REMEDIAL INVESTIGATION/RECOMMENDED REMEDIAL ALTERNATIVE REPORT

Former Parkway Cleaners
Eastern Boulevard
Parkway Plaza
City of Canandaigua, Ontario County, New York

NYSDEC Site Number: V00238-8

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Project #: 2105R-99

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This report was completed in general accordance with the document titled "Work Plan, Voluntary Cleanup Program (VCP), Former Parkway Cleaners, Canandaigua, New York, Index No. B8-0555-99-06" dated June 2000.

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Day Environmental, Inc.

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Parkway Cleaners, Parkway Plaza, Canandaigua, New York, NYSDEC

VCP Site #VCP-00238-8

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1.0 Introduction

This Remedial Investigation (RI) document, prepared by Day Environmental, Inc. (DAY) on behalf of Parkway Plaza Limited Partnership, LLP (the Owner), describes studies and remedial activities conducted to date at the former Parkway Cleaners Site (hereinafter referred to as the "Site") under the New York State (NYS) Voluntary Cleanup Program (VCP) administered by New York State Department of Environmental Conservation (NYSDEC). In addition, recommended remedial activities to be implemented to address residual impacts are also presented in this document. The work completed at the Site was done in accordance with Voluntary Cleanup Agreement (VCA) Index # B8-0555-99-06, Site # V00238-8, which was executed on January 22, 2001. A Project Locus map is included as Figure 1.

1.1 General

The 0.2-acre Site is a portion of the 12.78-acre Parkway Plaza, which is located on the south side of Routes 5 & 20 (85 Eastern Boulevard) in the City of Canandaigua, Ontario County, New York. The boundaries of the Site are more fully described in the metes and bounds site description and the referenced drawing designated VCP-2, which are presented in Appendix A.

The Site currently contains a coin-operated Laundromat (i.e., Parkway Laundry) and in the past (i.e., between about 1962 and 1991) dry-cleaning operations were preformed at this location (i.e., the former Parkway Cleaners). The Site is bound to the north, east and west by Parkway Plaza and to the south by currently vacant land that was a mobile home park until 2008 when the trailers were removed. [Note: The property south of the Site is currently being evaluated as part of the New York State Brownfield Cleanup Program (i.e., Canandaigua Brownfield Site Redevelopment Project BCP Site No. C835025). It is understood that this adjacent site will be redeveloped for mixed commercial and residential use (i.e., townhouses and apartments). It is further understood that parking areas for this development are proposed in the area nearest to the Site. In preparation for this development, the property to the south of the Site was cleared of vegetation (including trees) sometime in late 2010 and early 2011.] In 2012, a Chinese Restaurant (The Great Wall Restaurant) occupied the space adjacent to the west of the Parkway Laundry, and a McDonalds Restaurant occupied the property to the west of the Parkway Plaza. During the RI, the space adjacent to the east of the Parkway Laundry has had various occupants including a bank branch with drive through teller, a TCBY restaurant, and it was expanded in 2002 and converted to a Movie Gallery video rental store. In 2012, a Japanese Restaurant occupied the storefront to the east. A Site Plan is included as Figure 2.

1.2 Purpose of Report

The purpose of this report is to present the findings of the studies completed as part of this VCP project to provide an understanding of the subsurface and environmental conditions at the Site pursuant to the development of a Conceptual Site Model. The information obtained during this study was used to: evaluate the nature and extent of contamination related to previous activities conducted at the Site; identify potential routes of exposure and potential receptors and to evaluate the fate and transport of contaminants. In addition, this report describes various Interim Remedial Measures (IRMs) conducted during the RI and the results of this work. Finally,

proposed final remedial activities to address residual contamination present in the soil, soil gas and groundwater at the Site is presented in this report.

1.3 Report Organization

This report is divided into ten sections with Section 2.0 through Section 9.0 presenting the findings of the studies conducted as part of the RI. Section 10.0 presents the proposed remedial activities, which will be implemented to address residual contamination. The contents of Section 2.0 through Section 10.0 are summarized below.

- **Section 2.0 Site Background:** This section presents an overview of the site history and operations at the Site that have resulted in the observed contaminant impacts. In addition, this section identifies the previous studies and remedial activities conducted at the Site.
- **Section 3.0 Remedial Investigation Activities:** This section of the report describes the methods used to evaluate environmental conditions at the Site. Generally, the work conducted included: an evaluation of historic operations/waste disposal practices; review of documentation/maps to evaluate the location and type of buried utilities present in the vicinity of the Site; advancement of test borings and the installation of groundwater monitoring wells; testing of samples of soil, groundwater, and sub-slab vapors/indoor air.
- **Section 4.0 Physical Characteristics of the Site:** This section of the report presents the physical characteristics of the Site such as geology, lithology, hydrogeology, demography and land use.
- **Section 5.0 Nature and Extent of Impact:** The types of contaminants encountered and the distribution of these contaminants within the environmental media are discussed in this section of the report.
- **Section 6.0 Contaminant Fate and Transport:** This section of the report presents information on the fate and transport of contaminants detected at, and in proximity of, the Site. This includes information on potential routes of migration, contaminant persistence, and contaminant migration patterns.
- **Section 7.0 Interim Remedial Measures:** The various remedial activities conducted to date, as IRMs completed in conjunction with the field studies are described in this section. These IRMs included the excavation and removal of impacted soil from the suspected source area, the installation of a sub-slab depressurization system within a portion of the former dry cleaners building, installation of a vapor barrier/passive vent within an adjacent building that was constructed following the soil removal IRM. In addition, pilot testing/limited in-situ treatment of groundwater was conducted on several occasions in an attempt to assess the suitability of such treatment for implementation at the Site, and to further reduce residual groundwater contamination.
- **Section 8.0 Exposure Assessment:** This section of the report summarizes the results of a qualitative human health exposure assessment and a fish and wildlife resources impact analysis conducted as part of this project.

Section 9.0 – Remedial Investigation Conclusions: This section summarizes the findings of the work completed and presents a Conceptual Site Model for the Site that describes the physical characteristics, contaminant migration pathways, the fate and transport of contaminants and the nature and extent of impact. In addition, the effectiveness of the IRMs conducted during the RI is discussed in this section.

Section 10.0 – Recommended Final Remedial Actions: This section identifies the final remedial actions and institutional and engineering controls that are recommended to address the residual contamination that remains following the work conducted to date as part of the RI. This section also identifies the requirements schedule for project close out.

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2.0 SITE BACKGROUND

This section presents a description of the history and operations conducted at the Site and a summary of the previous studies and remedial activities.

2.1 Site History

Parkway Plaza was originally constructed in approximately 1957, and prior to construction of Parkway Plaza (including the Site), the property consisted of vacant undeveloped land. The former Parkway Cleaners began operations some time between 1962 and 1978, and perchloroethene (a/k/a tetrachloroethene, or PCE) was used as a dry cleaning solvent at this location until approximately 1991. The PCE used at the Site was stored in an approximate 100-gallon aboveground storage tank (AST), which was mounted on the roof of the former Parkway Cleaners building. [Note: This AST was removed as part of the soil removal IRM conducted in 2001.]

Based upon an interview conducted in May 2000 with a past manager of the former Parkway Cleaners, the following items were identified with respect to operations conducted at this facility.

- Bulk dry cleaning was performed at the Site and there were three dry cleaning machines that
 were located in the southern end of the building. The backs of the machines were located in
 the Alcove portion of the building and the front of the machines faced outward into the
 Laundromat.
- PCE was the solvent used in the dry cleaning machines and these machines were equipped
 with cooling systems that condensed the PCE vapors that were exhausted from the clothes as
 they dried. Some of the PCE would be lost either by staying on the clothes or through the
 exhaust. Reportedly, very little waste was generated and periodically the PCE in the dry
 cleaning machines had to be replenished.
- Delivery and pickup of PCE solvent was conducted at the south end of the building (i.e., through the Alcove) and customer drop-off and pick-up was at the north end of the building.
- The PCE was stored in an aboveground tank that was located on the roof of the building above the dry cleaning machines. A pipe came off the bottom of the tank, ran into the building behind the machines and terminated as a spigot. The solvent was added to the machines by filling a bucket from the spigot and pouring it into the machines. PCE was not stored in other locations within the building.

Wastewater generated at the Parkway Plaza has been discharged to the municipal sanitary sewer system since the development of the property in 1957. As described above, the dry cleaning equipment for the former Parkway Cleaners was located within an Alcove portion of the building that housed the former Parkway Cleaners. An exterior sediment trap/sump that was connected to the sanitary sewer line was located immediately adjacent to the south side of the Alcove portion of the building. A hole in the concrete block wall of the Alcove portion of the building (i.e., located between the former location of the dry cleaning equipment and the exterior sediment

trap/sump) suggests that the dry cleaning equipment discharged into this sediment trap/sump. The walls of the sediment trap/sump were constructed of concrete block and this structure contained a soil bottom. The studies completed to date determined that the sediment trap/sump was a "source area" of the halogenated volatile organic compound (VOC) impact at the Site. A drawing showing relevant features of the former Parkway Cleaners facility is presented as Figure 3.

2.2 Previous Environmental Studies and Reports

To date, various studies have been conducted to evaluate the nature and extent of contamination at the Site. These studies are summarized in the following documents:

- *Phase I Environmental Site Assessment*, dated June 29, 1998 prepared by IVI Environmental, Inc. (IVI).
- Phase II Environmental Site Assessment, dated August 6, 1998 prepared by IVI.
- Data Package Former Dry Cleaners Parkway Plaza Canandaigua, New York, dated March 1999 prepared by Day Environmental, Inc. (DAY).
- Work Plan Voluntary Cleanup Program Former Parkway Cleaners Portion of Parkway Plaza Canandaigua, New York Index No. B8-0555-99-06, dated June 2000 prepared by DAY (the June 2000 Work Plan).
- INTERIM REMEDIAL MEASURE REPORT: Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, Site Index Number B8-0555-99-06, dated September 2002 prepared by DAY.

Subsequent to the September 2002 report, additional studies have been completed at the Site to assess the effectiveness of remedial activities and characterize subsurface conditions. These studies generally included the installation of additional groundwater monitoring wells and the collection/testing of groundwater and sub-slab and air samples. The work completed and the findings of this work have been summarized in various project status reports and other correspondence submitted to the NYSDEC.

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3.0 REMEDIAL INVESTIGATION ACTIVITIES

This section describes the investigative work conducted and the methods used as part of this project. Generally, this work was done in accordance with the provisions outlined the June 2000 Work Plan. The studies performed included a review of available records pertaining to the types and locations of buried utilities in proximity of the Site that could serve as preferential contaminant pathways, evaluation of groundwater usage in the area of the Site, etc. The field work included the completion of a passive soil gas survey, advancement of test borings, installation of groundwater monitoring wells, evaluation of groundwater flow conditions and hydraulic conductivities, coupled with the collection and testing of soil, groundwater and vapor samples.

Note: The Site is covered with the Parkway Laundry building and asphalt-paved parking areas and concrete sidewalks that surround the building. As such, surface soil is not present on the Site and thus surface soil samples were not collected/tested as part of the remedial investigation.

3.1 Records Review

DAY reviewed utility maps located at the City of Canandaigua and Ontario County offices and based upon this review, the Utility Location map presented as Figure 4 was developed.

DAY conducted research to evaluate if public or private drinking water wells are located in proximity of the Site. This research indicated that there are no supply wells within a 3-mile radius of the Site and that the water source for the City of Canandaigua, including Parkway Plaza and the mobile home park that was formerly located immediately south of the Site (i.e., hydraulically downgradient), is Canandaigua Lake. The water intake for the City of Canandaigua is located more than three miles from the Site. Therefore, the PCE detected at the Site did not appear to represent a threat to drinking water sources.

On August 1, 2001, an evaluation of the AST previously used to store PCE was conducted by DAY. This evaluation indicated that the tank was empty, with the exception of minor scaling on the bottom of the tank. No photoionization detector (PID) readings or odors were noted during the evaluation of the tank and staining was not observed on the exterior of the tank or on the adjacent roof. Piping exiting the tank apparently previously terminated at a spigot located in proximity of the dry cleaning machines formerly located within the building at the Site, however, this piping was not present on August 1, 2001 and the piping appeared to be cut just below the roof of the building. The AST was removed from the Site as part of IRM soil removal activities completed in November/December 2001 (discussed further in Section 7.0).

3.2 Passive Soil Gas Survey

On March 5, 2001, DAY installed nineteen (19) EMFLUX[®] soil gas tubes in locations identified on Figure 5. The soil-gas sampling tube placement and retrieval was conducted in accordance with specifications provided by EMFLUX[®]. On March 8, 2001, the soil-gas tubes were removed from the Site and delivered under chain-of-custody control to Beacon Environmental Services, Inc. (Beacon) to be analyzed for VOCs via USEPA Method 8260. A copy of the report provided by Beacon describing the results of the passive soil gas survey is included in Appendix B.

As shown in the Beacon report, various chlorinated and petroleum-related VOCs were detected in the soil-gas samples, with the highest concentration of VOCs present along the southwestern corner of the former Parkway Cleaners. However, no VOCs were detected in the soil-gas sample located adjacent to the sediment trap/sump (i.e., the assumed source of the contamination).

3.3 Test Borings

Test borings were advanced through overburden in various locations at the Site including some locations within the former Parkway Cleaners building and in select off-site exterior locations. Some of the test borings advanced were completed as groundwater monitoring wells. A summary of the test borings/monitoring wells advanced/installed at the Site is included on Table 1. The location of monitoring wells and test borings installed during the RI are shown on Figure 2 and Figure 6.

Between July 23, 1998 and August 27, 2009, 49 test borings (designated B-1 through B-4, TB-1 through TB-10, TB-10A, TB-10 (MW-4), PPTB-1 through PPTB-9, PPTB-13 through PPTB-15, PPTB-11, PPTB-12, PPTB-12A, MW-1s through MW-3s, MW-1D through MW-3D, MW-2.1s, MW-101s through MW-103s, IP-1 through IP-3, MW-201 through MW-204, TB-301, and TB-302) were advanced as part of this study. In addition to the above test borings, four monitoring points were installed during the backfill of the excavations made during the soil removal IRM. These monitoring points are designated MP-1 through MP-4 and they are included on Table 1 and discussed further in Section 7.0.

3.3.1 Test Boring Advancement and Sampling Techniques

Various parties using several different techniques advanced the test borings and a summary of the work completed is presented below.

- Vehicle-mounted Geoprobe Systems soil sampling equipment was used to advance test borings B-1 through B-4 on July 23, 1998 as part of the Phase II ESA conducted by IVI Environmental.
- Test borings TB-1 through TB-10 were advanced by Zebra Environmental, Corporation using vehicle-mounted Geoprobe Systems sampling equipment on November 5, 1998 and November 6, 1998 as part of a Phase II ESA conducted by DAY.
- Test boring PPTB-1 through PPTB-9 and PPTB-13 through PPTB-15 were advanced by Nothnagle Drilling, Inc. using vehicle-mounted Geoprobe Systems sampling equipment on September 5, 2000 through September 7, 2000.
- Test borings PPTB-10 through PPTB-12A were advanced by DAY using hand-operated Geoprobe Systems sampling equipment on September 7, 2000.
- Test borings MW-1s, MW-2s, MW-3s, MW-1D, MW-2D and MW-3D were advanced by Lyon Drilling Company using vehicle-mounted rotary drill rig between September 4, 2001 and September 7, 2001.

- Test boring MW-2.1s was advanced by Lyon Drilling Company using vehicle-mounted rotary drill rig on September 20, 2004.
- Test borings MW-101s through MW-102s and MW-103s were advanced by Lyon Drilling Company using a vehicle-mounted rotary drill rig on January 29, 2004 and September 16, 2004, respectively.
- Test borings/injection points IP-1 through IP-3 were advanced by SLC Environmental Services using vehicle-mounted Geoprobe Systems sampling equipment on November 29, 2004.
- Test borings MW-201 through MW-204 were advanced by TREC Environmental, Inc. using vehicle-mounted Geoprobe Systems sampling equipment on September 7, 2007.
- Test borings MW-301 and MW-302 were advanced by TREC Environmental, Inc. using vehicle-mounted Geoprobe Systems sampling equipment on August 27, 2009.

Soil samples collected using the hand-operated Geoprobe Systems sampling equipment were collected in two-foot intervals using a macro core soil sampler with a new disposable acetate liner for each sample. Soil samples collected using the vehicle- mounted Geoprobe Systems sampling equipment were collected in four-foot intervals using a large bore soil sampler with a new disposable acetate liner for each sample. Typically, a truck-mounted CME-55 rotary drill rig was used to advance the remaining test borings. Generally, a spilt spoon sampling device driven with a 140-pound hammer free falling 30-inches (i.e., in general accordance with ASTM 1586) was used to collect soil samples in two-foot intervals in test borings advanced by rotary methods. Following collection of the split spoon soil sample, the test boring was advanced to the next sample interval using hollow stem augers. Equipment refusal was not encountered in any of the test borings advanced and the test borings were terminated at depths ranging between 2.3 feet (ft.) below the ground surface (bgs) (TB-10) and 57 ft. bgs (MW-3D). In general, soil samples were continuously collected throughout the soil column.

With the exception of test borings B-1 through B-4, a DAY representative observed the soil samples recovered from the test borings in order to develop a stratigraphic description of the subsurface conditions encountered and to evaluate the recovered samples for evidence of suspect contamination (e.g., staining, unusual odors, etc.). Portions of the recovered samples were also screened with a photoizonization detector (PID). The DAY representative recorded pertinent information for each test boring and subsequently prepared test boring logs. Copies of the test boring logs are included in Appendix C.

Drilling equipment was cleaned prior to arriving on the Site. Re-usable drilling and sampling equipment that came into contact with overburden materials (e.g., spilt spoon sampling devices) were decontaminated on-site prior to each use. The decontamination procedure included alconox (soap) and tap water wash and a tap water rinse. Decontamination fluids and spoil material that was either obviously impacted or could not be replaced in a test boring because the boring was converted to a monitoring well were transferred to New York State Department of Transportation (NYSDOT)-approved 55-gallon drums. These drums were labeled and staged on-site and subsequently disposed as study-derived waste as described in the June 2000 Work Plan. The boreholes not completed as groundwater monitoring wells were backfilled with soil

cuttings and/or bentonite and concrete or asphalt patch was placed in the upper one foot of test borings advanced through the building floor or asphalt parking, respectively.

3.3.2 Laboratory Analysis of Soil Samples

Selected soil samples collected during this study were submitted under chain-of-custody control to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory for testing and these samples are listed below.

- Samples collected on July 23, 1998: B-1 (2'-4'), B-2 (3'5'), B-3 (2'-4'), and B-4 (1'-3')
- Samples collected on November 5, 1998 and November 6, 1998: TB-1 (10'-12'), TB-3 (6'-8'), TB-7 (12'-13'), and TB-9 (8'-9'), Sump
- Samples collected September 5, 2000 through September 7, 2000: PPTB-1 (4'-6), PPTB-1 (12'-16'), PPTB-2 (13'-16'), PPTB-3 (4'-8'), PPTB-4 (3'-8'), PPTB-5 (8'-12'), PPTB-6 (4'-8'), PPTB-6 (12'-16'), PPTB-7 (3'-8'), PPTB-7 (28'-32'), PPTB-8 (4'-8'), PPTB-8 (36'-40'), PPTB-9 (16'-18'), PPTB-10 (0'-2'), PPTB-11 (6'-8'), PPTB-12A (4'-6'), PPTB-12A (8'-10'), PPTB-13 (21'-22'), PPTB-13 (12'-14'), PPTB-14 (4'-8'), PPTB-14 (20'-24'), PPTB-15 (23'-24'), and PP-SUMP
- Samples collected December 5, 2000 from soil stockpiles generated during the soil removal IRM: TCBY Pile (0-2'), TCBY Pile Center (4-6'), TCBY Pile NE (0-2'), TCBY Pile Composite, 0-5 Pile Composite, 0-5 Pile Center (0-2'), Sump (0-2'), 0-5 Pile (0-2') MS/MSD, 5-50 Pile Composite, 5-50 Pile Center (0-2'), 50-100 Pile Composite and 50-100 Pile W (0-2')
- Samples collected February 24, 2002 from soil stockpiles generated during the soil removal IRM: TCBY NE, TCBE E-Center, TCBY NW, TCBY W-Center, TCBY SE, TCBY SW, 0-5 NW, 0-5 SE, 5-50 W-Center, 5-50 E-Center, 50-100 Center, 50-100 SE, 50-100 NE, 50-100 SE and 50-100 NE
- IRM Confirmatory Samples: East Wall Primary, Bottom East Primary, West Wall Primary, Bottom West Primary, North Wall Primary, South Wall Primary, Bottom West Secondary, West Wall Secondary, South Wall Secondary, Secondary North Wall, and Bottom East Secondary

The analytical laboratory testing program for the soil samples tested during this study is included on Table 2. Copies of analytical laboratory reports and executed chain-of-custody documentation for the soil samples tested are included on a compact disc included in Appendix D. The PID measurements obtained above the soil samples collected from the test borings are summarized on the test boring logs presented in Appendix C and maximum PID readings are summarized on Figure 10. The tables included in Appendix E present a summary of the VOCs detected in the soil samples tested during this study. In addition, the analytical laboratory results presented in the tables included in Appendix E are compared to applicable Standard, Criteria and Guidance (SCG) values. Specifically, the soil test results are compared to the unrestricted use, protection of groundwater, and restricted commercial use (i.e., the most appropriate scenario for the Site) Soil Cleanup Objectives (SCOs) in 6 NYCRR Part 375-6.8(a) and (b).

3.4 Monitoring Well Installation

During the various studies completed at the Site, groundwater monitoring wells were installed, including 1-inch diameter wells installed in direct-push test borings, 2-inch diameter wells installed within test borings advanced by rotary drilling methods and 6-inch diameter monitoring points installed during the backfilling of the excavations completed as the soil removal IRM. The locations of the monitoring wells installed at the Site are depicted on Figure 2.

1-inch Diameter Monitoring Wells

Selected test borings advanced by direct-push drilling techniques were subsequently competed as nominal 1-inch diameter groundwater monitoring wells. These include:

- MW-1: installed in test boring TB-1 on 11/5/1998 with a screened interval between 10 ft. bgs and 16 ft. bgs; located within the parking lot south of the former Parkway Cleaners building (i.e., in proximity of the former sediment trap/sump discharge area). MW-1 was decommissioned in December 1998.
- MW-2: installed in test boring TB-2 on 11/5/1998 with a screened interval between 9 ft. bgs and 14 ft. bgs; located in the parking lot east of the Alcove portion of the former Parkway Cleaners building. MW-2 was decommissioned during IRM paving.
- MW-3: installed in test boring TB-6 on 11/5/1998 with a screened interval between 11 ft. bgs and 16 ft. bgs; located in the parking lot southeast of the former Parkway Cleaners building and adjacent to the southern property line of the Site. This monitoring well remains, but it may be partially plugged and not functional.
- MW-4: installed in test boring TB-10 on 11/6/1998 with a screened interval between 11 ft bgs and 15 ft bgs; located in the parking lot south of the former Parkway Cleaners building and in proximity of the southern property line of the Site.
- MW-1s: installed in test boring MW-1s on 9/4/2001with a screened interval between 3 ft. bgs and 13 ft. bgs; located near the center of the parking lot south of the former Parkway Cleaners and in proximity to MW-1D (i.e., screened section installed between 49.5 ft. bgs and 54.5 ft. bgs).
- MW-2s: installed in test boring MW-2s on 9/4/2001 with a screened interval between 3 ft bgs and 13 ft bgs; located in the parking lot on the north side of the former Parkway Cleaners. Monitoring well MW-2s was destroyed during the re-paving of the northern parking lot and it was replaced by MW-2.1s on 9/20/2004.
- MW-3s: installed in test boring MW-3s on 9/4/2001 with a screened interval between 3 ft. bgs and 13 ft. bgs; located in the parking lot near the southwestern corner of the former Parkway Cleaners.
- IP-1: installed in test boring IP-1 on 11/29/2004 with a screened interval between 4 ft. bgs and 14 ft. bgs; located in the parking lot southwest of the former Parkway Cleaners and near the western property line of Parkway Plaza.
- IP-2: installed in test boring IP-2 on 11/29/2004 with a screened interval between 4 ft. bgs and 14 ft. bgs; located in proximity to MW-3D.

- IP-3: installed in test boring IP-3 with a screened interval between 4 ft. bgs and 14 ft. bgs; located in proximity to MW-101s.
- MW-201: installed in test boring TB-201 on 9/7/2007 with a screened interval between 10 ft. bgs and 15 ft. bgs; located in the parking lot generally west of the former Parkway Cleaners and adjacent to the western property line of Parkway Plaza.
- MW-203: installed in test boring TB-203 on 9/7/2007 with a screened interval between 4 ft. bgs and 19 ft. bgs; located off-site in a currently vacant field (formerly the trailer park) southwest of the former Parkway Cleaners. Monitoring well MW-203 was destroyed when the land was cleared of vegetation (including trees) sometime in late 2010 and early 2011 by the adjacent property owner.
- MW-204: installed in test boring TB-204 on 9/7/2007 with a screened interval between 6 ft bgs and 16 ft. bgs; located off-site in a currently vacant field (formerly the trailer park) south of the former Parkway Cleaners.
- MW-301: installed in testing boring TB-301 on 8/27/2009 with a screened interval between 10.0 ft. bgs and 15.0 ft. bgs; located off-site in a currently vacant field (formerly the trailer park) southwest of the former Parkway Cleaners (i.e., in a location approximately midpoint between MW-203 and MW-204). Monitoring well MW-301 was destroyed when the land was cleared of vegetation (including trees) sometime in late 2010 and early 2011 by the adjacent property owner.
- MW-302: installed in test boring TB-302 on 8/27/2009 with a screened interval between 10.0 ft. bgs and 15.0 ft. bgs; located off-site in a currently vacant field south of the McDonalds property, which is located immediately to the west of Parkway Plaza.

The above monitoring wells were constructed of a pre-cleaned flush-coupled nominal 1-inch inside diameter (ID) No. 10 slot Schedule 40 polyvinyl chloride (PVC) well screen attached riser casing of the same material. To the extent possible, the well installation included a washed and graded sand pack surrounding the screen, and extending approximately 0.5 to 2.0 ft above the well screen. A minimum two-foot bentonite seal was placed above the sand pack and the remaining annulus was filled with a cement/bentonite seal. The above monitoring wells were completed with a protective curb box installed at the ground surface. Monitoring well installation diagrams are included in Appendix C.

2-inch Diameter Monitoring Wells

Test borings advanced using rotary drilling techniques that were completed as 2-inch ID groundwater monitoring wells include:

• MD-1D: installed in test boring MW-1D on 9/5/2001 to a depth of 54.5 ft bgs with a screened interval between 49.5 ft bgs and 54.5 ft bgs; located on the southeastern portion of the Site in proximity to MW-1S. The protective cover of this monitoring well is broken and the gate box is filled with sediment. The function of this well is unknown.

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- MW-2D: installed in test boring MW-2D on 9/2/2001 with a screened interval between 37.0 ft. bgs and 42.0 ft. bgs; located in proximity to MW 2.1S. This well was abandoned when the parking lot on the north side of the Parkway Plaza was re-paved.
- MW-3D: installed in test boring MW-3D on 9/7/2001 with a screened interval between 51.0 ft. bgs and 56.0 ft. bgs; located in the central portion of the parking lot south of the former Parkway Cleaners in proximity to IP-2. This monitoring well may be plugged.
- MW-2.1s: installed in test boring MW-2.1s on 9/20/2004 with a screened interval between 2 ft. bgs and 12 ft. bgs; located adjacent to MW-2S, which it replaces.
- MW-101s: installed in test boring TB-101s on 1/29/2004 with a screened interval between 4 ft. bgs and 14 ft. bgs; located in the central portion of the parking lot south of the former Parkway Cleaners in proximity to IP-1.
- MW-102s: installed in test boring TB-102s on 1/29/2004 with a screened interval between 4 ft. bgs and 14 ft. bgs; located in the parking lot southeast of the former Parkway Cleaners.
- MW-103s: installed in test boring MW-103s on 9/16/2004 with a screened interval between 3 ft. bgs and 13 ft. bgs; located in the parking lot southwest of the former Parkway Cleaners and adjacent to the southern and western property lines of Parkway Plaza.

The above monitoring wells were constructed of a pre-cleaned flush-coupled 2-inch ID No. 10 slot Schedule 40 PVC well screen with attached riser casing of the same material. The well installation included a washed and graded sand pack surrounding the screen, and extending approximately 0.5 to 2.0 ft above the well screen. A minimum two-foot bentonite seal was placed above the sand pack and the remaining annulus was filled with cement/bentonite. The above monitoring wells were completed with a protective curb box installed at the ground surface. Monitoring well installation diagrams are included in Appendix C.

6-inch Diameter Monitoring Points

During the backfilling of the excavations completed during the soil removal IRM (refer to section 7.0) 6-inch ID PVC groundwater monitoring points were installed and these include:

- MP-1: installed to a depth of 19.4 ft. bgs with a 10-foot long screened interval.
- MP-2: installed to a depth of 19.3 ft. bgs with a 10-foot long screened interval.
- MP-3: installed to a depth of 19.0 ft. bgs with a 10-foot long screened interval.
- MP-4: installed to a depth of 16.0 ft. bgs with a 10-foot long screened interval.

The monitoring points were completed with a protective curb box installed at the ground surface.

Monitoring Well Development

Well development was typically performed utilizing dedicated polyethylene bailers and dedicated cord in accordance with the procedures outlined in the June 2000 Work Plan. No fluids were added to the wells during development and well development monitoring equipment was decontaminated prior to development of each well. In general, the well development

continued until: (i) the wells were purged to dryness; or (ii) a minimum of three well volumes was removed, and stabilized in-situ readings of pH, specific conductivity and turbidity were observed. Copies of select well development logs are included in Appendix F.

Groundwater removed from the wells during development was visually checked for the presence of non-aqueous phase liquid (NAPL); however, NAPL was not observed to be present in development water collected from any of the aforementioned monitoring wells.

Hydraulic Conductivity Testing

On January 24, 2002, the depth to water within monitoring wells MW-1D, MW-2s, and MW-3s was measured. Thereafter a solid slug of known volume (i.e., length of PVC pipe filled with concrete and capped at each end) was introduced into each well ("slug in") and subsequently extracted ("slug out"). At the instant the "slug" is introduced or removed from the well, depth to water measurements were collected using a static water level meter. Depth to static water level was recorded every 10 seconds for the first two minutes. After two minutes, depth to static water level was measured every 30 seconds, and then every one-minute to five minutes thereafter. The data from each slug test was then input into Super Slug, an aquifer slug test analysis software program, and evaluated using the Bouwer and Rice evaluation method. The results of the hydraulic conductivity testing from the slug tests are provided in Appendix G.

Survey and Groundwater Elevations

The locations of the monitoring wells installed during this study were determined in the field by tape measuring from fixed locations on the buildings at the Site. James Parker LS, a licensed surveyor, surveyed the ground surface and well casing elevations to an assumed datum of 100.00 feet. At various times during the study, DAY measured static water levels in the monitoring wells and the static water level/calculated groundwater elevations are summarized in Table 3. In addition, the calculated groundwater elevations were used to develop groundwater contour maps. Copies of selected groundwater contour maps depicting various seasonal conditions are included in Appendix H.

3.5 Groundwater Sampling

Groundwater samples were collected from select wells at various times as part of this project. Copies of sampling logs for the groundwater monitoring events are included in Appendix F.

Various methodologies were used to obtain groundwater samples. During initial phases of this project, the samples were typically collected using disposable bailers to purge and sample the wells. This process generally consisted of using a disposable PVC bailer attached to a nylon or polypropylene cord to initially purge each well of approximately three well volumes of standing water, or until dry. Following purging, the well was allowed to recharge to a minimum of 90% of its static water level and samples were collected for subsequent testing. Sample containers provided by the analytical laboratory were filled and additional samples were collected for insitu water quality measurements (e.g., pH, turbidity, conductivity, etc.). Prior to and during purging, a Heron Oil/Water Interface Meter Model H.O1L was used to evaluate the groundwater within the monitoring wells for the presence of NAPL.

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During subsequent sampling events, samples were collected using low-flow sampling procedures, which generally consisted of procedures described in ASTM D6771-02, "Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations" and as outlined below:

- In order to reduce the potential re-suspension of solids in the bottom of the well, well depths were <u>not</u> measured prior to or during low-flow purging and sampling. Well depth information was being obtained from: 1) measurements collected during well development; 2) well logs; or 3) measurements after sampling is completed.
- Prior to purging and sampling, static water level measurements were taken from each well using a Heron Model HO1.L oil/water interface probe or similar instrument.
- A portable bladder pump connected to new disposable polyethylene tubing was lowered and positioned at or slightly above the mid-point of the well screen when the screened interval is set in relatively homogeneous material. When the screened interval was set in heterogeneous materials, the pump was positioned adjacent to the zone of highest hydraulic conductivity (as defined by geologic samples). Care was taken to install and lower the bladder pump slowly in order to minimize disturbance of the water column.
- The pump was connected to a control box operated on compressed gas (nitrogen, air, etc.) and capable of varying pumping rates. An in-line flow-through cell was attached to a Horiba U-22 water quality meter (or similar equipment) and the bladder pump effluent tubing to measure water quality data.
- The pump was started at a low pumping rate of 100 ml/min or less. The water level in the well was measured and the pump rate adjusted (i.e., increased or decreased) until the drawdown is stabilized. In order to establish the optimum flow-rate for purging and sampling, the water level in the well was measured on a periodic basis (i.e., every one or two minutes) using an electronic water level meter or the Heron Model HO1.L oil/water interface meter (or equivalent). The pumping rate did not exceed 500ml/min during purging. When the water level in the well was stabilized (i.e., use goal of < 0.33 ft of constant drawdown), the water level measurements were collected less frequently.
- While purging the well at the stabilized water level, water quality indicator parameters were monitored on a three to five minute basis with a Horiba U-22 water quality meter (or similar equipment). Water quality indicator parameters were considered stabilized after three consecutive readings for each of the following parameters were generally achieved:
 - pH (\pm 0.1);
 - Specific Conductance (+ 3%);
 - Dissolved Oxygen (DO) (± 10 %);
 - Oxidation-Reduction potential (ORP) (± 10 mV);
 - Temperature (\pm 3%); and
 - Turbidity (+ 10%, when turbidity is greater than 10 NTUs)

Following stabilization of the water quality parameters, the flow-through cell was disconnected
and a groundwater sample was collected from the bladder pump effluent tubing. The pumping
rate during sampling remained at the established purging rate or adjusted downward to
minimize aeration, bubble formation, or turbulent filling of sample containers. A pumping rate
below 250 ml/min was used when collecting VOC samples.

Prior to use and between wells, the portable bladder pump and other reusable equipment (e.g., support cable) that come in contact with groundwater was decontaminated using the following procedures:

- A wash in a mixture of potable water and Alconox[®]-type soap;
- A rinse of the pump until soap is no longer visible; and
- A rinse of the pump with distilled water and allowing the cleaned equipment to air dry or drying with a paper towel.

During the sampling events conducted on: February 11, 2009; May 27, 2009; September 22, 2009; and January 7, 2010 passive diffusion bag (PDB) samplers were deployed to collect groundwater samples for subsequent analytical laboratory testing. The PDB samplers were deployed and retrieved as outlined below.

- ☐ The well depth was measured and compared to the measured the reported depth to the bottom of the well.
- □ A stainless-steel weight was attached to the end of the line selected to hold the PDB samplers. Sufficient weight was added to counterbalance the buoyancy of the PDB samplers.
- □ The distance from the bottom of the well to the midpoint of the PDB sampler was calculated and the PDB hanger assemblies were installed in the appropriate locations.
- □ The PDB was filled with analyte-free water and excess bubbles were removed from the sampler as the PDB sampler was filled to capacity.
- □ The PDB samplers were attached to the weighted line utilizing the hanger assembly and lowered down the well to the desired depth.
- □ The assembly was secured to the top of the well by attaching the retrieval line to the well cap.
- □ The system was allowed to remain undisturbed as the PDB samplers equilibrated for minimum of 10 days.

Recovery of PDB samplers was accomplished using the following approach:

□ The PDB samplers were removed from the well using the attached weighted assembly line. During retrieval care was taken to minimize PDB exposure to heat and agitation.

- □ As the samplers were removed, the surface of the PDB sampler was observed for evidence of algae, iron or other coatings, and for tears in the membrane. [Note: No such impairments were observed on the PDB samplers retrieved during this study.]
- □ The PDB sampler was removed from the weighted line and excess liquid was allowed to drain from the exterior of the bag to reduce the potential for cross contamination.
- □ The water from the PDB samplers was transferred to 40-mL VOC vials provided by the analytical laboratory.
- □ Remaining water in the PDB samplers was retained for testing of in-situ parameters of pH, oxygen reduction potential (ORP), and specific conductivity using a Horiba U-22 water quality meter (or similar equipment).

Prior to and upon the retrieval of the PDB samplers, groundwater levels were monitored with and electronic tape water level indicator. A YSI model 550A Dissolved Oxygen Probe with a 25-foot long cord was used to measure dissolved oxygen (DO) levels within the monitoring well after the PDB samplers were removed.

3.5.1 Test Results: Groundwater Samples

The groundwater samples collected during this study were tested in the field for pH, specific conductivity, ORP, DO, temperature, etc. and in the analytical laboratory for various parameters as identified on Table 2. Copies of the analytical laboratory reports and chain-of-custody documentation are included in Appendix D. A summary of the VOCs detected in the groundwater samples tested during this study is presented in Table 4.

3.6 Sub-Slab and Air Testing

On March 8, 2001 and March 14, 2001, air samples were collected using summa air canisters to measure the concentration of VOCs in the interior and exterior air at the Site prior to the soil removal IRM. One interior air sample was collected during the night (i.e., when the building was not occupied) and the other interior air sample was collected during the day (i.e., while customers were present in the building). In addition, an exterior air sample was collected from the Site to function as a background sample. The interior "night" sample was collected from 3:07 AM to 5:07 AM on March 8, 2001, the outdoor sample was collected from 8:55 AM to 10:55 AM on March 8, 2001, and the indoor "day" sample was collected from 10:50 AM to 12:50 PM on March 14, 2001. The former Parkway Cleaners was scheduled to receive a shipment of dry cleaned clothing on March 8, 2001. Thus, the indoor "day" sample was collected at a later date to avoid the possibility of the summa canister recording false positive readings due to the presence of residual dry cleaning solvents on clothing. The locations of the pre-remediation air samples are shown on Figure 7.

Subsequent to air sampling, the summa canisters were shipped under chain-of-custody control to Performance Analytical, Inc. (Performance) in Simi Valley California to be analyzed for VOCs using USEPA Method TO-15. The results of this testing are included in Appendix D.

The NYSDEC requested that additional air samples be collected from the Site to establish background PCE conditions prior to the IRM soil removal. Thus on November 20, 2001 (prior to

the IRM soil removal activities), DAY conducted air badge sampling in predetermined locations at the Site. The NYSDEC-approved air badge sample locations are presented on Figure 7. The air badges were exposed for eight hours, then sealed and sent under chain-of-custody control to Galson Laboratories to be analyzed for PCE. These test results are included in Appendix D.

Sampling and testing of sub-slab and indoor/outdoor air samples was also conducted on April 4, 2007 and April 5, 2007. This vapor intrusion study was conducted in the western portion of the Parkway Plaza strip plaza building within the portion of the building occupied, at the time, by Parkway Laundry (i.e., the former Parkway Cleaners), The Great Wall Restaurant, and a video rental store (Movie Gallery). This study included the collection of a sub-slab sample, an adjacent indoor air sample from each of the above locations, and an additional outdoor air sample to serve as a background sample. The samples collected were submitted to a NYSDOH ELAP certified analytical laboratory, and tested for selected VOCs via USEPA Method TO-15. Specifically, each sample was tested for the following parameters:

- Tetrachloroethene (PCE);
- Trichloroethene (TCE);
- cis-1,2-Dichloroethene (cis-1,2-DCE);
- trans-1,2-Dichloroethene (trans-1,2-DCE);
- 1,1-Dichloroethene (1,1-DCE); and
- Vinyl Chloride (VC).

A report titled *Vapor Intrusion Evaluation Report, Former Parkway Cleaners, Parkway Plaza, Canandaigua, New York, NYSDEC Site #00238-8* dated May 8, 2007 prepared by DAY and submitted to the NYSDEC. This report summarizes the work completed as part of the evaluation completed in April 2007 and the findings of this work. A copy of a portion of this report is presented in Appendix I.

3.7 Quality Assurance/Quality Control and Reporting

Specific QA/QC measures implemented during this RI are outlined below:

- During sampling activities, personnel used disposable nitrile gloves. Between the collection of each sample, personnel performing the sampling discarded used nitrile gloves and put on new nitrile gloves.
- Samples retained for testing were placed in new laboratory-grade sample containers provided by the analytical laboratory. The samples were collected with zero headspace when VOC analysis was to be performed. Efforts were made to obtain a sufficient volume (i.e., as specified by the analytical laboratory) to ensure that the laboratory had adequate sample to perform the specified analyses.
- Samples that were collected as part of the project were handled using chain-of-custody control and this documentation accompanied samples from their inception to their analysis. Executed copies of the chain-of-custody documentation are included with the laboratory reports.

- The laboratory analyzed the samples using the lowest practical quantitation limits (PQL) possible. The laboratory that performed the analyses provided internal QA/QC data that are required by NYSDEC ASP protocol.
- Sample holding times and preservation protocols were adhered to during this project, unless otherwise noted. Soil samples were reported on a dry-weight basis.

In order to provide control over the collection, analysis, review, and interpretation of data generated by the analytical laboratories, QA/QC samples were collected/tested in conjunction with some of the soil, groundwater and vapor/air samples tested during this study. The laboratory reports that include these QA/QC samples are included in Appendix D. As outlined in the June 2000 Work Plan, the following types of QA/QC samples were collected and analyzed as part of this project:

- Trip blanks accompanied shipments that contained liquid samples that were analyzed for VOCs using ASP Method 95-1 or using USEPA Method 8021.
- A trip blank accompanied the shipment of the EMFLUX soil-gas collector tube samples analyzed for VOCs.
- Matrix spike/matrix spike duplicate (MS/MSD) were generally analyzed for each 20 samples of each matrix (i.e., soil, groundwater, etc.). Specific parameters that MS/MSD samples were tested for depended upon the test parameters of the samples that were analyzed.
- A field blank sample was analyzed for VOCs via USEPA Method 8260 for each 20 soil collector tubes tested and a rinsate sample was collected and analyzed for full TCL/TAL using applicable ASP Methods.

Data Usability Summary Report

Data Usability Summary Reports (DUSRs) were prepared for some of the data generated during this study in accordance with protocol applicable at the time the data was generated and the DUSR was prepared. Specifically, DUSRs were prepared for the following sampling events/data sets.

- Data Validation Services (DVS) prepared a DUSR for the data package generated by York Analytical Laboratories, Inc. (York) pertaining to soil samples collected December 5, 2001. Twelve samples were submitted for analysis for volatiles by NYSDEC ASP CLP 95-1. The DUSR report was generated from a review of the summary form information, with limited review of sample raw data, and some review of associated quality control raw data. Full validation was not performed. The scope of the DUSR covered: laboratory narrative discussion, custody documentation, holding times, surrogate and internal standard recoveries, matrix spike recoveries and duplicate correlations, preparation and calibration blanks, control spike and laboratory control samples, instrument tunes, calibration standards, and instrument IDLs.
- A DUSR was prepared by DVS for the data package generated by Columbia Analytical Services (CAS) pertaining to groundwater samples collected January 25, 2002. Six

samples, MW-1D, MW-1s, MW-2D, MW-2s, MW-3D, and MW-3s were submitted for analysis for volatiles by NYSDEC ASP CLP 95-1. The DUSR report was generated from a review of the summary form information, with limited review of sample raw data, and some review of associated quality control raw data. Full validation was not performed. The scope of the DUSR covered: laboratory narrative discussion, custody documentation, holding times, surrogate and internal standard recoveries, matrix spike recoveries and duplicate correlations, preparation and calibration blanks, control spike and laboratory control samples, instrument tunes, calibration standards, and instrument IDLs.

- A DUSR was prepared by DVS for the data package generated by York pertaining to soil samples collected February 4, 2002. Fifteen samples were submitted for analysis for volatiles by NYSDEC ASP CLP 95-1. The DUSR report was generated from a review of the summary form information, with limited review of sample raw data, and some review of associated quality control raw data. Full validation was not performed. The scope of the DUSR covered: laboratory narrative discussion, custody documentation, holding times, surrogate and internal standard recoveries, matrix spike recoveries and duplicate correlations, preparation and calibration blanks, control spike and laboratory control samples, instrument tunes, calibration standards, and instrument IDLs.
- A DUSR was prepared by Hope Kilmer, CHMM for the data package generated by Paradigm Environmental Services, Inc. (Paradigm) pertaining to Air samples collected April 5, 2007. Six sample canisters, IA-1, SSV-1, IA-2, SSV-2, IA-3, SSV-3, and BG-1 were submitted for analysis for volatiles by EPA Method TO-15. The DUSR report was generated from a review of the data package (which does not contain full deliverables for validation), with a review of sample raw data, and limited review of internal calibration data. Full validation was not performed. The scope of the DUSR covered: laboratory narrative discussion, custody documentation, holding times, preparation and calibration blanks, instrument tunes, and calibration standards.
- A DUSR was prepared by Hope Kilmer, CHMM for the data package generated by Mitkem Corporation (Mitkem) pertaining to groundwater samples collected between September 24, 2007 and September 25, 2007. Samples designated MW-2.1, MW-201, MW-203, MW-204, MP-1, MP-3, MW-1s, MW-3s, MW-101s, MW-102s, MW-103s, and duplicate 9/07, were submitted for analysis for volatiles by NYSDEC ASP OLM 4.2. The DUSR was generated from a review of the summary form information, with review of sample raw data, and review of associated Quality control raw data. The scope of the DUSR covered: laboratory narrative discussion, custody documentation, holding times, surrogate and internal standard recoveries, matrix spike recoveries and duplicate correlations, preparation and calibration blanks, control spike and laboratory control samples, instrument tunes, and calibration standards.

Copies of the above DUSRs are included with the analytical laboratory reports presented in Appendix D.

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4.0 PHYSICAL CHARACTERISTICS OF THE SITE

This section presents a discussion of the physical setting of the Site and vicinity including a discussion of land and water usage, surface features/conditions, geologic setting and groundwater conditions.

4.1 Topography

The Site is located at latitude (north) 42° 53.6' and longitude (west) 77° 16.0' and the ground surface elevation at the Site is approximately 690^{\pm} ft. above sea level (USGS Datum). The ground surface at the Site and the surrounding area is relatively level with a gentle slope generally to the south and southwest. Ground surface elevations (i.e., based on the arbitrary datum established for the Site) across, and in the vicinity of, the Site vary from a high of 99.16 ft. (MW-2.1S) to a low of 98.04 ft. (MW-302), which represents a difference in elevation of 1.12 ft. over a distance of 182 ft.

4.2 Geologic Setting

Based on a review of the *Geologic Map of New York: Finger Lakes Sheet* compiled and edited by Lawrence V. Rickard and Donald W. Fisher dated March 1970, bedrock underlying the overburden deposits in proximity to the Site consists of the Skaneateles Formation belonging to the Hamilton Group of the Middle Devonian, Paleozoic Era. The bedrock is flat laying sedimentary rock comprised primarily of soft shale and siltstone. The depth to bedrock in the vicinity of the Site is in excess of 57 ft. bgs (i.e., the depth of the deepest test boring advanced during this study).

According to the *Ontario and Yates Counties, New York Soil Survey, United States Department of Agriculture Soil Conservation Service*, 1958, soil at the Site is listed as Sloan silt loam (Sk). This soil is identified as a poorly drained alluvial deposit occurring at slopes of between 0 and 1 percent. [Note: It appears that the area of the Site was modified subsequent to the data collection used to develop the soil survey by the placement of fill material, some of which is more permeable.]

Based on a review of the New York State Geological Survey, *Surficial Geologic Map of New York – Finger Lakes Sheet*, E.H Muller and D.H. Cadwell, 1986, soil in the area of the Site is predominantly lacustrine silt and clay that was deposited in proglacial lakes. These deposits are generally laminated and of variable thicknesses of up to 50 meters (about 165 ft.).

The geologic conditions identified at the Site based upon the explorations completed to date are summarized below.

• The ground surface of the Site is predominately paved with asphalt or covered with concrete (i.e., including the former Parkway Cleaners building). Heterogeneous fill consisting primarily of reworked soil intermixed with trace amounts of brick underlies the asphalt and concrete. Some organics and wood were observed near the bottom of the fill, which may be indicative of the top of the ground surface prior to filling. The fill at the Site extends to an average depth of approximately 8 ft. bgs.

- The indigenous soil beneath the fill generally consists of alternating layers of silt, silty sand and silty clay extending to an approximate depth of 13 ft. to 14 ft. bgs. Thereafter a 25⁺-foot thick silty clay deposit extending to depths of 33.5 ft. to 49 ft. bgs was encountered above a sand and gravel deposit that contains some varves/layers of silt. Test borings were advanced to a maximum depth of 57 ft. bgs during the RI without penetrating the entire thickness of the sand and gravel deposit or encountering bedrock.
- The screened section of the "shallow" monitoring wells installed at the Site is above the silty clay deposit. The well screens of the "deep" monitoring wells installed at the Site are sealed below the silty clay deposit (i.e., within the sand and gravel deposit).

Geologic cross section A-A', running generally from north to southwest across the Site (i.e., in the direction of the most common groundwater flow direction), and geologic cross section B-B', running from west to east near the southern boundary of the Site, depict subsurface conditions. Geologic cross section A-A' and B-B' are presented as Figure 8 and Figure 9, respectively.

4.3 Hydrogeology

Based on field observations, surface water flows via sheet flow off the asphalt parking lot generally to the south or to storm sewer inlets within the parking lot.

A Principal water-supply aquifer is not located in proximity of the Site. Per the United States Department of the Interior Geological Survey, Water-Resources Investigations Report #87-4122, *Unconsolidated Aquifers in Upstate New York (Finger Lakes Sheet)*, a confined aquifer is located beneath the Site. This aquifer is comprised of sand and gravel deposits deemed capable of producing between 5 and 500 gallons per minute. However, this aquifer is separated from an overlying unconfined surficial aquifer by impermeable fine-grained deposits of silt and clay.

Regionally groundwater flow is generally to the south-southwest toward Canandaigua Lake, which is located approximately 825 ft. (0.15 miles) south of the Site. Localized variations in groundwater flow are likely due to buried utilities, the Canandaigua Outlet, Canandaigua Feeder Canal and/or other features.

The depth to groundwater at the Site varies seasonally, but groundwater was typically encountered beginning at depths of about 3 ft. to 5 ft. bgs in the "shallow" monitoring wells installed during this study. Groundwater was measured at depths of about 5 ft. and 9 ft. bgs in the "deep" monitoring wells installed during this study. Average hydraulic conductivities were measured in the "shallow" monitoring wells tested at values between 4.8×10^{-5} cm/sec and 7.4×10^{-5} cm/sec and an average hydraulic conductivity of 1.56×10^{-4} cm/sec was measured in the "deep" monitoring well tested. These values are consistent with published values for silty clay to silty sand as referenced in Groundwater by R. Allan Freeze & John A. Cherry, 1979.

Based upon measurements made at various times during this study, the average hydraulic gradient between the "shallow" monitoring wells ranged between about 0.01 ft./ft. and 0.02 ft./ft. Using the range of calculated hydraulic conductivities and average horizontal gradients and an estimated porosity of 0.40 (i.e., as referenced in <u>Groundwater</u>, by R. Allan Freeze & John A., Cherry, 1979), the "shallow" groundwater flow at the Site was calculated to range between about

0.004 ft./day and 0.011 ft./day. More permeable material such as fill above the native soil, fill used within utility trenches and/or interbedded fine sand, could result in more rapid transport of the groundwater and dissolved constituents.

In locations where shallow and deep monitoring wells installed in proximity to one another (i.e., MW-1s and MW-1D), downward hydraulic gradients ranging from approximately 0.04 ft./ft. and 0.09 ft./ft. were calculated.

Although groundwater flow patterns vary seasonally, groundwater flow measured in the "shallow" monitoring wells is generally to the south/southwest. The groundwater flow measured in the "deep" monitoring wells is generally to the north and northeast. Groundwater contour maps developed at various times during this study for the "shallow" monitoring wells are included in Appendix H.

4.4 Demography, Land Use and Water Use

The Site is located in the City of Canandaigua, Ontario County, New York. According to the 2000 census listed by the U.S. Census Bureau, the City of Canandaigua had a population of 11,264 and the population of Ontario County was reported as 100,224. According to the 2010 census, the City of Canandaigua had a population of 10,545 and the population of Ontario County was reported to be 107,931.

The Site is located in a suburban setting within the Parkway Plaza, which is a strip plaza on 12.78 acres of land. The plaza is improved with a large building housing various tenants and several out buildings. The buildings within Parkway Plaza are slab-on-grade construction. The exterior portion of the Parkway Plaza is improved with asphalt paved parking lots/roads and concrete sidewalks with limited landscaped areas.

The Site is serviced by a public water system and public sanitary sewer systems. No groundwater supply wells are located within a 3-mile radius of the Site. The Site and immediate area are designated as zone C-3 (Heavy Commercial District) by the City of Canandaigua Office of Development and Planning.

There are no surface water bodies on or adjoining the Site. Canandaigua Lake is located approximately 825 ft. (0.15 miles) south of the Site and a feeder canal extending from Canandaigua Lake to the Canandaigua Outlet is located about 975 ft. (0.18 miles) west of the Site. No State or federally listed wetlands are located on the Site, however wetlands are located approximately 1,000 ft. (0.2 miles) to the northwest and 4,000 ft. (0.75 miles) to the northeast of the Site (i.e., in proximity of the Canandaigua Outlet). As presented on the Flood Insurance Rate Map for the City of Canandaigua, New York dated September 24, 1982 (Community Panel Number 360597 0001 C); the Site is located in Zone B. This designation indicates the property is in an area between the limits of the 100-year flood and the 500-year flood.

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5.0 NATURE AND EXTENT OF IMPACT

The section presents and discusses the results of the testing completed during this study and based upon this testing identifies the contaminants of concern (COC). Where applicable, test results are compared to the following standards, criteria and guidance (SCG) values:

- Soil Cleanup Objectives (SCO) for unrestricted use, protection of groundwater, and restricted commercial use, as referenced in NYSDEC regulations at 6 NYCRR Subpart 375-6.8(a) and (b) titled "Remedial Program Soil Cleanup Objectives," effective December 14, 2006.
- Groundwater standards and guidance values as referenced in the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 document titled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (TOGS 1.1.1) dated June 1998 (as amended by an April 2000 addendum).

5.1 Soil Sample Results

PID readings measured above soil samples collected from test borings advanced during the RI are presented on the test boring logs included in Appendix C. The maximum PID readings measured above the soil samples collected from the test borings advanced prior to the soil removal IRM are summarized on Figure 10. As shown on Figure 10, PID readings in excess of 1,000 ppm (i.e., the highest PID reading of 8,695 ppm was measured above a sample collected from 11 ft. bgs in test boring TB-1) were measured on soil samples collected in proximity of the sediment trap/sump and Alcove area of the former Parkway Cleaners. PID readings were generally less than 10 ppm or not detected on soil samples that were collected from test borings positioned 10⁺ ft. from the Alcove area of the former Parkway Cleaners.

As shown on the tables included in Appendix E, metals, SVOCs and PCBs were not detected in the soil samples tested at concentrations exceeding SCO.

The concentrations of select VOCs measured in the soil samples tested during this study exceeded various SCO. The table on the following page summarizes the soil samples with concentrations exceeding SCO. Refer also to the tables presented in Appendix E.

Sample Location			Reported]	entratio Protecti oundwa	on of ter SC			entratio restricto				entratio icted Co SCO	omme O		Notes
Location	PCE	TCE	Cis1,2- DCE	VC	PCE	TCE	Cis1,2 -DCE	VC	PCE	TCE	Cis1,2 -DCE	VC	PCE	TCE	Cis1,2 -DCE	VC	
TB-1 (10-12)	48.837	ND	ND	ND	X				X								
TB-3 (6-8)	7.954	ND	ND	ND	X				X								
PPTB-1 (4-6)	7.100	1.100	ND	ND	X	X			X	X							
PPTB-2 (13-16)	0.0012	0.0012	0.011	0.035				X				X					
PPTB-6 (4-8)	ND	ND	ND	ND													1
PPTB-7 (28-32)	ND	ND	0.091	0.037				X				X					
PPTB-9 (16-18)	11.000	1.800	2.000	0.031	X	X	X	X	X	X	X	X					
PPTB-10 (0-2)	4.600	ND	ND	ND	X				X								
PPTB-11 (6-8)	5.000	ND	ND	ND	X				X								
PPTB-13 (12-14)	12.000	3.800	3.400	0.260	X	X	X	X	X	X	X	X					
PPTB-13 (21-22)	1.400	3.300	2.900	0.140	X	X	X	X	X	X	X	X					
PPTB-14 (4-8)	820.00	17.000	14.000	ND	X	X	X		X	X	X		X				
PPTB-14 (20-24)	290.000	4.100	5.500	ND	X	X	X		X	X	X		X				
PPTB-15 (23-24)	ND	ND	0.037	0.020													1
PPTB- 12A (8-10)	ND	ND	0.014	0.0041													1
PP-SUMP	13.000	1.900	57.000	10.000	X	X	X	X	X	X	X	X					2
East Wall Primary (10-15)	7.300	0.270	1.200	ND	X		X		X		X						
South Wall Secondary (5-7)	ND	ND	0.300	0.280			х	X			X	X					
North Wall Primary (10-15)	92.000	2.100	4.600	ND	X	X	X		X	X	X						

Notes: 1 = Acetone concentration exceeds Unrestricted Use and Protection of Groundwater SCO

2 = trans 1,2 DCE concentration exceeds Unrestricted Use and Protection of Groundwater SCO

PCE = Tetrachloroethene TCE = Trichloroethene

Cis 1,2-DCE = cis 1,2-Dichloroethene

VC = Vinyl Chloride

Much of the soil that contained concentrations exceeding the SCO, applicable to the Site, was removed during the soil removal IRM (refer to Section 7.1). As such, the only samples shown on the above table that contained concentrations that exceeded the protection of groundwater SCO include: PPTB-2 (13'-16'), PPTB-7 (28'-32'), PPTB-10 (0'-2') and PPTB-11 (6'-8'), which were collected from locations positioned outside of the IRM soil removal area, and the confirmatory soil samples Primary Excavation East Wall (10'-15'), Primary Excavation North Wall (10'-15') and Secondary Excavation South Wall (5'-7'), which were collected following the IRM removal. However, none of the detected concentrations measured in these samples exceeded the restricted commercial use SCO.

5.2 Soil Vapor/Air Results

Testing of soil vapor and/or air was conducted on several occasions since the commencement of this RI in 2001 using various collection techniques. Testing was done prior to and following the soil removal IRM described in Section 7.0, and a vapor intrusion evaluation was also conducted in April 2007 after a sub-slab depressurization system was installed within the Alcove portion of the former Parkway Cleaners building.

5.2.1 Passive Soil Gas Testing

Various chlorinated and petroleum-related VOCs were detected in the soil-gas samples collected on May 5, 2001, with the highest concentration of VOCs present along the southwestern corner of the former Parkway Cleaners. However, no VOCs were detected in the soil-gas sample located adjacent to the sediment trap/sump (i.e., the assumed source of the contamination). The distribution pattern of VOCs detected in the soil gas samples tested is depicted on the isopleth map included in the report prepared by Beacon, a copy of which is included in Appendix B.

5.2.2 Sub-Slab and Air Testing

Prior to the soil removal IRM and the installation of a sub-slab vapor depressurization system in the Alcove of the former Parkway Cleaners building, the following VOCs were detected in the air samples collected on March 8, 2001 and March 14, 2001 from within the former Parkway Cleaners building (i.e., designated "Night-3/8/01" and "Day-3/14/01") and from a sample collected in a location outside the building to serve as a background sample (i.e., designated "Outdoor-3/8/01"):

• Air Sample – "Night-3/8/01": acetone (19 μ g/m³), 2-butanone (1.6 μ g/m³), cis-1,2-dichloroethene (4.3 μ g/m³), benzene (2.8 μ g/m³), trichloroethene (2.0 μ g/m³), and tetrachloroethene (610 μ g/m³);

- Air Sample "Outdoor-3/8/01": acetone (9.4 μ g/m³) and 2-butanone (1.5 μ g/m³); and
- Air Sample "Day-3/14/01": acetone (16 μ g/m³), cis-1,2-dichloroethene (3.5 μ g/m³), benzene (2.0 μ g/m³), trichloroethene (1.8 μ g/m³), and tetrachloroethene (420 μ g/m³).

The air badge samples collected on November 20, 2001 and tested for PCE contained the following concentrations:

- Air Badge Sample PC-S: 383 µg/m³;
- Air Badge Sample GW-S: 12 μg/m³;
- Air Badge Sample GW-N: 11 μg/m³;
- Air Badge Sample TCBY-S: Not Detected;
- Air Badge Sample BKGD-1: Not Detected;
- Air Badge Sample PC-N: 243 µg/m³;
- Air Badge Sample PP-1: 399 µg/m³; and
- Air Badge Sample TCBY-N: Not Detected.

Detectable concentrations of PCE were reported in each of the sub-slab samples collected in April 2007, and the sample from the sub-slab beneath the Parkway Laundry (i.e., sample SSV-1) also contained detectable concentrations of TCE, cis-1,2 DCE and VC. [Note: The April 2007 samples were collected subsequent to the soil removal IRM, and the installation of a sub-slab vapor depressurization system in the Alcove of the former Parkway Cleaners building.] However, the NYSDOH has no guidance values for cis-1,2 DCE or VC sub-slab soil vapor concentrations. Each of the indoor air samples tested contained detectable concentrations of PCE and the indoor air sample collected from the Great Wall Restaurant also contained a detectable concentration of TCE. The ambient outdoor air (i.e., background sample) did not contain detectable concentrations of VOCs. [Note: The detection limits reported by the analytical laboratory were sufficiently low to satisfy NYSDOH requirements.] Air guidance values derived by the NYSDOH for indoor and outdoor air are summarized in Table 3.1 of the NYSDOH document titled Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006 (NYSDOH Guidance Document) and the revised air guideline for PCE is listed in the NYSDOH document titled Tetrachloroethene (PERC) in Indoor and Outdoor Air, September 2013 Fact Sheet. As shown on Table 3.1, the air guidance value for PCE is 30 mcg/m³ and air the guidance value for TCE is 5 mcg/m³. The concentrations measured in the indoor air samples collected during this study were less than the air guidance values, and therefore did not require further monitoring or mitigation. The results of the testing completed are summarized in the following table.

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		NYSDOH AIR GUIDELINE							
DETECTED VOCs	Laundromat		resta	urant	video	store	ambient	VALUES (UG/M ³)	
	SSV-I	IA-1	SSV-2	IA-2	SSV-3	IA-3	BG-1	Indoor Air	
Vinyl chloride	0.938	ND	ND	ND	ND	ND	ND	NV	
cis-1,2 Dichloroethene	4.55	ND	ND	ND	ND	ND	ND	NV	
Trichloroethene	9.57	ND	ND	0.253	ND	ND	ND	5	
Tetrachloroethene	47.7	9.39	3.85	1.11	5.97	1.06	ND	30	

Test results for sub-slab vapor samples, indoor air sample, outdoor air sample, and air guideline values reported in ug/m³

SSV=sub-slab vapor sample
IA=indoor air sample
BG=background (ambient outdoor air sample)

1=Air guideline value for TCE referenced in Table 3.1 of Section 3.2.5 of the NYSDOH document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York", October 2006. The air guideline value for PCE referenced in NYSDOH document titled Tetrachloroethene (PERC) in Indoor and Outdoor Air, September 2013 Fact Sheet.

NYSDOH does not have guidelines for sub-slab vapor

ND=Constituent concentration not detected above reported analytical laboratory detection limit; refer to Appendix D for detection limits

NV=No Guideline Value

To assess remedial requirements, the analytical laboratory test results for the concentrations of TCE and PCE measured in sub-slab and indoor air samples were compared to the Soil Vapor/Indoor Air Matrix 1 (TCE) and Soil Vapor/Indoor Air Matrix 2 (PCE) presented in the NYSDOH Guidance Document. The results of this comparison for each of the businesses evaluated during the April 2007 study are summarized below.

- <u>Parkway Laundry</u>: The TCE concentrations measured indicate that "no further action" was required. The PCE concentrations measured indicate that "reasonable and practical actions to identify source(s) and reduce exposures" were required.
- <u>Great Wall Restaurant</u>: The TCE concentrations measured indicate that "reasonable and practical actions to identify source(s) and reduce exposures" were required. The PCE concentrations measured indicate that "no further action" was required.
- Movie Gallery: TCE was not measured in either the sub-slab or indoor air samples. The PCE concentrations measured indicate that "no further action" was required.

5.3 Groundwater Test Results

A summary of the VOCs detected in the groundwater samples collected from the monitoring wells sampled during this study is presented as Table 4 *Historic Summary of Detected Volatile*

Organic Compounds: Groundwater Samples. This table also includes a comparison of the detected concentrations to NYSDEC TOGS 1.1.1 Groundwater Standards or Guidance Values.

5.4 Contaminants of Concern

Based upon the historic operations at the former Parkway Cleaners and the testing completed during this RI, the contaminants of concern (COC) identified for the impacted media at this Site (i.e., soil, soil vapor and groundwater) include the following halogenated VOCs.

- tetrachloroethene (PCE)
- trichloroethene (TCE)
- 1,1-dichloroethene (1,1-DCE)
- cis-1,2-dichloroethene (cis-1,2-DCE)
- trans-1,2-dichloroethene (trans-1,2-DCE)
- vinyl chloride (VC)

These COC are related to the former use of PCE in the dry cleaning operations that were conducted at the former Parkway Cleaners in the past. PCE was detected in some samples that were collected in proximity of the source area near the Alcove of the former Parkway Cleaners where the dry cleaning machines were located. The remaining COC are breakdown products of PCE. During recent sampling events, the most often detected COC were the breakdown products cis-1,2-DCE and VC.

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6.0 CONTAMINANT FATE AND TRANSPORT

This section includes an evaluation of the fate and transport of the COC identified for the Site including identifying potential routes of migration, contaminant persistence and contaminant migration patterns.

6.1 Potential Routes of Migration

Potential routes of migration for the COC identified for this Site include:

- Leaching from the soil into the groundwater through precipitation and/or contact with groundwater;
- migrating in a dissolved shallow groundwater plume; and
- volatilization to air or soil void spaces.

Based on the available data, COC migrating in a dissolved shallow groundwater plume is the primary route of exposure for the Site. [Note: As shown on the geologic cross sections presented as Figure 8 and Figure 9, an approximate 25⁺-foot thick deposit of indigenous silty clay that extends to depths of about 33.5 ft. to 49 ft. bgs underlies the Site and the surrounding area. This silty clay layer serves as an aquiclude to preclude the downward migration of COC as evidenced by the test results of the "deep" monitoring wells installed during this study that penetrated the silty clay layer into an underlying sandy gravel deposit. As such, only the "shallow" groundwater regime encountered above the silty clay deposit (i.e., typically extending to depths of about 13 ft. to 14 ft. bgs) has been impacted with COC and required evaluation and remediation.]

While the other routes of migration are possible, the implementation of the remedial activities conducted to date, described herein and the engineering controls to be implemented as part of a Site Management Plan (SMP) have, or will, adequately addressed the COC migrating in the shallow groundwater plume and other potential routes of migration. For example, the IRM soil removal eliminated much of the soil with elevated COC concentrations and the installation of the sub-slab depressurization system appears to have addressed volatilization of COC from the soil/groundwater into the indoor air of the former Parkway Cleaners and adjacent businesses, as evidenced by the testing conducted in April 2007, and implementation of the requirements of the SMP will address exposures to soil or groundwater impacted with COC.

6.2 Contaminant Persistence

The COC detected at the Site above regulatory criteria are associated with the dry cleaning product formerly used at the Site. Specifically, the COC include PCE and its biodegradation breakdown products of TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and VC.

The COC encountered at the Site biodegrade aerobically and anaerobically. However, in natural settings anaerobic biodegradation is the most common breakdown process.

The Agency for Toxic Substances and Disease Registry (http://www.atsdr.cdc.gov/) was referenced to obtain information on the COC. A summary of information for the COC is provided below:

<u>PCE</u>: can be emitted into the air from water and soil where it is broken down by sunlight and other chemicals. PCE in air can be brought back to the ground surface via rain or snow. It breaks down in water and soil via microorganisms and can pass through the soil into groundwater. PCE does not bioaccumulate.

<u>TCE</u>: is slightly soluble in water and can remain in the groundwater for until it breaks down naturally, or is remediated. TCE evaporates less easily from the soil than from surface water. TCE may stick to particles in water, which will cause it to eventually settle to the bottom sediment. TCE does not bioaccumulate.

<u>1,1-DCE</u>: evaporates very quickly from water and soil to the air where it readily breaks down. In soil, 1,1-DCE is slowly transformed to other less harmful chemicals. 1,1-DCE breaks down very slowly in water and does not bioaccumulate.

1,2-Dichloroehtene (1,2-DCE): evaporates rapidly into air where it breaks down quickly. Most 1,2-DCE in the soil surface or bodies of water will evaporate into air. 1,2-DCE can travel through soil or dissolve in water in the soil. It is possible that it can contaminate groundwater. 1,2-DCE can break down into vinyl chloride, which is a more toxic compound.

<u>VC</u>: in the liquid form evaporates easily. VC in water or soil evaporates rapidly if it is near the surface. VC in the air breaks down in a few days to other substances, some of which can be harmful. Small amounts of VC can dissolve in water. VC is unlikely to bioaccumulate.

In addition to biodegradation, COC concentrations in the groundwater will decrease as the distance from the source area is increased due to processes such as advection, dispersion, sorption, diffusion, etc. However, alterations to flow patterns through features such as preferential pathways (e.g., buried utilities) could modify these processes.

6.3 Migration Patterns

Historically, COC at concentrations in excess of SCO were detected in soil samples collected from locations in proximity of the sediment trap/sump that was utilized by the former Parkway Cleaners. The soil removal IRM conducted in 2001 removed much of the soil impacted with COC. However, due to access restrictions some soil impacted with COC remains on the Site generally below the Alcove portion of the former Parkway Cleaners building. It is also possible that COC could remain in some isolated locations that have not been tested, but it is not anticipated that extensive areas of soil impacted with COC remain at the Site. Testing completed to date indicates that the soil remaining on Site meets the restricted use commercial SCO and that most soil meets the unrestricted use and protection of groundwater SCO. Soil impacted with COC remaining of the Site at concentrations exceeding SCG will continue to be a source of groundwater and vapor impact until remediated via the methods outlined in Section 10.0. The vapor mitigation system installed at the Site has addressed potential vapor impacts within the buildings on the Site. The highest concentrations of COC in the soil and groundwater were detected in proximity of the sediment trap/sump and adjacent to the southern wall of the Alcove

portion of the former Parkway Cleaners building. These locations are the apparent original source area of the COC present at the Site, and the soil removal IRM has served to eliminate much of the soil impacted with COC in this source area. Migration of COC within the groundwater to the south/southwest away from the source area resulted in a plume consisting primarily of PCE (in proximity of the source area) and breakdown products (predominately cis-1,2-DCE and VC) in hydraulically downgradient positions.

Based upon available data, groundwater impacted with dissolved COC has been historically identified in an area that extends from the southern end of the former Parkway Cleaners building (i.e., the Alcove portion of the building) generally to the southwest. Monitoring points MP-1 and MP-3 located in proximity of the Alcove are the only locations where PCE is currently identified in the groundwater (PCE is the "parent compound" associated with the dry-cleaning fluid previously used at the Site). Monitoring wells located in hydraulically downgradient positions typically contained "daughter compounds" or breakdown products of PCE. Historically, COC impacted groundwater has typically been detected in an area measuring approximately 80 ft., from northwest to southeast, near the source area, located in proximity of the Alcove (i.e., generally between monitoring wells MW-3s and MW-102s), and about 130 ft. to the southwest (i.e., within off-site monitoring well MW-301). [Note: A monitoring well was installed in 2013 as part of the BCP studies being conducted on the Canandaigua Brownfield Site Redevelopment Site, which is located south of the Site. This monitoring well, designated MW-69, is located approximately 20 ft. south of MW-103s and about 90 ft. southwest of the Alcove (refer to Figure 2). Reportedly MW-69 was sampled on August 28, 2013 and a total COC concentration of 270 μg/l or parts per billion (i.e., cis 1,2 DCE = 140 parts per billion (ppb) and VC = 130 ppb) was measured. A second sample event was conducted on October 4, 2013 and a total COC concentration of 2,200 ppb was reportedly detected (i.e., cis 1,2 DCE and VC were both reported at a concentration of 1,100 ppb).]

The test results for samples collected on May 27, 2009, January 7, 2010, July 23, 2010 and May 24, 2011 from monitoring well MW-103s indicated an increasing trend in COC concentrations in samples collected (e.g., a total COC concentration of 583 ppb was measured in the sample collected on May 27, 2009 and a total COC concentration of 1,696 ppb was measured in the sample collected on May 24, 2011). Monitoring well MW-103s is located in a downgradient position relative to the source area in the Alcove near the property line of the Site. However, a sample collected on May 20, 2013 from monitoring well MW-103s had a total COC concentration of 1,070 ppb suggesting a possible end to the increasing trend of COC concentrations at this location. Samples collected from monitoring wells within the central portion of the Site that are located upgradient of MW-103s, and downgradient of the source area (e.g., monitoring wells IP-1, IP-2 and IP-3) contained significantly lower COC concentrations than detected in the source area monitoring wells MP-1 and MP-3, and in monitoring well MW-103s. The lower concentrations of COC in the central portion of the Site could be related to a combination of the IRM soil removal and the subsequent in-situ remediation pilot testing (refer to Section 7.4 and 7.5). The elevated COC detected in monitoring well MW-103s suggests that preferential flow may have occurred along buried utilities and/or through the fill material.

The distribution pattern of COC within the groundwater is depicted on Figure 11. This figure presents the highest and most-recent total COC measurements and associated sample dates.

COC will volatize from impacted groundwater and soil, and migrate upward into the vadose zone and collect beneath building slabs and similar confined spaces. As described in this report,

the sub-slab depressurization system installed within the Alcove portion of the former Parkway Cleaners has mitigated impacts to the current Parkway Laundry facility and the adjacent businesses (refer to Section 5.2.2). The remedial options proposed to address the residual COC impacts in the groundwater including the area in vicinity of MW-103s are outlined in Section 10.0

6.3.1 Factors Affecting COC Migration

Factors affecting contaminant migration include: groundwater flow; advection; mechanical dispersion; molecular diffusion; partitioning between air, soil and groundwater; and adsorption of constituents onto soil particles or particles suspended in groundwater.

The COC identified at the Site are chlorinated solvents primarily related to the PCE formerly used as the primary dry cleaning fluid. In general, the COC are soluble in water, but denser than water, and tend to be mobile in the environment (e.g., migrating through the groundwater and vaporizing into the unsaturated zone). As discussed in Section 4.3, it is estimated that "shallow" groundwater at the Site flows at a rate ranging between about 0.004 ft./day and 0.011 ft./day. Assuming PCE was released shortly after it was initially used at the Site (i.e., say beginning in 1965) and a flow rate ranging between 0.004 ft./day and 0.011 ft./day, COC impact would be expected to be about 70 ft. to 190 ft. from the source area in 2012 (i.e., assuming the COC migrated at the same rate as the groundwater). However as discussed above, contaminant migration in the groundwater is influenced by various factors that alter migration rates. In addition, the variability of the water-bearing zone could alter (e.g., locally increase) flow rates and the distribution of contaminants within the groundwater. For example, the distribution and extent of COC impacts could be altered by preferential flow along buried utilities and/or through heterogeneous fill material (i.e., as may have occurred at MW-103s).

7.0 INTERIM REMEDIAL MEASURES AND PILOT TESTING

As this project progressed since 2001, various interim remedial measures (IRMs) were implemented and pilot testing was completed to remove COC source material and further address residual impacts. The activities completed are discussed in this section.

7.1 Soil Removal

A soil removal IRM (i.e., source area removal) was conducted between November 27, 2001 and December 4, 2001. The results of the soil removal IRM are summarized in a document titled: INTERIM REMEDIAL MEASURE REPORT: Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, Site Index Number B8-0555-99-06, dated September 2002 prepared by Day Environmental, Inc.

The soil removal IRM included the removal and disposal of soil impacted with COC, the decommissioning of the sediment trap/sump, and removal of an approximate 100-gallon tank from the roof of the former Parkway Cleaners building. This tank stored PCE that was used in dry cleaning machines located in the Alcove portion of the former Parkway Cleaners building.

The IRM soil removal consisted of a primary excavation and a secondary excavation. The primary excavation was approximately 25.5 ft. long by 10 ft. wide and it extended to a depth ranging from 22 ft. to 23 ft. bgs. The secondary excavation was approximately 21.5 ft. long by 7 ft. wide and it extended to a depth of approximately 11 ft. bgs. The size of each excavation was determined prior to IRM soil removal activities based on testing completed prior to the IRM; however, the actual in-field depth of each excavation was based upon this data and visual observations and real-time PID monitoring of the excavated soils, which resulted in additional excavation. The location and orientation of the two excavations is shown as Figure 2.

Approximately 517 tons of soil requiring disposal was removed from the Site during this IRM. At the time of the IRM, approximately 47 tons of soil was determined to be a hazardous waste and this material was disposed at the Environmental Quality Company located in Belleville, Michigan. Samples were collected from the remaining 470 tons of soil to determine disposal requirements as part of a Contained-In Demonstration (CID). Based on the results of the CID, approximately 389 tons of soil was disposed of as non-hazardous waste at High Acres Landfill in Fairport, New York. The remaining 81 tons of soil were disposed of as hazardous waste at the Waste Management facility in Model City, New York.

Following the soil removal, samples were collected from the sidewalls and bottom of the excavations and tested to evaluate the residual concentrations of VOCs in the soil left in place. The confirmatory sample locations and the maximum PID reading measured above these samples at the time of collection included:

- Sample 1: East Wall Primary Excavation (10-15 ft.) PID = 346 ppm
- Sample 2: Bottom East Primary Excavation (23 ft.) PID = 0.2 ppm
- Sample 3: Bottom West Secondary Excavation (11 ft.) PID = 0.0 ppm
- Sample 4: West Wall Secondary Excavation (5-7 ft.) PID = 0.3 ppm
- Sample 5: Secondary South Wall Excavation (5-7 ft.) PID = 1.3 ppm

Sample 6: Secondary North Wall Excavation (5-7 ft.) – PID = 0.0 ppm
 Sample 7: West Wall Primary Excavation (10-15 ft.) – PID = 0.7 ppm
 Sample 8: Bottom East Secondary Excavation (11 ft.) – 0.0 ppm
 Sample 9: Bottom West Primary Excavation (23 ft.) – PID = 0.5 ppm
 Sample 10: North Wall Primary Excavation (10-15 ft.) – 563 ppm
 Sample 11: South Wall Primary Excavation (10-15 ft.) – PID = 0.3 ppm

The analytical laboratory test results for the confirmatory samples are summarized on tables included in Appendix E. [Note: The East Wall Primary Excavation location was in proximity of a buried pipeline and the North Wall Primary Excavation location was located in proximity to the Alcove, and as such additional excavation was not possible in these areas at that time.]

Prior to backfilling the IRM soil removal excavations with "clean" granular material obtained from an off-site source, monitoring points MP-1 through MP-4 were installed within the open excavations (monitoring points MP-1 and MP-2 were installed in the Secondary excavation and MP-3 and MP-4 were installed in the Primary excavation). These monitoring points consist of six-inch diameter flush-coupled PVC 10-foot long screens attached to solid riser pipe completed as flush-mount installations. The installed depths of these monitoring points are presented on Table 1. These installations have allowed access for subsequent monitoring and completion of remedial activities. The locations of MP-1 through MP-4 are shown on Figure 2.

7.2 Passive Vent Systems

Subsequent to the soil removal activities described in Section 7.1, the building adjoining the former Parkway Cleaners was demolished and a new Video Store was constructed. [Note: In 2009, this store was renovated for use as a Japanese Restaurant.] As a precautionary measure, a passive vent system was installed beneath the new building. This passive vent system was installed on July 9, 2002, and it included 4-inch diameter slotted PVC piping within the granular backfill beneath the concrete slab that was connected to an exhaust pipe connected to a wind turbine that discharged above the roof line. A vapor barrier (i.e., polyethylene sheeting) was installed beneath the concrete slab.

A passive vent system was also installed within the IRM soil removal excavations at the Site on August 27, 2002 (i.e., prior to capping the excavations with asphalt). This system included 4-inch diameter perforated PVC piping placed within the granular sub-base for the asphalt pavement that was connected to a vent pipe that discharged above the roof line of the Alcove.

7.3 Sub-Slab Depressurization System

On February 13, 2004, Mitigation Tech installed a sub-slab depressurization (SSD) system in the Alcove portion of the building at the Site. The SSD system consists of a three-inch diameter schedule 80 PVC pipe installed through the concrete slab in the northwest corner of the Alcove. This vapor extraction point extends approximately 0.5 feet into the sub-base and it is sealed into the top of the concrete floor. The piping from the extraction point extends through the roof and exhausts above the roofline. A FANTECH HP-2190 in-line centrifugal fan is connected to the piping to provide the sub-slab vacuum. A vacuum gauge installed between the extraction point and the in-line fan verifies that negative pressure is being maintained.

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7.4 Bioaugmentation

A bioaugmentation pilot test was conducted beginning on December 15, 2004 to treat residual groundwater impact and evaluate the effectiveness of this remedial technology for use at the Site. DAY retained the services of CL-Solutions to provide microbes and to assist in the determination of inoculation locations/volumes required for this enhanced bioremediation methodology. As an initial task, monitoring wells MP-1, MW-3s, MW-101s, MW-102s, and MW-103s were sampled on November 15, 2004 and tested for the "indicator" parameters of nitrates, phosphates, and total microbe plate count. The analytical laboratory and field indicator testing (i.e., pH, dissolved oxygen, etc.) results were used by CL-Solutions to assist in their determination of the location of inoculation points and the amount of bioremediation product to be injected into the subsurface.

The inoculation scheme selected consisted of using the following locations as injection points: IP-1, IP-2, and IP-3, MW-1s, MW-3s) and MP-1 through MP-4 (refer to Figure 2 for inoculation locations). [Note: In order to obtained 'unbiased' samples for subsequent evaluation of the effectiveness of the enhanced bioremediation, monitoring wells MW-101s and MW-103s were not used as injection points.]

The enhanced bioremediation work was started on December 15, 2004 (i.e., after the December 15, 2004 sampling of MW-103s). Initially Permeox Plus was injected into various wells to increase dissolved oxygen concentrations in the groundwater. Permeox Plus is an oxygen-releasing compound used to increase dissolved oxygen in the groundwater to provide an adequate environment for the microbes. On December 16, 2004, CL-Out microbes were injected into various wells. CL-Out microbes are patented live strains of microbes capable of degrading chlorinated solvents. The approximate amounts of Permeox Plus and CL-Out injected in each well are shown in the table below:

WELL LOCATION	PERMEOX PLUS (Pounds)	CL-OUT MICROBES (Gallons)
MP-1, MP-2, MP-3, and MP-4	12.5	14
MW-1S, MW-3S, and IP-3	17	36
IP-1 and IP-2	50	27.5

Approximately one month after the inoculation the population of microbes in the groundwater was evaluated on January 17, 2005 by collecting groundwater samples from MW-101s and MW-103s and analyzing these samples for total plate count and CL-Out microbes. This testing indicated that the concentrations of microbes detected were at higher concentrations than the baseline samples collected on November 15, 2004. Specifically, CL-Out microbes were detected at concentrations of 1.9E+05 in a sample collected from MW-101s and 1.0E+04 in a sample collected from MW-103s. CL-Out levels in access of 1.0E+05 are considered sufficient for bioremediation to occur. As such, it was determined that microbes were dispersed within the intended remediation area in adequate concentrations to facilitate bioremediation.

The total VOC concentrations measured (i.e., the sum of the TCE, cis/trans-1,2-DCE, and VC concentrations measured) in monitoring wells MW-101s, MW-102s and MW-103s before and after the inoculations are shown below:

Monitoring Well	Date Sampled	Total VOCs	Remarks	
MW-101s	2/13/2004	286.3 ug/l		
	6/22/2004	264.6 ug/l	275.4 ug/l average concentration before inoculation	
	12/15/2004: date of inoculations			
	3/22/2005	68.8 ug/l		
	7/26/2005	2.9 ug/l		
MW-102s	2/13/2004	21.1ug/l		
	6/22/2004	19.9 ug/l	20.5 ug/l average concentration before inoculation	
	12/15/2004: date of inoculations			
	3/22/2005	49.1 ug/l		
	7/26/2005	84.7 ug/l		
MW-103s	9/20/2004	520 ug/l		
	12/15/2004	57.8 ug/l	288.9 ug/l average concentration before inoculation	
	12/15/2004: date of inoculations			
	3/22/2005	273.9 ug/l		
	7/26/2005	248.0 ug/l		

As shown, the concentrations in the central portion of the plume (i.e., as detected in monitoring well MW-101s) decreased approximately 99% compared to the concentrations measured before treatment. The concentrations measured in the downgradient location (i.e., as determined by MW-103s also decreased. [Note: The concentrations measured in MW-103s before treatment varied significantly and it is difficult to establish a "true" background condition. Although the concentrations measured in MW-103s during the December 15, 2004 sample event may be anomalous, if an average value is calculated for the background concentration using the September 20, 2004 and December 15, 2004 analytical laboratory results, the total VOCs decreased approximately 14% following treatment.] The concentrations of VOCs in monitoring well MW-102s increased since the December 15, 2004 inoculations.

7.5 Chemical Oxidation Treatment

As part of a subsequent in-situ treatment/pilot test, liquid mixtures of RegenOx[™] chemical oxidation products were pumped into MP-1, MP-2, MP-4 and MW-101s during two separate injection events conducted in February 2009 and September 2009. These events included two site visits per injection event. Initially RegenOx[™] Part B, a liquid activator solution (sodium silicate, silica gel, and ferrous sulfate), was injected into the subsurface at a pressure of approximately 20 pounds per square inch (psi) and approximately one week later the second site visit was conducted to inject RegenOx[™] Part A, an oxidizer solution (sodium percarbonate, sodium carbonate, sodium silicate and silica gel), into the subsurface at a pressure of approximately 20 psi.

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On February 11, 2009, approximately 40, 30, 30 and 20 pounds of an approximate 3% solution of RegenOxTM Part B was injected into MP-1, MP-2, MP-4 and MW-101s, respectively. On February 19, 2009, approximately 70, 65, 65, and 40 pounds of an approximate 6% solution RegenOxTM Part A was injected into MP-1, MP-2, MP-4 and MW-101s, respectively. On September 3, 2009, approximately 35, 35, 35 and 10 pounds an approximate 3% solution RegenOxTM Part B was injected into MP-1, MP-2, MP-4 and MW-101s, respectively. On September 10, 2009 approximately 70, 70, 70 and 20 pounds of an approximate 6% solution of RegenOxTM Part A was injected into MP-1, MP-2, MP-4 and MW-101s, respectively. Following each injection event, approximately 20 gallons of hot tap was pumped into each injection location at a pressure of approximately 20 psi to flush the product into the subsurface.

The effectiveness of this pilot test was inconclusive, as the concentrations of COC measured in samples from the wells in the source area (i.e., MP-1 through MP-4) did not show decreasing trend, whereas samples collected from monitoring wells in the central portion of the Site (i.e., locations immediately downgradient of the source area) were generally lower or non-detect.

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8.0 EXPOSURE ASSESSMENT

The results of the qualitative human health exposure assessment and the fish and wildlife impact assessment conducted for the Site based upon the findings of the RI are presented in this section.

8.1 Qualitative Human Health Exposure Assessment

This qualitative human health exposure assessment includes a characterization of the exposure setting (including the physical environment and potentially exposed human populations); identification of exposure pathways; and evaluation of fate and transport for the COC remaining at the Site following the IRMs described in Section 7.0. Due to structural limitations (e.g., proximity to the building at the Site and buried utilities), not all of the impacted soil identified during the RI could be removed during the soil removal IRM, but it is anticipated that the amount of soil containing COC at concentrations that exceed SCOs is limited and likely localized to areas in proximity of the Alcove of the former Parkway Cleaners building. The installation of the sub-slab depressurization system within the Alcove portion of the former Parkway Cleaners building serves to mitigate vapor intrusion into the building. As described in Section 6.0, residual COC concentrations in excess of SCG within the groundwater remains in some locations hydraulically downgradient (i.e., southwest) of the former Parkway Cleaners building and this residual groundwater impact is the primary route of exposure remaining at the Site.

8.1.1 Exposure Setting

The Site is a portion of a retail shopping plaza and the residual groundwater containing COC concentrations exceeding SCG is generally located beneath a paved parking area. However, concentrations of COC that typically slightly exceed COC have been historically measured in groundwater samples collected from some monitoring wells installed on the adjacent property to the south. [Note: Reportedly samples were collected from monitoring wells as part of studies conducted on the adjacent property to the south as part of a BCP remedial investigation. These samples were collected from a monitoring well designated MW-69, which was installed as part of the BCP remedial investigation and monitoring well MW-204, which was installed as part of the remedial investigation conducted at the Site. It is understood that each of these monitoring wells was sampled on August 28, 2013 and October 4, 2013. The samples collected from MW-69, which is located approximately 20 ft. south of monitoring well MW-103s and about 10 ft. southwest of the property line of the Site in a hydraulically downgradient position relative to the Site, contained total COC concentrations of 270 ppb and 2,200 ppb on August 28, 2013 and October 4, 2013, respectively. The samples collected from monitoring well MW-204 on August 28, 2013 and October 4, 2013 contained total COC concentrations of 13.6 ppb and 5.1 ppb, respectively. Monitoring well MW-204 is located approximately 40 ft. southwest of the property line of the Site (i.e., hydraulically downgradient of the Site). The concentration measured in the samples collected from monitoring well MW-204 are comparable to those historically measured in samples collected from this monitoring well (refer to Table 4). Based on the lower COC concentrations measured in the samples collected from monitoring well MW-204 compared to the concentrations detected in MW-103s and MW-69, it appears that the lateral extent of groundwater impacted with COC in excess of SCG may dissipate in hydraulically downgradient positions over relatively short distances. In addition, the available data suggests that the width of the area of impacted with COC in off-site locations is relatively narrow (e.g., COC was not historically detected in monitoring wells MW-203 and MW-302 positioned off-site immediately west of the Site).] It is anticipated that the Site and the retail shopping plaza in which it is located will continue to be used for commercial/retail purposes. It is also anticipated that the adjoining property to the south the Site will redeveloped in the future as part of a mixed residential/commercial development, and that the area in proximity of the Site (e.g., in the location of monitoring well MW-69) will be developed with parking lots/roads.

Municipal sewer and water currently service the Parkway Plaza and surrounding properties. Canandaigua Lake is approximately 825 ft. (0.15 miles) south of the Site. There are no other surface water bodies on or downgradient of the Site. The geologic setting, hydrogeologic conditions and other relative land use considerations for the Site are discussed in Section 4.0.

Soil containing elevated concentrations of COC is currently covered by building slabs and asphalt pavement. As such, exposure to impacted soil is not a concern unless excavation into the impacted soil is completed during redevelopment, utility repair, etc. As required in the VCP Agreement, a draft SMP has been prepared for the Site, and it will be updated in the future to include the elements of the Deed Restriction and other applicable actions. The SMP outlines procedures required to manage residual contamination and procedures to be implemented during future activities that that have the potential to encounter material impacted with COC. The Deed Restriction will be voluntarily imposed on the Site with a number of controls that:

- shall prohibit the Site from ever being used for purposes other than for the Commercial Contemplated Use as defined in the VCA or an industrial use without the express written waiver of such prohibition by the NYSDEC;
- shall require, in the event future plans involve demolition of the existing building and slab, a new investigation (if required) and remediation to address residual soil contamination that may remain present above the applicable SCOs relevant for the proposed use;
- shall prohibit the use of the groundwater underlying the Site without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the NYSDEC;
- shall require Volunteer and Volunteer's successors and assigns to continue in full force and effect the approved SMP; and
- shall provide that the deed restriction shall remain in place until such time as Unrestricted Use SCOs and groundwater standards are achieved.

8.1.2 Exposure Pathways

According to NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (DER-10) dated May 3, 2010 (Appendix 3B NYS DEC of Health Qualitative Human Health Exposure Assessment), an exposure pathway is "the means by which an individual may be exposed to contaminants originating from a site." An exposure pathway is comprised of the following components:

- 1. a contaminant source;
- 2. contaminant release and transport mechanisms;

- 3. point of exposure;
- 4. route of exposure; and
- 5. receptor population.

Each element is described below as it pertains to the former Parkway Cleaners site:

- Contaminant Source: The original source of contamination at the Site was the discharge of dry cleaning fluids to a sediment trap/sump previously located south of the former Parkway Cleaners building. This practice has been discontinued and the sediment trap/sump and adjacent soil have been removed as part of an IRM. Therefore the current contaminant source is soil impacted with COC at concentrations exceeding SCG that could not be removed during the IRMs and residual impacts to the groundwater in locations downgradient of the source area. Based upon the work completed, soil impacted with COC at concentrations that exceed SCG is expected to be limited and localized in extent.
- Contaminant release and transport mechanisms: With the exception of the apparent localized areas of soil containing COC concentrations that exceed the unrestricted use and protection of groundwater SOC, the release of COC ceased when dry cleaning operations were discontinued at the former Parkway Cleaners in approximately 1991. Transport mechanisms for the current residual COC impact include migration primarily via the groundwater and secondarily via the soil vapor.
- Point of exposure: Potential human contact with a contaminated medium may occur through inhalation of soil vapor containing COC, contact with soil impacted with COC during future excavation activities, and/or contact with groundwater containing COC at concentrations that exceed SCG during future excavation activities. Groundwater is not a source of drinking water on or in the vicinity of the Site.
- Routes of exposure: The potential route of exposure for soil vapor is inhalation by occupants of building(s) constructed on or near the areas of residual COC impact in the soil and/or groundwater. This route of exposure has been mitigated at the current Parkway Laundry and the adjacent Chinese Restaurant and the recently constructed Japanese Restaurant, by the remedial activities conducted as part of the IRMs and the installation of a sub-slab depressurization system in the Alcove portion of the former Parkway Cleaners building.

The route of exposure for residual soil containing concentrations of COC exceeding SCG would be dermal contact with these soils and inhalation of dust generated during potential future excavation activities. A covering of asphalt pavement or a concrete slab prevents incidental human contact so this route of exposure is not anticipated unless COC impacted soil is encountered during future construction activities (e.g., utility repairs).

The potential route of exposure for groundwater impacted with COC is limited to direct contact if encountered and/or ingestion if encountered during future construction activities (e.g., utility repairs, re-development of the property south of the Site). Since groundwater is not used as a drinking source in the areas of the Site ingestion of groundwater as a potable source is not considered a route of exposure.

- Receptor population: The receptor population includes:
 - Future workers that may enter buried utility confined spaces, or that may disturb soil or groundwater containing concentrations of COC that exceed SCG as part of their work.
 - Occupants of future buildings that are constructed in the vicinity of residual COC impact.

8.1.3 Findings

This human health exposure assessment identified the following potential exposure pathways:

- Future workers could be exposed to COC present in subsurface soil or groundwater at concentrations exceeding SCGs. These exposures could occur during construction activities, while assessing buried utility confined spaces, etc.
- Future potential use of groundwater could pose a potential exposure pathway to COC that are present in groundwater at concentrations exceeding SCGs.
- Occupants of future buildings that are constructed in the vicinity of residual COC impact
 to the soil or groundwater could be exposed through vapor intrusion due to volatilization
 into future structures unless properly addressed/remediated.

The findings of this human health exposure assessment have been addressed in the draft SMP and they were used in the selection of the remedial alternatives described in Section 10.0.

8.2 Fish and Wildlife Resources Impact Analysis

A copy of a completed Fish and Wildlife Resources Impact Analysis (FWRIA) Decision Key is included in Appendix J. The findings of the site investigation completed during this study were used to assist in completing the FWRIA Decision Key. As described previously in this report, the Site contains soil and groundwater impacted with concentrations of COC that exceed SCG, however, the data generated during this RI does not demonstrate that migration of COC is impacting surface water or sediments within the nearest surface waters, which are located approximately 825 ft. (0.15 miles) south of the Site. Also, the Site is not within or near an area with rare plants, rare animals and/or significant natural communities. Therefore, it is concluded that a Fish and Wildlife Resources Impact Analysis is not needed since the data indicates that the COC identified for this Site are not migrating into, or otherwise impacting, any on-site or off-site habitats of endangered, threatened or special concern species, or other fish and wildlife resources.

9.0 REMEDIAL INVESTIGATION CONCLUSIONS

Parkway Plaza Limited Partnership, LLP entered the New York State VCP to evaluate and remediate conditions at the former Parkway Cleaners site in Canandaigua, New York. The work completed was done in accordance with VCA, Index # B8-0555-99-06, Site # V00238-8 executed on January 22, 2001, between Parkway Limited Partnership, LLP and the New York State Department of Environmental Conservation.

The following sections summarize the findings and conclusions of the RI conducted as part of this project.

9.1 Summary of the Work Completed

Background

The 0.2-acre Site is a portion of the 12.78-acre Parkway Plaza, which is located on the south side of Routes 5 & 20 (85 Eastern Boulevard) in the City of Canandaigua, Ontario County, New York. Parkway Plaza was originally constructed in approximately 1957, and prior to construction of Parkway Plaza the property consisted of vacant undeveloped land. The former Parkway Cleaners began operations at the Site sometime between 1962 and 1978, and perchloroethene (a/k/a tetrachloroethene, or PCE) was used as a dry cleaning solvent at this location until approximately 1991.

Wastewater generated at the Parkway Plaza has been discharged to the municipal sanitary sewer system since the development of the property in 1957. The dry cleaning equipment for the former Parkway Cleaners was located within an Alcove portion of the building (i.e., the southern-most portion of the building). An exterior sediment trap/sump that was connected to the sanitary sewer line was located immediately adjacent to the south side of the Alcove. A hole in the concrete block wall of the Alcove portion of the building (i.e., located between the former location of the dry cleaning equipment and the exterior sediment trap/sump) suggests that the dry cleaning equipment discharged wastewater into this sediment trap/sump. The walls of the sediment trap/sump were constructed of concrete block and this structure contained a soil bottom. The studies completed to date determined that the sediment trap/sump was the original "source area" of the COC impact (i.e., PCE and associated breakdown products) at the Site.

Topography

The Site is located at latitude (north) 42° 53.6' and longitude (west) 77° 16.0' and the ground surface elevation at the Site is approximately 690^{\pm} ft. above sea level (USGS Datum). The ground surface at the Site and the surrounding area is relatively level with a gentle slope generally to the south and southwest. Ground surface elevations are about 1 ft. higher in the northern portion of the Site than elevations in the southern portion of the Site.

Passive Soil Gas Survey

Various chlorinated and petroleum-related VOCs were detected in the soil-gas samples collected during the passive soil gas survey completed at the Site in March 2001, with the highest concentration of VOCs present along the exterior of the southwestern corner of the former Parkway Cleaners.

Test Borings

Between July 23, 1998 and August 27, 2009, 49 test borings (designated B-1 through B-4, TB-1 through TB-10, TB-10A, TB-10 (MW-4), PPTB-1 through PPTB-9, PPTB-13 through PPTB-15, TB-11, TB-12, TB-12A, MW-1s through MW-3s, MW-1D through MW-3D, MW-2.1s, MW-101s through MW-103s, IP-1 through IP-3, MW-201 through MW-204, TB-301, and TB-302) were advanced as part of this study.

Subsurface Conditions

The ground surface of the Site is predominately covered with asphalt pavement, concrete sidewalks or the slab-on-grade former Parkway Cleaners building. Heterogeneous fill consisting primarily of reworked soil intermixed with trace amounts of brick underlies the asphalt and concrete. Some organics and wood were observed near the bottom of the fill, which may be indicative of the top of the former original ground surface prior to filling. The fill at the Site extends to an average depth of approximately 8 ft. bgs.

The indigenous soil beneath the fill generally consists of alternating layers of silt, silty sand and silty clay extending to an approximate depth of 13 ft. to 14 ft. bgs. Thereafter a 25⁺-foot thick silty clay deposit extending to depths of 33.5 ft. to 49 ft. bgs was encountered above a sand and gravel deposit that contains some varves/layers of silt. Test borings were advanced to a maximum depth of 57 ft. bgs during the studies completed at the Site without penetrating the entire thickness of the sand and gravel deposit or encountering bedrock. Based upon available information, a shale/siltstone bedrock underlies the Site.

Soil Test Results

Generally the highest PID readings (i.e., in excess of 1,000 ppm) measured above the soil samples collected from the test borings advanced prior to the soil removal IRM were measured on soil samples collected in proximity of the sediment trap/sump and Alcove area of the former Parkway Cleaners building. PID readings were generally less than 10 ppm or not detected on soil samples that were collected from test borings positioned 10⁺ ft. from the Alcove area of the former Parkway Cleaners building.

Metals, SVOCs and PCBs were not detected in the soil samples tested at concentrations exceeding SCG.

Generally, the soil samples containing VOC concentrations exceeding SCO were collected from test borings advanced prior to the soil removal IRM and these samples were obtained from locations within the Alcove portion of the former Parkway Cleaners building or immediately south of the building (i.e., in proximity of the former sediment trap/sump). Confirmatory

samples collected following the soil removal IRM indicate that soil impacted with VOCs exceeding the restricted commercial use SCO was removed, and that most of the soil impacted with VOCs exceeding the unrestricted use and protection of groundwater SCOs was removed. Some localized areas where VOC concentrations exceed the unrestricted use and/or protection of groundwater SCOs remain at the Site (e.g., in the soil beneath the Alcove portion of the former Parkway Cleaners building).

Groundwater Monitoring Wells

As part of the RI, 23 "shallow" groundwater monitoring wells/points (i.e., these wells were installed above a silty clay layer that underlies the Site at a depth of about 13 ft. to 14 ft. bgs and serves as an aquiclude). Subsequently, four of these monitoring wells were deemed not to be functional and currently 19 "shallow" monitoring wells remain at, and in proximity to, the Site. Three "deep" monitoring wells (i.e., screen section within a sand and gravel deposit below the aquiclude) were installed and none of these monitoring wells are currently operational. However, COC were not detected in the samples collected from the deep monitoring wells installed at the Site.

Groundwater Flow Conditions

The depth to groundwater at the Site varies seasonally, but groundwater is typically encountered beginning at depths of about 3 ft. to 5 ft. bgs in the "shallow" monitoring wells and about 5 ft. to 9 ft. bgs in the "deep" monitoring wells that are installed at the Site. An average hydraulic conductivity of 6.14 x 10⁻⁵ cm/sec was measured in the "shallow" monitoring wells tested and an average hydraulic conductivity of 1.56 x 10⁻⁴ cm/sec was measured in the "deep" monitoring well tested. Based upon measurements made at various times during this study, the average hydraulic gradient between the "shallow" monitoring wells ranged between about 0.01 ft./ft. and 0.02 ft./ft. Using the range of calculated hydraulic conductivities and average horizontal gradients, and an estimated porosity of 0.40, the "shallow" groundwater flow at the Site was calculated to range between about 0.004 ft./day and 0.011 ft./day. More permeable material such as fill above the native soil, fill used within utility trenches and/or interbedded fine sand, could result in more rapid transport of the groundwater and dissolved constituents.

Although groundwater flow patterns vary seasonally, groundwater flow measured in the "shallow" monitoring wells is generally to the south/southwest. The groundwater flow measured in the "deep" monitoring wells is generally to the north and northeast.

Groundwater Quality

Testing of groundwater samples collected during this study identified the presence of halogenated VOCs (i.e., PCE and associated breakdown products) in select "shallow" monitoring wells. The concentrations measured in of some of the samples collected from the "shallow" monitoring wells exceeded SCG. Halogenated VOCs were not detected in the samples from the "deep" monitoring wells that were tested.

A summary of the VOCs detected in the groundwater samples collected from the "shallow" monitoring wells sampled during this study is presented as Table 4 *Historic Summary of Detected Volatile Organic Compounds: Groundwater Samples*.

Sub-Slab and Air Testing

Detectable concentrations of PCE were reported in each of the sub-slab samples collected in April 2007, and the sample from the sub-slab beneath the Parkway Laundry (i.e., sample SSV-1) also contained detectable concentrations of TCE, cis-1,2 DCE and VC. However, the concentrations measured in the indoor air samples collected during the April 2007 study were less than the air guidance values presented in the NYSDOH document titled *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* dated October 2006 and the revised air guideline for PCE listed in the NYSDOH document titled *Tetrachloroethene (PERC) in Indoor and Outdoor Air, September 2013 Fact Sheet*. Presumably, the remedial activities conducted to date, including the installation of the sub-slab depressurization system within the Alcove portion of the former Parkway Cleaners building mitigated potential impacts to the indoor air in this portion of the Site.

Contaminants of Concern

The COC for the impacted media at this Site (i.e., soil, soil vapor and groundwater) include the following halogenated VOCs.

- tetrachloroethene (PCE)
- trichloroethene (TCE)
- 1,1-dichloroethene (1,1-DCE)
- cis-1,2-dichloroethene (cis-1,2-DCE)
- trans-1,2-dichloroethene (trans-1,2-DCE)
- vinyl chloride (VC)

These COC are related to the former use of PCE in the dry cleaning operations that were conducted at the former Parkway Cleaners in the past. PCE is most-often detected, and at higher concentrations, in samples collected in proximity of the Alcove of the former Parkway Cleaners where the dry cleaning machines were located (i.e., the original source area). The remaining COC are breakdown products of PCE and during recent sampling events the most often detected COC are cis-1,2-DCE and VC.

Potential Routes of Migration and Exposure

Based on the available data, COC migrating in a dissolved shallow groundwater plume is the primary route of exposure for the Site. The approximate 25⁺-foot thick deposit of indigenous silty clay that underlies the Site and the surrounding area serves as an aquiclude to preclude the downward migration of COC. The other potential routes of exposure and migration for this Site include direct contact with soil and/or groundwater impacted with COC or vapor migration into structures constructed in areas where COC are present within the subsurface at sufficient concentrations. While these routes of migration and exposure are possible, it is expected that the implementation of the remedial activities conducted during the RI, those outlined herein (see Section 10.0), and to be implemented as part of a SMP have or will adequately address these potential routes of exposure.

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COC Distribution and Migration Patterns

The highest concentrations of COC in the soil and groundwater were detected in proximity of the sediment trap/sump and adjacent to the southern wall of the Alcove portion of the former Parkway Cleaners building. These locations are the apparent original source area of the COC present at the Site. Migration of COC within the groundwater to the south/southwest away from the source area resulted in a plume consisting primarily of PCE (in proximity of the source area) and breakdown products (predominately cis-1,2-DCE and VC) in hydraulically downgradient positions.

Historically, COC impacted groundwater has typically been detected in an area measuring approximately 80 ft., from northwest to southeast, near the source area and about 130 ft. to the Although the most-recent test result indicated a potential decrease in COC concentrations, an increasing trend in COC concentrations was measured in samples collected from monitoring well MW-103s, which is located in a downgradient position near the property line of the Site. However, samples collected from monitoring wells within the central portion of the Site (e.g., IP-1, IP-2 and IP-3) that are located upgradient of MW-103s, and downgradient of the source area contained significantly lower COC concentrations. The lower concentrations of COC in the central portion of the Site is likely related to a combination of the IRM soil removal and the subsequent pilot testing conducted to further reduce residual groundwater contamination and valuate potential remedial options. The elevated COC concentrations detected in monitoring well MW-103s suggests that preferential flow may have occurred along buried utilities and/or through the fill material. [Note: A monitoring well was installed in 2013 as part of the BCP studies being conducted on the Canandaigua Brownfield Site Redevelopment Site, which is located south of the Site (i.e., hydraulically downgradient of the Site). This monitoring well, designated MW-69, is located approximately 20 ft. south of MW-103s and about 10 ft. southwest of the property line of the Site. Reportedly MW-69 was sampled on August 28, 2013 and a total COC concentration of 270 ppb (i.e., cis 1,2 DCE = 140 ppb and VC = 130 ppb) was measured. A second sample event was conducted on October 4, 2013 and a total COC concentration of 2,200 ppb was reportedly detected (i.e., cis 1,2 DCE and VC were both reported at a concentration of 1,100 ppb).]

Interim Remedial Measures

As the RI progressed various IRMs were implemented to address the COC impact. The IRMs completed included:

- A soil removal IRM (i.e., source area removal) was conducted between November 27, 2001 and December 4, 2001. This IRM also included the closure of the sediment trap/sump and removal of an approximate 100-gallon PCE storage tank from the roof of the former Parkway Cleaners building. A total of approximately 517 tons of soil was removed from the Site and disposed at approved facilities during this IRM. Approximately 128 tons of this soil was determined to be a hazardous waste and the remaining material was disposed as a non-hazardous waste subsequent to a CID evaluation.
- As a precautionary measure, a passive vent system was installed on July 9, 2002 beneath the new building constructed adjacent to the former Parkway Cleaners building to the east. In

- addition, a passive vent system was installed within the IRM soil removal excavations at the Site, prior to the capping these excavations with asphalt.
- On February 13, 2004, Mitigation Tech installed a sub-slab depressurization (SSD) system in the Alcove portion of the former Parkway Cleaners building, and the operation of this system has been monitored at various times since its installation. [Note: The Alcove portion of the former Parkway Cleaners building was demolished in July 2014, and the SSD system was decommissioned at that time (i.e., the fan and connecting piping was removed and the sub-slab piping was capped). The concrete slab for the Alcove remained following the demolition in anticipation that the SSD system will be reactivated following the remedial activities described in Section 10.0. As described in Section 10.3, the operation of the SSD system will be evaluated during each monitoring event conducted to assess the effectiveness of the remediation. The monitoring requirements and schedule for the SSD system will also be identified in the revised SMP.]

Pilot Testing

In addition to the IRMs, the following pilot testing was conducted during the RI to further remediate groundwater contamination and evaluate the suitability of the following in-situ treatment methodologies.

- On December 15, 2004, an oxygen-releasing compound and a strain of aerobic microbes were pumped into MP-1, MP-2, MP-3, MP-4, MW-1s, MW-3s, IP-1, IP-2 and IP-3.
- In February 2009 and September 2009, liquid mixtures of RegenOxTM chemical oxidation products were pumped into MP-1, MP-2, MP-4 and MW-101s.

Qualitative Human Health Exposure Assessment

The Qualitative Human Health Exposure Assessment identified the following potential exposure pathways for the Site:

- Future workers could be exposed to COC present in subsurface soil or groundwater at concentrations exceeding SCG. These exposures could occur during construction activities, while assessing buried utility confined spaces, etc.
- Future potential use of groundwater could pose a potential exposure pathway to COC that are present in groundwater at concentrations exceeding SCG.
- Occupants of future buildings that are constructed in the vicinity of residual COC impact to the soil or groundwater could be exposed to through vapor intrusion due to volatilization into future structures unless properly addressed/remediated.

It is anticipated that these potential exposure pathways can be addressed via remedial activities and/or implementation of the provisions of a SMP.

Fish and Wildlife Resources Impact Analysis

The data collected during this RI indicates that COC is not impacting surface water or sediments within the nearest surface waters, which are located approximately 825 ft. (0.15 miles) south of the Site. Also, the Site is not within or near an area with rare plants, rare animals and/or

significant natural communities. Therefore, it is concluded that a Fish and Wildlife Resources Impact Analysis is not needed for this Site.

9.2 Conceptual Site Model

The data collected during this RI was used to develop a conceptual site model describing subsurface conditions, contaminant release mechanisms and distribution patterns. Based upon the findings summarized in Section 9.1, the conceptual site model indicates that PCE-impacted wastewater entered the subsurface at the former sediment trap/sump resulting in the original "source area" of halogenated VOCs (i.e., PCE and associated breakdown products, which are identified as the COC for the Site) at the Site. It is possible, although not specifically confirmed during the RI, that spillage may have occurred during former dry cleaning operations, which added to the subsurface impact within the source area. The findings of the RI indicate that the COC impacted the soil, soil vapor and groundwater. The soil impacted with COC at concentrations exceeding SCG remaining at the Site is limited to localized portions of the Site that could not be addressed during the soil removal IRM since such soil is located under existing building structures. Currently, the localized soil impacted with COC at concentrations exceeding the SCO is being mitigated through the soil vapor mitigation system, and is not otherwise an exposure pathway since it is currently covered by "clean" material (e.g., asphalt pavement, concrete, etc.). If this material is disturbed in the future (e.g., during utility repairs) or redevelopment, the provisions outlined in the SMP and deed restriction should be sufficient to address impacts until the remedial efforts described in Section 10.0 are implemented and result in a decrease in the concentrations of residual COC.

As groundwater migrates away from the remaining soil "source area" under the Alcove, COC (primarily PCE with lower concentrations of breakdown products) may continue to dissolve into and migrate within the groundwater decreasing in concentration away from the "source area". As evidenced by the lack of the parent compounds (i.e., PCE) and the presence of breakdown products (i.e., cis-1,2-DCE and VC) in hydraulically downgradient locations, biodegradation is occurring at the Site. The subsurface conditions limit the vertical extent of COC impact to a "shallow" groundwater zone, which is characterized by fill material above an indigenous deposit of alternating layers of silt, silty sand and silty clay that extends to an approximate depth ranging from about 13 ft. to 14 ft. bgs. A 25⁺-foot thick layer of silty clay extends across the Site below the "shallow" groundwater zone and this layer acts as an aquiclude precluding the downward migration of COC.

COC impacted groundwater has historically been detected in an area measuring approximately 80 ft., from northwest to southeast, near the original "source area" and about 130 ft. to the southwest (i.e., apparently extending to hydraulically downgradient positions on the property to the south of the Site). Monitoring points located in proximity of the Alcove are the only locations where PCE is currently detected in the groundwater (PCE is the "parent compound" associated with the dry-cleaning fluid previously used at the Site).

Samples collected during sample events completed between May 27, 2009 and May 24, 2011 from monitoring well MW-103s, which is located in a downgradient position near the property line of the Site, indicated an increasing trend in COC concentrations. However, as sample collected from monitoring well MW-103s on May 20, 2013 contained lower concentrations of COC suggesting the possibility that the source of the elevated COC impact may be limited.

Samples collected from monitoring wells within the central portion of the Site that are located upgradient of MW-103s, and downgradient of the source area (e.g., monitoring wells IP-1, IP-2 and IP-3) contained significantly lower COC concentrations. The lower concentrations of COC in the central portion of the Site is likely related to a combination of the IRM soil removal and the subsequent pilot testing conducted to further remediate groundwater and evaluate potential remedial options. The elevated COC detected in monitoring well MW-103s suggests that preferential flow may have occurred along buried utilities and/or through the fill material. This remaining area of elevated groundwater contamination will be treated again in the final remedy described in Section 10.0.

Migration of via soil vapor (i.e., originating within soil and/or groundwater impacted with COC) was documented in sub-slab testing conducted within the former Parkway Cleaners building. The installation of a sub-slab depressurization system within the Alcove portion of the former Parkway Cleaners and implementation of a soil removal IRM appear to have adequately addressed the soil vapor migration pathway for the existing buildings. However, the potential exists for future buildings constructed in areas where residual COC is present at concentrations exceeding SCG. As such, evaluation or construction of vapor mitigation systems will be required to address/eliminate this potential migration pathway.

9.3 Effectiveness of Interim Remedial Measures and Pilot Testing

Cumulatively, the IRMs completed have resulted in a decrease in COC impacted soil and groundwater. The soil test results for samples collected prior to the IRM soil removal and the confirmatory soil samples collected subsequent to the removal indicate that the majority of soil impacted with COC at concentrations exceeding SCG (i.e., source material) has been removed and Commercial SCO have been met. Localized areas of COC impacted soil remain, at concentrations that exceed unrestricted use and/or protection of groundwater SCO. As such, the remedial options described in Section 10.0, and the provisions outlined in the draft SMP, are presented to address this residual impact.

As evidenced by the decrease in concentrations detected in samples collected from some monitoring wells subsequent to the bioaugmentation in-situ treatment/pilot test completed in December 2004 (e.g., the on-going decreases in COC concentrations observed subsequent to treatment in monitoring well MW-101s, locations in the central portion of the Site and the initial decreases observed in monitoring well MW-103s), this in-situ treatment alternative, or a variation thereof (e.g., biostimualtion to enhance *Dehaloccoides* microbe populations) is a suitable alternative for the remediation of residual groundwater impact at the Site. This treatment will be used where elevated concentrations of COC remain.

The effectiveness of the chemical oxidation in-situ treatment/pilot testing conducted in February 2009 and September 2009 is not clear. While a decrease in COC concentrations was measured in some monitoring wells located in proximity of the original "source area" following treatment, the decreases were generally lower than anticipated, and an overall decreasing trend was not evident. However, samples collected from monitoring wells in the central portion of the Site (i.e., locations immediately downgradient of the source area) were generally lower or non-detect. It is possible that the presence of organics (decaying vegetation) within the soil could have interfered with/delayed this treatment process. Additional pilot testing that potentially includes

the placement of adequate product to overcome the presence of the organics in the soil would be required to determine the long-term effectiveness of this remedial method.

The installation of the passive vent systems and the sub-slab depressurization system appear to have been effective in eliminating vapors in interior buildings. This is evidenced by the results of the April 2007 vapor intrusion study that identified COC impact in sub-slab samples, but allowable COC concentrations within indoor air samples.

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10.0 RECOMMENDED REMEDIAL ACTIONS

The remedial actions proposed to address residual COC impacts at the Site are outlined in this section. In accordance with the provisions set fourth in the DER-10 document, the effectiveness and acceptability of these remedial actions were evaluated for the following criteria.

- <u>Protection of Human Health and the Environment.</u> The ability of the proposed remedial actions to protect public health and the environment, and assesses how risks posed through existing or potential pathways of exposure are eliminated, reduced or controlled.
- <u>Compliance with Standards, Criteria and Guidance (SCG).</u> Compliance with SCG addresses whether or not the proposed remedial actions will meet applicable environmental laws, regulations, standards and guidance.
- <u>Short-Term Impacts and Effectiveness.</u> The potential short-term adverse impacts and risks of the proposed remedial actions upon the community, site workers and the environment during its construction and/or implementation of remedial actions including identified adverse impacts and health risks to the community or workers at the Site, and how such issues will be controlled, and the effectiveness of said controls.
- <u>Long-Term Effectiveness and Permanence.</u> This criterion evaluates the long-term effectiveness of the proposed remedial actions after implementation. The residual COC impact at the Site was assessed for the following items:
 - o The magnitude of the remaining risks (i.e., Will there be significant threats, exposure pathways, or risks to the community and environment from the remaining wastes or treated residuals?);
 - o The adequacy of the engineering and institutional controls intended to limit the risk;
 - o The reliability of the these controls; and,
 - The ability of the remedy to continue to meet remedial action objectives in the future.
- Reduction of Toxicity, Mobility and Volume. The ability of the proposed remedial actions to reduce the toxicity, mobility or volume of COC.
- <u>Implementability.</u> The technical and administrative feasibility of implementing the proposed remedial actions. Technical feasibility includes the differences associated with the construction and the ability to monitor the effectiveness of the remedy. Administrative feasibility includes the availability of the necessary personnel and material, as well as, potential differences in obtaining specific operating approvals access for construction, etc.

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- <u>Cost Effectiveness.</u> The relative overall cost effectiveness of the proposed remedial actions.
- Planned Future Use of the Site. This criterion is intended to evaluate the proposed remedial alternatives in relation to the planned future use of the Site. Presently, it is anticipated that the future uses of the Site would be the same as the past uses that being a commercial use and the continued use of the adjoining building as part of a commercial retail plaza. It is anticipated that the property to the south will be developed for mixed commercial and residential use, and that this adjacent property will be remediated in accordance with applicable provisions outlined in the Brownfield Cleanup Program.
- <u>Community Acceptance</u>. This criterion is intended to select remedial actions that are acceptable to the community.

10.1 Completed Remedial Actions

The remedial actions conducted to date at the Site included an IRM soil removal that removed soil from the source area to the extent possible. Test results indicate that the soil in some areas of the Site that remained following the IRM soil removal contain concentrations of COC that exceed unrestricted and protection of groundwater SCO (e.g., in proximity of the Alcove area of the former Parkway Cleaners building).

In addition, biodegradation is occurring at the Site, suggesting that populations of *Dehaloccoides* microbes are present within the subsurface as a result of natural processes and in-situ treatments completed to date. Although COC concentrations have decreased most locations of the Site (e.g., within the central portion as evident by recent test results for monitoring wells IP-1, IP-2 and IP-3), an increasing trend of COC was measured in samples collected from MW-103s, which suggests that the populations of *Dehaloccoides* microbes is insufficient in this location to result in a decrease in COC concentrations.

10.2 Completed Mitigation

A sub-slab depressurization system that was installed within the Alcove portion of the former Parkway Cleaners building, and passive mitigation systems were installed within the IRM soil removal areas prior to the replacement of the asphalt pavement and within an adjacent building to the east. The combined effect of these systems has been documented to effectively preclude vapors from collecting within the current structures located in proximity of the Alcove. [Note: Since the Alcove portion of the former Parkway Cleaners building was demolished in July 2014 and the SSD system was decommissioned, an evaluation of indoor air quality will be completed when the system is re-activated to determine if the re-activated system continues to prevent vapor intrusion into the current structures or if additional vapor mitigation is required (e.g., installation of a SSD system within the Parkway Laundry building.]

10.3 Proposed Remedial Actions

Additional treatment is recommended to address the residual COC impact observed in samples collected from monitoring wells and/or soil in the presumed source area, which is located within and in proximity of the Alcove of the former Parkway Cleaners building. In addition to prevent

further offsite migration of groundwater containing residual COC, treatment is required in proximity of monitoring well MW-103s where, although the most-recent sample collected on May 20, 2013 exhibited lower concentrations of COC, samples collected during each successive monitoring event conducted between May 27, 2009 and May 24, 2011 exhibited increasing concentrations. Specifically, it is recommended that a remedial action work plan (RAWP) be developed and implemented that includes anaerobic bioremediation via the stimulation of assumed existing *Dehalococcodies* microbes using an amendment consisting of a combination of vegetable oil, sugar and nutrients to accelerate microbe growth and promote the biological treatment of the residual COC impact.

Prior to the start of the biostimulation, the Alcove portion of the former Parkway Cleaners building will be demolished. Thereafter a round of groundwater samples will be collected from functioning monitoring wells on the Site and on the adjacent property to the south to establish baseline conditions. It is anticipated that these monitoring wells will include MP-1, MP-3, MW-102s, MW-103s, IP-1, IP-2, IP-3 and MW-4 that are located on the Site, and off-site monitoring wells MW-302, MW-69 and MW-204. The samples collected from these monitoring wells will be evaluated for the presence of non-aqueous phase liquid (NAPL), tested for field parameters (i.e., static water levels, pH, specific conductivity, oxygen reduction potential and dissolved oxygen), and submitted to an analytical laboratory for testing of halogenated VOCs. Following the collection of the baseline samples, biostimulation amendment will be injected/placed in locations within, and in proximity to, the Alcove portion of the former Parkway Cleaners building and in proximity to monitoring well MW-103s. The injections in proximity of MW-103s will be positioned hydraulically upgradient of this well and downgradient this well (i.e., between MW-103s and the property line). Although the number, location and spacing of injection points will be defined in a RAWP, it is anticipated that initially up to 10 injection points will be advanced in proximity of the Alcove area and up to 15 injection points will be advanced in proximity of MW-103s using direct-push drilling techniques. Each injection point will be advanced to targeted depth of 15 ft. below the ground surface. In addition, existing monitoring points MP-2 and MP-4 that were installed in the IRM soil removal areas will also be used to place biostimulation amendments. [Note: It is anticipated that injection points/existing monitoring points will typically be spaced at 10-foot intervals in locations outside of the Alcove, and approximate 5-foot intervals within the Alcove area. It is anticipated that the injection points in proximity of MW-103s will be spaced at 10-foot intervals.]

Subsequent to the placement of the biostimulation amendments, monitoring will be completed to determine if additional (e.g., the injection of additional biostimulation amendments) and/or alternative treatment (e.g., bioaugmentation to provide additional populations of *Dehalococcodies* microbes) is required and to assess if the injection process caused an increase in COC concentrations in off-site locations (e.g., within monitoring well MW-69). If deemed necessary, samples will be collected from select monitoring wells for testing of microbe populations to evaluate the functional groups of *Dehaloccoides* microbes present to assure that an adequate population of microbes are present, and that the microbes present are capable of the complete degradation of the COC (i.e., the degradation does not stall at cis-1,2 DCE and/or VC).

Since the sub-slab depressurization system currently operating in the Alcove will likely be compromised following the demolition of the Alcove and the subsequent injections within the concrete slab, the system will be repaired if possible or alternatively a new system may be required within the current Parkway Laundry building.

Effectiveness/Groundwater Monitoring

Validation of performance of an enhanced bioremediation system is required to determine the effectiveness of the treatment in attaining remedial objectives and operation endpoints. A network of "shallow" groundwater monitoring wells has been installed to monitor groundwater conditions at the Site, and three functioning monitoring wells (i.e., MW-69, MW-204, and MW-302) are located on the adjacent property to the south of the Site. As part of the assessment of the remediation process, each of the functioning monitoring wells in this network will be evaluated during monitoring events to determine depth to water and to confirm the absence of NAPL. The following monitoring wells in the network will be sampled and tested for various field and analytical laboratory parameters during each sample event:

- MP-1 and MP-3 monitoring wells installed within the IRM soil removal area (i.e., to evaluate contaminant concentrations within the original "source" area);
- MW-102s monitoring well installed adjacent to the original "source" area to evaluate migration of COC;
- IP-3 monitoring well installed in the central portion of the Site upgradient of impacted monitoring well MW-103s;
- MW-103s monitoring well positioned adjacent to the property line in downgradient locations to monitor COC impact and potential off-site migration; and
- MW-69 monitoring well installed on the adjacent property to the south that should be evaluated to assess the impact of the injection process and to document the long-term effectiveness of the biostimulation.

The final list of monitoring wells that will be submitted for testing will be determined following a review of the baseline test results. The frequency of testing will be defined in the RAWP, but it is anticipated that samples will initially be collected and tested quarterly, and the sampling frequency thereafter will be determined based upon the test results.

Monitoring well sampling activities will be recorded in a field book and on the groundwater-sampling log. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network. The aspects of the groundwater monitoring program are described below.

Static water levels will be measured to a monitoring point of known elevation using a Heron Model HO1.L oil/water interface probe or similar instrument.

The groundwater samples for field and analytical laboratory testing will be collected using PDB samplers in accordance with the procedures outlined in Section 3.5. The PDB samplers will remain in the monitoring wells for a minimum of ten calendar days prior to retrieval and the collection of samples for testing. [Note: It is anticipated that following collection, new PDB samplers will be placed in the monitoring wells, and retrieved during the subsequent sampling event. This will serve to reduce the site visits and sampling costs.] Groundwater levels will be

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measured in monitoring wells prior to the installation of the PDB samplers and subsequent to their retrieval.

The groundwater samples collected as part of a routine sampling event will be tested in the field for in-situ parameters and submitted for testing by a NYSDOH ELAP-certified analytical laboratory. Each sample will be analyzed for halogenated VOCs using USEPA Method 8260. Each of the samples collected will also be tested for the field parameters of pH, specific conductivity, temperature, and oxygen reduction potential (ORP) using a Horiba U-22 meter or equivalent. Dissolved oxygen (DO) will be measured using the down-hole YSI, Incorporated Model 550A, or similar.

Site-specific QA/QC samples (i.e., field blanks, field duplicate samples, matrix spike/ matrix spike (MS/MSD) duplicate samples will not be collected or analyzed as part of the routine groundwater sampling events. Samples collected to confirm that treatment is complete (e.g., final project close out) will include the collection of QA/QC samples and the preparation of a DUSR by an independent party.

In addition to the testing described above, select monitoring wells will be sampled and tested for the following parameters if deemed necessary.

- Total Organic Carbon This is a contingency measure that will be implemented if it is suspected that bioremediation amendments have not reached a specific targeted location. The results of this evaluation will determine the substrate strength at the test location.
- Dehalococcoides and Dehalococcoides functional groups This is a contingency measure that will be implemented if it is suspected that the favorable reducing conditions have been achieved, however, the VOC concentrations are not reducing. The results of this evaluation will aid in the determination if bioaugmentation (or other alternative remedial measures) may be warranted.

The locations of the monitoring wells installed at the Site and on the adjacent property to the south are shown on the Site Plan included as Figure 2.

Sub-slab Depressurization Monitoring

Observation and monitoring of the SSD System installed under the Alcove portion of the former Parkway Cleaners building (or a replacement system if deemed necessary following the demolition of the Alcove) will be conducted during each monitoring event. The following observation and monitoring components will be completed:

- Check that the in-line fan is operating. If the unit is not operating or is making an unusual sound, the system should be serviced, which may include repair or replacement of the inline fan or associated components.
- Check integrity of interior and exterior aboveground vent piping. If damaged or leaking, repair or replace as deemed necessary.
- Check for measurable vacuum on the system using the in-line manometer. If there is no measurable vacuum, then take the following actions:

- Confirm manometer is connected and in-line fan is on and functioning.
- Re-measure vacuum at in-line manometer. If measurable vacuum, then no further action required. If no measurable vacuum, then proceed to actions below:
 - Increase fan speed/replace fan
 - Check power supply. If power supply is on and the there continues to be no vacuum, then the system should be serviced. If the power supply is off, access the reason, and service the system as deemed necessary.
 - Check labeling on aboveground system piping and control box. Replace labeling if observed to be damaged or missing.
 - Observe exterior air vent discharge point associated with the SSD system to verify no air intakes have been installed nearby. If air intake has been installed nearby, then discontinue or re-locate the air intake, or re-locate the SSD system air vent discharge point.

The observations made as part of this inspection will be recorded in a field book for each sample event and subsequently this information will be presented in the report described below.

Reporting

Following each monitoring event, a report summarizing the results of the work completed will be submitted to the NYSDEC. This report will include copies of sampling logs, photographs (if appropriate), analytical laboratory reports, and executed chain-of-custody documentation. In addition, data generated will be compiled in a table for comparison to historical results and compliance with SCG.

Remedial Action Objectives (RAOs)

The RAOs for the proposed remedial actions described above will include the following:

Groundwater

Public Health Protection

- i. Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards. [This RAO shall be achieved by prohibiting use of groundwater without NYSDEC approval in the deed restriction.]
- ii. Prevent contact with, or inhalation of volatiles, from contaminated groundwater. [This RAO will be achieved through the continued use of the SSD system (unless testing determines this system is not required) and maintaining the existing site-wide cover system.]

Environmental Protection

- i. Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable. [The proposed remedy is intended to reduce contaminants levels in the groundwater and stabilize the contaminant plume.]
- ii. Prevent the discharge of contaminants to surface water. [While there is no surface water on the Site and no evidence of surface water contamination has been documented to be emanating from the Site, Canandaigua Lake is located is located approximately 825 ft. (0.15 miles) south of the Site. A goal of the proposed remedy is to further reduce the source of contamination on the Site and contaminated groundwater migration, which would also serve to reduce potential impacts to the surface water in proximity of the Site.]
- iii. Remove the source of ground or surface water contamination. [As described above, the proposed remediation is intended to remove/reduce the source of groundwater and surface water impacts.]

Soil

Public Health Protection

- i. Prevent ingestion/direct contact with contaminated soil. [The SMP will outline procedures to manage potentially contaminated soil if disturbed during re-development, activities, utility repairs, etc. Otherwise, the site-wide cover system is preventing ingestion/direct contact with contaminated soil.]
- ii. Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil. [The continued use of the SSD system (unless testing determines this system is not required) and maintaining the existing site-wide cover system will achieve this objective until remedial efforts have reduced contaminant levels sufficiently to prevent volatilization.]

Environmental Protection

- i. Prevent migration of contaminants that would result in groundwater or surface water contamination. [The proposed remediation will reduce contaminants within the source area and address the migration of contaminants in the groundwater impacting off-site locations, including potential surface water impacts.]
- ii. Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain. [The proposed remedy is intended to reduce contaminant levels at the Site and preclude migration away from the Site. The remedial efforts, in combination with deed restrictions to be implemented, should serve to prevent impacts to biota from ingestion and direct contact.]

Soil Vapor

Public Health Protection

i. Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site. [The continued use of the SSD system (unless testing

determines this system is not required) and maintaining the existing site-wide cover system will address this objective.]

10.4 Site Management Plan

A draft copy of a SMP dated February 2009 was submitted to the NYSDEC. This SMP details the site-specific implementation procedures that will be required by the Deed Restriction and will be updated to reflect this updated RIR/RAR. The final SMP will provide a detailed description of procedures required to manage residual contamination at the Site during and following the completion of remedial activities including: (1) implementation and management of Engineering Controls (ECs) and Institutional Controls (ICs); (2) media monitoring; (3) operation and maintenance of treatment, collection, containment, or recovery systems; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, the SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs, which includes a reporting plan for the submittal of data, information, recommendations, and certifications to NYSDEC; (2) a Monitoring Plan for implementation of Site Monitoring; and (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems.

10.5 Effectiveness of Remedial Activities

The effectiveness of the remedial actions described above was evaluated for the criteria outlined in the DER-10 document. The results of this evaluation are summarized in this section.

Protection of Human Health and the Environment

The remediation of residual COC described herein and the subsequent monitoring will confirm the protection of human health and the environment. The monitoring of the SSD system in the Alcove portion of the former Parkway Cleaners (or an alternative system, if required) will confirm that this pathway is being controlled. The implementation of the SMP will protect site workers, adjacent populations and the environment in the event unforeseen impacts are encountered in the future.

Compliance with Standards, Criteria and Guidance (SCG)

The remedial actions that have been and will be implemented for the purpose of attempting to achieve compliance with applicable SCG established by the NYSDEC and NYSDOH. The goal of the remedial activities will be to reduce COC concentrations below SCG values or to document stabilized conditions in annual reports.

Short-Term Impacts and Effectiveness

No short-term adverse impacts are anticipated to the surrounding community during the implementation of the remedial actions. Monitoring will be conducted to document that the treatment process has not resulted in adverse environmental impacts in off-site locations.

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Specifically, VOC and particulate monitoring will be conducted along the down-wind perimeter of the work zone during the injection events in accordance with the Community Air Monitoring Plan included in the site-specific health and safety plan (HASP). In addition, the area around the injections will be observed for breakout of the biostimulation amendment during the remedial injection events, if observed, the injection pressure will be adjusted accordingly. Potential short-term impacts during future site work excavation will be mitigated by the procedures in the SMP and the HASP.

Long-Term Effectiveness and Permanence

The remedial efforts conducted to date coupled with the proposed remediation intended to address residual COC impacts should be sufficient to address significant threats, exposure pathways or risks to the community and environment. Further, the engineering controls outlined in the SMP will limit current and future risk and these controls are reliable and have been successfully implemented to date at this Site and at other sites. Finally, the long term monitoring will document the continued decrease in COC concentrations, which should confirm the permanence of the remedial action.

Reduction of Toxicity, Mobility and Volume

It is anticipated that the proposed final remedial action will reduce COC volumes and document further reduction in COC concentrations, and associated toxicity in groundwater. While the remedial actions will not directly reduce the mobility of the COC, lower concentrations will have less impact to the environment.

Implementability

It is believed that the remedial actions are implementable and feasible from a technical and administrative standpoint since a similar remedy has already been successfully implemented on the Site.

Cost Effectiveness

The final remedial actions are judged to be a cost effective alternative to address the COC impacts at the Site.

Planned Future Use of the Site

It is anticipated that the Site will continue to be used for commercial purposes similar to the current commercial use. The Site will be deed restricted so that the use cannot change from a commercial use without NYSDEC approval. It is understood that the adjacent property to the south of the Site will be developed for mixed commercial and residential use. The Deed Restriction will be voluntarily imposed on the Site with a number of controls that:

- shall prohibit the Site from ever being used for purposes other than for the Commercial Contemplated Use as defined in the VCA or an industrial use without the express written waiver of such prohibition by the NYSDEC;
- shall require, in the event future plans involve demolition of the existing building and slab, a new investigation (if required) and remediation to address residual soil

- contamination that may remain present above the applicable SCOs relevant for the proposed use;
- shall prohibit the use of the groundwater underlying the Site without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the NYSDEC;
- shall require Volunteer and Volunteer's successors and assigns to continue in full force and effect the approved SMP; and
- shall provide that the deed restriction shall remain in place until such time as Unrestricted Use SCOs and groundwater standards are achieved.

Community Acceptance

The community has been and should continue to be accepting of the remedy since it resulted in the permanent removal of on-site contamination. Moreover, actions, including the SMP and deed restriction, will be put in place to protect future owners, operators and workers excavating in areas of the Site that may still be impacted with COC concentrations exceeding SCG,. These site controls will be implemented to limit impacts to site workers and the public. As such, it is anticipated that the remedial actions will be acceptable to the community.

10.6 Site Closure

Once this final remedy is implemented, the Volunteer will seek closure under the VCP and receipt of a liability release contingent upon continued compliance with the SMP and deed restriction. The Volunteer anticipates all work to close out this VCP project can be completed in the next six months.

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REFERENCES

Previous Reports and Documents

Phase I Environmental Site Assessment, dated June 29, 1998 prepared by IVI Environmental, Inc. (IVI).

Phase II Environmental Site Assessment, dated August 6, 1998 prepared by IVI.

Data Package Former Dry Cleaners Parkway Plaza Canandaigua, New York, dated March 1999 prepared by Day Environmental, Inc. (DAY).

Emflux Passive, Non-Invasive Soil-Gas Survey, Parkway Plaza, Canandaigua, New York, dated March 22, 2001 prepared by Beacon Environmental Services, Inc.

Work Plan, Voluntary Cleanup Program, Former Parkway Cleaners, Portion of Parkway Plaza, Canandaigua, New York, Index No. B8-0555-99-06, dated June 2000 prepared by Day Environmental, Inc.

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INTERIM REMEDIAL MEASURE REPORT: Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, Site Index Number B8-0555-99-06, dated September 2002 prepared by Day Environmental, Inc.

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In addition to the above documents, various progress reports, letters and other correspondence were submitted to the NYSDEC, NYSDOH and other regulatory entities via US Mail and/or e-mail. This additional documentation is not specifically identified herein.

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ACRONYM LIST

ASP Analytical Services Protocol AST Aboveground Storage Tank

ASTM American Society for Testing and Materials
ATSDR Agency for Toxic Substance of Disease Registry

Beacon Environmental Services, Inc.

bgs below ground surface

BCP Brownfield Cleanup Program

CAS Columbia Analytical Services
CID Contained-In Demonstration
COC Contaminants of Concern

DAY Day Environmental, Inc. cis-1,2-DCE cis-1,2-dichloroethene
1,1-DCE 1,1-dichloroethene
1-2-DCE 1,2-dichloroethene
trans-1,2-DCE trans-1,2-dichloroethene

DNAPL Dense Non-Aqueous Phase Liquid

DO Dissolved Oxygen

DUSR Data Usability Summary Report

DVS Data Validation Services

EC Engineering Controls

ELAP Environmental Laboratory Approval Program

FEMA Federal Emergency Management Agency

ft. feet

HASP Health and Safety Plan

IC Institutional Controls ID Inside Diameter

IRM Interim Remedial Measure IVI IVI Environmental, Inc.

kg Kilogram

l Liter

Michigan Disposal Michigan Disposal Waste Treatment Plant in Belleville, Michigan

Mitkem Corporation

mg Milligram ml Milliliter

MNA Monitored Natural Attenuation
MS/MSD Matrix Spike/Matrix Spike Duplicate

MW Monitoring Well

NAPL Non-Aqueous Phase Liquid

NYS New York State

NYSDEC New York State Department of Environmental Conservation

NYSDOH New York State Department of Health

NYSDOT New York State Department of Transportation

OD Outside Diameter

ORP Oxygen Reduction Potential

Owner Parkway Plaza Limited Partnership, LLP

Paradigm Paradigm Environmental Services, Inc. PCE Perchloroethene or Tetrachloroethene

PDB Passive Diffusion Bag

Phase I ESA Phase I Environmental Site Assessment
Phase II ESA Phase II Environmental Site Assessment

PID Photoionization Detector

POTW Publicly Owned Treatment Works
ppb Parts Per Billion or ug/kg or ug/l
ppm Parts Per Million or mg/kg or mg/l

psi pounds per square inch

PQL Practical Quantification Limit

PVC Polyvinyl Chloride

RA Remedial Alternatives
RAO Remedial Action Objective

REC Recognized Environmental Condition

RI Remedial Investigation

RSCO Recommend Soil Cleanup Objectives

SCG Standard, Criteria and Guidance

SCO Soil Cleanup Objectives

Site Former Parkway Cleaners, 85 Eastern Boulevard, City of Canandaigua,

Ontario County, New York VCP Site No. Voo238-8

SLC SLC Environmental Services, Inc.

SMP Site Management Plan

SSD Sub-Slab Depressurization System SVOC Semi-Volatile Organic Compound

TAGM Technical and Administrative Guidance Memorandum

TAL Target Analyte List

TB Test Boring TCE Trichloroethene

TCL Target Compound List

TIC Tentatively Identified Compound

TOGS Technical and Operational Guidance Series

USEPA United States Environmental Protection Agency

ug micrograms

USGS United States Geological Survey UST Underground Storage Tank

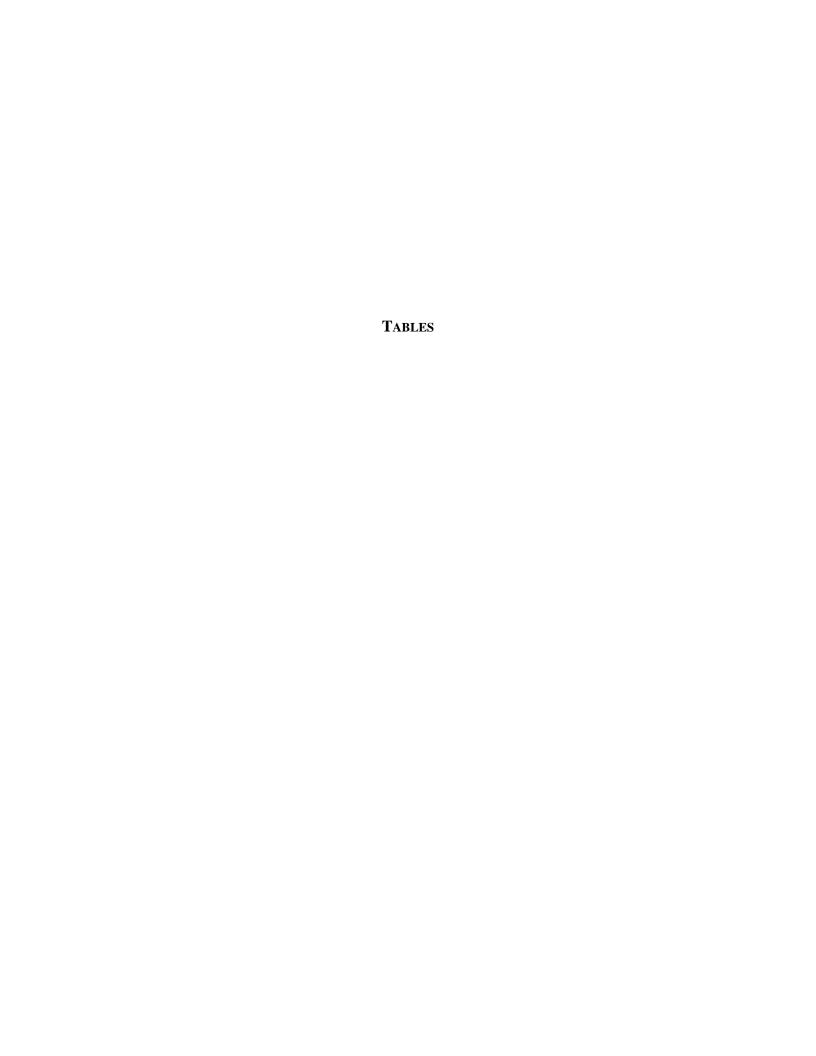
VC Vinyl Chloride

VCP Voluntary Cleanup Program VOC Volatile Organic Compounds

QA/QC Quality Assurance/Quality Control

York York Analytical Laboratories, Inc.

Day Environmental, Inc. Page 66 of 66 RLK4107.1/2105R-99



Former Parkway Cleaners Canandaigua, New York VCP Site #00238-8

Table 1 Summary of Test Borings/Monitoring Wells

Identification	Date Installed	Bottom of Boring	Screened Interval (Feet)	Comments
		(Feet)		
B-1	7/23/1998	*		Located on north side of building
B-2	7/23/1998	*		Located within IRM removal area
B-3	7/23/1998	*		Located within IRM removal area
B-4	7/23/1998	~3.0		Located inside Alcove
TB-1(MW-1)	11/5/1998	20.0	10-16	Well removed and grouted 12/1998
TB-2(MW-2)	11/5/1998	16.0	9-14	Well removed during IRM paving
TB-3	11/6/1998	16.0		
TB-4	11/5/1998	16.0		
TB-5	11/5/1998	16.0		
TB-6(MW-3)	11/5/1998	16.0	11-16	
TB-7	11/5/1998	16.0		
TB-8	11/6/1998	16.0		
TB-9	11/6/1998	16.0		
TB-10(MW-4)	11/6/1998	16.0	10-15	
PPTB-1	9/5/2000	24.0		
PPTB-2	9/5/2000	40.0		
PPTB-3	9/5/2000	24.0		
PPTB-4	9/5/2000	24.0		
PPTB-5	9/5/2000	24.0		
PPTB-6	9/6/2000	24.0		
PPTB-7	9/6/2000	44.0		
PPTB-8	9/6/2000	40.0		
PPTB-9	9/6/2000	24.0		
PPTB-10	9/7/2000	2.3		Completed within building
PPTB-10A	9/7/2000	2.4		Completed within building
PPTB-11	9/7/2000	16.0		Completed within building
PPTB-12	9/7/2000	2.5		Completed within building
PPTB-12A	9/7/2000	16.0		Completed within building
PPTB-13	9/7/2000	24.0		
PPTB-14	9/7/2000	24.0		
PPTB-15	9/7/2000	24.0		
MW-1S	9/21/2001	14.0	3-13	
MW-2S	9/4/2001	14.0	3-13	Replaced with MW-2.1S
MW-3S	9/4/2001	14.0	3-13	•
MW-1D	9/5/2001	55.0	49.5-54.5	
MW-2D	9/7/2001	42.0	37-42	
MW-3D	9/7/2001	57.0	51-56	

Former Parkway Cleaners Canandaigua, New York VCP Site #00238-8

Table 1
Summary of Test Borings/Monitoring Wells

Identification	Date	Bottom	Screened	Comments
	Installed	of	Interval	
		Boring	(Feet)	
		(Feet)		
MP-1	12/4/2001	19.4		Installed during IRM backfill
MP-2	12/4/2001	19.3		Installed during IRM backfill
MP-3	12/4/2001	19.0		Installed during IRM backfill
MP-4	12/4/2001	16.0		Installed during IRM backfill
MW-2.1S	9/20/2004	12.5	2-12	
MW-101S	1/29/2004	15.0	4-14	
MW-102S	1/29/2004	15.0	4-14	
MW-103S	9/16/2004	14.0	3-13	
IP-1	11/29/2004	15.0	4-14	
IP-2	11//29/2004	15.0	4-14	
IP-3	11/29/2004	15.0	4-14	
MW-201	9/7/2007	16.0	10-15	
MW-203	9/7/2007	20.0	4-19	
MW-204	9/7/2007	16.0	6-16	
MW-301	8/27/2009	16.0	10.5-15	
MW-302	8/27/2009	16.0	10.5-15	

Notes:

- Test borings B-1 through B-4 were advanced as part of a Phase II ESA conducted by IVI Environmental, Inc. [* Test boring logs are not available for B-1, B-2 and B-3, but the available information indicates that these test borings were advanced to depths of 12 feet or 16 feet below the ground surface.] Soil samples B-1 (2'-4'), B-2 (3-5'), B-3 (2'-4') and B-4 (1'-3') were collected and tested for halogenated VOCs. In addition, water samples from B-1 and B-2 were collected and tested for halogenated VOCs; however no groundwater monitoring wells were installed. The results of this testing is summarized in Appendix C.
- Test borings TB-1 through TB-10 and monitoring wells TB-1(MW-1), TB-2(MW-2), TB-6(MW-3) and TB-10(MW-4) were advanced/installed by Zebra Environmental, Corporation as part of Phase II ESA completed by DAY as summarized in a report titled *Data Package Former Dry Cleaners Parkway Plaza Canandaigua*, *New York* dated March 1999. The monitoring wells are constructed of 1¼-inch diameter flush-coupled PVC screens and risers.
- Test borings PPTB-1 through PPTB-9 and PPTB-13 through PPTB-15 were advanced by Nothnagle Drilling, Inc. using truck-mounted direct-push sampling equipment. Test borings PPTB-10 through PPTB-12A were advanced by DAY

Former Parkway Cleaners Canandaigua, New York VCP Site #00238-8

Table 1 Summary of Test Borings/Monitoring Wells

using hand-operated Geoprobe Systems sampling equipment. Monitoring wells MW-1S, MW-2S and MW-3S are constructed of 1½-inch diameter flush-coupled PVC screens and risers. Monitoring wells MW-1D, MW-2D and MW-3D are constructed of 2-inch diameter flush-coupled PVC screens and risers. These monitoring wells were installed by Lyon Drilling Company using a truck-mounted rotary drill rig with direct-push capabilities. This work is summarized in a report prepared by DAY titled INTERIM REMEDIAL MEASURE REPORT: Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, Site Index Number B8-0555-99-06 dated September 2002.

- Monitoring points MP-1 through MP-4 consist of 6-inch diameter flush-coupled PVC screens and risers installed during the backfill of the IRM soil removal areas. The installation of these monitoring points is described in the report prepared by DAY titled INTERIM REMEDIAL MEASURE REPORT: Former Parkway Cleaners, Parkway Plaza-Canandaigua, New York: NYSDEC Site Code #V00238-8, Site Index Number B8-0555-99-06 dated September 2002.
- Monitoring well MW-2.1S is constructed of 2-inch diameter flush-coupled PVC screen and riser that was installed by Lyon Drilling Company to replace MW-2S, which was destroyed/covered during the re-paving of the parking lot at Parkway Plaza.
- Monitoring well MW-103S is constructed of 2-inch diameter flush-coupled PVC screen and riser that was installed by Lyon Drilling Company.
- Monitoring wells MW-101S and MW-102S are constructed of 2-inch diameter PVC screens and risers installed by Lyon Drilling Company.
- Injection points IP-1, IP-2 and IP-3 are constructed of 1-inch diameter flush-coupled screens and risers installed by SLC Environmental Services. These locations were used as inoculation points for microbes and oxygen release compounds.
- Monitoring wells MW-201, MW-203, MW-204, MW-301 and MW-302 are constructed of 1¼-inch flush-coupled PVC screens and risers installed by TREC Environmental, Inc.

Sample ID	Date Collected	Sample Matrix	Laboratory Analysis	Analytical Laboratroy
TB-1 (10'-12')	11/5/1998	SOIL	VOLATILE HALOCARBONS ¹	
TB-3 (6'-8')	11/5/1998	SOIL	VOLATILE HALOCARBONS ¹	
TB-7 (12'-13')	11/5/1998	SOIL	VOLATILE HALOCARBONS ¹	
TB-9 (8'-9')	11/6/1998	SOIL	VOLATILE HALOCARBONS ¹	1
SUMP	11/6/1998	SEDIMENT	VOLATILE HALOCARBONS ¹	Paridigm Environmental Services, Inc.
MW-1	11/13/1998	WATER	VOLATILE HALOCARBONS ¹	Services, inc.
MW-2	11/13/1998	WATER	VOLATILE HALOCARBONS ¹	
MW-3	11/13/1998	WATER	VOLATILE HALOCARBONS ¹	
MW-4	11/13/1998	WATER	VOLATILE HALOCARBONS ¹	
PPTB-1 (4'-6')	9/5/2000	SOIL	TCL VOC ¹	
PPTB-1 (12'-16')	9/5/2000	SOIL	TCL VOC ² + TICs	
PPTB-2 (13'-16')	9/5/2000	SOIL	TCL VOC ¹	
PPTB-3 (4'-8')	9/5/2000	SOIL	TCL VOC ² + TICs	
PPTB-4 (3'-8')	9/5/2000	SOIL	TCL VOC ² + TICs, TCL SVOC+ TICs, PCB/PEST, TAL METAL, CN	
PPTB-5 (8'-12')	9/5/2000	SOIL	TCL VOC ¹	
PPTB-6 (4'-8')	9/6/2000	SOIL	TCL VOC ¹	
PPTB-6 (12'-16')	9/6/2000	SOIL	TCL VOC ¹	
PPTB-7 (3'-8')	9/6/2000	SOIL	TCL VOC ² + TICs, TCL SVOC+ TICs, PCB/PEST, TAL METAL, CN	
PPTB-7 (28'-32')	9/6/2000	SOIL	TCL VOC ² + TICs	
PPTB-8 (4'-8')	9/6/2000	SOIL	TCL VOC² + TICs	
PPTB-8 (36'-40')	9/6/2000	SOIL	TCL VOC1	
PPTB-9 (16'-18')	9/6/2000	SOIL	TCL VOC ¹	Columbia Analytical
PPTB-10 (0'-2')	9/6/2000	SOIL	TCL VOC ² + TICs	Services, Inc.
PPTB-11 (6'-8')	9/7/2000	SOIL	TCL VOC ² + TICs	-
PPTB-12A (4'-6')	9/7/2000	SOIL	TCL VOC ¹	
PPTB-12A (8'-10')	9/7/2000	SOIL	TCL VOC ¹	
PPTB-13 (12'-14')	9/7/2000	SOIL	TCL VOC ² + TICs	
PPTB-13 (21'-22')	9/7/2000	SOIL	TCL VOC ¹	
PPTB-14 (4'-8')	9/7/2000	SOIL	TCL VOC ² + TICs, TCL SVOC+ TICs, PCB/PEST, TAL METAL, CN	
PPTB-14 (20'-24')	9/7/2000	SOIL	TCL VOC ¹	
PPTB-15(23'-24')	9/7/2000	SOIL	TCL VOC ² + TICs	
PP-SUMP	9/7/2000	SOIL	TCL VOC¹	
TRIP BLANK	9/7/2000	WATER	TCL VOC ¹	-
			TCL VOC ² + TICs, TCL SVOC+ TICs, PCB/PEST, TAL METAL, CN	_
FIELD BLANK NIGHT-3/8/01	9/7/2000	WATER AIR	TO-15 VOC	
OUTDOOR-3/8/01	3/8/2001 3/8/2001	AIR	TO-15 VOC	Performance Analytical,
	3/14/2001	AIR	TO-15 VOC	Inc.
DAY-3/14/01		AIR	PERCHLOROETHYLENE	
GW-S	3/8/2001		PERCHLOROETHYLENE	
BKGD-1	3/8/2001	AIR	PERCHLOROETHYLENE	
TCBY-S	3/8/2001	AIR	PERCHLOROETHYLENE	
PP-I	3/8/2001	AIR	PERCHLOROETHYLENE	Travelers Industrial Hygene Laboratory
GW-N	3/8/2001	AIR	PERCHLOROETHYLENE	- Trygerie Laboratory
PC-S	3/8/2001	AIR		
PC-N	3/8/2001	AIR	PERCHLOROETHYLENE	-
TRIP BLANK	3/8/2001	AIR	PERCHLOROETHYLENE	
MW-1D	9/19/2001	WATER	TCL VOC ¹	4
MW-2D	9/19/2001	WATER	TCL VOC1	_
MW-3D	9/19/2001	WATER	TCL VOC ¹	Columbia Analytical
MW-2S	9/19/2001	WATER	TCL VOC ¹	Services, Inc.
MW-3S	9/19/2001	WATER	TCL VOC ¹	
MW-1S	10/10/2001	WATER	TCL VOC ¹	

Sample ID	Date Collected	Sample Matrix	Laboratory Analysis	Analytical Laboratroy
PC-S	11/20/2001	AIR	NYSDOH 311-9	
PC-N	11/20/2001	AIR	NYSDOH 311-9	
GW-W	11/20/2001	AIR	NYSDOH 311-9	
GW-N	11/20/2001	AIR	NYSDOH 311-9	
TCBY-S	11/20/2001	AIR	NYSDOH 311-9	Galson Laboratories
TCBY-N	11/20/2001	AIR	NYSDOH 311-9	
PP-1	11/20/2001	AIR	NYSDOH 311-9	
BKGD-1	11/20/2001	AIR	NYSDOH 311-9	
TRIP BLANK	11/20/2001	AIR	NYSDOH 311-9	
EAST WALL PRIMARY	11/27/2001	SOIL	TCL VOC ³	
BOTTOM EAST PRIMARY	11/27/2001	SOIL	TCL VOC ³	
BOTTOM WEST SECONDARY	11/28/2001	SOIL	TCL VOC ³	
WEST WALL SECONDARY	11/28/2001	SOIL	TCL VOC ³	
SECONDARY SOUTH WALL	11/28/2001	SOIL	TCL VOC ³	
SECONDARY NORTH WALL	11/28/2001	SOIL	TCL VOC ³	Columbia Analytical
WEST WALL PRIMARY	12/3/2001	SOIL	TCL VOC ³	Services, Inc.
BOTTOM EAST SECONDARY	12/3/2001	SOIL	TCL VOC ³	
BOTTOM WEST PRIMARY	12/3/2001	SOIL	TCL VOC ³	
NORTH WALL PRIMARY	12/4/2001	SOIL	TCL VOC ³	
SOUTH WALL PRIMARY	12/4/2001	SOIL	TCL VOC ³	
TCBY PILE SW (0-2')	12/5/2001	SOIL	TCL VOC ²	
TCBY PILE CENTER (4-6')	12/5/2001	SOIL	TCL VOC ²	
TCBY PILE NE (0-2')	12/5/2001	SOIL	TCL VOC ²	
TCBY PILE NW (0-2') TCBY PILE SE (0-2') TCBY PILE CENTER (0-2') TCBY PILE CENTER (2-4'	12/5/2001	SOIL COMPOSITE	TCL VOC ²	
0-5 PILE NE (0-2') 0-5 PILE NW (0-2') 0-5 PILE SE (0-2') 0-5 PILE SW (0-2')	12/5/2001	SOIL COMPOSITE	TCL VOC ²	
0-5 PILE CENTER (0-2')	12/5/2001	SOIL	TCL VOC ²	York Analytical
SUMP (0-2')	12/5/2001	SOIL	TCL VOC ²	Laboratories, Inc.
0-5 PILE (0-2') MS/MSD	12/5/2001	SOIL	TCL VOC ²	
5-50 PILE NE (0-2') 5-50 PILE SE (0-2') 5-50 PILE NW (0-2') 5-50 PILE SW (0-2')	12/5/2001	SOIL COMPOSITE	TCL VOC ²	
5-50 PILE CENTER (0-2')	12/5/2001	SOIL	TCL VOC ²	
50-100 PILE NE (0-2') 50-100 PILE SE (0-2') 50-100 PILE SW (0-2') 50-100 PILE CENTER (0-2')	12/5/2001	SOIL COMPOSITE	TCL VOC²	
50-100 PILE NW (0-2')	12/5/2001	SOIL	TCL VOC ²	
FIELD BLANK	12/5/2001	WATER	TCL VOC ²	
MW-1D	1/24/2002	WATER	TCL VOC ² + TICs	
MW-1S	1/24/2002	WATER	TCL VOC ² + TICs	
MW-2D	1/24/2002	WATER	TCL VOC ² + TICs	
MW-2S	1/24/2002	WATER	TCL VOC ² + TICs	Columbia Analytical Services, Inc.
MW-3D	1/24/2002	WATER	TCL VOC ² + TICs	
MW-3S	1/24/2002	WATER	TCL VOC ² + TICs	
TRIP BLANK	1/24/2002	WATER	TCL VOC ² + TICs	

Sample ID	Date Collected	Sample Matrix	Laboratory Analysis	Analytical Laboratroy
TCBY NE	2/4/2002	SOIL	TCL VOC ²	
TCBY E-CENTER	2/4/2002	SOIL	TCL VOC ²	
TCBY NW	2/4/2002	SOIL	TCL VOC ²	
TCBY W-CENTER	2/4/2002	SOIL	TCL VOC ²	
TCBY SE	2/4/2002	SOIL	TCL VOC ²	
TCBY SW	2/4/2002	SOIL	TCL VOC ²	
0-5 NW	2/4/2002	SOIL	TCL VOC ²	
0-5 SE	2/4/2002	SOIL	TCL VOC ²	York Analytical
5-50 W-CENTER	2/4/2002	SOIL	TCL VOC ²	Laboratories, Inc.
5-50 E-CENTER	2/4/2002	SOIL	TCL VOC ²	
50-100 CENTER	2/4/2002	SOIL	TCL VOC ²	
50-100 SE	2/4/2002	SOIL	TCL VOC ²	
50-100 NE	2/4/2002	SOIL	TCL VOC ²	
50-100 SW	2/4/2002	SOIL	TCL VOC ²	
50-100 NW	2/4/2002	SOIL	TCL VOC ²	
FIELD BLANK	2/4/2002	SOIL	TCL VOC ²	
GW-S	5/16/2002	AIR	PERCHLOROETHYLENE	
BKGD-1	5/16/2002	AIR	PERCHLOROETHYLENE	
PC-A	5/16/2002	AIR	PERCHLOROETHYLENE	O alasa I ahamataria
PC-N	5/16/2002	AIR	PERCHLOROETHYLENE	Galson Laboratories
PC-DUP	5/16/2002	AIR	PERCHLOROETHYLENE	
TRIP BLANK	5/16/2002	AIR	PERCHLOROETHYLENE	
MW-1D	7/24/2002	WATER	TCL VOC ³	
MW-1S	7/24/2002	WATER	TCL VOC ³	
MW-2D	7/24/2002	WATER	TCL VOC ³	Columbia Analytical Services, Inc.
MW-2S	7/24/2002	WATER	TCL VOC ³	Services, Ilic.
MW-3S	7/24/2002	WATER	TCL VOC ³	
MW-101S	2/13/2004	WATER	TCL VOC ³	
MW-102S	2/13/2004	WATER	TCL VOC ³	
MW-1S	2/13/2004	WATER	TCL VOC ³	Columbia Analytical Services, Inc.
MW-2S	2/13/2004	WATER	TCL VOC ³	Services, inc.
MW-3S	2/13/2004	WATER	TCL VOC ³	
MW-101S	6/22/2004	WATER	TCL VOC ³	
MW-102S	6/22/2004	WATER	TCL VOC ³	
MW-1S	6/22/2004	WATER	TCL VOC ³	Columbia Analytical Services, Inc.
MW-2S	6/22/2004	WATER	TCL VOC ³	Gervices, inc.
MW-3S	6/22/2004	WATER	TCL VOC ³	
MW-103S			TCL VOC ³	Columbia Analytical Services, Inc.
MP-1			NITRATES, PHOSPHATES, PLATE COUNT	
MW-3S			NITRATES, PHOSPHATES, PLATE COUNT	
MW-101S			NITRATES, PHOSPHATES, PLATE COUNT	Paridigm Environmental Services, Inc.
MW-102S	11/15/2004	WATER	NITRATES, PHOSPHATES, PLATE COUNT	Services, inc.
MW-103S	11/15/2004	WATER	NITRATES, PHOSPHATES, PLATE COUNT	
MW-103S	12/15/2004	WATER	TCL VOC ³	Columbia Analytical Services, Inc.
MW-101S	1/17/2005	WATER	PLATE COUNT, CL-OUT COUNT	Opprovi Diete sheir
MW-103S	1/17/2005	WATER	PLATE COUNT, CL-OUT COUNT	Osprey Biotechnics

Sample ID	Date Collected	Sample Matrix	Laboratory Analysis	Analytical Laboratroy
MW2.1S	3/22/2005	WATER	TCL VOC ³	
MW-101S	3/22/2005	WATER	TCL VOC ³	Columbia Analytical
MW-102S	3/22/2005	WATER	TCL VOC ³	Services, Inc.
MW-103S	3/22/2005	WATER	TCL VOC ³	
MW-101S	7/26/2005	WATER	TCL VOC ³	Davidian Facility and tal
MW-102S	7/26/2005	WATER	TCL VOC ³	Paridigm Environmental Services, Inc.
MW-103S	7/26/2005	WATER	TCL VOC ³	Corvides, mer
MP-1	3/14/2006	WATER	TCL VOC ³	
MP-3	3/14/2006	WATER	TCL VOC ³	
MW-1S	3/14/2006	WATER	TCL VOC ³	Columbia Analytical
MW-101S	3/14/2006	WATER	TCL VOC ³	Services, Inc.
MW-102S	3/14/2006	WATER	TCL VOC ³	
MW-103S	3/14/2006	WATER	TCL VOC ³	
MP-1	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MP-2	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MP-3	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MP-4	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MW-1S	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MW-2.1S	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	Columbia Analytical Services, Inc.
MW-3S	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	Convided, men
MW-101S	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MW-102S	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
TRIP BLANK	11/10/2006	WATER	VOLATILE HALOCARBONS ¹	
IA-1	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	
SSV-1	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	
IA-2	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	Davidiana Farrianana atal
SSV-2	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	Paridigm Environmental Services, Inc.
IA-3	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	
SSV-3	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	
BG-1	4/5/2007	AIR	PCE, TCE, CIS-1,2 DCE, TRANS-1,2 DCE, 1,1-DCE, VC	
MW-2.1S	9/24/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MW-201	9/24/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MW-203	9/24/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MW-204	9/24/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MP-1	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
M P-3	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	Mitkem Corporation
MW-1S	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	William Corporation
MW-3S	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MW-101S	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MW-102S	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MW-103S	3S 9/25/2007 WATER		VOLATILE HALOCARBONS ² + TICs	
DUPLICATE 9/07	9/25/2007	WATER	VOLATILE HALOCARBONS ² + TICs	
MP-3	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-3S	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-101S	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-102S	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
MW-103S	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
MW-201	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-203	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	
MP-204	5/8/2008	WATER	VOLATILE HALOCARBONS ¹	

Analytical Laboratory Testing Program

Sample ID	Date Collected	Sample Matrix	Laboratory Analysis	Analytical Laboratroy
MW-3S	8/21/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-101S	8/21/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-102S	8/21/2008	WATER	VOLATILE HALOCARBONS ¹	5 5
MW-103S	8/22/2008	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental Services, Inc.
MW-201	8/22/2008	WATER	VOLATILE HALOCARBONS ¹	Corvided, me.
MW-203	8/22/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-204	8/22/2008	WATER	VOLATILE HALOCARBONS ¹	
MW-3S	2/11/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-102S	2/11/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	2/11/2009	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
MW-201	2/11/2009	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
MW-203	2/11/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-204	2/11/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-3S	5/27/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-102S	5/27/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	5/27/2009	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
MW-201	5/27/2009	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
MW-203	5/27/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-204	5/27/2009	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	7/14/2009	WATER	VOLATILE HALOCARBONS ¹ AND COD	Paridigm Environmental Services, Inc.
MW-301	9/22/2009	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
MW-302	9/22/2009	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
MW-102S	1/7/2010	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	1/7/2010	WATER	VOLATILE HALOCARBONS ¹	
MW-203	1/7/2010	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
MW-204	1/7/2010	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
MW-301	1/7/2010	WATER	VOLATILE HALOCARBONS ¹	
MW-302	1/7/2010	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	7/23/2010	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental Services, Inc.
MW-102S	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	
MW-103S	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	
MW-204	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	
MW-301	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
MW-302	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
MW-4	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	
MP-1	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	
MP-3	5/24/2011	WATER	VOLATILE HALOCARBONS ¹	
MW-3S	6/21/2011	WATER	VOLATILE HALOCARBONS ¹	
IP-1	6/21/2011	WATER	VOLATILE HALOCARBONS ¹	Paridigm Environmental
IP-2	6/21/2011	WATER	VOLATILE HALOCARBONS ¹	Services, Inc.
IP-3	6/21/2011	WATER	VOLATILE HALOCARBONS ¹	

Volatile Halocarbons¹-USEPA Method 8260

Volatile Halocarbons² -ASP Method OLM 4.2

VOC1 - Volatile Organic Compound -USEPA Method 8260

VOC² - Volatile Organic Compound -ASP Method 95-1

 VOC^3 - Volatile Organic Compound -USEPA Method 8021

TCL = Target Compound List

TICs= Tentatively Identified Compounds

SVOCS - Semi-Volatile Organic Compounds- ASP Method 95-2

PCB/Pest= Polychlorinated Biphenols and Pesticides by ASP Method 95-3

CN=Cyanide

Metal = ASP 95 List Metals

TAL= Target Analyte List

Table 3

Former Parkway Cleaners Canandaigua, New York NYSDEC Site Code No. V00238-8

Summary of Groundwater Level Measurements/Elevations

	Top of	2/13/	2004	3/19/	/2004	4/29	/2004	6/22/	2004	9/16/	2004	11/15	/2004	3/22	/2005	7/26	/2005	9/27	7/2005	3/14	/2006	11/10	/2006	8/16/2	2007	9/24/	2007	5/8/2	2008	8/21/	2008
Monitoring Well With Installation Date	Casing Elevation	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.	SWL	GW Elev.
MW-1s (9/4/2001)	98.47	4	94.47	3.1	95.37	3.04	95.43	3.74	94.73	3.69	94.78			2.19	96.28	3.79	94.68	3.31	95.16	2.43	96.04	3.26	95.21	3.43	95.04	5.57	92.9	3.25	95.22	4.40	94.07
MW-2.1s (9/16/2004)	98.80													3.37	95.43	3.59	95.21	4.2	94.6	3.65	95.15	3.53	95.27	4.33	94.47	4.98	93.82	2.97	95.83	4.01	94.79
MW-3s (9/4/2001)	98.44	3.53	94.91	3.91	94.53	2.77	95.67	3.43	95.01	2.54	95.9	3.88	94.56	2.43	96.01	4.54	93.9	4.4	94.04	2.75	95.69	3.14	95.3	4.54	93.90	5.75	92.69	3.57	94.87	4.51	93.93
MW-101s (1/29/2004)	98.64	3.75	94.89	3.22	95.42	3.11	95.53	3.88	94.76	4.23	94.41	4.25	94.39	2.99	95.65	4.49	94.15	4.7	93.94	3.11	95.53	3.82	94.82	4.86	93.78	5.9	92.74	3.5	95.14	4.24	94.40
MW-102s (1/29/2004)	98.9	3.17	95.73	2.91	95.99	2.73	96.17	3.62	95.28	4.83	94.07	3.94	94.96	2.79	96.11	3.55	95.35	4.35	94.55	2.7	96.2	3.3	95.6	4.44	94.46	5.1	93.8	3.01	95.89	4.44	94.46
MW-103s (9/16/2004)	98.54											4.52	94.02			5.09	93.45	5.14	93.4	2.56	95.98	4.0	94.54	5.3	93.3	6.6	92.0	4.11	94.43	5.02	93.52
IP-1 (11/29/2004)	98.69															4.62	94.07	4.75	93.94	3.3	95.39	3.96*	94.73	4.91	93.78	-		4.00	94.69	5.01	93.68
IP-2 (11/29/2004)	98.64															4.4	94.24	4.68	93.96	3.3	95.34	3.57*	95.07	4.76	93.88	-		3.80	94.84	4.87	93.77
IP-3 (11/29/2004)	98.77															5.03	93.74	4.81	93.96	3.21	95.56	4.35*	94.42	4.91	93.86			3.70	95.07	4.65	94.12
MW-3 (11/5/1998)	98.87																														
MW-4 (11/6/1998)	98.02																														
MP-1 (12/2001)	98.88											3.73	95.15					4.42	94.46	3.13	95.75	3.5	95.38	4.51	94.37	5.45	93.43			4.25	94.63
MP-2 (12/2001)	98.55																	3.13	95.42	2.85	95.7	3.25	95.3	4.2	94.35	-		2.95	95.60	3.95	94.60
MP-3 (12/2001)	98.6																	4.19	94.41	3.11	95.49	3.24	95.36	4.27	94.33	5.12	93.48	2.97	95.63	3.97	94.63
MP-4 (12/2001)	98.48																	4	94.48	2.95	95.53	3.22	95.26	4.14	94.34			1.85	96.63	3.80	94.68
MW-201 (9/7/2007)	98.64																									5.61	93.03	3.37	95.27	4.29	94.35
MW-203 (9/7/2007)	97.92																									6.47	91.45	3.56	94.36	4.62	93.3
MW-204 (9/7/2007)	98.34																									6.21	92.13	4.01	94.33	5.11	93.23
MW-301 (8/27/2009)	98.15																														
MW-302 (8/27/2009)	97.69																														

SWL = Static Water Level in feet, measured from top of casing GW = Ground Water --- = No Measurement

* = SWL measured on 11/08/06

Table 3

Former Parkway Cleaners Canandaigua, New York NYSDEC Site Code No. V00238-8

Summary of Groundwater Level Measurements/Elevations

	Top of	2/11/	2009	5/27/	/2009	9/22/	/2009	10/8/	/2009	12/17	//2009	1/7/:	2010
Monitoring Well With Installation Date	Casing Elevation	SWL	GW Elev.										
MW-1s (9/4/2001)	98.47	3.36	95.11	3.46	95.01			4.86	93.61			4.73	93.74
MW-2.1s (9/16/2004)	98.80	4.16	94.64	2.96	96.84	4.76	94.04	4.77	94.03				
MW-3s (9/4/2001)	98.44	3.56	94.88	3.93	94.51	5.13	93.31	5.13	93.31				
MW-101s (1/29/2004)	98.64	3.72	94.92	4.23	94.41	5.18	93.46	3.80*	94.84				
MW-102s (1/29/2004)	98.9	4.12	94.78	3.58	95.32	5.08	93.82	5.25	93.65	4.72	94.18	4.71	94.19
MW-103s (9/16/2004)	98.54	3.59	94.95	4.45	94.09	5.76	92.78	5.67	92.87	5.08	93.46	5.01	93.53
IP-1 (11/29/2004)	98.69	4.08	94.61	4.71	93.98	5.63	93.06	5.47	83.22			5.09	93.60
IP-2 (11/29/2004)	98.64	3.68	94.96	3.74	94.9	5.50	93.14	5.20	93.44			5.01	93.63
IP-3 (11/29/2004)	98.77	3.61	95.16	4.09	94.68	5.48	93.29	5.32	93.45			5.14	93.63
MW-3 (11/5/1998)	98.87	4.31				5.52	93.35	5.40	93.47				
MW-4 (11/6/1998)	98.02	3.65*		4.28		4.30	93.72	4.11	93.91	3.60	94.42	4.17	93.85
MP-1 (12/2001)	98.88	3.96	94.92	3.42	95.46	4.25	94.63	3.78	95.1	4.62	94.26	4.67	94.21
MP-2 (12/2001)	98.55	3.64	94.91	3.11	95.44	4.00	94.55	3.48	95.07				
MP-3 (12/2001)	98.6	3.64	94.96	3.13	95.47	4.02	94.58	3.63	94.97	4.33	94.27	4.41	94.19
MP-4 (12/2001)	98.48	3.42	95.06	3.09	93.89	3.93	94.55	3.51	94.97				
MW-201 (9/7/2007)	98.64	4.76	93.88	4.75	95.39	5.12	93.52	4.82	93.82			4.77	93.87
MW-203 (9/7/2007)	97.92	2.91	95.01	3.86	94.06	5.28	92.64	5.18	92.74	4.51	93.41	4.42	93.50
MW-204 (9/7/2007)	98.34	3.37	94.97	4.57	93.97	5.81	92.53	5.78	92.56	4.98	93.36	4.88	93.46
MW-301 (8/27/2009)	98.15					6.80	91.35	5.50	92.65	4.73	93.42	5.71*	92.44
MW-302 (8/27/2009)	97.69					5.05	92.64	4.88	92.81	4.26	93.43	4.45	93.24

SWL = Static Water Level in feet, measured * = SWL measured on from top of casing 2/02/09

GW = Ground Water
--- = No Measurement

* = well plugged

* = Slow recovery after PDS removed; initial SWL = 5.79

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value ⁽¹⁾				MV	<i>I-</i> 1S							MW	-2.1S			
	Galdarios Value	10/10/01	1/24/02	7/24/02	2/13/04	6/22/04	3/14/06	11/10/06	9/25/07	9/19/01	1/24/02	7/24/02	2/13/04	6/22/04	3/22/05*	11/10/06	9/24/07
PCE	5																
TCE	5																
Cis-1,2-DCE	5		2 J			2.2		2.3			2 J	4.6	1.5	3.8		1.5	
Trans-1,2-DCE	5			5													
1,1-DCE	5																
Vinyl Chloride	2					3.0										2.5	3.2J

	Groundwater Standard or							MW-3S						
DETECTED VOC (ug/l)	Guidance Value ⁽¹⁾	9/19/01	1/24/02	7/24/02	2/13/04	6/22/04	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/11/09	5/27/09	6/21/11
PCE	5													
TCE	5						5.6							
Cis-1,2-DCE	5			8.8	3.7	12.0	590	13	610D		103			2.49
Trans-1,2-DCE	5						5.2		2.6					
1,1-DCE	5													
Vinyl Chloride	2		1J	5.9	4.1	5.9	410	5.5	130		45.2			4.66

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS 1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

D = Compound concentration was obtained from a diluted analysis.

J Indicates an estimated value

* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value ⁽¹⁾					MW-101S											MW-102S						
	Guidanos Valas	2/13/04	6/22/04	3/22/05	7/26/05	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/13/04	6/22/04	3/22/05	7/26/05	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/11/09	5/27/09	1/7/10	5/24/11
PCE	5																						
TCE	5	5.4	9.2	3.8								1.8	3.5	1.8	3.9	2.7							
Cis-1,2-DCE	5	250	220	54	2.9	1.1	3.2	3.8J			10	12	30	52	44	74	130	68.5	90.2	14.9	48.4	42.3	25.2
Trans-1,2-DCE	5	3.9	4.4				1.3				1.1	1.3	1.6	2.9	1.7	2.5	2.5J		2.06				
1,1-DCE	5																						
Vinyl Chloride	2	27	31	11			3.7	14			10	4.8	14	28	17	31	51	24.3	35.5	23.4	34.5	23.7	20.9

DETECTED VOC (ug/l)	Groundwater Standard or	MW-103S														
	Guidance Value ⁽¹⁾	9/20/04	12/15/04	3/22/05	7/26/05	3/14/06	11/10/06	9/25/07	5/8/08	8/22/08	2/11/09	5/27/09	1/7/10	7/23/10	5/24/11	5/20/13
PCE	5															
TCE	5															
Cis-1,2-DCE	5	390	48	210	180	37	47	47	70.8	240	163	328	676	940	1,050	657
Trans-1,2-DCE	5			2.9	2.0		1.3			3.62						
1,1-DCE	5															
Vinyl Chloride	2	130	9.8	61	66	19	37	32	101	177	138	255	349	425	646	413

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS

1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

D = Compound concentration was obtained from a diluted analysis.

J Indicates an estimated value

* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value (1)					MW-203				MW-204								MW-301			MW-302						
	or Canadanico vando	9/24/07	5/8/08	8/22/08	2/11/09	5/27/09	9/24/07	5/8/08	8/22/08	2/11/09	5/27/09	1/7/10	9/24/07	5/8/08	8/22/08	2/11/09	5/27/09	1/7/10	5/24/11	5/20/13	9/22/09	1/7/10	5/24/11	9/22/09	1/7/10	5/24/11	5/20/13
PCE	5																										
TCE	5																		-								
Cis-1,2-DCE	5						-					-			8.68	4.41	5.71	2.14	-	3.76	16.7	12.4	9.04			-	
Trans-1,2-DCE	5																										
1,1-DCE	5																										
Vinyl Chloride	2	-						-				-		3.37	5.95	2.98	5.54	3.18		3.82	3.78	4.71					

(1) New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series

1.1.1 (TOGS 1.1.1) Ambient Groundwater Standards and Guidance Values

-- "Not detected" (refer to analytical laboratory reports for detection limits utilized)

D = Compound concentration was obtained from a diluted analysis.

J Indicates an estimated value

* Sample collected from a new (replacement) well

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

HISTORIC SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS OVERBURDEN GROUNDWATER MONITORING MONITORING WELLS

DETECTED VOC (ug/l)	Groundwater Standard or Guidance Value ⁽¹⁾	IP-1 IP-2 IP-3				IP-3	IP-3 MW-4					MP-1 MP-2				MP-2	MP-3									MP-4	
		8/28/09	2/11/09	5/27/09	6/21/11	6/21/11	6/21/11	2/11/09	5/27/09	1/7/10	5/24/11	3/14/06	11/10/06	9/25/07	1/7/10	5/24/11	11/10/06	3/14/06	11/10/06	9/25/07	5/8/08	8/21/08	2/11/09	5/27/09	1/7/10	5/24/11	11/10/06
PCE	5											19	8.2	270D	40	122	39		25	14						40.6	18
TCE	5											22	2.5	110	33.4	34	42		51	44			32.5	26	57.7	69.3	16
Cis-1,2-DCE	5					5.78	10.2					610	280	930D	179	91	520		460	1300D	712	801	609	614	776	541	750
Trans-1,2-DCE	5												3.6	6.9J	2.18		6.7			5.9J							
1,1-DCE	5													3.2J						3.4J							
Vinyl Chloride	2						9.73					120	75	23J	12.9		90		270	300D	-	291	42.0				200

8.8 Bold - Denotes that the concentration exceeds the NYSDEC TOGS 1.1.1 groundwater standards/guidance values

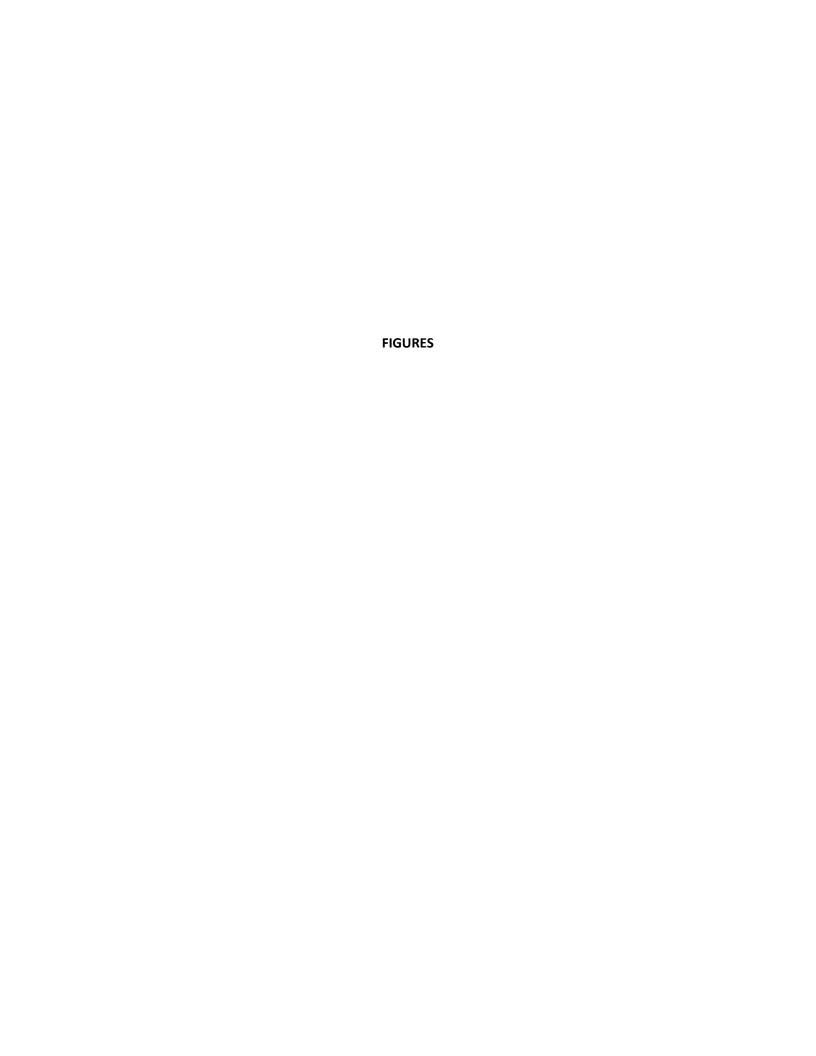
⁽¹⁾ New York State Department of Environmental Conservation (NYSDEC) June 1998 Division of Water Technical Operational and Guidance Series 1.1.1 (TOGS 1.1.1) Ambient Groundwater Standards and Guidance Values

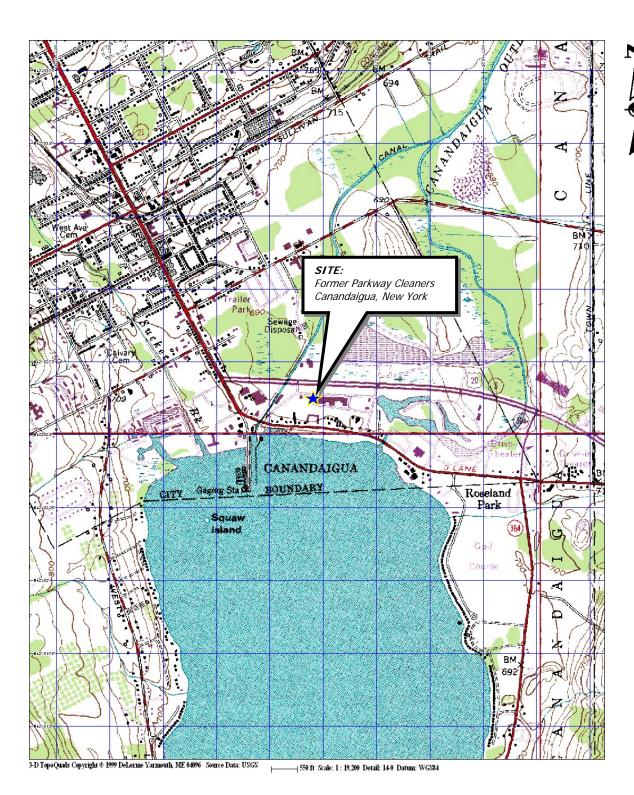
^{-- &}quot;Not detected" (refer to analytical laboratory reports for detection limits utilized)

D = Compound concentration was obtained from a diluted analysis.

J Indicates an estimated value

^{*} Sample collected from a new (replacement) well





Drawing Produced From: 3-D TopoQuads, DeLorme Map Co., referencing USGS quad maps Canandaigua (NY) 1978 and Canandaigua Lake (NY) 1978. Site Lat/Long: N42° 52.6′ – W77° 16.0′

DATE **8/29/2012**DRAWN BY **RJM**

SCALE 1" = 2000' DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14614-1008

NEW YORK, NEW YORK 10165-1617

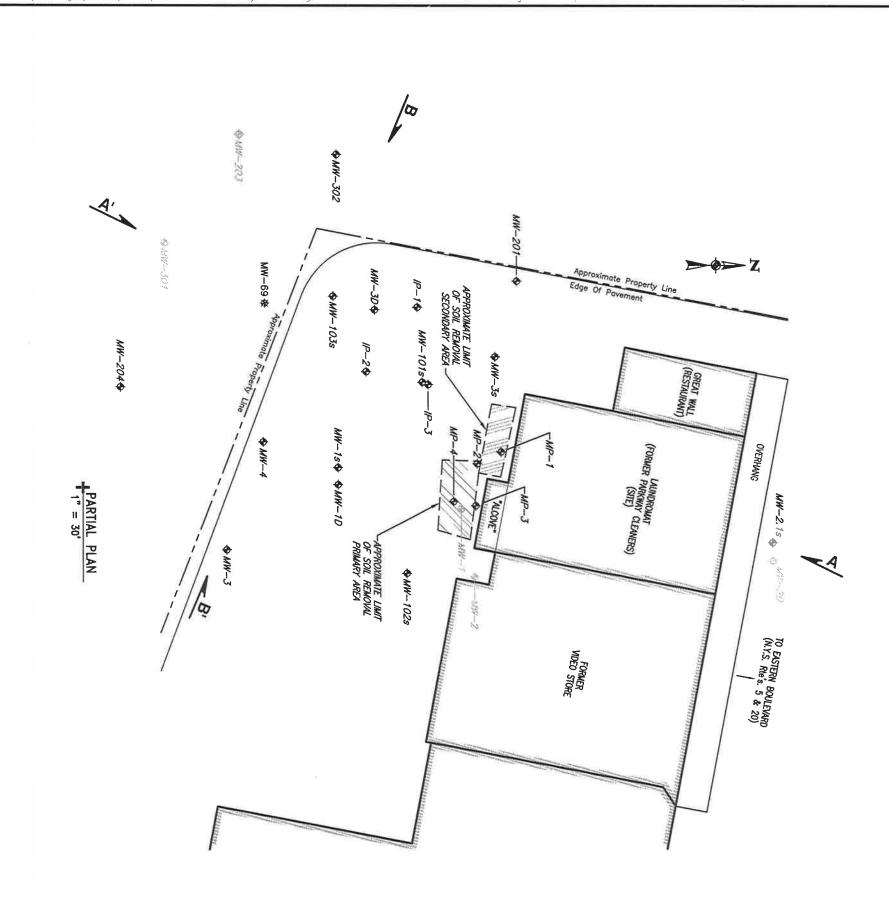
PROJECT TITLE
FORMER PARKWAY CLEANERS
VCP SITE NO. V00238-8
CANANDAIGUA, NEW YORK

PROJECT LOCUS MAP

PROJECT NO.

2105R-99

FIGURE 1



EASTERN BOULEVARD (N.Y.S. ROUTES 5 & 20) KEY PLAN NOT TO SCALE 30 60 ROAD

8 ω

Approximate Location Of Geologic Cross—Section

♦MW-1s

Decommissioned/Destroyed Monitoring Well

₩MW-69

\$ MW-2

Approximate Location Of A Monitoring Well Installed In 2013 As Part Of Studies Completed By Stantec Consulting During Studies For The Canandaigua Brownfield Site Redevelopment Project (BCP Site No. C835025)

LEGEND

Groundwater Monitoring Well (MW), Monitoring Point (MP) Or Injection Point (IP)

Property Lines Shown Are From A Map Of An Instrument Survey By MRB Group, Entitled "Plan Of Land Owned By Parkway Plaza Limited Partnership In The City Of Canandaigua, Town Of Canandaigua, Ontario County, NY, Boundary Map", Dated June 22, 1988 And last Revised On December 6, 1988.

Ņ

NOTES:

Partial Plan Adapted From A Drawing By IVI Environmental, Inc, Entitled "Sample Location Map", Dated August 3, 1998 And By A Site Sketch Made By DAY Environmental, Inc. On November 5 & 6, 1998. Groundwater Monitoring Well/Injection Point Locations Were Tape Measured Or Observed From Existing Site Structures And Should Be Considered Accurate To The Degree Implied By The Method Used.

5

FIGURE 2 2105R-99 PROJECT TITLE
FORMER PARKWAY CLEANERS VCP SITE NO. V00238-8 CANANDAIGUA, NEW YORK

DRAWING TITLE

Site Plan With Test Locations

DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14606 NEW YORK, NEW YORK 10170

FIELD VERIFIED BY	DATE
RLK	5-2014
DRAWN BY	DATE DRAWN
RJM	5-21-2014
SCALE	DATE ISSUED
As Noted	5-21-2014

<u>LEGEND</u>

S

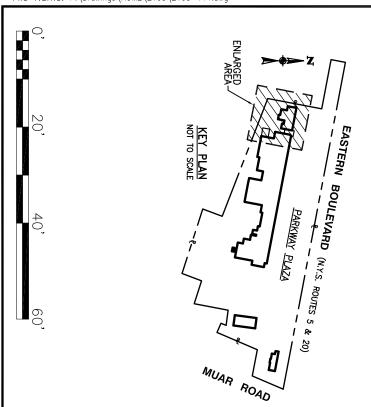
Approximate Location Of Sanitary Sewer

Limits Of Subject Site Included Within The Voluntary Cleanup Program

Sanitary Sewer Manhole

Ref1: Ref2: Ref3:

Ч



NOTES: Partial Plan Adapted From A Drawing By IVI Environmental, Inc, Entitled "Sample Location Map", Dated August 3, 1998 And By A Site Sketch Made By DAY Environmental, Inc. On November 5 & 6, 1998. Property Lines Shown Are From A Map Of An Instrument Survey By: MRB Group, Entitled "Plan Of Land Owned By Parkway Plaza Limited Partnership In The City Of Canandaigua, Town Of Canandaigua, Ontario County, NY, Boundary Map", Dated June 22, 1988 And last Revised On December 6, 1988. Locations Were Tape Measured From Existing Site Structures And Should Be Considered Accurate To Degree Implied By The Method Used.

The

Locations Of Former Dry Cleaning Machines, Clothes Rack/Office, Maintenance/Utility Closet Provided To Day Environmental, Inc. By Conifer Realty Corporation.

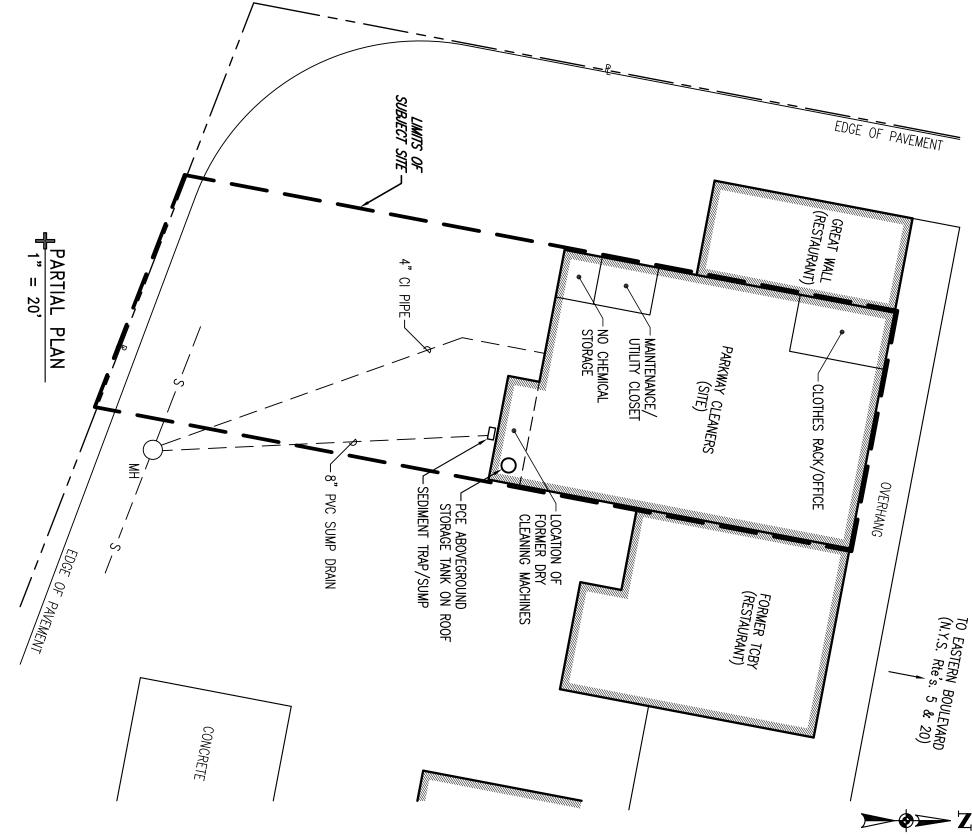


FIGURE 3 2105R-99 FORMER PARKWAY CLEANERS **VCP SITE NO. V00238-8 CANANDAIGUA, NEW YORK**

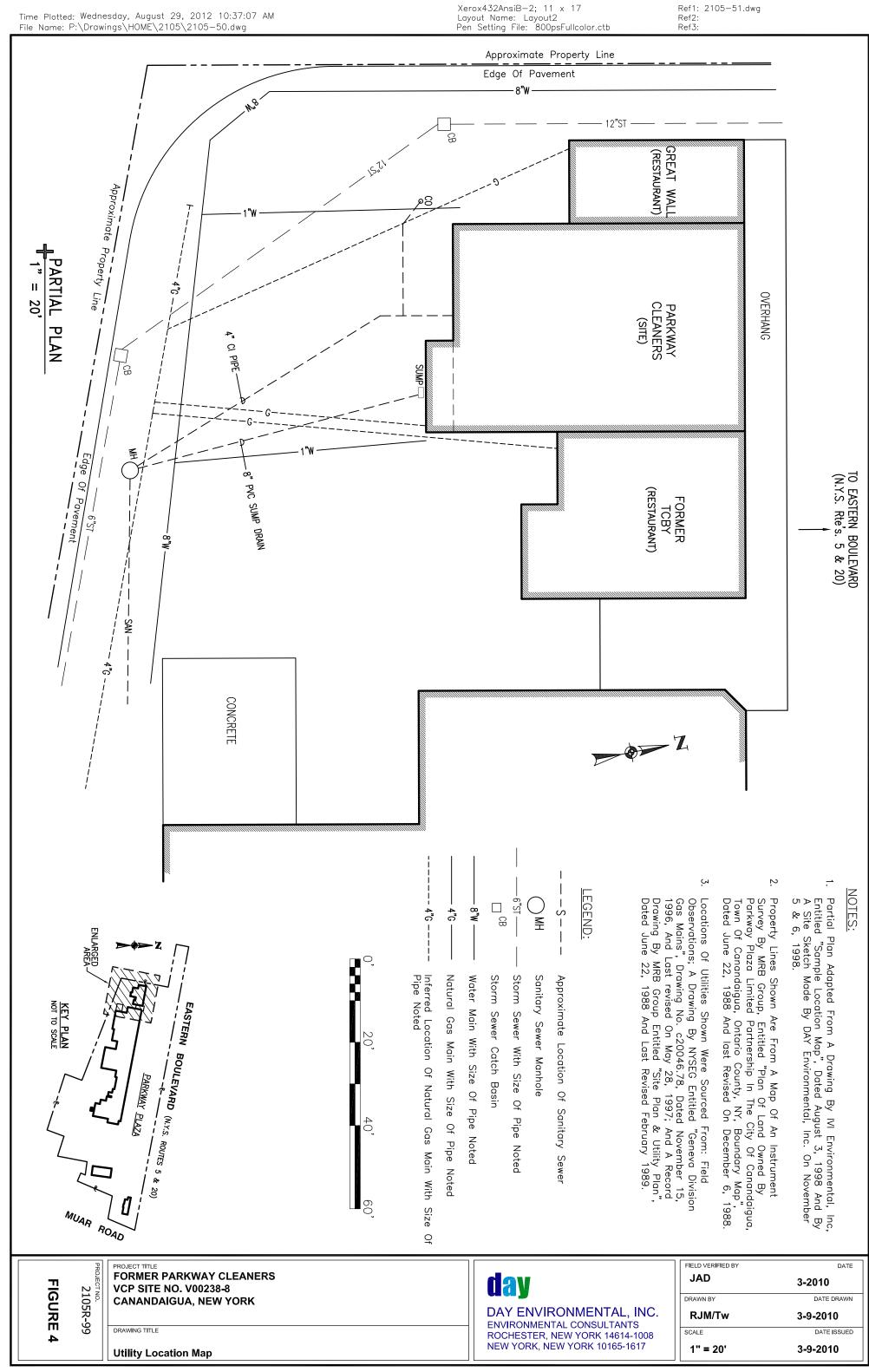
DRAWING TITLE

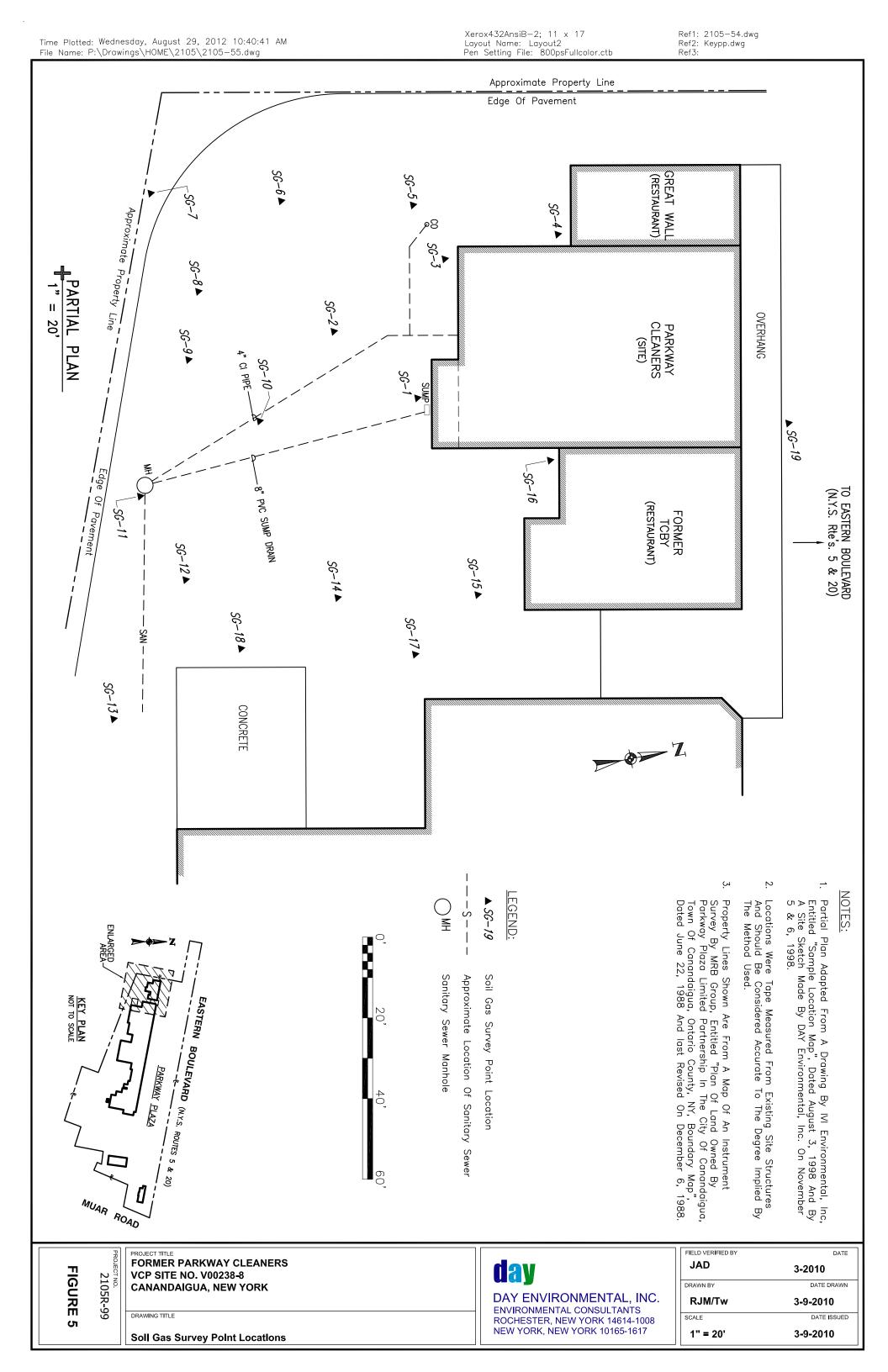
Layout Of Former Parkway Cleaners

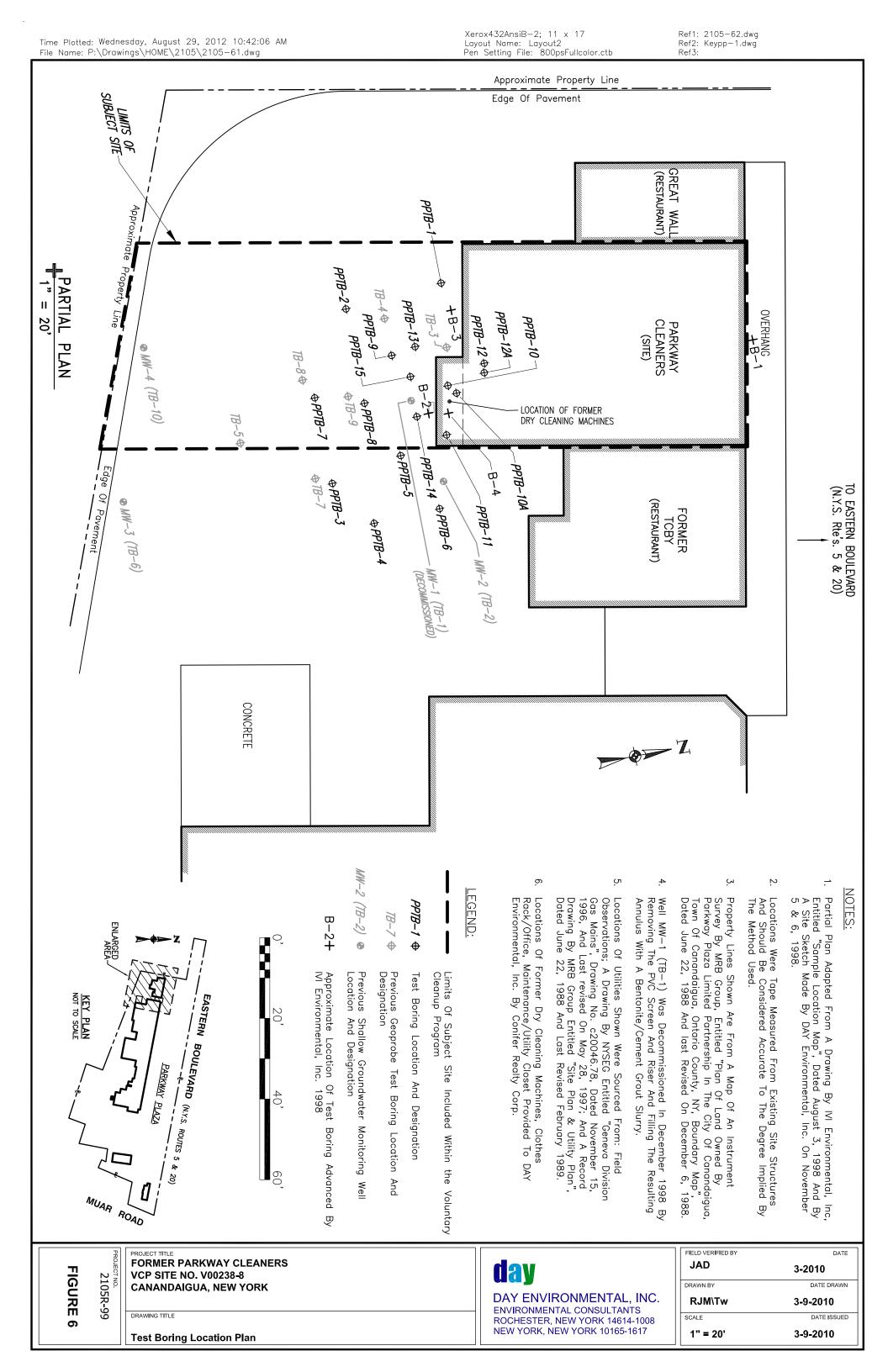
day

DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10165-1617

	,
FIELD VERIFIED BY	DATE
RLK	3-2010
DRAWN BY	DATE DRAWN
RJM	3-9-2010
SCALE	DATE ISSUED
As Noted	3-9-2010







2105R-99 **FIGURE 7**

FORMER PARKWAY CLEANERS VCP SITE NO. V00238-8 CANANDAIGUA, NEW YORK

DRAWING TITLE

Pre-IRM Air Sampling Plan

day

DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10165-1617

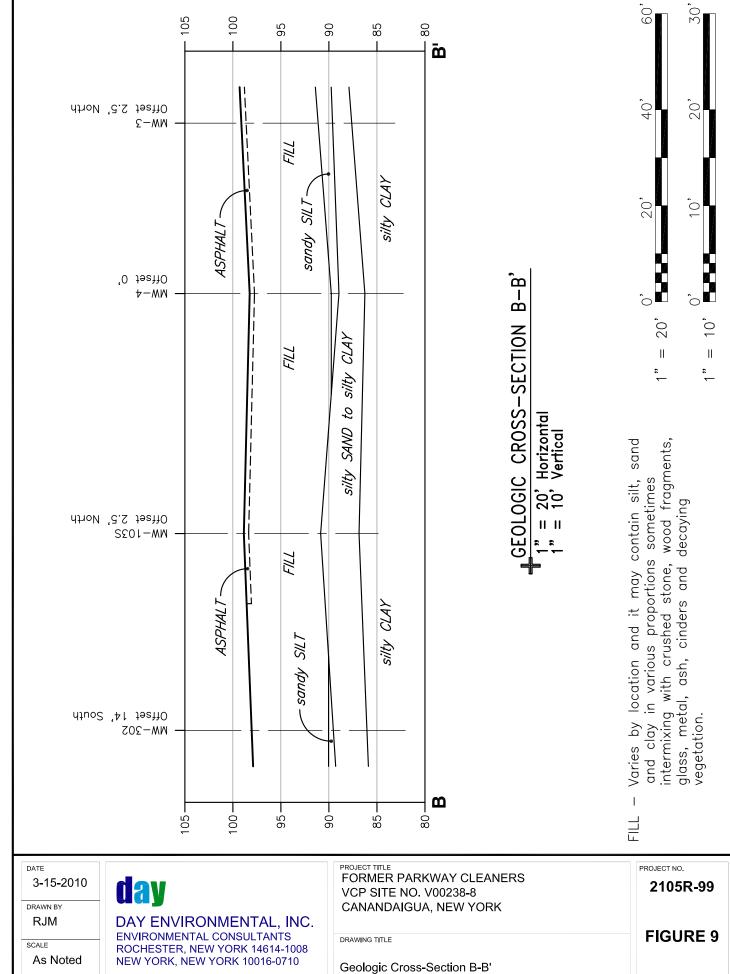
FIELD VERIFIED BY	DATE
RLK	3-2010
DRAWN BY	DATE DRAWN
RJM	3-12-2010
SCALE	DATE ISSUED
As Noted	3-12-2010

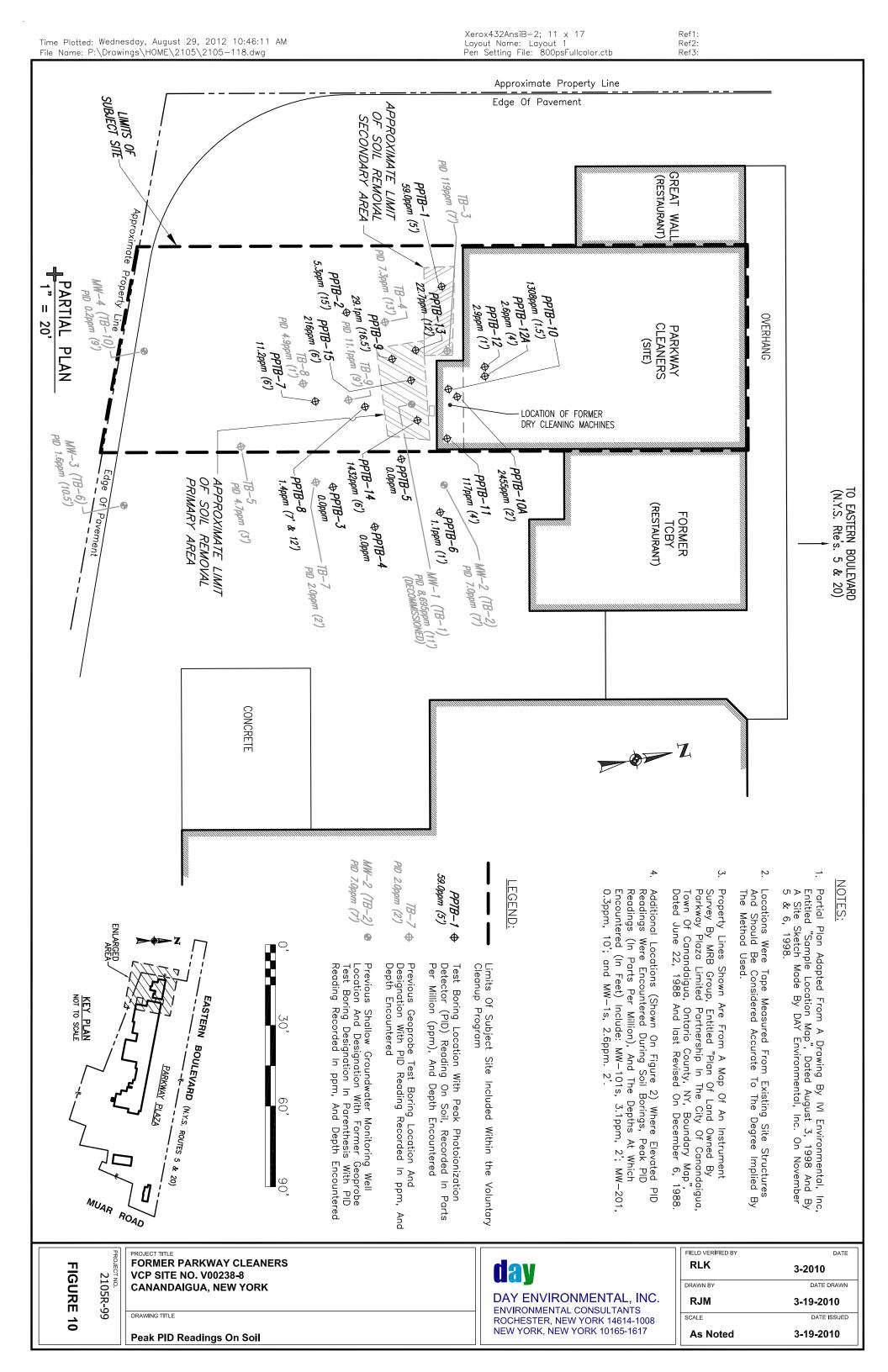
Geologic Cross Section A-A'

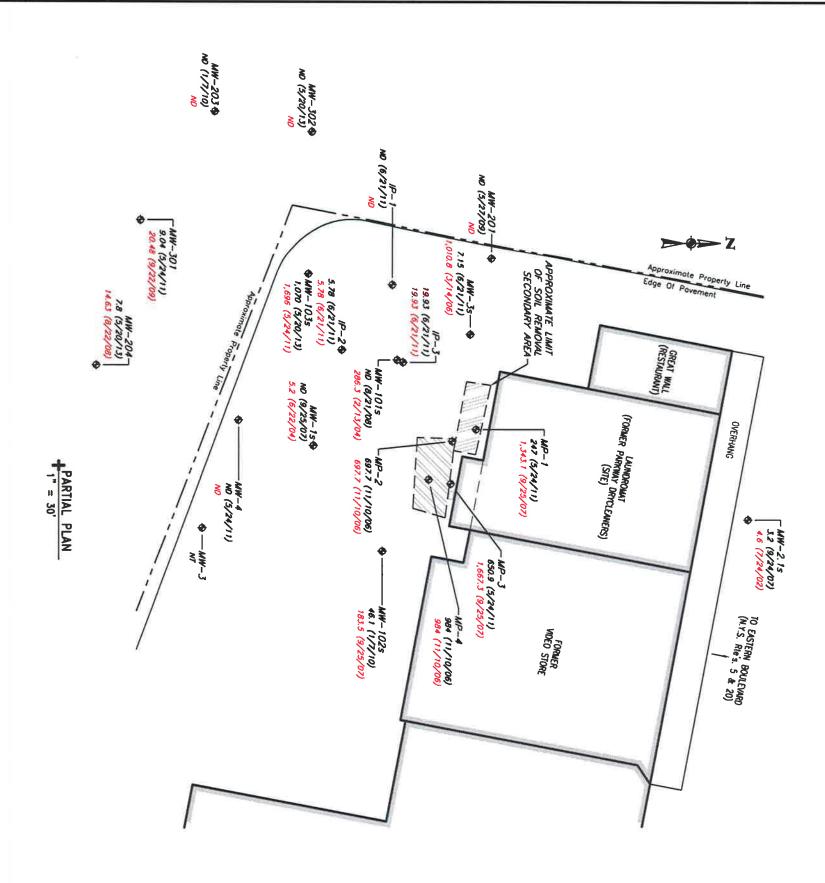
3-17-2010

As Noted

Pen Setting File: 800psFullcolor.ctb Time Plotted: Wednesday, August 29, 2012 10:45:12 AMie Name: P:\Drawings\HOME\2105\Section A-A plotscale.dwg Layout: Layout2 Ref2: Ref1: Section A-A.dwg







NOTES:

- 1. Partial Plan Adapted From A Drawing By IVI Environmental, Inc. Entitled "Sample Location Map", I August 3, 1998 And By A Site Sketch Made By DAY Environmental, Inc. On November 5 & 6, 1998. Dated
- Groundwater Monitoring Well/Injection Point Locations Were Tape Measured Or Observed From Existing Site Structures And Should Be Considered Accurate To The Degree Implied By The Method Used.

5

Property Lines Shown Are From A Map Of An Instrument Survey By MRB Group, Entitled "Plan Of Land Owned By Parkway Plaza Limited Partnership In The City Of Canandaigua, Town Of Canandaigua, Ontario County, NY, Boundary Map", Dated June 22, 1988 And last Revised On December 6, 1988.

ښ

<u>LEGEND</u>

♦MP-1

Groundwater Monitoring Well (MW), Monitoring Point (MP) Or Injection Point (IP)

coc

247 (5/24/11)

1,343.1 (9/25/07) Total COC Concentration Measured During Most Recent Sample Event Shown In Parenthesis

Highest Total COC Concentration Measured During Remedial Investigation, Sample Date Shown in Parenethesis; If No Date Is Shown All Test Results Have Been Not Detected

Monitoring Well Has Not Been Sampled And Tested During Remedial Investigation Contaminant Of Concern "Not Detected" Above Detection Limits Utilized By The Analytical Laboratory

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⋛

ENLARGED AREA EASTERN BOULEVARD (N.Y.S. ROUTES 5 & 20) KEY PLAN NOT TO SCALE PARKWAY PLAZA MUAR ROAD

> PROJECT TITLE **FORMER PARKWAY CLEANERS VCP SITE NO. V00238-8** 2105R-99 **CANANDAIGUA, NEW YORK**

DRAWING TITLE

FIGURE 11

Contaminant Of Concern Distribution In The Groundwater

30

60,



trans-1,2-dichloroethene and vinyl chloride) Contaminant Of Concern (i.e. tetrachloroethene, trichloroethene, cis-1,2-dichloroethene,

DAY ENVIRONMENTAL, INC. **ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14606** NEW YORK, NEW YORK 10170

FIELD VERIFIED BY	DATE
RLK	5-2013
DRAWN BY	DATE DRAWN
RJM	5-2-2014
SCALE	DATE ISSUED
As Noted	5-2-2014

APPENDIX A SITE DESCRIPTION AND REFERENCE DRAWING

DESCRIPTION OF A PARCEL OF LAND BEING DESIGNATED AS VOLUNTARY CLEANUP SITE PARKWAY PLAZA CITY OF CANANDAIGUA

All that tract or parcel of land situate in the City of Canandaigua, County of Ontario, State of New York, and is more particularly described as follows:

Beginning at a point in the south property line of Parkway Plaza Limited Partnership said point being the following courses and distances from the intersection formed by the south right-of-way line of New York State Route 5 & 20 (Eastern Boulevard) and the east right-of-way line of Booth Street.

Thence	S 10°-47'-30" W a distance of 70.00 feet to a point,
Thence	S 79°-12'-30" E a distance of 240.00 feet to a point,
Thence	S 10°-47'-30" W a distance of 263.25 feet to a point,
Thence	S 68°-51'-00" E a distance of 39.0 ± feet to the true point and place of beginning.
Thence, 1 -	N 10°-47'-30" E a distance of $150.9 \pm \text{feet to a point in the north face of an existing one story block building,}$
Thence, 2 -	S 79°-12'-30" E along the north face of the one story block building, a distance of $50.0 \pm \text{feet to a point}$,
Thence, 3 -	S 10°-47'-30" W a distance of 160.0 ± feet to a point in the south line of lands of the Parkway Plaza Limited Partnership,
Thence, 4 -	N 68°-51'-00" W a distance of $50.8 \pm \text{ feet to the point and place of beginning.}$

Intending to describe a parcel of land, which contains 7,773 square feet being designated as voluntary cleanup site. Parcel is also designated as Voluntary Cleanup Program and as shown on a site plan by Day Environmental, Inc., Drawing #VCP-2, dated June 6, 2000 having Job #2105R-99.

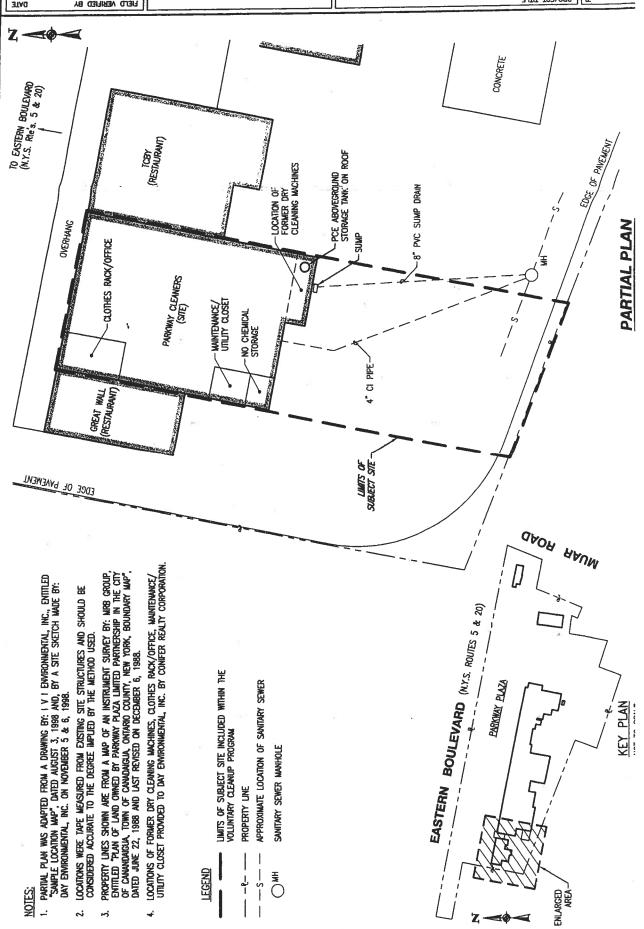
VOLUNTARY CLEANUP PROGRAM - WORK PLAN CANANDAIGUA, NEW YORK
PROJECT TITLE

DAY ENVIRONMENTAL,

ROCHERLEY NEW YORK ENVIRONMENTAL CONSULTANTS RJM DEAWN BY

DATE ISSUED SCYTE DATE DRAWN 15/3/88 **QAL** LIECTO NEBILIED BA DATE

ncF1: Bunterd12 REF2: REF3:



APPENDIX B

BEACON ENVIRONMENTAL SERVICES, INC. SOIL GAS REPORT

BEACON Report No. EM1258

EMFLUX® Passive, Non-Invasive Soil-Gas Survey

PARKWAY PLAZA CANANDAIGUA, NEW YORK

Prepared for

Day Environmental, Inc. 2144 Brighton-Henrietta T. L. Road Rochester, NY 14623

by

BEACON Environmental Services, Inc. 19 Newport Drive Suite 102 Forest Hill, MD 21050

March 22, 2001

Applying Results from Soil-Gas Surveys

The utility of soil-gas surveys is directly proportional to their accuracy in reflecting and representing changes in the subsurface concentrations of source compounds. Passive soil-gas survey results are the mass collected from the vapor-phase emanating from the source. The vapor-phase is merely a fractional trace of the source, so, as a matter of convenience, the units used in reporting detection values from EMFLUX® surveys are smaller than those employed for source-compound concentrations.

The critical fact is that, whatever the relative concentrations of source and associated soil gas, best results are realized when the ratio of soil-gas measurements to actual subsurface concentrations remains as close to constant as the real world permits. It is the reliability and consistency of this ratio, not the particular units of mass (e.g., nanograms) that determine usefulness. Thus, BEACON emphasizes the necessity of conducting — at minimum — follow-on intrusive sampling at one or two points which show relatively high EMFLUX® values to obtain corresponding concentrations of soil and ground-water contaminants. These correspondent values furnish the basis for approximating the required ratio. Once that ratio is established, it can be used in conjunction with EMFLUX® measurements (regardless of the units adopted) to estimate subsurface contaminant concentrations across the survey field. It is important to keep in mind, however, that specific conditions at individual sample points, including soil porosity and permeability, depth to contamination, and perched ground water, can have significant impact on soil-gas measurements at those locations.

When EMFLUX® Surveys are handled in this way, the data provide information that can yield substantial savings in drilling costs and in time. They furnish, among other things, a checklist of compounds expected at each survey location and help to determine how and where drilling budgets can most effectively be spent.

EMFLUX® Survey Number: EM1258

Parkway Plaza Canandaigua, New York

This EMFLUX® Soil-Gas Survey Report has been prepared for Day Environmental, Inc. (DAY) by Beacon Environmental Services, Inc. (BEACON) in accordance with the terms of the Subcontractor Agreement, dated March 1, 2001. BEACON's principal technical contacts at DAY for this project have been Mr. John Blanchard and Mr. Aaron Farrell.

1. Objectives

Soil-gas samples were collected to identify source areas and track ground water contamination at the Parkway Plaza site in Canandaigua, New York. Results of the survey will be used to determine the distribution of contaminants and to guide further site investigation.

2. Target Compounds

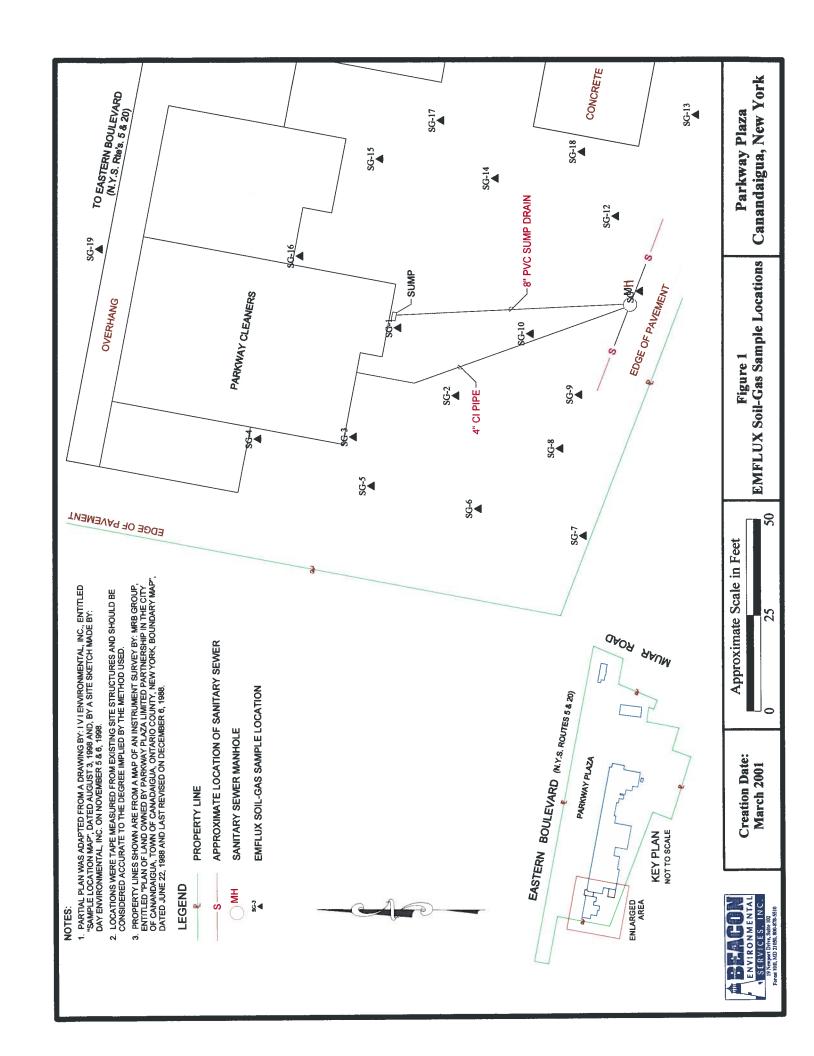
This survey targeted the 34 compounds listed in Attachment 1, which supplies the resulting laboratory data in nanograms (ng) of specific compound per cartridge. Table 1 provides a summary of the compounds detected.

3. Survey Description

•	No. of Field Sample Points:	19
•	No. of Trip Blanks:	_1
•	Total No. of EMFLUX® Cartridges:	20
•	Field sample locations are shown on Figure 1	

4. Field Work

DAY was provided an EMFLUX® Field Kit with the equipment needed to conduct a 19-point EMFLUX® Soil-Gas Survey. Collectors were deployed on March 5, 2001, and retrieved on March 8, 2001, in accordance with the EMFLUX® predictive timing model. Attachment 2 describes the field procedures used. Individual deployment and retrieval times will be found in the Field Deployment Report (Attachment 3).



5. Maryland Spectral Services, Inc. (MSS) Analysis and Reporting Dates

- MSS received 20 sample cartridges for analysis on March 9, 2001.
- EMFLUX® sample cartridges were thermally desorbed, then analyzed using gas chromatography/mass spectrometry (GC/MS) equipment, in accordance with EPA Method 8260 (Modified), as described in **Attachment 4**. MSS analyzed each cartridge for the targeted compounds listed in **Attachment 1**.
- MSS completed the analysis on March 14, 2001.
- Following a laboratory review, results were provided to DAY on March 15, 2001.

6. Report Notes and Quality Assurance/Quality Control Factors

- Table 1 provides survey results in nanograms, for those compounds detected, by sample-point number and compound name. The quantitation levels represent values above which quantitative laboratory results can be achieved within specified limits of precision and with a high degree of confidence. The quantitation level for each compound, therefore, provides a reliable basis for comparing the relative strength of any detection of that compound.
- Data Compatibility. It is important to note that when sample locations are covered with or near the edge of an artificial surface (e.g., asphalt or concrete), sample measurements are often distorted (increased) significantly. Such distortion can be attributed to the fact that gas rising from sources beneath impermeable caps tends to reach an equilibrium beneath the cap. Thus, a reading taken immediately below or near an impermeable surface is higher than it would be in the absence of such a cap.
- The Chain-of-Custody form, which was shipped with the samples for this survey, is supplied as Attachment 5.
- Laboratory QA/QC procedures included standards, surrogates, and blanks appropriate to EPA Method 8260 (Modified). Field work and reporting were done in accordance with BEACON's Quality Assurance Program Plan. MSS performed analyses under the laboratory's own Quality Assurance Plan.
- QA/QC Contaminant Corrections. Following EPA guidelines, EMFLUX® laboratory data is not corrected for method blank or trip blank sample contamination values; any contamination detected on QA/QC samples is reported in Attachment 1. Subsequent handling of QA/QC sample contamination depends upon the circumstances and origin of the sample; any corrective conventions noted below have proved highly useful in

deriving accurate and reproducible interpretations of survey data in prior EMFLUX® Surveys. No other methods thus far tested have produced comparable levels of quality.

- Laboratory method blanks are run each day with project samples to identify contamination present in the laboratory. If contamination is detected on a method blank, detections of identical compounds on samples analyzed the same day are considered to be suspect and are flagged in the laboratory report. The laboratory method blanks analyzed in connection with the present samples revealed no contamination.
- The **trip blank** is an EMFLUX cartridge prepared, transported, and analyzed with other samples but intentionally not exposed. The trip blank (labeled Trip-1 in **Attachment 1**) recorded 199 nanograms of Benzene and 95 nanograms of Toluene. Following EPA guidelines, field sample measurements that are less than five times the value of the same compound recorded on the trip blank are suspect. After applying this guideline, there is only one adjusted measurement of Toluene above the reported quantitation level (RQL) and all field sample measurements of Benzene are below the RQL (see **Table 1**).
- Survey findings are relative exclusively to this project and should not routinely be compared with results of other EMFLUX® Surveys. To establish a relationship between reported soil-gas measurements and actual subsurface contaminant concentrations, which will indicate those detections representing significant subsurface contamination, BEACON recommends the guidelines on the inside front cover of this report.
- At the request of DAY, a map showing the distribution of Tetrachloroethene and its degradation products is provided as **Figure 2**.
- The following **Attachments** are included:
 - -1- Laboratory Report
 - -2- EMFLUX® Field Procedures
 - -3- Field Deployment Report
 - -4- Laboratory Procedures
 - -5- Chain-of-Custody Form

Table 1

EMFLUX Data Summary

Results in Nanograms (ng)

Analysis Completed: March 14, 2001

SAMPLE NO.	SG-1	SG-2	SG-3	SG-4	SG-5
COMPOUNDS					
Chloromethane	U	U	IJ	U	U
1,2-Dichloroethene (cis)	U	Ū	265	U	U
1.2-Dichloroethene (trans)	U	U	34	U	U
Tetrachloroethene	76	438	5450	U	113
Trichloroethene	U	27	254	Ū	U
Aliphatics HCs	U	1520	5900	U	64000
2-Butanone	U	87	U	U	IJ
Toluene	U	U	U	U	965
Ethylbenzene	U	U	U	Ü	2200
Xylenes (Total)	U	47	U	Ū	9750
1,2,4-Trimethylbenzene	U	30	U	U	4640
,3,5-Trimethylbenzene	U	U	U	U	3360

SAMPLE NO.	SG-6	SG-7	SG-8	SG-9	SG-10
COMPOUNDS	-				
Chloromethane	158	58	143	U	161
1,2-Dichloroethene (cis)	U	Ŭ	U	IJ	35
1,2-Dichloroethene (trans)	U	U	Ū	IJ	11
Tetrachloroethene	1200	495	406	U	845
Trichloroethene	37	U	U	Ŭ	47
Aliphatics HCs	9350	258	10700	765	7350
2-Butanone	U	U	U	U	95
Toluene	U	U	U	Ŭ	U
Ethylbenzene	U	U	U	Ū	U
Xylenes (Total)	212	U	288	Ū	104
1,2,4-Trimethylbenzene	88	U	55	Ū	U
1,3,5-Trimethylbenzene	68	U	42	U	U

Reported Quantitation Levels = 250 nanograms for Aliphatic HCs, 50 nanograms for 2-Butanone, and 25 nanograms for the remaining compounds

U = Below Reported Quantitation Level

Table 1 (continued) EMFLUX Data Summary

Results in Nanograms (ng)

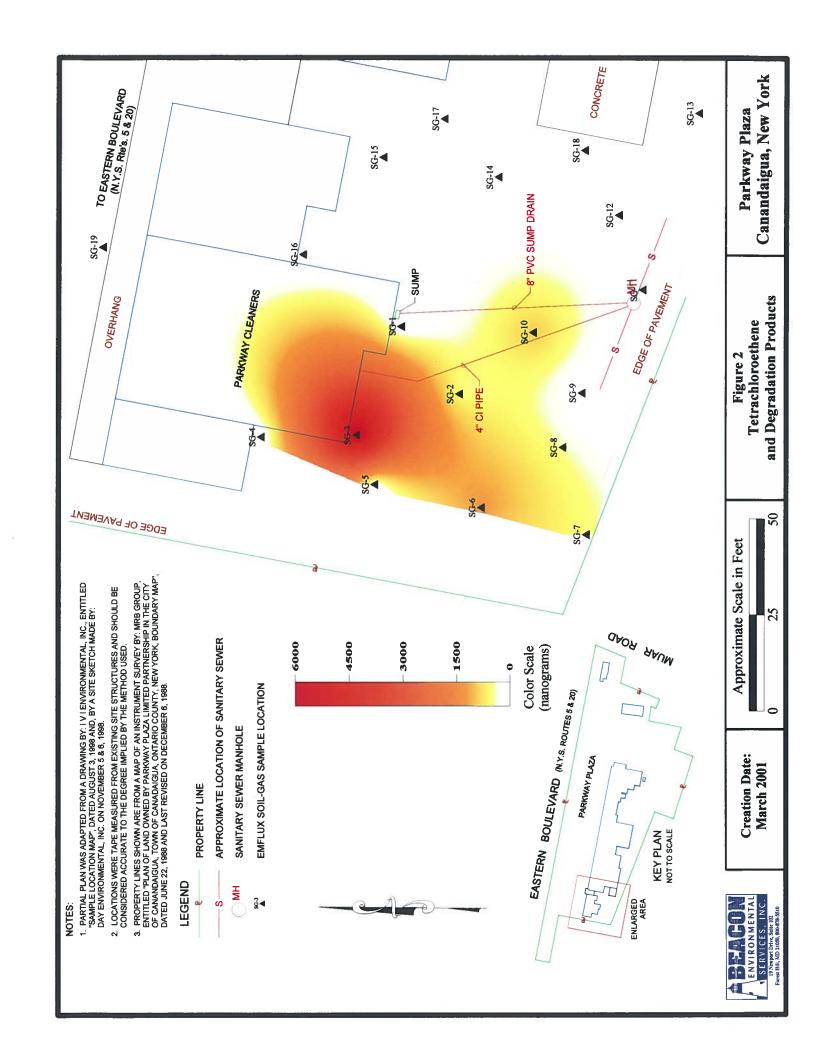
Analysis Completed: March 14, 2001

SAMPLE NO.	SG-11	SG-12	SG-13	SG-14	SG-15
COMPOUNDS					
Chloromethane	U	55	67	U	136
1,2-Dichloroethene (cis)	Ü	Ū	U	Ŋ	IJ
1,2-Dichloroethene (trans)	U	Ū	Ū	Ū	U
Tetrachloroethene	U	U	Ū	Ū	U
Trichloroethene	U	U	U	Ū	U
Aliphatics HCs	6200	2140	8100	2910	Ū
2-Butanone	178	Ŭ	U	U	U
Toluene	U	U	Ū	U	U
Ethylbenzene	101	Ū	444	IJ	U
Xylenes (Total)	840	28	3970	67	Ū
,2,4-Trimethylbenzene	301	U	1520	27	U
,3,5-Trimethylbenzene	132	U	905	U	U

	12 ¹⁵ 61 IF		7/5 Ex	
SAMPLE NO.	SG-16	SG-17	SG-18	SG-19
COMPOUNDS				
Chloromethane	U	133	124	169
1,2-Dichloroethene (cis)	U	Ŭ	U	U
1,2-Dichloroethene (trans)	U	U	U	IJ
Tetrachloroethene	U	U	U	Ü
Trichloroethene	U	U	U	Ū
Aliphatics HCs	1470	Ū	2750	3540
2-Butanone	U	U	U	123
Toluene	U	U	U	Ū
Ethylbenzene	U	U	Ū	Ū
Xylenes (Total)	111	U	115	210
1,2,4-Trimethylbenzene	35	U	26	58
1,3,5-Trimethylbenzene	U	U	U	37

Reported Quantitation Levels = 250 nanograms for Aliphatic HCs, 50 nanograms for 2-Butanone, and 25 nanograms for the remaining compounds

U = Below Reported Quantitation Level



Attachment 1

Laboratory Report

1500 Caton Center Drive Baltimore, MD 21227

CLIENT SAMPLE ID:	SG-1	SG-2	SG-3	SG-4	SG-5	60.4
CEIENT SAMI EE ID.	EM1258	EM1258	EM1258	EM1258	EM1258	SG-6
LAB SAMPLE ID:	010309201	010309202	010309203	010309204	010309205	EM1258
RECEIVED DATE:	03/09/01	03/09/01	03/09/01	03/09/01	03/09/01	010309206 03/09/01
ANALYSIS DATE:	03/13/01	03/13/01	03/13/01	03/03/01	03/03/01	03/09/01
FILE NAME:	0309201	0309202	0309203	03/13/01	03/13/01	
INSTRUMENT ID:	MSD	MSD	MSD	0309204 MSD	0309203 MSD	0309206
UNITS:	NG/TRAP	NG/TRAP	NG/TRAP	NG/TRAP	NG/TRAP	MSD
VOLATILE COMPOUNDS	NO/TICAL	NO/TRA	NO/TRAF	NOTRAP	NO/TRAP	NG/TRAP
Aliphatics HCs	250 U	1520	5900	250 U	64000	9350
Benzene	172	213	192	320	243	248
Bromodichloromethane	25 U	25 U	25 U	25 U	25 U	25 U
Bromoform	25 U	25 U	25 U	25 U	25 U	25 U
Bromomethane	50 U	50 U	50 U	50 U	50 U	50 U
2-Butanone	50 U	87	50 U	50 U	50 U	50 U
	20 0	0,	30 0	30 0	30 0	30 0
Carbon Tetrachloride	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	25 U	25 U	25 U	25 U	25 U	25 U
Chloroethane	50 U	50 U	50 U	50 U	50 U	50 U
Chloroform	25 U	25 U	25 U	25 U	25 U	25 U
Chloromethane	50 U	50 U	50 U	50 U	50 U	158
Dibromochloromethane	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethane	25 U	25 U	25 U	25 U	25 U	25 11
1,2-Dichloroethane	25 U	25 U	25 U	25 U	25 U	25 U 25 U
1,1-Dichloroethene	25 U	25 U	25 U	25 U	25 U	
1,2-Dichloroethene (cis)	25 U	25 U	265	25 U	25 U	
1,2-Dichloroethene (trans)	25 U	25 U	34	25 U	_	
1,2-Dichloropropane	25 U	25 U	25 U'	25 U		25 U
1,2-Dicinolopiopane	23 0	23 0	23 0	25 0	25 U	25 U
cis-1,3-Dichloropropene	25 U	25 U	25 U	25 U	25 U	25 U
trans-1,3-Dichloropropene	25 U	25 U	25 U	25 U	25 U	25 U
Ethylbenzene	25 U	25 U	25 U	25 U	2200	25 U
2-Hexanone	50 U	50 U	50 U	50 U	50 U	50 U
4-Methyl-2-Pentanone	50 U	50 U	50 U	50 U	50 U	50 U
Styrene	25 U	25 U	25 U	25 U	25 U	25 U
1,1,2,2-Tetrachloroethane	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	76	438	5450	25 U	113	1200
Toluene	49	83	48	82	1440	191
1,1,1-Trichloroethane	25 U	25 U	25 U	25 U	25 U	25 U
1,1,2-Trichloroethane	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	25 U	27	254	25 U	25 U	37
1,2,4-Trimethylbenzene	25 U	30	25 U	25 U	4640	88
1,3,5-Trimethylbenzene	25 U	25 U	25 U	25 U	3360	68
Vinyl Chloride	50 U	50 U	50 U	50 U	50 U	50 U
Xylenes (Total)	25 U	47	25 U	25 U	9750	212
,	23 0	7.7	23 0	23 0	7130	212

B - Detected in lab blank. U - Below reported quantitation level. J - Estimated value.

1500 Caton Center Drive Baltimore, MD 21227

CLIENT SAMPLE ID:	SG-7	SG-8	SG-9	SC 10	50.11	0.0
CLIENT SAMFLETD.	EM1258	EM1258	5G-9 EM1258	SG-10	SG-11	SG-12
LAB SAMPLE ID:	010309207	010309208	010309209	EM1258	EM1258	EM1258
RECEIVED DATE:	03/09/01	03/09/01	03/09/01	010309210	010309211	010309212
ANALYSIS DATE:	03/13/01	03/13/01	03/13/01	03/09/01	03/09/01	03/09/01
FILE NAME:	0309207	0309208	0309209	03/13/01	03/14/01	03/14/01
INSTRUMENT ID:	MSD	0309208 MSD	0309209 MSD	0309210	0309211	0309212
UNITS:	NG/TRAP	NG/TRAP		MSD	MSD	MSD
VOLATILE COMPOUNDS	NOTRAL	NOTRAP	NG/TRAP	NG/TR-AP	NG/TRAP	NG/TRAP
Aliphatics HCs	258	10700	765	7350	6200	2140
Benzene	237	520	208	376	318	
Bromodichloromethane	25 U	25 U	25 U	25 U	25 U	246 25 U
Bromoform	25 U	25 U	25 U	25 U	25 U	
Bromomethane	50 U	50 U	50 U	50 U	50 U	25 U
2-Butanone	50 U	50 U	50 U	95		50 U
2 Statione	30 0	30 0	30 0	93	178	50 U
Carbon Tetrachloride	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	25 U	25 U	25 U	25 U	25 U	25 U
Chloroethane	50 U	50 U	50 U	50 U	50 U	50 U
Chloroform	25 U	25 U	25 U	25 U	25 U	25 U
Chloromethane	58	143	50 U	161	50 U	55
Dibromochloromethane	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethane	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethene (cis)	25 U	25 U	25 U	35	25 U	25 U
1,2-Dichloroethene (trans)	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloropropane	25 U	25 U	25 U	25 U	25 U	25 U
ais 1.2 Dishlaranna	25 11	25 11	27 11			
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	25 U	25 U	25 U	25 U	25 U	25 U
Ethylbenzene	25 U 25 U	25 U	25 U	25 U	25 U	25 U
2-Hexanone	25 U 50 U	25 U	25 U	25 U	101	25 U
4-Methyl-2-Pentanone		50 U	50 U	50 U	50 U	50 U
Styrene	50 U	50 U	50 U	50 U	50 U	50 U
Stylene	25 U	25 U	25 U	25 U	25 U	25 U
1,1,2,2-Tetrachloroethane	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	495	406	25 U	845	25 U	25 U
Toluene	47	237	79	214	401	89
1,1,1-Trichloroethane	25 U	25 U	25 U	25 U	25 U	25 U
1,1,2-Trichloroethane	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	25 U	25 U	25 U	47	25 U	25 U
					-	
1.2,4-Trimethylbenzene	25 U	55	25 U	25 U	301	25 U
1,3,5-Trimethylbenzene	25 U	42	25 U	25 U	132	25 U
Vinyl Chloride	50 U	50 U	50 U	50 U	50 U	50 U
Xylenes (Total)	25 U	288	25 U	104	840	28

B - Detected in lab blank. U - Below reported quantitation level. J - Estimated value.

1500 Caton Center Drive Baltimore, MD 21227

EM1258	CLIENT SAMPLE ID:	SG-	·13 S0	3-14	SG	-15	SG	-16	SG	-17	SG	-18
RECEIVED DATE: 03/09/01 03/0		EM12	.58 EM1	258	EMI	258	EMI	258	EMI	258	EM1	258
ANALYSIS DATE: 03/14/01 03/14/	LAB SAMPLE ID:	0103092	13 010309	214	0103092	215	0103093	216	0103092	217	010309	218
FILE NAME: 0309213	RECEIVED DATE:	03/09/	01 03/0	9/01	03/09	/01	03/09	/01	03/09	10/	03/09	/01
FILE NAME: 0309213 0309214 0309215 0309216 0309217 0309218	ANALYSIS DATE:	03/14/	01 03/1	4/01	03/14	/01	03/14	/01	03/14	/01		
INSTRUMENT ID:												
VOLATILE COMPOUNDS NG/TRAP 250 U 250 U												
VOLATILE COMPOUNDS Aliphatics HCs 8100 2910 250 U 1470 250 U 2750 Benzene 215 197 269 236 413 308 Bromodichloromethane 25 U 25												
Aliphatics HCs 8100 2910 250 U 1470 250 U 2750 Benzene 215 197 269 236 413 308 Bromodichloromethane 25 U <											1.0.11	<u> </u>
Benzene 215 197 269 236 413 308 Bromodichloromethane 25 U		8100	2910	1	250	I I	1470		250	11	2750	
Bromodichloromethane 25 U 25 U<						O				U		
Bromoform 25 U 26 U 25 U 26 U 27 U 27 U 27 U 27 U 27 U 28 U						11		1.1		1.1		11
Bromomethane 50 U												_
2-Butanone 50 U 50												
Carbon Tetrachloride 25 U												
	2-Butanone	30	0 30	U	30	U	30	U	30	U	50	U
Chlorobenzene 25 II	Carbon Tetrachloride	25	U 25	U	25	U	25	U	25	U	25	U
	Chlorobenzene	25	U 25	U	25	U	25	U	25	U	25	U
Chloroethane 50 U 50 U 50 U 50 U 50 U 50 U	Chloroethane	50	U 50	U	50	U	50	U	50	U	50	U
Chloroform 25 U 25 U 25 U 25 U 25 U 25 U	Chloroform	25	U 25	U	25	U	25	U	25	U		U
Chloromethane 67 50 U 136 50 U 133 124	Chloromethane	67	50	U	136		50	U	133			
Dibromochloromethane 25 U 25 U 25 U 25 U 25 U 25 U	Dibromochloromethane	25	U 25	U	25	U	25	U	25	U	25	U
1,1-Dichloroethane 25 U	1,1-Dichloroethane	25	U 25	U	25	U	25	U	25	U		U
1,2-Dichloroethane 25 U 25 U 25 U 25 U 25 U 25 U	1,2-Dichloroethane	25	U 25	U	25	U	25	U	25	U	* 25	U
1,1-Dichloroethene 25 U 25 U 25 U 25 U 25 U 25 U	1,1-Dichloroethene	25	U 25	U	25	U	25	U	25	U	25	U
1,2-Dichloroethene (cis) 25 U 25 U 25 U 25 U 25 U 25 U	1,2-Dichloroethene (cis)	25	U 25	U	25	U	25	U	25	U	25	U
1,2-Dichloroethene (trans) 25 U 25 U 25 U 25 U 25 U 25 U	1,2-Dichloroethene (trans)	25	U 25	U	25	U	25	U	25	U	25	U
1,2-Dichloropropane 25 U 25 U 25 U 25 U 25 U 25 U	1,2-Dichloropropane	25	U 25	U	25	U	25	U	25	U	25	U
cis-1,3-Dichloropropene 25 U	cis-1,3-Dichloropropene	25	U 25	U	25	U	25	U	25	U	25	U
trans-1,3-Dichloropropene 25 U 25 U 25 U 25 U 25 U 25 U	trans-1,3-Dichloropropene	25	U 25	U	25	U	25	U	25	U	25	U
Ethylbenzene 444 25 U 25 U 25 U 25 U 25 U	Ethylbenzene	444	25	U	25	U	25	U	25	U	25	U
2-Hexanone 50 U 50 U 50 U 50 U 50 U	2-Hexanone	50	U 50	U	50	U	50	U	50	U	50	U
4-Methyl-2-Pentanone 50 U 50 U 50 U 50 U 50 U	4-Methyl-2-Pentanone	50	U 50	U	50	U	50	U	50	U	50	U
Styrene 25 U	Styrene	25	U 25	U	25	U	25	U	25	U	25	U
1,1,2,2-Tetrachloroethane 25 U 25 U 25 U 25 U 25 U 25 U	1 1 2 2 Totrochloroothono	25	11 25	11	25	11	25	1.1	25	11	25	T I
Tetrachloroethene 25 U			-									
						U		U		U		U
						11		T T		1.1		11
1,1,1-Trichloroethane 25 U 25												
1,1,2-Trichloroethane 25 U			-									
Trichloroethene 25 U 25	Trichloroethene	25	U 25	U	25	U	25	U	25	U	25	U
1,2,4-Trimethylbenzene 1520 27 25 U 35 25 U 26	1,2,4-Trimethylbenzene	1520	27		25	U	35		25	U	26	
1,3,5-Trimethylbenzene 905 25 U 25 U 25 U 25 U 25 U								U	25	U	25	U
Vinyl Chloride 50 U 50 U 50 U 50 U 50 U 50 U					50	U	50	U	50	U		
Xylenes (Total) 3970 67 25 U 111 25 U 115					25	U			25	U		

B - Detected in lab blank. U - Below reported quantitation level. J - Estimated value.

1500 Caton Center Drive Baltimore, MD 21227

CLIENT SAMPLE ID:	SG-19 EM1258	TRIP-1 EM1258	VBLK0312D1	VBLK0313D1	VBLK0314D1	
LAB SAMPLE ID: RECEIVED DATE:	010309219	010309220	METHOD BL.	METHOD BL.	METHOD BL.	
ANALYSIS DATE:	03/09/01	03/09/01 03/13/01	03/13/01	02/12/01	02/14/01	
FILE NAME:	03/14/01	0309220	03/12/01 0312VBLKD1	03/13/01 0313VBLKD1	03/14/01	
INSTRUMENT ID:	MSD	MSD	MSD	MSD	0314VBLKDI MSD	
UNITS:	NG/TRAP	NG/TRAP	NG/TRAP	NG/TRAP		
VOLATILE COMPOUNDS	110/110A	NO/TRAF	NO/TRAF	NU/TRAP	NG/TRAP	
Aliphatics HCs	3540	250 U	250 U	250 U	250 U	
Benzene	272	199	25 U	25 U	25 U	
Bromodichloromethane	25 U	25 U	25 U	25 U	25 U	
Bromoform	25 U	25 U	25 U	25 U	25 U	
Bromomethane	50 U	50 U	50 U	50 U	50 U	
2-Butanone	123	50 U	50 U	50 U	50 U	
			50 0	30 0	30 0	
Carbon Tetrachloride	25 U	25 U	25 U	25 U	25 U	
Chlorobenzene	25 U	25 U	25 U	25 U	25 U	
Chloroethane	50 U	50 U	50 U	50 U	50 U	
Chloroform	25 U	25 U	25 U	25 U	25 U	
Chloromethane	169	50 U	50 U	50 U	50 U	
Dibromochloromethane	25 U	25 U	25 U	25 U	25 U	
1,1-Dichloroethane	25 U	25 U	25 U	25 U	25 U	
1,2-Dichloroethane	25 U	25 U	25 U	25 U	25 U	
l,l-Dichloroethene	25 U	25 U	25 U	25 U	25 U	
1,2-Dichloroethene (cis)	25 U	25 U	25 U	25 U	25 U	
1,2-Dichloroethene (trans)	25 U	25 U	25 U	25 U	25 U	
1,2-Dichloropropane	25 U	25 U	25 U	25 U	25 U	
cis-1,3-Dichloropropene	25 U	25 U	25 U	25 U	25 U	
trans-1,3-Dichloropropene	25 U	25 U	25 U	25 U	25 U	
Ethylbenzene	25 U	25 U	25 U	25 U	25 U	
2-Hexanone	50 U	50 U	50 U	50 U	50 U	
4-Methyl-2-Pentanone	50 U	50 U	50 U	50 U	50 U	
Styrene	25 U	25 U	25 U	25 U	25 U	
1,1,2,2-Tetrachloroethane	25 U	25 U	25 U	25 U	25 U	
Tetrachloroethene	25 U	25 U	25 U	25 U	25 U	
Toluene	226	95	25 U	25 U	25 U	
1,1,1-Trichloroethane	25 U	25 U	25 U	25 U	25 U	
1,1,2-Trichloroethane	25 U	25 U	25 U	25 U	25 U	
Trichloroethene	25 U	25 U	25 U	25 U	25 U	
1,2,4-Trimethylbenzene	58	25 U	25 U	25 U	25 U	
1,3,5-Trimethylbenzene	37	25 U	25 U	25 U	25 U	
Vinyl Chloride	50 U	50 U	50 U	50 U	50 U	
Xylenes (Total)	210	25 U	25 U	25 U	25 U	

B - Detected in lab blank. U - Below reported quantitation level. J - Estimated value.

Attachment 2

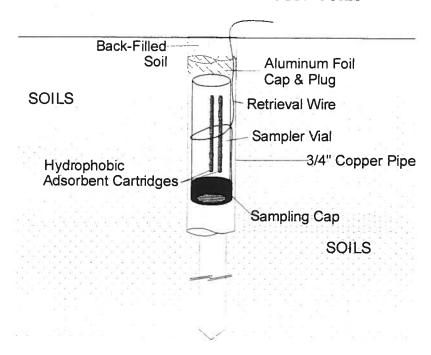
FIELD PROCEDURES FOR EMFLUX® SOIL-GAS SURVEYS

The following field procedures are routinely used during EMFLUX® Soil-Gas Surveys. Modifications can be and are incorporated from time to time in response to individual project requirements. In all instances, BEACON adheres to EPA-approved Quality Assurance and Quality Control practices.

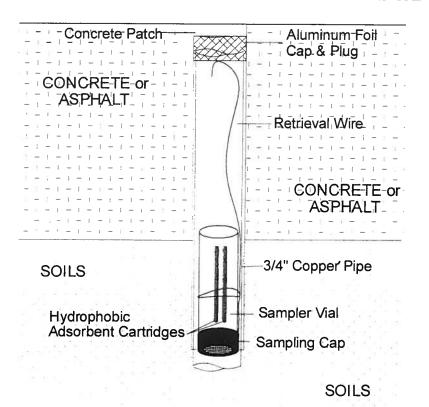
- A. Field personnel carry EMFLUX® system components and support equipment to the site and deploy the EMFLUX® Collectors in a prearranged survey pattern. Although EMFLUX® Collectors require only one person for emplacement and retrieval, the specific number of field personnel required depends upon the scope and schedule of the project. Each Collector emplacement generally takes less than two minutes.
- B. For those sample locations covered with soils or vegetation, a field technician clears vegetation and debris exposing the ground surface. Using a hammer and a ¾"-diameter pointed metal stake, the technician creates a hole approximately three inches deep. For those locations covered with an asphalt or concrete cap, the field technician drills a ½"-diameter hole through the cap to the soils beneath. (If necessary, the Collector can be sleeved with a ¾" i.d. copper pipe for either capped or uncapped locations).
- C. The technician then removes the solid plastic cap from an EMFLUX® Collector (a glass vial containing adsorbent cartridges with a length of wire attached to the vial for retrieval) and replaces it with a Sampling Cap (a plastic cap with a hole covered by screen meshing). The technician inserts the Collector, with the Sampling Cap end facing down, into the hole (see attached figure). The Collector is then covered with either local soils for uncapped locations or, for capped locations, aluminum foil and a concrete patch. The Collector's location, time and date of emplacement, and other relevant information are recorded on the Field Deployment Form.
- D. One or more trip blanks are included as part of the quality-control procedures.
- E. Once all EMFLUX® Collectors have been deployed, field personnel schedule Collector recovery (approximately 72 hours after emplacement) and depart, taking all no-longer-needed equipment and materials with them).
- F. Field personnel retrieve the Collectors at the end of the 72-hour exposure period. At each location, a field technician withdraws the Collector from its hole, removes the retrieval wire, and wipes the outside of the vial clean using gauze cloth; following removal of the Sampling Cap, the threads of the vial are also cleaned. A solid plastic cap is screwed onto the vial and the sample location number is written on the label. The technician then records sample-point location, date, time, etc. on the Field Deployment Form.
- G. Sampling holes are refilled with soil, sand, or other suitable material. If Collectors have been installed through asphalt or concrete, the hole is filled to grade with a plug of cold patch or cement.
- H. Following retrieval, field personnel ship or carry the EMFLUX® Collectors to a specified analytical laboratory. The remaining equipment is returned to BEACON's preparation facility.

EMFLUX® COLLECTOR

DEPLOYMENT THROUGH FROZEN SOILS



DEPLOYMENT THROUGH AN ASPHALT/CONCRETE CAP



Attachment 3
Field Deployment Report

		BE	BEACON ENVIRONMENTAL SERVICES, INC. EMFLUX® SOIL-GAS SURVEY FIFT D DEPLOYMENT REPORT	S, INC.
PROJECT #: EM1258	EM1258	CLIENT: Day Environmental, Inc.	vironmental, Inc.	SITE: Parkury Plaza Cavandaigua, NY
			INDIVIDUAL SAMPLE INFORMATION	
EMPLACEM	ENT DATE: W	EMPLACEMENT DATE: March 5, 2001	RETRIEVAL DA	RETRIEVAL DATE: March 8, 2001
SAMPLE NUMBER	I	TIME	F (e.g., asphalt/concrete covering, descr	FIELD NOTES (e.g., asphalt/concrete covering, description of sample location, cartridge/vial condition)
	Emplaced	Retrieved		
56-1	1325	1960	Through agolast (2" Ashalt) Botton of hole at 3.5"	for of hole at 3.5" give
2-95	1340	4160	Original lastion under water (5	Original location under water (snow melt), oftset to driver area
5-95	1350	6760	Ashalf is soft	
56-4	1400	8760		
555	1405	0935		
J- 9S	1415	2760		
56-7	1425	0460	Set in soils off edge of tarking	اللائسم
8-05	1435	9001	Through asphalt Under Howed	snow dank
86-9	MAS	Siai	-	
SG-10	1455	9701		
56-11	1500	1501	affect from original location due to snow pile	on due to snow oile snow pile
56-12	1515	1055	7	
56-13	1525	1105	Offset from original bration	in due to enou bile
56-14	1530	1115	7	

FIELD NOTES (e.g., asphalt/concrete covering, description of sample location, cartridge/vial condition)			1" of asobalt + 3" concrete	Point flooded at time of retrieval	"8" deep (6 asohat)	In frant of building							
TIME	Retrieved	8111	1123	1135	1128	1145	-						
TI	Emplaced	1540	leco	1610	1615	16-40				:			
SAMPLE NUMBER		56.15	56-16	56-17	SG-18	ડેલ- છ							

Attachment 4

LABORATORY PROCEDURES FOR EMFLUX® ADSORBENT CARTRIDGES

Following are laboratory procedures used with the EMFLUX® Soil-Gas System, a screening technology for expedited site investigation. After exposure, EMFLUX® cartridges are analyzed using U.S. EPA Method 8260 as described in the Solid Waste Manual (SW-846), a purge-and-trap capillary gas chromatographic/mass spectrometric method, modified to accommodate high-temperature thermal desorption of the adsorbent cartridges. This procedure is summarized as follows:

- A. The adsorbent cartridges are thermally desorbed at 300°C for 11 minutes in a 40 mL/min helium flow, through 5 mL of reagent water spiked with 250 ng of internal standards and surrogates held in the sparging vessel. Any analytes in the helium stream are adsorbed onto a standard three-component trap (Tenax, silica gel, coconut charcoal).
- B. Following cryofocusing, the three-component trap is thermally desorbed at 220°C onto a Supelco VOCOL 105 m, 0.5 mm ID, 3.00 micron filament thickness capillary column, per the U.S. EPA CLP Statement of Work (SOW) for the method.
- C. Following the SOW, the GC/MS is scanned between 35 and 260 Atomic Mass Units (AMU) at one second per scan.
- D. BFB tuning criteria and initial calibration are per the EPA CLP 2/88 guidelines, with an 18-hour tune window. A laboratory blank is analyzed after the daily standard to determine that the system is contaminant-free.
- E. The instrumentation used for these analyses includes:
 - Finnigan Model OWA 1050 Gas Chromatograph/Mass Spectrometer;
 - Tekmar Model 6016 Aero Trap Autosampler;
 - Tekmar Model LSC 2000 Liquid Sample Concentrator; and
 - Tekmar Model ALS 2016 Autosampler.

Attachment 5

Chain-of-Custody Form

	BEAC	ON ENVIRO	NMENTAL SEI F-CUSTODY FO	RVICES, INC. ORM			
PROJECT NUMBER	R: EM1258		SITE: Par	-kway Plaza (Z	105R-99	<u> </u>	
CLIENT: Day Envir	onmental, Inc.						
TARGET COMPOU	NDS: EMFLUX 8260						
Sample	Lab ID 1	No.	Remarks (c	only necessary if prob	lem or disc	repancy)	
Number			Condition o	f sample or vial	Date	Time N	łmit
SG-1	0/130	9-201			3/8/0	0907	15
<u>SG-2</u>		2			11/	0914	Q
<u>SG-3</u>		3				0923	
<u>sc-4</u>						0928	(HO)
<u>5G-5</u>		5				0935	
56-6		6				0942	(1)
<u>5G-7</u>		7			_	0950	O
<u>56-8</u>		8				1006	b)
56-9		- 1				1015	<i>W</i>
SG-10		210				1026	
56-11						1051	1
<u>SG-12</u>		2	····			1055	
<u>SG-13</u>		3				1105	W
SG-14		7	······································			1115	02
56-15		2			8	1118	
56-16		6				1123	1)
<u>56-17</u>		7				1135	
56-18		8				1128	
56-19		9				1145	A)
TRIP-1		220			<u></u>	1	A
	- End	of 5	amples -			- (4)	_
		88					
1							
-							
							\dashv
RELINOU	ISHED BY	DATE	TIME	DF.C	EIVED B	v	\neg
Signature			221122				
Signature	Printed Name Steve Thornley	02/28/01	2000	Signature Fedex	P	rinted Nam Fedex	ie
∩ Fedex ∩	Fedex	3/1/01	1132		1/1 -		1.1
mell late	Julgeory Dant	3/8/01	1435	Caron Karrell	Ha	non Farre	V .
The state of the s	Joiety	10/01	17.75	VFatex		edet	-
	T Im	1	1222	1/w/1-		~ /l	
	toa (X	3-9-01	1030	SITA	\sim	SHAM	√, (,

Shipment to site: Custody Seal # 000103227 Shipment to Laboratory Custody Seal # 00029750 CUSTODY SORL INTACT 3/9/01 1030 AM 804

APPENDIX C

TEST BORING LOGS/MONITORING WELL INSTALLATION DIAGRAMS

Test Boring Logs/Monitoring Well Installation Diagrams
TB-1 through TB-10
MW-1 through MW-4
November 1998

FILE NO.: 1764S-98 BORING NO.: TB-1 (MW-1) PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp. TYPE OF DRILL RIG: Truck mounted Geoprobe SURFACE ELEV.: 98.66' LOCATION: South Side of Sump DATUM: 100.00'

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98

AUGERS: NA DAY REPRESENTATIVE: John Blanchard JSB3047a / 1764S-98 THICKNESS OF OVERBURDEN: DEPTH DRILLED INTO ROCK: 0' TOTAL DEPTH OF HOLE: 20.0° WEATHER: Overcast, breezy, ~40°F BLOWS PER 0.5 FOOT % RECOVERY DEPTH (FT) DEPTH (FT) Well Diagram N-VALUE SAMPLE NO., SOIL AND ROCK DESCRIPTION Curb box NA Asphalt Bentonite -1--1-Black to brown Clay and Silt (FILL), moist. 0.0 0.0 SS-1 95 -2--2-66.9 720 -3--3-Brown Clay, some Silt and Cobbles (FILL), moist. Sand -4--4-72.6 >1000 Brown CLAY, little Silt, trace Gravel, moist (FILL). -5--5-... strong VOC odor. SS-2 80 -6--6-1 1/4" PVC 3,201 >1000 Riser -7--7-... strong VOC odor. -8--8-Brown to black SAND and COBBLES, moist. 4,524 >1000 -9--9-90 SS-3 -10--10-Black CLAY, wet. -11--11-1 1/4" PVC 8,695 >1000 Well Screen -12--12-132 45 Grey SILT and SAND, little shell fragments, wet -13--13-SS-4 100 -14--14-0.0 0.0 -15--15-Brown CLAY, moist. -16--16-15.0 10.0 -17--17-Brown SAND, little Silt and Shell fragments, Wet. SS-5 -18--18-17.2 12 Brown CLAY, Wet. -19--19--20--20-Boring terminated at 20' BGS.

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: 1764S-98 BORING NO.: TB-2 (MW-2)
PROJECT: PHASE II STUDY
PARKWAY PLAZA
CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe
SAMPLING METHOD: 3" Large Bore Core

SURFACE ELEV.: 98.78'

DATUM: 100.00'

LOCATION: East of Sump Area

SAMPLING METHOD: 3" Large Bore Core DATE STARTED: 11/5/98 DATE FINISHED: 11/5/98 DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 AUGERS: NA TOTAL DEPTH OF HOLE: 16.0' DEPTH DRILLED INTO ROCK: 0' WEATHER: Overcast, breezy, ~40°F THICKNESS OF OVERBURDEN: NA PEAK PID READING (PPM) DEPTH (FT Well Diagram BLOWS PER 0.5 FOOT SOIL AND ROCK DESCRIPTION Asphalt NA -1--1-Brown to black Sand and Gravel, some Silt (FILL), damp. 5.3 400 -2--2-SS-1 100 1 1/4" PVC -3--3-4.9 >1,000 ... slight VOC odor. -4--4-6.5 110 Black Sand, some Silt, trace Clay, Organics, and Cobbles, -5--5damp (FILL). SS-2 85 -6--6-Brown SAND, GRAVEL, and COBBLES, moist. 7.0 80 -7--7-... Wet at 7.0 feet. -8--8--9--9-6.0 30 1 1/4" PVC Well Screen -10--10-Black CLAY, little Silt, moist. 10 SS-3 -11--11-6.0 30 -12--12--13--13-Gray SILT, little Shell fragments, wet. 3.0 350 -14--14-SS-4 100 -15--15-100 4.0 Brown CLAY, moist. -16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: <u>1764S-98</u> BORING NO.: TB-3 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

DATUM: NA

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

LOCATION: West of Sump (near rear entrance)

SURFACE ELEV .: NA

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 5/6/98 DATE FINISHED: 5/6/98

	RS: NA	7.00						DAY REPRESENTATIVE: John Blanchard	JSB3047A / 1764S-98
THICK	NESS OF	OVERB	URDEN	: NA	DEPTI	H DRILLED	INTO ROC	CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER: C	vercast, breezy ~40°F
рертн (FT)	SAMPLE NO.,	BLOWS PER 0.5	N-VALUE	% RECOVERY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	DEPTH (FT)	SOIL AND ROCK DESCRIPTION	COMMENTS
		NA	NA					Asphalt	
-1-	SS-1			40	12.5	10	-1-	Black Sand and Cobbles, some Gravel (FILL), damp.	
-2-						200	-2-		
-3-					28.2	300	-3-		
-4-			↓ -i -	-		<u> </u>	-4-		Slight VOC Odor
-5-	00.2		***************************************	50	59	600	-5-	Tan Clay, little Sand and Silt, moist (FILL).	
-6-	SS-2			50			-6-		Strong VOC Odor
-7-					119	>1,000	-7-		
-8-							-8-	grass encountered (original ground surface).	
-9-					36.5	60	-9-	Black CLAY, trace Gravel, moist.	
-10-	SS-3			70			-10-	Becoming gray.	
-11-					34.0	30	-11-	Grey to gray-green SAND and SILT, wet.	Slight VOC Odor
-12-							-12-		
								Grey CLAY, moist.	
-13-					15.6	110	-13-		
-14-	SS-4		***	80			-14-	Constant link Cik Wa	
-15-			***************************************		16.9	100	-15-	Grey SAND, little Silt, Wet.	
-13-							-13-		
-16-							-16-	Province terminated at 161 PGS	
-17-			***				-17-	Boring terminated at 16' BGS.	
-18-							-18-		
-19-							-19-		
-2 0-		•	•				-20-		
MISCE	LANEO	US NO	TES: PP	M = parts	per million P	ID = Photoioni	zation detecto	or FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS	= Below Ground Surface

FILE NO.: 1764S-98 BORING NO.: TB-4
PROJECT: PHASE II STUDY
PARKWAY PLAZA
CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV.: NA LOCATION: West of TB-1 DATUM: NA

TYPE OF DRILL RIG: <u>Truck mounted Geoprobe</u>
SAMPLING METHOD: <u>3" Large Bore Core</u>

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98

AUGERS: NA DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 THICKNESS OF OVERBURDEN: DEPTH DRILLED INTO ROCK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER: Overcast, breezy, ~40°F PEAK PID READING (PPM) PEAK FID READING (PPM) BLOWS PER 0.5 FOOT DEPTH (FT) DEPTH (FT) SAMPL NO., SOIL AND ROCK DESCRIPTION COMMENTS Asphalt NA -1--1-Black Sand, some Cobbles and Gravel (FILL), damp. 0.0 SS-1 60 -2--2-0.0 -3--3-Brown Clay, Little Gravel and Cobbles, moist (FILL). -4-4--5--5-0.0 SS-2 50 ...layer of crushed stone. -6--6-0.0 -7--7-... Wood and Grass encountered (original ground surface). -8--8-Black SILT, trace Clay, moist. ...more Clay. -9--9-0.0 SS-3 70 -10--10-Grey SAND and SILT, little Shell fragments, wet. 0.0 -11--11--12--12--13--13-7.3 SS-4 100 -14--14-Brown CLAY, little Silt, moist to wet. 0.0 -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: 1764S-98 BORING NO .: TB- 5 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

SURFACE ELEV .: NA LOCATION: South of TB-1 DATUM: NA

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

DATE FINISHED: 11/5/98

AUGERS: NA DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 THICKNESS OF OVERBURDEN: NA DEPTH DRILLED INTO ROCK: 0' TOTAL DEPTH OF HOLE: 16.0° WEATHER: Overcast, breezy ~60°F PEAK PID READING (PPM) % RECOVERY PEAK FID READING (PPM) SAMPLE NO. BLOWS PER 0.5 FOOT DEPTH (FT) DEPTH (FT) SOIL AND ROCK DESCRIPTION COMMENTS Asphalt NA NA. -1--1-20 3.2 Brown Gravel, Cobbles and Sand (FILL), damp. SS-1 80 -2--2-200 4.7 -3--3-Brown Silt, little Sand and Gravel, moist (FILL). -4--4-...some Clay. -5--5-650 2.0 95 SS-2 -6--6-...Wood encountered. -7--7->1,000 2.2 -8--8-Black CLAY, trace Wood, moist. -9--9-1.0 200 SS-3 90 -10--10--11--11-110 0.0 Black to Grey CLAY, trace Organics, moist. -12--12--13--13-0.0 35 ...no Organics. SS-4 85 -14--14-0.0 0.0 -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

BORING NO.: TB-6 (MW-3) FILE NO.: 1764S-98 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp. TYPE OF DRILL RIG: Truck mounted Geoprobe SAMPLING METHOD: 3" Large Bore Core

DATUM: 100.00' SURFACE ELEV.: 98.72'

LOCATION: South of manhole along southern property line DATE FINISHED: 11/5/98

DATE STARTED: 11/5/98

JSB3047A / 1764S-98

DAY REPRESENTATIVE: John Blanchard AUGERS: NA WEATHER: Overcast, breezy, ~40°F DEPTH DRILLED INTO ROCK: 0' THICKNESS OF OVERBURDEN: TOTAL DEPTH OF HOLE: 16.0° PEAK PID READING (PPM) Well Diagram DEPTH (FT) BLOWS PER 0.5 FOOT SAMPL: NO., DEPTH (FT) SOIL AND ROCK DESCRIPTION Asphalt. NA -1--1-Brown Sand, some Cobbles and Gravel (FILL), damp. 0.0 80 SS-1 -2--2-0.0 -3--3-1 1/4" PVC Brown Sand, some, Silt, little Clay (FILL), moist. -4-4 ...Layer of wood encountered. -5--5-0.0 Brown Clay, trace Gravel, moist (FILL). SS-2 90 -6--6-0.5 -7--7--8--8-Black CLAY, little organics, wet. -9--9-0.0 50 SS-3 -10--10-1.6 Grey SAND, little Silt and Shell fragments, wet. -11--11-Black CLAY, wet. 1 1/4" PVC -12--12-Well Screen -13--13-0.0 ...Becoming grey. 80 SS-4 -14--14-0.0 ... Becoming brown, wet. -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: <u>1764S-98</u> BORING NO.: TB-7 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp. TYPE OF DRILL RIG: Truck mounted Geoprobe

LOCATION: South of TB-2 DATUM: NA

SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/5/98

SURFACE ELEV .: NA

DATE FINISHED: 11/5/98

DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98 AUGERS: NA DEPTH DRILLED INTO ROCK: 0' WEATHER: Overcast, breezy, ~40°F THICKNESS OF OVERBURDEN: TOTAL DEPTH OF HOLE: 16.0° PEAK PID READING (PPM) N-VALUE DEPTH (FT) DEPTH (FT) SAMPLI NO., BLOWS PER 0.5 FOOT SOIL AND ROCK DESCRIPTION COMMENTS Asphalt ŅΑ -1--1-0.0 Brown to tan Sand, Gravel, and Cobbles (FILL), damp. SS-1 80 -2--2-0.0 ...Little Silt. -3--3--4-4-Reddish brown Clay (FILL), moist. -5--5-0.0 SS-2 75 -6--6-2.0 -7--7-Brown Sand and Cobbles, little Clay (FILL). ...Grass encountered (original ground surface). -8--8-Black SILT, little Wood, trace Clay, moist. -9--9-0.0 SS-3 -10--10-0.3 ...Becoming grey. -11--11--12--12-Grey SAND and SILT, trace shell fragments, wet. -13--13-1.7 100 SS-4 -14--14-0.2 Grey CLAY, wet. -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: 1764S-98 BORING NO.: TB-8 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV.: NA

DATUM: NA

TYPE OF DRILL RIG: Truck mounted Geoprobe SAMPLING METHOD: 3" Large Bore Core

LOCATION: South of TB-3 DATE STARTED: 11/6/98

DATE FINISHED: 11/6/98

	RS: NA			20.0	= <u></u>			DAY REPRESENTATIVE: John Blanchard JSB3047A / 1764S-98			
THICH	(NESS OF	OVERB	URDEN	: NA	DEPTI	DRILLED	INTO ROO	CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER Par	tly cloudy, ~30°F		
DEPTH (FT)	SAMPLE NO.,	BLOWS PER 0.5		% RECOVER Y	PEAK PID READING (PPM)	PEAK FID READING (PPM)	DEPTH (FT)	SOIL AND ROCK DESCRIPTION	COMMENTS		
		NA	NA			1		Asphalt			
-1-				00	4.9		-1-	Down Sand Count and Cabbles down (TVI)			
-2-	SS-1			90	4.5		-2-	Brow Sand, Gravel, and Cobbles, damp (FILL).			
-3-							-3-		=		
-4-							-4-	Brown Silt, little Clay and Gravel, moist (FILL).	2		
-5-	SS-2			100	4.2		-5-				
-6-	55-2			100	3.5		-6-				
-7-					ر. ر		-7-				
-8-							-8-	Wood present (original ground surface).			
-9-					1.4		-9-	Brown SILT and CLAY, moist.			
-10-	SS-3			80			-10-				
-11-					1.2		-11-	Grey SAND and SILT, little Shell fragments, moist.			
-12-							-12-	Grey SAND and St. 1, Indie Shell fragments, moist.			
-13-	SS-4		***************************************	100	0.2		-13-				
-14-	33-4		***************************************	100	0.1		-14-				
-15-			***************************************		V.1	_	-15-	Brown CLAY, moist.			
-16-							-16-	Boring terminated at 16' BGS.			
-17-							-17-				
-18-							-18-				
-19-							-19-				
-20-		+	•				-20-				
MISCE	LLANEO	US NO	TES: PP	M = parts pe	er million PI	D = Photoioniz	zation detecto	or FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS =	Below Ground Surface		

FILE NO.: 1764S-98 BORING NO.: TB-9 PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

TYPE OF DRILL RIG: Truck mounted Geoprobe

DATE STARTED: 11/6/98

SURFACE ELEV .: NA

DATUM: NA

SAMPLING METHOD: 3" Large Bore Core

LOCATION: South of TB-1 and North of TB-8

DATE FINISHED: 11/6/98

DAY REPRESENTATIVE: John Blanchard AUGERS: NA JSB3047A / 1764S-98 THICKNESS OF OVERBURDEN: DEPTH DRILLED INTO ROCK: 0' WEATHER: Partly Cloudy, ~30°F TOTAL DEPTH OF HOLE: 16.0' DEPTH (FT) PEAK PID READING (PPM) DEPTH (FT) % RECOVER Y SAMPLI NO., BLOWS PER 0.5 FOOT SOIL AND ROCK DESCRIPTION COMMENTS ŅΑ Asphalt -1--1-10.6 Brown Sand, Gravel, and Cobbles, damp (FILL). SS-1 75 -2--2-5.9 -3--3-Brown Clay, some Silt, moist (FILL). -4--4--5--5-9.4 SS-2 100 -6--6-9.6 -7--7-.. Wood encountered (Original Ground Surface). -8--8--9--9-Black CLAY and SILT, moist. 11.1 SS-3 100 -10--10-...Becoming Grey. 7.7 Grey SAND and SILT, little shell fragments, wet. -11--11--12--12--13--13-6.3 Brown CLAY and SILT, wet. SS-4 100 -14--14-6.4 -15--15--16--16-Boring terminated at 16' BGS. -17--17--18--18--19--19--20--20-

MISCELLANEOUS NOTES: PPM = parts per million PID = Photoionization detector FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS = Below Ground Surface

FILE NO.: 1764S-98
PROJECT: PI
PARKW

BORING NO.: TB- 10 (MW-4)

PROJECT: PHASE II STUDY PARKWAY PLAZA CANANDAIGUA, NEW YORK

CONTRACTOR: Zebra Environmental Corp.

SURFACE ELEV.: 97.81' DA
LOCATION: East of TB-6 along the southern property line

DATUM: 100.00'

TYPE OF DRILL RIG: Truck mounted Geoprobe
SAMPLING METHOD: 3" Large Bore Core

DATE STARTED: 11/6/98

DATE FINISHED: 11/6/98

AUGERS: NA

DAY REPRESENTATIVE: John Blanchard

JSB3047A / 1764S-98

	ERS: NA	OVERBIL	DDEM.	NTA	DEME	I DDW I ED	DITO DOC	DAY REPRESENTATIVE: John Blanchard	JSB3047A / 1764S-98
IHICI	KNESS OF	OVERBU.	KUEN:	NA T	_	I DRILLED	IN 10 ROC	CK: 0' TOTAL DEPTH OF HOLE: 16.0' WEATHER: P	artly Cloudy, ~30°F
DEPTH (FT)	SAMPLE NO.,	BLOWS PER 0.5 FOOT	N-VALUE	% RECOVE RY	PEAK PID READING (PPM)	PEAK FID READING (PPM)	DEPTH (FT)	SOIL AND ROCK DESCRIPTION	Well Diagram Curb box
-1-	SS-1	NA	NA	90	0.0	-	-1-	Asphalt Brown to black Sand, Gravel, and Cobbles, damp (FILL).	Bentonite
-3-					0.0	-	-3-	Some Brick.	1 ¼" PVC Riser
-4- -5- -6-	SS-2			20	0.1		-4- -5- -6-		
-7- -8-			***************************************		0.0		-7- -8-	Black Silt and Sand, some Cobbles, wet.	Sand
-9-	SS-3			100	0.2	-	-9-	Black CLAY, little Silt, moist.	
-10-					0.0	-	-10-	Grey SAND and SILT, wetMore Silt.	1 1/4" PVC Well Screen
-12-	SS-4			100	0.0		-12-	Brown CLAY, moist to wet.	
-14- -15- -16-					0.0	-	-14-		
-17-			***************************************				1	Boring terminated at 16' BGS.	
-18-			***************************************				-18-		
-19-							-19-		
MISCEL			S: PPM	= parts per	million PII	= Photoioniz	ation detector	FID = Flame Ionization Detector NC = Not Collected NA = Not Applicable BGS =	Below Ground Surface

Test Boring Logs
PPTB-1 through PPTB-9
TB-10 through TB-12A
PPTB-13 through PPTB-15
September 2000

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves

Completion Method: Backfilled with grout

BORING NUMBER: PPTB-1

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 9/5/00

Datum: NA

Completion Date:

Borehole Depth: 24 feet

Water Level: Approximately 10 feet

Borehole Diameter: 3 inches

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-		S-1	0-4	90	NA .	0.0 0.0 2.2		Asphalt and gravel. Brown Sand and gravel, little Clay, moist (FILL).
3-						29.5		Brown Silt, little gravel and Sand, damp (FILL). Brown Sand and gravel, damp (FILL).
4-						24.2		
5-						59.0		
		S-2	4-8	40		0.0		Brown Clay, moist to wet, (FILL).
7-						0.0		Black SILT, little Clay, moist.
8-						9.3		Grey Sandy CLAY, moist to wet.
10-		S-3	8-12	100		0.0		
11-			0.12			0.0		samples wet at approximately 10 feet.
12						0.0		shell fragments.
13						0.0		
14-		S-4	12-16	100		0.0		
15						0.0		
16						0.0	,	Brown CLAY, trace organics, moist to wet.
17-						0.0		
18-		S-5	16-20	95		0.0		
19						0.0		
20						0.0		
21						0.0		
22		S-6	20-24	35		0.0		seams of silty clay, moist to wet.
23						0.0		
24						0.0		
25								BOH at 24'.

File: 2105r001.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-2

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 40 feet

Water Level: approximately 11 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	I .			1				Asphalt and gravel.
1 2 3 4 5 6 7 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11	NA	S-1	0-4	80	NA	0.0 0.0 0.0		Brown Sand and Gravel, little Clay, damp (FILL).
5 injunion		S-2	4-8	80		0.0		some Clay.
7				}		0.0		Brown Clay, damp (FILL).
8		-		 	ļ	1		Brown SILT, little Clay, trace organics, moist.
9 7		S-3	8-12	30		0.0		
10 3		5-3	0-12	30		0.0		
12		ļ		ļ		0.0		
13						0.0		Grey Sandy CLAY, moist to wet.
12 13 14 11 15 11 15 11		S-4	12-16	95		0.0		Brown CLAY, moist.
15 =						5.3		Brown out, mode
16				 		1		
17-		0.5	16.20	100		0.0		
18-		S-5	16-20	100	U)	0.0		layers of Silt and Clay.
20						0.0		
21-						0.0		Brown SILT and CLAY, trace to little gravel, moist to wet.
22-		S-6	20-24	100		0.0		layers of Clay present.
23						0.0		
24								
25-			24.00	400		0.0		Brown CLAY, moist to wet.
26 = 27 =		S-7	24-28	100		0.0		wet at 26 feet.
28						0.0		
29-						0.0		little Silt and Sand.
29 -		S-8	28-32	95		0.0	j	little gravel.
31 =		,				0.0		
32 🗐							}	Brown CLAY, little Silt, trace Sand and gravel, wet.
33			00.00	1		0.0	ĺ	<u>-</u>
34 =	İ	S-9	32-36	100		0.0		layers of Clay, less Sand and Silt.
34 35 36 37 TT						0.0	Ĺ	
37								Brown Sandy CLAY, wet.
38		S-10	36-40	5		3.5 (HSS)	i	aball franciscota
39 =								shell fragments.
40=							-	POH ** 40'
41=						1	İ	BOH at 40'.

File: 2105r002.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-3

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 24 feet

Borehole Diameter: 3 inches **Water Level:** Approximately 5 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
						0.0		Asphalt and gravel (FILL).
'	1-					0.0		Brown Sand and gravel, damp (FILL).
2	1	S-1	0-4	80	NA	0.0		
3	3 <i>-</i> ∃					0.0		little Clay, moist.
4	4 = = = = = = = = = = = = = = = = = = =	+		 		0.0		
5								wet at approximately 5 feet.
6	711	S-2	4-8	70		0.0		Clay layer.
7	, <u>]</u>					0.0		
8	,]					0.0		Black SILT, little Clay, damp.
9	,]					0.0		
10	ļ	S-3	8-12	90		0.0		Black to grey CLAY, damp.
11	3					0.0	i	
12	‡					0.0		little Sand and gravel, moist to wet.
	3					0.0		
13	#					0.0		
14	4	S-4	12-16	30		0.0		
15	-					0.0		
16-								
17-								
18-	7	S-5	16-20	0		NA		No Recovery (16-20 feet).
19-								
20-	<u> </u>							seam of sand and gravel, wet.
21-	=======================================					0.0		trace shell fragments.
22-	-	S-6	20-24	100		0.0		Brownish-red CLAY, little Silt, wet.
23				22		0.0		DIOWINSTFIEL OLD I, INCIE OIR, WEL.
24-	1	ļ				0.0		
25-								BOH at 24'.

File: 2105r003.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-4

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 24 feet

Water Level: approximately 12 feet

Sample Description Sample									
Asphell and gravel. (FILL). Brown Sand and gravel. (Rite CLAY, damp (FILL). Brown Sand and gravel. Rite CLAY, damp (FILL). Some Clay, little Sitt. S-2 4-8 70 0.0 0.0 0.0 0.0 0.0 0.0 Black Sit.T., little Clay, trace organics, damp. Black Sit.T., little Clay, trace organics, damp. Black CLAY, moist. Gray Sity CLAY, moist to wet. Gray CLAY, moist. S-4 12-16 90 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
3									Asphalt and gravel (FILL).
3	2-	NA	S-1	0-4	90	NA NA	0.0		Brown Sand and graver, nittle GEAT, Gamp (FILL).
S-2 4-8 70 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	3 =						0.0		,,, some Clay, little Silt.
7	4						0.0	:	
7	5-						0.0		
8 9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6-		S-2	4-8	70		0.0		
9 0.0 0.	7-						0.0		
S-3 8-12 100 0.0 0.0 Black SILT, into Cisy, trace organics, camp. Black CLAY, moist. Gray Silty CLAY, moist to wet. Gray CLAY, moist. S-4 12-16 90 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8						0.0		
11-12-13-13-14-14-15-15-15-15-15-15-15-15-15-15-15-15-15-]						0.0		Black SILT, little Clay, trace organics, damp.
12	-		S-3	8-12	100		0.0		
13— 14— 15— 16— 16— 17— 18— S-5 16-20 100 0.0 0.0 0.0 0.0 No Recovery (20-24 feet).							0.0		Black CLAY, moist.
14 S-4 12-16 90 0.0 0.0 15-16 16-17 17-17 18-18 S-5 16-20 100 0.0 0.0 0.0 19-18 19-1							0.0		Gray Silty CLAY, moist to wet.
15— 16— 17— 18— 19— 20— 21— 22— 23— 24— 24— 24— 24— 24— 25— 26— 27— 28— 29— 20— 20— 20— 20— 20— 21— 22— 23— 24— 24— 24— 24— 24— 25— 26— 27— 28— 28— 28— 28— 28— 28— 28— 28— 28— 28	=						0.0		Gray CLAY, moist.
16	=		S-4	12-16	90			Ì	
17— 18— 19— 20— 21— 22— 23— 24— 24— 24— 24— 25— 26— 27— 28— 29— 29— 20— 20— 20— 21— 21— 22— 23— 24— 24— 24— 24— 25— 26— 27— 28— 28— 28— 28— 28— 28— 28— 28— 28— 28	15						0.0	}	
18—	4						0.0		layers of Silt.
0.0 0.0 No Recovery (20-24 feet).	=						0.0		
20 0.0 No Recovery (20-24 feet).	= =		S-5	16-20	100		0.0		
21— 22— 23— 24— 24— POH at 24'	#						0.0		
22 S-6 20-24 0 NA NA POH at 24'	3								No Recovery (20-24 feet).
23 = 24 = 24 POH at 24'	=			00.01					
24 - POH at 24'	#		5-6	20-24	o		NA		
	=								
									BOH at 24'.

File: 2105r004.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-5

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/5/00

Datum: NA

Completion Date: 9/5/00

Borehole Depth: 24 feet

Water Level: Approximately 8 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 2 - 3 -	NA	S-1	0-4	90	NA	0.0		Asphalt and gravel (FILL). Brown Sand and gravel, damp.
3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		S-2	4-8	70		0.0 0.0 0.0		little Clay little Cobbles.
9 10 11 11 11 11 11 11 11 11 11 11 11 11		S-3	8-12	100		0.0 0.0 0.0		samples wet at approximately 8 feet. Black SILT, little Clay, trace gravel, damp. Black CLAY, damp. Gray Silty CLAY, little Sand, moist to wet. shell fragments.
13-		S-4	12-16	90		0.0		gray CLAY, moist lenses of Silt present.
18-		S-5	16-20	10		0.0 0.0 0.0 0.0		
21 22 - 23 - 23 - 24 - 24 - 24 - 24 - 24 -		S-6	20-24			0.0 0.0 0.0		
24								BOH at 24'.

File: 2105r005.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves Completion Method: Backfilled with grout

BORING NUMBER: PPTB-6

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 9/6/00

Project No: 2105R-99

Datum: NA

Completion Date: 9/6/00 Borehole Depth: 24 feet

Borehole Diameter: 3 inches

Water I	Level:	Approximately	y 12 feet
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Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-		S-1	0-4	70	NA NA	0.6		Asphalt and gravel. Brown to grey, Sand and gravel, damp (FILL).
3						1.0		little to Some Clay.
5-						0.8		
6		S-2	4-8	70		0.5		seam of gravel and Cobbles
6						0.0		Gray Sand and gravel, little Clay and Silt, moist (FILL).
8						0.3		little Cobbles.
9 -						0.2		Black SILT, some Clay.
10		S-3	8-12	50		0.5		trace silt.
11-								Black to gray CLAY, damp to moist trace shell fragments.
12						0.1		samples wet at approximately 12 feet.
14-		S-4	12-16	100		0.1		
15						0.2		Gray CLAY, moist.
16								seams of Silt.
17						0.3		
18		S-5	16-20	90		0.4		
19	i					0.6		
20						0.3		less Silt.
21						0.0		
22		S-6	20-24	70		0.0		
23						0.0		
24								BOH at 24'.
~4						II		

File: 2105r006.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves

Completion Method: Backfilled with grout

BORING NUMBER: PPTB-7

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 44 feet

Water Level: Approximately 11.5 feet

•	Completion Method, Backinied with grout							water Level. Approximately 11.5 reet			
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description			
1 2 3	7	S-1	0-4	60	NA	0.6 2.7 3.3		Asphalt and gravel, damp. Brown Sand and gravel, little Silt, damp (FILL).			
5· 6· 7·		S-2	4-8	90		7.3 11.2 1.1		Red Clay, little Sand and gravel, damp (FILL). Black Silt, little Clay, trace organics, damp.			
8- 9- 10- 11-		S-3	8-12	80	12	2.5 1.1 0.6		Gray CLAY, little Silt, trace shell fragments, moist to wet wet at 11.5 feet.			
12- 13- 14- 15-		S-4	12-16	0		NA		No Recovery (rock in cut shoe).			
17-		S-5	16-20	90		0.2 0.1 0.2		Grey CLAY, moist.			
21 - 22 - 23 - 23 - 23 - 23 - 23 - 23 -				10		0.2 0.4 0.4		becoming wet.			

File: 2105r007.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-7

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 44 feet

Water Level: Approximately 11.5 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
23		S-6	20-24	10		0.4		becoming wet.
24- 25- 26-		S-7	24-28	5		0.3		
27-						0.2		Brown SAND, trace gravel, wet.
29			20.00	45		0.2		
31-		S-8	28-32	15		0.2		little Silt and Clay.
32						0.1		
34		S-9	32-36	30		0.1		
36						0.1		
38		S-10	36-40	5		0.1		
41-						0.1		
43-		S-11	40-44	10				
44								BOH at 44'.

File: 2105r007.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-8

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 3 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 40 feet

Water Level: Approximately 12.5 feet

			Daukilled (,,,,,, grout				The state of the s
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-1	0-4	60	NA	0.6 1.1 1.2		Asphalt and gravel, (FILL). Brown Sand and gravel, little Clay, damp (FILL).
1 2 3 4 5 6 7 8 9 9		S-2	4-8	95		1.2 1.3 1.4		little Cobbles. Black SILT, little Clay and Organics, damp.
10-∄		S-3	8-12	15		1.3		Black SILT, inter Glay and Organics, camp.
11 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		S-4	12-16	100		0.5		Brown SILT and SAND, little gravel, wet samples wet at approximately 12.5 feet.
16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19		S-5	16-20	100		0.2 0.3 0.3		Brown to black CLAY, wet to moist seams of Clay, little Silt.
20 21 22 23 23 23 23 23 23 23 23 23 23 23 23		S-6	20-24	20		0.3		trace Silt. Brown SAND and SILT, trace gravel, Wet.
24		S-7	24-28	0		NA		No Recovery 24-28 feet.
28 1 29 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-8	28-32	15		0.1		Brown CLAY, little Sand, trace Silt, wet.
32 11 33 11 34 11 11 35 11 35 11 35 11 11 11 11 11 11 11 11 11 11 11 11 11		S-9	32-36	30		0.2		shell fragments. Black SAND, little gravel, wet
36 37 38 39 39 39 39 39 39 39 39 39 39 39 39 39		S-10	36-40	5		0.1		little Cobbles, some gravel.
40 41 -								BOH at 40'.

File: 2105r008.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-9

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 9/6/00

Completion Date: 9/6/00

Borehole Diameter: 3 inches

Borehole Depth: 24 feet

Water Level: Approximately 12.5 feet Well Installation Log Peak PID Reading (ppm) % Recovery Depth (feet) Depth (feet) N-Value or RQD % Sample Description per Number Blows 0.5' Asphalt and gravel. 0.0 Brown Sand and gravel, little Clay, trace Silt, damp (FILL). 1.1 90 NA NA S-1 0-4 1.3 ... increasing clay. 0.0 Tan Clay, little Sand, damp (FILL). 0.0 ... Sand decreases. 0.0 ... trace gravel. S-2 4-8 60 0.3 0.2 8 9 CAVE IN - No Sample recovered. 0 10 S-3 8-12 NA 11 12 1.9 ... samples wet at approximately 12.5 feet. 13 0.0 Brown CLAY, moist. S-4 12-16 40 14 0.0 15-... seams of Silt. 0.0 16 Brown SAND and GRAVEL, little Silt, wet. 29.1 17 1.2 ... trace shell fragments. 70 S-5 16-20 18 19 1.1 20 0.8 21 -0.4 20-24 80 S-6 22-Brown to tan CLAY, little Silt, wet to moist. 0.0 23-0.0 24 BOH at 24'. 25

File: 2105r009.log

Project: Voluntary Cleanup Agreement

DAY Representative: J. Dorety

Drilling Contractor: Day Environmental

Drilling Rig: Hand-held Geoprobe
Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

BORING NUMBER: TB-10

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 1.5 inches

Start Date: 9/6/00

Datum: NA

Completion Date: 9/6/00

Borehole Depth: 2.4 feet

Water Level: NA

			_					
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	NA	S-1	0-2	75	NA	23.6 35.9 1308		Brown Sand, Silt, Gravel, Cinders, damp (FILL) Strong sweet petroleum-like odor.
2-		S-2	2-2.4	10_	1	486 127	1	Dark brown Sandy CLAY, some Silt, trace Gravel, damp.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 11 12 13 14 15 16 17 18 19 11 12 13 14 15 16 17 18 19 11 12 12 22 23 24 11								BOH at 2.3°.
25								8

File: 2105r010.log

Project: Voluntary Cleanup Agreement

DAY Representative: J. Dorety

Drilling Contractor: Day Environmental
Drilling Rig: Hand-held Geoprobe

Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

BORING NUMBER: TB-10A

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA Start Date: 9/6/00 Datum: NA

Completion Date: 9/6/00

Borehole Diameter: 1.5 inches Borehole Depth: 2.4 feet

Water Level: NA

C01	npietion wi	ethod: 1	rinea wiai c	oncrete			Water Lev	ei, rea
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 - 2 - 1		S-1	0-2	40	NA	16.4 20.7 18.3		Brown Sand, Silt, Gravel, Clay, Cinders, Organics, moist (FILL).
2 = 1		S-2	2-2.4	5		2455		Strong sweet odor.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 20 21 21 22 23 24 25 1								BOH at 2.4*.
25								

File: 2105r10a.log

Project: Voluntary Cleanup Agreement

DAY Representative: J. Dorety

Drilling Contractor: Day Environmental

Drilling Rig: Hand-held Geoprobe **Sampling Method:** 2' Acetate Sleeves

Completion Method: Filled with concrete

BORING NUMBER: TB-11

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 9/7/00 Completic

Borehole Diameter: 1.5 inches

Completion Date: 9/7/00 Borehole Depth: 18 feet

Water Level: NA

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1	NA	S-1	0-2	40	NA	4.4 3.8 1.9		Concrete 6". Brown Sand, Silt, Gravel, Cinders, Clay, damp (FILL).
3-1		S-2	2-4	60		2.1 3.7 12.9 117		Brown Sandy Clay, some Silt, little Gravel, Organics, moist (FILL). Brown Silty Sand and Gravel, trace Clay, moist (FILL).
5-1		S-3	4-6	50		6.7 21.1 53.9		Slight sweet petroleum odor.
7		S-4	6-8	50		2.3 12.7 38.0 98.1		Dark brown SILT and ORGANICS, trace Clay, little Gravel, moist.
9-11		S-5	8-10	60		63.1 28.8 7.9 2.1		Olive gray CLAY, some Sand, trace Silt, moist, plastic.
10		S-6	10-12	40		4.7 3.2 2.2 2.1		Gray fine SAND, little Silt, trace fine Gravel, small mollusk shells, moist Organic odor.
13		S-7	12-14	5		1.9		
14		S-8	14-16	0		NA		No recovery.
16		S-9	16-18	0		NA		No recovery.
18								BOH at 18'.
20 -								
21								
24-								
25-		1						

File: 2105r011.log

Project: Voluntary Cleanup Agreement

DAY Representative: J. Dorety

Drilling Contractor: Day Environmental

Drilling Rig: Hand-held Geoprobe

Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

BORING NUMBER: TB-12

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 1.5 inches

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 2.5 feet

Water Level: NA

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	NA	S-1	0-2	40	NA	2.3 2.9 2.2 1.9		Brown Sand, Gravel, Silt, Clay, Cinders, damp (FILL).
1		S-2	2-2.5	5		0.6		Wood in cutting shoe.
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								BOH at 2.5°.

File: 2105r012.log

Project: Voluntary Cleanup Agreement

DAY Representative: J. Dorety

Drilling Contractor: Day Environmental

Drilling Rig: Hand-held Geoprobe Sampling Method: 2' Acetate Sleeves

Completion Method: Filled with concrete

BORING NUMBER: TB-12A

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 1.5 inches

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 16 feet

Water Level: 6,75 feet

	·							
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1	=	S-1	0-2	75	NA	0.6 0.9 0.9 1.2		Brown Sand, Gravel, Clay, Silt, Cinders, damp (FILL).
3-]	S-2	2-4	70		1.0 0.7 1.4 1.8		Dark brown Organics, Clay, Silt, Fine Gravel, Sand, damp (FILL).
5-		S-3	4-6	90		2.6 1.9 1.1 0.8		Brown Sandy Clay, some Silt, little Gravel, damp.
7-		S-4	6-8	90		0.5 0.4 1.0 0.9		wet at 6.75 feet. Dark brown to black SILT and ORGANICS, trace Clay, moist.
9-		S-5	8-10	70		0.2 0.6 0.1 0.1		Brown and gray CLAY, some Silt, trace fine Sand, little fine Gravel, moist, plastic.
11-		S-6	10-12	60		0.2 0.4 0.1		Gray fine SAND, some Silt, trace fine Gravel, wet Small white mollusk shells.
13-	3	S-7	12-14	-		-		No recovery.
15-		S-8	14-16	-		-		No recovery.
Ξ								BOH at 16'.
17-								
18								
19-								
20								
21								
22-								
23-								
24								
25		1		Ī				

File: 2105r12A.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

Project No: 2105R-99

Boring Location: See Site Plan **Ground Surface Elevation:** NA

Start Date: 9/7/00

Datum: NA

BORING NUMBER: PPTB-13

Completion Date: 9/7/00

Borehole Depth: 24 feet

Borehole Diameter: 3 inches **Water Level:** Approximately 9 feet

	223							
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well installation Log	Sample Description
								Asphalt and gravel, damp (FILL). Brown, Sand and Gravel, little Clay, and Cobbles, damp (FILL).
1-						0.2		Brown, Sand and Graver, little Clay, and Cooples, damp (PILL).
2-	NA	S-1	0-4	80	NA	0.4		
3 =						0.6		some Clay.
4 = = = = = = = = = = = = = = = = = = =		-			-	3.6		Reddish brown, Clay, little Silt and Gravel, damp (FILL).
5 =						8.4		
5 6		S-2	4-8	80				
7=						2.1		Black, SILT, little Clay, damp to moist.
8=						1.5		
9-						5.9		Gray, SILT, little Sand and Gravel, wet.
10-		S-3	8-12	30		10.3		
11						10.4		trace shell fragments.
12								
						22.7		
13-		6.4	10.16			13.3		Brown, CLAY, wet to moist.
14		S-4	12-16	90		10.2		
15								
16-7						3.9		
17-						1.2		
18		S-5	16-20	95				
19						1.9		
20=								
21=						4.5		
22-		S-6	20-24	60		3.0		Brown, CLAY and SILT, wet.
23			Œ			0.8		Biomi, GEAT and GIET, Well
24								
25								BOH at 24'.

File: 2105r013.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeves
Completion Method: Backfilled with grout

BORING NUMBER: PPTB-14

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00

Borehole Depth: 24 feet

Borehole Diameter: 3 inches
Water Level: Approximately 9 feet

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
						32.0		Asphalt and Gravel, damp (FILL).
1-						3.2		Brown Sand and Gravel, little Clay, damp (FILL).
2-	NA	S-1	0-4	40	NA	2.1		
3-				1		23.0		
1 =]		Brown Clay, little Gravel, damp (FILL).
4-						142	1	
5-						213		
5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		S-2	4-8	70				seam of Silt.
7-						1432		seam or one
3						1324		
8 -						4.2		Pleak CLAV was to maint
9-7						3.8		Black CLAY, wet to moist.
10-		S-3	8-12	90				Gray SILT and SAND, trace shell fragments, little Clay, wet.
11=						0.6		oray oran and orang account magnitudes, made oray, were
12						0.8		
]						20.4		Brown CLAY, wet to moist.
13-						10.2		blown occi, werto most.
14-		S-4	12-16	95		1.6 1.7		
15						1.7		seams of Clay, trace Silt.
=						1.4		
16-					ĺ	20.9		Brown SAND and GRAVEL, wet.
17-						21.0		
18		S-5	16-20	80		[Brown CLAY, moist.
19-		_				2.1		
4						2.2		
20 =		Ì						Brown SAND and SILT, trace gravel, wet
21 =								
22		S-6	20-24	30		HSS-495		
23								
7								
24-3-								BOH at 24'.
25								

File: 2105r014.log

Project: Parkway Plaza

DAY Representative: John S. Blanchard

Drilling Contractor: Nothnagle

Drilling Rig: CME75

Sampling Method: 4' Acetate sleeve Completion Method: Backfilled with grout **BORING NUMBER: PPTB-15**

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 9/7/00

Datum: NA

Completion Date: 9/7/00 Borehole Depth: 24 feet

Water Level: Approximately 9.5 feet

Borehole Diameter: 3 inches

								<u></u>
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
=						0.1		Asphalt and Gravel.
2-1	NA	S-1	0-4	60	NA	0.3		Brown to black, Sand and Gravel, little Clay, damp (FILL).
"						3.3		clay content increasing.
3 4 5 1 1 1 1 1 1 1 1 1						7.9		Brown, Clay, trace gravel and Silt, damp (FILL).
		S-2	4-8	90		13.4		
1 7		3-2	4-6	30		216		<u></u>
7-						19.5		Black, SILT, little Clay and gravel, damp (FILL).
8 = 3			-					
9 =						2.3		Gray, SAND and SILT, trace shell fragments, wet.
10-		S-3	8-12	10		12.9		
11-						3.8		
12				ļ				
13-		S-4	12-16	0		NA		No Recovery.
1 3								
16-						0.2		Brown, CLAY, moist.
17-		S-5	16-20	80		0.8		seams of Silt, wet.
1 7		- 0				0.3		
19						124		free phase product present on sampler.
20						1.0		trace shell fragments.
=		ای	20.04	90		0.8		
22		S-6	20-24	90		49.1		Brownish red, CLAY, trace to little Silt, moist.
23-						0.3		
24								BOH at 24'.
25								

File: 2105r015.log

Test Boring Logs/Monitoring Well Installation Diagrams MW-1S, MW-2S and MW-3S MW-1D, MW-2D and MW-3D September 2001

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling
Drilling Rig: CME-55 Direct Push Mode

Sampling Method: 4' Acetate Sleeve

Completion Method: 1,25" PVC Well

BORING NUMBER: MW-1S

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/04/01

Completion Date: 09/04/01

Borehole Diameter: 2.25*

Borehole Depth: 14.0'

Water Level: 5.68' (Date measured 10/08/01)

	mpletion M	etnoa:	1.25" PVC	well			water Lev	Water Level: 5.68' (Date measured 10/08/01)			
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description			
							13 13	Asphalt pavement			
1-	NA	S-1	0-2	NA	NA	2.6		Augered to 2.0' to set curb box			
2 - 3 - 3 - 1								Brown Sand and Gravel, damp (FILL)			
5-	NA	S-2	2-6	25	NA	0.0		layer of Gravel wet			
7-1								no recovery from 6-10, reran with basket still no recovery, (refer to log for MW-ID)			
9-1	NA	S-3	6-10	0	NA	NA					
10-1								Gray Sandy SILT, some Clay, wet			
13-	NA	S-4	10-14	60	NA	0.0		Gray/Black Silty CLAY, wet			
14	· · ·						<i>x</i>	BOH at 14.0'			
15 16 17 18 19 19 19											
20							-				

File: 2105sw1.log

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling
Drilling Rig: CME-55 Direct Push Mode
Sampling Method: 4' Acetate Sleeve

Completion Method: 1.25" PVC Well

BORING NUMBER: MW-2S

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/04/01

Completion Date: 09/04/01

Borehole Diameter: 2.25"

Borehole Depth: 14.0'

Water Level: 4.7' (Date measured 9/18/01)

Depth (feet)	Blows per 0.5*	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	NA	S-1	0-2	NA	NA	0.0		Asphalt pavement Augered to 2.0' to set curb box
3 4 5 1 1 1 1 1 1 1 1 1	NA	S-2	2-6	60	NA	0.0		Dark Brown to Gray Silt, Sand, Gravel, Clay, damp, (FILL)
6	NA	S-3	6-10	80	NA	0.0		moist Gray/Black Silty CLAY, moist Light Gray Sandy SILT, some Clay, wet
11-	NA	S-4	10-14	85	NA	0.0		layer of shell fragments Dark Gray Silty CLAY, wet
15 15 17 18 19 19 1 20 1 1 1 1 1 1 1 1 1					2			BOH at 14.0'

File: 2105sw2.log

Project: Parkway Plaza

DAY Representative: A. Farrell
Drilling Contractor: Lyon Drilling
Drilling Rig: CME-55 Direct Push Mode
Sampling Method: 4' Acetate Sleeve

Completion Method: 1.25" PVC Well

BORING NUMBER: MW-3S

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/04/01

Completion Date: 09/04/01

Borehole Diameter: 2.25"

Borehole Depth: 14.0'

Water Level: 5.36' (Date measured 9/18/01)

			1.25 PVC					ei. 5.56 (Date measured 9/16/01)
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1-	NA	S-1	0-2	NA	NA	NA		Asphalt pevernent Augered to 2.0' to set curb box
3-	NA	S-2	2-6	90	NA	0.0		Sand, Silt, Clay, Gravel, damp, (FILL) Reddish-Brown Sand, Silt, Clay, damp, (FILL)
8	NA	S-3	6-10	100	NA	0.0		Black SILT, some Clay, damp Gray Silty CLAY, damp Light Gray Silty SAND, some Clay, wet
11 12 13 13 13	NA	S-4	10-14	100	NA	0.0		Reddish-Brown Silty CLAY, wet
15-115-115-115-115-115-115-115-115-115-								BOH at 14.0*

File: 2105R-03.log

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well

BORING NUMBER: MW-1D

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/05/01

Completion Date: 09/05/01

Borehole Diameter: 12.0 inches

Borehole Depth: 55.0 feet

Water Level: 5.35' (Date Measured 9/18/01)

-	.protron in							
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
							111111111111111111111111111111111111111	Asphalt pavement
14	NA	S-1	0-2	NA	NA	NA	M M	Augered first 2' for curb box
2							M = M	
1	2					0.0	M = M	Brown Sand, Silt, Clay, damp (FILL)
3-	3	S-2	2-4	50	6		M = M	
4 4	3		<u></u>			0.0	M	Brown Silty Clay, moist (FILL)
1 7 3	2			1		0.0	M M	
5 =	2 3	S-3	4-6	90	5		M M	
1 7	3	1				0.0	M	
6 =	3			i		0.0	M M	
7 =	4 5	S-4	6-8	40	9	-	M = M	Dark Brown SILT, some Clay, moist
8	5					0.0	M M	Dark Diown SIL1, Some Olay, most
l °∃	1			ĺ		0.0	M = M	
[-e	1	S-5	8-10	95	2	V.	M = M	Gray, Silty CLAY, moist
1 7	1			1	İ .	0.0	M = M	Light Gray Silty SAND, some Clay, wet
103	WOR					0.0	M M	agin out, only of the control of the
11=	1	S-6	10-12	100	1 1	0.0	M M	A 18 A 2
1 7	2	i				0.0	M	shell fragments
123	2	-		 		0.0	M	
13	5	S-7	12-14	100	10	0.0	M M	
"∄	5 7	•				0.0	M M	Dark Gray to Brown, Silty CLAY, wet
14=	3					0.0	M M	
15	6	S-8	14-16	100	13	0.0		
"	7				, ,	0.0	M	
16-	12 8			-	-			
17-	7	S-9	16-18	100	13	0.0	U = U	
1 -	6		10-10	100	"	0.0	$U \cup U$	
18 -	6 4						M = M	
19=	4	S-10	18-20	100	8	0.0	M = M	
	4	0-10	10 20	100		0.0	M M	
20	4 1						M M	
21=	1	S-11	20-22	100	2	0.0	M	
	1	0-11	20-22	100	-	0.0	113 113	
22=	1				-		111 111	
23	1	S-12	22-24	100	3	0.0	M M	
233	2	3-12	22-24	100		0.0	W = W	
24	WOH				 			Dark Gray to Brown Silty CLAY, wet
==	1	0 40	24-26	100	1	0.0	M = M	Dark Gray to Brown Only SEAT, Will
25-	1	S-13	24-20	100	'	0.0	U = U	red-brown
26	1 1						11 11	
] =	1		00.00	400		0.0	11 11	
27	WOH	S-14	26-28	100	1	0.0	11/11/11	
28	11						11 11	
				455	,,,	0.0	11 11	
29=	WOH	S-15	28-30	100	WOH	0.0	13 13	
30					 		11 11	
								and the second s

File: 2105DW1a.log

Project: Parkway Plaza

DAY Representative: A. Farrelli

Drilling Contractor: Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2" Split Spoon

Completion Method: 2" PVC Well

BORING NUMBER: MW-1D

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 09/05/01

Datum: NA

Completion Date: 09/05/01

Borehole Diameter: 12.0 inches

Borehole Depth: 55.0 feet

Water Level: 5.35' (Date Measured 9/18/01)

Con	npletion	Method	1: 2" PVC \	Nell			Water Le	vel: 5.35' (Date Measured 9/18/01)
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
31	WOR WOR WOR	S-16	30-32	100	WOR	0.0		
32	WOR WOR WOR	S-17	32-34	100	WOR	0.0		
34	WOR	S-18	34-36	100	WOR	0.0		
36	WOR	S-19	36-38	100	WOR	0.0		
38	WOR WOR 1 3	S-20	38-40	100	1	0.0		seam of Sand
41 1	WOR 1 WOH	S-21	40-42	100	1	0.0		_
43	WOR 1 1 1	S-22	42-44	100	2	0.0		£
45	WOR WOR 3 4	S-23	44-46	70	3	0.0		
46	3 3 4 3	S-24	46-48	100	7	0.0		
48	1 3 2 1	S-25	48-50	80	5	0.0		Reddish Brown Silty CLAY, wet Dark Brown Coarse grained SAND, wet
50	4 2 2 3	S-26	50-52	80	4	0.0		Dark Brown SAND and GRAVEL, wet
52 - 53 - 54	2 3 3 4	S-27	52-54	60	6	0.0		
54 -	•	S-28	54-55					Augered- 54'-55' no sample collected
								ВОН @ 55.0'

File: 2105DW1b.log

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2' Split Spoons

Completion Method: 2" PVC Well

BORING NUMBER: MW-2D

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 09/07/01

Datum: NA

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 42.0 feet

Water Level: 9.22' (Date measured 9/18/01)

Depth (feet) Number Number Number Number Number Number Noll	
Augered to 16', See Well Installation Log for SW-2, for Soil Profile of 0-16' NA NA NA NA NA NA NA NA NA NA NA NA NA N	
16 2 5 5 S-1 16-18 100 11 0.0 Dark Brown Silty CLAY, moist	
18	
20 4 0.0 0.0 wet 21 5 3 20-22 100 3 0.0	
22 1 2 3 1 S-4 22-24 100 3 0.0	
24	

File: 21050\M/2a log

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2" Split Spoon

Completion Method: 2" PVC Well

BORING NUMBER: MW-2D

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 09/07/01

Datum: NA

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 42.0 feet

Water Level: 9.22' (Date Measured 9/18/01)

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	5 WOR	S-5	24-26	100	WOR	0.0		Dark Brown Silty CLAY, wet
2	3	S-6	26-28	100	WOH	0.0		
2	9 WOR	S-7	28-30	100	WOR	0.0		
3:	WOH WOH WOH	S-8	30-32	25	WOH	0.0		
	2 WOR 3 WOR 3 2 4	S-9	32-34	100	2	0.0		Dark Brown Silty SAND and GRAVEL, wet
	3 2 5 1 3 7	S-10	34-36	40	5	0.0		seam of clay
37	3 4 3	S-11	36-38	30	7	0.0		Black coarse grained Silty SAND, wet
38	3 7	S-12	38-40	10	14	0.0		
40	AA E	NA	40-42	NA	NA	NA		Augered 40'-42'; no samples collected
42	:					_	- Laurence	BOH at 42.0'
43	3							
44	3							
45	3							
46	3							
48	3					_		

File: 2105DW2h loa

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2' Split Spoons

Completion Method: 2" PVC Well

BORING NUMBER: MW-3D

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/07/01

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 57.0 feet

Water Level: 6.04' (Date Measured 9/18/01)

		1		1			Γ	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1 1							13 13	Asphalt pavement
1	NA	S-1	0-2	NA	NA	NA.		Augered first 2' for curb box
3-1	6 9 10	S-2	2-4	10	19	0.0		Sand, Silt, Clay, damp (FILL)
4 = 5 = 5	12					0.0		fractured rock in bottom of split spoon
1 =	10 5 2	S-3	4-6	50	15	0.0		Sand, Silt, Clay, Gravel, damp (FILL)
6	1					0.0		
7-	2 2 2	S-4	6-8	10	4	0.0		Black SILT, damp
8 1	1	S-5	8-10	95	2	0.0		Dark Gray, Silty CLAY, damp
10	1		0-10	55		0.0		layer of Sand, wet
11=	WOH 1 1	S-6	10-12	40	2	0.0 0.0		Dark Brown Silty CLAY, wet
12 =	1 2 5					0.0		layer of Sand
13 =	4	S-7	12-14	100	9	0.0		Dark Brown Silty CLAY, moist
14	4 8 11	S-8	14-16	100	19	0.0		
16	16 11					0.0		
17-	14 14 16	S-9	16-18	100	28	0.0		wet
18 -	3	S-10	18-20	100	6	0.0		
20	3 4 1					0.0		
21 = 22	2 2 3	S-11	20-22	100	4	0.0		
=	1 2	S-12	22.24	400	3	0.0		
23-	1 2	3-12	22-24	100	3	0.0		
25	WOR WOH	S-13	24-26	100	1	0.0		
26	1 1					0.0		
27	1 1	S-14	26-28	100	2	0.0		
28	<u>i</u>					0.0		
29-	WOR WOR	S-15	28-30	100	WOR	0.0		
30=		-				0.0	11 11	

File: 2105DW3a.log

Project: Parkway Plaza

DAY Representative: A. Farrell

Drilling Contractor: Lyon Drilling

Drilling Rig: CME-55

Sampling Method: 2" Split Spoons

Completion Method: 2" PVC Well

BORING NUMBER: MW-3D

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Datum: NA

Start Date: 09/07/01

Completion Date: 09/07/01

Borehole Diameter: 12.0 inches

Borehole Depth: 57.0 feet

Water Level: 6.04' (Date Measured 9/18/01)

			1. 2 FVC					Total Modern of Carlo
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Instaliation Log	Sample Description
31	WOR	S-16	30-32	100	NA	0.0		
33-	1 WOH 1 WOH	S-17	32-34	100	NA	0.0		
35	WOR 1	S-18	34-36	100	NA	0.0		
36	WOH 1 1	S-19	36-38	100	NA	0.0		
38	WOR 1 2 4	S-20	38-40	100	3	0.0		seam of Gravel
41	WOR	S-21	40-42	100	NA	0.0		MY.
43	WOR	S-22	42-44	100	NA	0.0 0.0		
45	WOR 3 2 3	S-23	44-46	100	5	0.0		seam of Sand
48 49 1	WOR WOH 1	S-24	46-48	100	NA	0.0		Dark Brown SILT, trace clay, wet
1 -	1 1 1 2	S-25	48-50	80	3	0.0		Dark Brown Silty SAND and GRAVEL, some Clay, wet
51	WOR 8	S-26	50-52	100	NA	0.0		Dark Brown SILT, some Clay, wet
52 -	WOH WOR 2 3	S-27	52-54	100	NA	0.0		Dark Brown Silty SAND and GRAVEL, wet
55-	3 2 2 3	S-28	54-56	100	4	0.0		
56								Augered 56' - 57', no sample collected
3, =								BOH @ 57.0°

File: 2105DW3b.loa

Test Boring Logs/Monitoring Well Installation Diagrams MW-2.1S, MW-101S, MW-102S and MW-103S IP-1, IP-2 and IP-3 2004

BORING NUMBER: MW-2.1s

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

Drilling Contractor: Lyon Drilling

Drilling Rig: CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 4 1/4"

Start Date: 9/20/04

Datum: NA

Completion Date: 9/20/04

Borehole Depth: 12.5'

Water Level:

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	NA	NA	0-1	NA	NA	NA		Asphalt Pavement
2-	7 5 5 7	S-1	1-3	50	10	0.0 0.0 0.0		Gray Gravel, damp (FILL) Loose Brown Sand and Gravel, damp (FILL)
4-	12 11 9 7	S-2	3-5	50	20	0.0 0.0 0.0		
5	NA	NA .	5-12.5	NA	NA			Note: Samples not collected below 5 feet in depth NA BOH at 12.5'
20-								

File: 2105104.LOG

Project: Former Parkway Cleaners **DAY Representative:** C. Davidson

Drilling Contractor: Lyon Drilling Company, Inc.

Drilling Rig: CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

BORING NUMBER: TB-101S

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 01/29/04

Datum: NA

Completion Date: 01/29/04

Borehole Depth: 15.0'

Borehole Diameter: 4 1/4" Water Level: 3.75' on 2/13/04

Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	NA	NA	0-0.5	NA	NA	NA		3" Asphalt
1-	50	S-1	.5-2.0	100	NA	3.1		6" Asphalt sub-base Medium dense Brown to Gray Silty Clay, Gravel, Glass, moist (FILL)
3	8 8 5 4	S-2	2-4	0	13	NA		
5	2 3 6 10	S-3	4-6	15	9	0.0		loose
7-	4 4 5 5	S-4	6-8	50	9	0.0		Stiff Brown to Red Silty CLAY, trace Gravel, wet
9-1	1 2 2 3	S-5	8-10	100	4	0.0		Loose Gray Sandy SILT, wet
10	1 1 1	S-6	10-12	100	2	0.0		sea shells
13	1 2 4 6	S-7	12-14	80	6	0.0		Red to Gray Medium stiff Gray Silty CLAY, wet
14	NA	NA	14-15	NA	NA	NA		
16 17 18 19 19 120 20								BOH at 15.0°

File: 2105R101.log

Project: Former Parkway Cleaners **DAY Representative:** C. Davidson

Drilling Contractor: Lyon Drilling Company, Inc.

Drilling Rig: CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

BORING NUMBER: TB-102S

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 01/29/04

Datum: NA

Completion Date: 01/29/04

Borehole Depth: 15.0'

Borehole Diameter: 4 1/4"
Water Level: 3.17' on 2/13/04

Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
	NA	NA	0-0.5	NA	NA	NA		3" Asphalt
1 1 1	50 2	S-1	.5-2.0	10	NA	0.0		6" Asphalt sub-base Medium dense Brown to Gray Sitty Clay, Gravel, Glass, moist (FILL)
3-	7 10 7 4	S-2	2-4	40	17	0.0		
5	4 5 12 14	S-3	4-6	60	17	0.0		
7-	5 4 5 5	S-4	6-8	30	9	0.0		Stiff Brown Silty CLAY, trace Gravel, wet
9	1 3 3 6	S-5	8-10	80	6	0.0		Medium stiff, Gray
11-	2 3 2 2	S-6	10-12	40	5	0.0		Loose Gray Clayey SILT, sea shells, wet
13-	2 3 7 10	S-7	12-14	30	10	0.0		Stiff Gray Silty CLAY, wet
14-	NA	NA	14-15	NA	NA	NA		
15			ā					BOH at 15.0°

File: 2105R102 log

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

Drilling Contractor: Lyon Drilling

Drilling Rig: CME 45B

Sampling Method: 2' Split Spoon

Completion Method: 2" PVC Well Installed

BORING NUMBER: MW-103s

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Borehole Diameter: 4 1/4 inches

Start Date: 9/16/04

Datum: NA

Completion Date: 9/16/04

Borehole Depth: 14.0'

Water Level:

		F			1			
Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Welf Installation Log	Sample Description
1-	NA 7 8 7	S-1	0-2	30	NA	0.0		Asphalt Pavement Gray gravel, damp (FILL) Loose Brown Sand and Gravel, damp (FILL)
3-	8 3 4	S-2	2-4	25	7	0.0		
5-	8 10 7 15	S-3	4-6	10	17	0.0		moist
7-	5 3 1	S-4	6-8	30	4	1		Gravel lens wet
9-	2 1 2 1	S-5	8-10	60	3	- 1:		Soft light Gray, SILT, trace Clay and seashells, wet
10-	2 1 1 2	S-6	10-12	50	2			
12-	4 5 8	S-7	12-14	60	13	0.0		Stiff Brown to Red CLAY, trace Gravel, wet
14=								BOH at 14.0'
15 16 17 18 19 11 12 11 12 12 13 14 14 15 15 15 15 15 15								

File: 21051035.log

BORING NUMBER: IP-1

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

Drilling Contractor: SLC Environmental

Drilling Rig: Vehicle Mounted Direct Push

Sampling Method: NA

Completion Method: 1-inch PVC Well Screen & Riser

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 11/29/04

Borehole Diameter: 3.0"

Datum: NA

Completion Date: 11/29/04

Borehole Depth: 15.0'

Water Level:

	·						water L	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
10 11 12 13 14 15 16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19	NA	NA	0-15	NA	NA	NA		Note: Injection points installed with solid point drive; no soil samples were collected.] BOH at 15.0'

File: 2105ip1.LOG

BORING NUMBER: IP-2

Project: Parkway Plaza, Canandaigua, NY

DAY Representative: C. Davidson

Drilling Contractor: SLC Environmental

Drilling Rig: Vehicle Mounted Direct Push

Sampling Method: NA

Completion Method: 1-inch PVC Well Screen & Riser

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 11/29/04

Borehole Diameter: 3.0"

Water Level:

Datum: NA

Completion Date: 11/29/04

Borehole Depth: 15.0'

			THICH IT VC				water Lev	
Depth (feet)	Blows per 0.5	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PiD Reading (ppm)	Weii Instaliation Log	Sample Description
1 2 3 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NA ·	NA	0-15	NA	NA	NA		Note: Injection points installed with solid point drive; no soil samples were collected.] BOH at 15.0'

File: 2105ip2.LOG

BORING NUMBER: IP-3

Project No: 2105R-99

Boring Location: See Site Plan

Ground Surface Elevation: NA

Start Date: 11/29/04

Borehole Diameter: 3.0"

Datum: NA

Completion Date: 11/29/04

Borehole Depth: 15.0'

Sampling Method: NA

Completion Method: 1-inch PVC Well Screen & Riser

Project: Parkway Plaza, Canandaigua, NY

Drilling Contractor: SLC Environmental

Drilling Rig: Vehicle Mounted Direct Push

DAY Representative: C. Davidson

Water Level:

							Water Le	
Depth (feet)	Blows per 0.5'	Number	Depth (feet)	% Recovery	N-Value or RQD %	Peak PID Reading (ppm)	Well Installation Log	Sample Description
1		NA	0-15	NA	NA			Note: Injection points installed with solid point drive; no soil samples were collected.] BOH at 15.0'

File: 2105ip3.LOG

Test Boring Logs/Monitoring Well Installation Diagrams MW-201, MW-203 and MW-204 September 7, 2007

rojec		ress:		R-99 Mey Pla	7A		_			TEST BORING TB-20
Project Address: Parkway Plaza							_	Ground Elevation: Datum:	**********	Page 1 of 1
AYE	lepres	ontath	e: M.D	ckinson			_	Date Started: 9/7/2007 Date Ended: 9/7/2	2007	
		ractor:	_		റനസ്വേച്		_	Borehole Depth: 16.0' Borehole Diameter:		
ampl	ing M	elhod:	Direc	t Push			_	Completion Method: Well installed Backlitted with Grout	Backfilled with C	ultigs
-		_		_		-	-	Water Level (Data): 6.79 (9-7-07)		- BAILUR - STATE - STA
				1	١.	Headspace PID (ppm)	-			
	늴	1 3	1 8		ě	1 0	<u> </u>	,	1	
	0.9	E	1 5	2	Į Ę	8	B	Sample Description		Notes
١١	2	Z	9) §	9	ğ	8			
(E) uiden	Blows per 0.5 ft.	Sample Number	Bample Depth (ft)	% Recovery	N-Value or RQD%	3	PID Reading (ppm)			
-		+	+ *	+-	- Z	+=	1-	10 (24 10 10 10 10 10 10 10 10 10 10 10 10 10		
1		1	1			1	1	Asphalt		
1		1	1			1	0.0	Gravel, Rock, trace Sand, moist (FILL)	L	
- 1		İ		1		1				
	NA	S-1	0.4	75	NA	0.0	0.0		Į	
2		1		1				Dark Remore Fine County Cfl T Innex County Server County of the County o		
				1				Dark Brown, fine Sandy SILT, trace Gravel, trace Organics, moist		
3				1	1	ľ	l		ŀ	
- [0.0	trace tan fine Sand	1	
4				_					L	
			1	1	ľ		0.0			
5			1	1	1				1	
		١.,	١.,	١.	l				1	
6	NA	\$-2	4-8	5	NA	0.0	0.0		1-	
1				Į					Į.	
,			1							
1				1			0.0		ſ	
	-1		1							
8	_			\vdash					-	
1	- 1									
9	- 1				1 1		0.0	moist		
1								Plack, fine Silty SAND, Organics, Roots		
0 1	WA	S-3	8-12	45	NA	0.3	0.0		27	
7	-								ľ	
1			ĺ							
1							0.0		F	
						- 1	ŀ	****		
2	+				\vdash	-	'	Gray/Dark Gray, Black, line Silty SAND, trace Gravel, wet	-	
							- 1		1	
	- 1						0.0			
1	- 1					- 1				
١,	A	S-4	12-16	10	NA	0.0	0.0			
1									-	
ı										
	- 1	- 1		- 1		- 1			-	
	1				- 1		0.0	very wet		
		- 1							i	
								Complete ⊕ 16.0'		
								Fluctuations of groundwater levels may occur due to seasonal factors and other conditions	- le	***************************************
								may be gradual.	-	
						ndard me	asured in 1	he headspace above the sample using a MiniFlae 2000 equipped with a 10,6 eV lamp,		TOY DODING TO Acc
			ie or Not / eadinos m		uenced by	majsture			Į TE	EST BORING TB-201
44.00			EET	-,					THE RESERVE TO THE RE	

DAY ENVIRONMEN	NTAL, INC.		AN AFF	ENVIRONMENT FILIATE OF DAY EI	AL CONSULTAN	
		MONITORING WELL CONSTRUCTION			TOTAL CHINAG, F.	
Project #: 21058 Project Address: Parkw		4		MONITORING WELL MW-201		
DAY Representative: Drilling Contractor:	M. Dickinson TREC Env.	Ground Elevation: NA 9/7/2007	Datum: Date Ended:	NA 9/7/2007	Page 1 of 1	
Refer to Test Boring Log TB-201 for Soil Description		Flush Mounted Roadbox O.1 Depth to Top of Riser Pipe (ft) NA Depth to Bottom of Cement Surface Backfill Type NA O.5 Depth to Top of Bentonite Seal (ft) 8.0 Depth to Bottom of Bentonite Seal (ft) 10 Depth to Top of Well Screen (ft) 2.25 Diameter of Borehole (in) Backfill Type Sand 1.0 Inside Diameter of Well (in) Type of Pipe PVC Schedule 40 Screen slot size 10 15.0 Depth to Bottom of Well Screen (ft)				
rs: 1) Water lovels were ma	de at the times and unde	r conditions stated. Fluctuations of groundwater levels m	Nav occur due to seasonal fact	ors and other constitues		
2) NA = Not Available or	Not Applicable		my areas was so treasulting (orange)	or was consistents.		
				MONITORING WE	1 1 1000 000	

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	ay									Į.	ENVIRONMENTAL CONSULTANTS
	000000		MENTA	L, INC	:					AN AFFIL	IATE OF DAY ENGINEERING, P.C.
	oject #: oject Ac	ldress:		6R-99 lovay P	laza			_			TEST BORING TB-203
DA	Y Repr	esentati	ve: M.	Dickinse					Ground Elevation: NA Datum: 9/7/2007 Date Started: 9/7/2007 Date Ended: 9/7/2007		Page 1 of 2
		ntractor.		C Envi		nental		_	Borehole Depth: 20.0' Borehole Diameter:		
30	ripinig :	Welhod:	Unit	ct Pusi	-			_	Completion Method: Well installed Backfilled with Grout State (Date): 12.45 (9-7-07)	Backfilled with C	Cuttings
Depth (ft)	Blows per 0.6.49	Sample Number	Service Peach (6)	(n) index	% Recovery	N-Value or ROD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
			T				Π		Brown, Siby SAND, Gravel, Roots, Organics, moist		
	1						İ	0.0	6		
	NA.	S				NA	0.0	0.0			
	2					8	"	"		-	1
		1									1
	1							0.0	Tan/White, Black, Ash and Cinders, Rock and Gravel, Roots, moist	T	
94	-	+	+	+	4			-		-	
			1					0.0			
5					-			"		ŀ	1
	NA	S-2	4-8	90	,	NA	0.0	0.0			1
•									Black/Gray, highly Plastic CLAY, trace Floots, moist	Ţ	
7	1									1	1
				1				0.0	Tan/Gray/Green, Sandy StLT, some Clay, moist	1	ı
8		\vdash	T	T	\dagger	\neg				ŕ	
9					1			0.0			1
Ī								8 1	Brown/Tan, Silty CLAY, trace small Gravel, moist		
10	NA	\$-3	8-12	85		NA	0.0	0.0			
								ŀ	Desire blakks Phase Cl AV male		
11								0.0	Brown, highly Plastic CLAY, moist	•	
12					L	_1					1
						- 1					
13				ľ		- 1	- 1	0.0	Gray, highly Plastic CLAY, moist		
-	NA	S-4	12-16	100		NA	0.0	0.0			
14						- 1				•	
15									İ	ļ.	Į
1								0.0	.very moist cone (silty layer?)	57 3)	ĺ
16					+	-	\dashv	-	1		1
102) Water	lovels w	ebsm en	at the tis	D03 2	nd unde	er condition	ons stated.	Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
									may be gradual. the headspace above the sample using a Miniflae 2000 equipped with a 10.6 eV lamp.	_	
4	NA = N	ot Availai	ble or No	Applica	ble					TI	EST BORING TB-203
MARIA MAN	Academicae	AL STR		inay 06	niue:	INCINO DY	moisture	100 a 100			
	STER, 4-0210		OFIK 146	14-100	18					NE	EW YORK, NEW YORK 10165-1617
	4-0210 5) 454-								www.dayenvironmental.com		(212) 986-8645 FAX (212) 986-8657

	AY ENVI	RONM	ENTAL,	INC.					AN A	ENVIRONMENTAL CONSULTA
Project #: 2105R-99 Project Address: Parteray Plaza								Ground Elevation: NA Datum: 9/7/2007		TEST BORING TB-20
DAY Representative: M. Dickinson Drilling Contractor: TREC Environmental Sempling Method: Direct Push					mental			Date Started: 9/7/2007 Date Ended: 9/7/2007 Borehole Depth: 20.0' Borehole Diameter: Completion Method: Well Installed Bacidited with Grout Water Level (Date): 6.79 (9-7-07)	Backfilled v	
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or ROD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
17							0.0	Gray, highly Plastic CLAY, moist		
18	NA	S-5	16-20	100	NA	0.0	0.0			
20	-	-					0.0	Complete ⊕ 20.0*	-	
21										
23									-	
5									-	
6									-	
									-	
								*	-	
									-	
2) Sin 3) PIC 4) NA	reading • Not Av	n imes re is are ref salable ci	present at	oproximel o a bonze icable	le bound ne stand	aries. Tr lard mea	ansilions π	uctuations of groundwater levels may occur due to seasonal factors and other conditions by be gradual. Headspace above the sample using a Miniflae 2000 equipped with a 10.5 eV lamp.		TEST BORING TB-203
MAJEF ESTE 54-02	RCIAL S R, NEV	TAEET YORK						www.dayenvironmental.com		NEW YORK, NEW YORK 10155-1617 (212) 986-8645

day Day environme	NTAL, INC.			AN AFI		ITAL CONSULTA ENGINEERING, F	
		MONITORING W	ELL CONSTRUCTION D				
*	5R-99 way Plaza			,	MONITORING WELL MW-		
DAY Representative: Orilling Contractor:	M. Dickinson TREC Env.	Ground Elevation: Date Started: Water Level (Date):	NA 9/7/2007 12.45 (9-7-07)	NA 9/7/2007	Page 1 of 1		
Refer to Test Boring Log TB-20.3 for Soil Description		Flush Mounted F 0.1 Depth to Top of NA Depth to Bottom Backfill Type NA 0.5 Depth to Top of 2.0 Depth to Bottom 4.0 Depth to Top of 2.25 Diameter of Bore Backfill Type Sand 1.0 Inside Diameter of Type of Pipe PVC Sch Screen stot size 10 19.0 Depth of Borehold	Riser Pipe (ft) of Cement Surface Pa Bentonite Seal (ft) of Bentonite Seal (ft) Well Screen (ft) of Well (in) of Well (in)	alch (fl)			
: 1) Water levels were r	nade at the times and unc	der conditions stated. Fluctuations	of groundwater levels may o	cour due to seasonal fac	ors and other conditions.		
2) NA = Not Available	or Not Applicable						
					MONITORING V	VELL NAME 202	

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1	ay										ENVIRONMENTAL CONSULTAR
		MOHIN	IMENT		F-III-T-					AN A	FFILIATE OF DAY ENGINEERING, I
	oct#: ect Ade	kess:		05R-9 Irlovay		a			Ground Elevation: NA Datum: NA		TEST BORING TB-204
Drilli	ng Cor	sentat tractor lethod:	: <u>T</u>	Dickin EC En ect Pu	wiron	mental	1	_	Date Started: 9/7/2007 Date Ended: 9/7/2007 Borehole Depth: 16.0' Borehole Diameter: Completion Method: Well Installed Backfilled with Grout	7 Backfilled w	
_	_	_	_			_			Water Level (Date): 7.79 (9-7-07)		
Depth (ft)	Blows per 0.5 ft.	Semante Manuelle	Jaguini oddina	semple Depth (ft)	% Recovery	N-Value or RQD%	Hendepace PIO (ppm)	PID Reading (ppm)	Sample Description		Notes
1								0.0	Tan/Brown, Sity SAND, some Gravel, moist		
2	NA	s	1 0	4	80	NA NA	0.0	0.0	Brown, tine SANO, moist	[-	
3								0.0	Black, fine Sity Sand, mostly Ash and Cinders, Metal Nails, Rock and Gravel, moist (FRLL)	1	
5	NA.	S-2	44	В	10	NA.	0.0	0.0		-	
7								0.0	Brown/Tan, Silty Send, Gravel and Rock, Ash, Cinders (FILL)		
1	1							0.0	Very wet	-	
10	NA	5-3	8-12	1	°	NA	0.0	0.0	metal pieces Black/Derk Green, Sandy SILT, trace Gravel, very wet	1	
12	-				1			0.0		-	
13	NA	S-4	12-16	100	,	NA	0.0	0.0	GrawRed Streeks, highly Plastic CLAY, moist		
5								0.0			
6	土				I	士			Complete @ 16.0'	1	
2) 5	Strablica	ition line	es repré:	ent app	roxim	aje pon	ndaries.	ransilions	Fluctuations of groundwater levels may occur due to seasonal factors and other conditions may be gradual.		
3) F 4) N	PID read A = No	ings ar Availal	e referei de or No	ced to a Applic	a ben: able	zeno sla		easured en	the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV tamp.		TEST BORING TB-204
HEST		L STA EW YO	EET ORK 14	614-10	08						NEW YORK, NEW YORK 10165-1617 (212) 986-8645
585)	454-0	325							www.dayenvironmental.com		FAX (212) 986-8657

day Day environme	ENTAL, INC.			AN AFF		ITAL CONSULTANT ENGINEERING, P.O
		MONITORING WEL	L CONSTRUCTION			Errome Errina, F.C
Project #: 210 Project Address: Parl	5R-99 kway Plaza				MONITORING	G WELL MW-204
DAY Representative: Drilling Contractor:	M. Dickinson TREC Env.	Date Started:	NA 9/7/2007 7.79 (9-7-07)	Datum: Date Ended:	NA 9/7/2007	Page 1 of 1
Refer to Test Boring Log TB-204 for Soil Description		Flush Mounted Ro O.1 Depth to Top of Ri NA Depth to Bottom of Backfill Type NA O.5 Depth to Top of Be 4.0 Depth to Bottom of 6.0 Depth to Top of W 2.25 Diameter of Boreho Backfill Type Sand 1.0 Inside Diameter of Type of Pipe PVC Scher Screen slot size 10 16.0 Depth to Bottom of	iser Pipe (ft) f Cement Surface I entonite Seal (ft) I Bentonite Seal (ft) ell Screen (ft) ole (in) Well (in) well Screen (ft)			
tes: 1) Water levels were 2) NA = Not Available		er conditions stated, Fluctuations of	groundwater levels ma	occur due to seasonal fact	tors and other conditions.	
	The state of the s				MONITORING I	WELL MW-204

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d	ay									ENVIRONMENTAL CONSULTANTS
DAY	ENVI	RONMI	ENTAL,	INC.					AN AFFIL	JATE OF DAY ENGINEERING, P.C.
Proje Proje	ct #: ct Addr	ess:	2105R- Parkwa				-	Ground Elevation: 98.44 Datum: 100'		TEST BORING TB-301
Drillir	Repres og Contr oling Me	ractor:	C. Ham TREC E Geopro	nvironm	nental		-	Date Started: 8/27/2009 Date Ended: 8/27/2009 Borehole Depth: 16.0' Borehole Diameter: 1"	kfilled with C	-
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
1 2 3	NA	S-1	0-4	90	NA	NA	0.0	Light Brown, fine Sand, little Silt, intermixed roots, damp (FiLL) Brown, little Silt, trace Gravel Tan/Brown, fine/medium Sand Brown, Silty Sand, some Organics/Roots, trace Gravel, damp (original ground surface) Gray, Sand, intermixed Ash and Cinders, Glass, Metal, occassional iron oxide	-	
6	NA	S-2	4-8	95	NA	NA	0.0	staining, damp (FILL) Gray, SILT and CLAY, moist Gray/Black	-	
9 10	NA	S-3	8-12	70	NA	NA	0.0	Light Gray, Clayey SAND, wet Brown, Silty CLAY, trace SAND, wet	MW-301:	I.D. Schedule 40 PVC monitoring
13 14 15	NA	S-4	12-16	85	NA	NA	0.0		well instal	lied with No. 10 slot well screen tween 10.5' and 15.0'
	1) Wate	er levele	vere mad	at the time	mes and	under oon	ditions etc	Bottom of Hole @ 16,0'		
4	2) Stratifi 3) PID re) NA = N) Heads	cation lin adings a lot Availa pace PID	es represe e reference ble or Not readings	ent approx ced to a b Applicable	ximate bo enzene s	oundaries, standard r	Transition	ited. Pilutuations of groundwater levels may occur due to seasonal factors and other conditions. ns may be gradual, in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.		TEST BORING TB-301
ROCH (585)		10	REET YORK 14	1614-100)8	19101		www.dayenvironmental.com		NEW YORK, NEW YORK 10165-1617 (212) 988-8645 FAX (212) 986-8657

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d	ay								E	ENVIRONMENTAL CONSULTANTS
DAY	ENVIR	ONME	NTAL, II	NC.					AN AFFIL	IATE OF DAY ENGINEERING, P.C.
Proje Proje	ct #: ct Addre	ss:	2105R- Parkwa				-			TEST BORING TB-302
DAY	Represe	ntative:	C. Ham	pton			-	Ground Elevation: 98.44 Datum: 100'		Page 1 of 1
	g Contra		TREC E		nental			Borehole Depth: 16.0' Borehole Diameter: 2 1/4"	***************************************	-
Samp	ling Met	hod:	Geopro	be					acidilled with (Cuttings
	-	_	_		_	_		Water Level (Date):	,	
Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description		Notes
							0.0	Brown, Silty Sand, with Roots/Vegetation, damp (FILL)	Ì	
2	NA	S-1	0-4	30	NA	NA	0.0	Brown, Sand, Silt, trace Gravel, damp (FILL)	-	
3							0.0	Som, San, Sin, race Grave, daily (Fire)		
5	NA NA	S-2	4-8	20	NA	NA	0.0	Dark Brown, Sand, some Silt, intermixed w/Organics, Cinders, Glass, Wood, damp (FILL)	-	
8							0.0	Dark Gray, Clay, wet	-	
9								Light Gray, fine SAND, little Silt, trace Clay, wet	<u>l</u>	
							0.0	Brown, Clayey Sand, little Silt, wet		
10	NA	S-3	8-12	95	NA	NA	0.0		•.: •::	
0.2							370045			
12							0.0	Brown, Silty CLAY, wet	MW-302: 1.25-inch I.D	. Schedule 40 PVC monitoring
14	NA	S-4	12-16	10	NA	NA	0.0			d with No. 10 slot well screen een 10.5' and 15.0'
15							0.0			
16		384					0.0			
								Bottom of Hole @ 16.0'		
Notes:								d. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.		
	3) PID re	adings a	re referen	ed to a b	enzene s			in the headspace above the sample using a MiniRae 2000 equipped with a 10.6 eV lamp.		
			ble or Not readings			hy moier	ıre			TEST BORING TB-302
	MMERC		_		uonioed	Jy motali				
11			ORK 146	514-100	В					NEW YORK, NEW YORK 10165-1617
	454-0210							and the second s		(212) 986-8645
PAX (85) 454	-V052		-			of an area	www.dayenvironmental.com	metanon	FAX (212) 986-8657

APPENDIX D

ANALYTICAL LABORATORY REPORTS AND CHAIN-OF CUSTODY DOCUMENTATION

PROVIDED ON A COMPACT DISC, NOT INCLUDED IN THIS SUBMITTAL

APPENDIX E

SUMMARY OF DETECTED CONSTITUENTS: SOIL SAMPLES

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

Summary of Detected Volatile Organic Compounds (VOCs) in parts per billion or PPB

Soil Samples

Detected Compound	Protection of Groundwater SCO (1)	Unrestricted Use SCOs (2)	Restricted Commercial SCOs (3)	TB-1 (10'-12') 11/15/98	TB-3 (6'-8') 11/15/98	TB-7 (12'-13') 11/15/98	TB-9 (8'-9') 11/15/98	SUMP 11/15/98	PPTB-1 (4'-6') 9/5/00	PPTB-1 (12'-16') 9/5/00	PPTB-2 (13'-16') 9/5/00	PPTB-3 (4'-8') 9/5/00	PPTB-5 (8'-12') 9/5/00	PPTB-6 (4'-8') 9/6/00	PPTB-6 (12'-16') 9/6/00	PPTB-7 (28'-32') 9/6/00	PPTB-8 (4'-8') 9/6/00
Vinyl Chloride	20	20	13,000	ND	ND	ND	ND	ND	ND	ND	35	6	ND	ND	ND	37	ND
Acetone	50	50	500,000	ND	ND	ND	ND	ND	ND	10	15	ND	35	55	26	25	62
Carbon Disulfide	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichlorothene	190	190	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	250	250	500,000	ND	ND	ND	ND	ND	ND	ND	11	34	ND	ND	ND	91	ND
2-Butanone (MEK)	120	120	500,000	ND	ND	ND	ND	ND	ND	ND	12	ND	11	9.8	3.1	6	9.7
Trichloroethene	470	470	200,000	ND	ND	ND	ND	ND	1,100	ND	1.2	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1300	1,300	150,000	48,837	7,954	12.4	ND	ND	7,100	ND	1.2	ND	ND	ND	ND	ND	ND
Methylene Chloride	50	50	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	ND	ND
1,1-Dichloroethene	330	330	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes

ND = Not detected above laboratory detection limits.

NA = Not Available or Not Listed

(1) = Protection of Groundwater soil Cleanup Objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(2) = Unrestricted use soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(3) = Restricted Commercial SCO as referenced in 6 NYCRR Part 375 dated December 14, 2006.

35 : Concentration exceeds Unrestricted Use SCO and Protection of Groundwater SCO.

290,000 Concentration exceeds Unrestricted Use SCO, Protection of Groundwater SCO, and Commercial Use SCO

: Soil Sample Collected From a Location Not Removed as Part of the IRM.

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

Summary of Detected Volatile Organic Compounds (VOCs) in parts per billion or PPB

Soil Samples

Detected Compound	Protection of Groundwater SCO (1)	Unrestricted Use SCOs (2)	Restricted Commercial SCOs (3)	PPTB-8 (36'-40') 9/6/00	PPTB-9 (16'-18') 9/6/00	PPTB-4 (3'-8') 9/5/00	PPTB-7 (3'-8') 9/6/00	PPTB-10 (0'-2') 9/6/00	PPTB-11 (6'-8') 9/7/00	PPTB-12A (4'-6') 9/7/00	PPTB-13 (12'-14') 9/7/00	PPTB-13 (21'-22') 9/7/00	PPTB-14 (20'-24') 9/7/00	PPTB-15 (23'-24') 9/7/00	PPTB-12A (8'-10') 9/7/00	PP-SUMP 9/7/00	PPTB-14 (4'-8') 9/7/00	PPTB-15 (4'-8') 9/7/00	EAST WALL PRIMARY (10'-15') 11/27/01
Vinyl Chloride	20	20	13,000	ND	31	ND	ND	ND	ND	4.1	260	140	ND	4	ND	10,000	ND	20	ND
Acetone	50	50	500,000	ND	14	ND	16	ND	ND	19	ND	14	ND	53	59	ND	ND	16	ND
Carbon Disulfide	NA	NA	NA	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichlorothene	190	190	500,000	ND	ND	ND	ND	ND	ND	1.3	ND	11	ND	ND	ND	850	ND	ND	ND
cis-1,2-Dichloroethene	250	250	500,000	ND	2,000	ND	160	ND	ND	14	3,400	2,900	5,500	18	2.4	57,000	14,000	37	1,200
2-Butanone (MEK)	120	120	500,000	ND	ND	ND	ND	ND	ND	2.6	ND	ND	ND	ND	10	ND	ND	ND	ND
Trichloroethene	470	470	200,000	ND	1,800	ND	ND	ND	ND	ND	3,800	3,300	4100	29	ND	1,900	17,000	ND	270
Tetrachloroethene	1300	1,300	150,000	ND	11,000	ND	ND	4,600	5,000	ND	12,000	1,400	290,000	1200	ND	13,000	820,000	ND	7,300
Methylene Chloride	50	50	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	330	330	500,000	ND	ND	ND	ND	ND	ND	ND	ND	6.8	ND	ND	ND	ND	ND	ND	ND

Notes

ND = Not detected above laboratory detection limits.

NA = Not Available or Not Listed

(1) = Protection of Groundwater soil Cleanup Objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(2) = Unrestricted use soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(3) = Restricted Commercial SCO as referenced in 6 NYCRR Part 375 dated December 14, 2006.

35 : Concentration exceeds Unrestricted Use SCO and Protection of Groundwater SCO.

290,000 Concentration exceeds Unrestricted Use SCO, Protection of Groundwater SCO, and Commercial Use SCO

: Soil Sample Collected From a Location Not Removed as Part of the IRM.

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

Summary of Detected Volatile Organic Compounds (VOCs) in parts per billion or PPB

Soil Samples

Detected Compound	Protection of Groundwater SCO (1)	Unrestricted Use SCOs (2)	Restricted Commercial SCOs (3)	BOTTOM EAST PRIMARY (23') 11/27/01	BOTTOM WEST SECONDARY (11') 11/28/01	WEST WALL SECONDARY (5'-7') 11/28/01	SECONDARY SOUTH WALL (5'-7') 11/28/01	SECONDARY NORTH WALL (5'-7') 11/28/01	WEST WALL PRIMARY (10'-15') 12/3/01	BOTTOM EAST SECONDARY (11') 12/3/01	BOTTOM WEST PRIMARY (23') 12/3/01	NORTH WALL PRIMARY (10'-15') 12/4/01	SOUTH WALL PRIMARY (10'-15') 12/4/01
Vinyl Chloride	20	20	13,000	ND	ND	ND	280	ND	8.8	ND	7.3	ND	ND
Acetone	50	50	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NA	NA	NA	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND
trans-1,2-Dichlorothene	190	190	500,000	ND	ND	ND	50	ND	ND	5.4	ND	ND	ND
cis-1,2-Dichloroethene	250	250	500,000	4.8	ND	17	300	ND	68	ND	180	4,600	38
2-Butanone (MEK)	120	120	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	470	470	200,000	ND	ND	ND	7.2	12	2.1	1.7	76	2,100	3.4
Tetrachloroethene	1300	1,300	150,000	2.8	ND	3.9	ND	300	18	5.9	61	92,000	34
Methylene Chloride	50	50	500,000	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	330	330	500,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes

ND = Not detected above laboratory detection limits.

NA = Not Available or Not Listed

(1) = Protection of Groundwater soil Cleanup Objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(2) = Unrestricted use soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(3) = Restricted Commercial SCO as referenced in 6 NYCRR Part 375 dated December 14, 2006.

35 : Concentration exceeds Unrestricted Use SCO and Protection of Groundwater SCO.

290,000 Concentration exceeds Unrestricted Use SCO, Protection of Groundwater SCO, and Commercial Use SCO

: Soil Sample Collected From a Location Not Removed as Part of the IRM.

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

Summary of Detected Semi-Volatile Organic Compounds (SVOCs) in parts per billion or PPB

Soil Samples

Detected Compound	Protection of Groundwater SCO (1)	Unrestricted Use SCO (2)	Restricted Commercial Use SCO (3)	PPTB-4 (3'-8') 9/5/00	PPTB-7 (3'-8') 9/6/00	PPTB-14 (4'-8') 9/7/00	PPTB-15 (4'-8') 9/7/00	Field Blank 9/7/00
Bis(2-Ethylhexyl)phthalate	NA	NA	NA	43	ND	54	68	ND
Di-n-Butylphthalate	NA	NA	NA	59	72	44	80	ND
Naphthalene	12,000	12,000	500,000	ND	ND	250	ND	ND
2-Methylnapthalene	NA	NA	NA	ND	ND	140	ND	ND
Acenaphthylene	107,000	100,000	500,000	ND	ND	91	ND	ND
Dibenzofuran	NA	NA	NA	ND	ND	79	ND	ND
Fluorene	386,000	30,000	500,000	ND	ND	87	ND	ND
Penanthrene	1,000,000	100,000	500,000	ND	ND	220	ND	ND
Anthracene	1,000,000	100,000	500,000	ND	ND	49	ND	ND
Carbazole	NA	NA	NA	ND	ND	160	ND	ND
Fluoranthene	1,000,000	100,000	500,000	ND	ND	99	ND	ND
Pyrene	1,000,000	100,000	500,000	ND	ND	73	ND	ND

Notes

ND = Not detected above laboratory detection limits.

NA = Not Available or Not Listed

- (1) = Protection of Groundwater soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
- (2) = Unrestricted use soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
- (3) = Restricted Commercial SCO as referenced in 6 NYCRR Part 375 dated December 14, 2006.

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

Summary of Detected Pesticides, Herbicides, and PCBs in parts per billion or PPB

Soil Samples

Detected Compound	Protection of Groundwater SCO (1)	Unrestricted Use SCO (2)	Restricted Commercial Use SCO (3)	PPTB-4 (3'-8') 9/5/00	PPTB-7 (3'-8') 9/6/00	PPTB-14 (4'-8') 9/7/00	PPTB-15 (4'-8') 9/7/00	Field Blank 9/7/00
Alroclor-1254	3,200	100	1000	16	ND	ND	ND	ND

Notes

ND = Not detected above laboratory detection limits.

- (1) = Protection of Groundwater soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
- (2) = Unrestricted use soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
- (3) = Restricted Commercial SCO as referenced in 6 NYCRR Part 375 dated December 14, 2006.

FORMER PARKWAY CLEANERS PARKWAY PLAZA CANANDAIGUA, NEW YORK

Summary of Detected Metals in parts per million or PPM

Soil Samples

Detected Analyte	Protection of Groundwater SCO (1)	Unrestricted Use SCO (2)	Restricted Commercial Use SCO (3)	PPTB-4 (3'-8') 9/5/00	PPTB-7 (3'-8') 9/6/00	PPTB-14 (4'-8') 9/7/00	PPTB-15 (4'-8') 9/7/00	Field Blank 9/7/00
Aluminum	NA	NA	NA	4,820	12,800	9,210	16,400	ND
Antimony	NA	NA	NA	ND	ND	ND	ND	ND
Arsenic	16	13.0	16.0	1.9	2.1	2.2	3.7	ND
Barium	820	350.0	400.0	56.5	100	76.4	130	ND
Beryllium	47	7.2	590.0	0.33	0.71	5	0.92	ND
Cadmium	8	2.5	9.3	1.2	0.38	0.31	0.37	ND
Calcium	NA	NA	NA	76,600	62,300	80,300	17,900	169
Chromium	NS	30.0	1,500.0	7.7	17.6	13.4	22.1	ND
Cobalt	NA	NA	NA	5.3	10.2	7.7	14.7	ND
Copper	1720	50.0	270.0	13.4	18.3	16.8	17.6	ND
Iron	NA	NA	NA	10,600	21,000	16,700	23,600	ND
Lead	450	63.0	1,000.0	6.4	11	8.1	16.2	ND
Magnesium	NA	NA	NA	21,900	23,100	24,000	12,200	ND
Manganese	2,000	1,600.0	10,000.0	359	526	481	587	ND
Mercury	0.73	0.2	2.8	0.03	0.03	0.03	0.02	ND
Nickel	130	30.0	310.0	13.5	23.6	18.3	27.6	ND
Potassium	NA	NA	NA	890	2,220	1680	2,380	ND
Selnium	4	3.9	1,500.0	0.37	0.31	0.25	0.25	ND
Silver	8	2.0	1,500.0	ND	ND	ND	ND	ND
Sodium	NA	NA	NA	915	1,140	1,110	1,130	ND
Thallium	NA	NA	NA	ND	ND	0.39	ND	ND
Vanadium	NA	NA	NA	14.6	28	23.7	33.6	ND
Zinc	2,480	109.0	10,000.0	43.9	57.3	53.4	74.4	4.6

<u>Notes</u>

ND = Not detected above laboratory detection limits.

NA = Not Available or Not Listed

(1) = Protection of Groundwater soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(2) = Unrestricted use soil cleanup objective (SCO) as referenced in 6 NYCRR Part 375-6 Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

(3) = Restricted Commercial SCO as referenced in 6 NYCRR Part 375 dated December 14, 2006.

APPENDIX F WELL DEVELOPMENT AND SAMPLING LOGS

WELL DEVELOPMENT DATA MW- 1S

SITE LOCATION: Parkway Plaza JOB#: 2105-99

DATE/ TIME	10/08/01 1523	1528	1547			
EVACUATION METHOD	3' Disposable					
PID/FID (PPM)	Bailer 					
DEPTH OF WELL (FT)	13.68					
STATIC WATER LEVEL (SWL) FT	5.68					
VOLUME EVACUATED (GAL)	0.5	0.5	0.5			
TOTAL VOLUME EVACUATED (GAL)	0.5	1.0 Dry	1.5 Dry			
TEMPERATURE (°C)	16.7	17.4	16.8			
рН	6.22	6.41	6.48			
Eh						
CONDUCTIVITY (ms/cm)	2.4	2.5	2.4			
TURBIDITY (NTU)	>990	>990	>990			
VISUAL OBSERVATION	Muddy	Muddy	Muddy			

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 1D

SITE LOCATION: Parkway Plaza JOB#: 2105-99

DATE/ TIME	09/11/01 1020	1045	09/13/01 1410	1425		
EVACUATION METHOD	Centrifugal Pump					
PID/FID (PPM)	0.0					
DEPTH OF WELL (FT)	52.73					
STATIC WATER LEVEL (SWL) FT	6.20					
VOLUME EVACUATED (GAL)	5 gal	5 gal	5 gal	5 gal		
TOTAL VOLUME EVACUATED (GAL)	5 gal	10 gal (day)	15 gal	20 gal		
TEMPERATURE (°C)	14.6	12.8	13.9	13.5		
рН	6.64	7.91	6.70	6.67		
Eh						
CONDUCTIVITY (ms/cm)	0.58	0.34	0.43	0.46		
TURBIDITY (NTU)	>990	>990	>990	>990	 	
VISUAL OBSERVATION	Muddy	Muddy	Muddy	Muddy		

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 2S

SITE LOCATION: Parkway Plaza JOB#: 2105-99

DATE/ TIME	09/11/01 1430	1435	1440	1445	1450	1455	
EVACUATION METHOD	3' Disposable Bailer						
PID/FID (PPM)	0.0						
DEPTH OF WELL (FT)	11.61						
STATIC WATER LEVEL (SWL) FT	4.72						
VOLUME EVACUATED (GAL)	0.2	0.4	0.4	0.4	0.4	0.4	
TOTAL VOLUME EVACUATED (GAL)	0.2	0.6	1.0	1.4	1.8	2.2	
TEMPERATURE (°C)	20.2	19.1	19.1	18.9	19.1	19.0	
рН	6.31	6.42	6.36	6.34	6.32	6.32	
Eh							
CONDUCTIVITY (ms/cm)	4.5	4.6	4.6	4.7	4.7	4.5	
TURBIDITY (NTU)	>990	>990	>990	>990	>990	>990	
VISUAL OBSERVATION	Muddy	Muddy	Muddy	Muddy	Muddy	Muddy	

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 2D

SITE LOCATION: Parkway Plaza JOB#: 2105-99

DATE/ TIME	09/13/01 1230	1241	1248	1340	1346	1352	
EVACUATION METHOD	3' Disposable Bailer						
PID/FID (PPM)	0.0						
DEPTH OF WELL (FT)	38.45						
STATIC WATER LEVEL (SWL) FT	6.62						
VOLUME EVACUATED (GAL)	0.0	4.0	4.0	4.0	4.0	4.0	
TOTAL VOLUME EVACUATED (GAL)	0.0	4.0	8.0 Dry	12.0	16.0	20.0	
TEMPERATURE (°C)	15.9	15.3	14.3	14.6	13.5	13.4	
рН	6.41	6.45	6.63	6.58	6.62	6.61	
Eh							
CONDUCTIVITY (ms/cm)	2.9	2.7	2.0	1.2	1.3	1.5	
TURBIDITY (NTU)	>990	>990	>990	>990	>990	>990	
VISUAL OBSERVATION	Muddy	Muddy	Muddy	Muddy	Muddy	Muddy	

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 3S

SITE LOCATION: Parkway Plaza JOB#: 2105-99

DATE/ TIME	09/11/01 1330	1340	1350	1400	1405	1412	
EVACUATION METHOD	3' Disposable						
PID/FID (PPM)	Bailer 0.0						
DEPTH OF WELL (FT)	8.81						
STATIC WATER LEVEL (SWL) FT	4.99						
VOLUME EVACUATED (GAL)	0.2	0.2	0.2	0.2	0.2	0.2	
TOTAL VOLUME EVACUATED (GAL)	0.2 Dry	0.4 Dry	0.6 Dry	0.8	1.0	1.2	
TEMPERATURE (°C)	21.2	20.2	19.4	19.8	19.8	19.7	
рН	6.10	6.34	6.50	6.49	6.52	6.54	
Eh							
CONDUCTIVITY (ms/cm)	3.2	3.0	2.5	2.5	2.5	2.4	
TURBIDITY (NTU)	>990	>990	>990	>990	>990	>990	
VISUAL OBSERVATION	Muddy	Muddy	Muddy	Muddy	Muddy	Muddy	

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 3D

SITE LOCATION: Parkway Plaza JOB#: 2105-99

DATE/ TIME	09/11/01 1243	1254	1310	09/13/01 1450	1500		
EVACUATION METHOD	3' Disposable Bailer						
PID/FID (PPM)	0.0						
DEPTH OF WELL (FT)	50.92						
STATIC WATER LEVEL (SWL) FT	9.01						
VOLUME EVACUATED (GAL)	0.0	5.0	4.0	5.0	5.0		
TOTAL VOLUME EVACUATED (GAL)	0.0	5.0	9.0 Dry	14.0	19.0		
TEMPERATURE (°C)	14.6	12.9	12.9	13.2	13.1		
рН	7.08	7.77	7.62	7.71	7.66		
Eh							
CONDUCTIVITY (ms/cm)	0.72	0.49	0.43	0.47	0.44		
TURBIDITY (NTU)	>990	>990	>990	>990	>990		
VISUAL OBSERVATION	Muddy	Muddy	Muddy	Muddy	Muddy		

LEGEND:

NC = Not Collected

ND = Not Detected *= Not Measurable

WELL DEVELOPMENT DATA MW- 103\$

JOB#: 21058-04

CAMANOMED-NY

PLAZA

SITE LOCATION: PARKWAY

12 42 3 Hisposell 3 disposel 531 9.20.04 2.32 (7.3 2016 Z 15.2 99-9 > 990 Muddy 9-N 00 00 40-07-6 Midde NC NL 6.69 90 2.25 287 2 2990 N 1.50-04 00 1/2 36. -54 Hoddy 780 MC 6.65 2.34 269 Y 20 N L 4-20-02-1 Z (A.S. 2.26 N N 306 2990 NC -20 55-9 Reddy N 2 3' disposabl 12.40 ,90.7 2.39 81.3 6.35 4.20.09 % € Muddy 0 214 0.0 0 M 893 TURBIDITY (NTU) TOTAL VOLUME DEPTH OF WELL LEVEL (SWL) FT STATIC WATER TEMPERATURE CONDUCTIVITY **OBSERVATION EVACUATION** PID/FID (PPM) EVACUATED EVACUATED METHOD VOLUME ORP (mV) (|us/cm) MS/c ~ DO (mg/L) VISUAL DATE/ (GAL) TIME (GAL) (၃ $^{\mathrm{pH}}$

EGEND:

NC = Not Collected

ND = Not Detected *≈ Not Measurable

Day Engineering, P.C. 40 Commercial Street Rochester, New York 14614

WELL DEVELOPMENT DATA MW- 101S

SITE LOCATION: Parkway Plaza, Canandaigua, New York

JOB#: <u>Conifer.2105R-99</u>

DATE/ TIME	2/05/04 1300	2/05/04 1304	2/05/04 1310	2/05/04 1313	2/05/04 1318		
EVACUATION	3' Disposable	3' Disposable	3' Disposable	3' Disposable	3' Disposable		
METHOD	Bailer	Bailer	Bailer	Bailer	Bailer		
PID/FID (PPM)	0.0	NC	NC	NC	NC		
DEPTH OF WELL (FT)	13.70	NC	NC	NC	13.70		
STATIC WATER LEVEL (SWL) FT	4.20	NC	NC	NC	7.30		
VOLUME EVACUATED (GAL)	1.0	1.0	1.0	1.0	1.0		
TOTAL VOLUME EVACUATED (GAL)	1.0	2.0	3.0	4.0	5.0		
TEMPERATURE (°C)	8.08	8.39	8.41	8.41	8.58		
рН	6.46	7.06	7.10	7.29	7.27		
ORP (mV)	34	4	-37	-48	-50		
CONDUCTIVITY (μs/cm)	16.8	17.0	16.4	17.2	17.1		
DO (mg/L)	7.4	6.2	4.8	4.0	4.1		
TURBIDITY (NTU)	NC	NC	NC	NC	NC		
VISUAL OBSERVATION	Slightly Muddy	Slightly Muddy	Slightly Muddy	Slightly Muddy	Slightly Muddy		

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 102S

SITE LOCATION: Parkway Plaza, Canandaigua, New York

JOB#: Conifer.2105R-99

DATE/ TIME	2/05/04 1021	2/05/04 1026	2/05/04 1030	2/05/04 1034	2/05/04 1039	2/05/04 1044	
EVACUATION	3' Disposable	3' Disposable	3' Disposable	3' Disposable	3' Disposable	3' Disposable	
METHOD	Bailer	Bailer	Bailer	Bailer	Bailer	Bailer	
PID/FID (PPM)	0.0	NC	NC	NC	NC	NC	
DEPTH OF WELL (FT)	13.63	NC	NC	NC	NC	13.69	
STATIC WATER LEVEL (SWL) FT	4.23	NC	NC	NC	NC	11.39	
VOLUME EVACUATED (GAL)	0	1.0	1.0	1.0	1.0	1.0	
TOTAL VOLUME EVACUATED (GAL)	0	1.0	2.0	3.0	4.0	5.0	
TEMPERATURE (°C)	7.36	6.51	6.99	7.99	8.93	9.76	
рН	6.72	6.44	5.96	6.14	6.28	6.31	
ORP (mV)	77	70	93	77	69	65	
CONDUCTIVITY (µs/cm)	9.12	9.57	9.84	9.68	10.6	10.9	
DO (mg/L)	9.4	7.3	7.2	7.8	7.4	7.1	
TURBIDITY (NTU)	NC	NC	NC	NC	NC	NC	
VISUAL OBSERVATION	Slightly Muddy	Slightly Muddy	Slightly Muddy	Slightly Muddy	Slightly Muddy	Slightly Muddy	

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW- 1S

SITE LOCATION: Parkway Plaza, Canandaigua, New York

JOB#: <u>Conifer.2105R-99</u>

DATE/ TIME	2/05/04 1130	2/05/04 1136	2/05/04 1141	2/05/04 1148		
EVACUATION	3' Disposable	3' Disposable	3' Disposable	3' Disposable		
METHOD	Bailer	Bailer	Bailer	Bailer		
PID/FID (PPM)	0.0	NC	NC	NC		
DEPTH OF WELL (FT)	13.33	NC	NC	13.45		
STATIC WATER LEVEL (SWL) FT	4.15	NC	NC	11.95		
VOLUME EVACUATED (GAL)	0.5	0.5	0.5	0.5		
TOTAL VOLUME EVACUATED (GAL)	0.5	1.0	1.5	2.0		
TEMPERATURE (°C)	8.74	8.91	9.23	9.42		
рН	6.71	7.10	6.99	7.02		
ORP (mV)	19	-10	-34	-36		
CONDUCTIVITY (µs/cm)	14.4	14.6	14.0	13.9		
DO (mg/L)	7.7	6.1	4.7	4.5		
TURBIDITY (NTU)	NC	NC	NC	NC		
VISUAL OBSERVATION	Muddy	Muddy	Muddy	Muddy		

LEGEND:

NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW-2.1S

SITE LOCATION: Parkway Plaza, Canandaigua, New York JOB#: 2105R-99

DATE/ TIME	3/22/05 1153	3/22/05 1156	3/22/05 1159	3/22/05 1202		
EVACUATION METHOD	3' disposal bailer	3' disposal bailer	3' disposal bailer	3' disposal bailer		
PID/FID (PPM)	NC	NC	NC	NC		
DEPTH OF WELL (FT)	11.45	NC	NC	11.57		
STATIC WATER LEVEL (SWL) FT	3.01	NC	NC	7.23		
VOLUME EVACUATED (GAL)	0.0	2.0	2.0	2.0		
TOTAL VOLUME EVACUATED (GAL)	0.0	2.0	4.0	6.0		
TEMPERATURE (°C)	6.3	5.2	5.2	5.1		
pН	6.20	7.7	7.6	7.5		
ORP (mV)	26	-55	-61	-63		
CONDUCTIVITY (µs/cm)	21	21	20	19		
DO (mg/L)	0.3	2.9	1.8	2.0		
TURBIDITY (NTU)	393	>990	>990	>990		
VISUAL OBSERVATION	Cloudy	Muddy	Muddy	Muddy		

LEGEND: NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW-201

SITE LOCATION: Parkway Plaza JOB#: 2105R-99

DATE/ TIME	9/14/07					
EVACUATION METHOD	Vacuum Pump System					
PID/FID (PPM)	NC					
DEPTH OF WELL (FT)	14.0					
STATIC WATER LEVEL (SWL) FT	5.09					
VOLUME EVACUATED (GAL)	0	0.5				
TOTAL VOLUME EVACUATED (GAL)	0	0.5		- VERY SLO	OW RECHARGE	
TEMPERATURE (°C)	23.2	184				
pН	4.11	4.54				
ORP (mV)	164	171				
CONDUCTIVITY (µs/cm)	2060	2319				
TURBIDITY (NTU)	260.0	107.2				
VISUAL OBSERVATION	Brown, Cloudy	Clearer Slightly Brown				

LEGEND: NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW-203

SITE LOCATION: Parkway Plaza JOB#: 2105R-99

DATE/ TIME	9/14/07				
EVACUATION METHOD	Vacuum Pump System				
PID/FID (PPM)	NC				
DEPTH OF WELL (FT)	18.54				
STATIC WATER LEVEL (SWL) FT	6.12				
VOLUME EVACUATED (GAL)	0	5.5			
TOTAL VOLUME EVACUATED (GAL)	0	5.5			
TEMPERATURE (°C)	19.3	17.6			
pН	4.57	4.55			
ORP (mV)	1814	170			
CONDUCTIVITY (μs/cm)	2464	2352			
TURBIDITY (NTU)	121	34.1		 	
VISUAL OBSERVATION	Slightly Brown	Clear No Odor			

LEGEND: NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL DEVELOPMENT DATA MW-204

SITE LOCATION: Parkway Plaza JOB#: 2105R-99

DATE/ TIME	9/14/07				
EVACUATION METHOD	Vacuum Pump System				
PID/FID (PPM)	NC				
DEPTH OF WELL (FT)	14.15				
STATIC WATER LEVEL (SWL) FT	5.92				
VOLUME EVACUATED (GAL)	0	2.0			
TOTAL VOLUME EVACUATED (GAL)	0	2.0			
TEMPERATURE (°C)	19.0	18.4			
рН	4.55	4.55			
ORP (mV)	169	169			
CONDUCTIVITY (µs/cm)	934.3	829.4			
TURBIDITY (NTU)	137	15.6			
VISUAL OBSERVATION	Clear No Odor	Clear No Odor			

LEGEND: NC = Not Collected

ND = Not Detected

*= Not Measurable

WELL MW-3S

SECTION 1 - SITE INFORMATION							
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99						
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 09/18/02						
SAMPLE COLLECTOR(S): A. Farrell							
WEATHER CONDITIONS: Partly Sunny 65-70°F	PID IN WELL (PPM): 0.0 ppm						

	SECTION 2	- PURGE INFORMATION
DEPTH OF WELL [FT]: 9.88	(MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LI	EVEL (SWL) [FT]:5.36	(MEASURED FROM T.O.C.)
DEPTH OF WATER	R COLUMN [FT]: 4.52	(DEPTH OF WELL - SWL)
CALCULATED VOI	L. OF H ₂ O PER WELL CASING	[GAL]: <u>0.28</u> CASING DIA.: <u>1.25"</u>
CALCULATIONS: <u>CASING DIA. (FT)</u> 3/4" (0.0625) 1" (0.0833) 11/4" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.375) 6" (0.5000) 8" (0.666)	WELL CONSTANT(GAL/FT) 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611	CALCULATIONS VOL. OF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
CALCULATED PUR	RGE VOLUME [GAL]: 0.85	(3 TIMES CASING VOLUME)
ACTUAL VOLUME	PURGED [GAL]:	gallons.
PURGE METHOD:	3' Disposable Bailer	PURGE START: 1130 END: 1135 .

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS				
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)				
MW-3S	09-18-01 / 0955	3' Disposable Bailer	STARS & TCL VOCs (USEPA 8260)	

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY mS/cm	TURBIDITY (NTU)	VISUAL
5.24	21.2	6.18	2.6	>990	Slightly Cloudy

WELL MW-3D

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 09/18/01			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: Partly Sunny 65-70°F	PID IN WELL (PPM): 0.1 ppm			

	SECTION 2 - PUR	GE INFORMATION			
DEPTH OF WELL [I	FT]:52.64	(MEASURED FROM TOP OF CASING - T.O.C.)			
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 6.04 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	COLUMN [FT]:46.6	(DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GAL]:	: 7.60			
3" (0.250) 4" (0.3333) 4½" (0.375)		CULATIONS DF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
CALCULATED PURGE VOLUME [GAL]: 22.82 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: Dry @ ~10 gallons					
PURGE METHOD:	3' Disposable Bailer	PURGE START: 1100 END: 1120 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS				
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)	
MW-3D	09-18-01 / 1010	3' Disposable Bailer	STARS & TCL VOCs (USEPA 8260)	

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY mS/cm	TURBIDITY (NTU)	VISUAL
6.32	20.2	7.86	.50	780	Slightly Cloudy

WELL MW-2D

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 09/18/01			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: Partly Sunny 65-70°F	PID IN WELL (PPM): 0.1 ppm			

	SF	ECTION 2 - PURC	GE INFORMATION		
DEPTH OF WELL [I	F T]: 39.98		(MEASURED FROM TOP OF CASING	- T.O.C.)	
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 9.22 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	COLUMN [FT]:	30.76	(DEPTH OF WELL - SWL)		
CALCULATED VOI	L. OF H ₂ O PER WELL	CASING [GAL]:	5.02 CASING DIA.: _2	<u>.</u> .	
3" (0.250) 4" (0.3333)	WELL CONSTANT(0 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611		CULATIONS OF H ₂ O IN CASING = DEPTH OF WATER COLUM	N X WELL CONSTANT	
CALCULATED PURGE VOLUME [GAL]: 15.06 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: Dry @ ~10 gallons .					
PURGE METHOD:	3' Disposable Bailer		PURGE START: 1155	END: 1208 .	

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS				
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)	
MW-2D	09-18-01 / 1050	3' Disposable Bailer	STARS & TCL VOCs (USEPA 8260)	

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY mS/cm	TURBIDITY (NTU)	VISUAL
5.89	20.8	7.57	1.1	-7	Clear

WELL MW-2S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 09/18/01			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: Partly Sunny 65-70°F	PID IN WELL (PPM): 0.0 ppm			

	SE	ECTION 2 - PURGE INFORMATION			
DEPTH OF WELL [FT]: 11.49	(MEASURED FROM TOP OF CASING - T.O.C.)			
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 4.70 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	COLUMN [FT]:	6.79 (DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL	L CASING [GAL]: 0.43 CASING DIA.: 1.25"			
CALCULATIONS: <u>CASING DIA. (FT)</u> 3/4" (0.0625) 1" (0.0833) 11/4" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.373) 41/2" (0.375) 6" (0.5000) 8" (0.666)	WELL CONSTANT(0 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611	CALCULATIONS VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
CALCULATED PURGE VOLUME [GAL]: 1.28 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME	PURGED [GAL]:~]	~1.5 gallons .			
PURGE METHOD:	3' Disposable Bailer	PURGE START: 1147 END: 1155 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)		
MW-2S	09-18-01 / 1030	3' Disposable Bailer	STARS & TCL VOCs (USEPA 8266)		

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY m/cm	TURBIDITY (NTU)	VISUAL
4.72	20.6	6.32	4.4	>990	Slightly Cloudy

WELL MW-1D

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 09/18/01			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: Partly Sunny 65-70°F	PID IN WELL (PPM): 0.0 ppm			

SECTION 2 - PURGE INFORMATION			
DEPTH OF WELL [[FT]: 53.25 (MEASURED FROM TOP OF CASING - T.O.C.)		
STATIC WATER LI	EVEL (SWL) [FT]: 5.35 (MEASURED FROM T.O.C.)		
DEPTH OF WATER	R COLUMN [FT]: 41.9 (DEPTH OF WELL - SWL)		
CALCULATED VOI	OL. OF H ₂ O PER WELL CASING [GAL]: 7.81 CASING DIA.: 2".		
CALCULATIONS: CASING DIA. (FT) 34" (0.0625) 1" (0.0833) 11/4" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.333) 41/2" (0.375) 6" (0.5000) 8" (0.666)	WELL CONSTANT(GAL/FT) 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611 CALCULATIONS VOL. OF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT CALCULATIONS VOL. OF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1.0063 0.1632 0.380 0.6528 0.826 1.4688		
CALCULATED PURGE VOLUME [GAL]: 23.45 (3 TIMES CASING VOLUME)			
ACTUAL VOLUME PURGED [GAL]: <u>Dry @ 10 gallons</u> .			
PURGE METHOD:	3' Disposable Bailer PURGE START: 1005 END: 1030 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)		
MW-1D	09-18-01 / 0930	3' Disposable Bailer	STARS & TCL VOCs (USEPA 8260)		

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY mS/cm	TURBIDITY (NTU)	VISUAL
5.39	20.7	6.39	0.51	-10	Clear

WELL MW-1S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 10/10/01			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: Partly Cloudy ~70°F	PID IN WELL (PPM): NC			

SECTION 2 - PURGE INFORMATION			
DEPTH OF WELL [[FT]: 13.64 (MEASURED FROM TOP OF CASING - T.O.C.)		
STATIC WATER LI	EVEL (SWL) [FT]: 5.22 (MEASURED FROM T.O.C.)		
DEPTH OF WATER	R COLUMN [FT]: 8.42 (DEPTH OF WELL - SWL)		
CALCULATED VO	OL. OF H ₂ O PER WELL CASING [GAL]: <u>0.53</u> CASING DIA.: <u>1.25</u> " .		
CALCULATIONS: <u>CASING DIA. (FT)</u> 34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.333) 41/2" (0.375) 6" (0.5000) 8" (0.666)	WELL CONSTANT(GAL/FT) 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611 CALCULATIONS VOL. OF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT CALCULATIONS VOL. OF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1.041 0.063 0.1632 0.380 0.6528 0.826 1.4688		
CALCULATED PUR	RGE VOLUME [GAL]: 1.59 (3 TIMES CASING VOLUME)		
ACTUAL VOLUME	E PURGED [GAL]: ~1.75 gallons .		
PURGE METHOD:	3' Disposable Bailer PURGE START: 1452 END: 1500 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)		
MW-1S	10-10-01 / 1545	3' Disposable Bailer	8260 STARS & TCL VOCs (USEPA 8260)		

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY mS/cm	TURBIDITY (NTU)	VISUAL
6.02	20.7	6.33	2.4	<990	Cloudy

WELL MW-2D

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02			
SAMPLE COLLECTOR(S): Aaron Farrell, J. Kirk Hampton				
WEATHER CONDITIONS: Sunny, 45 ⁰	_ PID IN WELL (PPM):NC			

SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [1	FT]: 39.22		(MEASURED FROM TOP OF CASING - T.O.C.)	
STATIC WATER LE	EVEL (SWL) [FT]: _	6.10	(MEASURED FROM T.O.C.)	
DEPTH OF WATER	COLUMN [FT]:	33.12	(DEPTH OF WELL - SWL)	
CALCULATED VOI	L. OF H ₂ O PER WEI	LL CASING [GAL]:	5.40 CASING DIA.:2.0"	
CALCULATIONS: <u>CASING DIA. (FT)</u> 34" (0.0625) 1" (0.0833) 11/4" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 41/2" (0.375) 6" (0.5000) 8" (0.666)	WELL CONSTAN 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611	VT(GAL/FT) <u>CAL</u> VOL. C	CULATIONS OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT	
CALCULATED PURGE VOLUME [GAL]: 16.2 (3 TIMES CASING VOLUME)				
ACTUAL VOLUME	PURGED [GAL]: _	~8.0 (Dry)	<u>.</u>	
PURGE METHOD:	3' Bailer		PURGE START: 15:07 END: 15:20 .	

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-2D	01/25/02 11:23	3' Bailer	VOC's via: ASP 95-1		

SECTION 4 - WATER QUALITY DATA						
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL						
6.38	8.3	7.43	.44	250	Clear	

WELL MW-3D

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99				
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02				
SAMPLE COLLECTOR(S): Aaron Farrell, J. Kirk Hampton					
WEATHER CONDITIONS: Sunny, 45 ⁰	_ PID IN WELL (PPM):NC				

SECTION 2 - PURGE INFORMATION						
DEPTH OF WELL [FT]: 52.3 (MEASURED FROM TOP OF CASING - T.O.C.)						
STATIC WATER LI	STATIC WATER LEVEL (SWL) [FT]: (MEASURED FROM T.O.C.)					
DEPTH OF WATER	COLUMN [FT]:	46.49	(DEPTH OF WELL - SWL)			
CALCULATED VO	L. OF H ₂ O PER WEI	LL CASING	[GAL]: 7.4 CASING DIA.:	2.0" .		
CALCULATIONS: CASING DIA. (FT) 34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000) 8" (0.666)	0.023 0.041 0.063 0.1632 0.380 0.6528 0.826	T(GAL/FT)	CALCULATIONS VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLU	UMN X WELL CONSTANT		
CALCULATED PURGE VOLUME [GAL]: 22.2 (3 TIMES CASING VOLUME)						
ACTUAL VOLUME PURGED [GAL]:~13.0 (Dry)						
PURGE METHOD:	3' Bailer		PURGE START: 14:25	END: 14:45 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-3D	01/25/02 11:05	3' Bailer	VOC's via: ASP 95-1		

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					
NC	NC	NC	.48	150	Clear

WELL MW-2S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99				
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02				
SAMPLE COLLECTOR(S): Aaron Farrell, J. Kirk Hampton					
WEATHER CONDITIONS: Sunny, 45 ⁰	_ PID IN WELL (PPM):NC				

SECTION 2 - PURGE INFORMATION					
DEPTH OF WELL [I	DEPTH OF WELL [FT]: 11.24 (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 3.72 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	COLUMN [FT]: 7.25	(DEPTH OF WELL - SWL)			
CALCULATED VOI	OF H ₂ O PER WELL CASI	NG [GAL]:47			
1¼" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000)	0.023 0.041 0.063 0.1632 0.380 0.6528 0.826	CALCULATIONS VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
CALCULATED PURGE VOLUME [GAL]: 1.4 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]:					
PURGE METHOD: _	3' Bailer	PURGE START: 15:05 END: 15:10 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-2S	01/25/02 11:27	3' Bailer	VOC's via: ASP 95-1		

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					
3.93	6.8	6.20	5.0	410	Clear

WELL MW-3S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99				
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02				
SAMPLE COLLECTOR(S): Aaron Farrell, J. Kirk Hampton					
WEATHER CONDITIONS: Sunny, 45 ⁰	_ PID IN WELL (PPM):NC				

	1	SECTION 2 - PUR	GE INFORMATION		
DEPTH OF WELL [I	[FT]: 9.84 (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	EVEL (SWL) [FT]: _	3.92	(MEASURED FROM T.O.C.)		
DEPTH OF WATER	COLUMN [FT]:	5.92	(DEPTH OF WELL - SWL)		
CALCULATED VOL	OF H ₂ O PER WEL	LL CASING [GAL	:37		
1½" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000)	0.023 0.041 0.063 0.1632 0.380 0.6528		CULATIONS DF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT		
CALCULATED PURGE VOLUME [GAL]: 1.11 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: ~1.0 (Dry) .					
PURGE METHOD: _	3' Bailer		PURGE START: 14:30 END: 14:35 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-3S	01/25/02 11:40	3' Bailer	VOC's via: ASP 95-1		

	SECTION 4 - WATER QUALITY DATA						
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL							
3.97	7.5	6.20	2.8		Clear		

WELL MW-1S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99				
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02				
SAMPLE COLLECTOR(S): Aaron Farrell, J. Kirk Hampton					
WEATHER CONDITIONS: Sunny, 45 ⁰	_ PID IN WELL (PPM):NC				

	SECTION 2	- PURGE INFORMATION			
DEPTH OF WELL [FT]: 13.53	(MEASURED FROM TOP OF CASING - T.O.C.)			
STATIC WATER LI	EVEL (SWL) [FT]:4.29	(MEASURED FROM T.O.C.)			
DEPTH OF WATER	R COLUMN [FT]: 9.24	(DEPTH OF WELL - SWL)			
CALCULATED VO	L. OF H ₂ O PER WELL CASING	[GAL]:58			
CALCULATIONS: <u>CASING DIA. (FT)</u> 3/4" (0.0625) 1" (0.0833) 11/4" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 4/2" (0.375) 6" (0.5000) 8" (0.666)	0.023 0.041 0.063 0.1632 0.380 0.6528 0.826				
CALCULATED PURGE VOLUME [GAL]: 1.74 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]:~0.90 (Dry)					
PURGE METHOD:	3' Bailer	PURGE START: 13:55 END: 14:04 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-1S	01/25/02 10:59	3' Bailer	VOC's via: ASP 95-1		

SECTION 4 - WATER QUALITY DATA						
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL						
4.25	9.8	6.08	2.5	400	Clear	

WELL MW-1D

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99				
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02				
SAMPLE COLLECTOR(S):Aaron Farrell, J. Kirk Hampton					
WEATHER CONDITIONS: Sunny, 45 ⁰	PID IN WELL (PPM): NC				

SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [1	FT]: 53.06	(MEASURI	ED FROM TOP OF CASING -	T.O.C.)
STATIC WATER LE	EVEL (SWL) [FT]:5	.67 (MEASURI	ED FROM T.O.C.)	
DEPTH OF WATER	COLUMN [FT]:47.3	(DEPTH O	F WELL - SWL)	
CALCULATED VOI	L. OF H ₂ O PER WELL C	ASING [GAL]: 7.73	CASING DIA.: _	2.0" <u>.</u>
4" (0.3333) 4½" (0.375)	0.023 0.041 0.063 0.1632 0.380 0.6528	AL/FT) CALCULATION VOL. OF H ₂ O IN CAS	I <u>S</u> ING = DEPTH OF WATER COLUM!	N X WELL CONSTANT
CALCULATED PURGE VOLUME [GAL]: 23.19 (3 TIMES CASING VOLUME)				
ACTUAL VOLUME PURGED [GAL]: ~12.5 (Dry) .				
PURGE METHOD:	3' Bailer	PU	JRGE START: 14:15	END: 14:30 .

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-1D	01/25/02 10:45	3' Bailer	VOC's via: ASP 95-1		

SECTION 4 - WATER QUALITY DATA						
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL						
5.63	11.4	6.31	.53	76	Clear	

WELL MW-2S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 1/24/02			
SAMPLE COLLECTOR(S): Aaron Farrell, J. Kirk Hampton				
WEATHER CONDITIONS: Sunny, 45 ⁰ PID IN WELL (PPM): NC				

	SECTION	2 - PURGE INFORMATION			
DEPTH OF WELL [I	DEPTH OF WELL [FT]: 11.24 (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 3.72 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	COLUMN [FT]: 7.25	(DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL CASING	G [GAL]:47			
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT (GAL/FT) CALCULATIONS 34" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.10833) 0.041 114" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 41/2" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611					
CALCULATED PURGE VOLUME [GAL]: 1.4 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: ~1.50 .					
PURGE METHOD:	3' Bailer	PURGE START: 15:05 END: 15:10 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS				
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(
MW-2S	01/25/02 11:27	3' Bailer	VOC's via: ASP 95-1	

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					
3.93	6.8	6.20	5.0	410	Clear

WELL MW-3S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 07/24/02			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: ~75 ⁰ F Partly Cloudy, Light Breeze	PID IN WELL (PPM): 0.0 ppm			

	SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [1	DEPTH OF WELL [FT]: 9.84 (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	EVEL (SWL) [FT]: 4.38	(MEASURED FROM T.O.C.)			
DEPTH OF WATER	COLUMN [FT]:5.46	(DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [G	SAL]: 0.34 CASING DIA.: 1.25".			
CALCULATIONS: CASING DIA. (FT) 34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 41/2" (0.375) 6" (0.5000) 8" (0.666)		CALCULATIONS VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
CALCULATED PURGE VOLUME [GAL]: 1.03 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]:~0.5 gal (Dry) .					
PURGE METHOD:	3' Disposable Bailer	PURGE START: 0940 END: 0945 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS				
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)				
MW-3S	07/24/02 1250	3' Disposable Bailer	8021B	

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					VISUAL
4.51	21.1	5.71	2.7	>990	Cloudy

WELL MW-1S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 07/24/02			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: ~75°F Partly Cloudy, Light Breeze	PID IN WELL (PPM): 0.0 ppm			

	SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [1	FT]: 13.53	(MEASURED FROM TOP OF CASING - T.O.C.)			
STATIC WATER LE	EVEL (SWL) [FT]: 3.42	(MEASURED FROM T.O.C.)			
DEPTH OF WATER	. COLUMN [FT]:	(DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [[GAL]: <u>0.64</u> CASING DIA.: <u>1.25"</u>			
3" (0.250) 4" (0.3333) 4½" (0.375)	WELL CONSTANT(GAL/FT) 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611	CALCULATIONS VOL. OF H₂O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
CALCULATED PUR	RGE VOLUME [GAL]:1.91	(3 TIMES CASING VOLUME)			
ACTUAL VOLUME	PURGED [GAL]: ~2.0	.			
PURGE METHOD:	3' Disposable Bailer	PURGE START: 0950 END: 0955 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS				
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S				
MW-1S	07/24/02 1225	3' Disposable Bailer	8021B	

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					VISUAL
4.02	22.4	5.79	0.99	>990	Cloudy/Muddy

WELL MW-2S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 07/24/02			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: ~75°F Partly Cloudy, Light Breeze	PID IN WELL (PPM): 0.0 ppm			

	SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [FT]	DEPTH OF WELL [FT]: (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LEVI	EL (SWL) [FT]: 3.94 (MEASURED FROM T.O.C.)				
DEPTH OF WATER CO	OLUMN [FT]: 7.30 (DEPTH OF WELL - SWL)				
CALCULATED VOL. O	OF H ₂ O PER WELL CASING [GAL]: 0.46 CASING DIA.: 1.25".				
¾" (0.0625) 0.0 1" (0.0833) 0.0 1¼" (0.1041) 0.0 2" (0.1667) 0.1 3" (0.250) 0.3 4" (0.3333) 0.0 4½" (0.375) 0.8 6" (0.5000) 1.4	WELL CONSTANT(GAL/FT) 023 041 063 1632 380 6528 826 4688 611				
	E VOLUME [GAL]: 1.38 (3 TIMES CASING VOLUME)				
ACTUAL VOLUME PU	URGED [GAL]:~1.5				
PURGE METHOD: _3'	' Disposable Bailer PURGE START: 1125 END: 1130 .				

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-2S	07/24/02 1305	3' Disposable Bailer	8021B		

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					
4.03	21.3	5.81	4.7	>990	Cloudy

WELL MW-1D

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 07/24/02			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: ~75 ⁰ F Partly Cloudy, Light Breeze	PID IN WELL (PPM): 0.0 ppm			

	SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [I	DEPTH OF WELL [FT]: 53.06 (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	EVEL (SWL) [FT]: 4.62 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	COLUMN [FT]: 48.44 (DEPTH OF WELL - SWL)				
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GAL]: 7.9 CASING DIA.: 2.0".				
1½" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000)					
CALCULATED PURGE VOLUME [GAL]: 23.72 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: ~13.0 (Dry) .					
PURGE METHOD: 3' Disposable Bailer PURGE START: 1005 END: 1030 .					

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-1D	07/24/02 1240	3' Disposable Bailer	8021B		

SECTION 4 - WATER QUALITY DATA					
SWL (FT)	SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL				
4.79	15.8	6.60	0.44	220	Clear

WELL MW-2D

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza	JOB #: 2105R-99			
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 07/24/02			
SAMPLE COLLECTOR(S): A. Farrell				
WEATHER CONDITIONS: ~75°F Partly Cloudy, Light Breeze	PID IN WELL (PPM): 0.0 ppm			

	SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [I	DEPTH OF WELL [FT]: 39.22 (MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 5.70 (MEASURED FROM T.O.C.)				
DEPTH OF WATER	R COLUMN [FT]:33.52	(DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [G	AL]: CASING DIA.:			
3" (0.250) 4" (0.3333) 4½" (0.375)		CALCULATIONS VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
	RGE VOLUME [GAL]: 16.41	·			
ACTUAL VOLUME	PURGED [GAL]:~10.0 (Dry)	<u>-</u>			
PURGE METHOD: _	3' Disposable Bailer	PURGE START: 1100 END: 1120 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-2D	07/24/02 1315	3' Disposable Bailer	8021B		

SECTION 4 - WATER QUALITY DATA					
SWL (FT) TEMP (°C) pH CONDUCTIVITYmS/cm TURBIDITY (NTU) VISUAL					
5.83	20.5	6.02	0.87	37	Clear

WELL MW-2S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, New York	_JOB #:2105R-99				
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 2/13/04				
SAMPLE COLLECTOR(S):C. Davidson					
WEATHER CONDITIONS:~30°F, Cloudy	PID IN WELL (PPM):				

	SECTION 2 - PURGE	INFORMATION		
DEPTH OF WELL [1	FT]:(M	IEASURED FROM TOP OF CASING - T.O.C.)		
STATIC WATER LE	EVEL (SWL) [FT]: (MI	EASURED FROM T.O.C.)		
THICKNESS OF WA	ATER COLUMN [FT]: 6.74	(DEPTH OF WELL - SWL)		
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GAL]: _	0.42 CASING DIA.: 1.25"		
CALCULATIONS:				
CASING DIA. (FT)	WELL CONSTANT(GAL/FT) CALCU	<u>LATIONS</u>		
³ / ₄ " (0.0625)	0.023 VOL. OF F	H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT		
1" (0.0833)	0.041			
11/4" (0.1041)	0.063			
2" (0.1667)	0.1632			
3" (0.250)	0.380			
4" (0.3333)	0.6528			
4½" (0.375)	0.826			
6" (0.5000)	1.4688			
8" (0.666)	2.611			
CALCULATED PURGE VOLUME [GAL]:				
PURGE METHOD:	3' Disposable Bailer	PURGE START: 13:25 END: 13:38		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-2S	2/13/04 / 13:45	3' Disposable Bailer	8021B VOC's		

	SECTION 4 - WATER QUALITY DATA*					
SWL (FT) TEMP (°C) pH CONDUCTIVITY DO (mg/L) ORP (mV) VISUAL						VISUAL
7.82	7.61	7.21	17.1	2.2	21	Cloudy

WELL MW-3S

SECTION 1 - SITE INFORMATION					
SITE LOCATION:Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99				
PROJECT NAME:Voluntary Cleanup Agreement	DATE: 2/13/04				
SAMPLE COLLECTOR(S): C. Davidson					
WEATHER CONDITIONS: ~30°F, Cloudy	PID IN WELL (PPM):				

	SECTION 2 - P	PURGE INFORMATION		
DEPTH OF WELL [FT]:9.70	(MEASURED FROM TOP OF CASING - T.O.C.)		
STATIC WATER LI	EVEL (SWL) [FT]:3.53	(MEASURED FROM T.O.C.)		
THICKNESS OF WA	ATER COLUMN [FT]: 6.17	(DEPTH OF WELL - SWL)		
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GA	AL]: CASING DIA.:1.25"		
CALCULATIONS:	WITH CONGRANDO AND TO	NAV CVV A TVO VC		
CASING DIA. (FT)	,			
³ / ₄ " (0.0625)		OL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT		
1" (0.0833)	0.041			
11/4" (0.1041)	0.063			
2" (0.1667)	0.1632			
3" (0.250)	0.380			
4" (0.3333)	0.6528			
4½" (0.375)	0.826			
6" (0.5000)	1.4688			
8" (0.666)	2.611			
CALCULATED PURGE VOLUME [GAL]: (3 TIMES CASING VOLUME) ACTUAL VOLUME PURGED [GAL]:				
PURGE METHOD:	3' Disposable Bailer	PURGE START: 11:45 END: 12:05		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-3S	2/13/04 / 12:15	3' Disposable Bailer	8021B VOC's		

	SECTION 4 - WATER QUALITY DATA*					
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	DO (mg/L)	ORP (mV)	VISUAL
6.91	7.27	7.03	33.6	1.1	-1	Slightly Muddy

WELL MW-101S

SECTION 1 - SITE INFORMATION					
SITE LOCATION:Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99				
PROJECT NAME:Voluntary Cleanup Agreement	DATE: 2/13/04				
SAMPLE COLLECTOR(S): C. Davidson					
WEATHER CONDITIONS: ~30°F, Cloudy	PID IN WELL (PPM):				

CECCETON A DVD CE THEODY (FROM					
	SECTION 2	- PURGE INFORMATION			
DEPTH OF WELL [1	FT]:13.70	(MEASURED FROM TOP OF CASING - T.O.C.)			
STATIC WATER LE	EVEL (SWL) [FT]:3.75	(MEASURED FROM T.O.C.)			
THICKNESS OF WA	ATER COLUMN [FT]: 9.95	(DEPTH OF WELL - SWL)			
CALCULATED VOI	L. OF H ₂ O PER WELL CASING	[GAL]: 1.60 CASING DIA.: 2"			
CALCULATIONS:					
CASING DIA. (FT)	WELL CONSTANT(GAL/FT)				
3/4" (0.0625)	0.023	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT			
1" (0.0833)	0.041				
11/4" (0.1041)	0.063				
2" (0.1667)	0.1632 0.380				
3" (0.250) 4" (0.3333)	0.6528				
4 (0.3333) 4½" (0.375)	0.826				
` '	1.4688				
8" (0.666)	2.611				
CALCULATED PURGE VOLUME [GAL]: 4.9 (3 TIMES CASING VOLUME)					
	PURGED [GAL]: ~4.5				
PURGE METHOD:	3' Disposable Bailer	PURGE START: 10:43 END: 10:55			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-101	2/13/04 / 11:05	3' Disposable Bailer	8021B VOC's		

SECTION 4 - WATER QUALITY DATA*						
SWL (FT) TEMP (°C) pH CONDUCTIVITY DO (mg/L) ORP (mV)				VISUAL		
6.12	7.12	7.21	18.3	1.2	6	Cloudy

WELL MW-1S

SECTION 1 - SITE INFORMATION							
SITE LOCATION: Parkway Plaza, Canandaigua, New York	_ JOB #:2105R-99						
PROJECT NAME: Voluntary Cleanup Agreement	DATE : 2/13/04						
SAMPLE COLLECTOR(S): C. Davidson	_						
WEATHER CONDITIONS: ~30°F, Cloudy	PID IN WELL (PPM):						

SECTION 2 - PURGE INFORMATION							
DEPTH OF WELL [1	FT]: (MEASURED FROM TOP OF CASING - T.O.C.)						
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 4.00 (MEASURED FROM T.O.C.)						
THICKNESS OF WA	ATER COLUMN [FT]: 9.38 (DEPTH OF WELL - SWL)						
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GAL]: <u>0.59</u> CASING DIA.: <u>1.25"</u>						
CALCULATIONS:							
CASING DIA. (FT)	· · · · · · · · · · · · · · · · · · ·						
³ / ₄ " (0.0625)	0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT						
1" (0.0833)	0.041						
11/4" (0.1041)	0.063						
2" (0.1667)							
3" (0.250)	0.380						
4" (0.3333)							
4½" (0.375)	0.826						
6" (0.5000)	1.4688						
8" (0.666)	2.611						
	PURGED [GAL]: (3 TIMES CASING VOLUME)						
PURGE METHOD:	3' Disposable Bailer PURGE START: 10:07 END: 10:18						

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-1S	2/13/04 / 10:24	3' Disposable Bailer	8021B VOC's		

SECTION 4 - WATER QUALITY DATA*						
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	DO (mg/L)	ORP (mV)	VISUAL
12.08	9.11	7.52	14.2	1.1	3	Cloudy

WELL MW-102S

SECTION 1 - SITE INFORMATION						
SITE LOCATION:Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99					
PROJECT NAME:Voluntary Cleanup Agreement	DATE : 2/13/04					
SAMPLE COLLECTOR(S): C. Davidson						
WEATHER CONDITIONS: ~25°F, Cloudy	PID IN WELL (PPM):					

	SECTION 2 - PURGE INFORMATION
DEPTH OF WELL [1	FT]: (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LE	EVEL (SWL) [FT]: (MEASURED FROM T.O.C.)
THICKNESS OF WA	ATER COLUMN [FT]:(DEPTH OF WELL - SWL)
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GAL]: CASING DIA.:
CALCULATIONS:	
CASING DIA. (FT)	WELL CONSTANT(GAL/FT) CALCULATIONS
³ / ₄ " (0.0625)	0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833)	0.041
11/4" (0.1041)	0.063
(
3" (0.250)	0.380
4" (0.3333)	0.6528
4½" (0.375)	
6" (0.5000)	1.4688
8" (0.666)	2.611
	RGE VOLUME [GAL]:
PURGE METHOD:	3' Disposable Bailer PURGE START: 09:25 END: 09:38

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-102	2/13/04 / 09:38	3' Disposable Bailer	8021B VOC's		

SECTION 4 - WATER QUALITY DATA*						
SWL (FT) TEMP (°C) pH CONDUCTIVITY DO ORP (mS/cm) (mg/L) (mV)						VISUAL
8.1	7.43	6.63	12.1	1.0	68	Cloudy

WELL MW-101S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Cleaners, Canandaigua, NY	JOB #: 2105R-99 .			
PROJECT NAME: Groundwater Sampling	DATE : 6/22/04 .			
SAMPLE COLLECTOR(S): C. Davidson .				
WEATHER CONDITIONS: ~75°F Cloudy	PID IN WELL (PPM): 0.0 .			

SECTION 2 - PURGE INFORMATION						
DEPTH OF WELL [1	FT]: 13.40		(MEASURED FROM	M TOP OF CASING - T.O.C.)		
STATIC WATER LE	TATIC WATER LEVEL (SWL) [FT]: 3.88 (MEASURED FROM T.O.C.)					
THICKNESS OF WA	ATER COLUMN [FT]:	9.52	(DEPTH OF WI	ELL - SWL)		
CALCULATED VOI	L. OF H ₂ O PER WELL	CASING [GAL]: _	1.55	CASING DIA.: 2".		
³ / ₄ " (0.0625) 1" (0.0833) 1 ¹ / ₄ " (0.1041)	0.6528 0.826 1.4688			OF WATER COLUMN X WELL CONSTANT		
CALCULATED PUR	RGE VOLUME [GAL]:	4.7	3 TIMES CASING VO	LUME)		
ACTUAL VOLUME PURGED [GAL]:						
PURGE METHOD:	3' Disposable Bailer		PURGE START: _	1520 END: 1530 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-101S	6/22/04 - 1540	3' Disposable Bailer	8021 VOCS		

SECTION 4 - WATER QUALITY DATA*							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
5.65	16.3	6.61	0.330	>990	1.27	-75	Cloudy

WELL MW-3S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Cleaners, Canandaigua, NY	JOB #: 2105R-99 .			
PROJECT NAME: Groundwater Sampling	DATE : 6/22/04 .			
SAMPLE COLLECTOR(S): <u>C. Davidson</u> .				
WEATHER CONDITIONS: ~75°F Cloudy	PID IN WELL (PPM): 0.0 .			

	SI	ECTION 2 - PURGI	E INFORMATION			
DEPTH OF WELL [F	FT]: 9.80		(MEASURED FROM	1 TOP OF CASING - T.O.C.)		
STATIC WATER LE	VEL (SWL) [FT]:	3.43	(MEASURED FROM	1 T.O.C.)		
THICKNESS OF WA	THICKNESS OF WATER COLUMN [FT]: 6.37 (DEPTH OF WELL - SWL)					
CALCULATED VOL	OF H ₂ O PER WELL	CASING [GAL]: _	0.26	CASING DIA.:1"		
34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333)	0.826 1.4688			OF WATER COLUMN X WELL CONSTANT		
CALCULATED PUR	GE VOLUME [GAL]:	0.78	3 TIMES CASING VC	DLUME)		
ACTUAL VOLUME	PURGED [GAL]:	~0.75 <u>.</u>				
PURGE METHOD: _	3' Disposable Bailer		PURGE START: _	1550 END: 1600 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-3S	6/22/04 - 1610	3' Disposable Bailer	8021 VOCS			

SECTION 4 - WATER QUALITY DATA*							
SWL (FT) TEMP (°C) pH CONDUCTIVITY (MS/cm) TURBIDITY (Mg/L) ORP (MV) VISUAL						VISUAL	
6.41	18.3	6.25	0.568	>990	1.07	-58	Murky

WELL MW-2S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Cleaners, Canandaigua, NY	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Sampling	DATE : <u>6/22/04</u> .				
SAMPLE COLLECTOR(S): C. Davidson .					
WEATHER CONDITIONS: ~75°F Cloudy	PID IN WELL (PPM): <u>0.0</u> .				

	S	ECTION 2 - PURG	E INFORMATION			
DEPTH OF WELL [I	F T]: 10.70		(MEASURED FROM	1 TOP OF CASING - 7	Г.О.С.)	
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 2.96 (MEASURED FROM T.O.C.)					
THICKNESS OF WA	THICKNESS OF WATER COLUMN [FT]: 7.74 (DEPTH OF WELL - SWL)					
CALCULATED VOI	OF H₂O PER WELI	CASING [GAL]:	0.32	CASING DIA.:	1" <u>.</u>	
34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 41/2" (0.375) 6" (0.5000)			EULATIONS H ₂ O IN CASING = DEPTH C	OF WATER COLUMN X W	ELL CONSTANT	
CALCULATED PUR	GE VOLUME [GAL]:	: 0.95	(3 TIMES CASING VO	LUME)		
ACTUAL VOLUME	PURGED [GAL]:	~1.0 <u>.</u>				
PURGE METHOD: _	3' Disposable Bailer		PURGE START:	1620 END :	1630 <u>.</u>	

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-2S	6/22/04 - 1645	3' Disposable Bailer	8021 VOCS			

SECTION 4 - WATER QUALITY DATA*							
SWL (FT) TEMP (°C) pH CONDUCTIVITY TURBIDITY DO (mg/L) (mS/cm) VISUAL					VISUAL		
4.37	16.0	6.64	0.465	>990	2.69	-71	Murky

WELL MW-102S

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Cleaners, Canandaigua, NY	JOB #: 2105R-99 .			
PROJECT NAME: Groundwater Sampling	DATE : 6/22/04			
SAMPLE COLLECTOR(S): C. Davidson .				
WEATHER CONDITIONS: ~75°F Cloudy	PID IN WELL (PPM): 0.0 .			

SECTION 2 - PURGE INFORMATION							
DEPTH OF WELL [1	FT]: 13.63	(MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LEVEL (SWL) [FT]: 3.62 (MEASURED FROM T.O.C.)							
THICKNESS OF WA	THICKNESS OF WATER COLUMN [FT]: (DEPTH OF WELL - SWL)						
CALCULATED VOI	L. OF H ₂ O PER WELL O	ASING [GAL]: 1.6 CASING DIA.: 2".					
CALCULATIONS: <u>CASING DIA. (FT)</u> 34" (0.0625) 1" (0.0833) 11/4" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.333) 41/2" (0.375) 6" (0.5000) 8" (0.666)	0.023 0.041 0.063 0.1632 0.380 0.6528	AL/FT) CALCULATIONS VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT					
CALCULATED PUR	RGE VOLUME [GAL]: _	4.9 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME	PURGED [GAL]:~5	.0					
PURGE METHOD:	3' Disposable Bailer	PURGE START: 1430 END: 1440 .					

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-102S	6/22/04 - 1450	3' Disposable Bailer	8021 VOCS			

	SECTION 4 - WATER QUALITY DATA*							
SWL (FT) TEMP (°C) pH CONDUCTIVITY TURBIDITY DO (mg/L) ORP (mV) VISUA					VISUAL			
7.8	30	18.7	6.49	0.226	230	3.23	31	Cloudy

WELL MW-1S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Cleaners, Canandaigua, NY	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Sampling	DATE : 6/22/04 .				
SAMPLE COLLECTOR(S): C. Davidson .					
WEATHER CONDITIONS: ~75°F Cloudy	PID IN WELL (PPM): 0.0 .				

	SI	ECTION 2 - PURG	E INFORMATION	
DEPTH OF WELL [1	FT]: 13.31		_ (MEASURED FROM	M TOP OF CASING - T.O.C.)
STATIC WATER LE	EVEL (SWL) [FT]:	3.74	_ (MEASURED FROM	I T.O.C.)
THICKNESS OF WA	ATER COLUMN [FT]:	9.57	(DEPTH OF WI	ELL - SWL)
CALCULATED VOI	L. OF H ₂ O PER WELL	CASING [GAL]: _	0.39	CASING DIA.:1"
34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333)	0.6528 0.826 1.4688			OF WATER COLUMN X WELL CONSTANT
CALCULATED PUR	RGE VOLUME [GAL]:	:1.18	(3 TIMES CASING VC	DLUME)
ACTUAL VOLUME	PURGED [GAL]:	~1.0 <u>.</u>		
PURGE METHOD:	3' Disposable Bailer	<u>. </u>	PURGE START: _	1455 END: 1505 .

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID#	DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-1S	6/22/04 - 1515	3' Disposable Bailer	8021 VOCS			

			SECTION 4 - WAT	TER QUALITY DAT	ГА*		
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
8.26	21.4	6.59	0.232	>990	3.37	-38	Murky

WELL MW-103s

SECTION 1 - SITE INFORMATION							
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB#: 2105R-99						
PROJECT NAME: Groundwater Study	DATE : 9/20/2004						
SAMPLE COLLECTOR(S): Chris Davidson							
WEATHER CONDITIONS: ~70°F, Sunny	PID IN WELL (PPM): 0.0						

SECTION 2 - PURGE INFORMATION
EPTH OF WELL [FT]: 12.42 (MEASURED FROM TOP OF CASING - T.O.C.)
TATIC WATER LEVEL (SWL) [FT]: 4.11 (MEASURED FROM T.O.C.)
HICKNESS OF WATER COLUMN [FT]: 8.31 (DEPTH OF WELL - SWL)
ALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.36 CASING DIA.: 2"
ALCULATIONS: ASING DIA. (FT) WELL CONSTANT(GAL/FT) CALCULATIONS 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT (0.1041) (0.1041) (0.1041) (0.1040) (0.1041) (0.1041) (0.1041) (1
ALCULATED PURGE VOLUME [GAL]: 4.0 (3 TIMES CASING VOLUME)
CTUAL VOLUME PURGED [GAL]:
URGE METHOD: 3' disposable bailer PURGE START: 12:57 END: 13:04

	SECTION 3 - SAMPLE IDENTII	FICATION AND TEST PARAMI	ETERS				
SAMPLE ID#	SAMPLE ID# DATE / TIME SAMPLING METHOD ANALYTICAL SCAN						
MW-103s	9/20/2004 13:10	3' disposable bailer	8021 VOCs				

			SECTION 4 - WA	TER QUALITY DA	TA		
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
4.93	17.8	6.73	2.33	874	3.19	-54	Slightly muddy

WELL MAY P-/

SECTION 1	- SITE INFORMATION
SITE LOCATION:	JOB #:
PROJECT NAME:	DATE:
SAMPLE COLLECTOR(S):	
WEATHER CONDITIONS:	PID IN WELL (PPM): NC.
CECTION	PURGE INFORMATION
	FURGE INFURNIATION
DEPTH OF WELL [FT]: \(\(\frac{1}{4}\).	(MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: #3.73	(MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]:	(DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [G	SAL]: 2 (CASING DIA.: 6
CALCULATIONS:	
	CALCULATIONS
'4" (0.0625) 0.023 1" (0.0833) 0.041	VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
11/4" (0.1041) 0.063	
2" (0.1667) 0.1632	
3" (0.250) 0.380 4" (0.3333) 0.6528	
4 (0.333) 0.0328 4½" (0.375) 0.826	
6" (0.5000) 1.4688	
8" (0.666) 2.611	
CALCULATED PURGE VOLUME [GAL]: ~60	_ (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]: ~ 15	the state of the s
PURGE METHOD: 3 dispossil bailer	PURGE START: 1135 END: 1146

是非知识的分词	SECTION 3 - SA	MPLE IDENTI	FICATION AND TEST PARAM	ETERS
SAMPLE ID #	DATE	/TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
appear Wb-1	11/15/04	1150	3' disposable bailer	Plate Count, Notato, Phosphaks

			SECTION 4 - WAT	ER QUALITY DA	TA*		
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
3,80	1517	7:31	6.83	rzo	3.94	94	clear

WELL MW-

SECTION 1 - SITE INFORMATION

PROJECT NAME: Packagera proveres DATE: 11 15 04. SAMPLE COLLECTOR(S): C DAVID SIN WEATHER CONDITIONS: SOFE Sury PID IN WELL (PPM): SECTION 2-PURGE INFORMATION DEPTH OF WELL [FT]: 9.78 (MEASURED FROM TOP OF CASING - T.O.C.) STATIC WATER LEVEL (SWL) [FT]: 3.88 (MEASURED FROM T.O.C.) THICKNESS OF WATER COLUMN [FT]: 5.90 (DEPTH OF WELL - SWL) CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 0.25 CASING DIA.: 1 CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) CALCULATIONS WY (0.0623) 0.041 11" (0.0833) 0.041 11" (0.0833) 0.041 11" (0.0833) 0.041 12" (0.1657) 0.1632 2" (0.1667) 0.1632 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.375) 0.326 6" (0.5000) 1.4688 8" (0.666) 2.611 CALCULATED PURGE VOLUME [GAL]: 0.75 (3 TIMES CASING VOLUME) ACTUAL VOLUME PURGED [GAL]: 0.75 PURGE METHOD: 3 disposal ball Purges START: 1301 END: 1308	SITE LOCATION: Parknay Plaza Canandriga NY JOB#: 2105 R-99.
SECTION 2 - PURGE INFORMATION DEPTH OF WELL [FT]:	PROJECT NAME: Backgard parameters DATE: 11/15/04.
SECTION 2 - PURGE INFORMATION	SAMPLE COLLECTOR(S): PAVILOSUN
DEPTH OF WELL [FT]:	WEATHER CONDITIONS: ~ 50°F Scray PID IN WELL (PPM): WE
STATIC WATER LEVEL (SWL) [FT]: 3.88	SECTION 2 - PURGE INFORMATION
THICKNESS OF WATER COLUMN [FT]:	DEPTH OF WELL [FT]: (MEASURED FROM TOP OF CASING - T.O.C.)
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT (GAL/FT) CALCULATIONS %" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 1%" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4%" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611 CALCULATED PURGE VOLUME [GAL]: 0.75 (3 TIMES CASING VOLUME)	STATIC WATER LEVEL (SWL) [FT]: 388 (MEASURED FROM T.O.C.)
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) (0.0825) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT (1" (0.0833) 0.041 1½" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611 CALCULATED PURGE VOLUME [GAL]: 0.75 (3 TIMES CASING VOLUME) ACTUAL VOLUME PURGED [GAL]: 0.75	
CASING DIA. (FT) WELL CONSTANT (GAL/FT) 1" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 11/4" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4/4" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611 CALCULATED PURGE VOLUME [GAL]: 0.75 (3 TIMES CASING VOLUME) ACTUAL VOLUME PURGED [GAL]: 0.75	CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 0.25 CASING DIA.:
ACTUAL VOLUME PURGED [GAL]: ~ 0.75	CASING DIA. (FT) WELL CONSTANT (GAL/FT) CALCULATIONS ½" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 1½" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688
	CALCULATED PURGE VOLUME [GAL]: 6.75 (3 TIMES CASING VOLUME)
PURGE METHOD: 3 dispossli baile PURGE START: 1301 END: 1308	
	PURGE METHOD: 3 dispossle balle PURGE START: 1301 END: 1308

	SECTION 3 - SAMPLETIDENT	TIFICATION AND TEST PARAN	TETERS	
SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)	
MW-35	ulistay (310	3 disposable bailer	Mitmeter; Hosph	

SECTION 4 - WATER QUALITY DATA*									
SWL (FT)	TEMP (°C)	FEMP (°C) pH CONDUCTIVI (mS/cm)				ORP (mV)	VISUAL		
5,32	15,3	6.46	27.1	>990	250	92	ckely		
					111				

WELL MW- 1075

SECTION 1-SITE INFORMATION
SITE LOCATION: Parking Plaza, Canandaigua, NY JOB#: 2105 R-99
PROJECT NAME: Background Sarples DATE: (1)15/04.
SAMPLE COLLECTOR(S): C. VAVIOSON
WEATHER CONDITIONS: ~50°F Sunny PID IN WELL (PPM): NC
SECTION 2 - PURGE INFORMATION
The state of the s
DEPTH OF WELL [FT]: 13.32 (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 425 (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 9.07 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1,5 CASING DIA.: 2
CALCULATIONS:
CASING DIA. (FT) WELL CONSTANT(GAL/FT) CALCULATIONS
$\frac{\text{CADCOLATIONS}}{\text{W}}$ (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
1" (0.0833) 0.041
1¼" (0.1041) 0.063
2" (0.1667) 0.1632
3" (0.250) 0.380 4" (0.2323) 0.6528
4" (0.3333) 0.6528 4½" (0.375) 0.826
6" (0.5000) 1.4688
8" (0.666) 2.611
CALCULATED PURGE VOLUME [GAL]: 4,5 (3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]:
PURGE METHOD: 3 dispossible bailer PURGE START: 1200 END: 1207

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS								
SAMPLE ID #	SAMPLE ID # DATE / TIME		SAMPLING METHOD	ANALYTICAL SCAN(S)				
MW-1015	ulis (014	1210	3'disposable bailer	Plate Count, Nitrates, Phosphates				

SECTION 4 - WATER QUALITY DATA*									
SWL (FT)	TEMP (°C) pH CONDUCTIVE (mS/cm)		CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL		
4.31	15.5	6.79	438	478	1.92	-19	slightly		

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123 Hode

WELL MW- 102 5

SECTION 1 - S	ITE INFORMATION	
SITE LOCATION: Paknay Plaza, Canandaigea, NY	JOB#: 2105R-99 .	(518)
PROJECT NAME: Background Samples	DATE: 11/15/09	
SAMPLE COLLECTOR(S):	<u>-</u>	
WEATHER CONDITIONS: ~55°F 5wny	PID IN WELL (PPM):	
SECTION 2 - PU	RGE INEORMATION	

SECTION 2 - PURGE INFORMATION									
DEPTH OF WELL [FT]: (MEASURED FROM TOP OF CASING - T.O.C.)								
	all								
STATIC WATER LE	EVEL (SWL) [FT]: (MEASURED FROM T.O.C.)								
THICKNESS OF WA	ATER COLUMN [FT]: 9,66 (DEPTH OF WELL - SWL)								
CALCULATED VOI	L. OF H_2O PER WELL CASING [GAL]: 1.5 CASING DIA.: 2								
CALCULATIONS:									
CASING DIA. (FT)	WELL CONSTANT(GAL/FT) CALCULATIONS								
¾" (0.062.5)	0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT								
1" (0.0833)	0.041								
1¼" (0.1041)	0.063								
2" (0.1667)	0.1632								
3" (0.250)	0.380								
4" (0.3333)	0.6528								
4½" (0.375)	0.826								
6" (0.5000)	1.4688								
8" (0.666)	2.611								
CALCULATED PUR	RGE VOLUME [GAL]: 4,5 (3 TIMES CASING VOLUME)								
ACTUAL VOLUME	PURGED [GAL]: ~5.0								
PURGE METHOD:	3 disposable bailer purge start: 1232 END: 1240								

	SECTION 3 - SAM	PEE IDENTIF	ICATION AND TH	EST PARAM	ETERS
SAMPLE ID # DATE / TIME		SAMPLING METHOD		ANALYTICAL SCAN(S)	
mw-1025	11/15/04	1245	3 DISPOSABLE	BAILER	Plate Count, Nitentes, Phesphates

SECTION 4 - WATER QUALITY DATA*										
SWL (FT)	SWL (FT) TEMP (°C) pH		CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL			
4.17	15.8	680	9.62	151	2.21	マ	Slightly cloudy			

250 Hurtin

WELL MW- 1035

SECTION 1 - SITE INFORMATION

SITE LOCATION: Parking Pluza, Conandigua, N	JOB#: 2105 12-99
PROJECT NAME: Bullgrand Parameters	DATE: 11 15 09
SAMPLE COLLECTOR(S): C. DANIDSON	
WEATHER CONDITIONS:	PID IN WELL (PPM): NC
SECTION 2 - PU	RGE INFORMATION
DEPTH OF WELL [FT]: 12.21	(MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]:	_ (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 7,69	(DEPTH OF WELL - SWL)
CALCULATED VOL. OF H₂O PER WELL CASING [GAI]: 1.25 CASING DIA.: 2
	LCULATIONS OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
	(3 TIMES CASING VOLUME)
PURGE METHOD: 3 JEJOSSI Baile	PURGE START: 1/19 END: 1/24

	SECTION 3 - S	SAMPLE IDENT	IFICATI	ON AND TEST PARAM	ETERS	
SAMPLE ID #	DAT	DATE / TIME		MPLING METHOD	ANALYTICAL SCAN(S)	
MW-103 5	ulislay	1136	3'	disposable baile	Plate count, Nitrates,	

SECTION 4 - WATER QUADITY DATA*									
SWL (FT)	(FT) TEMP (°C) pH		CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL		
5,28	151	6.68	9.68	7990	1.72	-4	Sightly		
		-			131				

.31 Horas

WELL MW-103s

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB #: 2105R-99				
PROJECT NAME: Groundwater Study	DATE : 12/15/2004				
SAMPLE COLLECTOR(S): Chris Davidson					
WEATHER CONDITIONS: ~30°F, Sunny	PID IN WELL (PPM): NC				

SECTION 2 - PU	URGE INFORMATION
DEPTH OF WELL [FT]: 12.42	_ (MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL (SWL) [FT]: 4.38	_ (MEASURED FROM T.O.C.)
THICKNESS OF WATER COLUMN [FT]: 8.04	_(DEPTH OF WELL - SWL)
CALCULATED VOL. OF H ₂ O PER WELL CASING [GA	L]: _1.31
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) C ¾" (0.0625) 0.023 VO 1" (0.0833) 0.041 1¼" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611	ALCULATIONS L. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT
CALCULATED PURGE VOLUME [GAL]: 3.9	(3 TIMES CASING VOLUME)
ACTUAL VOLUME PURGED [GAL]:~4.0	_
PURGE METHOD: 3' disposable bailer	PURGE START:09:56 END:10:12

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-103s	12/15/2004 10:15	3' disposable bailer	8021 VOCS			

SECTION 4 - WATER QUALITY DATA							
SWL (FT) TEMP (°C) pH CONDUCTIVITY TURBIDITY DO (mg/L) VISUAL							VISUAL
NC	NC	NC	NC	NC	NC	NC	Slightly muddy

NC = Not Collected

WELL MW-103s

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB#: 2105R-99				
PROJECT NAME: Groundwater Study	DATE: 12/15/2004				
SAMPLE COLLECTOR(S): Chris Davidson					
WEATHER CONDITIONS: ~30°F, Sunny	PID IN WELL (PPM):NC				

SECTION 2 - PURGE INFORMATION							
DEPTH OF WELL [FT]: 12.42 (MEASURED FROM TOP OF CASING - T.O.C.)							
STATIC WATER LEVEL (SWL) [FT]: 4.38 (MEASURED FROM T.O.C.)	STATIC WATER LEVEL (SWL) [FT]: 4.38 (MEASURED FROM T.O.C.)						
THICKNESS OF WATER COLUMN [FT]: 8.04 (DEPTH OF WELL - SWL)							
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.31 CASING DIA	A.:2"						
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT (GAL/FT) CALCULATIONS ¼" (0.0625) 0.023 VOL. OF H2O IN CASING = DEPTH OF WATER CO. 1" (0.0833) 0.041 1½" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611	DLUMN X WELL CONSTANT						
CALCULATED PURGE VOLUME [GAL]: 3.9 (3 TIMES CASING VOLUME)							
ACTUAL VOLUME PURGED [GAL]:							
PURGE METHOD: 3' disposable bailer PURGE START: 09:56	END: 10:12						

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-103s	12/15/2004 10:15	3' disposable bailer	8021 VOCS			

	SECTION 4 - WATER QUALITY DATA						
SWL (FT) TEMP (°C) pH CONDUCTIVITY TURBIDITY DO (mg/L) (mV) VISUAL							VISUAL
NC	NC	NC	NC	NC	NC	NC	Slightly muddy

NC = Not Collected

WELL MW-102S

SECTION 1 - SITE INFORMATION						
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99					
PROJECT NAME: Groundwater Remediation	DATE : 3/22/05					
SAMPLE COLLECTOR(S): Chris Davidson						
WEATHER CONDITIONS: ~35° F, sunny	PID IN WELL (PPM): NC					

	SECTION 2 - PURGE INFORMATION						
DEPTH OF WELL [I	[FT]: 13.57 (MEASURED FROM TOP OF CASING - T.O.C.)						
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 2.79 (MEASURED FROM T.O.C.)						
THICKNESS OF WA	VATER COLUMN [FT]: 10.78 (DEPTH OF WELL - SWL)						
CALCULATED VOI	OL. OF H ₂ O PER WELL CASING [GAL]: 1.8 CASING DIA.: 2"						
()	WELL CONSTANT(GAL/FT) 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688	L CONSTANT					
CALCULATED PUR	TRGE VOLUME [GAL]: 5.2 (3 TIMES CASING VOLUME)						
ACTUAL VOLUME	E PURGED [GAL]:5						
PURGE METHOD:	PURGE START: 1253 END: 12:	59					

SECTION 3 – SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-102S	3/22/05 / 1305	3' disposable bailer	VOCs 8021			

SECTION 4 - WATER QUALITY DATA							
SWL (FT) TEMP (°C) pH CONDUCTIVITY TURBIDITY DO (mg/L) VISUAL VISUAL							VISUAL
3.42	8.1	6.6	7.8	421	3.2	-14	Clear

WELL MW-103S

SECTION 1 - SITE INFORMATION							
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99						
PROJECT NAME: Groundwater Remediation	DATE : 3/22/05						
SAMPLE COLLECTOR(S): Chris Davidson							
WEATHER CONDITIONS: ~35° F, sunny	PID IN WELL (PPM): NC						

SECTION 2 - PURGE INFORMATION						
DEPTH OF WELL [I	FT]: 12.25 (MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LE	EVEL (SWL) [FT]: 3.05 (MEASURED FROM T.O.C.)					
THICKNESS OF WATER COLUMN [FT]: 9.2 (DEPTH OF WELL - SWL)						
CALCULATED VOI	OF H ₂ O PER WELL CASING [GAL]: 1.5 CASING DIA.: 2"					
1¼" (0.1041) 2" (0.1667)	0.380 0.6528 0.826					
CALCULATED PUR	GE VOLUME [GAL]: 4.5 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME	PURGED [GAL]:					
PURGE METHOD:	3' disposal bailer PURGE START: 1356 END: 1405					

S	SECTION 3 – SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)				
MW-103S	3/22/05 / 1415	3' disposable bailer	VOCs 8021				

SECTION 4 - WATER QUALITY DATA							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
4.71	7.2	6.3	12	720	9.4	20	Slightly muddy

SITE LOCATION: Parkuay Plazar, Convardaig U.A MY

WELL MW- 103 g

JOB#: 2105R-99

SECTION 1 - SIFE INFORMATION

PROJECT NAME: Bio	remediation DATE: 1/17/05
SAMPLE COLLECTOR	(S): Z-Davidson
WEATHER CONDITION	NS: ~25°F, light SNEW PID IN WELL (PPM): NC.
	SECTION 2 - PURGE INFORMATION
DEPTH OF WELL [FT]:	(MEASURED FROM TOP OF CASING - T.O.C.)
STATIC WATER LEVEL	(SWL) [FT]: (MEASURED FROM T.O.C.)
THICKNESS OF WATER	R COLUMN [FT]: 8.79 (DEPTH OF WELL - SWL)
CALCULATED VOL. OF	H ₂ O PER WELL CASING [GAL]: 1.4 CASING DIA.: 2
CALCULATIONS:	
	LL CONSTANT(GAL/FT) CALCULATIONS
%" (0.0625) 0.023	OD: OF THO IN CASING - DEFINOR WATER COLUMN A WELL CONSTANT
1" (0.0833) 0.041 1½" (0.1041) 0.063	
1½" (0.1041) 0.063 2" (0.1667) 0.163	
3" (0.250) 0.380	
4" (0.3333) 0.652	
4½" (0.375) 0.826	
6" (0.5000) 1.468	38
8" (0.666) 2.611	
	VOLUME [GAL]: 43 (3 TIMES CASING VOLUME)
PURGE METHOD:	GED [GAL]: 5 gg. PURGE START: 1136 END: 435.

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS							
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)				
par 1035	1/17/05 11:40	3' disposable baile	Total Plate Count				

			SECTION 4 - WAT	TER QUALITY DA	TA*		
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
5.37	9.5	6.90	ıl	>996	9.5	\$6	St. Fly

WELL MW- (U\\$

SECTION 1 - SITE INFORMATION

SITE LOCATION:
WEATHER CONDITIONS: _~25°F ligs Seew PID IN WELL (PPM):
SECTION 2 - PURGE INFORMATION DEPTH OF WELL [FT]: (7.7) (MEASURED FROM TOP OF CASING - T.O.C.) STATIC WATER LEVEL (SWL) [FT]: 7.7\ (MEASURED FROM T.O.C.) THICKNESS OF WATER COLUMN [FT]: 9.9\(\text{(DEPTH OF WELL - SWL)} \) CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.6 CASING DIA.: 2" CALCULATIONS:
DEPTH OF WELL [FT]:
STATIC WATER LEVEL (SWL) [FT]: 3.2\\ THICKNESS OF WATER COLUMN [FT]: 9-96 (DEPTH OF WELL - SWL) CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.6 CASING DIA.: 2" CALCULATIONS:
STATIC WATER LEVEL (SWL) [FT]: 3.2\\ THICKNESS OF WATER COLUMN [FT]: 9-96 (DEPTH OF WELL - SWL) CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.6 CASING DIA.: 2" CALCULATIONS:
THICKNESS OF WATER COLUMN [FT]: 9-96 (DEPTH OF WELL - SWL) CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.6 CASING DIA.: 2" CALCULATIONS:
CALCULATIONS:
" " " " " " " " " " " " " " " " " " "
1" (0.0833) 0.041 1¼" (0.1041) 0.063
2" (0.1667) 0.1632
3" (0.250)
4" (0.3333) 0.6528 4½" (0.375) 0.826
6" (0.5000) 1.4688
8" (0.666) 2.611
CALCULATED PURGE VOLUME [GAL]: 4-9 (3 TIMES CASING VOLUME) ACTUAL VOLUME PURGED [GAL]: ~5 gal.
PURGE METHOD: 3 disposati built PURGE START: 1148 END: 1150

	SECTION 3 - SA	TAIL DESTRUCTION	FICATION AND TEST PARAM	ESTERS
SAMPLE ID#	DATE	/ TIME	SAMPLING METHOD	ANALYTICAL SCAN(S
MV-1016	1/17/05	1158	3' dispusable baile	Plate Count

			SECTION 4 - WAT	FER QUALITY DA	ΓA*		
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
6.34	8.7	7.20	21	170	85	-55	Clear, Silicity

WELL MW-2.1S

SECTION 1 - SITE INFORMATION							
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99						
PROJECT NAME: Groundwater Remediation	DATE : 3/22/05						
SAMPLE COLLECTOR(S): Chris Davidson							
WEATHER CONDITIONS: ~35° F, sunny	PID IN WELL (PPM): NC						

SECTION 2 - PURGE INFORMATION						
DEPTH OF WELL [FT]: (MEASURED FROM TOP OF CASING - T.O.C.)						
STATIC WATER LEVEL (SWL) [FT]: 3.37 (MEASURED FROM T.O.C.)						
THICKNESS OF WATER COLUMN [FT]: 8.20 (DEPTH OF WELL - SWL)						
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.3 CASING DIA.: 2"						
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT (GAL/FT) 0.023 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 1¼" (0.1041) 0.063 2" (0.1667) 3" (0.250) 0.380 4" (0.333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611						
CALCULATED PURGE VOLUME [GAL]: 4.0 (3 TIMES CASING VOLUME)						
ACTUAL VOLUME PURGED [GAL]:~4.0						
PURGE METHOD: 3' disposal bailer PURGE START: 1210 END: 1215						

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID# DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-2.1S	3/22/05 / 1220	3' disposable bailer	VOCs 8021		

SECTION 4 - WATER QUALITY DATA							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
4.71	5.4	7.5	17	741	1.7	-71	Slightly muddy

WELL MW-101S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99				
PROJECT NAME: Groundwater Remediation	DATE : 3/22/05				
SAMPLE COLLECTOR(S): Chris Davidson					
WEATHER CONDITIONS: ~35° F, sunny	PID IN WELL (PPM): NC				

	SECTION 2 - PURGE INFORMATION				
DEPTH OF WELL [F	[FT]: 13.09 (MEASURED FROM TOP OF CASING	G - T.O.C.)			
STATIC WATER LE	EVEL (SWL) [FT]: 2.99 (MEASURED FROM T.O.C.)				
THICKNESS OF WA	ATER COLUMN [FT]: 10.1 (DEPTH OF WELL - SWL)				
CALCULATED VOL	OL. OF H ₂ O PER WELL CASING [GAL]: 1.6 CASING DIA	A.: _ 2"			
³ / ₄ " (0.0625) 1" (0.0833)		JMN X WELL CONSTANT			
CALCULATED PURGE VOLUME [GAL]: 4.9 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]:					
PURGE METHOD: _	3' disposal bailer PURGE START: 1225	END: 1235			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID#	PLE ID# DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S				
MW-101S	3/22/05 / 1240	3' disposable bailer	VOCs 8021		

SECTION 4 - WATER QUALITY DATA							
SWL (FT) TEMP (°C) PH CONDUCTIVITY (MS/cm) TURBIDITY (Mg/L) ORP (MV) VISUAL				VISUAL			
3.52	7.4	7.0	18	368	2.5	-17	Clear, strong fecal odor

WELL MW-103S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Monitoring	DATE : 7/26/05 .				
SAMPLE COLLECTOR(S): C. Davidson .					
WEATHER CONDITIONS: ~85° F, Cloudy	PID IN WELL (PPM):				

SECTION 2 - PURGE INFORMATION					
DEPTH OF WELL [I	FT]:12.43	(MEASURED FROM TO	P OF CASING - T.O.C.)		
STATIC WATER LE	EVEL (SWL) [FT]:5.09	(MEASURED FROM T.O.	.C.)		
THICKNESS OF WA	ATER COLUMN [FT]: 7.34	(DEPTH OF WELL -	- SWL)		
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [G	AL]: 1.20 CA	ASING DIA.:		
2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000)	WELL CONSTANT(GAL/FT) 0.023 0.041 0.063 0.1632 0.380 0.6528 0.826 1.4688 2.611	CALCULATIONS OL. OF H ₂ O IN CASING = DEPTH OF WA	ATER COLUMN X WELL CONSTANT		
CALCULATED PURGE VOLUME [GAL]: 3.6 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]:5.0					
PURGE METHOD: _	3' Disposable Bailer	PURGE START: _ 10:1	0 END: 10:20 .		

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID# DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-103S	7/26/05 / 10:28	3' Disposable Bailer	VOCs		

	SECTION 4 - WATER QUALITY DATA						
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
5.09	16.3	5.57	2.72	>999	12.89	-53	Slightly Muddy

WELL MW-101S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Monitoring	DATE : 7/26/05 .				
SAMPLE COLLECTOR(S): C. Davidson	<u>.</u>				
WEATHER CONDITIONS: ~85° F, Cloudy	PID IN WELL (PPM): <u>NC</u> .				

	SECTION 2 - PUR	GE INFORMATION				
DEPTH OF WELL []	FT]:13.32	(MEASURED FROM TOP OF CASING - T.O.C.)				
STATIC WATER LE	EVEL (SWL) [FT]:4.49	(MEASURED FROM T.O.C.)				
THICKNESS OF WA	ATER COLUMN [FT]: 8.83	(DEPTH OF WELL - SWL)				
CALCULATED VOI	L. OF H ₂ O PER WELL CASING [GAL]:	: <u>1.44</u> CASING DIA.: <u>2"</u> .				
2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000)	0.023 VOL. C 0.041 0.063 0.1632 0.380 0.6528 0.826	CULATIONS OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT				
CALCULATED PURGE VOLUME [GAL]: 4.3 (3 TIMES CASING VOLUME)						
ACTUAL VOLUME PURGED [GAL]:~5.0						
PURGE METHOD:	3' Disposable Bailer	PURGE START: 10:31 END: 10:40 .				

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)		
MW-101S	7/26/05 / 10:45	3' Disposable Bailer	VOCs		

SECTION 4 - WATER QUALITY DATA							
SWL (FT) TEMP (°C) pH		pН	CONDUCTIVITY TURBIDITY DO (mg/L)		ORP (mV)	VISUAL	
4.49	17.6	5.65	3.41	>999	13.43	-106	Slightly Muddy

WELL MW-102S

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Monitoring	DATE : 7/26/05 .				
SAMPLE COLLECTOR(S): C. Davidson	<u>.</u>				
WEATHER CONDITIONS: ~85° F, Cloudy	PID IN WELL (PPM): NC .				

SECTION 2 - PURGE INFORMATION								
DEPTH OF WELL [FT]: 13.60 (MEASURED FROM TOP OF CASING - T.O.C.)								
STATIC WATER LE	STATIC WATER LEVEL (SWL) [FT]: 3.55 (MEASURED FROM T.O.C.)							
THICKNESS OF WA	ATER COLUMN [FT]:	10.05	(DEPTH OF W	/ELL - SWL)				
CALCULATED VOI	L. OF H ₂ O PER WELL	CASING [GAL]: _	1.64	CASING DIA.:				
CALCULATIONS: <u>CASING DIA. (FT)</u> 34" (0.0625) 1" (0.0833) 114" (0.1041) 2" (0.1667) 3" (0.250) 4" (0.3333) 4½" (0.375) 6" (0.5000) 8" (0.666)	0.380 0.6528 0.826		ULATIONS H₂O IN CASING = DEPTH (OF WATER COLUMN	X WELL CONSTANT			
CALCULATED PUR	RGE VOLUME [GAL]:	4.9 (3	TIMES CASING VOI	LUME)				
ACTUAL VOLUME	PURGED [GAL]:~5	5.0 .						
PURGE METHOD:	3' Disposable Bailer		PURGE START: _	10:55	END: 11:05 .			

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)		
MW-102S	7/26/05 / 11:15	3' Disposable Bailer	VOCs		

SECTION 4 - WATER QUALITY DATA							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
3.55	22.3	5.61	1.98	226	11.94	-90	Clear

WELL MW-1s

SECTION 1 - SITE INFORMATION				
SITE LOCATION: Parkway Plaza, Canandaigua, NY	JOB #: 2105R-99 .			
PROJECT NAME: Groundwater Study	DATE : 03/14/06 .			
SAMPLE COLLECTOR(S): Matt Dickinson .				
WEATHER CONDITIONS: 33 degrees F, cloudy	PID IN WELL (PPM):			

SECTION 2 - PURGE INFORMATION					
DEPTH OF WELL [FT]: 11.82 (MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LEVEL (SWL) [FT]: 2.48 (MEASURED FROM T.O.C.)					
THICKNESS OF WATER COLUMN [FT]: 9.34 (DEPTH OF WELL - SWL)					
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 0.38 CASING DIA.: 1.0".					
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT (GAL/FT) 1" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611					
CALCULATED PURGE VOLUME [GAL]: 1.15 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: 1.25					
PURGE METHOD: Disposable Bailer PURGE START: 15:30 END: 15:45 .					

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-1s	03/14/06 15:52	Disposable Bailer	VOCs 8021B			

SECTION 4 - WATER QUALITY DATA							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
2.48	8.1	5.63	3.82	М	2.89	-22	Grayish black Cloudy/Silty

WELL MW-3s

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Study	DATE : 03/14/06 .				
SAMPLE COLLECTOR(S): Matt Dickinson .					
WEATHER CONDITIONS: 33 degrees F, cloudy	PID IN WELL (PPM):				

SECTION 2 - PURGE INFORMATION					
DEPTH OF WELL [FT]: 8.75 (MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LEVEL (SWL) [FT]: 2.75 (MEASURED FROM T.O.C.)					
THICKNESS OF WATER COLUMN [FT]: 6.0 (DEPTH OF WELL - SWL)					
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 0.25 CASING DIA.: 1.0"					
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) CALCULATIONS 34" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611					
CALCULATED PURGE VOLUME [GAL]: 0.74 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: 0.75					
PURGE METHOD: Disposable Bailer PURGE START: 14:28 END: 14:38 .					

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-3s	03/14/06 14:39	Disposable Bailer	VOCs 8021B			

SECTION 4 - WATER QUALITY DATA							
SWL (FT) TEMP (°C) pH CONDUCTIVITY TURBIDITY DO (mg/L) (mV) VISUAL						VISUAL	
2.75	8.1	5.62	5.35	M	3.96	19	Cloudy Brown

WELL MW-103s

SECTION 1 - SITE INFORMATION					
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99 .				
PROJECT NAME: Groundwater Study	DATE : 03/14/06 .				
SAMPLE COLLECTOR(S): Matt Dickinson .					
WEATHER CONDITIONS: 33 degrees F, cloudy, light snow	PID IN WELL (PPM):				

SECTION 2 - PU	RGE INFORMATION				
DEPTH OF WELL [FT]: 12.30 (MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LEVEL (SWL) [FT]: 2.56	_ (MEASURED FROM T.O.C.)				
THICKNESS OF WATER COLUMN [FT]: 9.74	_ (DEPTH OF WELL - SWL)				
CALCULATED VOL. OF H ₂ O PER WELL CASING [GA	L]: CASING DIA.:				
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) 0.023 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 1" (0.1041) 0.063 2" (0.1667) 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 6" (0.5000) 1.4688 8" (0.666) 2.611					
CALCULATED PURGE VOLUME [GAL]: _4.77 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: 4.75					
PURGE METHOD: Disposable Bailer	PURGE START: 14:00 END: 14:08 .				

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-103s	03/14/06 14:10	Disposable Bailer	VOCs 8021B		

SECTION 4 - WATER QUALITY DATA							
SWL (FT) TEMP (°C) PH CONDUCTIVITY TURBIDITY DO (mg/L) (mV) VISUAL						VISUAL	
2.25	8.2	5.63	2.61	M	3.27	-24	Cloudy

WELL MW-102s

SECTION 1 - SITE INFORMATION						
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99 .					
PROJECT NAME: Groundwater Study	DATE : 03/14/06 .					
SAMPLE COLLECTOR(S): Matt Dickinson .						
WEATHER CONDITIONS: 33 degrees F, cloudy	PID IN WELL (PPM):					

SECTION 2 - PURGE INFORMATION					
DEPTH OF WELL [FT]: 13.60 (MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LEVEL (SWL) [FT]: 2.70 (MEASURED FROM T.O.C.)					
THICKNESS OF WATER COLUMN [FT]: 10.90 (DEPTH OF WELL - SWL)					
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.78 CASING DIA.: 2.0".					
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) CALCULATIONS ¾" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 1¼" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611					
CALCULATED PURGE VOLUME [GAL]: _5.34 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: 5.25 .					
PURGE METHOD: Disposable Bailer PURGE START: 16:10 END: 16:21 .					

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS							
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)							
MW-102s	03/14/06 16:24	Disposable Bailer	VOCs 8021B				

SECTION 4 - WATER QUALITY DATA							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
2.75	8.1	5.64	4.12	M	3.01	-9	Slightly cloudy

WELL MW-101s

SECTION 1 - SITE INFORMATION						
SITE LOCATION: Parkway Plaza, Canandaigua, New York	JOB #: 2105R-99 .					
PROJECT NAME: Groundwater Study	DATE : 03/14/06 .					
SAMPLE COLLECTOR(S): Matt Dickinson .						
WEATHER CONDITIONS: 33 degrees F, cloudy	PID IN WELL (PPM):					

SECTION 2 - PURGE INFORMATION					
DEPTH OF WELL [FT]: 13.21 (MEASURED FROM TOP OF CASING - T.O.C.)					
STATIC WATER LEVEL (SWL) [FT]: 3.11 (MEASURED FROM T.O.C.)					
THICKNESS OF WATER COLUMN [FT]: 10.10 (DEPTH OF WELL - SWL)					
CALCULATED VOL. OF H ₂ O PER WELL CASING [GAL]: 1.65 CASING DIA.: 2.0"					
CALCULATIONS: CASING DIA. (FT) WELL CONSTANT(GAL/FT) CALCULATIONS 34" (0.0625) 0.023 VOL. OF H ₂ O IN CASING = DEPTH OF WATER COLUMN X WELL CONSTANT 1" (0.0833) 0.041 1½" (0.1041) 0.063 2" (0.1667) 0.1632 3" (0.250) 0.380 4" (0.3333) 0.6528 4½" (0.375) 0.826 6" (0.5000) 1.4688 8" (0.666) 2.611					
CALCULATED PURGE VOLUME [GAL]: 4.95 (3 TIMES CASING VOLUME)					
ACTUAL VOLUME PURGED [GAL]: 4.75					
PURGE METHOD: Disposable Bailer PURGE START: 15:00 END: 15:15 .					

SECTION 3 - SAMPLE IDENTIFICATION AND TEST PARAMETERS							
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)							
MW-101s	03/14/06 15:20	Disposable Bailer	VOCs 8021B				

SECTION 4 - WATER QUALITY DATA							
SWL (FT)	TEMP (°C)	pН	CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	ORP (mV)	VISUAL
3.11	8.2	5.65	3.30	M	2.84	-12	Grayish black

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MP-3

SECTION 1 - SITE AND WE	ELL INFORMATION
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>
PROJECT NAME: Groundwater Study	DATE: <u>03/14/06</u>
SAMPLE COLLECTOR(S): <u>Matt Dickinson/Ray Kampff</u>	WEATHER: 33 degrees F, sunny, light snow
PID READING IN WELL HEADSPACE (PPM): 0.0	MEASURING POINT: Ground elevation
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6.0
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.11
WELL DEPTH [FT]: <u>18.92</u> (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 12 ft.
LNAPL: None DNAPL: None	OTHER OBSERVATIONS:

SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Heron					
PUMP TYPE: 34" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 2	CONTROL BOX REFILL RATE: 6					
STABILIZED PUMP RATE (ml/min): 125	STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.51					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (L)
12:04	125	3.51	0.94	-276	M	3.04	6.93	10.2	0.125
12:07	125	3.52	0.90	-280	M	3.02	6.93	10.4	0.250
12:10	125	3.52	0.92	-282	M	3.02	6.92	10.7	0.375
12:13	125	3.52	0.92	-297	M	3.07	6.86	10.6	0.500
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MP-3	03/14/06 12:22	Bladder Pump	VOCs 8021B			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MP-1

SECTION 1 - SITE AND WE	LL INFORMATION
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB # <u>2105R-99</u>
PROJECT NAME: Groundwater Study	DATE: <u>03/14/06</u>
SAMPLE COLLECTOR(S): <u>Matt Dickinson</u>	WEATHER: 33 degrees F, sunny
PID READING IN WELL HEADSPACE (PPM): 0.0	MEASURING POINT: Ground elevation
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6.0
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.13
WELL DEPTH [FT]: 19.40 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 12
LNAPL: None DNAPL: None	OTHER OBSERVATIONS:

SECTION 2 – SAM	PLING EQUIPMENT
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Heron
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air
CONTROL BOX DISCHARGE RATE: 2	CONTROL BOX REFILL RATE: 6
STABILIZED PUMP RATE (ml/min): 125	STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.16

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (L)
13:04	125	3.18	1.79	-234	M	2.41	6.27	9.2	0.125
13:07	125	3.18	1.24	-245	M	2.40	6.32	9.2	0.250
13:10	125	3.18	1.13	-263	M	2.38	6.29	9.3	0.375
13:13	125	3.18	1.06	-265	M	2.37	6.31	9.2	0.500
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MP-1	03/14/06 13:00	Bladder Pump	VOCs 8021B		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-2.1s

SECTION 1 - SITE AND WE	ELL INFORMATION
SITE LOCATION Parkway Plaza, Canandaigua, New York PROJECT NAME: Conifer	-
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.53
WELL DEPTH [FT]:	DEPTH OF PUMP INTAKE [FT]:9.0
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None
SECTION 2 – SAMPLIN	NG EQUIPMENT
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air

WATER QUALITY METER: Horiba U-22 WATER LEVEL METER: Herron SWL

PURGE GAS: Air

CONTROL BOX REFILL RATE: 10

ANALYTICAL SCAN(S)

Halogenated VOCs 8260

<u></u>									
	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
15:40	110	3.89	1.93	-48	48.0	5.08	6.85	12.8	1220
15:43	110	3.89	0.75	-51	47.3	5.08	6.85	12.8	1550
15:46	110	3.89	0.61	-52	40.5	5.09	6.85	12.8	1880
15:49	110	3.89	0.44	-54	34.4	5.10	6.86	12.9	2210
15:52	110	3.89	0.41	-54	33.3	5.10	6.86	12.9	2540
15:55	110	3.89	0.38	-54	30.7	5.11	6.86	12.9	2870
	SAMPLE OBSERVATIONS: Clear								

STABILIZED PUMP RATE (ml/min): 110 STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.89

NC = Not Collected

SAMPLE ID#

MW-2.1s

PUMP TYPE: 3/4" Bladder

CONTROL BOX DISCHARGE RATE: 1

DATE / TIME

11-10-06 / 15:56

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS

SAMPLING METHOD

Bladder Pump

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MW-3s

SECTION 1 - SITE AND WELL INFORMATION				
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>			
PROJECT NAME: Conifer	DATE: <u>11-10-06</u>			
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 52° F, Sunny			
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC			
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1			
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.14			
WELL DEPTH [FT]: 8.93	DEPTH OF PUMP INTAKE [FT]:			
(Do NOT Measure Well depth Prior To Purging And Sampling)				
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None			
SECTION 2 – SAMPLING EQUIPMENT				
CONTROL BOX: OED MP-10	TURING TYPE: 1/4" Water . 1/8" Air			

SECTION 2 – SAMPLING EQUIPMENT				
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air			
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini 101-30			
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air			
CONTROL BOX DISCHARGE RATE:1	CONTROL BOX REFILL RATE: 40			
STABILIZED PUMP RATE (ml/min): 65 ST	CABILIZED DRAWDOWN WATER LEVEL [FT]: 3.96			

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
13:00	65	3.96	1.83	-57	373.0	4.85	6.92	13.1	1100
13:03	65	3.96	1.78	-57	386.0	4.85	6.92	13.1	1295
13:06	65	3.96	1.38	-54	489.0	4.86	6.89	13.0	1490
13:09	65	3.96	1.15	-51	430.0	4.84	6.86	13.0	1685
13:12	65	3.96	1.08	-50	431.0	4.85	6.85	12.9	1880
13:15	65	3.96	1.05	-49	429.0	4.84	6.85	12.9	2075
1318	65	3.96	1.01	-48	426.0	4.84	6.85	12.9	2270
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)		
MW-3s	11-10-06 / 13:17	Bladder Pump	Halogenated VOCs 8260		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-101s

SECTION 1 - SITE AND WE	ELL INFORMATION
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>
PROJECT NAME: <u>Conifer</u>	DATE: <u>11-10-06</u>
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 52° F, Sunny
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.82
WELL DEPTH [FT]: 13.57 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None

SECTION 2 – SAMPLING EQUIPMENT					
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air				
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL				
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air				
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 15				
STABILIZED PUMP RATE (ml/min): 95 S	TABILIZED DRAWDOWN WATER LEVEL [FT]: 4.05				

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
14:24	95	4.05	0.97	-118	30.0	2.83	7.16	13.8	1095
14:27	95	4.05	0.84	-118	29.5	2.82	7.16	13.8	1380
14:30	95	4.05	0.61	-121	27.5	2.82	7.16	13.7	1665
14:33	95	4.05	0.49	-123	24.1	2.83	7.16	13.7	1950
14:36	95	4.05	0.41	-125	23.8	2.82	7.16	13.6	2235
14:39	95	4.05	0.38	-126	23.1	2.83	7.16	13.5	2520
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)			
MW-101s	11-10-06 / 14:41	Bladder Pump	Halogenated VOCs 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-103s

SECTION 1 - SITE AND WELL INFORMATION								
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>							
PROJECT NAME: <u>Conifer</u>	DATE: <u>11-10-06</u>							
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 52° F, Sunny							
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC							
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2							
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 4.00							
WELL DEPTH [FT]: 12.41 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]:							
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None							

SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL					
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 10					
STABILIZED PUMP RATE (ml/min): 110 S	TABILIZED DRAWDOWN WATER LEVEL [FT]: 4.10					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
13:50	110	4.10	1.58	-108	40.1	2.82	7.07	13.7	1110
13:53	110	4.10	1.06	-110	31.1	2.80	7.07	13.6	1440
13:56	110	4.10	1.05	-111	31.6	2.80	7.07	13.6	1770
13:59	110	4.10	0.97	-111	28.9	2.82	7.06	13.5	2100
14:02	110	4.10	0.89	-113	28.7	2.81	7.06	13.5	2430
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)			
MW-103s	11-10-06 / 14:00	Bladder Pump	Halogenated VOCs 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-1s

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB # <u>2105R-99</u>						
PROJECT NAME: Conifer	DATE: <u>11-10-06</u>						
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: _ 52° F, Sunny						
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1						
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.26						
WELL DEPTH [FT]: <u>11.92</u> (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 8.0						
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None						
SECTION 2 – SAMPLI	NG EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini 101-30						
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air						
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 50						
STABILIZED PUMP RATE (ml/min): 50 STA	ABILIZED DRAWDOWN WATER LEVEL [FT]: 4.41						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
13:04	50	4.41	2.12	-82	357.0	2.52	7.29	15.1	1150
13:07	50	4.41	1.71	-91	366.0	2.52	7.31	15.0	1300
13:10	50	4.41	1.58	-97	368.0	2.52	7.32	14.8	1450
13:13	50	4.41	1.34	-99	371.0	2.52	7.32	14.8	1600
13:16	50	4.41	1.31	-102	381.0	2.54	7.33	14.7	1750
13:19	50	4.41	1.29	-103	386.0	2.54	7.32	14.6	1900
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-1s	11-10-06 / 13:20	Bladder Pump	Halogenated VOCs 8260			

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MW-102s

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB # <u>2105R-99</u>						
PROJECT NAME: <u>Conifer</u>	DATE: <u>11-10-06</u>						
SAMPLE COLLECTOR(S): _M. Dickinson / C. Davidson	WEATHER: _50° F, Sunny						
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2						
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.30						
WELL DEPTH [FT]: 13.57	DEPTH OF PUMP INTAKE [FT]: 10.0						
(Do NOT Measure Well depth Prior To Purging And Sampling) LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None						
SECTION 2 – SAMPLI	NG EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL						
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air						
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 7						
STABILIZED PUMP RATE (ml/min): 115 STA	ABILIZED DRAWDOWN WATER LEVEL [FT]: 3.52						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
11:52	115	3.52	1.31	-129	14.2	1.85	7.25	15.2	1300
11:55	115	3.52	0.80	-135	13.0	1.85	7.24	15.5	1645
11:58	115	3.52	0.77	-139	11.8	1.85	7.24	15.7	1990
12:02	115	3.52	0.39	-140	11.7	1.86	7.22	15.9	2335
12:05	115	3.52	0.32	-140	9.8	1.86	7.22	15.8	2680
12:08	115	3.52	0.27	-139	6.4	1.87	7.21	15.5	3025
12:11	115	3.52	0.25	-138	6.2	1.87	7.21	15.3	3370
12:14	115	3.52	0.21	-137	5.9	1.86	7.20	15.3	3715
	SAMPLE OBSERVATIONS: Clear, Foul Odor								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-102s	11-10-06 / 12:16	Bladder Pump	Halogenated VOCs 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MP-1

SECTION 1 - SITE AND WELL INFORMATION								
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>							
PROJECT NAME: Conifer	DATE: <u>11-10-06</u>							
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 47° F, Clooudy							
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC							
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6							
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.50							
WELL DEPTH [FT]: 11.71	DEPTH OF PUMP INTAKE [FT]: 10.0							
(Do NOT Measure Well depth Prior To Purging And Sampling)								
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None							
SECTION 2 – SAMPLI	NG EQUIPMENT							
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air							
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL							
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air							
CONTROL ROY DISCHARGE PATE: 1	CONTROL BOY PEFILL DATE: 5							

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
11:16	175	3.53	0.66	-283	9.6	1.60	7.60	15.1	1400
11:19	175	3.53	0.36	-296	9.8	1.61	7.61	15.2	1925
11:22	175	3.53	0.34	-299	9.4	1.60	7.61	15.2	2450
11:25	175	3.53	0.21	-308	8.3	1.59	7.59	15.2	2975
11:28	175	3.53	0.13	-314	7.8	1.58	7.58	15.2	3500
11:31	175	3.53	0.12	-317	7.9	1.57	7.58	15.2	4025
11:34	175	3.53	0.11	-320	7.4	1.55	7.58	15.1	4550
	SAMPLE OBSERVATIONS: Clear								

STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.53

SAMPLE ID#DATE / TIMESAMPLING METHODANALYTICAL SCAN(S)MP-111-10-06 / 11:37Bladder PumpHalogenated VOCs 8260

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS

STABILIZED PUMP RATE (ml/min): 175

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MP-2

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>						
PROJECT NAME: <u>Conifer</u>	DATE: <u>11-10-06</u>						
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 47° F, Cloudy						
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6						
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.25						
WELL DEPTH [FT]: 19.30 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 16.0						
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None						
SECTION 2 – SAMPLI	NG EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL						

PURGE GAS: Air

CONTROL BOX DISCHARGE RATE: 1 CONTROL BOX REFILL RATE: 5

STABILIZED PUMP RATE (ml/min): 210 STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.31

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
10:43	210	3.31	3.12	120	15.1	2.93	7.88	15.2	1500
10:46	210	3.31	0.72	109	12.7	2.91	7.87	15.2	2130
10:49	210	3.31	0.35	101	10.0	3.31	7.88	15.3	2760
10:52	210	3.31	0.28	94	9.6	6.00	7.89	15.3	3390
10:55	210	3.31	0.14	84	9.6	17.4	7.91	15.3	4020
10:58	210	3.31	0.12	79	9.3	17.5	7.92	15.3	4650
11:01	210	3.31	0.09	69	9.1	17.6	7.92	15.3	5280
	SAMPLE O	BSERVATIO	NS: Clear	r					

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS

SAMPLING METHOD

Bladder Pump

ANALYTICAL SCAN(S)

Halogenated VOCs 8260

NC = Not Collected

SAMPLE ID#

MP-2

PUMP TYPE: 3/4" Bladder

DATE / TIME

11-10-06 / 11:03

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MP-4

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB# <u>2105R-99</u>						
PROJECT NAME: Conifer	DATE: <u>11-10-06</u>						
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 47° F, Cloudy						
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6						
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.22						
WELL DEPTH [FT]: <u>15.70</u> (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 12.0						
LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None						
SECTION 2 SAMDLIN	IC EQUIDMENT						

SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL					
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 5	CONTROL BOX REFILL RATE: 1					
STABILIZED PUMP RATE (ml/min): 215 ST	TABILIZED DRAWDOWN WATER LEVEL [FT]: 3.20					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
09:33	215	3.20	0.94	139	12.1	2.49	6.61	14.9	1500
09:36	215	3.20	0.48	110	6.1	2.59	7.61	15.2	2145
09:39	215	3.20	0.39	102	3.8	2.64	8.03	15.3	2790
09:42	215	3.20	0.32	93	5.4	2.70	8.36	15.3	3435
09:45	215	3.20	0.25	87	5.0	2.75	8.51	15.4	4080
09:48	215	3.20	0.22	77	3.5	2.75	8.63	15.4	4725
09:51	215	3.20	0.17	72	2.9	3.16	8.63	15.4	5370
09:54	215	3.20	0.18	70	2.6	3.51	8.72	15.4	6015
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MP-4	11-10-06 / 09:57	Bladder Pump	Halogenated VOCs 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MP-3

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION Parkway Plaza, Canandaigua, New York	JOB#2105R-99					
PROJECT NAME: Conifer	DATE: <u>11-10-06</u>					
SAMPLE COLLECTOR(S): M. Dickinson / C. Davidson	WEATHER: 47° F, Cloudy					
PID READING IN WELL HEADSPACE (PPM): NC	MEASURING POINT: TOC					
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6					
SCREENED INTERVAL [FT]: NA	WATER LEVEL (SWL) [FT]: 3.24					
WELL DEPTH [FT]: 18.14	DEPTH OF PUMP INTAKE [FT]: 8.0					
(Do NOT Measure Well depth Prior To Purging And Sampling) LNAPL: NC DNAPL: NC	OTHER OBSERVATIONS: None					
SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE: 1/4" Water , 1/8" Air					

SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED MP-10	TUBING TYPE:1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Herron SWL					
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 5					
STABILIZED PUMP RATE (ml/min): 200	STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.24					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
10:09	200	3.24	2.83	128	1.0	2.73	8.19	15.4	1500
10:12	200	3.24	0.52	89	0.9	2.78	8.07	15.6	2100
10:15	200	3.24	0.35	64	0.6	4.00	8.04	15.8	2700
10:18	200	3.24	0.25	38	0.9	4.88	8.03	15.9	3300
10:21	200	3.24	0.20	18	0.1	4.72	8.03	15.9	3900
10:24	200	3.24	0.16	6	0.2	4.39	8.04	15.9	4500
10:27	200	3.24	0.14	0	0.1	4.35	8.04	16.0	5100
10:30	200	3.24	0.13	-10	0.1	4.24	8.05	15.9	5700
	SAMPLE OBSERVATIONS: Clear								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MP-3	11-10-06 / 10:32	Bladder Pump	Halogenated VOCs 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>						
PROJECT NAME: Conifer-Parkway Plaza	DATE:9/24/07						
SAMPLE COLLECTOR(S): DJG	WEATHER: Clear, 80° F +/-						
PID READING IN WELL HEADSPACE (PPM): NM CASING TYPE: PVC SCREENED INTERVAL [FT]: 16 - 10 WELL DEPTH [FT]: 16' (Do NOT Measure Well depth Prior To Purging And Sampling)	WELL DIAMETER (INCHES): 1" INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 5.61 / 9-24-07						
LNAPL: DNAPL:	OTHER OBSERVATIONS:						
SECTION 2 – SAMPL	INC FOUIDMENT						

SECTION 2 – SAMPLING EQUIPMENT							
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101						
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air						
CONTROL BOX DISCHARGE RATE:28.0	CONTROL BOX REFILL RATE: 1.3						
STABILIZED PUMP RATE (ml/min): 50 ml	STABILIZED DRAWDOWN WATER LEVEL [FT]: 6.81						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
15:00	50 ml	6.81		-92	669.0	2.67	6.82	21.7	600
15:03	50 ml	7.00	7.01	-91	629.0	2.60	6.81	21.1	750
15:09	50 ml	7.00	5.91	-96	493.0	2.65	6.85	20.1	1050
15:12	50 ml	7.00	6.03	-100	498.0	2.64	6.91	20.1	1200
15:15	50 ml	7.00	6.16	-105	506.0	2.63	6.94	20.1	1350
15:18	50 ml	7.00	6.29	-110	530.0	2.63	7.00	20.0	1500
	SAMPLE OBSERVATIONS: ~								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW201 – 9/07	9-24-07 / 15:20	Bladder Pump	Halogenated VOCs by OLM 4.2			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

SECTION 1 - SITE AND WELL INFORMATION								
SITE LOCATION Canandaigua, NY PROJECT NAME: Carifor Parkurar Plans								
PROJECT NAME: Conifer-Parkway Plaza SAMPLE COLLECTOR(S): DJG	<u> </u>							
PID READING IN WELL HEADSPACE (PPM): NM CASING TYPE: PVC	MEASURING POINT: TOR WELL DIAMETER (INCHES): 1"							
SCREENED INTERVAL [FT]: 20 – 4 ft bgs	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 6.47 / 9-24-07							
WELL DEPTH [FT]: 20 ft bgs (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 12'							
LNAPL: DNAPL:	OTHER OBSERVATIONS:							
SECTION 2 – SAMPLING EQUIPMENT								

SECTION 2 – SAMPLING EQUIPMENT							
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water, 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101						
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air						
CONTROL BOX DISCHARGE RATE: 2.0	CONTROL BOX REFILL RATE: 18.0						
STABILIZED PUMP RATE (ml/min): 50 ml	STABILIZED DRAWDOWN WATER LEVEL [FT]: 6.55						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
11:49	50 ml	6.55		13	722.0	2.86	6.44	16.6	450
11:52	50 ml	6.55	2.44	15	644.0	2.88	6.33	15.5	600
11:55	50 ml	6.55	1.62	12	656.0	2.90	6.35	14.9	750
11:58	50 ml	6.55	1.42	7	632.0	2.90	6.39	14.7	900
12:01	50 ml	6.55	1.83	5	563.0	2.89	6.40	14.4	1050
12:04	50 ml	6.55	1.95	4	487.0	2.88	6.39	14.5	1200
12:07	50 ml	6.55	1.98	4	441.0	2.88	6.40	14.4	1350
	SAMPLE OBSERVATIONS: ~								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID#	SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW203 – 9/07	9-24-07 / 12:10	Bladder Pump	Halogenated VOCs by OLM 4.2				

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

SECTION 1 - SITE AND W	ELL INFORMATION						
SITE LOCATION <u>Canandaigua, NY</u>	JOB # 2105R-99						
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/24/07</u>						
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: Clear, 80° F +/-						
PID READING IN WELL HEADSPACE (PPM): NM CASING TYPE: PVC	MEASURING POINT: TOR WELL DIAMETER (INCHES): 1"						
SCREENED INTERVAL [FT]: 6 – 16 ft bgs	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 6.21 / 9-24-07						
WELL DEPTH [FT]: (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 11'						
LNAPL: DNAPL:	OTHER OBSERVATIONS:						
SECTION 2 – SAMPLING EQUIPMENT							

SECTION 2 – SAMPLING EQUIPMENT							
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101						
PUMP TYPE: 34" Bladder	PURGE GAS: Air						
CONTROL BOX DISCHARGE RATE: 2.0	CONTROL BOX REFILL RATE: 20.0						
STABILIZED PUMP RATE (ml/min): 50 ml STA	ABILIZED DRAWDOWN WATER LEVEL [FT]: 6.51						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
10:49	50 ml	6.47	11.42	-89	119	1.13	6.33	18.4	450
10:52	50 ml	6.48	2.24	-88	99.8	1.14	6.30	18.2	600
10:58	50 ml	6.51	1.92	-76	93.5	1.12	6.06	17.9	900
11:01	50 ml	6.51	2.35	-75	71.9	1.12	6.05	17.8	1050
11:04	50 ml	6.51	2.43	-86	62.0	1.12	6.19	18.2	1200
11:07	50 ml	6.51	2.53	-93	59.0	1.13	6.29	18.3	1350
11:10	50 ml	6.51	2.54	-97	45.9	1.13	6.30	18.5	1500
	SAMPLE OBSERVATIONS: ~								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID#	SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW204 – 9/07	9-24-07 / 11:15	Bladder Pump	Halogenated VOCs by OLM 4.2				

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MW-1S

SECTION 1 - SITE AND W	ELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u> PROJECT NAME: <u>Conifer-Parkway Plaza</u>	
SAMPLE COLLECTOR(S): DJG	WEATHER: <u>Clear, 80° F +/-</u>
PID READING IN WELL HEADSPACE (PPM): NM CASING TYPE: PVC SCREENED INTERVAL [FT]: NM WELL DEPTH [FT]: 11.92' (Do NOT Measure Well depth Prior To Purging And Sampling)	WELL DIAMETER (INCHES): 1" INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 5.57 / 9-25-07
LNAPL: DNAPL:	OTHER OBSERVATIONS:
SECTION 2 – SAMPLI	NG EQUIPMENT
CONTROL BOY. OFD 400	THIDING TWIDE: 1/49 W-4 1/09 A 2

SECTION 2 – SAMPLING EQUIPMENT					
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air				
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101				
PUMP TYPE: 34" Bladder	PURGE GAS: Air				
CONTROL BOX DISCHARGE RATE: 1.0	CONTROL BOX REFILL RATE: 50				
STABILIZED PUMP RATE (ml/min): 30 ml STA	ABILIZED DRAWDOWN WATER LEVEL [FT]:				

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
9:16	30 ml	6.48		-8	344.0	2.99	6.70	24.0	300
9:19	30 ml	7.00	3.20	-39	423.0	3.00	6.70	24.0	340
9:22	30 ml	7.40	1.60	-48	469.0	3.02	6.69	24.1	480
9:25	30 ml	7.40	1.18	-65	450.0	3.12	6.66	24.3	570
9:28	30 ml	7.40	1.23	-53	482.0	3.04	6.66	24.6	660
9:31	30 ml	7.40	1.34	-48	426.0	3.09	6.67	24.3	750
9:34	30 ml	7.40	1.40	-43	432.0	3.08	6.68	24.6	840
	SAMPLE OBSERVATIONS: ~								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW1S - 9/07	9-25-07 / 9:40	Bladder Pump	Halogenated VOCs by OLM 4.2		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-2.1S

SECTION 1 - SITE AND W	ELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u>	JOB #2105R-99
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/24/07</u>
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: <u>Clear, 80° F +/-</u>
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT:TOR
CASING TYPE: PVC	WELL DIAMETER (INCHES):
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL / Date Measured 4.98 / 9-24-07
WELL DEPTH [FT]: 11.44 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 9.0'
LNAPL: DNAPL:	OTHER OBSERVATIONS:
SECTION 2 – SAMPLI	NG EQUIPMENT
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air

SECTION 2 – SAMPLING EQUIPMENT					
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air				
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101				
PUMP TYPE: 34" Bladder	PURGE GAS: Air				
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 15				
STABILIZED PUMP RATE (ml/min): 100 ml ST	ABILIZED DRAWDOWN WATER LEVEL [FT]: 5.08				

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
15:51	100 ml	5.08		-82	26.1	6.40	6.40	19.5	600
15:54	100 ml	5.12	1.40	-83	20.7	6.60	6.36	19.3	900
15:57	100 ml	5.12	1.09	-83	22.7	6.62	6.34	19.2	1200
16:00	100 ml	5.12	1.57	-83	18.0	6.61	6.32	19.3	1500
16:03	100 ml	5.12	1.81	-84	18.3	6.62	6.33	19.2	1800
16:06	100 ml	5.12	1.91	-86	18.4	6.64	6.35	19.3	2100
16:09	100 ml	5.12	1.99	-88	19.4	6.63	6.38	19.2	2400
	SAMPLE OBSERVATIONS: ~								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW2.1S – 9/07 MS/MSD	9-24-07 / 16:15	Bladder Pump	Halogenated VOCs by OLM 4.2		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-3S

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION Canandaigua, NY JOB # 2105R-99	_					
PROJECT NAME: Conifer-Parkway Plaza DATE: 9/25/07	_					
SAMPLE COLLECTOR(S): DJG WEATHER: Clear, 80° F +/-	_					
PID READING IN WELL HEADSPACE (PPM): NM MEASURING POINT: TOR						
CASING TYPE: PVC WELL DIAMETER (INCHES): 1"						
SCREENED INTERVAL [FT]: INITIAL WATER LEVEL (SWL) [FT]: 5.75 / 9-25-07	;d					
WELL DEPTH [FT]: 8.93' DEPTH OF PUMP INTAKE [FT]: 7.0' (Do NOT Measure Well depth Prior To Purging And Sampling)						
LNAPL: DNAPL: OTHER OBSERVATIONS:						
SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED 400 TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22 WATER LEVEL METER: Solonist Mini 101						
PUMP TYPE: 3/4" Bladder PURGE GAS: Air						
CONTROL BOX DISCHARGE RATE: 1 CONTROL BOX REFILL RATE: 50						
STABILIZED PUMP RATE (ml/min): 20 ml STABILIZED DRAWDOWN WATER LEVEL [FT]: 6.10						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
11:58	20	6.1		8	507.0	4.45	6.34	25.5	240
12:01	20	6.1		-22	619.0	4.52	6.33	25.2	360
12:04	20	6.12	4.20	-41	738.0	4.42	6.34	24.6	480
12:07	20	6.15	2.49	-64	654.0	4.39	6.34	24.6	600
12:10	20	6.20	2.82	-67	551.0	4.39	6.32	24.5	720
12:13	20	6.22	2.59	-71	584.0	4.43	6.21	24.4	840
	SAMPLE OBSERVATIONS: ~								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW3S – 9/07	9-25-07 / 12:20	Bladder Pump	Halogenated VOCs by OLM 4.2		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-101S

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION <u>Canandaigua, NY</u>	JOB # <u>2105R-99</u>					
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/25/07</u>					
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: <u>Clear, 80° F +/-</u>					
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR					
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2"					
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 5.90 / 9-25-07					
WELL DEPTH [FT]: 13.57' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0'					
LNAPL: DNAPL:	OTHER OBSERVATIONS:					
SECTION 2 – SAMPLI	NG EOUIPMENT					
CONTROL BOX: QED 400	TUBING TYPE:1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101					
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 20					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	На	Temp. (C ⁰)	Total Vol. Pumped (ml)
10:57	50 ml	6.10		-132	26.6	2.95	6.90	22.5	450
11:00	50 ml	6.10	2.66	-136	20.6	2.87	6.88	22.6	600
11:03	50 ml	6.10	0.97	-137	17.5	2.89	6.77	21.9	750
11:06	50 ml	6.10	0.75	-141	15.0	2.87	6.80	22.0	900
11:09	50 ml	6.10	0.59	-147	16.1	2.83	6.86	22.0	1050
11:12	50 ml	6.10	0.48	-151	15.3	2.83	6.90	22.2	1200
11:15	50 ml	6.10	0.43	-152	15.8	2.83	6.91	22.2	1350
	SAMPLE OBSERVATIONS: ~								

STABILIZED PUMP RATE (ml/min): 50 ml STABILIZED DRAWDOWN WATER LEVEL [FT]: 6.10

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-101S-9/07// DUP – 9/07	9-25-07 / 11:20	Bladder Pump	Halogenated VOCs by OLM 4.2		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-102S

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION <u>Canandaigua, NY</u>	JOB # <u>2105R-99</u>					
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/25/07</u>					
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: Clear, 80° F +/-					
PID READING IN WELL HEADSPACE (PPM): NM MEASURING POINT: TOR						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2"					
SCREENED INTERVAL [FT]: NM	INITIAL WATER LEVEL SWL / Date Measured 5.10 / 9-25-07					
WELL DEPTH [FT]: 13.57' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 11.0'					
LNAPL: DNAPL:	OTHER OBSERVATIONS:					
SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: QED 400	TUBING TYPE:1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101					
PUMP TYPE: ¾'' Bladder	PURGE GAS: Air					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
8:30	90 ml	5.11		-107	15.2	2.18	6.70	23.2	270
8:33	90 ml	5.14	1.34	-112	12.0	2.28	6.61	23.4	540
8:36	90 ml	5.14	0.78	-113	11.2	2.28	6.63	23.5	810
8:39	90 ml	5.14	0.77	-114	10.5	2.28	6.63	23.5	1080
8:42	90 ml	5.14	0.78	-115	9.5	2.28	6.62	23.7	1350
8:45	90 ml	5.14	0.78	-115	9.6	2.28	6.62	23.7	1620
	SAMPLE OBSERVATIONS: ~								

CONTROL BOX DISCHARGE RATE: 1.0 CONTROL BOX REFILL RATE: 17.0

STABILIZED PUMP RATE (ml/min): 90 ml STABILIZED DRAWDOWN WATER LEVEL [FT]: 5.14

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW102S - 9/07	9-25-07 / 8:45	Bladder Pump	Halogenated VOCs by OLM 4.2		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-103S

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION <u>Canandaigua, NY</u>	JOB #2105R-99					
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/25/07</u>					
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: <u>Clear</u> , 80° F +/-					
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR					
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2"					
SCREENED INTERVAL [FT]: NM	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 6.58 / 9-25-07					
WELL DEPTH [FT]: 12.41' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 9.0'					
LNAPL: DNAPL:	OTHER OBSERVATIONS:					
SECTION 2 – SAMPLI	NG EQUIPMENT					
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101					
DUMD TVDE. 3/22 Pladdon	DIDCE CAS. Aim					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
10.06	60 ml	6.60		-111	20.3	3.06	6.54	20.6	360
10:09	60 ml	6.60	1.11	-109	13.9	3.06	6.47	20.3	540
10:12	60 ml	6.60	0.70	-106	12.8	3.06	6.42	20.3	720
10:15	60 ml	6.60	0.65	-111	11.7	3.01	6.49	20.1	900
10:18	60 ml	6.60	0.66	-111	10.3	3.03	6.50	20.0	1080
10:21	60 ml	6.60	0.70	-111	9.9	3.04	6.50	20.1	1260
	SAMPLE OBSERVATIONS: ~								

CONTROL BOX DISCHARGE RATE: 1.0 CONTROL BOX REFILL RATE: 15

STABILIZED PUMP RATE (ml/min): 60 ml STABILIZED DRAWDOWN WATER LEVEL [FT]: 6.60

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-103S - 9/07	9-25-07 / 10:15	Bladder Pump	Halogenated VOCs by OLM 4.2			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MP-1

SECTION 1 - SITE AND WELL INFORMATION					
SITE LOCATION <u>Canandaigua, NY</u>	JOB # <u>2105R-99</u>				
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/25/07</u>				
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: <u>Clear</u> , 80° F +/-				
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR				
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6"				
SCREENED INTERVAL [FT]:	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 5.45 / 9-25-07				
WELL DEPTH [FT]: 11.71' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0'				
LNAPL: DNAPL:	OTHER OBSERVATIONS:				
SECTION A GLAVEN	NG FOUND IN				
SECTION 2 – SAMPLI	NG EQUIPMENT				
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air				
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101				
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air				

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рH	Temp. (C ⁰)	Total Vol. Pumped (ml)
12:52	175	5.45	0.53	-137	14.6	4.47	9.40	21.3	1050
12:55	175	5.45	0.42	-165	14.5	4.48	9.46	20.8	1575
12:58	175	5.45	0.30	-180	14.5	4.45	9.50	20.9	2100
13:01	175	5.45	0.29	-190	14.8	4.42	9.51	20.8	2625
13:04	175	5.45	0.26	-203	15.1	4.43	9.49	21.0	3150
13:07	175	5.45	0.26	-205	15.0	4.43	9.48	21.1	3675
13:10	175	5.45	0.25	-210	15.3	4.43	9.46	21.2	4200
	SAMPLE OBSERVATIONS: ~								

CONTROL BOX DISCHARGE RATE: 1 CONTROL BOX REFILL RATE: 5

STABILIZED PUMP RATE (ml/min): 175 ml STABILIZED DRAWDOWN WATER LEVEL [FT]: 5.50

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID#	DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MP-1 – 9/07	9-25-07 / 13:15	Bladder Pump	Halogenated VOCs by OLM 4.2			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MP-3

SECTION 1 - SITE AND WELL INFORMATION					
SITE LOCATION Canandaigua, NY PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>9/25/07</u>				
SAMPLE COLLECTOR(S): <u>DJG</u>	WEATHER: Clear, 80° F +/-				
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR				
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6"				
SCREENED INTERVAL [FT]:	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 5.12 / 9-25-07				
WELL DEPTH [FT]: <u>18.4'</u> (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0'				
LNAPL: DNAPL:	OTHER OBSERVATIONS:				
SECTION 2 – SAMPLING EQUIPMENT					
CONTROL BOX: OED 400	TUBING TYPE: 1/4" Water, 1/8" Air				

SECTION 2 – SAMPLING EQUIPMENT				
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air			
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solonist Mini 101			
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air			
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE:5			
STABILIZED PUMP RATE (ml/min): 150 ml ST	ABILIZED DRAWDOWN WATER LEVEL [FT]: 5.15			

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
13:36	150	5.15	0.65	-18	17.1	3.99	7.67	21.0	700
13:39	150	5.15	0.43	-36	13.9	3.98	7.47	20.6	1050
13:42	150	5.15	0.34	-55	14.0	3.99	7.41	20.6	1500
13:45	150	5.15	0.30	-72	14.7	3.99	7.42	20.8	1950
13:48	150	5.15	0.28	-82	15.0	4.00	7.42	20.8	2400
13:51	150	5.15	0.26	-96	14.5	4.00	7.47	26.9	2850
13:54	150	5.15	0.26	-100	13.5	4.03	7.49	20.8	3300
13:57	150	5.15	0.26	-107	13.0	4.02	7.48	20.9	2750
							<u>'</u>		
	SAMPLE O	BSERVATIO	NS: ~	_	_				

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MP-3 – 9/07	9-24-07 / 14:00	Bladder Pump	Halogenated VOCs by OLM 4.2		

SUMMARY OF GROUNDWATER SAMPLING MEASUREMENTS SAMPLE EVENT: 2-2-2009 (PDS INSTALLATION) 2-11-2009 (PDS RETRIEVAL)

	neter	Depth to Bottom of	PDS	` '		Measurement Date: 2-11-2009			
Location	Well Diameter (inches)	Well (ft.) Measured 2-2-2009	Sample Interval (ft.)	2-2-2009	2-11-2009	DO (mg/l)	ORP (mV)	PH (s.u.)	
MP-3	6	18.1	10-11.5	3.90/94.70	3.64/94.96	2.80	147	8.32	
MW-3s	1.25	8.9	5-8.5	3.78/94.66	3.56/94.88	0.71	73	7.73	
MW-102s	2	13.6	8.5-10	4.65/94.25	4.12/94.78	0.28	-27	7.70	
MW-103s	2	12.4	9-10.5	4.54/94.0	3.59/94.95	0.40	42	7.46	
IP-1	1	14.3	10-13.5	3.73/94.96	4.08/94.61	0.63	77	7.54	
MW-4	1.25	12.6	8.5-12	3.65/-	*	*	*	*	
MW-201	1.25	14.1	10-13.5	4.31/94.33	4.76/93.88	0.22	-7	7.79	
MW-203	1.25	19.7	11-14.5	3.82/94.1	2.91/95.01	0.30	70	7.17	
MW-204	1.25	15	10-13.5	4.31/94.03	3.37/94.97	0.24	62	7.39	

Notes: All depth measurements are referenced from the top of the PVC well casing

* = Measurements could not be collected due to infiltrating surface water from snowmelt and rain

PDS = Passive Diffusion Sampler

DO = Dissolved Oxygen measurement made within the monitoring well using a YSI model 550A Dissolved Oxygen Probe

ORP = Oxygen Reduction Potential measurement made using a Eutech Instruments ORPTestr 10 ORP/Redox Tester

PH = Measurement made using a Eutech Instruments pHTestr 30 pH Meter

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MP-3

SECTION 1 - SITE AND WELL INFORMATION					
SITE LOCATION <u>Canandaigua, NY</u>	JOB #2105R-99				
PROJECT NAME: <u>Conifer-Parkway Plaza</u>	DATE: <u>5/8/08</u>				
SAMPLE COLLECTOR(S): GRM	WEATHER: 50° F, Clouds				
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR				
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6"				
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 2.97 / 5-8-08				
WELL DEPTH [FT]: <u>18.14'</u> (Do <u>NOT</u> Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0'				
LNAPL: DNAPL:	OTHER OBSERVATIONS:				
SECTION 2 – SAMPLI	NC FOURMENT				
CONTROL BOX: OED-400	TUBING TYPE: 1/4" Water , 1/8" Air				
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini				
PUMP TYPE: 34" Bladder	PURGE GAS: Air				
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 5				

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	На	Temp. (C ⁰)	Total Vol. Pumped (ml)
15:22	225	3.0	0.0	-1	37	0.41	7.99	13.9	1225
15:25	225	3.0	1.0	-6	40	0.41	7.94	13.6	1900
15:28	225	3.0	1.7	-8	38	0.42	7.82	13.3	2575
15:31	225	3.0	1.5	-9	35	0.41	7.93	13.3	3250
15:34	225	3.0	1.5	-12	34	0.41	7.95	13.3	3925
15:37	225	3.0	1.7	-12	34	0.41	7.94	13.3	4600
15:40	225	3.0	1.6	-12	34	0.41	7.94	13.3	5275
	SAMPLE OBSERVATIONS:								

STABILIZED PUMP RATE (ml/min): 225 STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.0

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MP-3	5-8-08 / 15:40	Bladder Pump	Halogenated VOCs by 8260		

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-3S

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION <u>Canandaigua, NY</u>	JOB # <u>2105R-99</u>						
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>5/8/08</u>						
SAMPLE COLLECTOR(S): GRM	WEATHER: 50° F, Clouds						
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1"						
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 3.57 / 5-8-08						
WELL DEPTH [FT]: 8.93' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 7.0'						
LNAPL: DNAPL:	OTHER OBSERVATIONS:						

SECTION 2 – SAMPLING EQUIPMENT				
CONTROL BOX: QED-400	TUBING TYPE: 1/4" Water , 1/8" Air			
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini			
PUMP TYPE: 3/4" Bladder	PURGE GAS: _Air			
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE:50			
STABILIZED PUMP RATE (ml/min): 30 S	TABILIZED DRAWDOWN WATER LEVEL [FT]: 4.61			

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
16:23	30	4.61	0.9	-75	NA	0.38	6.87	17.3	1030
16:26	30	4.61	1.8	-75	NA	0.37	6.86	17.1	1120
16:29	30	4.61	2.2	-74	NA	0.37	6.86	17.1	1210
16:32	30	4.61	2.1	-74	NA	0.37	6.86	17.0	1300
16:35	30	4.61	2.1	-73	NA	0.37	6.86	16.5	1390
16:38	30	4.61	2.1	-73	NA	0.37	6.86	16.5	1480
	SAMPLE OBSERVATIONS:								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS					
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-3S	5-8-08 / 16:45	Bladder Pump	Halogenated VOCs by 8260		

DAY ENVIRONMENTAL, INC.

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-102S

SECTION 1 - SITE AND W	ELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u>	JOB # <u>2105R-99</u>
PROJECT NAME: Conifer-Parkway Plaza	DATE:5/8/08
SAMPLE COLLECTOR(S): GRM	WEATHER: 50° F, Clouds
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL) [FT]: SWL/Date Measured 3.01 5-8-08
WELL DEPTH [FT]: 13.57 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 11'
LNAPL: DNAPL:	OTHER OBSERVATIONS:

SECTION 2 – SAMPL	ING EQUIPMENT
CONTROL BOX: QED-400	TUBING TYPE: 1/4" Water , 1/8" Air
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE:
STABILIZED PUMP RATE (ml/min): 75 ST	ABILIZED DRAWDOWN WATER LEVEL [FT]: 3.18

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
14:40	75	3.18	1.0	-106	30	0.23	7.27	15.3	1075
14:43	75	3.18	1.0	-108	30	0.23	7.28	15.3	1300
14:46	75	3.18	1.0	-110	30	0.23	7.29	15.2	1525
14:49	75	3.18	1.0	-110	30	0.23	7.29	15.2	1750
14:52	75	3.18	1.1	-110	30	0.23	7.29	15.1	1975
	SAMPLE OBSERVATIONS:								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-102S	5-8-08 / 14:55	Bladder Pump	Halogenated VOCs by 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-103S

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION <u>Canandaigua, NY</u>	JOB # <u>2105R-99</u>						
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>5/8/08</u>						
SAMPLE COLLECTOR(S): GRM	WEATHER: _50° F, Clouds						
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT:TOR						
CASING TYPE: PVC	WELL DIAMETER (INCHES):2						
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 4.11 / 5-8-08						
WELL DEPTH [FT]: 12.41' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0'						
LNAPL: DNAPL:	OTHER OBSERVATIONS:						
SECTION 2 – SAMPLI	NG EQUIPMENT						
CONTROL BOX: QED-400	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini						

PURGE GAS: <u>Air</u>

STABILIZED PUMP RATE (ml/min): 60 STABILIZED DRAWDOWN WATER LEVEL [FT]: 4.15

CONTROL BOX REFILL RATE: 20

PUMP TYPE: 3/4" Bladder

CONTROL BOX DISCHARGE RATE: 1

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рΗ	Temp. (C ⁰)	Total Vol. Pumped (ml)
13:40	60	4.15	1.6	-87	37	0.30	7.02	12.2	1060
13:43	60	4.15	1.6	-86	35	0.30	7.00	12.2	1240
13:46	60	4.15	2.6	-87	33	0.30	7.00	12.0	1420
13:49	60	4.15	2.7	-87	34	0.30	7.01	12.0	1600
13:52	60	4.15	2.1	-88	33	0.30	7.01	12.0	1780
13:55	60	4.15	1.3	-88	33	0.30	7.02	12.1	1960
13:58	60	4.15	1.4	-88	32	0.30	7.02	12.2	2140
14:01	60	4.15	1.4	-88	52	0.30	7.01	12.2	2320
	SAMPLE OBSERVATIONS:								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID# DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-103S	5-8-08 / 14:00	Bladder Pump	Halogenated VOCs by 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-101S

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>						
PROJECT NAME: <u>Conifer-Parkway Plaza</u>	DATE:5/8/08						
SAMPLE COLLECTOR(S): GRM	WEATHER: 50° F, Clouds						
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2"						
SCREENED INTERVAL [FT]: NA	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 3.5 / 5-8-08						
WELL DEPTH [FT]: 13.57' (Do NOT Measure Well depth Prior To Purging And Sampling) DEPTH OF PUMP INTAKE [FT]: 10.0'							
LNAPL: DNAPL:	OTHER OBSERVATIONS:						
SECTION 2 – SAMPLING EQUIPMENT							
CONTROL BOX: QED 400	TUBING TYPE: 1/4" Water , 1/8" Air						
WATER QUALITY METER: <u>Horiba U-22</u>	WATER LEVEL METER: Solinst Mini						
PUMP TYPE: 3/4" Bladder PURGE GAS: Air							
CONTROL BOX DISCHARGE RATE: 1 CONTROL BOX REFILL RATE: 30							
STABILIZED PUMP RATE (ml/min): 50 STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.85							
SECTION 3 – WATER QUALITY DATA MONITORING							
Time Pumping Water DO ORP Rate (ml/min) Level (ft) (mg/L) (mv)	Turbidity Conductivity (NTU) (mS/cm) pH Temp. (C ⁰) Pumped (ml)						

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	На	Temp. (C ⁰)	Total Vol. Pumped (ml)
12:47	50	3.85	2.0	-110	46	0.28	7.26	13.2	1050
12:50	50	3.85	2.0	-110	42	0.28	7.26	13.2	1200
12:53	50	3.85	2.7	-111	47	0.28	7.26	13.5	1350
12:56	50	3.85	3.3	-113	47	0.28	7.26	13.5	1500
12:59	50	3.85	3.4	-113	47	0.28	7.27	13.5	1650
13:02	50	3.85	3.4	-113	47	0.28	7.27	13.5	1800
	SAMPLE O	BSERVATIO	NS:						

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-101S	5-8-08 / 13:05	Bladder Pump	Halogenated VOCs by 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>					
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>5/8/08</u>					
SAMPLE COLLECTOR(S): GRM	WEATHER: _50° F, Clouds					
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR					
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1"					
SCREENED INTERVAL [FT]: 16 - 10'	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 3.37 / 5-8-08					
WELL DEPTH [FT]: 16.0' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 13.0'					
LNAPL: DNAPL:	OTHER OBSERVATIONS: 2' sediment in well screen					
SECTION 2 – SAMPLI						
CONTROL BOX: QED-400	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini					
PUMP TYPE: 3/4" Bladder	PURGE GAS: _Air					
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 90					
STABILIZED PUMP RATE (ml/min): 20 (est) ST.	ABILIZED DRAWDOWN WATER LEVEL [FT]: NA					
SECTION 3 – WATER QUALITY DATA MONITORING						

	SECTION 3 – WATER QUALITY DATA MONITORING									
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)	
11:40	20	6.52 est.	1.4	-100	200	0.21	7.22	13.8	1020	
11:45	20	6.87 est.	1.4	-100	200	0.20	7.24	14.0	1120	
11:50	20	7.22 est.	1.5	-100	200	0.20	7.25	14.0	1220	
11:55	20	7.57 est.	1.4	-101	200	0.20	7.27	14.0	1320	
12:00	20	7.90 est.	1.4	-103	210	0.19	7.30	14.1	1420	
	SAMPLE OBSERVATIONS: Very slow recharge									

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-201	5-8-08 / 12:00	Bladder Pump	Halogenated VOCs by 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MP-203

SECTION 1 - SITE AND WELL INFORMATION										
SITE LO	OCATION _C	Canandaigua, NY	7	J(JOB # 2105R-99					
PROTE	CT NAME:	Conifer-Parky	yay Plaza	n						
I KOJE	CI NAME.	Conner-r arkv	ray 1 laza	D	DATE: <u>5/8/08</u>					
SAMPLE COLLECTOR(S): GRM WEATHER: 50° F, Clouds										
PID READING IN WELL HEADSPACE (PPM): NM MEASURING POINT: TOR										
CASING TYPE: PVC						WELL DIAMETER (INCHES): 1"				
SCREENED INTERVAL [FT]: 20 - 4						INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 3.56 / 5-8-08				
WELL DEPTH [FT]: 20.0' DEPTH OF PUMP INTAKE [FT]: 12.0' (Do NOT Measure Well depth Prior To Purging And Sampling)										
LNAPL: DNAPL: OTHER OBSERVATIONS:										
SECTION 2 – SAMPLING EQUIPMENT										
CONTROL BOX: QED-400 TUBING TYPE: 1/4" Water , 1/8" Air										
WATER QUALITY METER: Horiba U-22 WATER LEVEL METER: Solinst Mini										
PUMP TYPE: 3/4" Bladder PURGE GAS: Air										
CONTROL BOX DISCHARGE RATE: 2.0 CONTROL BOX REFILL RATE: 13										
STABILIZED PUMP RATE (ml/min): 80 STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.60										
		SECTIO	ON 3 – WA	TER QUA	LITY DATA	A MONITORI	NG			
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	Нq	Temp. (C ⁰)	Total Vol. Pumped (ml)	
10:13	80	3.60	0.0	-29	500	0.24	7.06	9.3	1080	
10:16	80	3.60	0.0	-32	410	0.25	7.06	9.2	1320	
10:19	80	3.60	1.9	-42	280	0.24	7.06	9.0	1560	
10:22	80	3.60	1.8	-49	190	0.25	7.07	8.9	1800	
10:25	80	3.60	1.6	-54	140	0.25	7.07	8.9	2040	
10:28	80	3.60	1.7	-55	130	0.25	7.07	8.8	2280	
10:31	80	3.60	1.6	-54	130	0.25	7.07	8.8	2520	

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS									
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)						
MW-203	5-8-08 / 10:35	Bladder Pump	Halogenated VOCs by 8260						

SAMPLE OBSERVATIONS: H₂O is orange and cloudy, but clear

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-204

SECTION 1 - SITE AND W	TELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u>	JOB #2105R-99
PROJECT NAME: Conifer-Parkway Plaza	DATE: <u>5/8/08</u>
SAMPLE COLLECTOR(S): GRM	WEATHER: _50° F, Rain
PID READING IN WELL HEADSPACE (PPM): NM	MEASURING POINT: TOR
CASING TYPE: PVC	WELL DIAMETER (INCHES):
SCREENED INTERVAL [FT]: 6 – 16'	INITIAL WATER LEVEL (SWL / Date Measured 4.01 5-8-08
WELL DEPTH [FT]: 15.10' (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 11.0'
LNAPL: DNAPL:	OTHER OBSERVATIONS:
SECTION 2 – SAMPLI	NG EQUIPMENT
CONTROL BOX: QED-400	TUBING TYPE: 1/4" Water , 1/8" Air
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air

	SECTION 3 – WATER QUALITY DATA MONITORING											
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)			
9:00	60	3.99	1.6	-124	250	0.18	6.79	10.0	1060			
9:03	60	3.99	1.3	-126	230	0.18	6.89	9.8	1180			
9:06	60	3.99	1.2	-128	210	0.18	6.95	9.7	1300			
9:09	60	3.99	1.1	-127	190	0.17	7.00	9.7	1420			
9:12	60	3.99	1.0	-124	180	0.17	7.05	9.6	1540			
9:15	60	3.99	1.0	-121	170	0.16	7.05	9.6	1660			
	SAMPLE O	SAMPLE OBSERVATIONS:										

STABILIZED PUMP RATE (ml/min): 60 STABILIZED DRAWDOWN WATER LEVEL [FT]: 3.99

CONTROL BOX DISCHARGE RATE: 2.0 CONTROL BOX REFILL RATE:

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)				
MW-204	5-8-08 / 9:40	Bladder Pump	Halogenated VOCs by 8260				

SUMMARY OF GROUNDWATER SAMPLING MEASUREMENTS SAMPLE EVENT: 5-15-2009 (PDS INSTALLATION)

5-27-2009 (PDS RETRIEVAL)

	Depth to Bottom of		PDS		nter vation (ft.)	Measurement Date: 5-27-2009			
Location	Well Diameter (inches)	Well (ft.) Measured 5-15-2009	Sample Interval (ft.)	5-15-2009	5-27-2009	DO (mg/l)	ORP (mV)	pH (s.u.)	
MP-3	6	18.1	10-11.5	3.29/95.31	3.13/95.47	0.9	-60	8.17	
MW-3s	1.25	8.9	5-8.5	3.71/94.73	3.93/94.51	1.2	-62	6.48	
MW-102s	2	13.6	8.5-10	4.04/94.86	3.58/95.32	0.6	-76	7.01	
MW-103s	2	12.4	9-10.5	3.97/94.57	4.45/94.09	0.8	93	4.61	
IP-1	1	14.3	10-13.5	4.23/94.46	4.71/93.98	0.8	-73	6.85	
MW-4	1.25	12.6	8.5-12	3.02/-	4.28/-	0.3	*	*	
MW-201	1.25	14.1	10-13.5	3.73/94.91	4.75/93.89	0.3	-75	6.56	
MW-203	1.25	19.7	11-14.5	3.75/94.17	3.86/94.06	1.2	53	4.85	
MW-204	1.25	15	10-13.5	4.24/94.10	4.37/93.97	1.3	-48	6.78	

Notes: All depth measurements are referenced from the top of the PVC well casing

* = Measurements could not be collected

PDS = Passive Diffusion Sampler

DO = Dissolved Oxygen measurement made within the monitoring well using a YSI model 550A Dissolved Oxygen Probe

ORP = Oxygen Reduction Potential measurement made using a Eutech Instruments ORPTestr 10 ORP/Redox Tester

pH = Measurement made using a Eutech Instruments pHTestr 30 pH Meter

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MP-3

SECTION 1 - SITE AND	WELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>
PROJECT NAME: Former Parkway Cleaners	DATE: <u>8/21/08</u>
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny
PID READING IN WELL HEADSPACE (PPM):	MEASURING POINT: Top of Casing (Elev. 98.6')
CASING TYPE: PVC	WELL DIAMETER (INCHES): 6
SCREENED INTERVAL [FT]:	INITIAL WATER LEVEL SWL / Date Measured 3.97 / 8/21/08
WELL DEPTH [FT]: 17.95 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None
SECTION 2 – SAMPI	LING EQUIPMENT
CONTROL BOX: QED ~ 400	TUBING TYPE: 1/4" Water , 1/8" Air

SECTION 2 SHAN	ERIO EQUI MENT
CONTROL BOX: QED ~ 400	TUBING TYPE: 1/4" Water , 1/8" Air
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini
PUMP TYPE: ¾'' Bladder	PURGE GAS: Air
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 5
STABILIZED PUMP RATE (ml/min): 140 ST	TABILIZED DRAWDOWN WATER LEVEL [FT]: 3.98

	SECTION 3 – WATER QUALITY DATA MONITORING										
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)		
10:25	140	3.98	0.0	70	36	0.41	7.02	20.1	640		
10:28	140	3.98	0.0	55	36	0.41	7.30	20.1	960		
10:31	140	3.98	0.9	34	36	0.41	7.51	20.0	1280		
10:34	140	3.98	0.8	18	36	0.48	7.65	20.1	1500		
10:37	140	3.98	0.8	9	37	0.53	7.75	20.1	1820		
10:40	140	3.98	0.7	-5	36	0.45	7.87	20.0	2140		
10:43	140	3.98	0.7	-16	36	0.42	7.93	20.2	2460		
10:46	140	3.98	0.8	-28	36	0.41	8.0	20.1	2780		
10:49	140	3.98	0.7	-39	36	0.40	8.05	20.1	3100		
10:52	140	3.98	0.8	-46	36	0.40	8.09	20.2	3420		
10:55	140	3.98	0.8	-54	37	0.40	8.12	20.2	3740		
	SAMPLE OBSERVATIONS:										

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN							
MP-3	8/21/08 / 11:20	Bladder Pump	Halogenated VOCs via USEPA 8260				

WELL MP-3 Continued

	SECTION 3 – WATER QUALITY DATA MONITORING									
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	pН	Temp. (C ⁰)	Total Vol. Pumped (ml)	
10:58	140	3.98	0.7	-60	36	0.40	8.15	20.3	4060	
11:01	140	3.98	0.8	-68	36	0.40	8.17	20.3	4380	
11:04	140	3.98	0.8	-80	36	0.40	8.20	20.3	4700	
11:07	140	3.98	0.8	-87	36	0.40	8.21	20.3	5020	
11:10	140	3.98	0.8	-94	37	0.40	8.21	20.3	5340	
11:13	140	3.98	0.7	-104	36	0.40	8.22	20.4	5660	
11:16	140	3.98	0.8	-110	36	0.40	8.22	20.5	5980	
•	SAMPLE OBSERVATIONS:									

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID#	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)				
MP-3	8/21/08 / 11:20	Bladder Pump	Halogenated VOCs via USEPA 8260				

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-3s

SECTION 1 - SITE AND WELL INFORMATION									
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>								
PROJECT NAME: Former Parkway Cleaners	DATE: <u>8/21/08</u>								
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny								
PID READING IN WELL HEADSPACE (PPM):	MEASURING POINT: Top of Casing (Elev. 98.44')								
CASING TYPE: <u>PVC</u>	WELL DIAMETER (INCHES): 1.25								
SCREENED INTERVAL [FT]: 3 - 13	INITIAL WATER LEVEL (SWL / Date Measured 4.51 / 8/21/08								
WELL DEPTH [FT]: 9.05 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 7.0								
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None								
SECTION 2 – SAMP	LING EQUIPMENT								
CONTROL BOX: QED ~ 400	TUBING TYPE: 1/4" Water , 1/8" Air								
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini								
PUMP TYPE: ¾" Bladder	PURGE GAS: _Air								
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: _ 50								

	SECTION 3 – WATER QUALITY DATA MONITORING									
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	pН	Temp. (C ⁰)	Total Vol. Pumped (ml)	
14:30	30	4.19	3.3	20	330	0.35	7.02	26.2	530	
14:35	30	4.19	2.6	6	310	0.34	7.04	26.2	680	
14:40	30	4.19	2.1	-2	310	0.34	7.06	25.8	830	
14:45	30	4.19	1.7	-8	400	0.34	7.07	25.6	980	
14:50	30	4.19	1.8	-11	400	0.34	7.08	25.6	1130	
14:55	30	4.19	0.5	-12	400	9.9*	7.09	25.6	1280	
15:00	30	4.19	0.9	-18	380	9.9*	7.09	26.4	1430	
15:05	30	4.19	0.4	-21	410	9.9*	7.10	26.7	1580	
15:10	30	4.19	0.4	-26	400	9.9*	7.11	27.0	1730	
15:15	30	4.19	0.3	-8	400	9.9*	7.11	27.5	1880	
	SAMPLE OBSERVATIONS:									

STABILIZED DRAWDOWN WATER LEVEL [FT]: 4.19

STABILIZED PUMP RATE (ml/min): 30

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID#	DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-3s	8/21/08 / 15:30	Bladder Pump	Halogenated VOCs via USEPA 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG

WELL MW-101s

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>					
PROJECT NAME: Former Parkway Cleaners	DATE: <u>8/21/08</u>					
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny					
PID READING IN WELL HEADSPACE (PPM):						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 2					
SCREENED INTERVAL [FT]: 4 - 14	INITIAL WATER LEVEL (SWL / Date Measured 4.24 / 8/21/08					
WELL DEPTH [FT]: 13.62 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 10.0					
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None					
SECTION 2 – SAMP	LING EQUIPMENT					
CONTROL BOX: QED ~ 400	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini					
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 25					
STABILIZED PUMP RATE (ml/min): 75 STA	ABILIZED DRAWDOWN WATER LEVEL [FT]: 4.62					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
13:05	75	4.62	0.0	-152	50	0.34	7.43	24.6	575
13:10	75	4.62	2.5	-156	50	0.34	7.43	24.6	950
13:15	75	4.62	3.8	-159	49	0.34	7.46	24.8	1325
13:20	75	4.62	4.8	-162	46	0.36	7.52	24.6	1700
13:25	75	4.62	4.9	-165	46	0.40	7.55	24.7	2075
13:30	75	4.62	4.4	-167	44	0.54	7.58	24.7	2450
13:35	75	4.62	2.5	-169	43	1.5	7.59	25.1	2825
13:40	75	4.62	2.6	-169	42	3.0	7.60	25.1	3200
13:45	75	4.62	2.7	-170	42	3.1	7.61	25.5	3575
13:50	75	4.62	2.7	-170	42	3.0	7.60	25.5	3950
	SAMPLE OBSERVATIONS:								

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID#	SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-101s	8/21/08 / 13:50	Bladder Pump	Halogenated VOCs via USEPA 8260				

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-102s

SECTION 1 - SITE AND WELL INFORMATION						
SITE LOCATION Canandaigua, NY	JOB# _2105R-99					
PROJECT NAME: Former Parkway Cleaners	DATE: 8/21/08					
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny					
PID READING IN WELL HEADSPACE (PPM):	MEASURING POINT: Top of Casing (Elev. 98.9')					
CASING TYPE: _PVC	WELL DIAMETER (INCHES): _2					
SCREENED INTERVAL [FT]: 4 - 14	INITIAL WATER LEVEL SWL / Date Measured 4.44 / 8/21/08					
WELL DEPTH [FT]: 13.60 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 11.0					
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None					
_						
SECTION 2 – SAMPI	LING EQUIPMENT					

SECTION 2 – SAMPLING EQUIPMENT						
CONTROL BOX: <u>QED ~ 400</u>	TUBING TYPE: 1/4" Water , 1/8" Air					
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini					
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air					
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 25					
STABILIZED PUMP RATE (ml/min):75	STABILIZED DRAWDOWN WATER LEVEL [FT]: 4.05					

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
11:57	75	4.05	0.0	-126	34	0.25	7.27	27.3	575
12:02	75	4.05	0.0	-127	33	0.25	7.28	27.6	950
12:07	75	4.05	0.0	-126	33	0.26	7.28	28.2	1625
12:12	75	4.05	0.0	-126	33	0.26	7.28	28.2	1700
12:17	75	4.05	0.0	-126	33	0.026	7.28	28.2	2075
	SAMPLE OB	SERVATIONS	5:						

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS							
SAMPLE ID#	SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)						
MW-102s	8/21/08 / 12:20	Bladder Pump	Halogenated VOCs via USEPA 8260				

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MW-103s

SECTION 1 - SITE AND WELL INFORMATION										
SITE LO	SITE LOCATION <u>Canandaigua, NY</u>)B#	2105R	-99		
PROJEC	CT NAME:	Former Parkw	ay Cleaners	i	D.	ATE:	8/22/0	8		
SAMPLE COLLECTOR(S): Glenn Miller					w	EATH	ER: <u>8</u>	80° F, Sunny	,	_
PID READING IN WELL HEADSPACE (PPM): CASING TYPE: _PVC										
SCREENED INTERVAL [FT]: 3 - 13						IAL W L) [FT]:	ATER L	EVEL	SWL / Date 5.02 / 8/	
		12.41 depth Prior To P	urging And	Sampling)	DEP	гн оғ	PUMP I	NTAKE [FI]: <u>10.0</u>	
LNAPL:	None		DNAPL: _	None	OTHE	CR OBS	SERVAT	IONS: No	one	
			SECTIO)N 2 – SAN	APLING EQ	UIPM	ENT			
CONTR	OL BOX: Q	ED ~ 400			TUBIN	TUBING TYPE: 1/4" Water , 1/8" Air				
WATER	R QUALITY ME	TER: Horiba	a U-22		WATER LEVEL METER: Solinst Mini					
PUMP T	ΓΥΡΕ: <u>³4" Β</u>	ladder			_ PURG	E GAS	: Air			
CONTR	OL BOX DISCH	HARGE RATE:	1		CONT	ROL B	OX REF	TLL RATE:	20	
STABILIZED PUMP RATE (ml/min): 60 STABILIZED DRAWDOWN WATER LEVEL [FT]: 5.16										
		SECT	ION 3 – W	ATER OI	JALITY DA	ГА М(ONITOR	RING		
Time	Pumping	Water	DO	ORP	Turbidity		uctivity	nН	Temp.	Total Vol.

	SECTION 3 – WATER QUALITY DATA MONITORING								
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)
9:13	60	5.16	0	-105	62	0.29	7.03	21.8	560
9:16	60	5.16	0	-104	57	0.29	7.02	22.2	740
9:19	60	5.16	0	-105	57	0.29	7.04	21.9	920
9:22	60	5.16	0	-105	55	0.29	7.06	22.3	1100
9:25	60	5.16	0	-105	55	0.29	7.07	22.5	1280
	SAMPLE OB	SERVATIONS	:						

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS						
SAMPLE ID#	E ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)					
MW-103s	8/22/08 / 9:300	Bladder Pump	Halogenated VOCs via USEPA 8260			

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-201

SECTION 1 - SITE AND WELL INFORMATION							
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>						
PROJECT NAME: Former Parkway Cleaners	DATE: <u>8/22/08</u>						
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny						
PID READING IN WELL HEADSPACE (PPM):	MEASURING POINT: Top of Casing (Elev. 98.64')						
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1.25						
SCREENED INTERVAL [FT]: 10 - 15	INITIAL WATER LEVEL (SWL / Date Measured 4.29 / 8/22/08						
WELL DEPTH [FT]: 14.24 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 13.0						
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None						
OF CENTANA CANED							

SECTION 2 – SAMPLING EQUIPMENT										
CONTROL BOX: QED ~ 400	TUBING TYPE: 1/4" Water , 1/8" Air									
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini									
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air									
CONTROL BOX DISCHARGE RATE: 1	CONTROL BOX REFILL RATE: 90									
STABILIZED PUMP RATE (ml/min): 20 est. STA	ABILIZED DRAWDOWN WATER LEVEL [FT]: NA									

	SECTION 3 – WATER QUALITY DATA MONITORING																	
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C^0)	Total Vol. Pumped (ml)									
10:33	20 est.		0.0	-123	100	0.20	7.29	26.4	520									
10:45	20 est.		0.0	-124	95	0.20	7.32	27.6	760									
10:51	20 est.		0.0	-127	98	0.20	7.35	27.8	880									
11:00	20 est.		0.0	-127	98	0.20	7.38	28.6	1060									
	SAMPLE OB	SERVATIONS	: Slow rec	harge in w	ell unable to	measure wate	r level	SAMPLE OBSERVATIONS: Slow recharge in well unable to measure water level										

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS									
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)									
MW-201	8/22/08 / 11:10	Bladder Pump	Halogenated VOCs via USEPA 8260						

LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG WELL MW-203

SECTION 1 - SITE AND	WELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>
PROJECT NAME: Former Parkway Cleaners	DATE: <u>8/22/08</u>
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny
PID READING IN WELL HEADSPACE (PPM):	MEASURING POINT: Top of Casing (Elev. 97.92')
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1.25
SCREENED INTERVAL [FT]: 4 - 19	INITIAL WATER LEVEL (SWL) [FT]: SWL / Date Measured 4.62 / 8/22/08
WELL DEPTH [FT]: 18.78 (Do NOT Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 12.0
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None
SECTION 2 – SAMPI	LING EQUIPMENT
CONTROL BOX: QED ~ 400	TUBING TYPE:1/4" Water , 1/8" Air
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini

PURGE GAS: Air

13

CONTROL BOX REFILL RATE:

	SECTION 3 – WATER QUALITY DATA MONITORING											
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	pН	Temp. (C ⁰)	Total Vol. Pumped (ml)			
8:25	80	4.7	1.4	-91	210	0.28	7.24	15.1	580			
8:28	80	4.7	1.4	-91	200	0.28	7.20	15.3	820			
8:31	80	4.7	1.6	-91	150	0.28	7.20	15.2	1060			
8:34	80	4.7	1.6	-90	140	0.28	7.21	14.8	1300			
8:37	80	4.7	1.7	-91	150	0.28	7.21	14.9	1540			
	SAMPLE OB	SERVATIONS	:									

STABILIZED PUMP RATE (ml/min): 80 STABILIZED DRAWDOWN WATER LEVEL [FT]: 4.7

PUMP TYPE: 3/4" Bladder

CONTROL BOX DISCHARGE RATE: 2

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS									
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)									
MW-203	8/22/08 / 8:40	Bladder Pump	Halogenated VOCs via USEPA 8260						

${\bf LOW\text{-}FLOW\ GROUNDWATER\ PURGING\ AND\ SAMPLING\ LOG}$

WELL MW-204

SECTION 1 - SITE AND	WELL INFORMATION
SITE LOCATION <u>Canandaigua, NY</u>	JOB# <u>2105R-99</u>
PROJECT NAME: Former Parkway Cleaners	DATE: <u>8/22/08</u>
SAMPLE COLLECTOR(S): Glenn Miller	WEATHER: 80° F, Sunny
PID READING IN WELL HEADSPACE (PPM):	MEASURING POINT: Top of Casing (Elev. 98.34')
CASING TYPE: PVC	WELL DIAMETER (INCHES): 1.25
SCREENED INTERVAL [FT]: 6 - 16	INITIAL WATER LEVEL SWL / Date Measured 5.11 / 8/22/08
WELL DEPTH [FT]: <u>15.0</u> (Do <u>NOT</u> Measure Well depth Prior To Purging And Sampling)	DEPTH OF PUMP INTAKE [FT]: 11.0
LNAPL: None DNAPL: None	OTHER OBSERVATIONS: None
SECTION 2 – SAMP	LING EQUIPMENT
CONTROL BOX: QED ~ 400	TUBING TYPE: 1/4" Water , 1/8" Air
WATER QUALITY METER: Horiba U-22	WATER LEVEL METER: Solinst Mini
PUMP TYPE: 3/4" Bladder	PURGE GAS: Air
CONTROL BOX DISCHARGE RATE: 2	CONTROL BOX REFILL RATE: 20
STABILIZED PUMP RATE (ml/min): 60 STA	ABILIZED DRAWDOWN WATER LEVEL [FT]: 5.15

	SECTION 3 – WATER QUALITY DATA MONITORING												
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	рН	Temp. (C ⁰)	Total Vol. Pumped (ml)				
7:35	60	5.15	3.0	-123	180	0.25	7.13	15.6	560				
7:38	60	5.15	1.8	-125	140	0.25	7.14	15.5	740				
7:41	60	5.15	1.4	-124	130	0.26	7.15	15.5	920				
7:44	60	5.15	1.1	-123	130	0.26	7.16	15.5	1100				
7:47	60	5.15	1.1	-122	120	0.26	7.17	15.5	1280				
7:50	60	5.15	1.0	-121	120	0.27	7.17	15.5	1460				
	SAMPLE OBSERVATIONS:												

SECTION 4	SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS										
SAMPLE ID # DATE / TIME SAMPLING METHOD ANALYTICAL SCAN(S)											
MW-204	8/22/08 / 7:50	Bladder Pump	Halogenated VOCs via USEPA 8260								

SUMMARY OF GROUNDWATER SAMPLING MEASUREMENTS SAMPLE EVENT: 9-10-2009 (PDS INSTALLATION) 9-22-2009 (PDS RETRIEVAL)

	neter	Depth to Bottom of	PDS		nter vation (ft.)		urement 5-27-2009	
Location	Well Diameter (inches)	Well (ft.) Measured 9-10-2009	Sample Interval (ft.)	9-10-2009	9-22-2009	DO (mg/l)	ORP (mV)	pH (s.u.)
MW-301	1.25	14.98	10.5-14	5.48/92.67	6.80/91.35	1.6	- 67	7.44
MW-302	1.25	15.02	10-13.5	4.72/92.97	5.05/92.64	0.4	- 25	7.55

Notes: All depth measurements are referenced from the top of the PVC well casing

* = Measurements could not be collected

PDS = Passive Diffusion Sampler

DO = Dissolved Oxygen measurement made within the monitoring well using a YSI model 550A Dissolved Oxygen Probe

ORP = Oxygen Reduction Potential measurement made using a Eutech Instruments ORPTestr 10 ORP/Redox Tester

pH = Measurement made using a Eutech Instruments pHTestr 30 pH Meter

TABLE 1: SUMMARY OF GROUNDWATER SAMPLING MEASUREMENTS SAMPLE EVENT: 12-17-2009 (PDS INSTALLATION) 1-7-2010 (PDS RETRIEVAL)

	ਹੁੰ Depth to Bottom of		Bottom of PDS (IL.)			Measurement Date 1-7-2010		
Location	Well Dian (inches)	Well (ft.) Measured 5-15-2009	Sample Interval (ft.)	12-17-2009	1-7-2010	DO (mg/l)	ORP (mV)	pH (s.u.)
MP-1	6	12.0	10-11.5	4.62/94.26	4.67/94.21	3.2	-115	10.26
MP-3	6	18.1	10-11.5	4.33/94.27	4.41/94.19	4.2	-113	10.15
MW-102s	2	13.6	8.5-10	4.72/94.18	4.71/94.19	0.7	-39	7.65
MW-103s	2	12.4	9-10.5	5.08/93.46	5.01/93.53	0.4	-7	7.94
MW-4	1.25	12.6	8.5-12	3.60/94.42	4.17/93.85	0.5	-52	8.21
MW-203	1.25	19.7	11-14.5	4.51/93.41	4.42/93.5	0.3	29	7.27
MW-204	1.25	15	10-13.5	4.98/93.36	4.88/93.46	0.4	-11	7.45
MW-301	1.25	15	10.5-14	4.73/93.42	5.71/92.44	4.3	28	7.61
MW-302	1.25	15	10-13.5	4.26/93.43	4.45/93.24	4.1	-51	7.86

Notes: All depth measurements are referenced from the top of the PVC well casing

PDS = Passive Diffusion Sampler

DO = Dissolved Oxygen measurement made within the monitoring well using a YSI model 550A Dissolved Oxygen Probe

ORP = Oxygen Reduction Potential measurement made using a Eutech Instruments ORPTestr 10 ORP/Redox Tester

pH = Measurement made using a Eutech Instruments pHTestr 30 pH Meter

APPENDIX G HYDRAULIC CONDUCTIVITY TEST RESULTS

HYDRAULIC CONDUCTIVITY TESTING DATA SHEET

 DATE:
 1/24/02
 DAY REPRESENTATIVES: ARF/ JKH

 WELL:
 S-2
 WELL DIAMETER: 1 ½ "

 SWL:
 3.92
 SLUG DIMENSIONS: Length = 36"; Diameter = 1"

TIME SLUG IN: 12:20 TIME SLUG OUT: 12:46

TIME	WATER	TIME	WATER	TIME	WATER	TIME	WATER
	LEVEL		LEVEL		LEVEL		LEVEL
SLUG IN	2.98	17:30	3.71	SLUG OUT	5.40	17:30	3.96
:10	3.02	20:00	3.71	:10	5.28	20:00	3.94
:20	3.04			:20	5.18	· · · · · · · · · · · · · · · · · · ·	
:30	3.06			:30	5.02		1
:40	3.09			:40	4.95		
:50	3.10		-	:50	4.88		
1:00	3.13			1:00	4.81		
1:20	3.19	-		1:20	4.70		1
1:40	3.21			1:40	4.64		1
2:00	3.25] 		2:00	4.56		!
2:30	3.30	1		2:30	4.49		1
3:00	3.34			3:00	4.43		1
3:30	3.36	1		3:30	4.38		•
4:00	3.38			4:00	4.35		
4:30	3.42			4:30	4.30		
5:00	3.44			5:00	4.28		1
6:00	3.49	1		6:00	4.21		! !
7:00	3.51	1		7:00	4.18		1
8:00	3.55	-		8:00	4.12		
9:00	3.58			9:00	4.09		
10:00	3.60			10:00	4.05		1
12:30	3.63	- I		12:30	4.01		1
15:00	3.69			15:00	3.98		

HYDRAULIC CONDUCTIVITY TESTING DATA SHEET

 DATE:
 1/24/02
 DAY REPRESENTATIVES: ARF/ JKH

 WELL:
 SW-3
 WELL DIAMETER: 1 1/4 "

 SWL:
 4.29
 SLUG DIMENSIONS: Length = 36"; Diameter = 1"

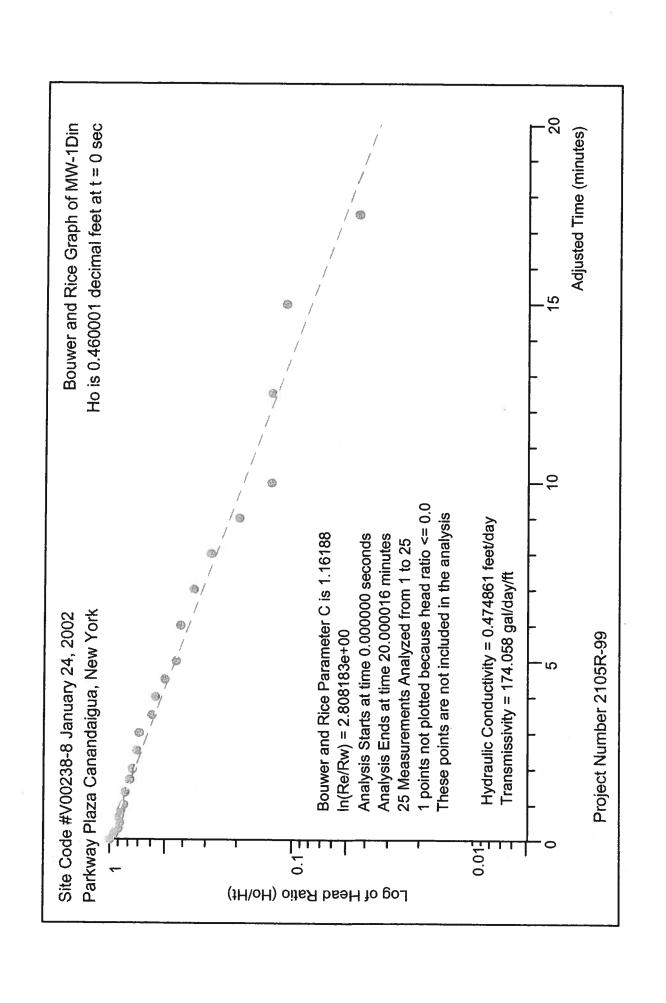
 TIME SLUG IN:
 10:25
 TIME SLUG OUT: 10:46

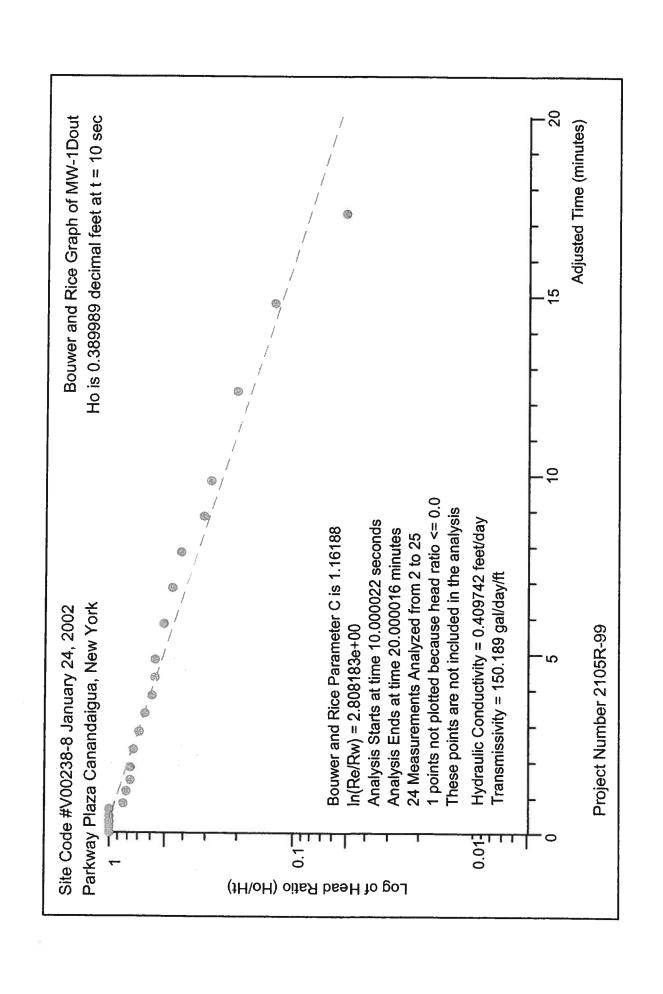
TIME	WATER	TIME	WATER	TIME	WATER	TIME	WATER
	LEVEL		LEVEL		LEVEL		LEVEL
SLUG IN		17:30	3.92	SLUG OUT	4.64	17:30	4.32
:10	3.32	20:00	3.93	:10	4.62	20:00	4.33
:20	3.32	-		:20	4.60		1
:30	3.33			:30	4.60		
:40	3.34			:40	4.60		
:50	3.37			:50	4.60		1
1:00	3.37	1		1:00	4.59		
1:20	3.40			1:20	4.59		
1:40	3.43			1:40	4.58		
2:00	3.48			2:00	4.58		
2:30	3.51			2:30	4.58		
3:00	3.55			3:00	4.55		
3:30	3.60			3:30	/		
4:00	3.63			4:00	4.53		
4:30	3.67			4:30	/		
5:00	3.70			5:00	4.51		
6:00	3.74			6:00	4.48		
7:00	3.80			7:00	4.45		
8:00	3.83			8:00	4.42		
9:00	3.86			9:00	4.42		
10:00	3.86			10:00	4.40		
12:30	3.87			12:30	4.40		
15:00	3.87			15:00	4.38	_	

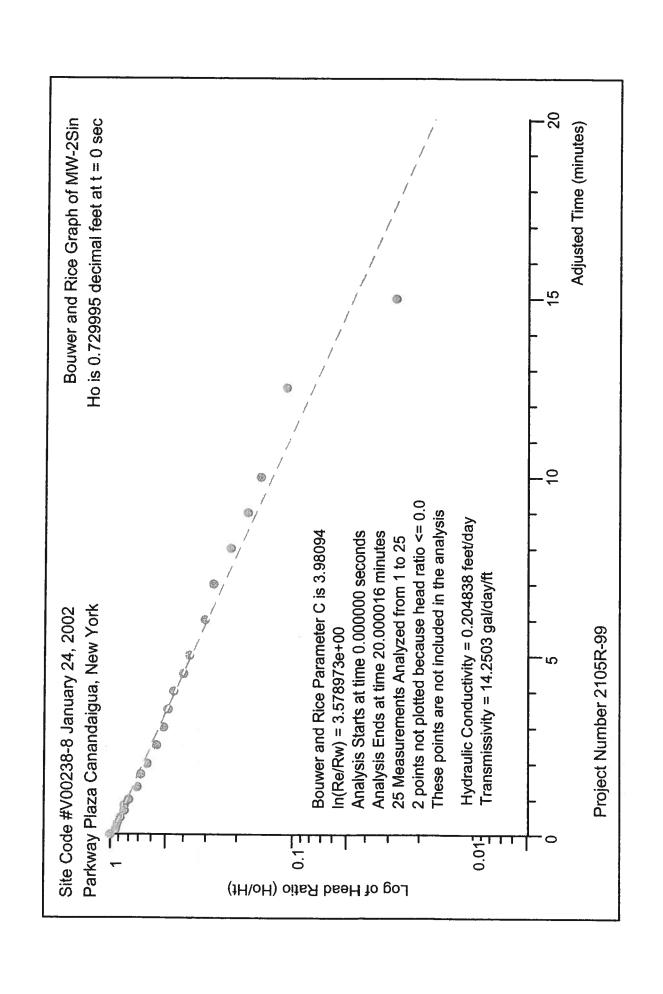
HYDRAULIC CONDUCTIVITY TESTING DATA SHEET

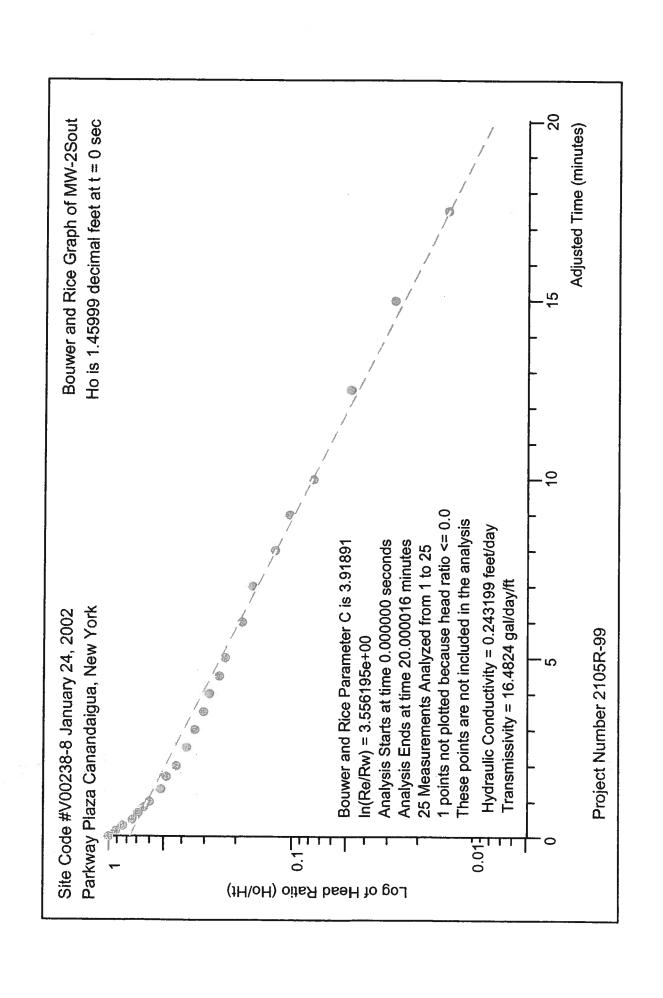
DATE:1/24/02	DAY REPRESENTATIVES: ARF/ JKH
WELL: D-1	WELL DIAMETER:2 "
SWL: 5.67	SLUG DIMENSIONS: Length = 36"; Diameter = 1"
TIME SLUG IN: 11:24	TIME SLUG OUT: 11:48

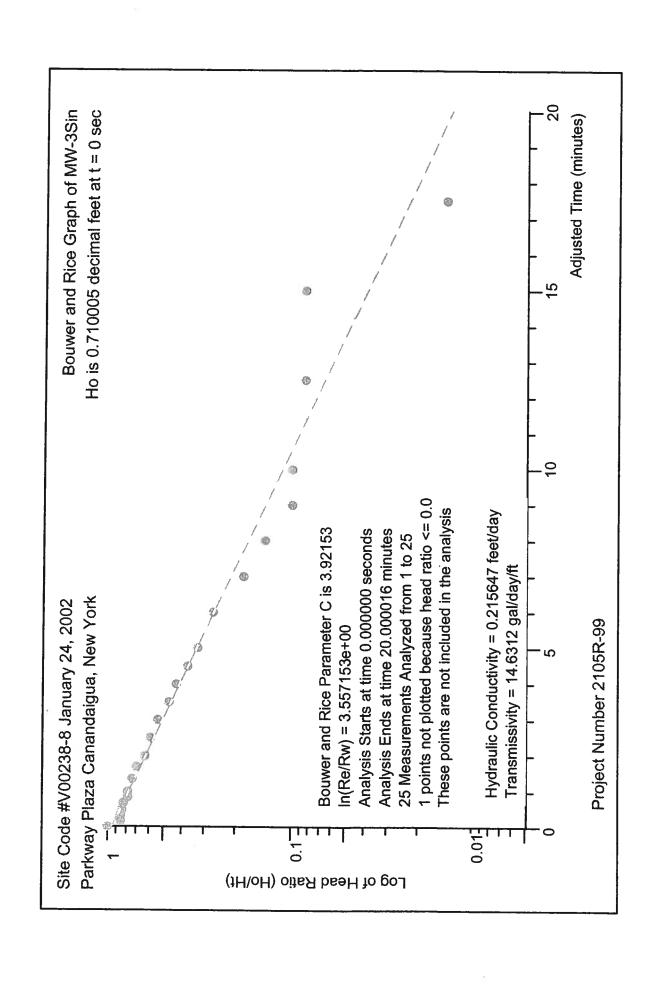
TIME	WATER	TIME	WATER	TIME	WATER	TIME	WATER
	LEVEL		LEVEL		LEVEL		LEVEL
SLUG IN	5.10	17:30	5.54	SLUG OUT	6.08	17:30	5.72
:10	5.12	20:00	5.56	:10	6.09	20:00	5.70
:20	5.14			:20	6.09		1
:30	5.15			:30	6.09		t t
:40	5.15			:40	6.09		1
:50	5.16			:50	6.09		t 1
1:00	5.17			1:00	6.03		1
1:20	5.18	-		1:20	6.02		
1:40	5.20	-		1:40	6.00		t t
2:00	5.21			2:00	6.00		t
2:30	5.23			2:30	5.99		t
3:00	5.24	-		3:00	5.97		
3:30	5.29			3:30	5.95		
4:00	5.30			4:00	5.92	·	
4:30	5.33	-		4:30	5.92		
5:00	5.36			5:00	5.92		
6:00	5.37			6:00	5.90		
7:00	5.40			7:00	5.88		0)
8:00	5.43			8:00	5.86		2
9:00	5.47			9:00	5.82		17
10:00	5.50			10:00	5.81		
12:30	5.50			12:30	5.78		
15:00	5.51			15:00	5.75		

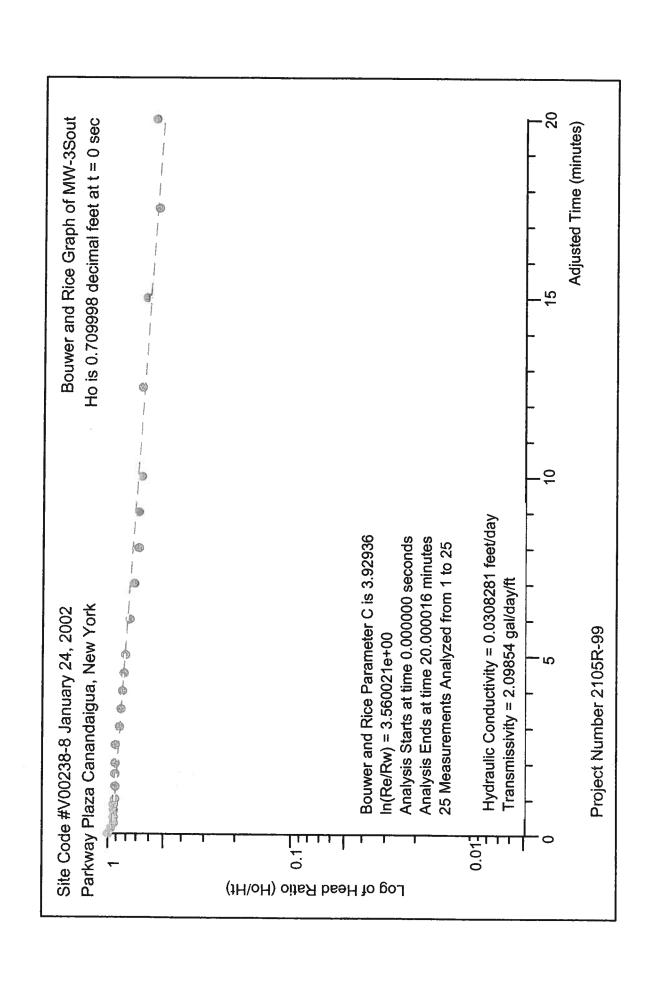




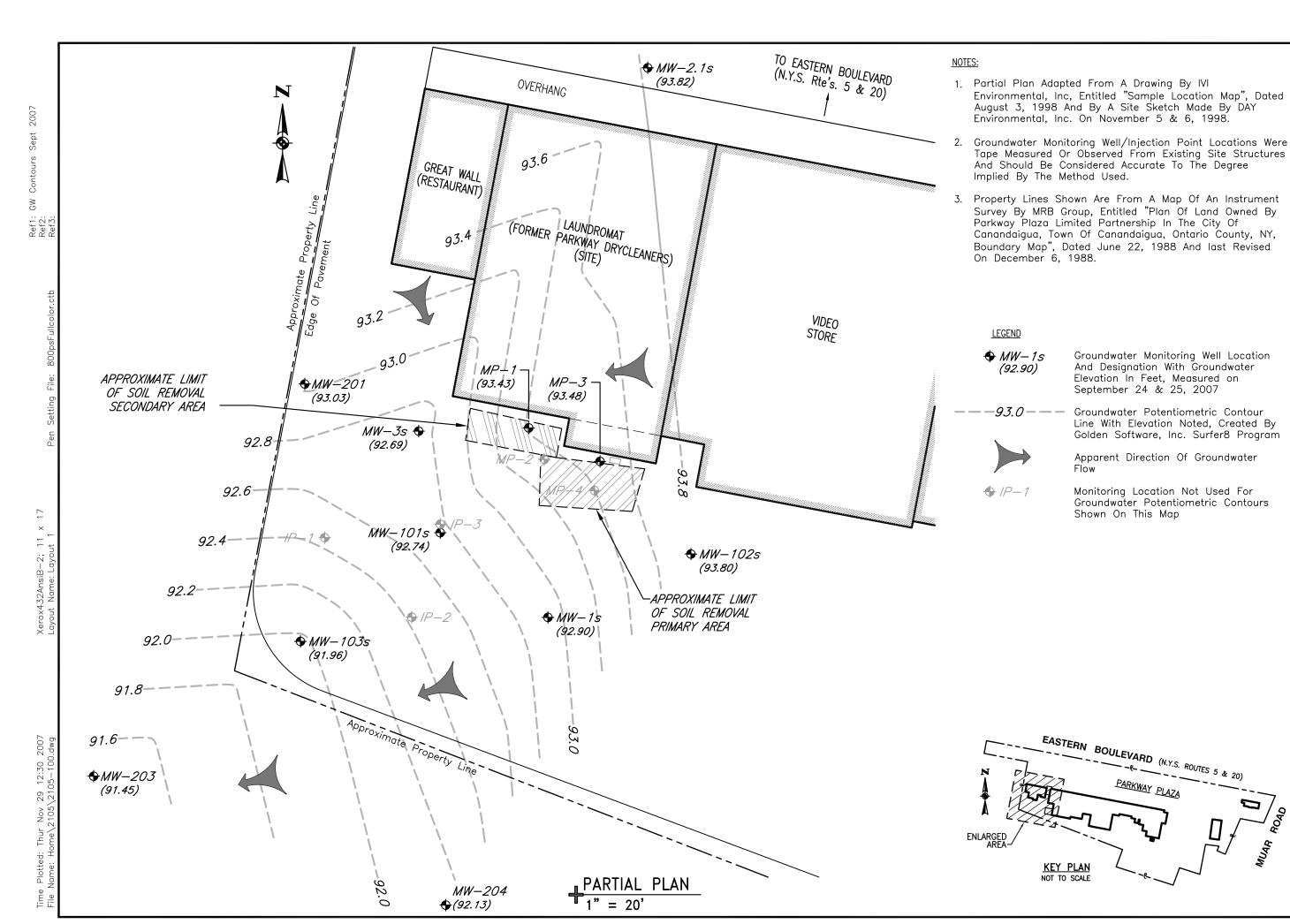








APPENDIX H GROUNDWATER CONTOUR MAPS



11-29-2007 As Noted DJG RJM

DAY ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTANTS ROCHESTER, NEW YORK 14614-1008 NEW YORK, NEW YORK 10165-1617

& 25,

24

September Contour Groundwater Potentiometric

2105R-99 Appendix H FIGURE 1

PROJECT TITE
PARKWAY PLAZA
CANADAIGUA, NEW YORK



Date 06-09-2008

Drawn By

CPS

Scale AS NOTED DAY ENVIRONMENTAL, INC.

Environmental Consultants Rochester, New York 14614-1008 New York, New York 10165-1617

Project Title

PARKWAY PLAZA CANADAIGUA, NEW YORK

Drawing Title

Potentiometric Groundwater Contour Map for May 8, 2008

Project No.

2105R-99

Appendix H FIGURE 2



Date 03-05-2009

Drawn By

CPS

Scale

AS NOTED

day environmental, inc.

Environmental Consultants Rochester, New York 14614-1008 New York, New York 10165-1617 Project Title

PARKWAY PLAZA CANADAIGUA, NEW YORK

Drawing Title

Potentiometric Groundwater Contour Map for February 11, 2009

Project No.

2105R-99

Appendix H FIGURE 3



03-18-2010

Drawn By

CPS

Scale

AS NOTED

day DAY ENVIRONMENTAL, INC.

Environmental Consultants Rochester, New York 14614-1008 New York, New York 10165-1617 Project Title

PARKWAY PLAZA CANADAIGUA, NEW YORK

Drawing Title

Potentiometric Groundwater Contour Map for September 22, 2009

Project No.

2105R-99

Appendix H FIGURE 4

APPENDIX I

EXCERPTS FROM THE REPORT TITLED:

VAPOR INTRUSION EVALUATION
FORMER PARKWAY CLEANERS
PARKWAY PLAZA
CANANDAIGUA, NEW YORK
NYSDEC SITE #VCP 00238-8

VAPOR INTRUSION EVALUATION REPORT FORMER PARKWAY CLEANERS PARKWAY PLAZA **CANANDAIGUA, NEW YORK NYSDEC SITE #VCP 00238-8**

Prepared for: Conifer Realty, LLC

183 East Main St

Suite 600

Rochester, New York 14604

Prepared by: Day Environmental, Inc.

40 Commercial Street

Rochester, New York 14614

Project #:

2105R-99

Date

May 3, 2007

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		2.2.1 Sub-Slab Samples
		2.2.2 Indoor Air Samples
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1.0 INTRODUCTION

This report describes a vapor intrusion (VI) study conducted by Day Environmental, Inc. (DAY) on April 4, 2007 and April 5, 2007 at property located on the south side of Routes 5 & 20 (85 Eastern Boulevard), Canandaigua, New York (the Site). The Site is owned and managed by Conifer Reality, LLC (Conifer). The VI study was conducted in the western portion of the strip plaza building located at the Site (the study area). Currently, this portion of the building is occupied by a Laundromat (Parkway Laundry), a restaurant (The Great Wall Restaurant), and a video rental store (Movie Gallery). A project locus map is included as Figure 1, and a Site plan is included as Figure 2.

Environmental studies completed at the Site have identified tetrachloroethene (PCE) and its associated breakdown products (i.e., identified herein as the contaminants of concern or COC) within the soil and groundwater in proximity to, and potentially beneath, the study area. A primary objective of the work described in this report is to determine if elevated concentrations of COC are present in the vapors inside the building at the Site and/or its sub-slab. To achieve the stated objective, DAY initially prepared a work plan titled "Vapor Intrusion Evaluation Work Plan, Former Parkway Cleaners, Parkway Plaza, Canandaigua, New York, NYSDEC SITE #00238-8" dated January 30, 2007 (the Work Plan). Based upon subsequent discussions with representatives of the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), the scope of work identified in the Work Plan was, approved with some agreed modifications, and the following activities were completed.

- A pre-sampling building inspection and product inventory was completed for each of the three businesses occupying the portion of the building within the study area on April 4, 2007.
- Sample locations (i.e., one location within each business evaluated and one exterior/background location) were selected in consultation with a NYSDOH representative.
- A pneumatic hammer drill was used to advance boreholes through the concrete floor at
 each interior test location and tubing was installed within the borehole and sealed in
 place.
- On April 5, 2007, pre-calibrated Summa[®] canisters were used to collect a total of seven vapor samples from interior and exterior locations (i.e., including a sub-slab sample and an adjacent indoor air sample from three interior locations and an exterior background sample).
- Following collection, the Summa[®] canisters were delivered to an analytical laboratory for testing of the COC using United States Environmental Protection Agency (USEPA) Method TO-15.
- The results of the analytical laboratory testing and this VI study are summarized in this report.

2.0 VAPOR INTRUSION TESTING

The work performed as part of this VI evaluation is described in this section.

2.1 Pre-Sampling Building Inspection and Product Inventory

On April 4, 2007, DAY conducted a pre-sampling building inspection and product inventory for each of the three businesses evaluated as part of this VI study. Representatives of the NYSDOH and Conifer were present during the initial portion of this pre-sampling inspection and product inventory. The purpose of this work was to identify and reduce conditions that had the potential to interfere with the subsequent indoor air and sub-slab air sampling and testing. Executed copies of the NYSDOH document titled, "Indoor Air Quality Questionnaire and Building Inventory" for each of the businesses evaluated, and photographs of various materials observed within these businesses, are included in Appendix A.

During the pre-sampling inspection and product inventory, DAY spoke with representatives of each business to determine the nature of work conducted and to identify potential activities that may affect the VI sample results. The relevant findings are discussed below:

- The Parkway Laundry functions as a self-serve and drop-off laundry; and a pick-up/drop-off dry cleaner (i.e., dry cleaning is not conducted at this facility). Equipment used in the Laundromat is repaired in an area designated as the storage #1/shop area. This area is also the repository of the majority of the chemicals identified during the chemical survey of the Laundromat. Some of the chemicals identified in the storage #1/shop area included: GUNK-Liquid Wrench, 3-M Dri-Strip. Raid insecticide, polish, and steel cleaner. During the pre-sampling building inspection conducted on April 4, 2007, DAY observed a Laundromat employee using GUNK-Liquid Wrench while repairing a washing machine. DAY requested that the employee stop using the GUNK-Liquid Wrench until the sampling was completed the next day. Use of GUNK-Liquid Wrench was not observed on site during the sampling.
- The Great Wall Restaurant is primarily a take-out restaurant with a small front dining area. The majority of the chemicals stored/used in the restaurant are basic cleaning supplies. Cleaning is typically performed on an as needed basis or at a minimum daily. During the interview, the owner of the restaurant indicated that he replaced floor tiles in the front counter area on April 2, 2007, and painted the majority of the space within the last six months.
- The Movie Gallery (video rental store) chemical inventory found basic cleaning supplies. The manager had no information regarding recent chemical use or construction activities.

In addition to the interviews, products that were confirmed or suspected of containing volatile organic compounds (VOCs) were inventoried. A RAE Systems PPBRAE Model PGM7240 photoionization detector (PID) was used to measure the air quality in proximity of the products confirmed or suspected to contain VOCs. [Note: The Rae Systems Model PGM72740 is capable of measuring VOCs within a range of 0 to 999 parts per billion (ppb) when set to its most sensitive range.] The results of the product inventory, along with PID readings measured near the corresponding container, are presented on the Product Inventory Form of the Indoor Air Quality Questionnaire and Building Inventory included in Appendix A.

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As shown on the Product Inventory Form, the PID readings recorded in the ambient air over the chemicals in the Parkway Laundry ranged from 0 ppb to 158 ppb, with the highest PID readings recorded over the chemicals stored in the storage#1/shop area. The PID readings recorded during the chemical inventory in the Great Wall Restaurant ranged from 0 ppb to 2 ppb, with the peak PID reading of 2 ppb recorded in the ambient air over the chemicals stored in the front counter area of the business. No PID readings were measured above background (0.0 ppb) in the ambient air over the chemicals stored in the Movie Gallery.

Upon completion of the pre-sampling building inspection, the building was prepared for the air-sampling event to the extent feasible (e.g., windows were confirmed to be closed, cleaning chemicals were confirmed to not be in use, the heating system was in use). [Note: The Great Wall Restaurant has a ventilation system (hood), which must be operated during business hours].

2.2 Collection of Samples

The procedures used to collect samples during this study are described in this section.

2.2.1 Sub-Slab Samples

The sub-slab vapor sample locations (designated as samples SSV-1 and SSV-2, SSV-3) are presented on Figure 2. These sample locations were determined in the field based on the presampling inspection and with the concurrence of the NYSDOH on-site representative.

The sub-slab sampling probes were installed on April 4, 2007 (SSV-2 and SSV-3) and April 5, 2007 (SSV-1) by drilling through the building floor slab using a rotary pneumatic hammer equipped with a 5/8" diameter bit. Following drilling, temporary probes constructed with ¼-inch outer diameter polyethylene tubing of food grade quality were placed through the slab into the subsurface. These probes were installed so that the bottom of the probe extended approximately 2 inches into the sub-slab material. The annulus around the tip of the tubing was backfilled with coarse sand to form a sampling zone around the probe, and the probe was sealed to the surface with hydrated bentonite.

On April 5, 2007, the sub-slab vapor samples were collected using batch-certified clean, 1 liter Summa® canisters equipped with calibrated regulators that were obtained from Paradigm Environmental Services, Inc. (Paradigm). Paradigm is a NYSDOH Environmental Laboratory Approval Program (ELAP) certified analytical laboratory. The Summa® canisters used for SSV-1 and SSV-3 had four-hour regulators (i.e. the samples were collected over four hours) and the Summa® canister used for SSV-2 had a two-hour regulator (i.e., the sample was collected over two hours). The regulators on the Summa canisters were opened between 11:39 AM and 11:43 AM, and the regulators were closed between 1:40 PM (SSV-2) and 3:57 PM (SSV-1 and SSV-3). Airflow into the canister was monitored throughout the test, and the flow rate for did not exceed 0.2 liters per minute.

The protocol used to collect the sub-slab vapor samples was as follows:

- Purge the sub-slab probes for approximately two minutes by connecting the lines to the PPBRAE, to remove air accumulated in the probe prior to sampling.
- Connect the Summa[®] canisters to the sample probe tubing and draw air from beneath the sub-slab to collect test samples.

- Record the canister number, flow regulator number and pressure readings at the beginning of the test, and pressure readings at approximately one-half hour intervals for the duration of the test.
- At the conclusion of the test, record pressure readings and shut off the Summa[®] canisters and disconnect them from the probe tubing. Remove the probes and the patch the concrete floor with quick setting concrete.
- Transmit the Summa[®] canisters under chain-of-custody control to the analytical laboratory for testing (refer to Section 2.3).

2.2.2 Indoor Air Samples

On April 5, 2007, indoor air samples (designated as samples IA-1, IA-2 and IA-3) were collected adjacent to each of the sub-slab samples (refer to Figure 2). The indoor air samples were collected using batch-certified clean, 1 liter Summa[®] canisters equipped with four-hour regulators (i.e., the samples were collected over four hours.) The sample collection intakes were placed at heights of 5 feet (IA-1), 4.5 feet (IA-2) and 3 feet (IA-3) above the floor. Regulators on the Summa canisters were opened between 11:39 AM and 11:43 AM, and the regulators were closed between 3:41 PM and 3:57 PM. Airflow into the canister was monitored throughout the test, and the flow rate for did not exceed 0.2 liters per minute. [Note: Care was taken to place the canisters in locations where they would not be disturbed during sampling in order to minimize undue influence on the samples.]

At each sample location, the canister number, flow regulator number and pressure readings were recorded at the beginning of the test, at approximately one-half hour intervals for the duration of the test, and at the conclusion of the test. The indoor air samples were collected in conjunction with the sub-slab vapor samples and outdoor air sample. Following collection, the Summa® canisters were transmitted under chain-of-custody control to the analytical laboratory for testing (refer to Section 2.3).

2.2.3 Outdoor Air Sample

On April 5, 2007 the outdoor background (ambient) air sample (designated as sample BG-1) was collected using a batch-certified clean, 1 liter Summa® canister equipped with a four-hour regulator (i.e. the sample was collected over four hours). The sample collection intake was placed at a height of 5.5 feet above the ground surface at an upwind location outside of the site building. The regulator on the Summa® canister was opened at 11:37 AM and closed at 3:25 PM. Airflow into the canister was monitored throughout the test and the flow rate for did not exceed 0.2 liters per minute. The location of the ambient air sample is depicted on Figure 2. The sample location was determined in the field based on prevailing wind direction (from the west), site conditions, and with the concurrence of the NYSDOH on-site representative. The background air sample was placed in a location that was not disturbed by personnel lingering in the immediate area of the sampling device in order to minimize undue influence on the sample.

The canister number, flow regulator number and pressure readings were recorded at the beginning of the test, at approximately one-half hour intervals for the duration of the test, and at the conclusion of the test. The ambient air sample was collected in conjunction with the sub-slab vapor samples and indoor air samples. Following testing, the Summa[®] canister was transmitted under chain-of-custody control to the analytical laboratory for testing (refer to Section 2.3).

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2.3 Analytical Laboratory Testing

The seven samples collected (three sub-slab, three indoor air, and one outdoor background ambient air) were submitted to Paradigm, and Paradigm analyzed each sample was analyzed for site-specific COC using USEPA Method TO-15. Specifically, each sample was tested for the following parameters:

- Tetrachloroethene (PCE);
- Trichloroethene (TCE);
- cis-1,2-Dichloroethene (cis-1,2-DCE);
- trans-1,2-Dichloroethene (trans-1,2-DCE);
- 1,1-Dichloroethene (1,1-DCE); and
- Vinyl Chloride (VC).

A copy of Paradigm's laboratory report and executed chain of custody documentation are included in Appendix B. The concentrations of the COC detected in sub-slab or indoor air samples are summarized on Table 1.

3.0 FINDINGS

During the pre-sampling building inspection conducted on April 4, 2007, the highest readings in ambient air were measured in the storage #1/shop area of the Parkway Laundry (i.e., peak PID reading of 158 ppb) and near the front counter of the Great Wall Restaurant (i.e., peak PID reading of 2 ppb). No PID readings were measured above background (0.0 ppb) in the ambient air over the chemicals stored in the Movie Gallery. It is noted that during the pre-sampling building inspection, DAY observed a Laundromat employee using GUNK- Liquid Wrench while repairing a washing machine. In addition, the owner of the restaurant indicated that he replaced floor tiles in the front counter area on April 2, 2007and painted the majority of the space (within the last six months).

Detectable concentrations of PCE were reported in each of the sub-slab samples tested, and the sample from the sub-slab beneath the Parkway Laundry (i.e., sample SSV-1) also contained detectable concentrations of TCE, cis-1,2 DCE and VC. However, the NYSDOH has no guidance values for sub-slab soil vapor concentrations. Each of the indoor air samples tested contained detectable concentrations of PCE and the indoor air sample collected from the Great Wall Restaurant also contained a detectable concentration of TCE. The ambient outdoor air (i.e., background sample) did not contain detectable concentrations of COC. [Note: The detection limits reported by the analytical laboratory were sufficiently low to satisfy NYSDOH requirements.] Air guidance values derived by the NYSDOH for indoor and outdoor air are summarized in Table 3.1 of the NYSDOH document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006 (NYSDOH Guidance Document). As shown on Table 3.1, the air guidance value for PCE is 100 mcg/m³ and air the guidance value for 5 mcg/m³ for TCE is 5 mcg/m³. The concentrations measured in the indoor air samples collected during this study were less than the air guidance values (refer to the results presented in Table 1 and included in Appendix C).

To assess remedial requirements, the analytical laboratory test results for the concentrations of TCE and PCE measured in sub-slab and indoor air samples were compared to the Soil Vapor/Indoor Air Matrix 1 (TCE) and Soil Vapor/Indoor Air Matrix 2 (PCE) presented in the NYSDOH Guidance Document. The results of this comparison for each of the businesses evaluated during this study are summarized below.

- <u>Parkway Laundry</u>: The TCE concentrations measured indicate that "no further action" is required. The PCE concentrations measured indicate that "reasonable and practical actions to identify source(s) and reduce exposures" are required.
- Great Wall Restaurant: The TCE concentrations measured indicate that "reasonable and practical actions to identify source(s) and reduce exposures" are required. The PCE concentrations measured indicate that "no further action" is required.
- Movie Gallery: TCE was not measured in either the sub-slab or indoor air samples. The PCE concentrations measured indicate that "no further action" is required.

The NYSDOH Guidance Document defines the above recommended remedial actions as follows.

"No further action: Given that the compound was not detected in the indoor air sample and that the concentration detected in the sub-slab vapor sample is not expected to significantly affect indoor air quality, no additional actions are needed to address human exposures."

"Take reasonable and practical actions to identify sources(s) and reduce exposures: The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures."

4.0 CONCLUSIONS

During the pre-sampling building inspection conducted on April 4, 2007, PID monitoring identified VOCs in the storage #1/shop area of the Parkway Laundry and front counter area of the Great Wall Restaurant. No PID readings were measured above background (0.0 ppb) in the ambient air over the chemicals stored in the Movie Gallery.

The results of the sub-slab and indoor/outdoor sampling conducted on April 5, 2007 revealed detectable concentrations of PCE in each of the sub-slab air samples tested, and the air sample from the sub-slab beneath the Parkway Laundry also contained detectable concentrations of TCE, cis-1,2 DCE and VC. Each of the indoor air samples tested contained detectable concentrations of PCE, and the indoor air sample collected from the Great Wall Restaurant also contained a detectable concentration of TCE. The outdoor ambient air (i.e., background sample) did not contain detectable concentrations of COC.

The NYSDOH does not have guidance values for sub-slab soil vapor concentrations. The concentrations measured in the indoor air samples collected during this study were less than the available air guidance values established by the NYSDOH.

Based upon the results of this VI study and the recommended remedial actions as presented in the NYSDOH Guidance Document, "no further action" is required to address the detected TCE concentrations measured in the Parkway Laundry or the PCE concentrations measured in the Great Wall Restaurant and the Movie Gallery. The TCE concentrations measured in the Great Wall Restaurant and the PCE concentrations measured in the Parkway Laundry indicate that "reasonable and practical actions" should be taken to "to identify sources(s) and reduce exposures".

It is noted that an employee was observed repairing a washing machine in the Parkway Laundry on April 5, 2007 and that the employee was using GUNK-Liquid Wrench. In addition, elevated PID readings were measured within the Parkway Laundry during the pre-sampling building inspection. The owner of the Great Wall Restaurant indicated that he recently (i.e. April 2, 2007) replaced floor tiles in the front counter area and painted the majority of the space (within the last six months). Detectable PID measurements were made in proximity of the front counter of the Great Wall Restaurant during the pre-sampling building inspection.

The current findings and historic operations (particularly within the Parkway Laundry space) could have resulted in the concentrations measured in the indoor air samples. It is recommended that care be taken in the future when using chemicals containing VOCs. This should include providing proper ventilation and storing chemicals in tightly sealed containers and off-site, if possible. The results of this VI study do not appear to warrant additional testing or remedial activities in relation to vapor intrusion within the study area at this time.

5.0 ACRONYMS

COC Contaminants of Concern cis-1,2-DCE cis-1,2-Dichloroethene trans-1,2-DCE trans-1,2-Dichloroethene 1,1-DCE 1,1-Dichloroethene

MSDS Material Safety Data Sheet

NYSDEC New York State Department of Environmental Conservation

NYSDOH New York State Department of Health PCE Tetrachloroethene/Perchloroethylene

PPB Parts Per Billion

PID Photoionization Detector

TCE Trichloroethene

ug/m³ micrograms per cubic meter (mcg/m³)

USEPA United States Environmental Protection Agency

VC Vinyl Chloride VI Vapor Intrusion

VOC Volatile Organic Compound

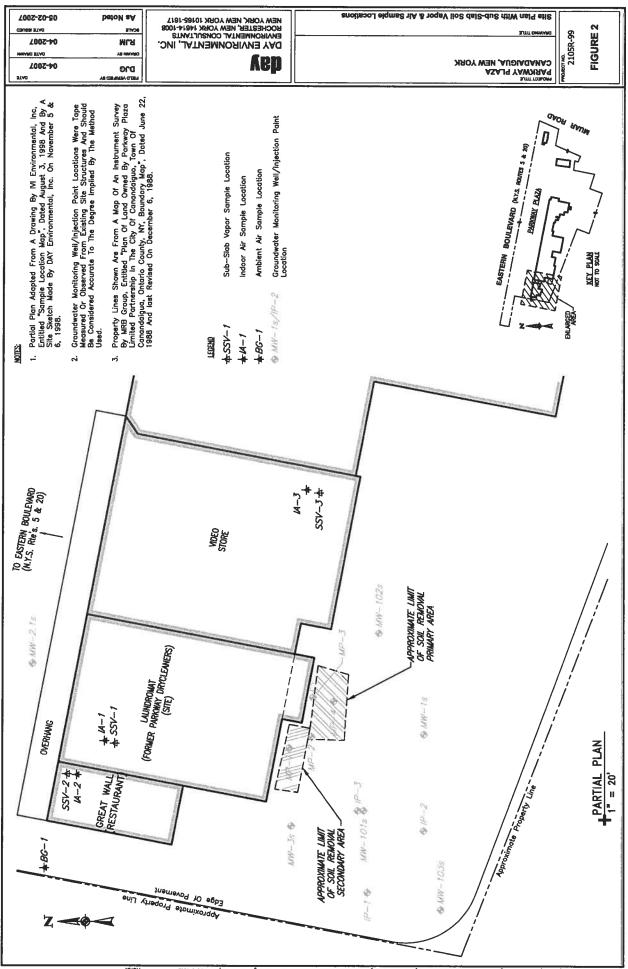


TABLE 1

CANANDAIGUA, NEW YORK PARKWAY PLAZA

SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCs) IN UG/M³

VAPOR INTRUSION AIR SAMPLE RESULTS

APRIL 5, 2007

		SAME	SAMPLE LOCATION AND DESIGNATION	TION AN	DESIGN	ATION		NYSDOH AIR
DETECTED VOCS	Laund	aundromat	restaurant	urant	video	video store	ambient	GUIDELINE VALUES (UG/M³) ⁽¹⁾
	I-ASS	IA-1	SSV-2	IA-2	SSV-3	IA-3	BG-1	Indoor Air
Vinyl chloride	0.938	QN	QN	Q	S	QN	QN	N/
cis-1,2 Dichloroethene	4.55	QN	Q	Q	9	QN	QN	N
Trichloroethene	9.57	QN	QN	0.253	9	QN	QN	5
Tetrachloroethene	47.7	9.39	3.85	1.11	5.97	1.06	QN	100

Test results for sub-slab vapor samples, indoor air sample, outdoor air sample, and air guideline values reported in ug/ \mathfrak{m}^3

SSV=sub-slab vapor sample

IA=indoor air sample

BG=background (ambient outdoor air sample)

1=Air guidelines value referneced in Table 3.1 of Section 3.2.5 of the NYSDOH document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York", October 2006

NYSDOH does not have guidelines for sub-slab vapor

ND=Constituent concentration not detected above reported analytical laboratory detection limit; refer to Appendix D for detection limits

NV=No Guideline Value

APPENDIX J

FISH AND WILDLIFE RESOURCES IMPACT ANALYSIS DECISION TREE

Appendix 3C

**	
Fish and Wildlife Resources	Impact Analysis Decision Key

		If YES Go to:	If NO Go to
1.	Is the site or area of concern a discharge or spill event?	13	2
2.	Is the site or area of concern a point source of contamination to the groundwater which will be prevented from discharging to surface water? Soil contamination is not widespread, or if widespread, is confined under buildings and paved areas.	13	3
3.	Is the site and all adjacent property a developed area with buildings, paved surfaces and little or no vegetation?	4	9
4.	Does the site contain habitat of an endangered, threatened or special concern species	Section 3.10.1	5
5.	Has the contamination gone off-site?	6	14
6.	Is there any discharge or erosion of contamination to surface water or the potential for discharge or erosion of contamination?	7	14
7.	Are the site contaminants PCBs, pesticides or other persistent, bioaccumulable substances?	Section 3.10.1	8
8.	Does contamination exist at concentrations that could exceed ecological impact SCGs or be toxic to aquatic life if discharged to surface water?	Section 3.10.1	14
9.	Does the site or any adjacent or downgradient property contain any of the following resources? i. Any endangered, threatened or special concern species or rare plants or their habitat ii. Any DEC designated significant habitats or rare NYS Ecological Communities iii. Tidal or freshwater wetlands iv. Stream, creek or river v. Pond, lake, lagoon vi. Drainage ditch or channel vii. Other surface water feature viii. Other marine or freshwater habitat ix. Forest x. Grassland or grassy field xi. Parkland or woodland xii. Shrubby area xiii. Urban wildlife habitat xiv. Other terrestrial habitat	11	10
10.	Is the lack of resources due to the contamination?	S 3.10.1	14
11.	Is the contamination a localized source which has not migrated and will not migrate from the source to impact any on-site or off-site resources?	14	12
12.	Does the site have widespread surface soil contamination that is not confined under and around buildings or paved areas?	Section 3.10.1	12
3.	Does the contamination at the site or area of concern have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource? (See #9 for list of potential resources. Contact DEC for information regarding endangered species.)	Section 3.10.1	(4)
14.	No Fish and Wildlife Resources Impact Analysis needed.		