FORMER MANUAL SCREEN WASH AREA
CURRENT SCREEN WASH AREA
NORTH GENESSE STREET
STONE DRIVEWAY
STREAM
BLACKTOP PARKING
OFFICE AREA
FORMER CHAMPION PRODUCTS FACILITY
BLACKTOP DRIVEWAY
BLACKTOP DRIVEWAY
UW-1
MW-110
DVE-102
SS-5/IA-5
DVE-108
SCRW-05
MW-106
DVE-101
MW-102
DVE-106
DVE-109
DVE-103
DVE-104
MW-109
SS-1/IA-1
MW-105
SS-2/IA-2
MW-108
DVE-105
CSW-01
SS-4/IA-4
DVE-107
MW-107
CSW-06
MW-101
MW-104
MW-201
MW-202
MW-103
SS-3/IA-3
0 60 120
SCALE IN FEET
LEGEND
MONITORING WELL LOCATION
DEEP WELL LOCATION
RECOVERY WELL LOCATION
SOIL VAPOR INTRUSION SAMPLE LOCATION
UW – UPWIND
SS – SUBSLAB
IA – INDOOR AIR
FIGURE 1
SITE VAPOR INTRUSION SAMPLE LOCATION MAP
FORMER CHAMPION PRODUCTS, INC. PERRY, NEW YORK
PROJECT NO. 0610756P
PREPARED BY MTG
DRAWN BY
DATE 03/07/07
REVIEWED BY
FILE NAME FIGURE 1
DELTA

ATTACHMENT 2

SOIL BORING LOGS

Delta Environmental Consultants, Inc.

Boring No. **GSB-1**	Drilling Method: *Geoprobe - Direct Push*	
Contractor: *Lyons Drilling*	Sampling Device: *Macro-core sampler*	
Drill Crew: *Harry and Craig*		
Project Name and Location: *Subslab Soil Investigation* *Hanesbrands - Perry, NY*	Date/Time Started: *5/19/07 - 7:30*	Date/Time Finished: *5/19/07 - 7:55*
Ground Surface Elevation: Top of Casing Elevation:	Logged by: *Scott Bryant*	Protective cover: *N/A*

Well Construction Information: Not applicable

Water Level at Completion: Not applicable

DEPTH ft bgs (ft in tube)	PID (ppm)	RECOVERY (inches)	DRILLING OBSERVATIONS	CORE OBSERVATION	SAMPLE DESCRIPTION / DRILLING CONDITIONS
(0)					
0-4	0 0	3.3	No odor or staining		*0 - 0.5' Concrete (cored)* *0.5 - 1.2' Sand and gravel fill* *1.2 - 3.3' Sand (f-cs) little silt little gravel (f-m), brown, damp - reworked material*
4-8	0 0.2	3.2	No odor or staining		*Sand (f-cs) little gravel (f-m) little silt, brown, damp to wet at 7 feet, poorly sorted, loose*
8-12	0.5 4.5	3.3	No odor or staining		*0 - 1.0' Same as above* *1.0 - 3.3' Sand (f-cs) little gravel (f-m) trace silt, brown-gray, saturated - gray clay at bottom 0.2'*
12-16	4.7	1.7	No odor or staining		*Sand (f-cs) little silt trace gravel (f-m) trace clay, tight, wet, brown-gray, like till*
					Refusal @ ~13.9'

Acetate Tube: _____ *of* _____

bgs = below ground surface

- Concrete
- Asphalt Patch
- 0.01 Slotted PVC Screen
- Two inch diameter PVC casing grouted in place.
- #5 Quartz Sand Filter Pack
- Bentonite Chips

Delta Environmental Consultants, Inc.	Boring No. ***GSB-2***	Drilling Method: *Geoprobe - Direct Push*
	Contractor: *Lyons Drilling*	Sampling Device: *Macro-core sampler*
	Drill Crew: *Harry and Craig*	
Project Name and Location: *Subslab Soil Investigation* *Hanesbrands - Perry, NY*	Date/Time Started: *5/19/07 - 10:05*	Date/Time Finished: *5/19/07 - 10:40*
Ground Surface Elevation: Top of Casing Elevation:	Logged by: *Scott Bryant*	Protective cover: *N/A*

Well Construction Information: Not applicable

Water Level at Completion: Not applicable

DEPTH ft bgs (ft in tube)	PID (ppm)	RECOVERY (inches)	DRILLING OBSERVATIONS	CORE OBSERVATION	SAMPLE DESCRIPTION / DRILLING CONDITIONS
(0)					
0-4	0 0	3.4	No odor or staining		*0 - 0.5' Concrete (cored)* *0.5 - 1.1' Sand and gravel fill* *1.1 - 3.4' Sand (f-cs) little silt little gravel (f-m) trace clay, brown, loose, damp - moist*
4-8	0.7 1.7	3.2	No odor or staining		*Sand (f-cs) little silt little gravel (f-m) trace clay - more clay than above, brown-gray, wet - saturated at 7 feet*
8-12	180 10.4	3	No staining but Solvent-type odor		*Sand (f-cs) little gravel (f-m) little silt, coarser than above, saturated, coarse sand and gravel lenses at top and bottom with finer lenses between*
12-16	68.7 3.8	3.6	Little to no odor and no staining		*0 - 1.8' Sand and gravel as above - saturated* *1.8 - 3.6' Sand (f-cs) little silt trace gravel (f) trace clay, gray grading to brown-gray, moist, hard, like till*
					Refusal @ ~15.8'

Acetate Tube: _____ *of* _____
bgs = below ground surface
- Concrete
- Asphalt Patch
- 0.01 Slotted PVC Screen
- Two inch diameter PVC casing grouted in place.
- #5 Quartz Sand Filter Pack
- Bentonite Chips

Delta Environmental Consultants, Inc.

Boring No. *GSB-3*	Drilling Method: *Geoprobe - Direct Push*	
Contractor: *Lyons Drilling*	Sampling Device: *Macro-core sampler*	
Drill Crew: *Harry and Craig*		
Project Name and Location: *Subslab Soil Investigation* *Hanesbrands - Perry, NY*	Date/Time Started: *5/19/07 - 11:00*	Date/Time Finished: *5/19/07 - 11:20*
Ground Surface Elevation: Top of Casing Elevation:	Logged by: *Scott Bryant*	Protective cover: *N/A*

Well Construction Information: Not applicable

Water Level at Completion: Not applicable

DEPTH ft bgs (ft in tube)	PID (ppm)	RECOVERY (inches)	DRILLING OBSERVATIONS	CORE OBSERVATION	SAMPLE DESCRIPTION / DRILLING CONDITIONS
(0)					
0-4	0 0.7	3.6	No odor or staining		*0 - 0.5' Concrete (cored)* *0.5 - 1.3' Sand and gravel fill* *Sand (f-cs) little gravel (f-m) trace silt, brown, damp, loose*
4-8	1.2 6	3.5	Weak sewage odor at bottom		*Sand (f-cs) little gravel (f-m) trace silt, brown - gray-brown, moist to wet near bottom*
8-12	85 1082	3.2	Strong solvent odor, no staining		*Sand (f-cs) little gravel (f), uniform, coarse, saturated material, gray*
12-16	420 38	3.6	Weak solvent odor, no staining Little to no odor and no staining at bottom		*0 - 2.2' Same as above - coarser* *2.2 - 3.6' Sand (f-cs) little silt little gravel (f-m) trace clay, gray grading to brown, damp - moist*

Acetate Tube: _____ *of* _____

bgs = below ground surface

- Concrete
- Asphalt Patch
- 0.01 Slotted PVC Screen
- Two inch diameter PVC casing grouted in place.
- #5 Quartz Sand Filter Pack
- Bentonite Chips

Delta Environmental Consultants, Inc.	Boring No. ***GSB-4***	Drilling Method: *Geoprobe - Direct Push*
	Contractor: *Lyons Drilling*	Sampling Device: *Macro-core sampler*
Project Name and Location: *Subslab Soil Investigation* *Hanesbrands - Perry, NY*	Drill Crew: *Harry and Craig*	
	Date/Time Started: *5/19/07 - 11:25*	Date/Time Finished: *5/19/07 - 11:45*
Ground Surface Elevation: Top of Casing Elevation:	Logged by: *Scott Bryant*	Protective cover: *N/A*

Well Construction Information: Not applicable

Water Level at Completion: Not applicable

DEPTH ft bgs (ft in tube)	PID (ppm)	RECOVERY (inches)	DRILLING OBSERVATIONS	CORE OBSERVATION	SAMPLE DESCRIPTION / DRILLING CONDITIONS
(0)					
0-4	1.6 0.7	3.5	No odor or staining		*0 - 0.5' Concrete (cored)* *0.5 - 1.3' Sand and gravel fill* *Sand (f-cs) little gravel (f-m) trace silt, brown, damp, loose*
4-8	2.9 3.5	2.4	Weak sewage odor at bottom		*Sand (f-cs) little gravel (f-m) trace silt, brown - gray-brown, moist to wet near bottom*
8-12	1189 1313	3.4	Strong solvent odor, no staining		*Sand (f-cs) little gravel (f), uniform, coarse, saturated material, gray*
12-16	336	3.2	Weak solvent odor, no staining Little to no odor and no staining at bottom		*0 - 1.7' Same as above - coarser* *1.7 - 3.2' Sand (f-cs) little silt little gravel (f-m), gray, damp to moist, medium hard, like till*
					Refusal @ ~14.8'

Acetate Tube: _____ *of* _____
bgs = below ground surface
- Concrete
- Asphalt Patch
- 0.01 Slotted PVC Screen
- Two inch diameter PVC casing grouted in place.
- #5 Quartz Sand Filter Pack
- Bentonite Chips

Delta Environmental Consultants, Inc.

Boring No. **GSB-5**	Drilling Method: *Geoprobe - Direct Push*	
Contractor: *Lyons Drilling*	Sampling Device: *Macro-core sampler*	
Drill Crew: *Harry and Craig*		
Project Name and Location: *Subslab Soil Investigation* *Hanesbrands - Perry, NY*	Date/Time Started: *5/19/07 - 11:50*	Date/Time Finished: *5/19/07 - 12:15*
Ground Surface Elevation: Top of Casing Elevation:	Logged by: *Scott Bryant*	Protective cover: *N/A*

Well Construction Information: Not applicable

Water Level at Completion: Not applicable

DEPTH ft bgs (ft in tube)	PID (ppm)	RECOVERY (inches)	DRILLING OBSERVATIONS	CORE OBSERVATION	SAMPLE DESCRIPTION / DRILLING CONDITIONS
(0)					
0-4	0 0.3	3.5	No odor or staining		*0 - 0.5' Concrete (cored)* *0.5 - 1.31 Sand and gravel fill* *Sand (f-cs) little silt little gravel (f-m), brown, damp, loose*
4-8	0.5 2.2	3.2	No odor or staining		*Sand (f-cs) little gravel (f-m) trace silt, brown - gray-brown, moist to wet near bottom*
8-12	32 25	2.7	Little to no odor and no staining		*Sand (f-cs) little gravel (f), uniform, coarse, saturated material, gray*
12-16	36 1.5	3.1	Little to no odor and no staining		*0 - 1.5' Same as above - coarser* *1.5 - 3.1' Sand (f-cs) little silt little gravel (f-m), gray, damp to moist, medium hard, like till*

Acetate Tube: _____ *of* _____

bgs = below ground surface

- Concrete
- Asphalt Patch
- 0.01 Slotted PVC Screen
- Two inch diameter PVC casing grouted in place.
- #5 Quartz Sand Filter Pack
- Bentonite Chips

APPENDIX 4

EXCAVATION WORK PLAN

EXCAVATION WORK PLAN

1.0 INTRODUCTION

This EWP describes the various tasks that may be required during intrusive activities at the site, which are conducted in areas where impacted media (soil, groundwater and air) may be present. This EWP provides a general outline of measures that may need to be addressed and should be modified accordingly based on the anticipated activities by the site owner and/or party responsible for conducting the work. Not all activities may be required during intrusive activities and the scope of work may also dictate the required activities; therefore, this EWP should serve only as a general guide to activities that may be required to address working in areas where impacts remain. Modifications to the EWP must be submitted to and approved by NYSDEC prior to implementation of work.

2.0 NOTIFICATION

At least 7 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Maurice Moore
Engineering Geologist 1
NYSDEC Region 9
270 Michigan Avenue
Buffalo, NY 14203

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an EC;
- An updated EWP specific to the site work anticipated;

- A project specific CAMP;
- A copy of the contractor's health and safety plan, in electronic format;
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

3.0 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial, development and maintenance excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, or maintenance work after issuance of the COC.

Soil screening will be conducted using a photoionization detector (PID) equipped with a 10.6 eV lamp and/or similar device that can monitor volatile organic vapors in air. Soils will initially be screened in place to assess any impacted zones. Soils samples will then be collected from the excavation areas in areas that exhibit impacts and screened utilizing standard head-space screening methodologies.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

4.0 STOCKPILE METHODS

Pending proper management, impacted soils from excavations will be staged on poly sheeting, which is bermed at the edges and/or staged in a lined covered roll-off to minimize exposure to the elements and/or to prevent runoff. Soils will be covered, and secured daily with tarps or poly sheeting. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points to control any leakage that may occur.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

5.0 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material. Excavation activities will be conducted with appropriate equipment by trained personnel. The limits of excavation will be determined by qualified professional and soils will be handled and segregated based on field screening and visual observations.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed at the site.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site. Mark out of utilities will be performed by NY Dig Safe and/or private utility locators.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements and all other applicable transportation requirements.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

6.0 MATERIALS TRANSPORT OFF-SITE

All impacted materials from excavations that are staged for offsite disposal will be characterized based on the requirements of the accepting disposal facility. Waste profiles will be completed and approvals for disposal secured at appropriately permitted offsite disposal facilities prior to transport. All wastes will be transported under appropriate manifests for the particular wastes. Waste manifests will be signed onsite by the owner or owner's representative and will be available for inspection by NYSDEC.

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be washed prior to leaving the site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

All trucks loaded with site materials will exit the site by the main access road to North Main Street. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport;

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

7.0 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the known impacted areas of site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

8.0 MATERIALS REUSE ON-SITE

Reuse of materials removed from excavation areas will be based on intended reuse of the material and location to be placed as well as soil sampling analytical data. Soils that may be removed and considered as “clean” should be evaluated by field screen methodologies as well as analytical testing. Laboratory analytical methods will be determined by a qualified environmental professional based on the nature of the impacts known to be present onsite.

Chemical criteria for on-site reuse of material must be approved by NYSDEC prior to reuse. The qualified environmental professional will ensure that procedures defined for materials reuse are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below a demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

9.0 FLUIDS MANAGEMENT

All liquids removed from excavation areas in known impacted areas will be containerized and appropriately characterized to determine disposal requirements. All staged waters to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, and purge fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) may have to be performed under a SPDES permit. A determination will be made if this is required at the time based on applicable regulations and the scope of the work.

10.0 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the decision document. A demarcation layer will be placed to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

11.0 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

12.0 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

13.0 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

14.0 COMMUNITY AIR MONITORING PLAN

A CAMP will be prepared and submitted to NYSDEC for approval prior to any intrusive work. The CAMP should follow Community Air Monitoring Guidance detailed in Appendix 1A of DER-10, Generic Community Air Monitoring Plan.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

15.0 ODOR CONTROL PLAN

An odor control plan capable of controlling emissions of nuisance odors off-site and onsite will be prepared prior to intrusive work. Odor control methods to be used on a routine basis could include wetting and foaming agents. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

APPENDIX 5

DECLARATION OF COVENANTS AND RESTRICTIONS

COUNTY OF WYOMING
OFFICE OF THE CLERK
RHONDA PIERCE, COUNTY CLERK
143 NORTH MAIN STREET, WARSAW, N.Y. 14569
Email: County.Clerk@wyomingco.net
PHONE: (585) 786-8810 FAX: (585) 786-3703

WYOMING COUNTY CLERK RECORDING PAGE

INSTRUMENT # 1250 TYPE Miscellaneous

NUMBER OF PAGES 8
(INCLUDING THIS PAGE)

RETURN TO: First American Title Ins. Co.
633 Third Ave.
New York, NY 10017

SPACE BELOW RESERVED FOR COUNTY CLERK'S USE ONLY

MORTGAGE AMOUNT SECURED: $

DOCUMENT # 1250
MISCELLANEOUS RECORD
04/02/2013 03:41:01 P.M.
RECEIPT: 3471 FEE: $80.00
WYOMING COUNTY CLERK
LIBER: 76 PAGE: 331
of: MISC RECORD BOOK

TAX DISTRICT
(Check if to be apportioned)

RECORDING TAX RECEIPT

Basic	$
Additional	$
Special	$
Local	$
TOTAL	$

STATE OF NEW YORK
COUNTY OF WYOMING

State of New York
County of Wyoming

I do hereby certify that I have received the amounts cited above on the within Mortgage being the amount of the recording tax imposed thereon and paid at the time of recording.

Rhonda Pierce
Rhonda Pierce, Wyoming County Clerk

DO NOT DETACH THIS PAGE: This sheet constitutes the Clerk's endorsement required by Section 319 of the Real Property Tax Law of the State of New York.

Rhonda Pierce
Rhonda Pierce, Wyoming County Clerk

After recording, return to:
Sidley Austin LLP
787 Seventh Ave.
NY, NY 10075
Attn: Maureen Crough

Section 88.20 block 3 lot 16.1

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT is made the 19 day of MARCH 2013, by SMG Development LLC, a limited liability company organized and existing under the laws of the State of New York and having an office for the transaction of business at 200 N. Main Street, Perry, NY 14530 (mailing address P.O. Box 81, Perry, NY 14530).

WHEREAS, the former Champion Products, Inc. Site is the subject of a Voluntary Cleanup Agreement executed by Champion Products, Inc. as part of the New York State Department of Environmental Conservation's (the "Department's") Voluntary Cleanup Program, namely that parcel of real property located on 200 North Main Street in the Village of Perry, County of Wyoming, State of New York, which is part of lands conveyed by Champion Products, Inc. to SMG Development LLC by deed dated September 16, 1998 and recorded in the Wyoming County Clerk's Office in Liber and Page L-657 P-l, and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, SMG Development LLC, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is the shaded area as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils except in accordance with the SMP.

Third, the owner of the Property shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for Commercial or Industrial use (which Commercial or Industrial use shall not include childcare/day care facilities, hospitals, residential health care facilities, vegetable gardens, and farming; and also any development that does not comply with the soil vapor intrusion evaluation in Section 2.3.2 of the SMP) without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency.

Sixth, the owner of the Property shall provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional and engineering controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Voluntary Cleanup Agreement requires to be recorded, and hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

SMG Development LLC

By: Samuel M. Gullo

Print Name: SAMUEL M. GULLO

Title: owner/sole member President Date: 3/19/13

STATE OF NEW YORK)

) s.s.:

COUNTY OF Wyoming)

On the 19th day of March, in the year 2013, before me, the undersigned, personally appeared Samuel M. Cullo ________, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Sharon A Kelly
Notary Public State of New York

SHARON A. KELLY
Notary Public, State of New York
Qualified in Wyoming County
My Commission Expires July 22, 20 13

Appendix A

Description of Land

APPENDIX A
DESCRIPTION OF LAND
SITUATE ON LOT 28, WM. SHEPARDS SUBDIVISION OF THE OGDEN TRACT
VILLAGE & TOWN OF PERRY
COUNTY OF WYOMING, STATE OF NEW YORK

Beginning in the center of North Main Street in the Village of Perry at the northwest corner of lands described in a deed from Blake Conaway to Champion Knitwear Co. Inc. in liber 316 at page 330, and being N62°41'00"E a distance of 383 feet from the intersection of North Main Street with the center of Simmons Road ;
Thence N62°41'00"E along the center of North Main Street a distance of 75.0 feet;
Thence S07°00'W a distance of 242.20 feet;
Thence N62°41'E a distance of 243.0 feet;
Thence S22°36'00"E a distance of 25.00 feet;
Thence N62°41'00"E a distance of 46 feet plus or minus to the northeast village corporation line ;
Thence southeasterly along the village corporation line a distance of 1518 feet plus or minus to the southeast corner of lands described in a deed from Carl G. Parker to Champion Knitwear Co. Inc. in liber 353 at page 343;
Thence N82°14'30"W a distance of 1066.94 feet to the southwest corner of lands deeded in liber 353 at page 343;
Thence N07°00'00"E a distance of 86.50 feet to the southeast corner of lands deeded in liber 316 at page 330 as aforesaid;
Thence N80°20'00"W a distance of 480.00 feet to the southwest corner thereof;
Thence N09°40'00"E a distance of 50.00 feet;
Thence S80°20'00"E a distance of 57.00 feet;
Thence N09°40'00"E a distance of 232.90 feet;
Thence N36°20'00"W a distance of 88.40 feet;
Thence N06°54'00"E a distance of 219.00 feet;
Thence N35°14'00"W a distance of 60.50 feet;
Thence N38°41'00"E a distance of 229.90 feet;
Thence N54°20'00"E a distance of 10.00 feet;
Thence N61°30'00"E a distance of 60.00 feet;
Thence S27°19'00"E a distance of 136.60 feet;
Thence N62°41'00"E a distance of 236.40 feet;
Thence N07°00'00"E a distance of 349.8 feet to the point of beginning.

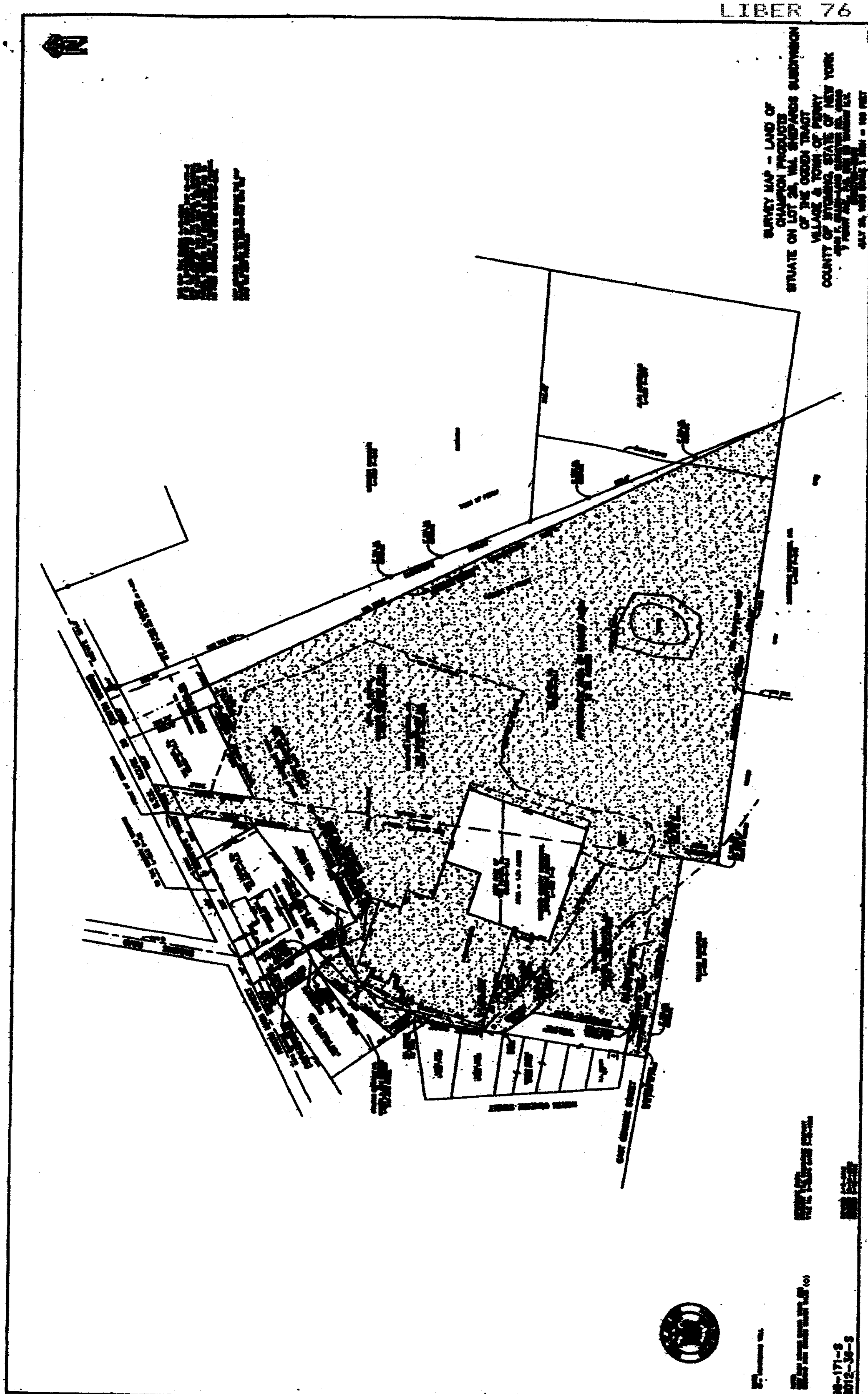
Excepting therefrom 1.74 acres of land described in a deed from Champion Products Inc. to Wyoming County Industrial Development Agency in liber 423 at page 5.

Excepting therefrom land described in a deed from SMG Development LLC to Remit Properties, LP in liber 676 at page 761.

Containing within said bounds 26 Acres of land more or less.

Appendix B

Map


SURVEY MAP - LAND OF
CHAMPION PRODUCTS
OF THE OGDEN TRACT
VILLAGE & TOWN OF PERRY
COUNTY OF WYOMING, STATE OF NEW YORK

APPENDIX 6

SITE WIDE INSPECTION FORMS

Inspection

Former Champion Products Facility
200 North Main Street, Perry, New York

Quarter/Date: ____________________
Weather: ____________________
Inspector: ____________________
Site Contact: ____________________

Location:	Area SS-5 / Former Remedial Area Western Building			Area SS-4 / Storage Southwest Building		Area SS-3 / Storage Southeast Building	
Pipe Branch:	A	B	C	D	E	F	G
Sub Slab Depressurization System							
Suction Pressure (" WC)							
PVC Piping Intact (Y/N)							
Floor and PVC seals ok (Y/N)							
System Operating (Y/N)							
Overall Piping Run ok (Y/N)							
Blower Functioning Correctly (Y/N)							
Exterior casings intact (Y/N)							
Concrete Floor Cover System							
Concrete Floor Cover System ok(Y/N)							
Floor Breeches (Y/N)							
Concrete Repairs Needed (Y/N)							
Former Empty Drum Storage Area							
Soil Cover Condition							
Erosion (Y/N)							
Cover Breeches (Y/N)							
Repairs Required (Y/N)							

Annual Site Inspection

Facility Operations: ____________________
Facility Issues: ____________________
Power Outages: ____________________
Disruptions to Remedial Systems: ____________________
Site Usage Changes: ____________________
Site Ownership Changes: ____________________
Items/Issues of Note: ____________________

Comments/Notes (explain all No responses): ____________________

APPENDIX 7

SSDS SPECIFICATIONS

Keystone Material Testing

PROPOSED REMEDIAL WORK PLAN
FOR SOIL VAPOR REMEDIATION

At

Champion Products Facility
200 North Main Street
Perry, NY 14530

Prepared for:

Mr. Mark Schumacher
℅ Antea Group
5788 Widewaters Parkway
Syracuse, NY 13214

Prepared by:

Mr. Richard Tarnowski
Director of Environmental Services / Member
Keystone Material Testing
58 Exchange Street
Binghamton, NY 13901

April 2011

TABLE OF CONTENTS

LIST OF APPENDIX

1.0 Introduction and Background

Keystone Material Testing (KMT) (formerly ENVIRO TESTING) was retained by Antea Group (formerly Delta Env.) to determine the feasibility of installing Active Soil Depressurization (ASD) systems to preemptively mitigate soil vapor intrusion at the former Champion Product Facility, now occupied by American Classic Outfitters (ACO) at 200 North Main Street, Perry, New York.

KMT's services include remedial diagnostics investigation and development of written plans and specifications for the installation of the three ASD systems. The proposed ASD systems have been preliminarily designed to create a negative pressure field (relative to typical building pressures at the time of diagnostic testing) under the slab of three separate building footprint areas so that any sub-slab vapors in these areas will be unlikely to migrate upwards into the building under reasonably anticipated building conditions. Once up and running, these ASD's will be evaluated to determine the level of success.

The reasons to mitigate this structure were based on the results of previous indoor air and sub-slab vapor tests conducted by Antea Group. Identified on site were chlorinated and non-chlorinated solvents. Vapors were identified which exceed New York State Department of Health (NYSDOH) decision matrix recommended action levels for monitoring and/or mitigation.

KMT's ASD design consists of the following specifications and diagrams that provide details for construction of the proposed ASD systems. If installed, operated and maintained per specifications, the ASD systems should be able to maintain negative sub-slab pressure under reasonably anticipated conditions and prevent upward migration of any possible sub-slab vapors in the preemptively mitigated areas of the building.

2.0 Building Features

The building in question is a one-story industrial facility with an open floor plan production area (with mezzanine areas) and an attached office area. The structure is estimated to be approximately 50 years old and total approximately 120,000 sq. ft. of occupied/in use floor slab area.

3.0 Diagnostic Findings

In order to determine blower requirements and suction point spacing for depressurizing the soil, sub-slab soil permeability tests were performed on February 4, 2011. Diagnostic testing was performed in three separate slab areas of the structure which are being impacted by soil vapors. Three slab areas were identified by Mark Schumacher, Senior Project Manager with Antea Group. The mitigation areas are identified in Appendix A, Figures 1-4 "Mitigation Areas SS-3, SS-4 and SS-5" and total approximately 12, 000 sq. ft. of floor space.

The diagnostic testing required drilling suction holes through the slab areas in the general vicinity of proposed suction point locations. A performance evaluated 6.5 hp shop vacuum was used to draw air from the suction holes. Smaller test holes were drilled through the slabs at various locations around the suction holes (See Appendix A – Figures 2-4). Vacuum levels/measurements were conducted at each test hole location and are shown in Appendix B, Table 1.

4.0 General System Design Information

4.1 Pressure Field Extension Determination

Pressure fields were determined by evaluating the results of the pressure field testing. The objective of the ASD systems is to create a vacuum field of at least -.0.004 inches of water column (W.C.) under the slab in all areas being mitigated. The three mitigation areas provided the following information:

<u>Mitigation Area SS-3</u>

At the two suction hole locations installed in mitigation Area SS-3, the sub-slab fill material appeared to be settled, loose dirt material which resulted in a low vacuum high air volume pressure field. Based on the results of the vacuum pressure tests, the radius of influence of mitigation system suction points using low vacuum high volume blower fans is estimated to be up to 40 Lf and greater. (i.e., the distance over which a negative pressure of at least 0.004 in W. C. is expected). (See Appendix A-Figures 1-4 and Appendix B-Table 1 for results of all mitigation areas). Area SS-3 was filled with stored items which would have to be moved before the ASD system is installed. An additional suction point will be added adjacent to the Compactor Room to allow for drainage and proper exterior fan mounting.

<u>Mitigation Area SS-4</u>

Communication results in Area SS-4 were non-existent at three diagnostic test hole locations due to presumed tight soils and large open slab expansion joints. Expansion joints were spaced at 15’ x 20’ intervals (300 sq. ft.) and smoke testing verified loss of vacuum pressure at most all joints. Storage shelving in this area will need to be removed so slab sealing can be performed prior to installing the ASD. Due to the square foot size of Area SS-4, we estimate two vacuum points will be needed. A high suction fan may be needed for this area.

<u>Mitigation Area SS-5</u>

At the three vacuum test hole locations installed in Area SS-5, the sub-slab soils appeared to be a combination of wet sand/clay material which resulted in moderate vacuum readings out to a distance of approximately 20’ to 25’. Leaking wall/floor joints and an open pit will need to be addressed as part of the ASD install.

4.2 Blower Selection and Suction Point Locations

The blowers (i.e., suction fans) and suction point locations for this diagnostic study have been selected and specified based on mitigation areas selected by Antea Group's previous June 8, 2007 "Baseline Soil Vapor Intrusion Report" for the facility. The design objective is to create a negative pressure field below slab with a minimum performance of -0.004" W.C. Pressure field predictions are on the conservative side and will be adjusted to accommodate anticipated field installation conditions. For example, when removing one cubic foot of soil under the slab the pressure can drop 20% to 40% and the volume of air movement may also increase 20% to 40%. The blower fans selected for this work plan are the FanTech HP220, capable of moving 344 cfm of air at 0" of W.C. and the Radon Away GP501, capable of moving air under tight soil conditions. Please note that vacuum test results are unknown in mitigation area SS-4 and tight soils in this area may require a specialized Radon Away high suction fan (HS-5000). (See Appendix D, Blower Specifications).

5.0 General Installation Requirements

All mitigation system components will be installed to facilitate servicing, maintenance and repair or replacement of other equipment components in or outside the building. Where mounting heights are not detailed or dimensions not given, system materials and equipment are to be installed to provide the maximum headroom or side clearance as is possible. All systems, materials and equipment will be installed, level, plumb, parallel or perpendicular to other building systems and components unless otherwise specified.

Some horizontal piping runs will be installed with minimal slope back to suction points, for moisture drainage.

KMT will take every reasonable precaution to avoid any damage to existing utilities located anywhere in the building or those located in or below the slab floor. Detailed blueprints indicating utility piping in or under the slab are not available. Undocumented sub-slab utilities may alter the scope of work.

KMT will seal all penetrations through the floor and walls which are impacted by the ASD. There will be no placement of piping or conduit that would inhibit intended use of any areas. There will be no roof penetrations.

KMT will ensure that any foreign materials are not left or drawn into the vapor system piping or fans which might at a later period interfere with or in any way impair the vapor system performance.

The entire system will have UL or equivalent ratings for both individual components and the entire system as applicable.

6.0 System Materials

Vapor Vent Piping

3” PVC schedule 40 pipe and fittings (ASTM D-2665)
PVC cement primer will comply with ASTM F-656
PVC cement adhesive will comply with ASTM D-2564

Piping Supports

3” Hanging Pipe Supports
Swivel ring or standard bolt type clevis
Adjustable band hanger
Double Drop in Anchors
½” threaded rod
Assorted bolts, nuts & washers
3” Pipe Secured to Concrete Floor or Wall
Slotted Conduit Channel
Conduit Clamps
½” Wedge Anchors
Assorted bolts, nuts and washers

Hilti is a suggested manufacture of fastening products.

Vapor Blowers

FanTech HP220
Radon Away GP501
Radon Away HS5000

3” to 6” black rubber boots with stainless steel hose clamps
3” to 3” black rubber boots with stainless steel hose clamps

Sealing Materials

Urethane sealant will comply with Federal Specification TT-S-00230C, subject to compliance with Contract requirements.

Mameco, Inc. (Vulkem)

Fire Protection

Mineral Wool
3” Fire Collars
Fire stopping Caulk (Hilti)

Visual Pressure Indicator Light Indicator Panel

U-Tube Manometers

7.0 Suction Hole Installation

A total of eight suction points are proposed with this work plan. See Appendix A, Figures 2-4 for the locations of suction points and mitigation piping.

To enhance the vacuum field distribution and limit any disruption to building use, each of the eight (8) suction points will be located near foundation walls, partition walls and/or columns. The specific location of each suction hole will be agreed upon by KMT and the building Owner's representative prior to installation. Each suction hole will be cut approximately five inches in diameter. KMT will follow the procedures listed in Section 5.0 to minimize damaging any sub slab utilities.

KMT will remove a minimum of one cubic foot of sub slab material from each suction hole. Soil removed by KMT will be staged in an agreed upon area on site, for off-site disposal by the owner. Primary suction points will consist of 3" PVC Schedule 40 pipe and will be installed so that they are flush with the bottom of the concrete slab in each suction hole. The pipe will be secured above the suction hole with a pipe clamp attached to an adjacent wall or overhead ceiling/truss to ensure the pipe cannot slip down into the suction pit. The pipe will be sealed into each suction hole by inserting backer rod material of sufficient size to compress between the pipe and the concrete floor. Gun-grade urethane caulking or mortar mix will be installed on top of the backer rod.

Suction points that are near foundation walls or columns will be installed just off the foundation/column pad. The edge of the foundation column pad can be located by drilling a 5/8" hole through the floor slab in fixed intervals until it is determined that the drill bit is not impacting the foundation/column pad.

8.0 PVC Pipe Installation

All horizontal pipe runs between the fans and the first suction holes will be installed with 1 inch slope back to a suction hole for each ten feet of horizontal pipe run. All vertical pipe runs will be installed plumb. All horizontal runs after the first suction hole may be run level. However, in no case will the piping be installed so as to create a possible water trap in the piping.

The PVC pipe will be supported at least every six feet of horizontal run and at least every eight feet of vertical run. All horizontal pipe runs will have a support with an appropriate device within two feet of each fitting and a maximum distance between supports of eight feet as per BOCA National Plumbing Code. The ceiling supporting devices will be a ½-inch all thread rod to structural members capable of providing the necessary support. Conduit channel with pipe clamps can also be used to support pipe routed along the ceiling or walls. Pipe cannot be supported by other building piping or ducts. Swivel ring or standard bolt-type clevis will be used to support pipe.

There may be a need to balance air flow and equalize the distribution vacuum throughout multiple suction points from a single blower. Inline three-inch gate valves will be installed in each riser pipe of the multiple suction point-single blower system. To minimize tampering they should be installed as high as possible. The exact location is at the discretion of KMT. KMT will work with the building owner to ensure that pipe runs do not interfere with current or anticipated future building operations.

Locations of suction pits will be as close as possible to their designed locations indicated by diagnostic and performance testing; otherwise, it may not be possible to meet the differential pressure criterion at all locations over the slabs to be mitigated.

9.0 Blower Installation and Start Up

There will be three exterior wall mounted blowers as part of this proposal. Mounting configuration for the blowers will be determined in the field by KMT.

It is the responsibility of the owner to provide access to all work areas for pipe routing and blower fan mounting.

The blowers were specified based on diagnostic vacuum testing and presumed air flow. When soil is removed from the suction points, solution channels that were not detected during the diagnostic phase are sometimes discovered. This can result in greater than expected airflow and decreased static vacuum. After the suction points have been sealed and the riser pipes have been joined together into the ASD systems, KMT will field test the systems using the specified blowers. If the systems are yielding a greater than anticipated volume of soil gas, the blowers will be changed to a different blower with a different RPM in an appropriate performance range.

Blower exhausts will meet all USEPA technical guidance documents for active soil depressurization systems.

10.0 Roof Penetrations

Building penetration pipe routing has been preliminarily proposed at this time and is shown in Appendix A, Figures 2-4. PVC pipe runs throughout the structure will be installed in the least obtrusive areas possible. It is anticipated that upper exterior wall areas will be used for blower fan mounting and discharge pipe routing. No roof penetrations will be required with this project.

11.0 Sealing

Most of the visible floor slabs are concrete with expansion joints, cracking and utility penetrations. Any slab areas which will short circuit sub-slab vacuum must be sealed. Mitigation Area SS-4 expansion joints must be sealed and will require dismantling of existing storage shelving to allow access to all joints. It is the responsibility of the owner to provide access for sealing.

11.1 Slab Cracks and Joint Sealing

Sealing slab openings is an important component of the mitigation. Any visible expansion joints or slab cracks in the areas being mitigated that have a 1/16 inch or greater opening will be sealed as needed. Any cracks to be sealed will first be cleaned and vacuumed to prepare them for the installation of gun-grade or flowable urethane caulk sealant. Cracks or open expansion joints in the concrete floor will be sealed by applying a bead of urethane caulk on top of the joint. If gun-grade caulk is utilized, it will be mechanically pressed down into the crack in order to maximize its seal. Any openings into the slab, such as may occur around conduit pipe penetrations through the slab will be cleaned and sealed with gun-grade or flowable urethane caulk. These include any perimeter expansion joints, the control joints around the column supports and the saw cut control joints between the columns themselves. Larger openings may require the use of backer rod foam to provide support for urethane sealants. Urethane sealants should be permitted seventy-two hours to cure before resuming foot traffic.

12.0 Blower Wiring

There appears to be adequate electrical panel capacity in the various electrical panels for the blowers specified in this ASD plan. A dedicated breaker should be used for the ASD blowers. This will prevent the blowers from being shut off when a circuit is powered down for an unrelated function. Based on the blower amperage requirements, an Electrical Contractor will be able to determine the load for each circuit. The breaker will be labeled with the blower number that corresponds with the blower number on the print.

The Owner's Electrical Contractor will be responsible for obtaining all electrical permits and final hook-up of the blowers to interior electrical panels. KMT will provide electrical hook up of the fan and provide conduit and wiring to the nearest electrical panel. When wiring the blowers, KMT will use properly rated flexible conduit from each switch box to the blowers. Wiring from the switch box to the blower will be approved individual 12 gauge wire. Wiring specifications can be found in Appendix D, Blower Fan Specifications.

13.0 Static Vacuum Indicator

U-tube manometers will be installed on each suction point to indicate the static vacuum generated by the ASD systems. The U-tubes for the ASD systems will be attached directly to riser pipes no higher than eye level. If Mitigation Area SS-4 requires an HS-5000 high suction fan, high vacuum magnehelic's will be used as vacuum gauges.

14.0 Fire Protection

PVC Pipes that penetrate non-compromised fire-rated walls or ceilings (and that are not completely enclosed behind a 5/8 inch sheetrock) will be protected using intumescent fire collars and fire-rated caulk.

15.0 System Labeling

Labels will be installed at the disconnect switch next to each fan that says “Soil Gas Reduction System, Do Not Alter.” The electrical circuit at the panel that is used to control each fan will be labeled as “Active Soil Depressurization System”. At least every 20 feet of exposed contaminant vent pipe length will have a label that reads “Soil Gas Flow” attached to the pipe. All labels will be readable from three feet away.

KMT’s name and telephone number will be affixed on each vapor mitigation system.

16.0 Permits

It is the responsibility of the owner’s electrical contractor to secure any electrical permits related to the installation of the vapor mitigation system. KMT will assume responsibility for investigating the need of any additional municipal permits.

The building owner will be responsible for building access for the municipal building inspectors or any other jurisdictional authority to inspect the relevant components of the ASD systems if required.

17.0 Warranties

KMT will Warranty all system components and workmanship for a period of one year from the date of system commissioning. The owner will not incur any cost for warranty work done during this period.

Repairing system damage done by others is not included in the warranty.

18.0 Final Project Report

KMT will measure the pressure field extensions beneath the sub-slab areas created by the ASD systems with a digital micro-manometer capable of reading down to 0.0001 inches water column. Additional test holes will be drilled as needed to verify vacuum levels at varying distances from suction points in each proposed mitigation slab area providing the footing or utilities do not interfere with the hole and the area can be accessed. KMT will adjust the gate valves in the systems riser pipes to facilitate maximum vacuum distribution. Static vacuum measurements for the system will be recorded. All vacuum measurements will be measured in inches of water column. This will verify the design objective of creating a 0.004” W.C. negative field.

KMT will prepare a final report summarizing remedial activities. The report will include a summary of remedial activities, as-built drawings, blower and system performance tables, photo-documentation and equipment warranties.

The as-built drawing will include: the specific locations of the blowers, including manufacture, model and amperage draw, and the locations of piping and connected suction points. The electrical panel location and breaker number will also be noted for the blowers. The location of all low pressure gauges will also be on the drawing. The title block will include the name of the vapor mitigation contractor and final system installation date.

Photo documentation will include at least one example of each blower type, the U-tube manometer, system labels, suction points, relevant sealing, fire stopping, roof penetrations, post-mitigation vacuum testing and pictures thought to be important by the Owner or the mitigation contractor.

Warranties and Submittals will include: all blower warranties, performance and wiring information.

A copy of the final report will be maintained by KMT and the Owner.

19.0 Submittals

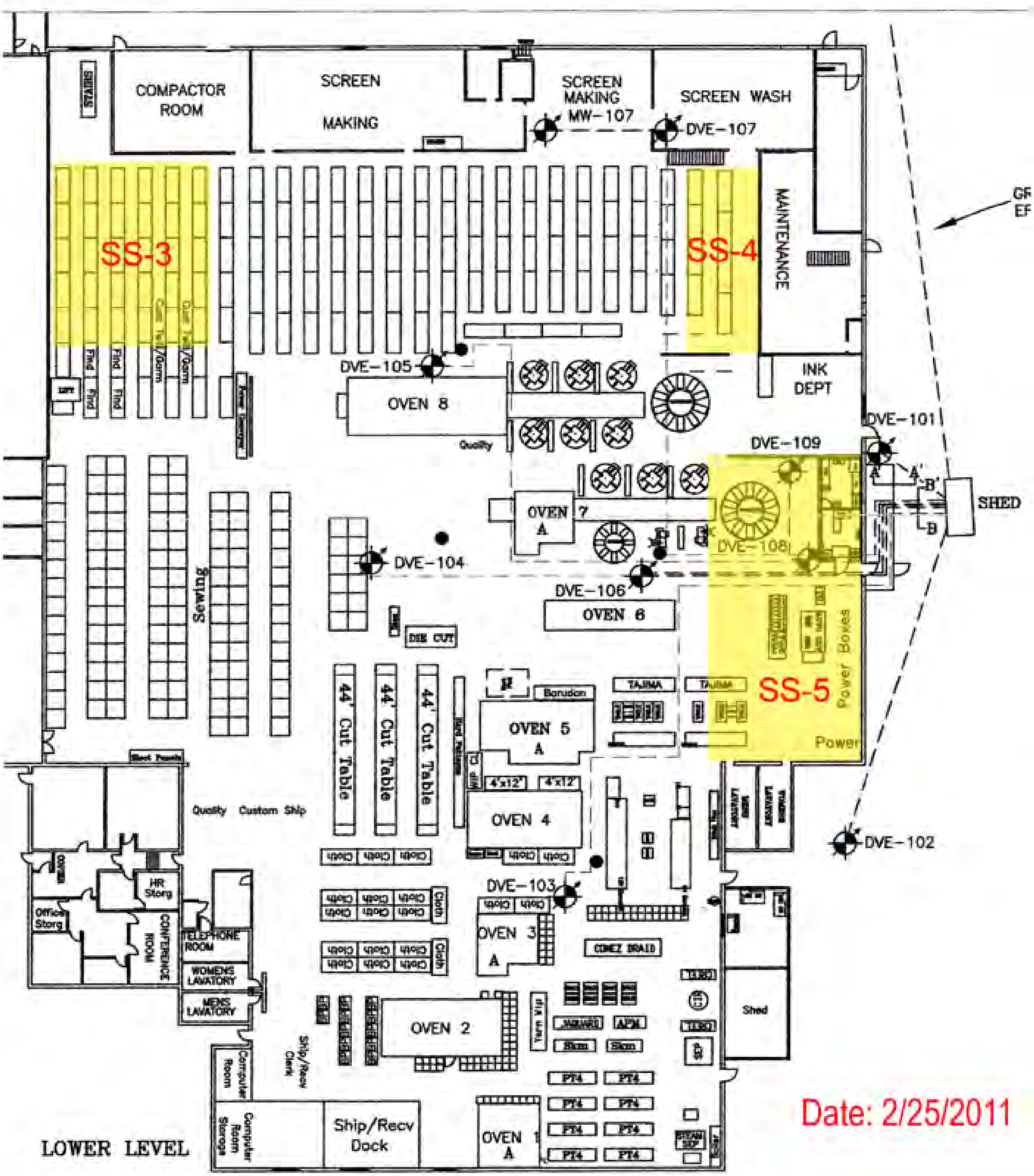
The Contract will provide 3 copies of submittals to Owner or designated representative.

Pre Work Submittals	Copy of N.E.H.A. Radon Proficiency Radon Mitigation Certification Blower Fan Cut Sheets
Post Work Submittals	As-built drawings Final project report

Figure 1

Antea Group Proposed Remediation Areas

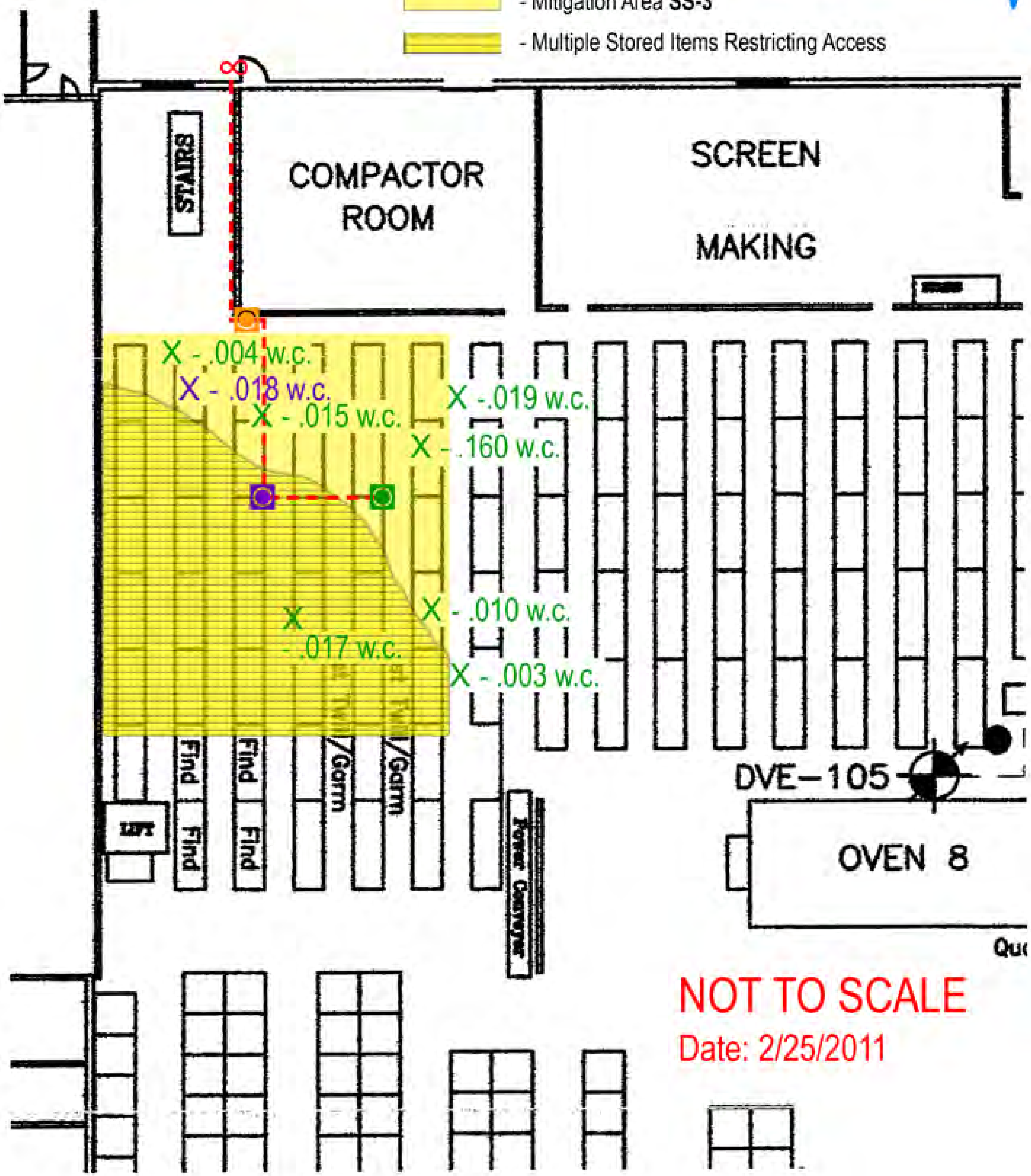
Former Champion Products Company
Perry, NY



KEYSTONE
MATERIAL TESTING, LLC
A Certified Minority Business Enterprise (MBE)

FIGURE #2 - LEGEND

- / X - Suction Point Test Hole #1 / Diagnostic Test Hole
- / X - Suction Point Test Hole #2 / Diagnostic Test Hole
- Proposed 3rd Suction Point for Drain
- --- / ∞ - Proposed Pipe Route / Exterior Fan Placement
- Mitigation Area **SS-3**
- Multiple Stored Items Restricting Access

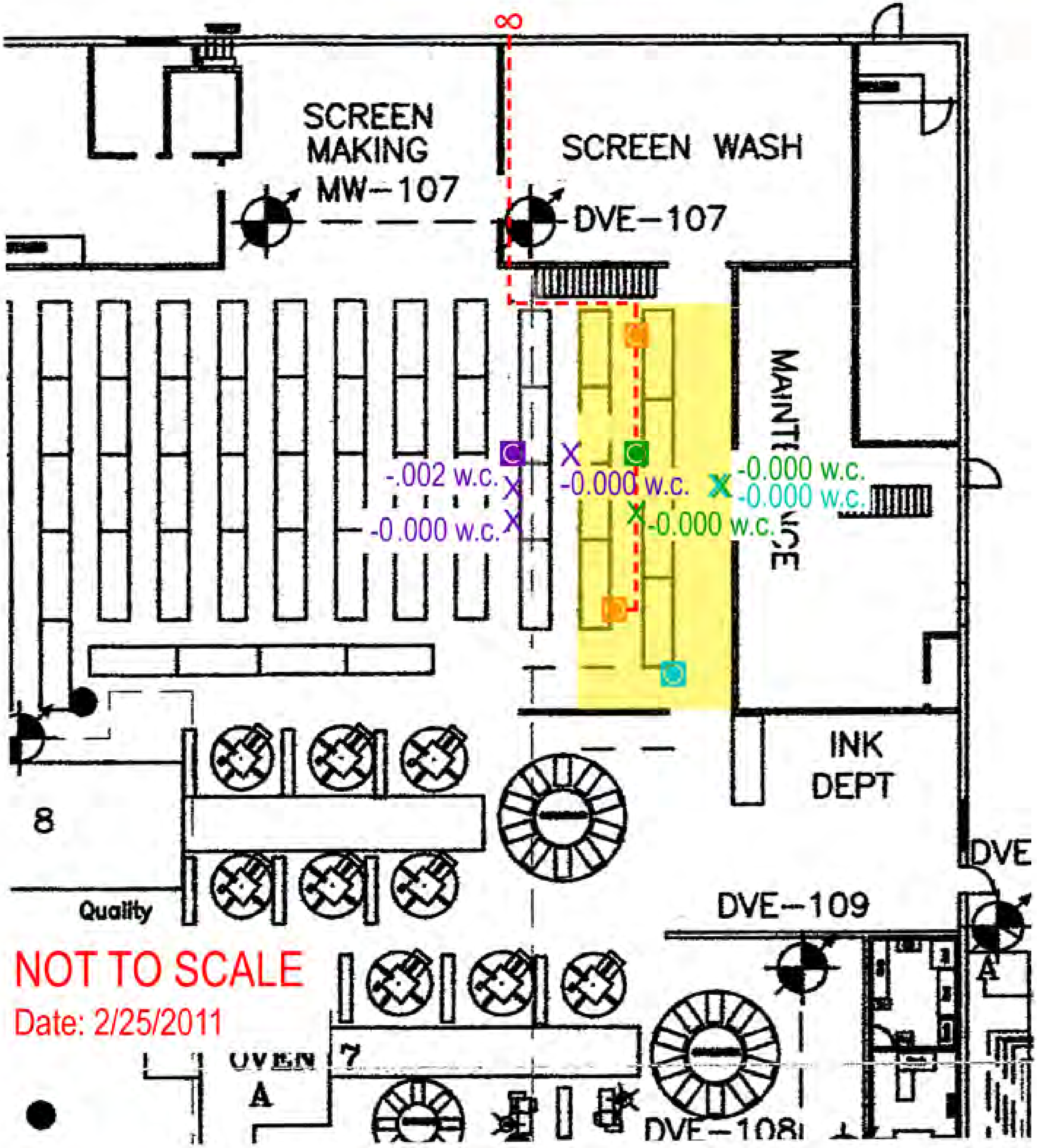


NOT TO SCALE
Date: 2/25/2011

KEYSTONE MATERIAL TESTING, LLC
A Certified Minority Business Enterprise (MBE)

FIGURE #3 - LEGEND

- ▢ / X - Suction Point Test Hole #1 / Diagnostic Test Hole
- ▢ / X - Suction Point Test Hole #2 / Diagnostic Test Hole
- ▢ / X - Suction Point Test Hole #3 / Diagnostic Test Hole
- ▢ - Proposed Vacuum Suction Points
- --- / ∞ - Proposed Pipe Route / Exterior Fan Placement
- Mitigation Area **SS-4**



NOT TO SCALE

Date: 2/25/2011

KEYSTONE
MATERIAL TESTING, LLC
A Certified Minority Business Enterprise (MBE)

FIGURE #4 - LEGEND

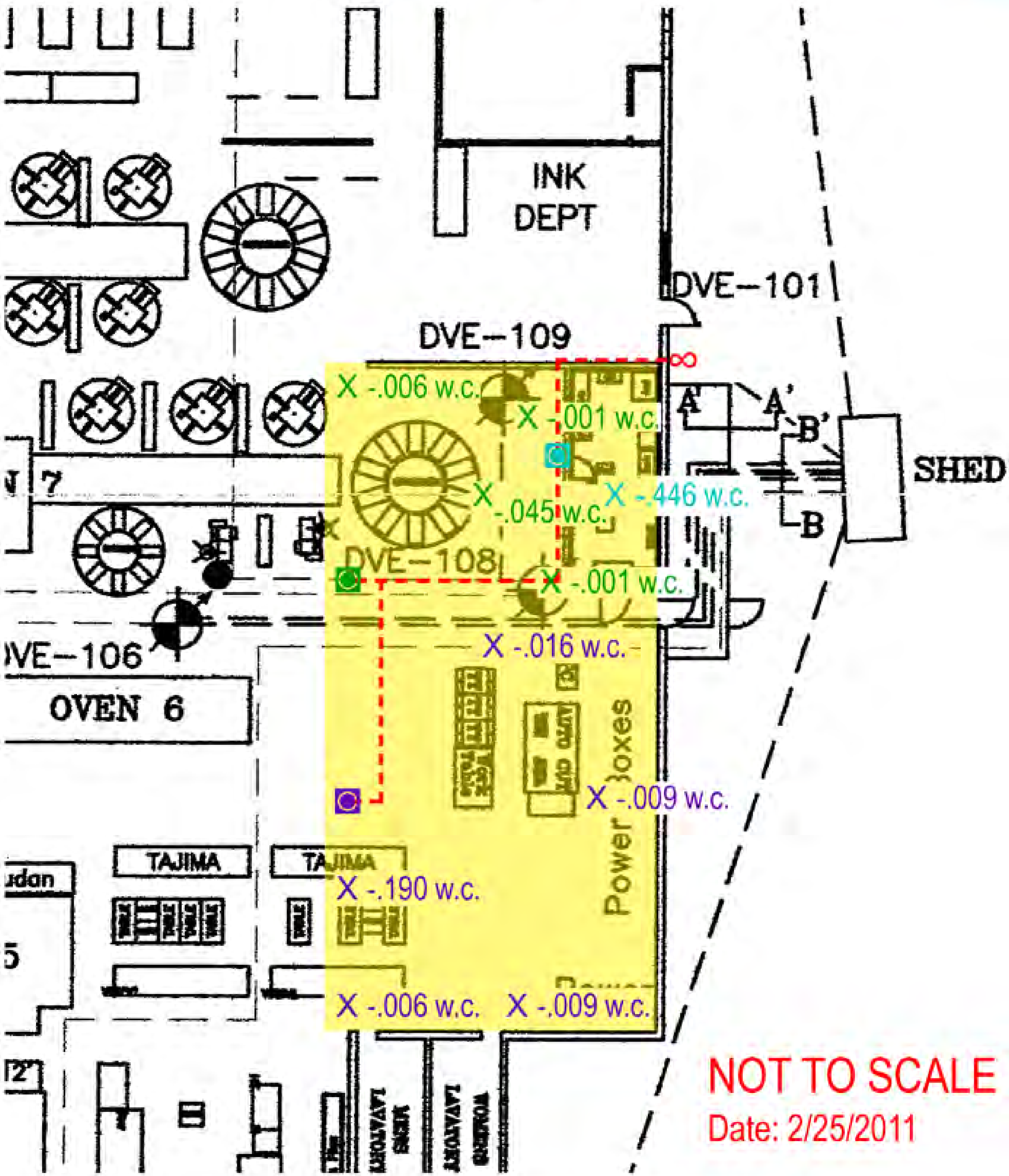
/ X - Suction Point Test Hole #1 / Diagnostic Test Hole

/ X - Suction Point Test Hole #2 / Diagnostic Test Hole

/ X - Suction Point Test Hole #3 / Diagnostic Test Hole

--- / ∞ - Proposed Pipe Route / Exterior Fan Placement

- Mitigation Area **SS-5**



NOT TO SCALE

Date: 2/25/2011

Table 1
Sub-Slab Diagnostic Test Data
February 4, 2011
200 N. Main Street, Perry, NY

Mitigation Area	Suction Device	Suction Point Test Hole #	Static Vacuum Inches W. C.	Distance/Direction to Test Hole	Vacuum Reading Inches W. C.	Comments
SS-3						
	Shop Vac	#1	15	10' SSW	-0.160	• Settled soils • Excellent communication over entire mitigation area • 3rd Suction point to be added as drain hole to accommodate fan location
		#1		20' SSW	-0.019	
		#1		20' NNW	-0.010	
		#1		33' NNW	-0.003	
		#1		25' NNE	-0.017	
		#1		25' ESE	-0.015	
		#1		40' ESE	-0.004	
		#2	15	20' ESE	-0.018	
SS-4						
	Shop Vac	#1	31	10' NNW	-0.000	• Expansion joint every 15' by 20' • All expansion joints leaking vacuum air • Shelving will need to be dismantled to seal all joints • Tight soils expected and may require high suction fan
		#1		10' N	-0.000	
		#2	30	3' N	-0.002	
		#2		10' N	-0.000	
		#2		10' W	-0.000	
		#3	30	25' SSW	-0.000	
SS-5						
	Shop Vac	#1	24	28' S	-0.006	• Wet sandy clay soils encountered leaking joint along rest rooms • 3rd point needed to put office area under vacuum • Open sump pit leaking air and needs sealing
		#1		15' SSW	-0.045	
		#1		28' SSW	-0.001	
		#1		30' W	-0.001	
		#2	20	15' N	-0.190	
		#2		25' N	-0.006	
		#2		29' NNW	-0.009	
		#2		37' W	-0.009	
		#2		29' SSW	-0.016	
		#3	36	8' W	-0.446	

KEYSTONE MATERIAL TESTING, LLC

KEYSTONE MATERIAL TESTING, LLC

MBE Certified

INSPECTION PHOTOS

Property Address: Champion Products Facility, 200 North Main Street, Perry, NY 14530
Inspection Date: February 2011

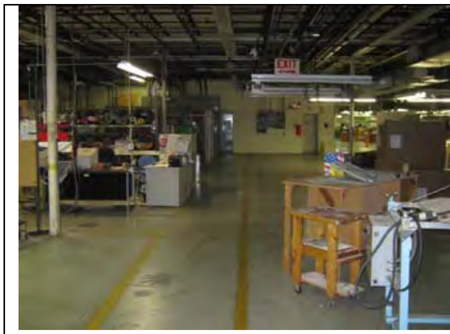
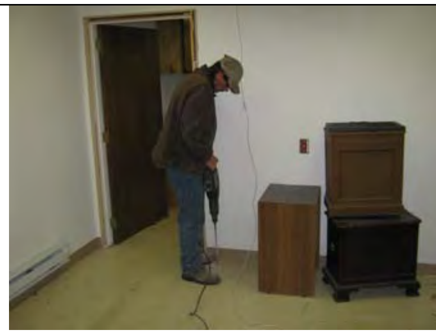
	

Photo 1 is a typical view of the interior production area of the Champion Products Facility.	Photo 2 is a typical view of an installation of a vacuum diagnostic test hole.	Photo 3 is a typical view of vacuum testing with a shop vac and magnahelic pressure gauge.
		
Photo 4 is a typical view of performance of diagnostic vacuum measurement utilizing a digital micro-manometer.	Photo 5 shows typical floor slab expansion joints which need sealing.	Photo 6 shows an existing exterior point sump pit that needs sealing.

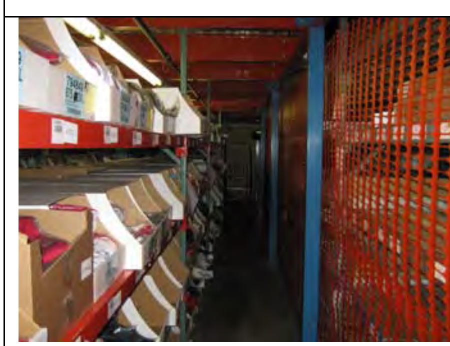
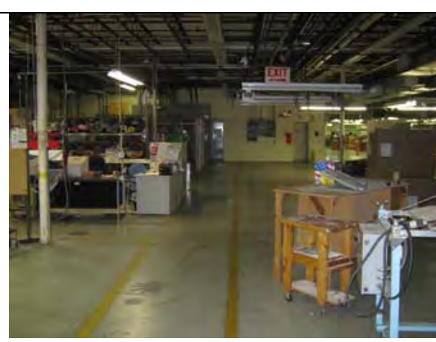

	

Photo 7 is a typical view of mitigation area 4 showing shelving which needs to be dismantled for floor slab sealing.	Photo 8 is a typical view of mitigation area 5.	Photo 9 is a typical view of mitigation area 3 showing stored materials which need to be moved prior to ASD install.

58 Exchange Street • Binghamton, New York 13901 • Tel: (607) 723-5117 • Fax: (607) 722-2515 • E-mail: info@4kmt.com

INSPECTION PHOTOS (continued)

Property Address: Champion Products Facility, 200 North Main Street, Perry, NY 14530
Inspection Date: February 2011

Photo 10 is a typical exterior wall view where ASD blowers will be installed.

Fantech

Installation Instructions for
Radon Fans Model HP/FR

READ & SAVE THESE INSTRUCTIONS!

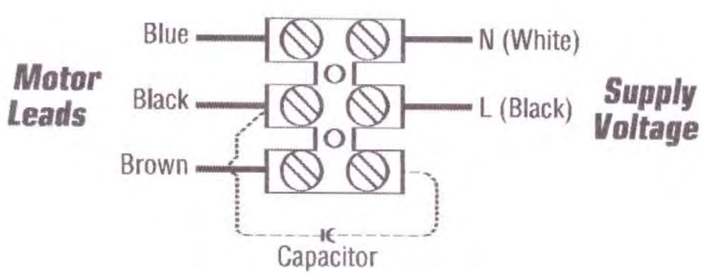
Warnings

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED, MAKE SURE ELECTRICAL SERVICE TO THE FAN IS LOCKED IN "OFF: POSITION.

1. Suitable for use with solid-state speed control.
2. This unit has rotating parts and safety precautions should be exercised during installation, operation and maintenance.
3. CAUTION: "For General Ventilation Use Only. Do Not Use To Exhaust Hazardous Or Explosives Materials and Vapors."
4. **WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS-OBSERVE THE FOLLOWING:**
   a. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the factory.
   b. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
   c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
   d. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the local code authorities.
   e. When cutting or drilling into wall or ceiling, do not damage electrical wires or other hidden utilities.
   f. Ducted fans must always be vented to the outdoors.
   g. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.
   h. NEVER place a switch where it can be reached from a tub or shower.
5. WARNING! Check voltage at the fan to see if it corresponds to the motor nameplate.

GUARDS MUST BE INSTALLED WHEN FAN IS WITHIN REACH OF PERSONNEL OR WITHIN SEVEN (7) FEET OF WORKING LEVEL OR WHEN DEEMED ADVISABLE FOR SAFETY.

Wiring Diagram



Five (5) Year Warranty

This warranty supersedes all prior warranties

Installation that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet duction, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims.

DURING ENTIRE WARRANTY PERIOD:

FANTECH will repair or replace any part which has a factory defect in workmanship or material. Product may need to be returned to the fantech factory, together with a copy of the bill of sale and identified with RMA number.

FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling FANTECH either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

OR

The Distributor may place an order for the warranty part and/or product and is invoiced. The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
  1. Improper maintenance
  2. Misuse, abuse, abnormal use, or accident, and
  3. Incorrect electrical voltage or current.
- Removal or any alteration made on the FANTECH label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

United States
1712 Northgate Blvd.,
Sarasota, FL 34234
Phone: 800.747.1762; 941.309.6000
Fax: 800.487.9915; 941.309.6099
www.fantech.net; info@fantech.net

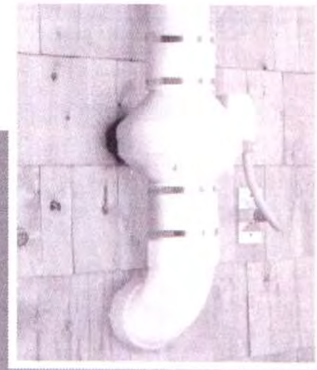
Canada
50 Kanalflakt Way,
Bouctouche, NB E4S 3M5
Phone: 800.565.3548; 506.743.9500
Fax: 877.747.8116; 506.743.9600
www.fantech.ca; info@fantech.ca

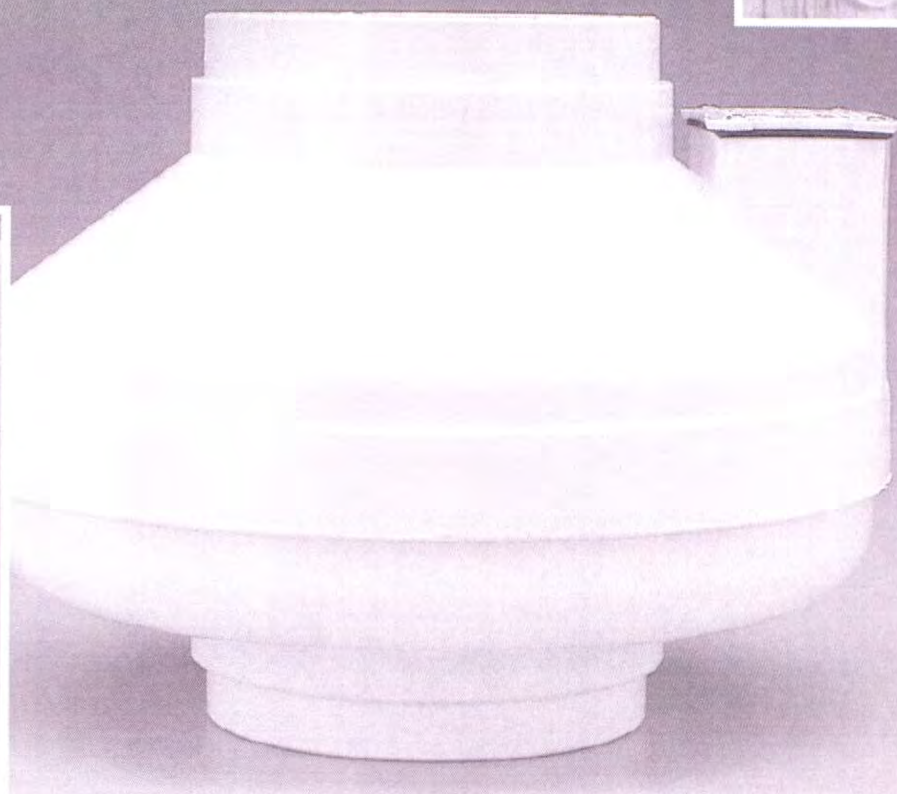
Article #: 301077
Item #: 401443
Rev Date: 010307

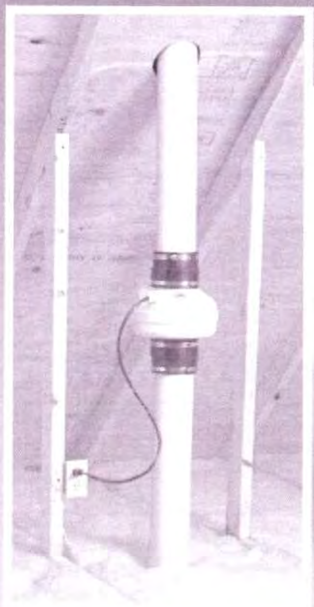
Fantech

HP SERIES

FANS FOR RADON APPLICATIONS
WITH IMPROVED UV RESISTANCE!

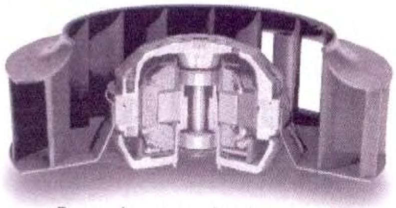






TRUST THE INDUSTRY STANDARD.
HERE'S WHY:

Don't put your reputation at stake by installing a fan you know won't perform like a Fantech! For nearly twenty years, Fantech has manufactured quality ventilation equipment for Radon applications. Fantech is the fan Radon contractors have turned to in over 1,000,000 successful Radon installations worldwide.



Fantech external rotor motor

FANTECH HP SERIES FANS MEET THE CHALLENGES OF RADON APPLICATIONS:

HOUSING
- UV resistant, UL Listed durable plastic
- UL Listed for use in commercial applications
- Factory sealed to prevent leakage
- Watertight electrical terminal box
- Approved for mounting in wet locations - i.e. Outdoors

MOTOR
- Totally enclosed for protection
- High efficiency EBM motorized impeller
- Automatic reset thermal overload protection
- Average life expectancy of 7-10 years under continuous load conditions

RELIABILITY
- Five Year Full Factory Warranty
- Over 1,000,000 successful radon installations worldwide

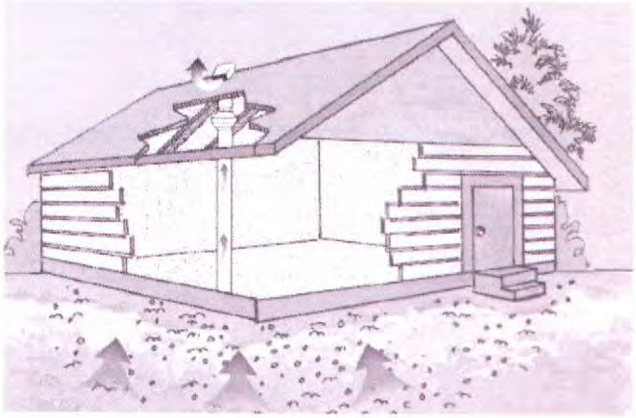
IMPROVING INDOOR AIR QUALITY THROUGH BETTER VENTILATION

www.fantech.net

Fantech

HP Series Fans are Specially Designed with Higher Pressure Capabilities for Radon Mitigation Applications

MOST RADON MITIGATORS WHO PREVIOUSLY USED THE FANTECH FR SERIES FANS HAVE SWITCHED TO THE NEW HP SERIES.



PERFORMANCE DATA

Fan Model	Volts	Wattage Range	Max. Amps	CFM vs. Static Pressure in Inches W.G.								Max. Ps
				0"	0.5"	0.75"	1.0"	1.25"	1.5"	1.75"	2.0"	
HP2133	115	14 - 20	0.17	134	68	19	-	-	-	-	-	0.84
HP2190	115	60 - 85	0.78	163	126	104	81	58	35	15	-	1.93
HP175	115	44 - 65	0.57	151	112	91	70	40	12	-	-	1.66
HP190	115	60 - 85	0.78	157	123	106	89	67	45	18	1	2.01
HP220	115	85 - 152	1.30	344	260	226	193	166	137	102	58	2.46

HVI MEMBER™

PERFORMANCE CURVES

Fantech provides you with independently tested performance specifications.

The performance curves shown in this brochure are representative of the actual test results recorded at Texas Engineering Experiment Station/Energy Systems Lab, a recognized testing authority for HVI. Testing was done in accordance with AMCA Standard 210-85 and HVI 916 Test Procedures. Performance graphs show air flow vs. static pressure.

Use of HP Series fans in low resistance applications such as bathroom venting will result in elevated sound levels. We suggest FR Series or other Fantech fans for such applications.

HP FEATURES INCLUDE

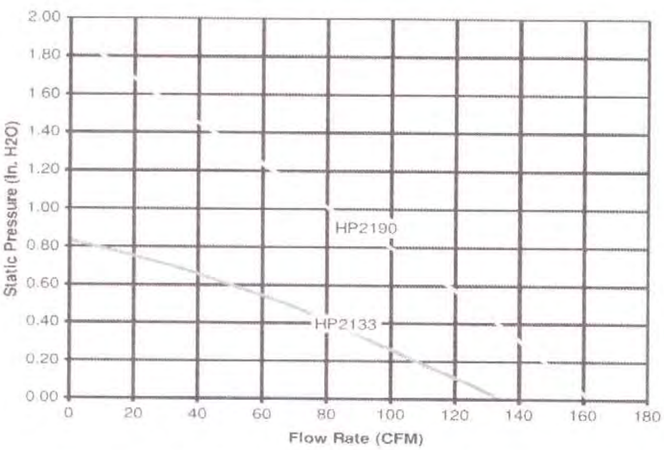
- Improved UV resistant housings approved for commercial applications.
- UL Approved for Wet Locations (Outdoors)
- Sealed housings and wiring boxes to prevent Radon leakage or water penetration
- Energy efficient permanent split capacitor motors
- External wiring box
- Full Five Year Factory Warranty

c UL us

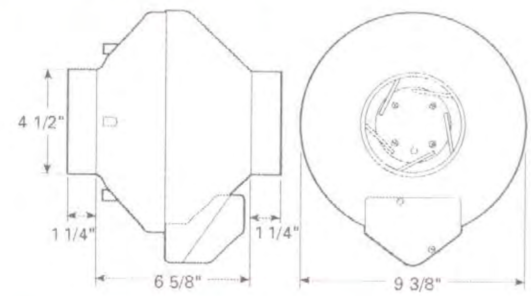
NOTE:

Installations that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet ducting, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims.

HP2133 & HP2190 RADON MITIGATION FANS



Tested with 4" ID duct and standard couplings.



HP2133 – For applications where lower pressure and flow are needed. Record low power consumption of 14-20 watts! Often used where there is good sub slab communication and lower Radon levels.

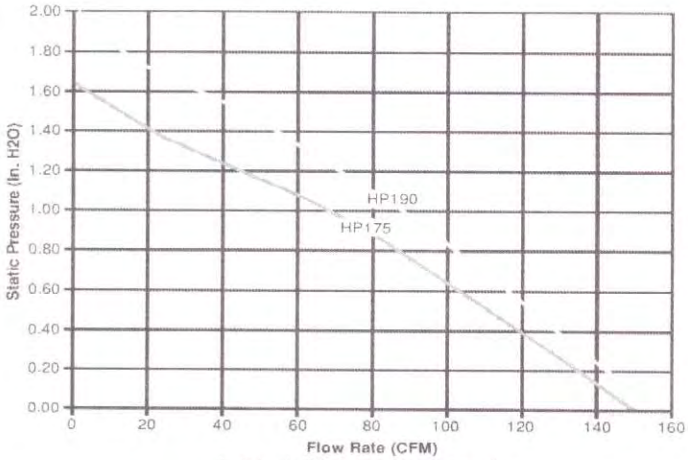
HP2190 – Performance like the HP190 but in a smaller housing. Performance suitable for the majority of installations.

Fans are attached to PVC pipe using flexible couplings.

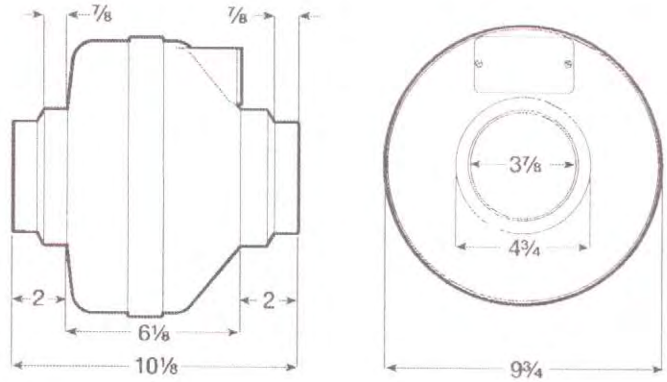
For 4" PVC pipe use Indiana Seals #156-44, Pipeconx PCX 56-44 or equivalent

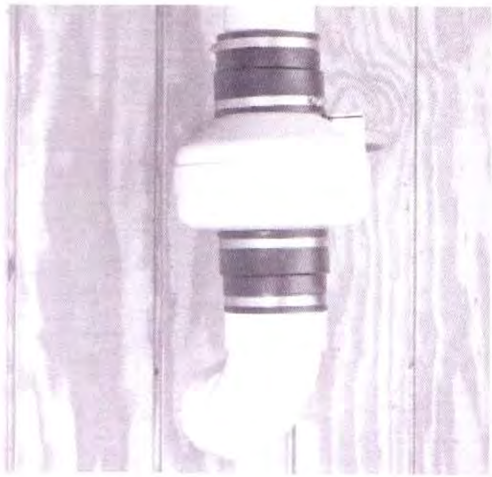
For 3" PVC pipe use Indiana Seals #156-43, Pipeconx PCX 56-43 or equivalent

HP175 & HP190 RADON MITIGATION FANS



Tested with 4" ID duct and standard couplings





HP175 – The economical choice where slightly less air flow is needed. Often used where there is good sub slab communication and lower Radon levels.

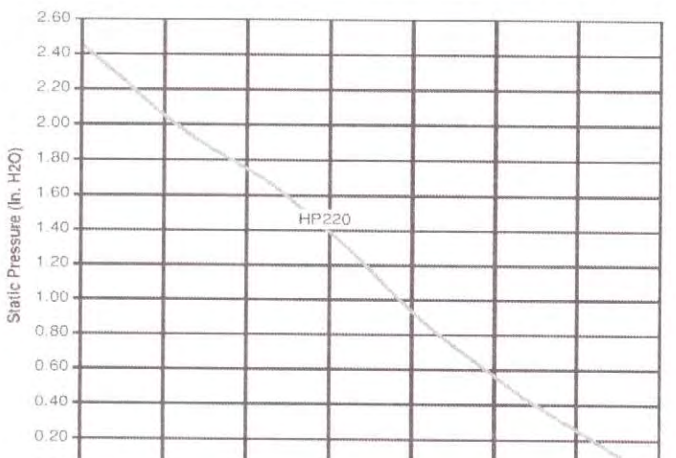
HP190 – The standard for Radon Mitigation. Ideally tailored performance curve for a vast majority of your mitigations.

Fans are attached to PVC pipe using flexible couplings.

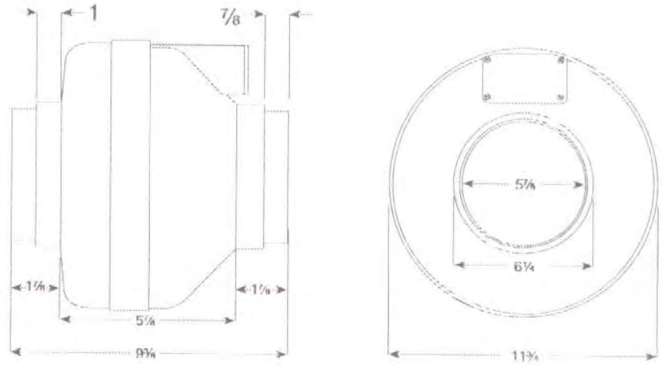
For 4" PVC pipe use Indiana Seals #151-44, Pipeconx PCX 51-44 or equivalent.

For 3" PVC pipe use Indiana Seals #156-43, Pipeconx PCX 56-43 or equivalent.

HP220 RADON MITIGATION FAN



Tested with 6" ID duct and standard couplings.



HP 220 – Excellent choice for systems with elevated radon levels, poor communication, multiple suction points and large subslab footprint. Replaces FR 175.

Fans are attached to PVC pipe using flexible couplings.

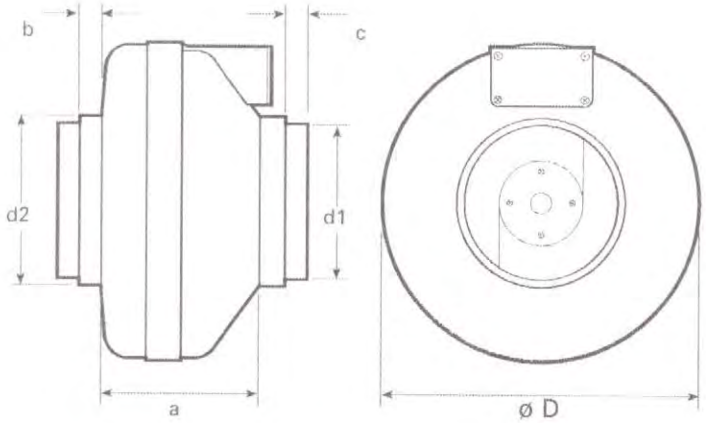
For 4" PVC pipe use Indiana Seals #156-64, Pipeconx PCX 56-64 or equivalent.

For 3" PVC pipe use Indiana Seals #156-63, Pipeconx PCX 56-63 or equivalent.

Fantech

FR SERIES

THE ORIGINAL MITIGATOR



DIMENSIONAL DATA

model	øD	d1	d2	a	b	c
FR100	9 1/2	3 7/8	4 7/8	6 1/8	7/8	7/8
FR110	9 1/2	3 7/8	4 7/8	6 1/8	7/8	7/8
FR125	9 1/2	–	4 7/8	6 1/8	7/8	–
FR140	11 3/4	5 7/8	6 1/4	5 7/8	1	7/8
FR150	11 3/4	5 7/8	6 1/4	5 7/8	1	7/8
FR160	11 3/4	5 7/8	6 1/4	6 3/8	1	7/8
FR200	13 1/4	7 7/8	9 7/8	6 1/4	1 1/2	1 1/2
FR225	13 1/4	7 7/8	9 7/8	6 1/4	1 1/2	1 1/2
FR250	13 1/4	–	9 7/8	6 1/4	–	1 1/2

All dimensions in inches

PERFORMANCE DATA

Fan Model	Energy Star	RPM	Volts	Rated Watts	Wattage Range	Max. Amps	CFM vs. Static Pressure in Inches W.G.							Max. Ps	Duct Dia.
							0"	.2"	.4"	.6"	.8"	1.0"	1.5"		
FR100	✓	2950	120	21.2	13 - 22	0.18	137	110	83	60	21	-	-	0.90"	4"
FR125	✓	2950	115	18	15 - 18	0.18	148	120	88	47	-	-	-	0.79"	5"
FR150	✓	2750	120	71	54 - 72	0.67	263	230	198	167	136	106	17	1.58"	6"
FR160	-	2750	115	129	103 - 130	1.14	289	260	233	206	179	154	89	2.32"	6"
FR200	✓	2750	115	122	106 - 128	1.11	408	360	308	259	213	173	72	2.14"	8"
FR225	✓	3100	115	137	111 - 152	1.35	429	400	366	332	297	260	168	2.48"	8"
FR250*	-	2850	115	241	146 - 248	2.40	649	600	553	506	454	403	294	2.58"	10"

FR Series performance is shown with ducted outlet. Per HVI's Certified Ratings Program, charted air flow performance has been derated by a factor based on actual test results and the certified rate at .2 inches WG.
** Also available with 8" duct connection. Model FR 250-8. Special Order*

NOTE:

Installations that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet ducting, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims.

FIVE YEAR WARRANTY

DURING ENTIRE WARRANTY PERIOD:

FANTECH will replace any fan which has a factory defect in workmanship or material. Product may need to be returned to the Fantech factory, together with a copy of the bill of sale and identified with RMA number.

FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling FANTECH either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

OR

The Distributor may place an order for the warranty fan and is invoiced.
The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
  1. Improper maintenance
  2. Misuse, abuse, abnormal use, or accident, and
  3. Incorrect electrical voltage or current.
- Removal or any alteration made on the FANTECH label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

DISTRIBUTED BY:

Fantech
United States 10048 Industrial Blvd. • Lenexa, KS 66215 • 1.800.747.1762 • www.fantech.net
Canada 50 Kanalflakt Way • Bouctouche, NB E4S 3M5 • 1.800.565.3548 • www.fantech.net

Item # 411741
Rev Date: 021010

RadonAway
a Spruce company

Home (http://www.radonaway.com/index.php) : Radon Products (http://www.radonaway.com/radon-products.php) : Radon Fans (http://www.radonaway.com/radon-fans.php) : GP Series Radon Fans

GP Series Radon Fans

NOTE: (excludes GP500)

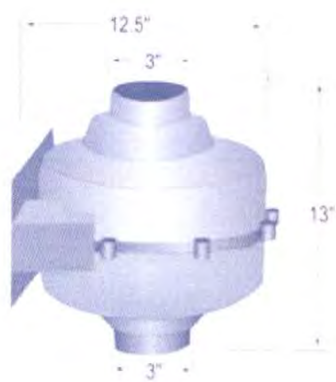
Designed to handle most radon mitigation jobs, RadonAway's GP Series fans are a popular choice for radon professionals seeking ultra-quiet radon fans and top performance. GP Series fans are ideal for most active soil depressurization (ASD) radon mitigation systems, even in tight soil. RadonAway's four GP radon models are designed to be interchangeable, so if one GP doesn't suit a particular job, another will. Choice of model is dependent on building characteristics and should be made by a radon professional.

Radon Fan Features:

- Five-year limited warranty
- Mounts on duct pipe or with integral flange
- 3" diameter ducts for use with 3" or 4" pipe
- Electrical box for hard wire or plug in
- ETL Listed - for indoor or outdoor use
- 4 interchangeable models

Additional Radon Fan Information:

- Downloadable Radon Fan Specifications/Sales Sheet (http://www.radonaway.com/pdfs/radon-fan-GPseriesSpecs.pdf) (PDF format)
- Downloadable Radon Fan Installation Instructions (http://www.radonaway.com/pdfs/radon-fan-XP-XR-GP.pdf) (PDF format)



Model	P/N	Fan Duct Diameter	Watts	Max Pressure	Typical CFM vs. Static Pressure WC						
					1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"

				"WC							
GP201	23007-1	3"	40-60	2.0	82	58	5	-	-		-
GP301	23006-1	3"	55-90	2.6	92	77	45	10			-
GP401	23009-1	3"	60-110	3.4	93	82	60	40	15	-	-
GP501	23005-1	3"	70-140	4.2	95	87	80	70	57	30	10

Calculate your estimated annual electrical cost. (http://www.radonaway.com/radon-fan-operating-cost-calculator.php)

GP Series Radon Fans

NOTE: (excludes GP500)

Designed to handle most radon mitigation jobs, RadonAway's GP Series fans are a popular choice for radon professionals seeking ultra-quiet radon fans and top performance. GP Series fans are ideal for most active soil depressurization (ASD) radon mitigation systems, even in tight soil. RadonAway's four GP radon models are designed to be interchangeable, so if one GP doesn't suit a particular job, another will. Choice of model is dependent on building characteristics and should be made by a radon professional.

Radon Fan Features:

- Five-year limited warranty
- Mounts on duct pipe or with integral flange
- 3" diameter ducts for use with 3" or 4" pipe
- Electrical box for hard wire or plug in
- ETL Listed - for indoor or outdoor use
- 4 interchangeable models

Additional Radon Fan Information:

- Downloadable Radon Fan Specifications/Sales Sheet (http://www.radonaway.com/pdfs/radon-fan-GPseriesSpecs.pdf) (PDF format)
- Downloadable Radon Fan Installation Instructions (http://www.radonaway.com/pdfs/radon-fan-XP-XR-GP.pdf) (PDF format)

Model	P/N	Fan Duct Diameter	Watts	Max Pressure	Typical CFM vs. Static Pressure WC 1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"

				"WC							
GP201	23007-1	3"	40-60	2.0	82	58	5	-	-	-	-
GP301	23006-1	3"	55-90	2.6	92	77	45	10	-	-	-
GP401	23009-1	3"	60-110	3.4	93	82	60	40	15	-	-
GP501	23005-1	3"	70-140	4.2	95	87	80	70	57	30	10

Calculate your estimated annual electrical cost. (http://www.radonaway.com/radon-fan-operating-cost-calculator.php)

RadonAway
a Spruce company

Home (http://www.radonaway.com/index.php) : Radon Products (http://www.radonaway.com/radon-products.php) : Radon Fans (http://www.radonaway.com/radon-fans.php) : HS Series Radon Fans

HS Series Radon Fan

RadonAway's HS Series fans are a proven solution to tough radon mitigations, providing up to 25 times the suction of inline tube fans to deal with sand, dirt or clay sub-slab material.

Features:

- Internal condensate bypass
- Mounts vertically indoors or outdoors
- Inlet: 3.0" PVC/Outlet: 2.0" PVC
- Weight: 18 lbs.
- Size: 15"W x 13"H x 8"D
- One-year limited warranty (3-year option available)

Radon Fan Model Selection Guidelines:

(Choice of model is dependent on building characteristics and should be made by a radon professional.)

- **HS2000** - High suction and high flow for large areas such as schools and commercial buildings
- **HS3000** - Single family homes with very tight sub-slab material
- **HS5000** - For extremely tight sub-slab material or where the number of holes is restricted; also useful for high altitudes

Additional Fan Information:

- Downloadable Fan Installation Instructions (http://www.radonaway.com/pdfs/HS-Series-Instructions.pdf) (PDF format)

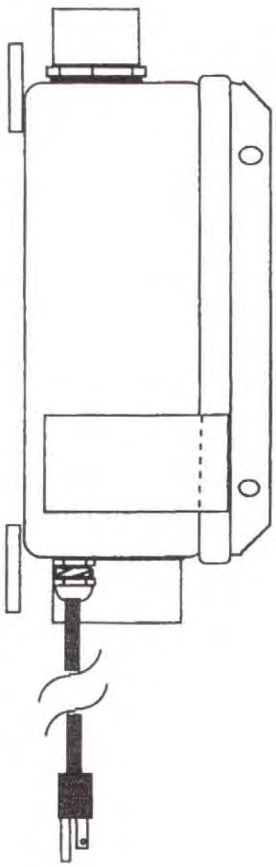
				Typical CFM vs. Static Pressure WC					
Model	P/N	Watts	Max Pressure "WC	0"	10"	15"	20"	25"	35"

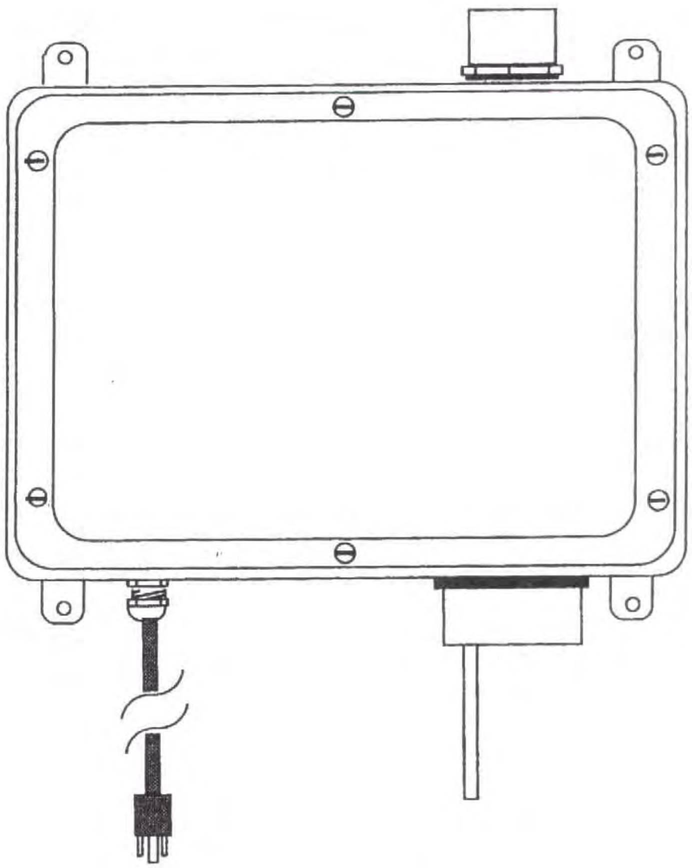
HS2000	23004-1	150-270	18	110	72	40	-	-	-
HS3000	23004-2	105-195	27	40	33	30	23	18	-
HS5000	23004-3	180-320	50	53	47	42	38	34	24

Each fan includes 6 ft. 18 ga. power cord with 3 prong plug.

HS SERIES INSTALLATION INSTRUCTIONS

BY RadonAway™





RadonAway, Inc. Ward Hill, MA.

P/N IN007 Rev F

RadonAway

RadonAway Ward Hill, MA.

HS Series Fan Installation Instructions

Please Read and Save These Instructions.

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED. MAKE SURE ELECTRICAL SERVICE TO FAN IS LOCKED IN "OFF" POSITION. DISCONNECT POWER BEFORE SERVICING FAN.

1. **WARNING!** Do not use fan in hazardous environments where fan electrical system could provide ignition to combustible or flammable materials.

2. **WARNING!** Do not use fan to pump explosive or corrosive gases.

3. **WARNING!** Check voltage at the fan to insure it corresponds with nameplate.

4. **WARNING!** Normal operation of this device may affect the combustion airflow needed for safe operation of fuel burning equipment. Check for possible backdraft conditions on all combustion devices after installation.

5. **NOTICE!** There are no user serviceable parts located inside the fan unit. **Do NOT attempt to open.** Return unit to the factory for service.

6. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician..

7. **WARNING!** In the event that the fan is immersed in water, return unit to factory for service before operating.

8. **WARNING!** Do not twist or torque fan inlet or outlet piping as Leakage may result.

9. **WARNING!** Do not leave fan unit installed on system piping without electrical power for more than 48 hours. Fan failure could result from this non-operational storage.

INSTALLATION INSTRUCTIONS (Rev F)
for DynaVac High Suction Series

HS2000	p/n 23004-1
HS3000	p/n 23004-2
HS5000	p/n 23004-3

1.0 SYSTEM DESIGN CONSIDERATIONS

1.1 INTRODUCTION

The DynaVac is intended for use by trained, professional Radon mitigators. The purpose of this instruction is to provide additional guidance for the most effective use of the DynaVac. This instruction should be considered as a supplement to EPA standard practices, state and local building codes and state regulations. In the event of a conflict, those codes, practices and regulations take precedence over this instruction.

1.2 ENVIRONMENTALS

The DynaVac is designed to perform year-round in all but the harshest climates without additional concern for temperature or weather. For installations in an area of severe cold weather, please contact RadonAway for assistance. When not in operation, the DynaVac should be stored in an area where the temperature is never less than 32 degrees F. or more than 100 degrees F. The DynaVac is thermally protected such that it will shut off when the internal temperature is above 104 degrees F. Thus if the DynaVac is idle in an area where the ambient temperature exceeds this shut off, it will not restart until the internal temperature falls below 104 degrees F.

1.3 ACOUSTICS

The DynaVac, when installed properly, operates with little or no noticable noise to the building occupants. There are, however, some considerations to be taken into account in the system design and installation. When installing the DynaVac above sleeping areas, select a location for mounting which is as far away as possible from those areas. Avoid mounting near doors, fold-down stairs or other uninsulated structures which may transmit sound. Insure a solid mounting for the DynaVac to avoid structure-borne vibration or noise.

The velocity of the outgoing air must also be considered in the overall system design. With small diameter piping, the "rushing" sound of the outlet air can be disturbing. The system design should incorporate a means to slow and quiet the outlet air. The use of the RadonAway Exhaust Muffler, p/n 24001, is strongly recommended.

1.4 GROUND WATER

Under no circumstances should water be allowed to be drawn into the inlet of the DynaVac as this may result in damage to the unit. The DynaVac should be mounted at least 5 feet above the slab penetration to minimize the risk of filling the DynaVac with water in installations with occasional high water tables.

In the event that a temporary high water table results in water at or above slab level, water will be drawn into the riser pipes thus blocking air flow to the DynaVac. The lack of cooling air will result in the DynaVac cycling on and off as the internal temperature rises above the thermal cutoff and falls upon shutoff. Should this condition arise, it is recommended that the DynaVac be disconnected until the water recedes allowing for return to normal operation.

1.5 CONDENSATION & DRAINAGE

(WARNING!: Failure to provide adequate drainage for condensation can result in system failure and damage the DynaVac).

Condensation is formed in the piping of a mitigation system when the air in the piping is chilled below its dew point. This can occur at points where the system piping goes through unheated space such as an attic, garage or outside. The system design must provide a means for water to drain back to a slab hole to remove the condensation.

The use of small diameter piping in a system increases the speed at which the air moves. The speed of the air can pull water uphill and at sufficient velocity it can actually move water vertically up the side walls of the pipe. This has the potential of creating a problem in the negative pressure (inlet) side piping. For DynaVac inlet piping, the following table provides the minimum recommended pipe diameters as well as minimum pitch under several system condition. Use this chart to size piping for a system.

Pipe Diam.	Minimum Rise per Foot of Run*		
	@ 25 CFM	@ 50 CFM	@ 100 CFM
4"	1/32 "	3/32 "	3/8 "
3"	1/8 "	3/8 "	1 1/2 "

Rise

Run

*Typical operational flow rates:

HS3000, or HS5000	20 - 40 CFM
HS2000	50 - 90 CFM

All exhaust piping should be 2" PVC.

1.6 "SYSTEM ON" INDICATOR

A properly designed system should incorporate a "System On" Indicator for affirmation of system operation. A Magnehelic pressure gauge is recommended for this purpose. The indicator should be mounted at least 5 feet above the slab penetration to minimize the risk of filling the gauge with water in installations with occasional high water tables.

1.7 SLAB COVERAGE

The DynaVac can provide coverage of well over 1000 sq. ft. per slab penetration. This will, of course, depend on the sub-slab aggregate in any particular installation and the diagnostic results. In general, sand and gravel are much looser aggregates than dirt and clay. Additional suction points can be added as required. It is recommended that a small pit (2 to 10 gallons in size) be created below the slab at each suction hole.

1.8 ELECTRICAL WIRING

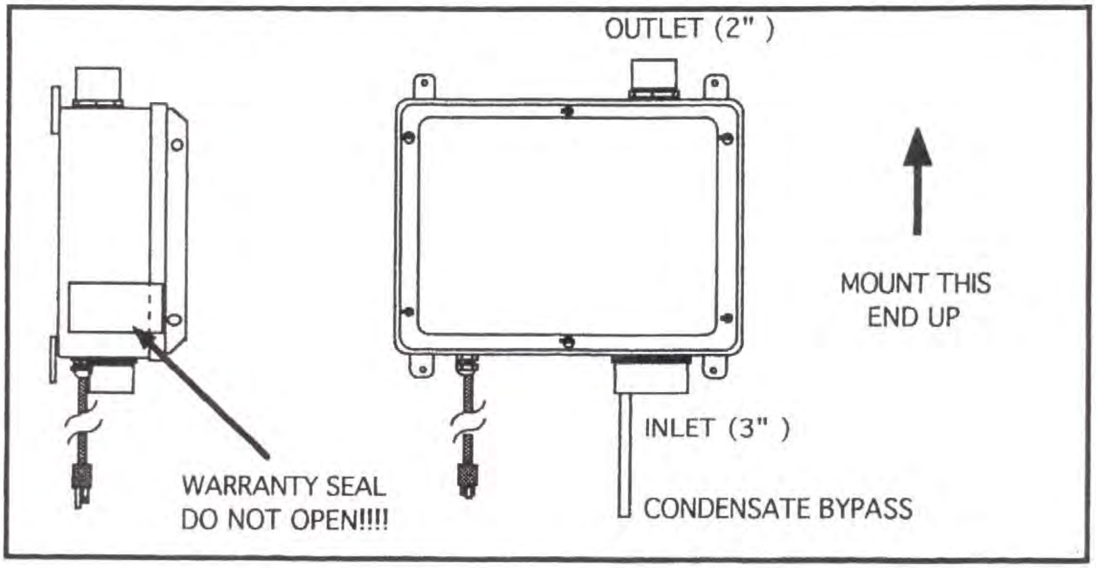
The DynaVac plugs into a standard 120V outlet. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician.

1.8a ELECTRICAL BOX (optional)

The optional Electrical Box (p/n 20003) provides a weathertight box with switch for outdoor hardwire connection. All wiring must be performed in accordance with the National Fire Protection Association's (NFPA)"National Electrical Code, Standard #70"-current edition for all commercial and industrial work, and state and local building codes. All wiring must be performed by a qualified and licensed electrician. Outdoor installations require the use of a U.L. listed watertight conduit.

1.9 SPEED CONTROLS

Electronic speed controls can **NOT** be used on HS series units.



2.0 INSTALLATION

2.1 MOUNTING

Mount the DynaVac to the wall studs, or similar structure, in the selected location with (4) 1/4" x 1 1/2" lag screws (not provided). Insure the DynaVac is both plumb and level.

2.2 DUCTING CONNECTIONS

Make final ducting connection to DynaVac with flexible couplings. Insure all connections are tight. Do not twist or torque inlet and outlet piping on DynaVac or leaks may result.

2.3 VENT MUFFLER INSTALLATION

Install the muffler assembly in the selected location in the outlet ducting. Solvent weld all connections. The muffler is normally installed above the roofline at the end of the vent pipe.

2.5 OPERATION CHECKS

____ Make final operation checks by verifying all connections are tight and leak-free.

____ Insure the DynaVac and all ducting is secure and vibration-free.

____ Verify system vacuum pressure with Magnehelic. Insure vacuum pressure is less than the maximum recommended as shown below:

DynaVac	HS2000	14" WC
DynaVac	HS3000	21" WC
DynaVac	HS5000	40" WC

(Above are based on sea-level operation, at higher altitudes reduce above by about 4% per 1000 Feet.)
If these are exceeded, increase number of suction points.

____ Verify Radon levels by testing to EPA protocol.

Addendum

PRODUCT SPECIFICATIONS

Model	Maximum Static Suction	Typical CFM vs Static Suction WC (Recommended Operating Range)						Power* Watts @ 115 VAC
		0"	10"	15"	20"	25"	35"	
HS2000	18"	110	72	40	-	-	-	150-270
HS3000	27"	40	33	30	23	18	-	105-195
HS5000	50"	53	47	42	38	34	24	180-320

*Power consumption varies with actual load conditions

Inlet: 3.0" PVC
Outlet: 2.0" PVC
Mounting: Brackets for vertical mount
Weight: Approximately 18 lbs.
Size: Approximately 15"W x 13"H x 8"D
Minimum recommended inlet ducting (greater diameter may always be used):
HS3000, HS5000 --- 2.0" PVC Pipe
HS2000 --- Main feeder line of 3.0" or greater PVC Pipe
Branch lines (if 3 or more) may be 2.0" PVC Pipe
Outlet ducting: 2.0" PVC
Storage temperature range: 32 - 100 degrees F.
Thermally protected
Locked rotor protection
Internal Condensate Bypass

IMPORTANT INSTRUCTIONS TO INSTALLER

Inspect the HS Series Fan for shipping damage within 15 days of receipt. Notify **RadonAway of any damages immediately**. Radonaway is not responsible for damages incurred during shipping. However, for your benefit, Radonaway does insure shipments.

There are no user serviceable parts inside the fan. **Do not attempt to open.** Return unit to factory for service.

Install the HS Series Fan in accordance with all EPA standard practices, and state and local building codes and state regulations.

WARRANTY

Subject to any applicable consumer protection legislation, RadonAway warrants that the HS Series Fan (the "Fan") will be free from defects in materials and workmanship for a period of one (1) year from the date of manufacture (the "Warranty Term"). Outside the Continental United States and Canada the Warranty Term is one (1) year from the date of manufacture.

RadonAway will replace any Fan which fails due to defects in materials or workmanship. The Fan must be returned (at owner's cost) to the RadonAway factory. Proof of purchase must be supplied upon request for service under this Warranty.

This Warranty is contingent on installation of the Fan in accordance with the instructions provided. This Warranty does not apply where any repairs or alterations have been made or attempted by others, or if the unit has been abused or misused. Warranty does not include damage in shipment unless the damage is due to the negligence of RadonAway.

RadonAway is not responsible for installation, removal or delivery costs associated with this Warranty.

EXCEPT AS STATED ABOVE, THE HS SERIES FANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL RADONAWAY BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF, OR RELATING TO, THE FAN OR THE PERFORMANCE THEREOF. RADONAWAY'S AGGREGATE LIABILITY HEREUNDER SHALL NOT IN ANY EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE OF SAID PRODUCT. THE SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT, TO THE EXTENT THE SAME DOES NOT MEET WITH RADONAWAY'S WARRANTY AS PROVIDED ABOVE.

For service under this Warranty, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. No returns can be accepted without an RMA. If factory return is required, the customer assumes all shipping cost to and from factory.

RadonAway
3 Saber Way
Ward Hill, MA 01835
TEL. (978) 521-3703
FAX (978) 521-3964

Record the following information for your records:

Serial No.________________________________
Purchase Date________________________