

New York State Department of Environmental Conservation

Final Remedial Investigation Report

Former Munsey Cleaners (OU2) and Former Plaza Cleaners Sites Port Washington, New York Site # 130081 and 130108 Work Assignment # D-004439-18.1 and D-004439-14.1

November 2011



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Final Remedial Investigation Report

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1. Introduction

The New York State Department of Environmental Conservation (NYSDEC) tasked ARCADIS-US, formerly Malcolm Pirnie, Inc. (Malcolm Pirnie), to perform Remedial Investigations (RIs) at the former Munsey Cleaners Operable Unit 2 (OU-2) and the former Plaza Cleaners sites in the Town of North Hempstead, New York (Site number 130081 and 130108, respectively). The RI activities were conducted under the NYSDEC State Superfund Standby Contract Nos. D004439-18.1 and D004439-14.1 in accordance with the January 2008 former Munsey Cleaners Remedial Investigation/Feasibility Study (RI/FS) Work Plan and the June 2009 former Plaza Cleaners Remedial Investigation Work Plan. The purpose of this combined RI is to investigate off-site groundwater containing site-related volatile organic compounds (VOCs) and any buildings potentially affected by soil vapor intrusion associated with the site-related VOC-containing groundwater.

Remedial Investigation Objectives

This RI Report summarizes the results of field activities conducted to meet the following objectives:

- Expand the off-site investigations to assess the limits of the dissolved-phase VOC plume;
- Evaluate the potential for soil vapor intrusion into buildings over the dissolved-phase VOC plume and determine whether actions are needed to address exposures related to soil vapor intrusion; and
- Characterize the geology and hydrogeology in the vicinity of the former Munsey and Plaza Cleaners sites to facilitate the evaluation of interim remedial and final remedial alternatives and provide a basis for additional investigation activities, if warranted.

Standards, Criteria, and Guidance (SCGs)

Title 6 of the NYSCRR Part 375 requires that SCGs are identified and that remedial actions conform with SCGs unless "good cause exists why conformity should be dispensed with." Standards and Criteria are clean-up standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state law that specifically address a hazardous substance, pollutant, contaminant, remedial action, or location. Guidance includes





non-promulgated criteria and guidelines that are not legal requirements; however, the site's remedial program should be designed with consideration given to guidance that, based on professional judgment, is determined to be applicable to the former Munsey and Plaza Cleaners sites.

The principle SCGs for the former Munsey and Plaza Cleaners sites are listed below:

General:

6 NYCRR Part 375 – Environmental Remediation Programs, including the Inactive Hazardous Waste Disposal Site Remedial Program

6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes

NYSDEC DER-10 - Technical Guidance for Site Investigation and Remediation

Soil:

6 NYCRR Part 375 - Soil Clean-up Objectives

Water.

6 NYCRR Part 700-705, Water Quality Regulations for Surface Water and Groundwater

NYSDEC Division of Water TOGS 1.1.1 – Ambient Water Quality Standards and Groundwater Effluent Limitations

Indoor Air.

NYSDOH October 2006 Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York



2. Background

Site Description

The former Munsey and Plaza Cleaners sites are located in an urban area in the Hamlet of Port Washington, Nassau County, Long Island, New York (Figures 1 and 2). Port Washington is located on the approximately 13.5 square-mile, Manhasset Neck peninsula. The Manhasset Neck is surrounded by the Long Island Sound toward the north, Manhasset Harbor to the east and Hempstead Harbor to the west.

The former Munsey Cleaners site is located at the southeastern corner of Port Washington Boulevard and Main Street. The former Plaza Cleaners site, located at the junction of Port Washington Boulevard and Maple Street, is approximately 250 feet southwest of the former Munsey Cleaners site. The Munsey Cleaners OU-1 consists of the property boundary of the site. The Munsey Cleaners OU-2 represents the off-site groundwater and potential indoor air impacts. For the purposes of this RI, the Munsey and Plaza Cleaners sites refer to the properties on which these two businesses formerly operated while the Munsey and Plaza Cleaners investigation area encompasses the area of groundwater contamination, which extends off-site from the former Munsey and Plaza Cleaners sites to the west and northwest (Figure 1).

Dissolved-phase VOC plumes primarily containing tetrachloroethene (PCE) and trichloroethene (TCE) extend off-site from the former Munsey and Plaza Cleaners sites along Port Washington Boulevard approximately three quarters of a mile to the north and northwest. Previous investigations completed at these sites did not fully delineate the dissolved-phase PCE/TCE plume. During a Focused Phase II Remedial Investigation in 2002, concentrations of PCE detected in groundwater sampled at the former Munsey Cleaners site ranged from 43 micrograms-per-liter (μ g/L) to 1,900 μ g/L, while TCE concentrations ranged from not detected to 60 μ g/L. In groundwater sampled at the former Plaza Cleaners site in 2003, PCE concentrations ranged from 3 to 809 μ g/L.

Physical Setting

Land use is mixed-use commercial and residential in the vicinity of the Munsey and Plaza Cleaners sites. Most businesses are on Port Washington Boulevard and Main Street. Residential areas are generally north of Main Street, and in the Village of Baxter Estates (Figure 2).



The topography of the investigation area generally slopes irregularly downward from the former Munsey and Plaza Cleaners properties toward the north and west and upward toward the east. The topography consists of small hummocks (< 5 to 10 feet), kame moraines, and glacial meltwater-incised valleys.

Hydrogeology

The former Munsey and Plaza Cleaners properties are situated at an elevation of approximately 125 feet above mean sea level (AMSL) on the Manhasset Neck in northern Nassau County (Figure 1). Regional topography consists of irregular inland highlands that slope toward the water bodies, with a gentle slope toward the west and steeper slopes toward the east.

Baxter Brook (Swarzenski, 1963), originating west of Port Washington Boulevard, approximately 100 feet north of its intersection with Delaware Avenue flows to the west and runs along Central Drive before flowing into Baxter Pond. A second creek (presumably Stannards Brook), originates at the southern end of Madison Street and flows through Stannards Brook County Park to the north of Charles Street. Neither of these creeks has been classified by the NYSDEC.

The upper glacial aquifer present beneath the former Munsey and Plaza Cleaners sites is a shallow, unconsolidated aquifer of variable thickness. The water table occurs at varying depths in this area because of the irregular topography, and ranges in elevation from approximately 10 to 150 feet AMSL (Stumm, et al. 2002). The upper glacial aquifer is underlain by the North Shore confining unit (NScu). The upper surface elevation of the NScu ranges from approximately 35 to 150 feet below mean sea level (BMSL) across the Manhasset Neck (Stumm, et al. 2002).

Mean annual groundwater pumping from the upper glacial aquifer was 365.6 million gallons through 1992-1996 (data from the Albertson, Manhasset-Lakeville, Port Washington and Roslyn Water Districts; Sands Point Water Department, and New York State Department of Environmental Conservation, in Stumm et al., 2002). The Manhasset Neck is heavily developed with residential and commercial properties. As such, surface run-off is controlled by pavement and stormwater drainage systems.

In the vicinity of the former Munsey and Plaza Cleaners sites, treated groundwater is used as a local potable water source. The Port Washington Water District (PWWD) receives a portion of its water from two supply wells (N-06087 & N-04860) located



approximately 3,700 and 4,100 feet from the former Munsey and Plaza sites, respectively (Figures 4, 5 and 6). These wells are in the Sandy Hollow Well Field, which is downgradient of the former Munsey and Plaza Cleaners sites, and are screened in the upper glacial aquifer. An additional potable water supply well from the PWWD is present at the east end of Bar Beach Road, which is approximately 0.5 miles southeast of the former Munsey and Plaza Cleaners sites. The PWWD serves an area of approximately six square miles that includes the communities of Port Washington, Manorhaven, Port Washington North, Baxter Estates and parts of Flower Hill and Plandome Manor. The PWWD website indicates they serve an average of 9,250 customers with approximately 1.3 billion gallons of water annually.

Regional Geology

The Munsey and Plaza Cleaners sites are located in northwestern Long Island, which has a surficial geology dominated by glacial deposits including moraines, kame deposits, fluvial sands, outwash deposits, shallow marine clays, and eroded valley-fill deposits. Based on regional geologic maps (Cadwell, 1989), surficial deposits in the vicinity of the Munsey and Plaza Cleaners sites include Upper and Lower Pleistocene glacial deposits. The Magothy Formation, the Raritan Formation deposits, and the Lloyd Sand Member are generally located south of the site (Stumm, et al. 2002). Geologic cross-sections in Stumm et al. (2002) indicate the Magothy is not present in the vicinity of the site; however, the NScu and North Shore aquifer are present. Soil at the site is mapped by the Nassau County Soil Survey as Riverhead – Enfield Soil – Urban Land Complex, which consists of nearly level to strongly sloping, well drained, moderately coarse textured and medium textured soils, urban land sands, (fill) and silty sands. The uppermost geologic unit, the upper glacial aquifer, is composed of sediments deposited during the Pleistocene.

The Magothy Formation is composed of unconsolidated sands with discontinuous layers of silts and clays, with a bottom unit of coarse sand and gravel. The formation is exposed along the coast on the north shore of Long Island, with the top of the unit dipping southerly to a depth of approximately 600 feet below sea level at the south shore. The Magothy Formation thickens toward the south, and is approximately 1,000 feet thick in southwestern Suffolk County. The Raritan Formation consists of an upper clay member and a lower sand member (Lloyd Sand). The clay member is a confining unit, resulting in confining conditions within the Lloyd Aquifer. The top of the Lloyd Aquifer is approximately 200 feet below sea level beneath the north shore and dips southerly to approximately 1,500 feet beneath the south shore. Stumm et al.



(2002) suggests that the correlation of the Lloyd Sands Aquifer and Raritan Confining Unit along the north shore of Long Island is "questionable" and therefore assigned the nomenclature of North Shore Aquifer and North Shore Confining Unit.

The bedrock basement beneath Long Island is comprised principally of gneissic metamorphic rocks, which are part of a belt of metamorphic rocks underlying most of eastern North America. Exposures of this rock are found in the Bronx and Yonkers and in a belt extending northeasterly through New Jersey into upstate New York. Based on information from cross sections in Stumm et al. 2002, bedrock elevation (biotite-garnet schist of the Hartland Formation) varies from approximately 150 to 400 feet BMSL.

Previous Investigation and Remediation Activities

Numerous investigation and remediation activities have been conducted at the Munsey and Plaza Cleaners sites. Contaminated soil was excavated and removed from both the Munsey and Plaza Cleaners sites. A soil vapor extraction (SVE) and sub-slab depressurization (SSD) system are currently operating at the Munsey Cleaners site. A SVE system has been installed at the Plaza Cleaners site but is not in operation. These activities are summarized below.

Former Munsey Cleaners Site

A Preliminary Site Assessment (PSA) was conducted at the former Munsey Cleaners (OU-1) site in 1996 and included soil sampling in the basement area and groundwater sampling. During the PSA, PCE concentrations in soil were found to be as high as 12,000 parts per million (ppm) in the vicinity of the basement floor drain. In 1996, approximately 30 tons of contaminated soil were removed from the Munsey Cleaners site as part of Interim Remedial Measures (IRMs) completed at OU-1. Following the soil excavation, a SVE system was installed and operated until July 1998 when soil samples indicated that contamination levels were reduced to less than NYSDEC SCG levels.

Samples collected during the PSA indicated that PCE was present in groundwater in the vicinity of the Munsey Cleaners site at a concentration greater than the NYSDEC Class GA groundwater standard. Groundwater samples from wells located both onsite and off-site that were installed during a RI completed in 2001 demonstrated VOC contamination levels consistent with those found during the PSA. Currently groundwater samples are periodically collected in OU-1. Results from these sampling



events indicate a significant decrease in PCE levels except for the most downgradient well. The decrease in PCE levels within OU-1 may be attributable to the operation of the SVE system installed during the 1996 IRM.

A soil vapor survey was conducted in August 2002 at the Munsey Cleaners site. Results from the survey indicated on-site sub-slab concentrations of PCE ranging from 59,600 to 201,000 micrograms per cubic meter (µg/m³). In 2003, the SVE system was restarted to address soil vapor intrusion. Quarterly sampling showed a significant decrease in VOC concentrations in indoor air. A Record of Decision (ROD) was issued for the Munsey Cleaners OU-1 in 2005, stating that both SVE and SSD systems be continuously operated to address soil vapor intrusion at the Site. Based on the effectiveness of IRMs implemented at the Munsey Cleaners site, a No Further Action ROD was made for Munsey Cleaners OU-1 in November 2005. The selected remedy for the Munsey Cleaners site included: operation of SVE and SSD systems at the site, monitoring, maintenance, and sampling.

The results from the February 2007 indoor air sampling event, which were the most recently available data prior to the implementation of this RI, indicated that on-site PCE concentrations were lower; however, the levels still exceeded the New York State Department of Health (NYSDOH) 2006 Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

Former Plaza Cleaners Site

The 0.25-acre Plaza Cleaners site includes a one-story concrete building in the southwestern corner of the lot that is currently being used as a dry cleaner business. The remaining portion of the property is covered with asphalt. This property has operated as a dry cleaner since 1964. In 1998, a Phase I Environmental Site Assessment indicated recognized environmental conditions associated with an underground storage tank (UST) on-site and the long-term operation of a dry cleaner. PCE was subsequently identified in a floor drain within the building and in sub-slab soils during a Phase II Environmental Audit. In 1998 and 1999, under the oversight of the Nassau County Department of Health, approximately 941 tons of contaminated soil was excavated and disposed of off-site at a permitted disposal facility. An Order on Consent was negotiated between NYSDEC and the responsible party in March 2001. During a 2003 Phase II subsurface soil and groundwater investigation conducted under NYSDEC oversight, PCE was detected in on-site groundwater samples at concentrations ranging from 3 to 809 µg/L. Residual PCE was detected in



on-site soil ranging from non-detect to 1.01 ppm. An RI/FS was initiated by the responsible party and, in February 2007, a Remedial Action Plan/Feasibility Study (RAP/FS) plan was submitted to NYSDEC; however, in May 2007, the Consent Order was terminated by NYSDEC. In the fall of 2007, the Plaza Cleaners site was listed as a Class 2 site and the completion of the RI/FS was referred to the State Superfund. An SVE system was installed at the Plaza Cleaners site by the responsible party but was never operated.

Sandy Hollow Well Field

The Sandy Hollow Well Field is located to the south of Sandy Hollow Road on the northern edge of the Village of Baxter Estates. Treated groundwater from this well field is used as a local potable water source, which is supplied by the Port Washington Water District (PWWD). This well field consists of three wells screened in the upper glacial aquifer, two of which are currently in use. Supply wells N-06087 and N-04860 (also referred to as PWSH-2 and PWSH-1, respectively) are located approximately 3,700 and 4,100 feet, respectively, downgradient of the Munsey and Plaza Cleaners sites. In accordance with NYSDOH drinking water quality requirements, the PWWD utilizes a granular activated carbon (GAC) system to remove VOCs from water pumped at the Sandy Hollow Well Field. It is unknown if an evaluation was conducted on behalf of the PWWD to determine the source of these VOCs. The two supply wells at Sandy Hollow were sampled once in 2008 and twice during 2010. No contamination was detected at concentrations greater than NYS Standards during any of these sampling events. The PWWD is required to conduct regular sampling of these wells, and has not detected contamination greater than NYS Standards since 2003.



3. Summary of Remedial Investigation Field Activities

The Munsey OU-2 and Plaza Cleaners sites were referred to the NYSDEC Division of Environmental Remediation for the completion of a RI/FS, the goals of which are to:

- Evaluate and characterize the suspected source of the groundwater contamination;
- Better define the extent of the dissolved-phase VOC plume;
- Determine whether actions are needed to address exposures related to soil vapor intrusion and the dissolved-phase VOC plume; and,
- Assess remedial alternatives to address the potential source area and dissolved-phase VOC plume.

The approximately 0.5 square-mile investigation area is shown on Figure 1. The former Plaza and Munsey Cleaners sites, and other current or former dry cleaning businesses, are shown on Figure 2. The soil vapor intrusion sampling locations are shown on Figure 3 and the groundwater and surface water sampling locations are shown on Figure 4.

The field activities described in this section were conducted prior to this RI or in accordance with the January 2008 Munsey Cleaners RI/FS Work Plan and the June 2009 Plaza Cleaners Remedial Investigation Work Plan and include:

Soil vapor intrusion sampling and mitigation;

- Air and/or sub-slab vapor samples collected from 50 residences and businesses;
- Six sub-slab depressurization systems installed to address ten commercial buildings;
- One soil vapor sample collected from the Schreiber High School property; and



 One soil vapor and one sub-slab vapor sample collected from the Plaza Cleaners site.

Public Water Supply Sampling;

 Groundwater sampled from two public supply wells and three Nassau County Department of Public Works (NCDPW) wells.

Direct push/Geoprobe drilling with depth-discrete groundwater sampling;

- Drilling of 25 shallow soil borings; and
- Drilling of 6 deep soil borings.

Subsurface drilling and monitoring well installation;

- 15 wells installed prior to Munsey and Plaza Rls;
- 20 wells installed during Munsey RI;
- 12 sampling points in two continuous multi-channel tubing (CMT) wells installed during Munsey RI; and
- 29 wells installed during Plaza RI.

Water level measurements;

• Three synoptic rounds of water level measurements.

Groundwater and surface water sampling;

- 34 groundwater samples collected in September 2008;
- 73 groundwater samples collected in May 2010;
- 72 groundwater samples collected in October 2010;



- 57 groundwater samples collected from direct-push borings;
 - One or two groundwater samples collected from 20 borings during Munsey Cleaners RI; and
 - One, two or three groundwater samples collected from 11 borings during Plaza Cleaners RI.
- Three surface water samples collected in January 2008;
- Four surface water samples collected in May 2010;
- Six surface water samples collected in October 2010; and
- Four surface water samples collected in October 2011.

Monitoring Well Survey;

Survey of 49 groundwater monitoring wells and two CMT wells.

Geophysical Survey;

 Time domain electromagnetic induction (EM61), ground penetrating radar (GPR), and precision utility location (PUL) used at the Plaza Cleaners site.

Fish and Wildlife Impact Analysis; and,

Management of Investigation Derived Waste.

Soil Vapor Intrusion Sampling and Mitigation

More than eight soil vapor intrusion sampling events have been conducted at or in the vicinity of the Munsey and Plaza Cleaners sites since 2002. For each of the sampling events that included off-site commercial or residential properties, NYSDEC and NYSDOH representatives requested participation of property owners through individual letters, invitations to public information sessions, and follow-up phone calls and in-person visits. The investigation area of each successive sampling event was extended so that property owners in all areas above the PCE/TCE plume were



notified of the opportunity to have indoor air and sub-slab samples collected and analyzed.

The buildings where indoor air and/or sub-slab vapor samples have been collected are shown on Figure 3. Soil vapor samples were collected from the Munsey Cleaners site in August 2002 with subsequent indoor air sampling. Additional indoor air sampling was conducted in February 2007. Off-site indoor air sampling using "Perc" badges was conducted by the NYSDEC in February 2006 at 16 properties located across from the Munsey Cleaners site. A total of 32 "Perc" badge samples were collected from basements and first floors of the 16 properties. The results of the "Perc" badge analysis ranged from <1.4 to 89 ug/m³ of PCE. Malcolm Pirnie conducted soil vapor intrusion sampling at a total of 12 properties between March 12 and March 21, 2008 and May 6 and May 7, 2008. EnviroTrac Ltd. collected soil vapor intrusion samples from 13 properties between February 17 and 20, 2009.

Based on sampling results, six SSD systems were installed in 2008 and 2009 to address vapor intrusion in ten commercial buildings. No residential homes included in the sampling programs required the installation of SSD systems. Indoor air and sub-slab vapor samples were collected by Malcolm Pirnie from 21 additional properties between January 26 and 29, 2010. Based on the data, annual monitoring was recommended at nine of the properties and no further actions were warranted at the remaining 12 properties. Soil vapor samples were collected by Malcolm Pirnie from the Plaza Cleaners site and Schreiber High School on June 8 and 9, 2010, respectively. A sub-slab vapor sample was also collected from within the former Plaza Cleaners building on June 8, 2010.

Air and Sub-slab Vapor Sampling

The goal of the indoor air and sub-slab soil vapor sampling was to evaluate potential vapor intrusion of VOCs present in groundwater beneath residential homes and commercial businesses in the vicinity of the Munsey and Plaza Cleaners sites. The air sampling was conducted in accordance with the October 2006 Final NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, and previous draft guidance available prior to 2006. Prior to sampling at each of the selected buildings, an inspection/interview was conducted to inventory products that could interfere with sampling results and document building characteristics as well as heating, ventilation, and air conditioning (HVAC) systems. Off-site indoor air sampling was performed by the NYSDEC in February of 2006 at properties located across



from the Munsey Cleaners site. A sub-slab soil vapor survey was not included as part of the 2006 sampling effort. A Soil Vapor Intrusion (SVI) Interim Summary Report, which summarized the soil vapor intrusion sampling activities completed in March and May 2008, was submitted to the NYSDEC on July 29, 2008. Air samples were collected from the following locations:

- Crawl space air (CS);
- Sub-slab vapor (SS);
- Basement air (BA);
- First floor air (FA); and
- Ambient (outdoor) air (OA).

The abbreviation in the parenthesis following each air sampling location above corresponds to the sample location identification. Air and sub-slab vapor samples were analyzed by Chemtech (2008 samples) or Air Toxics (2010 samples) for a NYSDEC-specified list of VOCs using United States Environmental Protection Agency (USEPA) Method TO-15. The analytical data was validated by Data Validation Services according to the NYSDEC Division of Environmental Remediation Data Usability Summary Report (DUSR) guidelines.

Sub-slab Depressurization System Installation

Based on the results of the indoor air and sub-slab vapor sampling effort, sub-slab depressurization systems were installed at six locations in Port Washington (Figure 3). Sub-slab depressurization systems were installed to maintain a negative pressure in the sub-slab at each of the structures. SSD system design considerations included durability, reliability, ease of maintenance, physical comfort for occupants, noise issues for occupants and neighbors, and the impact on interior and exterior building appearance. One to five sub-slab vapor extraction points were installed in each building. A centrifugal in-line fan was installed to provide sub-slab ventilation. Before leaving each property following installation, the installation contractor explained the system operation to the property owner. Vacuum gauges and labels were installed on each fan system. Occupants were reminded to check these periodically for proper fan operation.



Physical communication tests were conducted in the properties where SSD systems were installed and in adjoining structures. These tests were conducted to evaluate if each of the systems were operating as designed and to confirm the presence of negative pressures within the sub-slab material over the entire building footprint. Pressure monitoring points were installed in structures with SSD systems to verify the effectiveness of the systems. A digital micro-manometer, capable of measuring the sub-slab to indoor air differential pressure to 0.001 of an inch of water column, was used as part of each communication test. The sub-slab vacuum was measured at three test points at each location. The measured pressures indicated that the SSD systems were providing adequate sub-slab influence for the structures in which they were installed. Five of the six locations in which a SSD system was installed had an adjoining building or structure next to them. Based on physical communication tests at these five locations, the SSD systems were mitigating vapors from adjoining structures in addition to vapors at the location where the systems were installed.

Public Water Supply Sampling

Groundwater from the two active supply wells in the Sandy Hollow Well Field (PWSH-1 and PWSH-2) was sampled on September 10, 2008, May 20, 2010 and October 21, 2010. Grab samples were collected from PWSH-1 and PWSH-2 using sampling ports. Methyl-tert butyl-ether (MTBE) was the only contaminant detected in the Sandy Hollow Well Field and was present in a sample collected from PWSH-1 (0.51 μ g/L) in September 2008. This result was less than the NYSDEC Class GA Standard for MTBE (10 μ g/L) and not attributable to contamination derived from the former Munsey and Plaza Cleaners sites.

Direct Push/Geoprobe Drilling

The direct push/geoprobe drilling program consisted of the installation of 25 shallow and 6 deep soil borings (MC-B-01 through PC-B-05 and PC-B-06 through PC-B-11) north, south, and west of the Munsey and Plaza Cleaners sites (Figure 4). The soil borings were drilled to assess overburden characteristics, to evaluate groundwater quality in the vicinity of the sites, and to assess if other dry cleaners in the area could be a source of the dissolved-phase VOC plume. With the exclusion of deep borings PC-B-06 to PC-B-11, soil samples were collected continuously from ground surface to the desired depth, which ranged from 25 to 99 feet below ground surface (bgs). One soil sample each from direct-push borings PC-B-01 to PC-B-05 was selected for laboratory analysis. Groundwater samples were collected using a Geoprobe Systems stainless steel screen-point, dedicated tubing with check valve, or a



peristaltic pump with dedicated sample tubing. Groundwater and soil samples were sent to the contract laboratory for analysis of VOCs by USEPA Method 8260B. Soil samples were not collected from deep soil borings PC-B-06 to PC-B-11; however, these borings were sampled for groundwater at three discrete zones per boring. Continuous soil electrical conductivity measurements were conducted at PC-B-06, PC-B-09 and PC-B-11 to identify potential low permeability zones within the overburden stratigraphy at the site. Electrical conductivity logs for each of these soil borings were provided by Zebra Environmental and are included in Appendix D. Groundwater samples at borings PC-B-06 through PC-B-11 were collected at depths above low permeability units. Sampling depths for groundwater samples collected at PC-B-07, PC-B-08 and PC-B-10 were based on data from boring logs at adjacent monitoring wells.

Subsurface Drilling and Monitoring Well Installation

Ten groundwater monitoring wells or well clusters were installed in July 2008 as part of the Munsey Cleaners RI (Figure 4). Seven of the monitoring well clusters (MC-6B/C, MC-7A/B/C, MC-8A/B/C, MC-9A/B/C, MC-10A/B/C, MC11A/B/C, and MC-12 B/C) were installed as nested monitoring wells screened in shallow (well A), intermediate (well B) and/or deep (well C) zones. Monitoring well MC-5, screened only in the shallow zone because of its proximity to Baxter Brook, was installed near the end of North Maryland Avenue and Delaware Avenue. Two continuous CMT wells were installed at the northern (MC-CMT-02) and southern (MC-CMT-01) ends of Herbert Avenue.

A total of 29 groundwater monitoring wells were installed in 12 monitoring well clusters as part of the Plaza Cleaners Work Assignment (Figure 4). Seven of the monitoring well clusters (PC-1A/B/C, PC-4A/B/C, PC-6A/B/C, PC-7A/B/C, PC-8A/B/C, and PC-12A/B/C) were installed as nested monitoring wells screened in shallow (well A), intermediate (well B), and deep (well C) zones. Three of the monitoring well clusters (PC-5B/C, PC-10B/C, and PC-11A/B) were installed as nested monitoring wells screened in intermediate (well B) and deep (well C) zones or shallow (well A) and intermediate (well B) zones. PC-3 and PC-9, which were screened in the shallow zone, are located to the west of the dissolved-phase VOC plume near Baxter Pond Park.

These field activities were conducted to evaluate the overburden stratigraphy, groundwater quality, and groundwater flow patterns. Existing groundwater data along



with the results of the previous RI/FS field work were used to select drilling and monitoring well locations.

Subsurface soil samples were collected to obtain information on the characteristics of the overburden material. Soil was screened with a photoionization detector (PID) capable of measuring total VOCs in ppm as the soil cores were opened. Soil characteristics were written in the field book and recorded in soil boring logs which are presented in Appendix A.

Prior to well installation, boreholes were drilled using rotary drilling methods, with continuous sampling to the top of the water table, then in 10-foot intervals. The borehole was piloted and sampled through 4.25-inch, hollow-stem augers, then bored again with 6.25-inch augers to facilitate installation of two or three 2-inch PVC nested monitoring wells. The nested monitoring wells were constructed in a manner such that each zone was sealed with a bentonite seal, to minimize the potential of mixing waters from different depths. The wells were screened in accordance with the respective work plan. The monitoring wells were developed by surging and overpumping techniques. Soil boring and monitoring well construction logs are presented in Appendix A.

Water Level Measurements

Malcolm Pirnie measured water levels (synoptic events) in the monitoring wells on August 25, 2008, April 28, 2010 and October 6, 2010. The groundwater elevations are provided in Tables 1 through 4. Water levels were measured to the nearest 0.01 foot. Groundwater potentiometric contour maps were prepared using water levels measured on August 25, 2008 (Figure 5) and April 28, 2010 (Figures 6, 7, and 8).

To evaluate the potential influence of pumping at the Sandy Hollow Well Field, water levels were measured and recorded at one-minute intervals in well cluster PC-10-B/C between May 13, 2010 and June 6, 2010 using pressure transducers with data loggers. PC-10 is the closest monitoring well cluster to the Sandy Hollow Well Field (Figure 4). No significant water-level fluctuations were measured in the intermediate screened well PC-10-B, which is approximately 40 feet higher in elevation than the well screens in the two active Sandy Hollow wells (PWSH-1 and PWSH-2). A water level increase of approximately one foot was measured on May 18, 2010 in the deep zone well PC-10-C. Water levels recorded after May 18, 2010 continued to show



minor fluctuations (less than 2 inches) but at the higher water level. The source of the water level change could not be determined. The long-term effect of pumping is apparent in the potentiometric head differences between the intermediate zone (approximately 25 feet AMSL) and the deep zone (approximately 13 feet AMSL) at well cluster PC-10-B/C (Figures 7 and 8).

Groundwater and Surface Water Sampling

Groundwater samples were collected on September 9 and 10, 2008, from May 12 to May 20, 2010, and on October 22, 2010. Passive diffusion bags (PDBs) were deployed in concert with the round of water level measurements conducted on August 25, 2008, April 28, 2010 and October 6, 2010. During the September 2008 sampling event, Malcolm Pirnie collected samples from existing wells located in the Sandy Hollow Well Field (PWSH-1 and PWSH-2), three NCDPW monitoring wells (X-71, X-72, and X-73) located approximately 1,000 feet north of the Sandy Hollow Well Field, and monitoring well MC-3, which was installed during a previous investigation at the Munsey Cleaners site. Wells X-71, X-72 and X-73 were only sampled during the 2008 sampling event. The two CMT wells (MC-CMT-01 and MC-CMT-02) were sampled with a check valve bladder pump using low flow sampling techniques. In total 34 groundwater samples were collected in September 2008, 73 samples were collected in May 2010, and 72 samples were collected in October 2010.

In addition to groundwater samples collected from monitoring wells, one or two groundwater samples were collected from 20 borings advanced during Munsey Cleaners RI and 11 borings advanced during Plaza Cleaners RI. A total of 57 groundwater samples were collected from the 31 direct-push borings.

Surface water samples were collected from the upper (MC-SFC-01), middle (MC-SFC-02) and lower (MC-SFC-03) reaches of Baxter Brook that flows across the investigation area (Figures 1, 4, and 6) in January 2008. Surface water samples from MC-SFC-01 through MC-SFC-03 and a fourth location immediately upstream of Baxter Pond (MC-SFC-04) were collected in May and October 2010, and October 2011. During the October 2010 sampling event, two additional surface water sampling locations were added (PC-SFC-01 and PC-SFC-02). These locations are shown on Figure 4 and were collected from Stannards Brook, which flows parallel to Charles Street. Upgradient of this section, Stannards Brook has been channelized with culverts and built upon; it is therefore inaccessible. The October 2011 surface



water sampling event included only the four locations along Baxter Brook. Locations along Stannards Brook were not sampled during the October 2011 event.

Groundwater and surface water samples were sent to the contract laboratory and were analyzed for VOCs by USEPA Method 8260B.

Monitoring Well Survey

Following installation, the newly installed monitoring wells were surveyed by Mega Engineering, Inc. in both Universal Transverse Mercator (UTM) and State Plane coordinates referenced to the North American Datum of 1988. All elevations were surveyed in feet referenced to the State Plane Coordinates system 1983 and the North American Vertical Datum of 1988. The locations were surveyed to within 0.1 foot and elevations were surveyed within 0.01 foot. Survey control was established by global positioning system (GPS) methodology (H/V). GPS RTK was used to locate the well heads and conventional leveling was used to determine elevations at the well heads. The monitoring well survey results, which include the location and elevations of ground surface and top of well casing, are shown in Tables 1, 2 and 3. Also provided in the table are screen elevations and screen lengths.

Geophysical Survey

Hager-Richter Geoscience, Inc. conducted a geophysical survey at the Plaza Cleaners Site on October 29, 2009. The objective of the geophysical survey was to detect, and if detected, to locate possible USTs and subsurface utilities in the accessible exterior portions of the site. At the time of the survey, no UST fill port or vent pipe was visible. A bulldozer was present in the northwest corner of the building which limited access to that portion of the site.

The geophysical survey was conducted using three geophysical methods: time domain electromagnetic induction (EM61), ground penetrating radar (GPR), and precision utility location (PUL). The EM method detects buried metal but cannot distinguish the type of objects causing EM anomalies. In order to aid in the identification of the objects, GPR was used to detect and identify metallic and non-metallic subsurface objects. The PUL survey was conducted to detect possible subsurface utilities.

The geophysical survey report prepared by Hager-Richter Geoscience, Inc., which summarizes the survey methods, equipment used, and findings, is provided in



Appendix C. As presented in the geophysical survey report, segments of possible utilities and small scattered buried objects were detected. GPR reflections typical of one small UST were detected at the location of an EM61 anomaly north of the site building.

Management of Investigation-Derived Wastes

Investigation-derived wastes were stored and disposed of at the direction of NYSDEC. Containerized materials were labeled and staged at a designated location on the former Plaza Cleaners site property. During the Munsey Cleaners OU-2 investigation, containerized waste was removed from the site daily because no staging area was available. Soil cuttings, purge water, and decontamination equipment were containerized in U.N.-approved, 55-gallon steel drums and transported off site by Environmental Waste Minimization, Inc. daily or weekly and disposed of as non-hazardous waste.

Data Usability

Validation of select analytical data was performed by Ms. Judy Harry of Data Validation Services, Inc., North Creek, New York. Ms. Harry's comments are incorporated in the summary data tables and the Data Usability Summary Reports (DUSRs) are included in Appendix B. As stated in the DUSRs, data are usable as reported, or usable with minor qualification. No data was rejected by the data validator.



4. Geologic and Hydrogeologic Conditions

Geology

During RI field activities, soil was logged during two direct-push drilling and two hollow stem auger drilling events. Boring logs constructed from the installation of monitoring wells for both the Munsey and Plaza Remedial Investigations are included in Appendix A. The shallow soils observed during monitoring well installation were generally consistent throughout the investigation area and consisted of orange and brown fine, medium and coarse sand with pea-sized quartz pebbles. Boreholes created during well installation for the Plaza Cleaners RI were frequently terminated when zones of low-permeability gray clay or silty clay were encountered. The crystalline bedrock surface in the vicinity of the investigation area is approximately 350 feet BMSL (Stumm, et al., 2002). Bedrock was not encountered in any of the borings.

With the exclusion of the MC-10 cluster, well borings related to the Munsey Cleaners OU-2 RI were terminated at previously specified depths in accordance with the NYSDEC-approved work plan. Elevation of the top of clay varied across the site. The highest top of clay elevation was observed during the construction of the PC-4 monitoring well cluster (24.88 feet AMSL). The lowest elevation top of clay was observed at the PC-1 monitoring well cluster location (52.29 feet BMSL). The wide variability in the clay elevations demonstrates the lateral discontinuity of clay units within the investigation area. Variability in zones of clay may have been caused by the formation of lakes in deeper glacially-carved troughs, or may represent deposition in localized areas of calm water isolated from higher velocity melt water by topography and/or stagnant ice tongues. The presence (and absence) of these clay zones is believed to have an impact on contaminant transport within the investigation area. At the MC-12 monitoring well location, low permeability clay zones were encountered at 0-11.5 feet bgs and 51-80 feet bgs. Intermediate (MC-12B) and deep (MC-12C) wells were installed at this location. The bottom of screen elevations of the intermediate and deep wells at MC-12 is 26.81 feet BMSL and 59.81 feet BMSL, respectively. Both wells are unique to all other wells installed during this investigation because they exhibit flowing artesian conditions. The location of MC-12 relative to the Baxter Brook may indicate the presence of a buried glacial valley.

A preferential pathway for groundwater movement within this buried valley would likely form in the higher permeability zones (fine-medium sands) as the upper clay



zone diverges in the up-valley direction (northeast) from the basal clay, which maintains relatively flatter surface up valley.

Hydrogeology

Groundwater flow direction in the vicinity of the investigation area is southeast to northwest, toward Manhasset Bay. This flow direction is maintained in shallow, intermediate and deep water-bearing zones. The Baxter Brook valley serves as a small capture zone within the investigation area where precipitation and stormwater are directed down-valley by topography. In the eastern portion of the study area, the orientation of this valley is generally perpendicular to regional groundwater flow. Rather than continuing a relatively straight course towards the northwest, shallow groundwater flow in the valley is deflected westward. The occurrence of clay zones throughout the investigation area, primarily within Baxter Brook's valley, also affects flow direction. Some clay zones are localized and difficult to delineate given the size of the investigation area. The basal clay, however, was generally encountered at most drilling locations during the Plaza Cleaners investigation. The similarity in appearance of the clays (generally gray in color) and topographic relief across the area of investigation made it difficult to distinguish between basal clay and non-basal clay. As such, elevations of some wells screened in deep zones may actually be more closely aligned with those screened in the intermediate zones. An example of this is the PC-4C well location. This well is screened from 32 to 27 feet AMSL, while the nearby PC-5B is screened from 33 to 23 feet AMSL. The two wells are approximately 615 feet apart. The decision to terminate the boring at PC-4 was based on the presence of gray clay. The clay was not encountered at PC-5 until 29.42 feet BMSL.

In general, the uppermost portion of the overburden at the Munsey and Plaza Cleaners sites consists of sand with variable amounts of gravel and discontinuous and intermittent silt and clay lenses. A low permeability clay layer appears to underlie the upper glacial aquifer across most of the investigation area. The top of this clay layer ranges in elevation across the Munsey and Plaza Cleaners sites from 25 feet AMSL (at PC-4-A/B/C) to 50 feet BMSL (at PC-1-A/B/C) and slopes to the northwest. Based on data obtained from drilling and installing monitoring wells, the zone of saturated sand and gravel throughout the area of the VOC plume is approximately 30 to 120 feet thick. Bedrock was not encountered in the soil borings drilled during the Munsey and Plaza Cleaners RIs.





In April and October 2010, groundwater elevations in all three wells were within 0.01 feet of others at clusters MC-7, MC-8 and MC-11, indicating no significant changes in potentiometric heads within the variable well completion depths at these locations. During the April 2010 water level measurement event, groundwater elevations at the MC-9 cluster are higher in the intermediate and deep wells (67.82 feet AMSL) than the shallow well (67.78 feet AMSL) at this location. Potentiometric heads exhibit the same pattern at the PC-7 cluster, where the groundwater elevations in the intermediate and deep wells are greater than the shallow well at this location during both the April 2010 and October 2010 water level measurement events.



5. Nature and Extent of Contamination

The field activities previously described were conducted to evaluate the nature and extent of contamination downgradient of the Munsey and Plaza Cleaners sites. The primary VOCs present in groundwater throughout the dissolved-phase VOC plume(s) are PCE, TCE, cis 1,2 DCE, and MTBE. As such, the analytical data from various media (i.e. soil vapor, surface water, and groundwater) are discussed herein with specific evaluation of these VOCs. Although MTBE was detected at several locations, this compound is not attributable to dry cleaning activities.

Groundwater and Surface Water Analytical Data

The locations of monitoring wells labeled with a prefix of "PC" were based on the results of the direct-push groundwater samples collected in June 2009. As shown in Figure 10, the results of the direct-push groundwater samples indicated the highest concentrations of TCE and PCE are located close to the former Munsey and Plaza Cleaners sites, and approximately 0.5 miles northwest, in the vicinity of Baxter Estates. In general, these results were consistent with the direct push groundwater samples collected for the Munsey Cleaners RI during the January 2008 sampling event. Six direct push borings were drilled to collect an additional 18 groundwater samples in May 2011. Five of these borings were drilled in the area south of Main Street and west of the Long Island Railroad train station, while one (PC-B-11) was installed towards the north along Sandy Hollow Road. All direct push sampling locations are shown on Figure 10.

Malcolm Pirnie also collected water samples from the Port Washington supply wells in Sandy Hollow during three separate sampling events (September 2008, May 2010 and October 2010). With the exclusion of an estimated detection of MTBE in September 2008 at PWSH-1 (0.51 μ g/l), no VOC compounds were detected in samples from these wells. This MTBE concentration is significantly less than the NYSDEC Class GA Standard for MTBE (10 μ g/l). The Port Washington Water District has historically detected the presence of VOCs in groundwater collected from these wells and influent groundwater is treated at the facility with granular activated carbon (GAC) before being distributed to customers.

The maximum detected concentration of a VOC in groundwater sampled in 2008 was 1,500 µg/L at MC-B-04. A summary of VOC concentrations in groundwater samples



compared to NYSDEC Class GA Standards is provided in Tables 6A, 7 and 8. A summary of analytical results are also shown on Figures 10 and 11.

Four surface water samples (MC-SFC-1, MC-SFC-2, MC-SFC-3 and MC-SFC-4) were collected from Baxter Brook originating west of Port Washington Boulevard, approximately 100 feet north of its intersection with Delaware Avenue (Figure 4). Two additional surface water sampling locations were added during the October, 2010 sampling event to include Stannards Brook, which is adjacent to Stannards Brook County Park, along Charles Street. With the exclusion of PC-SFC-02, concentrations of PCE exceeded the NYSDEC Class GA Standard or Guidance Value at each of the surface water sampling locations (Table 9). The sample collected from MC-SFC-01 contained the highest PCE concentration (15 μ g/L) of the surface water samples, but TCE, cis 1,2 DCE, and MTBE were detected at most of the surface water sampling locations as well. PCE was the only detected compound that exceeded the respective NYSDEC Class GA Standard or Guidance Value. The New York State Guidance Value for PCE in surface water is 1 μ g/L.

Soil Vapor Intrusion Sampling Results

As discussed in Section 3.1, several soil vapor intrusion investigations have been conducted at the Plaza and Munsey Cleaners sites. Prior to 2006, no soil vapor or indoor air samples had been collected in the areas downgradient of the former Munsey Cleaners site. The presence of VOCs in soil vapor in OU-1 at the former Munsey Cleaners site and their removal via the on-site SVE system indicated the potential for soil vapor intrusion in off-site areas. Since 2006, several soil vapor intrusion sampling events have been conducted at properties located to the west and north of the Munsey and Plaza Cleaners sites.

The air, sub-slab vapor, and soil vapor analytical results are provided in Tables 5A, 5B, and 5C. PCE, the primary VOC present in the sub-slab vapor and indoor air samples, was detected in off-site sub-slab vapor samples at concentrations as high as 61,098 µg/m³. The PCE concentration in sub-slab vapor was greater than 1,000 µg/m³ at 14 of the 52 off-site properties where indoor air and/or sub-slab vapor samples were collected. The highest concentrations of PCE were found in sub-slab vapor samples collected from Main Street properties located between Port Washington Boulevard and North Bayles Avenue. This area of Main Street is located west of the former Munsey and Plaza Cleaners sites. The concentrations of PCE in



indoor air ranged from not detected to 67 µg/m³ in a sample collected on Port Washington Boulevard during the March 2008 air sampling event.

The soil vapor sample collected from the Plaza Cleaners site at ESG-3D contained PCE (19,000 $\mu g/m^3$), TCE (140 $\mu g/m^3$), and chloroform (190 $\mu g/m^3$). PCE and TCE were detected in the sub-slab vapor sample collected from the Plaza Cleaners site (SG-9S) at 400,000 and 740 $\mu g/m^3$, respectively. The soil vapor sample collected from the Schreiber High School property contained a significantly lower PCE concentration (16 $\mu g/m^3$) and m,p-xylene at a concentration of 24 $\mu g/m^3$. No indoor air sample was collected at this location.

Direct-push Borings

Direct-push soil borings were utilized primarily for sampling groundwater. The analytical data from the 57 groundwater samples collected from direct-push borings are presented in Table 6A. The locations of the monitoring wells were based on the results of the direct-push groundwater sampling program. Five soil samples were collected for laboratory analysis during the Plaza Cleaners direct-push drilling activities. These samples were used to identify the presence of any contamination in the unsaturated zone. As shown in Table 6B, no VOCs were detected in these soil samples.

Results from the direct-push groundwater samples were compared to the NYSDEC Class GA Groundwater Standards or Guidance Values. As shown on Figure 10, samples collected at 22 of the 31 groundwater sampling locations exceeded the NYSDEC Class GA Groundwater Standard or Guidance value. The most frequently detected compounds in groundwater samples were PCE, TCE, cis-1,2 DCE, and MTBE. The sampling results indicate that higher concentrations of detected compounds are generally located centrally within the investigation area.

Potential Source Area Investigations

Previous work completed at the Munsey Cleaners site had identified the former Munsey Cleaners as one potential source area for PCE and TCE contamination. An additional PCE plume has likely originated from the former Plaza Cleaners site. Based on information provided by the NYSDEC, eight other currently operating or former dry cleaning facilities have been identified within the investigation area. The locations of these facilities are shown on Figures 2, 3, 5, 10 and 11.



Delineation of the VOC Plume

Previous investigations conducted at the former Munsey and Plaza Cleaners sites did not fully delineate the vertical or horizontal extent of the VOC plume downgradient of these sites. Monitoring wells installed during this RI were extended to the North Shore confining clay unit and approximately 0.75 miles from the likely sources to areas where groundwater either discharges to surface water bodies or is eventually directed towards pumping wells. Although concentrations of PCE were detected in samples from the boundaries of the investigation area, these observed concentrations are relatively low in magnitude (not detected to 81 μ g/I) or are along primary groundwater flow paths that have known termini (surface water bodies or wells), such that delineation can be considered achieved given the context of likely remedial strategies for the dissolved-phase VOC plume.

Groundwater Levels and Flow

Water levels measured during the RI indicate a fairly regular hydraulic gradient across the investigation area (Figures 5, 6, 7, and 8). These contours become deflected slightly because Baxter Brook meanders across the investigation area. No groundwater flow divides have been identified in the investigation area based on groundwater elevation data collected during this RI.

Shallow Zone

Shallow-zone monitoring wells are defined as those with screened zones at a depth which intersects the water table. During the Munsey OU-2 and Plaza Cleaners remedial investigation, 16 shallow monitoring wells were installed. The elevations of the screened zones in the shallow monitoring wells ranged from 98 feet AMSL to 7 feet BMSL. Groundwater elevations measured in shallow wells during this investigation ranged from 5.27 to 104.47 feet AMSL. The southernmost shallow well installed for this remedial investigation is PC-8A, which is approximately 850 and 650 feet southwest of the former Munsey and Plaza Cleaners sites, respectively. As shown on Figure 4, PC-8A is located on South Bayles Avenue. The northernmost shallow well installed for this investigation is PC-4A, and is located approximately 1,950 and 2,100 feet northwest of the former Munsey and Plaza Cleaners sites, respectively. The westernmost shallow well installed for this investigation is PC-9. This well is approximately 4,200 and 4,000 feet west of the former Munsey and Plaza Cleaners sites, respectively. The well is west of Shore Drive. The easternmost shallow well installed for this investigation is PC-12A, and is located in an alleyway



east of Port Washington Boulevard, across from Bernard Street. This well is approximately 75 and 230 feet east of the former Munsey and Plaza Cleaners sites, respectively. As shown in Figures 5 and 6, potentiometric groundwater contours created with shallow-zone groundwater levels indicate flow direction is toward the northwest, away from the former Munsey and Plaza Cleaners sites. Baxter Brook deflects shallow-water flow paths as the stream intersects the water table at different elevations throughout the investigation area. Pumping within the nearby Sandy Hollow Well Field likely induces a steeper gradient in the shallow groundwater zone.

Intermediate Zone

Intermediate zone groundwater monitoring wells installed for this remedial investigation are defined as those wells with screened intervals between the shallow zone wells and deep zone wells. The screening depths of intermediate-zone groundwater monitoring wells range from 56.18 feet AMSL (MC-7B) to 27.81 feet BMSL (MC-12B). Groundwater elevations in wells screened in the intermediate zone range from 15.95 (PC-1B) to 104.33 (PC-12B) feet AMSL. The westernmost well screened within the intermediate zone is PC-1B. This well is screened between 4.71 feet AMSL and 0.29 feet BMSL. As shown on Figure 4, PC-1B is located on Shoreview Road approximately 3,300 and 3,200 feet northwest of the former Munsey and Plaza Cleaners sites, respectively. As shown in Figure 7, groundwater potentiometric contours indicate intermediate-zone groundwater can flow northward and northwestward. Glacial overburden stratigraphy and pumping within the Sandy Hollow Well Field likely contributes to these groundwater flow paths.

Deep Zone

Those wells designated as deep wells have screened zones near the bottom of the terminal boring depth. The locations of deep wells installed for this remedial investigation are shown on Figure 4. Screen elevations in deep wells ranged from 38.43 feet AMSL (MC-9C) to 59.81 feet BMSL (MC-12C). Groundwater elevations in deep-zone monitoring wells ranged from 102.39 feet AMSL (PC-12C) and 13.09 feet AMSL (PC-10C). The boundary wells for groundwater monitoring in deep zones are the same as those in the intermediate zone (PC-4C, PC-8C, PC-12C and PC-1C). As shown on Figure 8, deep-zone groundwater flows generally northwest in the vicinity of the sites, and are deflected westwards once within Baxter Brook's valley. Glacial overburden stratigraphy likely contributes to these groundwater flow directions.



Groundwater VOC Concentrations

Groundwater collected from monitoring wells closest to the probable sources areas contained the highest concentrations of contaminants. Based on groundwater samples collected during this investigation, there appears to be two pervasive groundwater flow paths that direct groundwater north and northwest of the probable source areas. The north-trending flow path is supported by the elevated contamination concentrations in groundwater in monitoring wells trending north of the probable source areas and, by potentiometric contour maps created from water table elevation data. The northwest-trending flow path is also supported by consistent elevated concentrations of contaminants in monitoring wells spanning this direction, and potentiometric contour maps created from groundwater elevation data. The analytical data suggest an apparent zone of lower-contaminant concentration between approximately 1,000 and 2,000 feet from the potential source areas. This lower-contaminant concentration zone may be reflective of higher groundwater velocities which would increase advective contaminant transport. Therefore, locations with higher concentrations of contaminants may indicate a reduction in groundwater velocities that is likely attributable to lower hydraulic conductivity due to the presence of silt and clay in the overburden aguifer.

Shallow Zone

The highest concentration of PCE in groundwater collected from the shallow monitoring wells was observed at MC-7A (380 μ g/L) in September 2008. Well MC-7A is downgradient from the former Plaza Cleaners site and cross-gradient from the former Munsey Cleaners location. The concentration of PCE (290 μ g/L) in the groundwater sample collected from MC-7A in May 2010 was less than the September 2008 sample. The October 2010 groundwater sample collected at this location contained a PCE concentration of 150 μ g/L, indicating a decreasing trend in PCE concentrations over time at MC-7A. This well is located on South Bayles Avenue approximately 640 feet west of the former Plaza Cleaners site. Groundwater collected in September 2008 from a previously installed shallow well (MC-3) contained a PCE concentration of 670 μ g/L; however, these concentrations decreased in subsequent sampling events. Concentrations of PCE in groundwater were greater than NYS standards at six of the shallow monitoring wells (MC-3, MC-5, MC-7A, PC-7A, MC-8A and MC-11A). Three of these wells (MC-3, PC-7A, and MC-7A) are located within 1,000 feet of both the former Munsey and Plaza Cleaners



sites. MC-5 and MC-8A are located within 2,000 feet of both sites, and MC-11A within 3.000 feet.

Concentrations of PCE in shallow groundwater decrease with distance from the former Munsey and Plaza Cleaners sites. Groundwater samples were also collected from the seven on-site monitoring wells at the former Plaza Cleaners site during the May 2010 and October 2010 sampling events. Although well construction details are not available, it is assumed these wells are screened at the water table surface. Of the seven on-site wells sampled, the greatest concentration of PCE detected in groundwater was collected from MW-5 (1,200 μ g/L). All but one well at the former Plaza Cleaners site (MW-6) contained concentrations of PCE greater than NYS standards.

Groundwater collected from shallow-zone monitoring wells also contained concentrations of contaminants including TCE, cis 1,2 DCE and MTBE. The highest concentrations of total VOCs in groundwater collected from the shallow-zone monitoring wells was observed at MC-7A (388.7 μ g/L – September 2008, 290.66 μ g/L – May 2010 and 150.53 μ g/L – October 2010) and PC-7A (245.83 μ g/L – May 2010, 53.83 μ g/L – October 2010). PCE was detected in all of the shallow boundary wells (PC-3, PC-4A, PC-6A, PC-8A, PC-9 and PC-11A). With the exclusion of PCE in PC-8A (6.2 μ g/L – October 2010), no PCE concentrations in the shallow boundary wells exceeded NYS standards.

The concentration of PCE in groundwater sampled from the shallow zone wells during 2010 decreased, remained the same concentration, or remained undetected in approximately 80 percent of the shallow zone wells. Only 5 of the 24 shallow zone wells show a slight increase in concentrations of PCE from May to October during 2010. Of the five wells to show an increase in PCE concentrations during 2010, three wells (MW-1, MW-2 and MW-4) are on-site at the former Plaza Cleaners property. The only two off-site wells that showed increasing concentrations of PCE during 2010 were MC-5 (located on North Maryland Avenue) and PC-8, which is located on South Bayles Avenue.

Intermediate Zone

The highest concentration of PCE in groundwater collected from the intermediate wells installed for this remedial investigation was observed at PC-6B (820 μ g/l) in May 2010. PC-6B is located approximately 2,550 and 2,600 feet northwest of the



former Munsey and Plaza Cleaners sites. The October 2010 sample collected at this location (240 µg/l) showed a significant decrease in PCE. Monitoring well PC-6B is screened between 1.36 feet AMSL and 8.64 feet BMSL. At the time the passive diffusion bag was deployed in this well the groundwater elevation was 48.32 feet AMSL. As shown on Figure 4, this well is located on Hillview Avenue. Elevated concentrations of PCE in groundwater were also observed at artesian well, MC-12B. The September 2008, May 2010, and October 2010 groundwater samples collected from intermediate well MC-12B contained concentrations of PCE greater than NYS standards (420 µg/L, 640 µg/L, and 390 µg/L respectively). Monitoring well MC-12B is located approximately 2,450 and 2,400 feet northwest of the former Munsey and Plaza Cleaners sites, respectively. Groundwater collected from intermediate-zone wells located between these wells and the former cleaners sites have concentrations of PCE ranging from non-detect (MC-10B and PC-11B) to 430 µg/L (PC-5B). Monitoring wells PC-5B and MC-10B are screened within zones of overlapping elevations. The screen at PC-5B is installed between 32.58 and 22.58 feet AMSL, while MC-10B is screened between 30.39 and 25.39 feet AMSL. Groundwater collected from upgradient well, PC-12B also contained concentrations of PCE (0.84 μ g/L – May 2010, and 2.0 μ g/L – October 2010).

Groundwater collected from intermediate-zone groundwater monitoring wells also contained concentrations of other contaminants including TCE, cis 1,2 DCE and MTBE. Intermediate-zone groundwater monitoring wells PC-6B (491 μ g/L – September 2008, 680.1 μ g/L – May 2010 and 304.8 μ g/L – October 2010) and MC-12B (881 μ g/L – May 2010 and 443.3 μ g/L – October 2010) contained the highest concentrations of total VOCs in groundwater collected, although concentrations of MTBE did not exceed NYS standards at either location.

Similar to shallow zone wells, concentrations of PCE in groundwater samples collected from intermediate wells during 2010 decreased or remained undetected in approximately 80 percent of the intermediate zone wells. Only 2 of the 17 intermediate zone wells showed a slight increase in PCE concentrations from May 2010 to October 2010, while one of the intermediate wells (MC-7B) showed a moderate increase during this time period. Although the concentration of PCE in PC-12B increased from May to October 2010, the concentration is still less than the NYS Standard. The concentration of PCE in groundwater sampled from MC-7 however, increased 150 µg/L from the May 2010 sample (260 µg/L) to the October 2010



sample (410 μ g/L). MC-7 is located approximately 650 feet west of the former Plaza Cleaners site.

Deep Zone

The highest concentration of PCE detected in monitoring wells screened in the deep zone was observed at MC-7C (870 μ g/L – September 2008, 580 μ g/L – May 2010 and 290 μ g/L – October 2010). Monitoring well MC-7C is screened between 35.18 and 30.18 feet AMSL, and is located approximately 650 feet west of the former Plaza Cleaners Site. This well is also located approximately 800 feet southwest of the former Munsey Cleaners Site, although potentiometric contours based on data collected in May 2010 do not suggest flow from the Munsey Cleaner's Site is likely. Groundwater flow paths fluctuate over time, so past contaminant contribution from the Munsey Cleaners Site cannot be definitively ruled out. With the exception PC-12C (1.4 μ g/L), PCE was present at levels that exceeded NYS standards in all of the deep-zone boundary wells. PC-5C (390 μ g/L – May 2010 and 260 μ g/L – October 2010) and MC-12C (170 μ g/L – September 2008, 170 μ g/L – May 2010 and 130 μ g/L – October 2010) also had notable concentrations of PCE detected in groundwater samples. PC-5 is located on Delaware Avenue near Port Washington Boulevard, and MC-12 is located on Overlook Drive near Baxter Estates.

Groundwater collected from deep-zone monitoring wells also contained concentrations of contaminants in addition to PCE, including TCE, cis 1,2 DCE and MTBE. The highest concentrations of total VOCs in groundwater collected from deep-zone monitoring wells occurred at PC-5C (462.2 μ g/L – May 2010 and 325.7 μ g/L – October 2010) and MC-7C (889.5 μ g/L – September 2008, 602.1 μ g/L – May 2010 and 313.3 μ g/L in October 2010).

Concentrations of PCE in groundwater sampled from deep zone wells during 2010 decreased, remained relatively stable, or remained undetected in all of the deep zone wells. The only two wells which showed slight increases in concentrations of PCE in groundwater collected from the deep zone were MC-8 and MC-9. The concentration of PCE in the groundwater samples collected from MC-8 increased from 17 μ g/L (May 2010) to 20 μ g/L (October 2010). The concentration of PCE in the groundwater samples collected from MC-9 increased from 30 μ g/L (May 2010) to 40 μ g/L (October 2010). Seasonal fluctuations of concentrations within these ranges are common.



Surface Water

Concentrations of PCE in Baxter Brook were evaluated by surface water sampling at four locations (Figure 4) along its course. All surface water samples contained PCE concentrations that exceeded the NYS Class C surface water standard. The highest concentration of PCE in the surface water samples was observed in the most upgradient surface water sampling location, MC-SFC-1 (15 μ g/L). At this sampling location, the stream is discharged from a storm sewer outfall. Although the stream's origin is upgradient of this location, there is no access further upgradient to collect a sample. The concentration of PCE in surface water collected at MC-SFC-2 (12 μ g/L) was slightly less than at MC-SFC-1. Surface water concentration of PCE at MC-SFC-3 (2.5 μ g/L) was similar to surface water concentrations at MC-SFC-4 (3 μ g/L). Two additional surface water sampling locations were added during the October 2010 sampling event (PC-SFC-1 and PC-SFC-2). PCE was detected in both PC-SFC-01 (5.1 μ g/L) and PC-SFC-02 (0.82 μ g/L), although only PC-SFC-01 exceeded NYS Standards. In general, the concentrations of PCE in surface water samples decrease in a downgradient direction. This decreasing trend may be a factor of dilution.

Surface water elevations of the Baxter Brook sampling locations were surveyed near the time of sampling. These surface water sampling elevations range from 70.89 feet AMSL (MC-SFC-01) to 9.09 feet AMSL (MC-SFC-04).

Public Water Supply

As part of this remedial investigation, groundwater samples were collected from the PWWD supply wells in the Sandy Hollow Well Field. No PCE was detected in the groundwater samples collected from the Sandy Hollow Well Field. Recent sampling at the PWWD Well 6 location (east end of Bar Beach Road), indicated an exceedance of PCE (5.5 μ g/L) in groundwater at this location, however, Well 6 is located up gradient of both the former Munsey and Plaza Cleaners sites, and this concentration is not likely attributable to them. In addition to these samples, the PWWD routinely samples water within its district. The district also treats its water with chlorine, sodium hydroxide and GAC.



6. Human Health Exposure Pathway Analysis

A qualitative human health exposure assessment was performed to identify potential exposure pathways of site contaminants to the general public. A quantitative assessment was not conducted.

Based on data collected prior to and during the Munsey and Plaza Cleaners RIs, these sites are sources of VOC groundwater contamination in this area. Several human exposure pathways to VOCs originating from the dissolved-phase VOC plumes have been partially addressed by engineering controls. Six sub-slab depressurization systems have been installed to address soil vapor intrusion at 10 properties located above the dissolved-phase VOC plumes. Soil vapor intrusion is monitored on an annual basis at other locations where concentrations did not warrant the installation of a SSD system. Groundwater in the vicinity of the dissolved-phase VOC plume is being used as a drinking water source at the Sandy Hollow municipal well field; however, water treatment capabilities have already been established to remove VOCs from drinking water at this facility. The Port Washington Water District routinely monitors water quality, including VOC analysis. Groundwater sampling conducted in accordance with the Plaza and Munsey Cleaners OU-2 work assignments have not detected any contaminants of concern at concentrations greater than NYS Standards in these potable water supply wells.

Contact with surface water is a potentially complete human exposure pathway associated with VOCs originating from the Munsey and Plaza Cleaners sites. PCE, TCE, cis-1,2 DCE are present in Baxter Brook north and northwest of the Munsey and Plaza Cleaners sites. Surface water PCE concentrations exceeded NYSDEC Class C Standards in the surface water samples collected from Baxter Brook. Analytical results from this stream likely reflect the concentrations of VOCs in the upper portion of groundwater within the aquifer. Receptor populations include residents, trespassers, and construction workers who could potentially come into contact with this surface water. Baxter Brook is not registered as a recreational surface water body with the NYSDEC, therefore decreasing the potential for exposure. Potential exposure routes include dermal contact with and inhalation of chemicals volatilized off the surface water.





7. Fish and Wildlife Impact Analysis

A fish and wildlife impact analysis was conducted internally at the New York State Department of Environmental Conservation Bureau of Habitat regarding the potential impact contamination in Baxter Brook would have on fish and wildlife resources. The Bureau of Habitat determined that most of the contamination in Baxter Brook is not of a major concern for fish and wildlife resources, but that another analysis should be conducted to review any potential disturbances associated with the implemented remedial strategy.



8. Conclusions

The hydrogeologic and analytical data presented in Section 4 were used to create a conceptual site model. This model is used herein to facilitate the evaluation of potential VOC source areas and migration pathways and provide an organizational structure for data collected during multiple investigations. These data include site-specific information on VOCs in soil, groundwater, sub-slab vapor, indoor and outdoor air, and the geologic and hydrogeologic characteristics that affect the distribution, fate, and migration of the VOCs.

The following sections provide information on the physical characteristics of the aquifer, horizontal and vertical hydraulic gradients, interactions between groundwater and surface water, and VOC concentrations in the different hydrostratigraphic zones (shallow, intermediate, and deep). These discussions of the site conceptual model are accompanied by Figures 9, 9A, 9B, 9C (geologic cross sections) and Figures 10 and 11 (distribution of VOCs in groundwater).

Hydrogeologic Framework

Bedrock, the top of which is approximately 150 to 400 feet BMSL across the Munsey and Plaza Cleaners area of investigation, was not encountered in any of the soil borings drilled during the RI. Depth to bedrock information was inferred from Stumm et al. (2002). As shown on Figures 9A, 9B, and 9C, the uppermost portion of the water-table (Upper Glacial) aquifer consists predominantly of sand with some gravel and silt (kame and outwash deposits) with discontinuous and intermittent silt and clay lenses. Low permeability zones of clay were encountered sporadically across the investigation area. It is unlikely that these clay zones are continuous across the investigation area because VOCs have been detected stratigraphically below the bottom of the clays. The thickest clay units appear in borings in the vicinity of Baxter Brook, which flows from east to west across the investigation area.

Groundwater in the vicinity of the Munsey and Plaza Cleaners sites generally flows northwest toward Baxter Estates and the Sandy Hollow municipal well field. The depth to groundwater varies considerably depending upon location within the hummocky kame and outwash deposits. At MC-11, which is approximately 100 feet AMSL in Baxter Estates, groundwater was at a depth of 75 feet bgs. At MC-7, which is approximately 120 feet AMSL along South Bayles Avenue, groundwater occurs at a depth of approximately 30 feet bgs.



The water table is influenced by shallow groundwater discharge to Baxter Brook, which flows generally from east to west across the study area. Baxter Brook flows into Baxter Pond, which discharges to Manhasset Bay (Figure 9). The hydraulic gradient is predominantly horizontal throughout the study area, but steepens in the western portion of the study area where it is influenced by the incised Baxter Brook, and potentially influenced by pumping at the Sandy Hollow municipal well field.

Simplified geologic cross sections (Figures 9, 9A, 9B and 9C) were generated from data collected during monitoring well installation and groundwater sampling events. As shown on Figure 9, transects A and B trend northwest and southeast in the general direction of groundwater flow. Transect C trends perpendicular to these cross sections, trending south to north. As shown in Figure 9A, shallow groundwater flows towards the northwest, likely discharging at points along Baxter Brook. A similar direction of groundwater flow is shown in Figure 9B, where the steepest groundwater gradients are observed between well clusters MC-7 and PC-11. This steeper gradient is likely attributable to the presence of soils such as clay and silty clay, which inhibit the flow of groundwater. As groundwater potentiometric heads adjust to the presence of these soils, groundwater is driven downward, under the zone of clay (Figure 9C). At the MC-12 well cluster location, this produces upward heads such that the intermediate- and deep-zones wells are under flowing artesian conditions. The elevated concentrations of contaminants at this location likely resulted from these hydrostratigraphic conditions.

Summary of VOC Plume

The dissolved-phase VOC plume consists primarily of PCE, TCE, and cis-1,2 DCE. MTBE was detected at concentrations greater than the NYSDEC standard at several locations; however, this compound is not characteristic of activities associated with dry cleaners. Total VOC concentrations in groundwater have been detected as high as 1,520 μ g/L in the sample collected from MC-B-04 in January 2008. Boring MC-B-04 is near the MC-7 well cluster along South Bayles Avenue. The PCE concentration in this sample was 1,500 μ g/L.

Degradation products of PCE include TCE, cis-1,2 DCE, and vinyl chloride (VC). TCE and cis-1,2 DCE were detected at relatively lower concentrations in groundwater and VC was not detected, indicating that little natural attenuation of PCE is occurring within the aquifer. Field measurements of dissolved oxygen collected during well development range from approximately 1 mg/L to 3 mg/L



indicating that the aquifer is under slightly aerobic conditions. Chlorinated VOCs such as PCE do not readily attenuate under aerobic conditions. Reductive dechlorination of PCE to VC occurs more rapidly under anaerobic conditions.

The dissolved-phase VOC concentrations of primarily PCE and TCE vary spatially both horizontally and vertically, with a general trend of decreasing concentrations with increasing distance or depth from the former Munsey and Plaza Cleaners sites. One likely factor on the vertical variability in VOC concentrations is the presence of discontinuous silt and clay zones throughout the upper glacial aquifer. An underlying, low permeability zone (NScu) was tentatively identified at well locations across the investigation area at depths ranging from 90 to 120 feet bgs and slopes upward to the northwest. This unit likely limits deeper downward migration of groundwater contamination.

VOCs were detected in intermediate- and deep-zone groundwater in the northwestern section of Baxter Estates at PC-1B/C. This indicates that the VOCs within the plume have not only migrated laterally from the Munsey and Plaza Cleaners sites, but also migrated vertically downwards. With the exception of the January 2008 direct-push groundwater sample at MC-B-04 (located approximately 750 feet west of the former Plaza Cleaners site), VOC concentrations at intermediate or deeper depths are generally higher than corresponding concentrations in the shallow zone of the upper glacial aquifer. This is likely due to recharge from infiltration of precipitation and subsequent preferential dilution of VOC concentrations in the shallow zone. In local areas downgradient of Baxter Brook, the relatively lower VOC concentrations in the shallow zone may also be attributed to groundwater discharge to surface water.

Analysis of surface water collected at four locations from Baxter Brook northwest of the Munsey and Plaza Cleaners sites indicates that the surface water quality may be affected by the dissolved-phase VOC plume. As shown on Figures 5 and 6, Baxter Brook's channel intersects the potentiometric surface of shallow groundwater. This suggests Baxter Brook is receiving groundwater along its course, and that the stream can be a discharge point for VOCs within the upper portion of the water table across the investigation area. Groundwater monitoring data do indicate that contaminants are present downgradient of Baxter Brook, indicating that only a portion of the shallowest contaminants would be discharged via Baxter Brook. Given the distance



from the presumed release points to Baxter Brook (approximately 1,500 - 4,000 feet) the VOCs are likely well dispersed vertically as the plume reaches Baxter Brook.

Given the commercial and urban land use in the vicinity of the Munsey and Plaza Cleaners sites, multiple sources of contamination cannot be ruled out. However, analytical data indicate decreasing concentrations in the downgradient direction from the Munsey and Plaza Cleaners sites to MC-9B and MC-9C. Higher concentrations at PC-5B/C, PC-6B, and MC-12B/C, which are screened at deeper intervals than MC-9B and 9C, may indicate that concentrations were once higher in the areas upgradient of these deeper zones. This concentration pattern is consistent with presence of shallow clay soils in the vicinity of Baxter Brook, downward vertical gradients, and the presumption that the magnitude of past releases have been curtailed or remediated over the last two decades.

Contamination Sources

A previous consultant working on behalf of the former Munsey Cleaners owner, Montford Trust, removed 31 tons of contaminated soil from the basement of the building between 1996 and 1997. This work was completed as the implementation of an interim remedial measures (IRM) program. Based on available information with regard to previous releases and attempted remediation thereof, non aqueous phase liquid (NAPL) at two locations within and upgradient of Munsey Cleaners OU-2 have been documented.

The former Plaza Cleaners building is located approximately 250 feet southwest of the former Munsey Cleaners building. Based on the proximity of the former Plaza Cleaners site to the former Munsey Cleaners site, the direction of local groundwater flow, and the results of analytical data, it is likely the two VOC plumes have partially combined.

Groundwater Contaminant Fate and Transport

The mechanisms that control the mass and concentrations of the VOC plume include dilution through recharge, dispersion, degradation, sorption, discharge, and to a lesser extent, diffusion. Continued dispersion of the VOC plume and mixing with recharge in the water-table aquifer will lower the VOC groundwater concentrations over time. Significant quantities of unsaturated zone source material were removed from the former Munsey Cleaners and Plaza Cleaners sites during previous remedial actions. The removal of this material has reduced the potential for increasing VOC



concentrations in groundwater in the vicinity of these sites. VOC mass reduction in the upper portion of the water table occurs via volatilization and limited discharge of VOC-containing groundwater to Baxter Brook northwest of the Munsey and Plaza Cleaners sites. Aerobic conditions in the aquifer will likely continue, limiting significant mass removal through reductive dechlorination of these VOCs. The remaining portions of the VOC mass are in the dissolved-phase and sorbed to soils in the saturated zone. The latter will persist as a source of VOCs to the groundwater over time, especially considering the relatively slow desorption and diffusion processes.

Aguifer recharge will sustain hydraulic gradients and drive advective transport of VOCs to the northwest. Areas of highest concentration, currently in the vicinity of MC-7 and MC-12, will continue to move downgradient and disperse; however, lateral dispersion will be limited to any relatively higher hydraulic conductivity preferential pathways that may exist within the plume. Since the VOC plume has reached discharge points at Baxter Brook and has migrated beyond the location of MC-12 (approximately 2,600 feet west-northwest of Munsey Cleaners), additional lateral dispersion will likely be limited, and the width of the VOC plume will likely remain relatively unchanged over time. Hydrostratigraphy also contributes to the artesian conditions and elevated concentrations of contaminants observed at MC-12 B/C. The presence of flow-inhibiting soils, coupled with potentiometric heads being largely driven by recharge, create conditions that direct groundwater downward at this, and similar locations in the investigation area. These three factors (flow-inhibiting soils, recharge-driven poteniometric heads, hydrostratigraphy in Baxter Brook valley) produce conditions that appear to be a significant pathway for groundwater prior to its presumed discharge into Manhasset Bay. Contributions of other sources of PCE in Port Washington to the OU-2 groundwater plume would continue to cause persistent lateral variations in VOC concentrations.

Concentrations of VOCs within the intermediate and deeper zones of the aquifer have been quantified from groundwater samples collected from "B" and "C" wells throughout the investigation area. The CMT wells have also complimented the vertical control of VOC-containing groundwater across the investigation area.



9. Recommendations

An extensive analytical and field data collection program was implemented during the Remedial Investigation for the Munsey Cleaners OU-2 and former Plaza Cleaners sites. The dissolved-phase VOC plume associated with former dry cleaning activities has been generally defined both horizontally and vertically within the underlying upper glacial aquifer in Port Washington, NY. An investigation of soil vapor intrusion was implemented under this work assignment, and where applicable (10 buildings out of 50 sampled), sub-slab depressurization systems were installed to mitigate the potential for vapor intrusion.

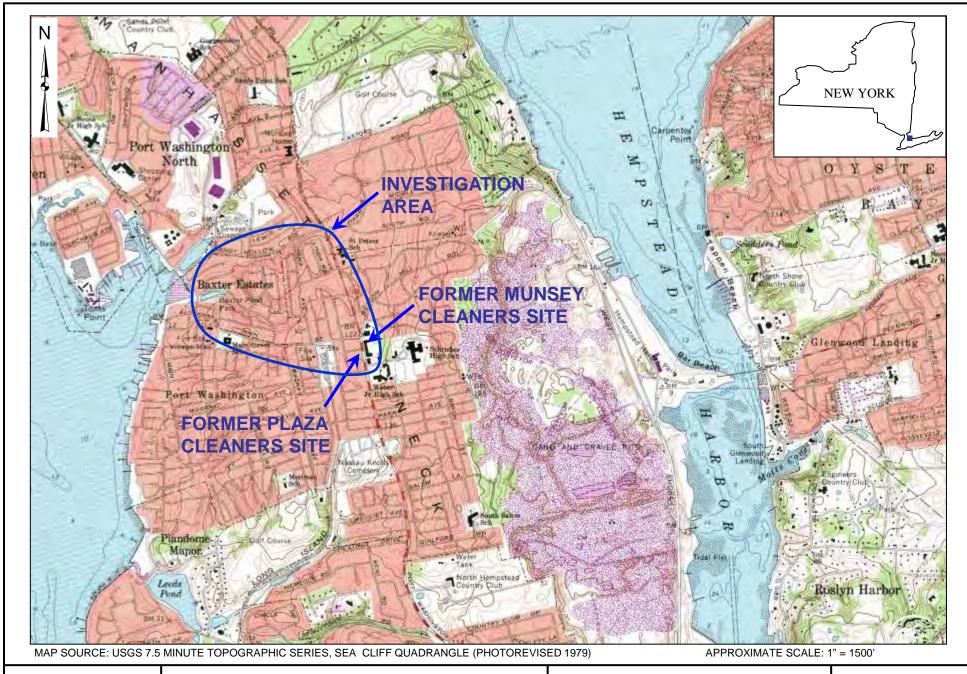
Concentrations of PCE in groundwater monitoring wells generally show a decreasing trend over time. Although concentrations of PCE have been detected at concentrations greater than NYS Standards in groundwater sampled from boundary wells and direct-push borings, sufficient information has been collected and documented to proceed with the Feasibility Study phase. The relatively lower concentrations of PCE at boundary locations will be taken into account when developing remedial alternatives and strategies. No further remedial investigation is recommended.



10. References

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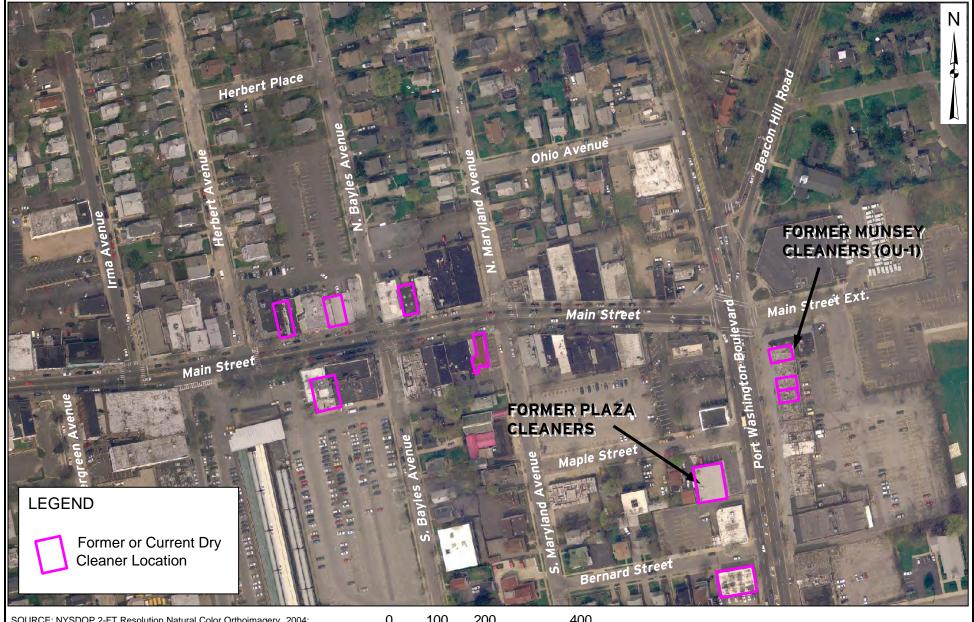
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MUNSEY AND PLAZA CLEANERS SITES TOWN OF NORTH HEMPSTEAD, NEW YORK

SITE LOCATION

AUGUST 2011

FIGURE 1



SOURCE: NYSDOP 2-FT Resolution Natural Color Orthoimagery, 2004; New York State GIS Clearinghouse.

0 100 200 400

APPROXIMATE SCALE IN FEET



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MUNSEY AND PLAZA CLEANERS SITES TOWN OF NORTH HEMPSTEAD, NEW YORK

AERIAL PHOTOGRAPH

AUGUST 2011

FIGURE 2





NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITES TOWN OF NORTH HEMPSTEAD, NEW YORK

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
MUNSEY AND PLAZA CLEANERS SITES
TOWN OF NORTH HEMPSTEAD, NEW YORK

GROUNDWATER AND SURFACE WATER SAMPLING LOCATIONS

AUGUST 2011

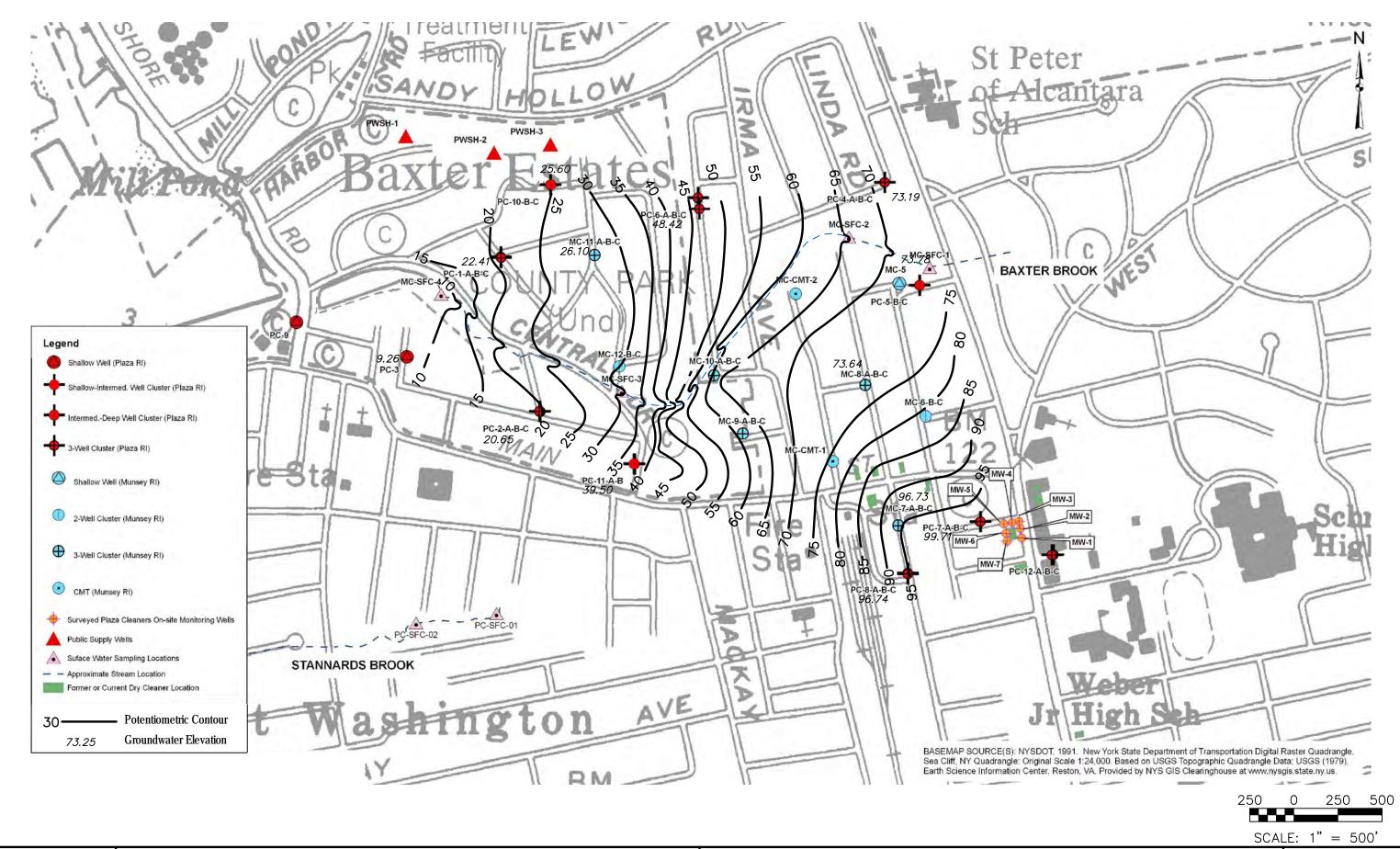
FIGURE 4

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITES TOWN OF NORTH HEMPSTEAD, NEW YORK

SHALLOW ZONE POTENTIOMETRIC CONTOURS 8/25/08 AUGUST 2011

FIGURE 5



ARCADIS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITE NUMBERS 130081 AND 130108 TOWN OF NORTH HEMPSTEAD, NEW YORK

POTENTIOMETRIC MAP 4/28/10 SCALE: 1"=500'

ARCADIS-US, INC. **AUGUST 2011** FIGURE 6

SHALLOW ZONE

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INTERMEDIATE ZONE POTENTIOMETRIC MAP 4/28/10 SCALE: 1"=500' ARCADIS-US, INC.

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FIGURE 7

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITE NUMBERS 130081 AND 130108 TOWN OF NORTH HEMPSTEAD, NEW YORK

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FIGURE 8

DEEP ZONE
POTENTIOMETRIC MAP 4/28/10
SCALE: 1"=500'

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITE NUMBERS 130081 AND 130108

DEEP ZONE POTENTIOMETRIC MAP 4/28/10 SCALE: 1"=500'

ARCADIS-US, INC. AUGUST 2011 FIGURE 8

TOWN OF NORTH HEMPSTEAD, NEW YORK

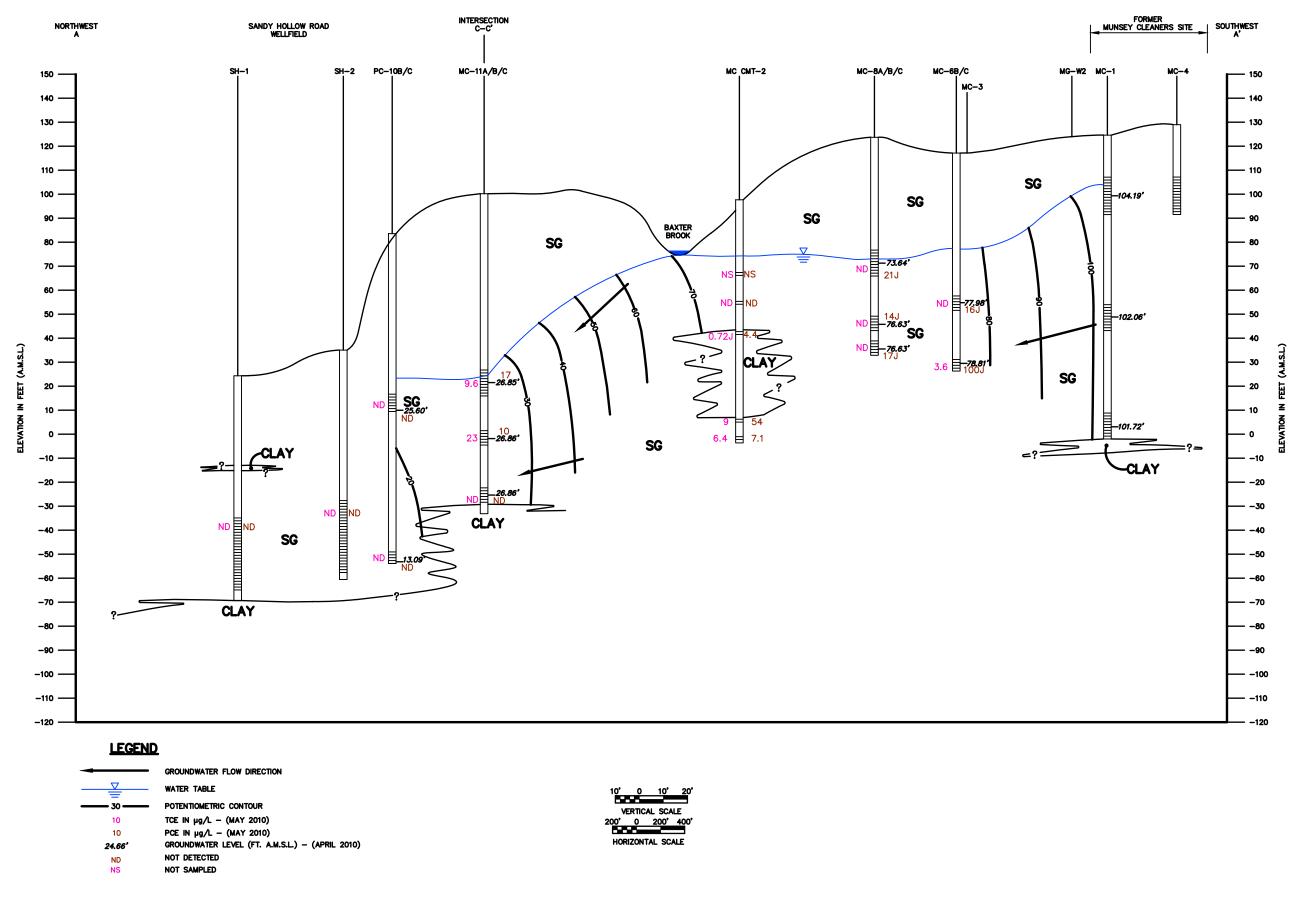
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITES TOWN OF NORTH HEMPSTEAD, NEW YORK

CROSS SECTIONS

AUGUST 2011

FIGURE 9

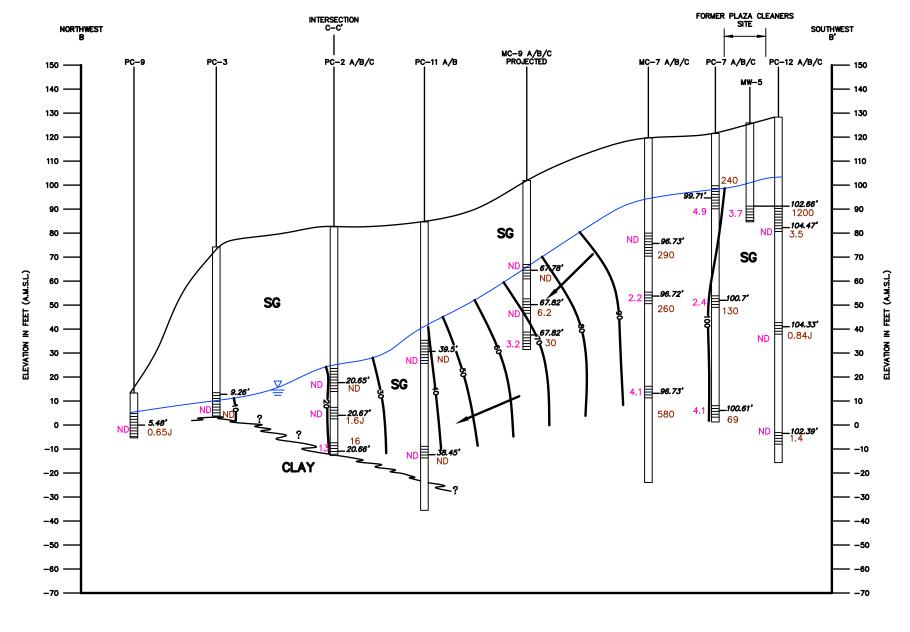


NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITE NUMBERS 130081 AND 130108 TOWN OF NORTH HEMPSTEAD, NEW YORK

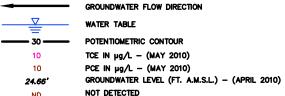
CROSS SECTION A-A' WITH 2010 DATA

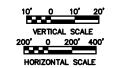
AUGUST 2011 FIGURE 9A

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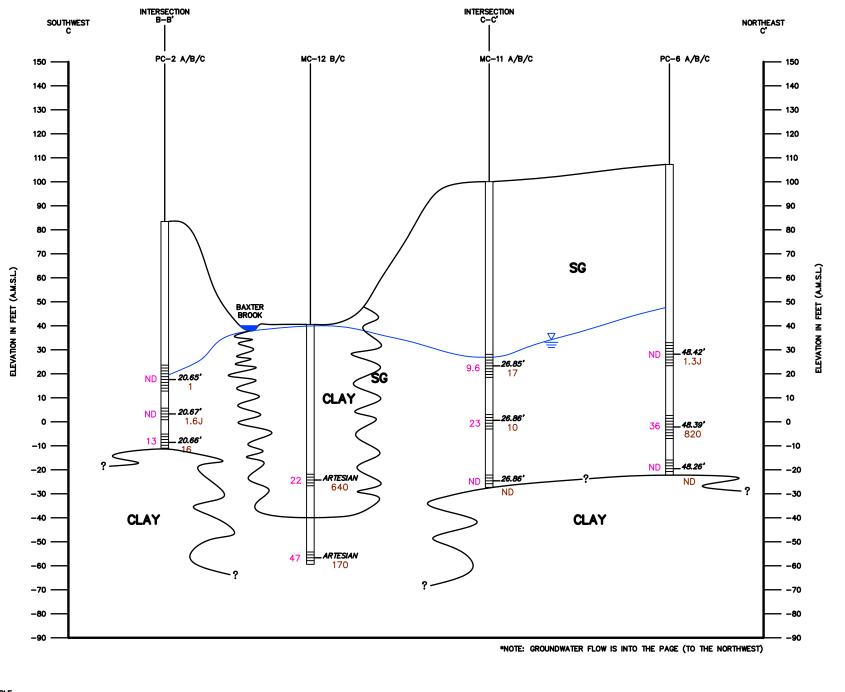








ARCADIS-US, INC.

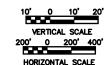






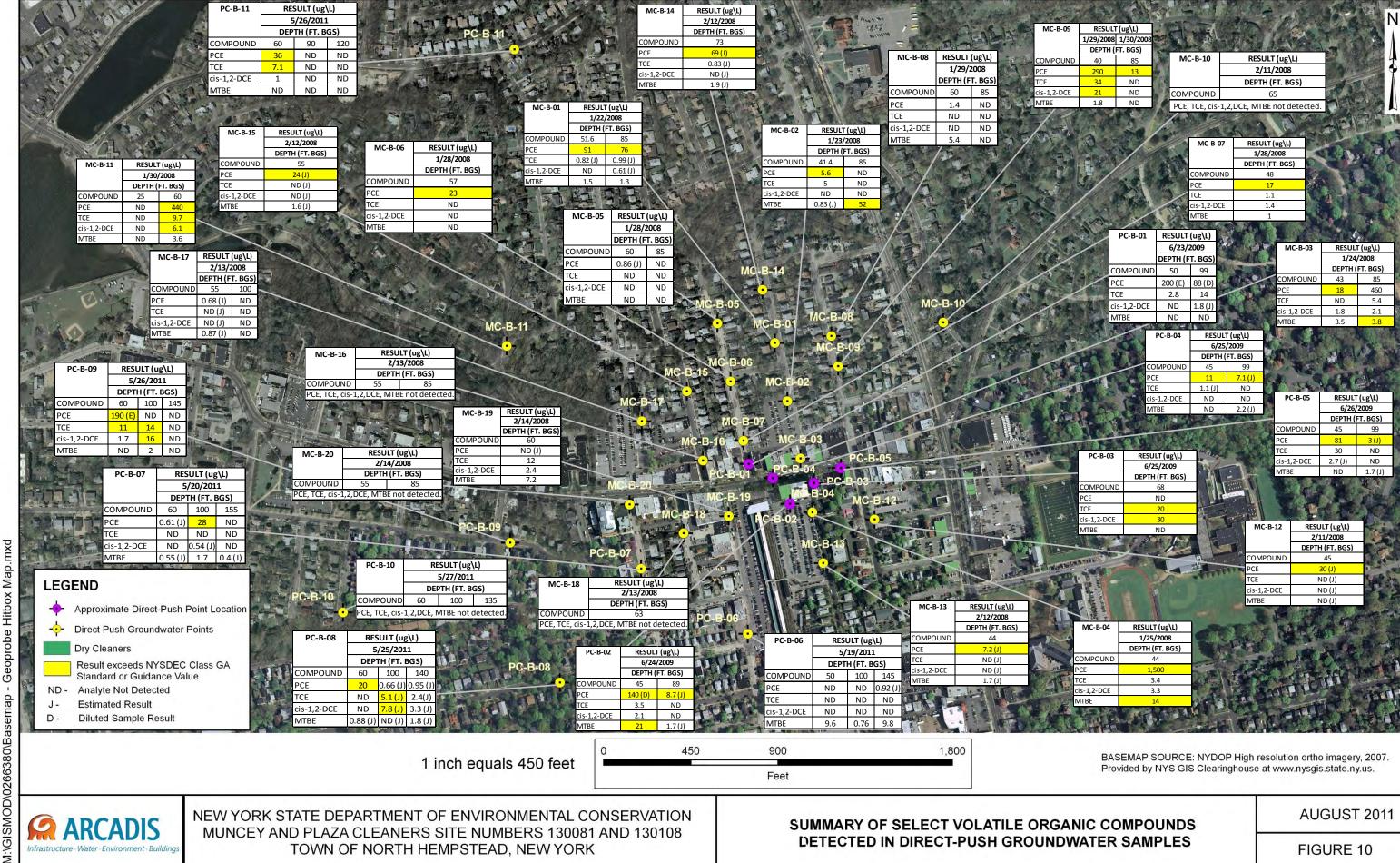
TCE IN ug/L - (MAY 2010)
PCE IN µg/L - (MAY 2010)

9.66' GROUNDWATER LEVEL (FT. A.M.S.L.) - (APRIL 2010)
ND NOT DETECTED





ARCADIS-US, INC.



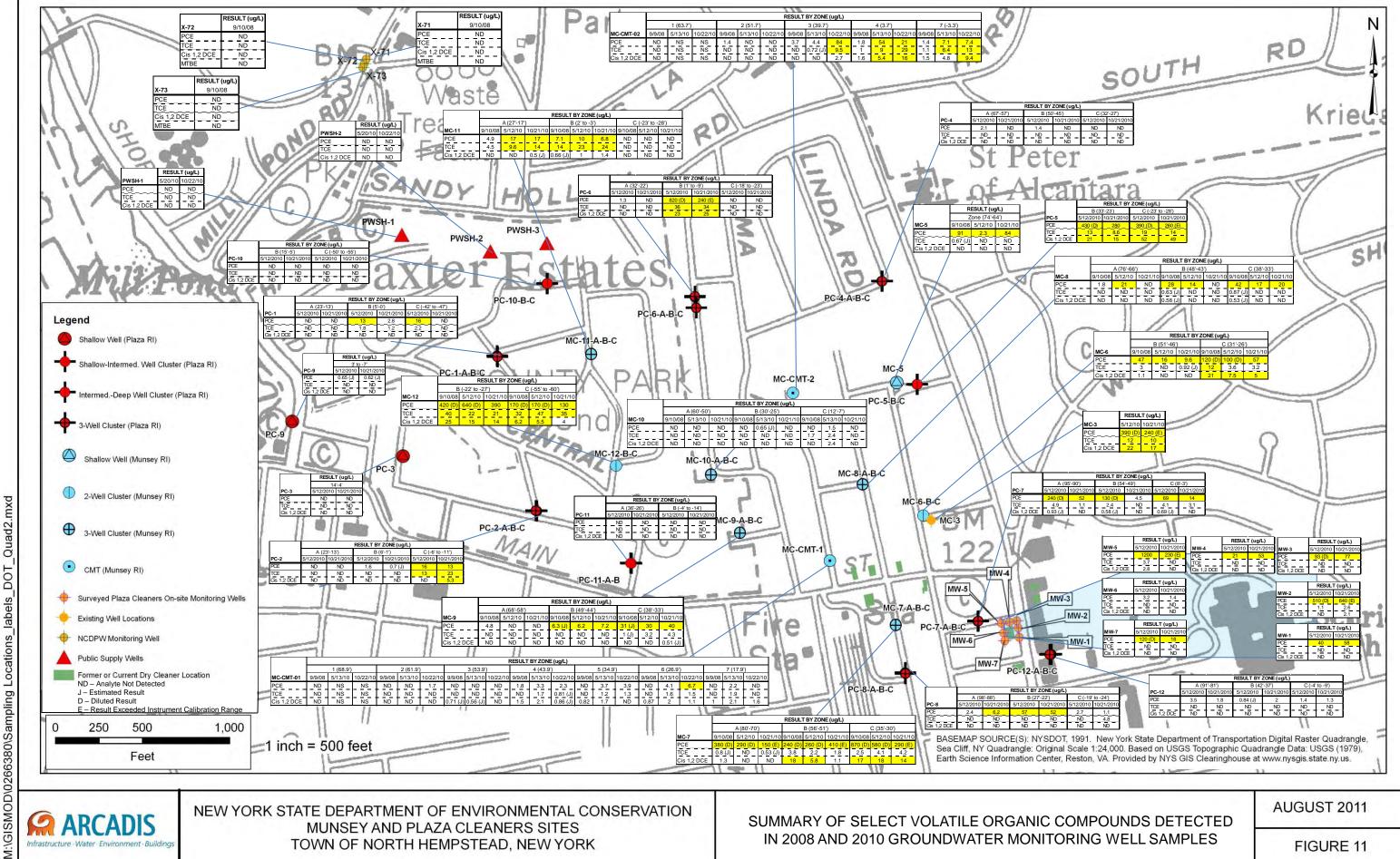
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNCEY AND PLAZA CLEANERS SITE NUMBERS 130081 AND 130108 TOWN OF NORTH HEMPSTEAD, NEW YORK

SUMMARY OF SELECT VOLATILE ORGANIC COMPOUNDS DETECTED IN DIRECT-PUSH GROUNDWATER SAMPLES

AUGUST 2011

FIGURE 10



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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION MUNSEY AND PLAZA CLEANERS SITES TOWN OF NORTH HEMPSTEAD, NEW YORK

SUMMARY OF SELECT VOLATILE ORGANIC COMPOUNDS DETECTED IN 2008 AND 2010 GROUNDWATER MONITORING WELL SAMPLES

AUGUST 2011

FIGURE 11

TABLE 1 - MONITORING WELL CONSTRUCTION DETAILS MUNSEY CLEANERS OU-2 (SITE #130081) TOWN OF NORTH HEMPSTEAD, NEW YORK

Well	Label	Location	Cluster	Well	Ground	Measuring	East	North	Depth to	Elev. of	Bottom of	Bottom of	Screened	Intervals	8	/25/08	4.	28/10	1	0/5/10
			Type	Type	Surface	Point	Coordinate	Coordinate	Clay	Clay	Boring	Boring		Bottom of		Groundwater		Groundwater		Groundwater
					Elevation	Elevation			(feet bgs)	(feet AMSL)	(feet bgs)	(feet AMSL)	Top of Screen	Screen	DTW	Elevation	DTW	Elevation	DTW	Elevation
					(feet AMSL)	(feet AMSL)							(feet AMSL)	(feet AMSL)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
Well	GIS_Label	Location	Clustr_Typ	Well_Type	Grond_AMSL	MP_AMSL	Х	Y	Clay_BGS	Clay_AMSL	BOB_BGS	BOB_AMSL	Tscen_AMSL	Bscen_AMSL	DTW_0808	GW_EL_08	DTW_0410	GW_EL_10	DTW_1010	GW_EL_10
MC-5	MC-5	MC-5	S	S	96.05	95.64	1070962.81	243239.09	NA	NA	32	64.05	74.05	64.05	24.73	70.91	21.86	73.78	23.37	72.27
MC-6B	MC-6-B-C	MC-6-B-C	BC	В	115.75	115.32	1071116.101	242475.915	NA	NA	90	25.75	50.75	45.75	40.27	75.05	37.34	77.98	39.74	75.58
MC-6C		MC-6-B-C	BC	С	115.75	115.33	1071116.101	242475.915	NA	NA	90	25.75	30.75	25.75	39.19	76.14	36.52	78.81	38.69	76.64
MC-7A	MC-7-A-B-C	MC-7-A-B-C	ABC	A	120.18	119.74	1070957.935	241845.627	NA	NA	90	30.18	80.18	70.18	24.93	94.81	23.01	96.73	24.72	95.02
MC-7B		MC-7-A-B-C	ABC	В	120.18	119.67	1070957.935	241845.627	NA	NA	90	30.18	56.18	51.18	24.87	94.80	22.95	96.72	24.65	95.02
MC-7C		MC-7-A-B-C	ABC	С	120.18	119.66	1070957.935	241845.627	NA	NA	90	30.18	35.18	30.18	29.84	89.82	22.93	96.73	24.63	95.03
MC-8A	MC-8-A-B-C	MC-8-A-B-C	ABC	Α	122.92	122.74	1070767.391	242652.984	NA	NA	92	30.92	75.92	65.92	51.11	71.63	49.10	73.64	50.78	71.96
MC-8B		MC-8-A-B-C	ABC	В	122.92	122.48	1070767.391	242652.984	NA	NA	92	30.92	47.92	42.92	50.86	71.62	48.85	73.63	50.53	71.95
MC-8C		MC-8-A-B-C	ABC	С	122.92	122.64	1070767.391	242652.984	NA	NA	92	30.92	37.92	32.92	51.01	71.63	49.01	73.63	50.69	71.95
MC-9A	MC-9-A-B-C	MC-9-A-B-C	ABC	Α	106.43	105.85	1070063.716	242374.146	NA	NA	77	29.43	68.43	58.43	39.99	65.86	38.07	67.78	39.53	66.32
MC-9B		MC-9-A-B-C	ABC	В	106.43	105.95	1070063.716	242374.146	NA	NA	77	29.43	49.43	44.43	40.07	65.88	38.13	67.82	39.61	66.34
MC-9C		MC-9-A-B-C	ABC	С	106.43	105.82	1070063.716	242374.146	NA	NA	77	29.43	38.43	33.43	39.97	65.85	38.00	67.82	39.50	66.32
MC-10A	MC-10-A-B-C	MC-10-A-B-C	ABC	Α	70.39	69.8	1069896.752	242708.447	NA	NA	64	6.39	60.39	50.39	6.56	63.24	NM	NM	4.00	65.80
MC-10B		MC-10-A-B-C	ABC	В	70.39	69.9	1069896.752	242708.447	NA	NA	64	6.39	30.39	25.39	4.51	65.39	NM	NM	4.11	65.79
MC-10C		MC-10-A-B-C	ABC	С	70.39	69.89	1069896.752	242708.447	NA	NA	64	6.39	12.39	7.39	4.42	65.47	NM	NM	4.70	65.19
MC-11A	MC-11-A-B-C	MC-11-A-B-C	ABC	Α	99.88	99.39	1069209.243	243400.873	128	-28.12	132	-32.12	26.88	16.88	74.73	24.66	72.54	26.85	75.53	23.86
MC-11B		MC-11-A-B-C	ABC	В	99.88	99.46	1069209.243	243400.873	128	-28.12	132	-32.12	1.88	-3.12	74.80	24.66	72.60	26.86	75.60	23.86
MC-11C		MC-11-A-B-C	ABC	С	99.88	99.18	1069209.243	243400.873	128	-28.12	132	-32.12	-23.12	-28.12	74.51	24.67	72.32	26.86	75.32	23.86
MC-12B	MC-12-B-C	MC-12-B-C	BC	В	40.19	41.68	1069352.168	242762.052	NA	NA	100	-59.81	-21.81	-26.81	1.87	43.55	artesian	NM	artesian	NM
MC-12C		MC-12-B-C	BC	С	40.19	41.86	1069352.168	242762.052	NA	NA	100	-59.81	-54.81	-59.81	1.83	43.69	artesian	NM	artesian	NM
	MC-CMT-1	MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	68.96		NM	NM	NM	NM	NM	NM
MC-CMT-01 (2)		MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	61.96		NM	NM	NM	NM	NM	NM
MC-CMT-01 (3)		MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	53.96		NM	NM	NM	NM	NM	NM
MC-CMT-01 (4)		MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	43.96		NM	NM	NM	NM	NM	NM
MC-CMT-01 (5)		MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	34.96		NM	NM	NM	NM	NM	NM
MC-CMT-01 (6)		MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	26.96		NM	NM	NM	NM	NM	NM
MC-CMT-01 (7)		MC-CMT-1	CMT	CMT	116.96	116.58	1070579.817	242216.762	NA	NA	100	16.96	17.96		NM	NM	NM	NM	NM	NM
MC-CMT-02 (1)	MC-CMT-2	MC-CMT-2	CMT	CMT	94.71	94.19	1070367.289	243179.814	NA	NA	100	-5.29	63.71		NM	NM	NM	NM	NM	NM
MC-CMT-02 (2)		MC-CMT-2	CMT	CMT	94.71	94.19	1070367.289	243179.814	NA	NA	100	-5.29	51.71		NM	NM	NM	NM	NM	NM
MC-CMT-02 (3)		MC-CMT-2	CMT	CMT	94.71	94.19	1070367.289	243179.814	NA	NA	100	-5.29	39.71		NM	NM	NM	NM	NM	NM
MC-CMT-02 (4)		MC-CMT-2	CMT	CMT	94.71	94.19	1070367.289	243179.814	NA	NA	100	-5.29	3.71		NM	NM	NM	NM	NM	NM
MC-CMT-02 (7)		MC-CMT-2	CMT	CMT	94.71	94.19	1070367.289	243179.814	NA	NA	100	-5.29	-3.29		NM	NM	NM	NM	NM	NM

Coordinates are in NAD_1983_StatePlane_New_York_Long_Island_FIPS_3104_Feet

Table 2 - MONITORING WELL CONSTRUCTION DETAILS
PLAZA CLEANERS (SITE #130108)
TOWN OF NORTH HEMPSTEAD, NEW YORK

Well	Label	Location	Cluster	Well	Ground	Ground	Measuring	East	North	Depth to	Elev. of	Bottom of	Bottom of		Screened	Intervals		Saturation	Saturation	4/28/10	10/	5/10
			Type	Type	Surface	Surface	Point	Coordinate	Coordinate	Clay	Clay	Boring	Boring		į	Bottom of	Bottom of	During Well	During Well	Groundwater	Groundwater	Groundwater
					Elevation	Elevation	Elevation			(feet bgs)	(feet AMSL)	(feet bgs)	(feet AMSL)	Top of Screen	Top of Screen	Screen	Screen	Installation	Installation	Elevation	Measurement	Elevation
					From Topo Map	(feet AMSL)	(feet AMSL)							(feet bgs)	(feet AMSL)	(feet bgs)	(feet AMSL)	(feet bgs)	(feet AMSL)	(feet)	DTW (feet)	(feet)
Well	GIS_Label	Location	Clustr_Typ	Well_Type	Grond_Topo	Grond_AMSL	MP_AMSL	Х	Υ	Clay_BGS	Clay_AMSL	BOB_BGS	BOB_AMSL	Tscren_BGS	Tscen_AMSL	Bscren_BGS	Bscen_AMSL	Water_BGS	Water_AMSL			
PC-1A	PC-1-A-B-C	PC-1-A-B-C	ABC	Α	91	42.71	42.37	1068668.1470	243391.6202	95	-52.29	45	-2.29	20	22.71	30	12.71	25	17.71	22.46	26.42	15.95
PC-1B		PC-1-A-B-C	ABC	В	91	42.71	42.37	1068668.1470	243391.6202	95	-52.29	45	-2.29	38	4.71	43	-0.29	25	17.71	22.47	26.42	15.95
PC-1C		PC-1-A-B-C	ABC	С	91	42.89	42.67	1068671.5740	243386.8951	95	-52.11	95	-52.11	85	-42.11	90	-47.11	25	17.89	20.73	24.26	18.41
PC-2A	PC-2-A-B-C	PC-2-A-B-C	ABC	A	70	83.15	82.48	1068897.0870	242501.2067	95	-11.85	70	13.15	60	23.15	70	13.15	64	19.15	20.65	64.04	18.44
PC-2B		PC-2-A-B-C	ABC	В	70	83.15	82.63	1068897.0870	242501.2067	95	-11.85	82	1.15	77	6.15	82	1.15	64	19.15	20.67	64.18	18.45
PC-2C		PC-2-A-B-C	ABC	С	70	83.14	82.81	1068892.1250	242502.4079	95	-11.86	97	-13.86	89.5	-6.36	94.5	-11.36	64	19.14	20.66	64.35	18.46
PC-3	PC-3	PC-3	S	S	77	79.17	78.82	1068128.7600	242816.4876	75	4.17	75	4.17	65	14.17	75	4.17	65	14.17	9.26	63.13	15.69
PC-4A	PC-4-A-B-C	PC-4-A-B-C	ABC	A	98	89.79	89.17	1070878.0860	243820.2150	65	24.79	45	44.79	23	66.79	33	56.79	25	64.79	73.19	17.73	71.44
PC-4B		PC-4-A-B-C	ABC	В	98	89.79	89.42	1070878.0860	243820.2150	65	24.79	45	44.79	40	49.79	45	44.79	25	64.79	71.31	19.83	69.59
PC-4C		PC-4-A-B-C	ABC	С	98	89.88	89.21	1070880.5150	243820.4417	65	24.88	67	22.88	58	31.88	63	26.88	25	64.88	71.29	19.64	69.57
PC-5B	PC-5-B-C	PC-5-B-C	BC	В	92	92.58	92.24	1071079.4360	243228.5847	122	-29.42	70	22.58	60	32.58	70	22.58	20.4	72.18	74.53	19.8	72.44
PC-5C		PC-5-B-C	BC	С	92	92.42	92.14	1071082.4760	243228.5237	122	-29.58	122	-29.58	115	-22.58	120	-27.58	20.4	72.02	74.63	19.62	72.52
PC-6A	PC-6-A-B-C	PC-6-A-B-C	ABC	A	107	106.32	106.18	1069805.0210	243729.7610	131	-24.68	85	21.32	74	32.32	84	22.32	76.5	29.82	48.42	59.59	46.59
PC-6B		PC-6-A-B-C	ABC	В	107	106.36	106	1069804.7280	243733.1835	131	-24.64	122	-15.64	105	1.36	115	-8.64	76.5	29.86	48.39	59.41	46.59
PC-6C		PC-6-A-B-C	ABC	C	107	107.29	106.91	1069812.6740	243667.4579	131	-23.71	137	-29.71	125	-17.71	130	-22.71	76.5	30.79	48.26	60.19	46.72
PC-7A	PC-7-A-B-C	PC-7-A-B-C	ABC	A	125	123.42	122.64	1071428.7970	241868.0411	NA	NA	33	90.42	28	95.42	33	90.42	26	97.42	99.71	23.55	99.09
PC-7B PC-7C		PC-7-A-B-C	ABC	В	125	123.42	123.08	1071428.7970	241868.0411	NA	NA	75	48.42	69	54.42	74	49.42	26	97.42	100.7	23.98	99.1
PC-7C PC-8A	PC-8-A-B-C	PC-7-A-B-C PC-8-A-B-C	ABC ABC	C A	125 128	123.38 126.73	122.97 126.18	1071432.0450 1071012.0570	241868.9937 241572.8173	NA 151.5	NA -24.77	122	1.38 87.73	115 29	8.38 97.73	120 39	3.38 87.73	26 35	97.38 91.73	100.61 96.74	23.79 31.22	99.18 94.96
PC-8A PC-8B	PC-8-A-B-C	PC-8-A-B-C PC-8-A-B-C	ABC	B	128	126.73	126.18	1071012.0570	241572.8173	151.5	-24.77	39 107	19.73	100	26.73	105	21.73	35	91.73	96.74	31.22	94.95
PC-8C		PC-8-A-B-C	ABC	С	128	126.73	126.47	1071012.7250	241566.9676	151.5	-24.77	153	-26.18	146	-19.18	151	-24.18	35	91.73	96.49	31.63	94.95
PC-9	PC-9	PC-9	S	S	10	12.48	11.42	1067493.5280	243015.8317	NA	*24.00 NA	19	-6.52	0	3.48	19	-6.52	10.8	1.68	5.48	6.15	5.27
PC-10B	PC-10-B-C	PC-10-B-C	BC	В	70	84.91	84.55	1068954.6840	243806.3825	NA.	NA NA	82	2.91	70	14.91	80	4.91	65	19.91	25.6	62.35	22.2
PC-10C	1 0-10-5-0	PC-10-B-C	BC	C	70	84.87	84.64	1068957.6170	243807.1439	NA NA	NA NA	157	-72.13	135	-50.13	140	-55.13	65	19.87	13.09	68.95	15.69
PC-11A	PC-11-A-B-0	PC-11-A-B-C	AB	A	91	85.76	85.36	1069440.0750	242201.1002	120	-34.24	60	25.76	50	35.76	60	25.76	47.7	38.06	39.5	46.97	38.39
PC-11B	. 5	PC-11-A-B-C	AB	B	91	85.65	85.33	1069435.6960	242202.2397	120	-34.35	122	-36.35	90	-4.35	100	-14.35	47.7	37.95	38.45	45.53	39.8
PC-11C		PC-11-A-B-C	Boring		91	22.00	22.00	1069437.8855	242201.6700	120	-120	157	-157	No Well	No Well	No Well	No Well	47.7	47.7	-	-	-
PC-12A	PC-12-A-B-0	PC-12-A-B-C	ABC	Α	128	128.8	128.46	1071851.4800	241678.6304	146	-17.2	48	80.8	38	90.8	48	80.8	40	88.8	104.47	25.94	102.52
PC-12B		PC-12-A-B-C	ABC	В	128	128.78	128.52	1071848.6960	241677.9978	146	-17.22	92	36.78	87	41.78	92	36.78	40	88.78	104.33	27.55	100.97
PC-12C	i	PC-12-A-B-C	ABC	С	128	128.75	128.39	1071842.0000	241677.1371	146	-17.25	146	-17.25	133	-4.25	138	-9.25	40	88.75	102.39	27.81	100.58

Coordinates are in NAD_1983_StatePlane_New_York_Long_Island_FIPS_3104_Feet

TABLE 3- MONITORING WELL CONSTRUCTION DETAILS WELLS INSTALLED PRIOR TO REMEDIAL INVESTIGATION MUNSEY CLEANERS OU-2 (SITE #130081) TOWN OF NORTH HEMPSTEAD, NEW YORK

Well	Label	Location	Surface	Measuring Point Elev. (feet AMSL)	Easting	Northing	Depth to Clay (feet bgs)	Depth of Clay (feet AMSL)	Bottom of Boring (feet bgs)	Bottom of Boring (feet AMSL)	Top of Screen (feet bgs)	Top of Screen (feet AMSL)	Bottom of Screen (feet bgs)	Bottom of Screen (feet AMSL)	11/00 DTW (Feet)	GW Elevation (feet AMSL)
Well	GIS_Label	Location	Grond_Topo	MP_AMSL	Х	Υ	Clay_BGS	Clay_AMSL	BOB_BGS	BOB_AMSL	Tscren_BGS	Tscen_AMSL	Bscren_BGS	Bscen_AMSL	DTW_11/00	Water_AMSL
MC-1S	MC-1-S-I-D	MC-1	123	125.39	1071771.2680	242108.1261	124.0	-1.0	32	91	17	106	32	91	21.17	104.22
MC-1I		MC-1	123	125.39	1071771.2680	242108.1261	124.0	-1.0	83	40	70	53	80	43	22.14	103.25
MC-1D		MC-1	123	125.39	1071771.2680	242108.1261	124.0	-1.0	124.5	-1.5	115	8	124	-1	22.14	103.25
MC-2	MC-2	MC-2	125	124.6	1071576.0000	241875.0000	NA	NA	40.5	84.5	25	100	40	85	24.04	100.56
MC-3	MC-3	MC-3	116	123.56	1071159.2888	242449.2720	NA	NA	40	76	25	91	40	76	34.41	89.15
MC-4	MC-4	MC-4	128	123.78	1072068.1430	241954.4803	NA	NA	36.5	91.5	21.5	106.5	36.5	91.5	24.69	99.09
MG-W1	MG-W1	MG-W1	122	121.48	1071596.7888	242191.4595	NA	NA	28.7	93.3	18.7	103.3	28.7	93.3	20.8	100.68
MG-W2	MG-W2	MG-W2	122	121.33	1071545.0000	242185.0000	NA	NA	26.5	95.5	16.5	105.5	26.5	95.5	20.65	100.68

NOTES:

X and Y coordinates are appoximate and are in NAD_1983_StatePlane_New_York_Long_Island_FIPS_3104_Feet Ground surface and screened interval elevations are appoximate

MC-1, MC-3, MC-4: Well data provided by CA Rich Consultants Site Report dated June 7, 2001.

MG-1 and MG-W2: Screen top elevation estimated. Well depths provided by CA Rich Consultants Site Report dated June 7, 2001.

Screen interval depths are approximate - actual depths will be based on water table depth at each location.

TABLE 4 - PLAZA CLEANERS ON-SITE WELLS WELLS INSTALLED PRIOR TO REMEDIAL INVESTIGATION TOWN OF NORTH HEMPSTEAD, NEW YORK

		Measuring Point	Bottom of	Top of	Bottom of	Water Table	DTW Measurements	Water Table	
Well ID	Ground Elevation	Elevation	Well	Screen	Screen	Elevation	(feet)	Elevation	Well Location
						4/28/2010	10/5/2010	10/5/2010	
MW-1	125.88	125.39	do ı	not have well	info	103.08	24.13	101.26	Plaza Cleaners site
MW-2	124.8	124.6	do not have well info		103.05	23.41	101.19	Plaza Cleaners site	
MW-3	123.78	123.56	do not have well info		103.05	22.41	101.15	Plaza Cleaners site	
MW-4	124.03	123.78	do ı	not have well	info	102.87	22.72	101.06	Plaza Cleaners site
MW-5	124.34	124.01	do ı	not have well	info	102.66	23.16	100.85	Plaza Cleaners site
MW-6	126.1	125.46	do not have well info		102.8	24.46	101	Plaza Cleaners site	
MW-7	127.82	127.55	do i	not have well	info	102.88	26.5	101.05	Plaza Cleaners site

ELEVATION - VERTICAL DATUM ARE BASED ON NAVD 88 AND SITE DATUM IN U.S. SURVEY FEET

TABLE 5A MUNSEY CLEANERS OU-2 RESULTS OF PERC BADGE SAMPLING FEBRUARY 2006

	Number	Street	No. of Samples	Sample Location	Sample ID No.	Time In	Time Out	μg/m³
Commercial	1000	Port Weekington Plyd	1	DIME SB Bsmt.	DQ5866	10:02	10:19	64
Commercial	1000	Port Washington Blvd.	ı	DIME SB 1st Floor	DQ5787	9:56	10:21	55
Commercial	1020	Port Washington Blvd.	1	NF Bank 1st Floor	DQ6050	9:45	10:26	4.6
				PO Bsmt. Eat	DQ5899	14:35	14:04	4.6
				PO Bsmt. Eat Dup	DQ5816	14:37	14:05	4.9
US Post Office	1051	Port Washington Blvd.	5	PO Bsmt. Common Area	DJ6999	14:43	14:01	4.4
ooo				PO 1st Floor South	DJ7017	14:46	13:53	3.7
				PO Behind Counter	DJ6962	14:50	14:14	3.7
Commercial	1090	Port Washington Blvd.	2	1090 Basement	DQ5963	12:25	11:37	3.4
Commercial	1090	ir oit washington bivu.	2	1090 Office	DQ5863	12:29	11:39	89

Residential	12A	Ohio Avenue	2	12A Basement	DQ5914	11:04	11:10	<1.4
				12A Ohio LR	DQ5919	11:00	11:08	<1.4
Residential	12	Ohio Avenue	2	12 Basement	DQ5951	10:41	11:03	<1.4
				12 Ohio LR	DQ612(9)	10:47	10:59	<1.4
Residential	10A	Ohio Avenue	2	10A Basement	DQ6021	10:23	10:38	5.6
Residential	TUA	Onio Avende	2	10A Ohio Kitchen	DQ6118	10:27	10:42	4.7
Residential	10	Ohio Avenue	2	10 Ohio Basement	DQ6012	10:12	10:35	<1.4
Residefillal	10	Offic Avertue	2	10 Ohio LR	DQ6027	10:16	10:33	<1.4

Rosemarie Gilpin	5 Delaware Avenue	2	5 DA Basement	DQ5922	12:01	11:26	<1.5
Nosemane Gilpin	5 Delawate Avertue		5 DA LR	DQ5877	11:25	11:23	<1.4

	Number	Street	No. of Samples	Sample Location	Sample ID No.	Time In	Time Out	μg/m3
Commercial	3	Main Street	1	Porto Café Counter	DJ7012	14:58	12:52	12
Commoraial	11	Main Street	2	Entrée Basement	DJ7004	15:13	13:05	35
Commercial	11	Main Street	2	Entrée Counter	DJ 6932	15:09	13:03	27
Commercial	14	Main Street	2	Frank's Basement	DQ5982	14:20	11:59	2.1
Commercial	14	Iwaiii Street	2	Frank's Counter	DQ5894	13:43	11:56	2.3
Commercial	20A	Main Street	2	20A Basement	DJ7001	15:23	13:23	3.6
Commercial	20/	Wall Street	2	20A 1st Floor	DJ6926	15:19	13:20	1.6
Cammanaial	24	Main Street	2	24 Basement	DJ7021	15:31	13:30	1.8
Commercial	24	Main Street	2	24 Counter	DJ7013	15:27	13:29	<1.6
				30 Basement Dup.	DQ5808	15:43	13:36	33
Commercial	30	Main Street	3	30 Basement	DQ6011	15:41	13:35	31
				30 Reception	DQ5940	15:37	13:33	9.1

D 11 (1)	404	01: 4	_	0.11 0 1	D05000	10.01	10.11	
Residential	10A	Ohio Avenue	1	Outdoor Sample	DQ5893	10:31	10:44	<1.4

Table 5A Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results March 2008

		1								
	Sample ID	130081-BA-01	130081-SS-01	130081-FA-02	130081-SS-03	130081-BA-03	130081-OA-03	130081-BA-04	130081-SS-04	130081-SS-04
	Sampling Date	3/17/2008	3/17/2008	3/17/2008	3/18/2008	3/17/2008	3/18/2008	3/18/2008	3/18/2008	5/7/2008
	Dilution Factor	1	10	1	10	1	1	1	10	396.67
COMPOUND	CAS#									
Dichlorodifluoromethane	75-71-8	2.47 J	0.84 U	2.47	0.84 UJ	2.47	2.47	2.47 J	0.84 U	200 U.
tert-butyl alcohol	75-65-0	0.24 UJ	2.39 U	0.24 U	2.39 UJ	0.24 U	0.24 U	1.21 J	2.39 U	200 U.
Chloromethane	74-87-3	1.86 J	0.52 U	1.24	0.52 UJ	0.83 J	1.24	1.24 J	0.52 U	200 UJ
Methyl Methacrylate	80-62-6	0 UJ	0.03 U	0 J	0.03 UJ	0 U	0 U	0.01 J	0.03 U	200 UJ
Vinyl Chloride	75-01-4	0.26 UJ	2.56 U	0.26 U	2.56 UJ	0.26 U	0.26 U	0.26 UJ	2.56 U	200 UJ
Bromomethane	74-83-9	0.09 UJ	0.93 U	0.09 UJ	0.93 UJ	0.09 UJ	0.09 U	0.09 UJ	0.93 U	200 UJ
Chloroethane	75-00-3	0.04 UJ	0.45 U	0.04 UJ	0.45 UJ	0.04 UJ	0.04 U	0.04 UJ	0.45 U	200 UJ
Trichlorofluoromethane	75-69-4	1.69 J	1.57 U	1.12 J	1.57 UJ	1.69 J	1.69	1.12 J	6.18 J	200 UJ
Dichlorotetrafluoroethane	76-14-2	0.15 UJ	1.54 U	0.15 U	1.54 UJ	0.15 U	0.15 U	0.7 J	1.54 U	200 UJ
1,1,2-Trichlorotrifluoroethane	76-13-1	0.2 UJ	1.99 U	0.2 U 0.1 UJ	1.99 UJ	0.2 U	0.2 U	0.2 UJ 0.1 UJ	1.99 U	200 UJ
Bromoethene	593-60-2	0.1 UJ	1.05 U		1.05 UJ	0.1 UJ	0.1 U		1.05 U	000 111
Heptane	142-82-5	1.23 J	0.98 U	12.29	0.98 UJ	0.1 U	0.1 U	2.05 J	0.98 U	200 UJ
1,1-Dichloroethene	75-35-4	0.1 UJ	0.99 U	0.1 U	0.99 UJ	0.1 U	0.1 U	0.1 UJ	0.99 U	200 UJ
Acetone Carbon Digulfida	67-64-1 75-15-0	17.82 J 0.05 UJ	27.32 B 0.47 U	4.28 U 0.05 U	43.95 UJ 0.47 UJ	9.5 B 0.05 U	5.94 U 0.05 U	80.77 J 0.05 UJ	20.19 U 0.47 U	2,000 UJ 200 UJ
Carbon Disulfide Methyl tert-Butyl Ether	75-15-0 1634-04-4	0.05 UJ	0.47 U 0.61 U	0.05 U	0.47 UJ 0.61 UJ	0.05 U	0.05 U	0.05 UJ	0.47 U 0.61 U	200 UJ 200 UJ
, ,	75-09-2	1.04 J	6.6 J	2.43	7.64 J	3.47	2.78	1.39 J	4.52 J	200 UJ
Methylene Chloride Allyl Chloride	107-05-1	0.19 UJ	1.91 U	0.19 U	1.91 UJ	0.19 U	0.19 U	0.19 UJ	4.52 J 1.91 U	200 UJ
trans-1,2-Dichloroethene	156-60-5	0.19 UJ	1.23 U	0.19 U	1.23 UJ	0.19 U	0.19 U	0.19 UJ	1.23 U	200 UJ
1,1-Dichloroethane	75-34-3	0.12 UJ	0.97 U	0.12 U	0.97 UJ	0.12 U	0.12 U	0.1 UJ	0.97 U	200 UJ
Cyclohexane	110-82-7	0.69 J	0.41 U	0.04 U	0.41 UJ	0.04 U	0.04 U	0.04 UJ	0.41 U	200 UJ
2-Butanone	78-93-3	2.36 J	5.9 J	0.59 J	7.08 J	1.18 J	1.18 J	17.99 J	7.37 J	200 UJ
Carbon Tetrachloride	56-23-5	0.63 J	1.07 U	0.38 J	1.07 UJ	0.38 J	0.5 J	0.11 UJ	1.07 U	40 UJ
cis-1,2-Dichloroethene	156-59-2	0.03 J	1.39 U	0.14 U	1.39 UJ	0.14 U	0.14 U	0.11 UJ	1.39 U	200 UJ
Chloroform	67-66-3	0.15 UJ	1.51 U	0.15 U	1.51 UJ	0.15 U	0.15 U	0.15 UJ	1.51 U	200 UJ
1,4-Dioxane	123-91-1	0.25 UJ	2.5 U	1.8 U	18.02 UJ	1.8 U	0.36 U	1.8 UJ	2.5 U	200 UJ
1,1,1-Trichloroethane	71-55-6	0.12 UJ	1.2 U	0.12 U	8.18 J	8.73	0.12 U	0.12 UJ	1.2 U	200 UJ
Tetrahydrofuran	109-99-9	0.53 UJ	5.29 U	0.53 U	5.29 UJ	0.53 U	0.53 U	0.53 UJ	5.29 U	200 UJ
2,2,4-Trimethylpentane	540-84-1	0.12 UJ	1.17 U	0.47 J	1.17 UJ	0.12 U	0.12 U	0.12 UJ	1.17 U	200 UJ
Benzene	71-43-2	1.28 J	1.41 U	0.96 J	1.41 UJ	0.64 J	0.64 J	0.96 J	1.41 U	200 UJ
1,2-Dichloroethane	107-06-2	0.2 UJ	2.02 U	0.2 U	2.02 UJ	0.2 U	0.2 U	0.81 J	2.02 U	200 UJ
Trichloroethene	79-01-6	0.22 UJ	2.2 U	0.22 U	2.2 UJ	0.22 U	0.22 U	0.22 UJ	161.76	160 J
1,2-Dichloropropane	78-87-5	0.22 UJ	2.22 U	0.22 U	2.22 UJ	0.22 U	0.22 U	2.77 J	2.22 U	200 UJ
Bromodichloromethane	75-27-4	0.33 UJ	3.35 U	0.33 U	3.35 UJ	0.33 U	0.33 U	0.33 UJ	3.35 U	200 UJ
4-Methyl-2-Pentanone	108-10-1	0.2 UJ	2.05 U	0.2 U	2.05 UJ	0.2 U	0.2 U	0.2 UJ	2.05 U	200 UJ
Toluene	108-88-3	3.77 J	1.81 U	0.18 U	1.81 UJ	1.13 J	3.01 J	97.98 J	1.81 U	200 UJ
t-1,3-Dichloropropene	10061-02-6	0.26 UJ	2.59 U	2.27 U	2.59 UJ	2.59 U	0.26 U	2.27 UJ	2.59 U	200 UJ
cis-1,3-Dichloropropene	10061-01-5	0.23 UJ	2.27 U	0.23 U	2.27 UJ	0.23 U	0.23 U	0.23 UJ	2.27 U	200 UJ
1,1,2-Trichloroethane	79-00-5	0.24 UJ	2.4 U	0.24 U	2.4 UJ	0.24 U	0.24 U	0.24 UJ	2.4 U	200 UJ
Dibromochloromethane	124-48-1	0.22 UJ	2.22 U	0.22 U	2.22 UJ	0.22 U	0.22 U	0.22 UJ	2.22 U	200 UJ
1,2-Dibromoethane	106-93-4	1 UJ	9.99 U	1 U	9.99 UJ	1 U	1 U	1 UJ	9.99 U	200 UJ
Tetrachloroethene	127-18-4	66.86 J	107.14	2.78 J	78.66 J	0.33 U	0.33 U	13.77 J	53571.37 J	30,000 J
Chlorobenzene	108-90-7	0.12 UJ	1.2 U	0.12 U	1.2 UJ	0.12 U	0.12 U	0.12 UJ	1.2 U	200 UJ
Ethyl Benzene	100-41-4	3.47 J	0.78 U	1.3 J	0.78 UJ	2.17 U	0.08 U	0.87 J	0.78 U	200 UJ
m/p-Xylene	126777-61-2	9.99 J	1.87 U	0.87 J	1.87 UJ	2.17 UJ	0.43 J	0.87 J	1.87 U	200 UJ
o-Xylene	95-47-6	2.17 J	1.04 U	0.43 J	1.04 UJ	2.17 U	0.1 U	0.43 J	1.04 U	200 UJ
Styrene	100-42-5	0.43 J	2.64 U	2.13 UJ	2.64 UJ	2.13 UJ	0.26 U	0.43 J	2.64 U	200 UJ
Bromoform	75-25-2	0.16 UJ 0.16 UJ	1.55 U	0.16 U 0.16 U	1.55 UJ 1.65 UJ	0.16 U	0.16 U	0.16 UJ	1.55 U	200 UJ 200 UJ
1,1,2,2-Tetrachloroethane	79-34-5	0.16 UJ 0 UJ	1.65 U 0.02 U	0.16 U 2.59 U	0.02 UJ	0.16 U 2.59 U	0.16 U 0 U	0.16 UJ 2.59 UJ	1.65 U 0.02 U	∠00 UJ
2-Chlorotoluene 1,3,5-Trimethylbenzene	95-49-8 108-67-8	0.98 J	0.02 U 1.72 U	2.59 U 2.46 U	0.02 UJ 1.72 UJ	2.59 U 2.46 U	0.17 U	2.59 UJ 2.46 UJ	1.72 U	200 UJ
	95-63-6	0.98 J 1.47 J	1.72 U 1.18 U	0.12 U	1.72 UJ 1.18 UJ	0.12 U	0.17 U	2.46 UJ 0.12 UJ	1.72 U	200 UJ
1,2,4-Trimethylbenzene 4-Ethyltoluene	622-96-8	0.98 J	24.58 U	0.12 U	24.58 UJ	0.12 U	2.46 U	0.12 UJ	24.58 U	200 UJ
	541-73-1	0.98 J 0.1 UJ	24.58 U 1.02 U	3.01 U	24.58 UJ 1.02 UJ	0.13 U 3.01 U	2.46 U 0.1 U	3.01 UJ	24.58 U 1.02 U	200 UJ 200 UJ
1,3-Dichlorobenzene 1,4-Dichlorobenzene	106-46-7	0.1 UJ	1.02 U	3.01 U	1.02 UJ	3.01 U	0.1 U	3.01 UJ	1.02 U	200 U.
1,2-Dichlorobenzene	95-50-1	0.15 UJ	1.32 U	0.13 U	1.5 UJ 1.32 UJ	0.13 U	0.15 U	0.13 UJ	1.5 U	200 U.
1,2,4-Trichlorobenzene	120-82-1	0.13 UJ	2.6 U	0.13 U	2.6 UJ	0.13 U	0.13 U	0.13 UJ	2.6 U	200 U.
Hexachloro-1,3-Butadiene	87-68-3	0.28 UJ	2.35 U	0.28 UJ	2.8 UJ	0.26 U	0.26 U	0.28 UJ	2.8 U	200 U.
1,3-Butadiene	106-99-0	0.23 UJ 0.08 UJ	2.35 U 0.8 U	0.23 UJ 0.08 U	2.35 UJ 0.8 UJ	0.23 U 0.08 UJ	0.23 U 0.08 U	0.23 UJ 0.08 UJ	2.35 U 0.8 U	200 U.
Hexane	110-54-3	0.09 UJ	0.92 U	0.08 U	0.92 UJ	0.08 U	0.08 U	0.09 UJ	0.8 U	200 U.
TICAGIIC	110704-0	0.05 03	U.34 U	0.05 0	0.52 03	U.U3 U	U.U3 U	0.03 03	U.52 U	200 0

Notes: Concentrations are in µg/m³.

- U Not detected. MDL provided. D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5A Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results March 2008

					1				1				1
	Sample ID	130081-SS-05	130081-SS-05	130081-BA-05	130081-BA-06	130081-SS-06	130081-SS-06	130081-SS-07	130081-BA-07	130081-BA-08	130081-SS-08	130081-SS-09	130081-BA-09
	Sampling Date	3/17/2008	5/7/2008	3/18/2008	3/18/2008	3/18/2008	5/7/2008	3/18/2008	3/18/2008	3/18/2008	3/18/2008	3/18/2008	3/18/2008
	Dilution Factor	10	1.27	1	1	10	342.5	10	1	1	10	10	1
COMPOUND	CAS#												
Dichlorodifluoromethane	75-71-8	0.84 U	2.2	1.98 J	1.98 J	5.44	170 U	0.84 UJ	1.98 J	1.98 J	0.84 U	17.31 J	1.98 J
tert-butyl alcohol	75-65-0	2.39 U	1.2	2.43	0.24 U	2.39 U	170 U	2.39 UJ	0.24 U	0.24 UJ	2.39 U	2.39 U	0.61 J
Chloromethane	74-87-3	0.52 U	0.64 U	1.24	1.45	0.52 U	170 U	0.52 UJ	0.05 U	0.83 J	0.52 U	0.52 U	1.03
Methyl Methacrylate	80-62-6	0.03 U	0.64 U	0 J	0 U	0.03 U	170 U	0.03 UJ	0 U	0 UJ	0.03 U	0.03 U	0.02
Vinyl Chloride	75-01-4	2.56 U	0.64 U	0.26 U	0.26 U	2.56 U	170 U	2.56 UJ	0.26 U	0.26 UJ	2.56 U	2.56 U	0.26 U
Bromomethane	74-83-9	0.93 U	0.64 U	0.09 UJ	0.09 UJ	0.93 U	170 U	0.93 UJ	0.09 UJ	0.09 UJ	0.93 U	0.93 U	0.09 UJ
Chloroethane	75-00-3	0.45 U	0.64 U	0.04 UJ	0.04 UJ	0.45 U	170 U	0.45 UJ	0.04 UJ	0.04 UJ	0.45 U	0.45 U	0.04 UJ
Trichlorofluoromethane	75-69-4	1.57 U	1.4	1.12	1.12 J	7.87 J	170 U	1.57 UJ	1.12 J	1.12 J	1.57 U	1.57 U	2.25 J
Dichlorotetrafluoroethane	76-14-2	1.54 U	0.64 U	0.15 U	0.15 U	1.54 U	170 U	1.54 UJ	0.15 U	0.15 UJ	1.54 U	1.54 U	0.15 U
1,1,2-Trichlorotrifluoroethane	76-13-1	1.99 U	0.64 U	0.2 U	0.2 U	1.99 U	170 U	1.99 UJ	0.2 U	0.2 UJ	1.99 U	1.99 U	0.2 U
Bromoethene	593-60-2	1.05 U		0.1 UJ	0.1 UJ	1.05 U		1.05 UJ	0.1 UJ	0.1 UJ	1.05 U	1.05 U	0.1 UJ
Heptane	142-82-5	0.98 U	0.64 U	8.61	0.1 U	6.15 J	170 U	0.98 UJ	0.1 U	0.1 UJ	0.98 U	0.98 U	0.41 J
1,1-Dichloroethene	75-35-4	0.99 U	0.64 U	0.1 U	0.1 U	0.99 U	170 U	0.99 UJ	0.1 U	0.1 UJ	0.99 U	0.99 U	0.1 U
Acetone	67-64-1	19 U	16	23.04 B	8.08 U	29.93 U	1,700 U	33.02 UJ	32.78 B	8.79 J	25.89 U	164.38 B	1258.99
Carbon Disulfide	75-15-0	0.47 U	1.0	0.05 U	0.05 U	0.47 U	170 U	0.47 UJ	0.05 U	0.05 UJ	0.47 U	0.47 U	1.56
Methyl tert-Butyl Ether	1634-04-4	0.61 U	0.64 U	0.06 U	0.06 U	0.61 U	170 U	0.61 UJ	0.06 U	0.06 UJ	0.61 U	0.61 U	0.06 U
Methylene Chloride	75-09-2	4.17 J	0.64 U	2.43	2.78	5.56 J	170 U	4.17 J	1.39 J	2.43 J	4.52	27.1	2.43
Allyl Chloride	107-05-1	1.91 U	0.64 U	0.19 U	0.19 U	1.91 U	170 U	1.91 UJ	0.19 U	0.19 UJ	1.91 U	1.91 U	0.19 U
trans-1,2-Dichloroethene	156-60-5	1.23 U	0.64 U	0.12 U	0.12 U	5.95 J	170 U	1.23 UJ	0.12 U	0.12 UJ	1.23 U	1.23 U	0.12 U
1,1-Dichloroethane	75-34-3	0.97 U	0.64 U	0.1 U	0.1 U	7.29 J	170 U	0.97 UJ	0.1 U	0.1 UJ	0.97 U	0.97 U	0.1 U
Cyclohexane	110-82-7	0.41 U	0.64 U	0.04 U	0.04 U	0.41 U	170 U	0.41 UJ	0.04 U	0.04 UJ	0.41 U	0.41 U	0.04 U
2-Butanone	78-93-3	6.78 J	2.6	9.44 J	1.18 J	9.73 J	170 U	9.73 J	1.77 J	1.18 J	14.16 J	20.06 J	1.77 J
Carbon Tetrachloride	56-23-5	1.07 U	0.13 U	0.44 J	0.44 J	1.07 U	34 U	1.07 UJ	0.11 U	0.44 J	1.07 U	1.07 U	0.44 J
cis-1,2-Dichloroethene	156-59-2	1.39 U	0.64 U	0.14 U	0.14 U	200.22	170 U	1.39 UJ	0.14 U	0.14 UJ	1.39 U	1.39 U	0.14 U
Chloroform	67-66-3	1.51 U	0.64 U	0.15 U	0.49 J	188.99	170 U	8.3 J	1.47 J	0.15 UJ	1.51 U	1.51 U	0.98 J
1,4-Dioxane	123-91-1	2.5 U	0.64 U	1.8 U	1.8 U	2.5 U	170 U	2.5 UJ	1.8 U	1.8 UJ	2.5 U	2.5 U	1.8 U
1,1,1-Trichloroethane	71-55-6	1.2 U	1.5	0.12 U	0.12 U	10.37 J	170 U	1.2 UJ	0.12 U	0.12 UJ	1.2 U	1.2 U	0.12 U
Tetrahydrofuran	109-99-9	5.29 U	0.64 U	5.04	0.53 U	5.29 U	170 U	5.29 UJ	0.53 U	0.53 UJ	5.29 U	5.29 U	0.53 U
2,2,4-Trimethylpentane	540-84-1	1.17 U	0.64 U	0.12 U	0.12 U	1.17 U	170 U	1.17 UJ	0.12 U	0.12 UJ	1.17 U	1.17 U	0.12 U
Benzene	71-43-2	1.41 U	0.93	1.6	1.28 J	1.41 U	170 U	1.41 UJ	1.28 J	0.96 J	1.41 U	1.41 U	2.24
1,2-Dichloroethane	107-06-2	2.02 U	0.64 U	0.2 U	0.2 U	2.02 U	170 U	5.26 J	4.45	0.2 UJ	2.02 U	2.02 U	0.2 U
Trichloroethene	79-01-6	6.99 J	1.6	0.22 U	0.22 U	1225.33	830	2.2 UJ	0.22 U	1.18 J	2.2 U	6.45 J	0.22 U
1,2-Dichloropropane	78-87-5	2.22 U	0.64 U	0.22 U	0.22 U	2.22 U	170 U	2.22 UJ	0.22 U	0.22 UJ	2.22 U	2.22 U	0.22 U
Bromodichloromethane	75-27-4	3.35 U	0.64 U	0.33 U	0.33 U	3.35 U	170 U	3.35 UJ	0.33 U	0.33 UJ	3.35 U	3.35 U	0.33 U
4-Methyl-2-Pentanone	108-10-1	2.05 U	0.64 U	0.2 U	0.2 U	2.05 U	170 U	2.05 UJ	0.2 U	0.2 UJ	2.05 U	2.05 U	0.2 U
Toluene	108-88-3	1.81 U	2.0	113.06	3.01	125.49 J	180	4.15 J	2.64	1.88 J	1.81 U	4.52 J	16.58
t-1,3-Dichloropropene	10061-02-6	2.59 U	0.64 U	2.27 U	2.27 U	2.59 U	170 U	2.59 UJ	2.27 U	2.27 UJ	2.59 U	2.59 U	2.27 U
cis-1,3-Dichloropropene	10061-01-5	2.27 U	0.64 U	0.23 U	0.23 U	2.27 U	170 U	2.27 UJ	0.23 U	0.23 UJ	2.27 U	2.27 U	0.23 U
1,1,2-Trichloroethane	79-00-5	2.4 U	0.64 U	0.24 U	0.24 U	2.4 U	170 U	2.4 UJ	0.24 U	0.24 UJ	2.4 U	2.4 U	0.24 U
Dibromochloromethane	124-48-1	2.22 U	0.64 U	0.22 U	0.22 U	2.22 U	170 U	2.22 UJ	0.22 U	0.22 UJ	2.22 U	2.22 U	0.22 U
1,2-Dibromoethane	106-93-4	9.99 U	0.64 U	1 U	1 U	9.99 U	170 U	9.99 UJ	1 U	1 UJ	9.99 U	9.99 U	1 U
Tetrachloroethene	127-18-4	2102.17	280.0	4.81	5.7	61098.49 J	39,000	314.65 J	7.87	1.29 J	739.15	632.68	1.29
Chlorobenzene	108-90-7	1.2 U	0.64 U	0.12 U	0.12 U	1.2 U	170 U	1.2 UJ	0.12 U	0.12 UJ	1.2 U	1.2 U	0.12 U
Ethyl Benzene	100-41-4	0.78 U	0.64 U	0.87 J	2.17 U	0.78 U	170 U	0.78 UJ	0.87 J	2.17 UJ	0.78 U	0.78 U	2.17 U
m/p-Xylene	126777-61-2	1.87 U	1.6	1.3 J	2.17 J	1.87 U	250	6.08 J	1.74 J	2.17 UJ	1.87 U	1.87 U	2.17 U
o-Xylene	95-47-6	1.04 U	0.64 U	0.87 J	2.17 U	1.04 U	170 U	1.04 UJ	1.3 J	2.17 UJ	1.04 U	1.04 U	2.17 U
Styrene	100-42-5	2.64 U	0.64 U	0.85 J	2.13 UJ	2.64 U	170 U	2.64 UJ	1.28 J	2.13 UJ	2.64 U	2.64 U	2.13 U
Bromoform	75-25-2	1.55 U	0.64 U	0.16 U	0.16 U	1.55 U	170 U	1.55 UJ	0.16 U	0.16 UJ	1.55 U	1.55 U	0.16 U
1,1,2,2-Tetrachloroethane	79-34-5	1.65 U	0.64 U	0.16 U	0.16 U	1.65 U	170 U	1.65 UJ	0.16 U	0.16 UJ	1.65 U	1.65 U	0.16 U
2-Chlorotoluene	95-49-8	0.02 U		2.59 U	2.59 U	0.02 U		0.02 UJ	2.59 U	2.59 UJ	0.02 U	0.02 U	2.59 U
1,3,5-Trimethylbenzene	108-67-8	1.72 U	0.64 U	2.46 U	2.46 U	1.72 U	170 U	1.72 UJ	1.97 J	2.46 UJ	1.72 U	1.72 U	2.46 U
1,2,4-Trimethylbenzene	95-63-6	1.18 U	0.82	0.12 U	0.12 U	1.18 U	170 U	7.87 J	8.36	0.12 UJ	1.18 U	1.18 U	0.12 U
4-Ethyltoluene	622-96-8	24.58 U	0.64 U	0.13 U	0.13 U	24.58 U	170 U	1.28 UJ	1.47 J	0.13 UJ	1.28 U	1.28 U	0.13 U
1,3-Dichlorobenzene	541-73-1	1.02 U	0.64 U	3.01 U	3.01 U	1.02 U	170 U	1.02 UJ	3.01 U	3.01 UJ	1.02 U	1.02 U	3.01 U
1,4-Dichlorobenzene	106-46-7	1.5 U	0.64 U	3.01 U	3.01 U	1.5 U	170 U	1.5 UJ	3.01 U	3.01 UJ	1.5 U	1.5 U	3.01 U
1,2-Dichlorobenzene	95-50-1	1.32 U	0.64 U	0.13 U	0.13 U	1.32 U	170 U	1.32 UJ	0.13 U	0.13 UJ	1.32 U	1.32 U	0.13 U
1,2,4-Trichlorobenzene	120-82-1	2.6 U	0.64 U	0.26 U	0.26 U	2.6 U	170 U	2.6 UJ	0.26 U	0.26 UJ	2.6 U	2.6 U	0.26 U
Hexachloro-1,3-Butadiene	87-68-3	2.35 U	0.64 U	0.23 U	0.23 U	2.35 U	170 U	2.35 UJ	0.23 U	0.23 UJ	2.35 U	2.35 U	0.23 U
1,3-Butadiene	106-99-0	0.8 U	0.64 U	0.08 UJ	0.08 UJ	0.8 U	170 U	0.8 UJ	0.08 UJ	0.08 UJ	0.8 U	0.8 U	0.08 UJ
Hexane	110-54-3	0.92 U	0.75	0.09 U	0.09 U	0.92 U	170 U	0.92 UJ	0.09 U	0.09 UJ	0.92 U	0.92 U	0.09 U

Notes: Concentrations are in µg/m³.

- U Not detected. MDL provided. D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5A Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results March 2008

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	Sample ID	130081-BA-10	130081-BA-10	130081-SS-10	130081-SS-10	20080507-FD-1	130081-SS-11	130081-OA-11	130081-BA-11	130081-BA-12	130081-BA-12	130081-OA-12	130081-SS-12
	Sampling Date	3/18/2008	3/18/2008	3/19/2008	5/7/2008	5/7/2008	3/20/2008	3/20/2008	3/19/2008	3/20/2008	3/20/2008	3/20/2008	3/20/2008
	Dilution Factor	1	1	10	2.7	6.85	10	1	1	1	1	1	10
COMPOUND	CAS#		(Field Dup 1)								(Field Dup 2)		
Dichlorodifluoromethane	75-71-8	1.98 J	1.98 J	4.94 J	2.6	3.4 U	0.84 U	1.98 J	1.98 J	2.47 J	1.98 J	1.98 J	14.83 J
tert-butyl alcohol	75-65-0	0.91 J	0.91 J	2.39 U	1.4 U	3.4 U	2.39 U	0.24 UJ	0.24 UJ	0.3 J	0.24 U	0.24 U	2.39 U
Chloromethane	74-87-3	1.03	1.03	0.52 U	1.4 U	3.4 U	0.52 U	1.03 J	1.03 J	1.03 J	1.03	1.03	0.52 U
Methyl Methacrylate	80-62-6	0 U	0 U	0.03 U	1.4 U	3.4 U	0.03 U	0 UJ	0 UJ	0 UJ	0 U	0 U	0.03 U
Vinyl Chloride	75-01-4	0.26 U	0.26 U	2.56 U	1.4 U	3.4 U	2.56 U	0.06 UJ	0.26 UJ	0.26 UJ	0.26 U	0.26 U	2.56 U
Bromomethane	74-83-9	0.09 UJ	0.09 UJ	0.93 U	1.4 U	3.4 U	0.93 U	0.09 UJ	0.09 UJ	0.09 UJ	0.09 U	0.09 U	0.93 U
Chloroethane	75-00-3	0.04 UJ	0.04 UJ	0.45 U	1.4 U	3.4 U	0.45 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.45 U
Trichlorofluoromethane	75-69-4	1.12 J	1.12 J	1.57 U	1.4 U	3.4 U	1.57 U	0.16 UJ	0.16 UJ	0.16 UJ	0.16 U	1.12 J	1.57 U
Dichlorotetrafluoroethane	76-14-2	0.15 U	0.15 U	1.54 U	1.4 U	3.4 U	1.54 U	0.15 UJ	0.15 UJ	0.15 UJ	0.15 U	0.15 U	1.54 U
1,1,2-Trichlorotrifluoroethane	76-13-1	0.2 U	0.2 U	1.99 U	1.4 U	3.4 U	1.99 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	1.99 U
Bromoethene	593-60-2	0.1 UJ	0.1 UJ	1.05 U			1.05 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	1.05 U
Heptane	142-82-5	0.41 J	0.41 J	0.98 U	1.4 U	3.4 U	0.98 U	0.1 UJ	0.82 J	1.64 J	0.82 J	0.82 J	0.98 U
1,1-Dichloroethene	75-35-4	0.1 U	0.1 U	0.99 U	1.4 U	3.4 U	0.99 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.99 U
Acetone	67-64-1	14.25 B	14.97 B	129.23 B	14	34 U	18.29 U	5.23 UJ	4.75 UJ	7.84 UJ	7.13 U	2.61 U	21.14 U
Carbon Disulfide Methyl tert-Butyl Ether	75-15-0 1634-04-4	0.05 U 0.06 U	0.05 U 0.06 U	0.47 U 31.01	1.4 U 16	3.4 U 16	0.47 U 0.61 U	0.05 UJ 0.06 UJ	0.05 UJ 0.06 UJ	0.05 UJ 0.06 UJ	0.05 U 0.06 U	0.05 U 0.06 U	0.47 U 0.61 U
Methylene Chloride	75-09-2	4.52	0.06 U 3.82	31.01 6.25 J	16 1.4 U	16 3.4 U	0.61 U 0.52 U	0.06 UJ 2.43 J	9.38 J	1.39 J	0.06 U 6.95 J	3.47	19.8
Allyl Chloride	107-05-1	4.52 0.19 U	0.19 U	1.91 U	1.4 U	3.4 U	1.91 U	2.43 J 0.19 UJ	9.38 J 0.19 UJ	0.19 UJ	0.95 J 0.19 U	0.19 U	19.8 1.91 U
trans-1,2-Dichloroethene	156-60-5	0.19 U	0.19 U	1.23 U	1.4 U	3.4 U	1.23 U	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 U	1.23 U
1.1-Dichloroethane	75-34-3	0.12 U	0.12 U	0.97 U	1.4 U	3.4 U	0.97 U	0.12 UJ	0.12 UJ	0.12 UJ	0.12 U	0.12 U	0.97 U
Cyclohexane	110-82-7	0.04 U	0.04 U	0.41 U	1.4 U	3.4 U	0.41 U	0.04 UJ	0.04 UJ	0.04 UJ	0.04 U	0.04 U	0.41 U
2-Butanone	78-93-3	2.36 J	2.36 J	20.35 J	1.4 U	3.4 U	6.49 U	1.18 UJ	1.18 UJ	3.24 UJ	2.65 U	2.06 U	9.14 J
Carbon Tetrachloride	56-23-5	0.44 J	0.11 U	1.07 U	0.27 U	0.69 U	1.07 U	0.44 J	0.44 J	0.44 J	0.11 UJ	0.38 J	1.07 U
cis-1,2-Dichloroethene	156-59-2	0.14 U	0.14 U	1.39 U	1.4 U	3.4 U	1.39 U	0.14 UJ	0.14 UJ	0.14 UJ	0.14 U	0.14 U	1.39 U
Chloroform	67-66-3	0.15 U	0.15 U	1.51 U	1.4 U	3.4 U	1.51 U	0.15 UJ	0.15 UJ	0.15 UJ	0.15 U	0.15 U	1.51 U
1,4-Dioxane	123-91-1	1.8 U	1.8 U	2.5 U	1.4 U	3.4 U	2.5 U	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 U	2.5 U
1,1,1-Trichloroethane	71-55-6	0.12 U	0.12 U	1.2 U	1.4 U	3.4 U	1.2 U	0.12 UJ	0.12 UJ	0.12 UJ	0.12 U	0.12 U	1.2 U
Tetrahydrofuran	109-99-9	0.53 U	0.53 U	5.29 U	1.4 U	3.4 U	5.29 U	0.53 UJ	0.53 UJ	0.53 UJ	0.53 U	0.53 U	5.29 U
2,2,4-Trimethylpentane	540-84-1	0.12 U	0.12 U	1.17 U	1.4 U	3.4 U	1.17 U	0.12 UJ	0.93 J	1.87 J	2.34	1.4 J	1.17 U
Benzene	71-43-2	0.64 J	0.96 J	1.41 U	1.4 U	3.4 U	1.41 U	0.96 J	2.24 J	0.96 J	0.96 J	0.96 J	1.41 U
1,2-Dichloroethane	107-06-2	0.2 U	0.2 U	2.02 U	1.4 U	3.4 U	2.02 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	2.02 U
Trichloroethene	79-01-6	0.38 J	0.43 J	46.22	48	3.4 U	2.2 U	0.22 UJ	0.86 J	0.22 UJ	0.22 U	0.22 U	11.82 J
1,2-Dichloropropane	78-87-5	0.22 U	0.22 U	2.22 U	1.4 U	3.4 U	2.22 U	0.22 UJ	0.22 UJ	0.22 UJ	0.22 U	0.22 U	2.22 U
Bromodichloromethane	75-27-4	0.33 U	0.33 U	3.35 U	1.4 U	3.4 U	3.35 U	0.33 UJ	0.33 UJ	0.33 UJ	0.33 U	0.33 U	3.35 U
4-Methyl-2-Pentanone	108-10-1	0.2 U	0.2 U	2.05 U	1.4 U	3.4 U	2.05 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	2.05 U
Toluene	108-88-3	5.28	6.03	1.81 U	1.9	3.4 U	1.81 U	1.51 J	5.28 J	19.97 J	14.32	11.31	24.5
t-1,3-Dichloropropene	10061-02-6	2.27 U	2.27 U	2.59 U	1.4 U	3.4 U	2.59 U	0.26 UJ	0.26 UJ	0.26 UJ	0.26 U	0.26 U	22.7 U
cis-1,3-Dichloropropene	10061-01-5	0.23 U	0.23 U	2.27 U	1.4 U	3.4 U	2.27 U	0.23 UJ	0.23 UJ	0.23 UJ	0.23 U	0.23 U	2.27 U
1,1,2-Trichloroethane	79-00-5	0.24 U	0.24 U	2.4 U	1.4 U	3.4 U	2.4 U	0.24 UJ	0.24 UJ	0.24 UJ	0.24 U	0.24 U	2.4 U
Dibromochloromethane	124-48-1	0.22 U 1 U	0.22 U	2.22 U 9.99 U	1.4 U 1.4 U	3.4 U 3.4 U	2.22 U 9.99 U	0.22 UJ	0.22 UJ 1 UJ	0.22 UJ 1 UJ	0.22 U 1 U	0.22 U	2.22 U 9.99 U
1,2-Dibromoethane	106-93-4 127-18-4	3.59	1 U 3.87	3661.84 J	2,600	2,700	990.05	1 UJ 0.33 UJ	2.37 J	1.15 J	0.81 J	1 U 0.68 U	9.99 U 1627.48
Tetrachloroethene Chlorobenzene	127-18-4 108-90-7	3.59 0.12 U	3.87 0.12 U	3661.84 J 1.2 U	2,600 1.4 U	2,700 3.4 U	990.05 1.2 U	0.33 UJ 0.12 UJ	2.37 J 0.12 UJ	1.15 J 0.12 UJ	0.81 J 0.12 U	0.68 U 0.12 U	1627.48 1.2 U
Ethyl Benzene	108-90-7	0.12 U 1.74 J	2.17	0.78 U	1.4 U	3.4 U	0.78 U	0.12 UJ	0.12 UJ 0.43 J	23.46 J	3.04 J	2.61	35.18
m/p-Xylene	126777-61-2	3.04 J	3.47 J	1.87 U	1.9	3.4 U	1.87 U	0.43 J	3.04 J	72.1 J	4.78 J	4.78	74.71
o-Xylene	95-47-6	1.74 J	1.74 J	1.04 U	1.9 1.4 U	3.4 U	1.04 U	0.43 J	0.87 J	12.6 J	0.87 J	4.76 0.87 J	12.16 J
Styrene	100-42-5	0.43 J	0.85 J	2.64 U	1.4 U	3.4 U	2.64 U	0.26 UJ	0.26 UJ	0.85 J	0.26 U	0.26 U	2.64 U
Bromoform	75-25-2	0.45 J 0.16 U	0.05 J	1.55 U	1.4 U	3.4 U	1.55 U	0.16 UJ	0.20 UJ	0.05 J	0.16 U	0.16 U	1.55 U
1,1,2,2-Tetrachloroethane	79-34-5	0.16 U	0.16 U	1.65 U	1.4 U	3.4 U	1.65 U	0.16 UJ	0.16 UJ	0.16 UJ	0.16 U	0.16 U	34.34 U
2-Chlorotoluene	95-49-8	0.02 J	0.02	0.02 U			0.02 U	0 UJ	0 UJ	0 UJ	0 U	0 U	0.02 U
1,3,5-Trimethylbenzene	108-67-8	2.46 U	2.46 U	1.72 U	1.4 U	3.4 U	1.72 U	0.17 UJ	0.17 UJ	3.93 J	0.17 UJ	0.17 U	1.72 U
1,2,4-Trimethylbenzene	95-63-6	0.12 U	0.12 U	4.92 J	1.4 U	3.4 U	1.18 UJ	0.12 UJ	0.12 UJ	17.21 J	0.12 UJ	0.12 UJ	1.18 U
4-Ethyltoluene	622-96-8	0.13 U	0.13 U	1.28 U	1.4 U	3.4 U	1.28 U	0.13 UJ	0.13 UJ	2.95 J	0.13 UJ	0.13 U	1.28 U
1,3-Dichlorobenzene	541-73-1	3.01 U	3.01 U	1.02 U	1.4 U	3.4 U	1.02 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	1.02 U
1,4-Dichlorobenzene	106-46-7	3.01 U	3.01 U	1.5 U	1.4 U	3.4 U	1.5 U	0.15 UJ	0.15 UJ	1.8 J	2.4 J	0.15 U	1.5 U
1,2-Dichlorobenzene	95-50-1	0.13 U	0.13 U	1.32 U	1.4 U	3.4 U	1.32 U	0.13 UJ	0.13 UJ	0.13 UJ	0.13 U	0.13 U	1.32 U
1,2,4-Trichlorobenzene	120-82-1	0.26 U	0.26 U	2.6 U	1.4 U	3.4 U	2.6 U	0.26 UJ	0.26 UJ	0.26 UJ	0.26 U	0.26 U	2.6 U
Hexachloro-1,3-Butadiene	87-68-3	0.23 U	0.23 U	2.35 U	1.4 U	3.4 U	2.35 U	0.23 UJ	0.23 UJ	0.23 UJ	0.23 U	0.23 U	2.35 U
1,3-Butadiene	106-99-0	0.08 UJ	0.08 J	0.8 U	1.4 U	3.4 U	0.8 U	0.08 UJ	0.08 UJ	0.08 UJ	0.08 U	0.08 U	0.8 U
Hexane	110-54-3	0.09 U	0.09 U	0.92 U	1.4 U	3.4 U	0.92 U	0.09 UJ	0.09 UJ	0.09 UJ	0.09 U	0.09 U	0.92 U
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Notes: Concentrations are in µg/m³.

- U Not detected. MDL provided. D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5B Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results January 2010

	Sample ID	130081-SS-13	130081-SS-13 Lab Dup.	130081-BA-13	130081-SS-14	130081-BA-14	130081-SS-15	130081-BA-15	130081-SS-16	130081-SS-16 Lab Dup.	130081-BA-16	130081-OA-16
	Sampling Date	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010	01/26/2010
	Dilution Factor	1.71	1.71	1.83	1.61	1.58	1.58	1.55	2.98	2.98	1.58	1.52
COMPOUND	CAS #			1.00	1.01	1.00	1.00	1.00	2.00	2.00	1.00	1.02
Freon 12	75-71-8	1.9	1.8	1.9	2.3	1.9	2.4	1.5	1.8	1.6	1.9	1.8
Freon 114	76-14-2	1.2 U	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	1.1 U	1.1 U
Chloromethane	74-87-3	0.35 U	0.35 U	0.75	0.33 U	0.93	0.33 U	0.70	0.62 U	0.62 U	1.1	0.85
Vinyl Chloride	75-01-4	0.44 U	0.44 U	0.47 U	0.41 U	0.40 U	0.40 U	0.40 U	0.76 U	0.76 U	0.40 U	0.39 U
Bromomethane	74-83-9	0.66 U	0.44 U	0.71 U	0.62 U	0.40 U	0.40 U	0.60 U	1.2 U	1.2 U	0.40 U	0.59 U
Chloroethane	75-00-3	0.45 U	0.45 U	0.48 U	0.42 U	0.42 U	0.42 U	0.41 U	0.79 U	0.79 U	0.42 U	0.40 U
Freon 11	75-69-4	1.0	1.0	1.1	0.99	0.99	1.0	0.87 U	1.7 U	1.7 U	0.90	0.93
Ethanol	64-17-5	2.8	2.5	99	2.6	59	3.6	8.3	2.8 U	2.8 U	14	4.7
Freon 113	76-13-1	1.3 U	1.3 U	1.4 U	1.2 U	1.2 U	1.2 U	1.2 U	2.3 U	2.3 U	1.2 U	1.2 U
1.1-Dichloroethene	75-35-4	0.68 U	0.68 U	0.72 U	0.64 U	0.63 U	0.63 U	0.61 U	1.2 U	1.2 U	0.63 U	0.60 U
Methylene Chloride	75-09-2	1.2 U	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	1.1 U	1.0 U
Methyl tert-butyl ether	1634-04-4	0.62 U	0.62 U	0.66 U	0.58 U	0.57 U	0.57 U	0.56 U	1.1 U	1.1 U	0.57 U	0.55 U
trans-1,2-Dichloroethene	156-60-5	0.62 U	0.62 U	0.00 U	0.64 U	0.63 U	0.63 U	0.61 U	1.1 U	1.1 U	0.63 U	0.60 U
Hexane	110-54-3	0.66 U	0.66 U	7.4	0.64 U	0.63 U	0.63 U	0.61 U	1.2 U	1.2 U 1.0 U	0.63 0	0.60 0
1.1-Dichloroethane	75-34-3	0.60 U	0.60 U	7.4 0.74 U	0.57 U 0.65 U	0.56 U 0.64 U	0.56 U 0.64 U	0.55 U	1.0 U	1.0 U 1.2 U	0.60 0.64 U	0.64 0.62 U
,			0.69 U 1.3	0.74 U 2.2	3.0		0.64 U 5.4		1.2 U 2.6		0.64 U 5.5	
2-Butanone (Methyl Ethyl Ketone) cis-1.2-Dichloroethene	78-93-3 156-59-2	1.4 0.68 U	1.3 0.68 U	2.2 0.72 U	3.0 0.64 U	1.7 0.63 U	5.4 0.63 U	1.1 0.61 U	2.6 1.2 U	2.3 1.2 U	0.63 U	1.4 0.60 U
Chloroform	67-66-3	0.83 U	0.83 U	0.72 U 0.89 U	0.64 0	0.63 U 0.77 U	0.63 U 0.77 U	0.61 U	1.2 U	1.2 U	0.63 U 0.77 U	0.60 U
	71-55-6	0.83 U	0.63 U		1.4	0.77 U	2.2	0.76 U 0.84 U	1.4 U	1.4 U	0.77 U	0.74 U 0.83 U
1,1,1-Trichloroethane	71-55-6 110-82-7	0.93 U 0.59 U	0.93 U 0.59 U	1.0 U 1.2	0.55 U	0.86 U 0.54 U	0.54 U	0.84 U 0.53 U	1.6 U	1.6 U 1.0 U	0.86 U 0.54 U	0.83 U 0.52 U
Cyclohexane	71-43-2								0.95 U			
Benzene		0.55 U	0.55 U	3.8 NJ	0.51 U	0.87 NJ	0.52 NJ	0.53 NJ		0.95 U	0.71 NJ	0.72 NJ
1,2-Dichloroethane	107-06-2	0.69 U	0.69 U	0.74 U	0.65 U	0.64 U	0.64 U	0.63 U	1.2 U	1.2 U	0.64 U	0.62 U
1,2-Dichloropropane	78-87-5	0.79 U	0.79 U	0.84 U	0.74 U	0.73 U	0.73 U	0.72 U	1.4 U	1.4 U	0.73 U	0.70 U
1,4-Dioxane	123-91-1	0.62 U	0.62 U	0.66 U	0.58 U	0.57 U	0.57 U	0.56 U	1.1 U	1.1 U	0.57 U	0.55 U
Bromodichloromethane	75-27-4	1.1 U	1.1 U	1.2 U	1.1 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	10061-01-5	0.78 U	0.78 U	0.83 U	0.73 U	0.72 U	0.72 U	0.70 U	1.4 U	1.4 U	0.72 U	0.69 U
4-Methyl-2-pentanone	108-10-1	0.70 U	0.70 U	0.75 U	0.66 U	0.65 U	0.65 U	0.63 U	1.2 U	1.2 U	0.65 U	0.62 U
Toluene	108-88-3	1.4	1.4	22	0.86	1.4	3.4	1.0	5.4	5.0	2.8	2.4
trans-1,3-Dichloropropene	10061-02-6	0.78 U	0.78 U	0.83 U	0.73 U	0.72 U	0.72 U	0.70 U	1.4 U	1.4 U	0.72 U	0.69 U
1,1,2-Trichloroethane	79-00-5	0.93 U	0.93 U	1.0 U	0.88 U	0.86 U	0.86 U	0.84 U	1.6 U	1.6 U	0.86 U	0.83 U
Tetrachloroethene	127-18-4	1.2 U	1.2 U	1.2 U	33	1.1 U	7.8	1.0 U	340	330	1.1 U	1.0 U
Dibromochloromethane	124-48-1	1.4 U	1.4 U	1.6 U	1.4 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U
1,2-Dibromoethane (EDB)	106-93-4	1.3 U	1.3 U	1.4 U	1.2 U	1.2 U	1.2 U	1.2 U	2.3 U	2.3 U	1.2 U	1.2 U
Chlorobenzene	108-90-7	0.79 U	0.79 U	0.84 U	0.74 U	0.73 U	0.73 U	0.71 U	1.4 U	1.4 U	0.73 U	0.70 U
Ethyl Benzene	100-41-4	0.74 U	0.74 U	4.5	0.70 U	0.69 U	0.69 U	0.67 U	1.3 U	1.3 U	0.77	0.90
m,p-Xylene	108-38-3/106-42-3	0.74 U	0.74 U	17	0.70 U	0.91	0.78	0.67 U	1.3 U	1.3 U	2.3	3.2
o-Xylene	95-47-6	0.74 U	0.74 U	6.9	0.70 U	0.69 U	0.69 U	0.67 U	1.3 U	1.3 U	0.69 U	1.5
Styrene	100-42-5	0.73 U	0.73 U	0.78 U	0.68 U	0.67 U	0.67 U	0.66 U	1.3 U	1.3 U	0.67 U	0.65 U
Bromoform	75-25-2	1.8 U	1.8 U	1.9 U	1.7 U	1.6 U	1.6 U	1.6 U	3.1 U	3.1 U	1.6 U	1.6 U
1,1,2,2-Tetrachloroethane	79-34-5	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	2.0 U	2.0 U	1.1 U	1.0 U
1,3,5-Trimethylbenzene	108-67-8	0.84 U	0.84 U	0.90 U	0.79 U	0.78 U	0.78 U	0.76 U	1.5 U	1.5 U	0.78 U	0.75 U
1,2,4-Trimethylbenzene	95-63-6	0.84 U	0.84 U	3.2	0.79 U	0.94	0.78 U	0.76 U	1.5 U	1.5 U	0.78 U	1.3
1,3-Dichlorobenzene	541-73-1	1.0 U	1.0 U	1.1 U	0.97 U	0.95 U	0.95 U	0.93 U	1.8 U	1.8 U	0.95 U	0.91 U
1,4-Dichlorobenzene	106-46-7	1.0 U	1.0 U	1.1 U	0.97 U	0.95 U	0.95 U	0.93 U	1.8 U	1.8 U	0.95 U	0.91 U
alpha-Chlorotoluene	100-44-7	0.88 U	0.88 U	0.95 U	0.83 U	0.82 U	0.82 U	0.80 U	1.5 U	1.5 U	0.82 U	0.79 U
1,2-Dichlorobenzene	95-50-1	1.0 U	1.0 U	1.1 U	0.97 U	0.95 U	0.95 U	0.93 U	1.8 U	1.8 U	0.95 U	0.91 U
1,2,4-Trichlorobenzene	120-82-1	6.3 U	6.3 U	6.8 U	6.0 U	5.9 U	5.9 U	5.8 U	11 U	11 U	5.9 U	5.6 U
Hexachlorobutadiene	87-68-3	9.1 U	9.1 U	9.8 U	8.6 U	8.4 U	8.4 U	8.3 U	16 U	16 U	8.4 U	8.1 U
2,2,4-Trimethylpentane	540-84-1	4.0 U	4.0 U	4.3 U	3.8 U	3.7 U	3.7 U	3.6 U	7.0 U	7.0 U	3.7 U	3.6 U
tert-Butyl alcohol	75-65-0	2.6 U	2.6 U	2.8 U	2.4 U	2.4 U	2.4 U	2.3 U	4.5 U	4.5 U	2.4 U	2.3 U
Trichloroethene	79-01-6	0.18 U	0.18 U	0.20 U	0.17 U	0.17 U	0.17 U	0.17 U	0.92	0.88	0.17 U	0.16 U
Carbon Tetrachloride	56-23-5	0.22 U	0.22 U	0.32	0.25	0.34	0.64	0.28	0.38 U	0.38 U	0.33	0.30

Notes:

Concentrations are in µg/m³.

- U Not detected. Reporting Limit provided.
- D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5B Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results January 2010

	Sample ID	130081-SS-17	130081-SS-17 Lab Dup.	130081-BA-17	130081-SS-18	130081-BA-18	130081-OA-18	130081-SS-19	130081-BA-19	130081-SS-20	130081-SS-20 Lab Dup.	130081-BA-20
	Sampling Date	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/28/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010
	Dilution Factor	1.64	1.64	1.34	1.79	1.46	2.01	1.61	1.71	1.44	1.44	1.71
COMPOUND	CAS#				-		-	-				
Freon 12	75-71-8	1.9	1.9	2.0 J	2.3	1.9	1.9	22	1.8	1.9	1.8	1.6
Freon 114	76-14-2	1.1 U	1.1 U	0.94 UJ	1.2 U	1.0 U	1.4 U	1.1 U	1.2 U	1.0 U	1.0 U	1.2 U
Chloromethane	74-87-3	0.34 U	0.34 U	0.97 J	0.42	0.97	0.91	0.36 NJ	0.79	0.30 U	0.30 U	0.67
Vinyl Chloride	75-01-4	0.42 U	0.42 U	0.34 UJ	0.46 U	0.37 U	0.51 U	0.41 U	0.44 U	0.37 U	0.37 U	0.44 U
Bromomethane	74-83-9	0.64 U	0.64 U	0.52 UJ	0.70 U	0.57 U	0.78 U	0.62 U	0.66 U	0.56 U	0.56 U	0.66 U
Chloroethane	75-00-3	0.43 U	0.43 U	0.35 UJ	0.47 U	0.38 U	0.53 U	0.42 U	0.45 U	0.38 U	0.38 U	0.45 U
Freon 11	75-69-4	0.97	0.92 U	1.0 J	1.1	0.94	1.1 U	1.3	0.96 U	0.86	0.86	0.96 U
Ethanol	64-17-5	3.5	3.5	8.4 J	2.7 NJ	2.7	8.2	4.2 NJ	93	2.3	2.1	21
Freon 113	76-13-1	1.2 U	1.2 U	1.0 UJ	1.4 U	1.1 U	1.5 U	1.2 U	1.3 U	1.1 U	1.1 U	1.3 U
1.1-Dichloroethene	75-35-4	0.65 U	0.65 U	0.53 UJ	0.71 U	0.58 U	0.80 U	0.64 U	0.68 U	0.57 U	0.57 U	0.68 U
Methylene Chloride	75-09-2	1.1 U	1.1 U	0.93 UJ	1.2 U	1.0 U	1.4 U	1.1 U	1.2 U	1.0 U	1.0 U	1.2 U
Methyl tert-butyl ether	1634-04-4	0.59 U	0.59 U	0.48 UJ	0.64 U	0.53 U	0.72 U	0.58 U	0.62 U	0.52 U	0.52 U	0.62 U
trans-1,2-Dichloroethene	156-60-5	0.65 U	0.65 U	0.53 UJ	0.71 U	0.58 U	0.80 U	0.64 U	0.68 U	0.57 U	0.57 U	0.68 U
Hexane	110-54-3	0.58 U	0.58 U	0.80 J	0.63 U	0.61	0.96	0.57 U	1.1	0.51 U	0.51 U	0.60 U
1,1-Dichloroethane	75-34-3	0.66 U	0.66 U	0.54 UJ	0.72 U	0.59 U	0.81 U	0.65 U	0.69 U	0.58 U	0.58 U	0.69 U
2-Butanone (Methyl Ethyl Ketone	78-93-3	4.4	4.6	0.95 J	2.0	0.43 U	1.5	6.0	0.92	2.9	2.9	1.1
cis-1.2-Dichloroethene	156-59-2	0.65 U	0.65 U	0.53 UJ	0.71 U	0.58 U	0.80 U	0.64 U	0.68 U	0.57 U	0.57 U	0.68 U
Chloroform	67-66-3	0.80 U	0.80 U	0.65 UJ	0.87 U	0.71 U	0.98 U	0.79 U	0.83 U	0.70 U	0.70 U	0.83 U
1.1.1-Trichloroethane	71-55-6	0.89 U	0.89 U	0.73 UJ	0.98 U	0.80 U	1.1 U	0.88 U	0.96	0.78 U	0.78 U	0.93 U
Cyclohexane	110-82-7	0.56 U	0.56 U	0.46 UJ	0.62 U	0.50 U	0.69 U	0.55 U	0.59 U	0.50 U	0.50 U	0.59 U
Benzene	71-43-2	0.52 U	0.52 U	0.56 NJ	0.57 U	0.69 NJ	0.68 NJ	0.98 NJ	0.82 NJ	0.94 NJ	0.90 NJ	0.66 NJ
1,2-Dichloroethane	107-06-2	0.66 U	0.66 U	0.54 UJ	0.72 U	0.59 U	0.81 U	0.65 U	0.69 U	0.58 U	0.58 U	0.69 U
1,2-Dichloropropane	78-87-5	0.76 U	0.76 U	0.62 UJ	0.83 U	0.67 U	0.93 U	0.74 U	0.79 U	0.66 U	0.66 U	0.79 U
1,4-Dioxane	123-91-1	0.59 U	0.59 U	0.48 UJ	0.64 U	0.53 U	0.72 U	0.58 U	0.62 U	0.52 U	0.52 U	0.62 U
Bromodichloromethane	75-27-4	1.1 U	1.1 U	0.90 UJ	1.2 U	0.98 U	1.3 U	1.1 U	1.1 U	0.96 U	0.96 U	1.1 U
cis-1,3-Dichloropropene	10061-01-5	0.74 U	0.74 U	0.61 UJ	0.81 U	0.66 U	0.91 U	0.73 U	0.78 U	0.65 U	0.65 U	0.78 U
4-Methyl-2-pentanone	108-10-1	0.67 U	0.67 U	0.55 UJ	0.73 U	0.60 U	0.82 U	0.66 U	0.70 U	0.59 U	0.59 U	0.70 U
Toluene	108-88-3	1.3	1.2	0.91 J	1.1	18	1.1	1.7	1.2	1.2	1.2	0.95
trans-1,3-Dichloropropene	10061-02-6	0.74 U	0.74 U	0.61 UJ	0.81 U	0.66 U	0.91 U	0.73 U	0.78 U	0.65 U	0.65 U	0.78 U
1,1,2-Trichloroethane	79-00-5	0.89 U	0.89 U	0.73 UJ	0.98 U	0.80 U	1.1 U	0.88 U	0.93 U	0.78 U	0.78 U	0.93 U
Tetrachloroethene	127-18-4	92	92	0.91 UJ	87	0.99 U	1.4 U	9.8	1.2 U	120	120	1.2 U
Dibromochloromethane	124-48-1	1.4 U	1.4 U	1.1 UJ	1.5 U	1.2 U	1.7 U	1.4 U	1.4 U	1.2 U	1.2 U	1.4 U
1,2-Dibromoethane (EDB)	106-93-4	1.3 U	1.3 U	1.0 UJ	1.4 U	1.1 U	1.5 U	1.2 U	1.3 U	1.1 U	1.1 U	1.3 U
Chlorobenzene	108-90-7	0.76 U	0.76 U	0.62 UJ	0.82 U	0.67 U	0.92 U	0.74 U	0.79 U	0.66 U	0.66 U	0.79 U
Ethyl Benzene	100-41-4	0.71 U	0.71 U	0.58 UJ	0.78 U	3.8	0.87 U	0.70 U	0.74 U	0.62 U	0.62 U	0.74 U
m,p-Xylene	108-38-3/106-42-3	0.71 U	0.71 U	0.60 J	0.78 U	13	0.87 U	0.70 U	0.74 U	0.62 U	0.62 U	0.74 U
o-Xylene	95-47-6	0.71 U	0.71 U	0.58 UJ	0.78 U	3.1	0.87 U	0.70 U	0.74 U	0.62 U	0.62 U	0.74 U
Styrene	100-42-5	0.70 U	0.70 U	0.57 UJ	0.76 U	0.62 U	0.86 U	0.68 U	0.73 U	0.61 U	0.61 U	0.73 U
Bromoform	75-25-2	1.7 U	1.7 U	1.4 UJ	1.8 U	1.5 U	2.1 U	1.7 U	1.8 U	1.5 U	1.5 U	1.8 U
1,1,2,2-Tetrachloroethane	79-34-5	1.1 U	1.1 U	0.92 <mark>UJ</mark>	1.2 U	1.0 U	1.4 U	1.1 U	1.2 U	0.99 U	0.99 U	1.2 U
1,3,5-Trimethylbenzene	108-67-8	0.81 U	0.81 U	0.66 UJ	0.88 U	0.72 U	0.99 U	0.79 U	0.84 U	0.71 U	0.71 U	0.84 U
1,2,4-Trimethylbenzene	95-63-6	0.89	0.84	0.66 UJ	0.88 U	0.72 U	0.99 U	0.79 U	0.84 U	0.71 U	0.71 U	0.84 U
1,3-Dichlorobenzene	541-73-1	0.99 U	0.99 U	0.80 UJ	1.1 U	0.88 U	1.2 U	0.97 U	1.0 U	0.86 U	0.86 U	1.0 U
1,4-Dichlorobenzene	106-46-7	0.99 U	0.99 U	0.80 UJ	1.1 U	0.88 U	1.2 U	0.97 U	1.0 U	0.86 U	0.86 U	1.0 U
alpha-Chlorotoluene	100-44-7	0.85 U	0.85 U	0.69 UJ	0.93 U	0.76 U	1.0 U	0.83 U	0.88 U	0.74 U	0.74 U	0.88 U
1,2-Dichlorobenzene	95-50-1	0.99 U	0.99 U	0.80 UJ	1.1 U	0.88 U	1.2 U	0.97 U	1.0 U	0.86 U	0.86 U	1.0 U
1,2,4-Trichlorobenzene	120-82-1	6.1 U	6.1 U	5.0 UJ	6.6 U	5.4 U	7.4 U	6.0 U	6.3 U	5.3 U	5.3 U	6.3 U
Hexachlorobutadiene	87-68-3	8.7 U	8.7 U	7.1 UJ	9.5 U	7.8 U	11 U	8.6 U	9.1 U	7.7 U	7.7 U	9.1 U
2,2,4-Trimethylpentane	540-84-1	3.8 U	3.8 U	3.1 UJ	4.2 U	3.4 U	4.7 U	3.8 U	4.0 U	3.4 U	3.4 U	4.0 U
tert-Butyl alcohol	75-65-0	2.5 U	2.5 U	2.0 UJ	2.7 U	2.2 U	3.0 U	2.4 U	2.6 U	2.2 U	2.2 U	2.6 U
Trichloroethene	79-01-6	0.20	0.19	0.14 <mark>UJ</mark>	0.19 U	0.16 U	0.22 U	0.17 U	0.18 U	0.15 U	0.15 U	0.18 U
Carbon Tetrachloride	56-23-5	0.21 U	0.21 U	0.34 J	0.22 U	0.32	0.33	0.20 U	0.32	0.18 U	0.18 U	0.28

Notes:

Concentrations are in µg/m³.

- U Not detected. Reporting Limit provided.
- D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5B Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results January 2010

	Sample ID	130081-SS-21	130081-SS-21 Lab Dup.	130081-FD-012610	130081-BA-21	130081-SS-22	130081-BA-22	130081-SS-23	130081-BA-23	130081-SS-24	130081-BA-24	130081-SS-25	130081-BA-25	130081-OA-25
	Sampling Date	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/27/2010	01/28/2010	01/28/2010	01/28/2010	01/28/2010	01/28/2010
	Dilution Factor	7.60	7.60	6.83	1.58	2.85	3.36	10.6	1.75	1.55	1.49	1.61	1.64	1.46
COMPOUND	CAS#													
Freon 12	75-71-8	6.6	6.7	6.8	2.1	6.8	2.0	230	3.4	7.7	1.9	2.0	1.9	1.8
Freon 114	76-14-2	5.3 U	5.3 U	4.8 U	1.1 U	3.0	2.3 U	7.4 U	1.2 U	1.7	1.0 U	1.1 U	1.1 U	1.0 U
Chloromethane	74-87-3	1.6 U	1.6 U	1.4 U	0.86	0.59 U	1.1 U	2.2 U	0.91	0.32 U	1 U	0.33 U	0.88	0.80
Vinyl Chloride	75-01-4	1.9 U	1.9 U	1.7 U	0.40 U	0.73 U	0.86 U	2.7 U	0.45 U	0.40 U	0.38 U	0.41 U	0.42 U	0.37 U
Bromomethane	74-83-9	3.0 U	3.0 U	2.6 U	0.61 U	1.1 U	1.3 U	4.1 U	0.68 U	0.60 U	0.58 U	0.62 U	0.64 U	0.57 U
Chloroethane	75-00-3	2.0 U	2.0 U	1.8 U	0.42 U	0.75 U	0.89 U	2.8 U	0.46 U	0.41 U	0.39 U	0.42 U	0.43 U	0.38 U
Freon 11	75-69-4	4.3 U	4.3 U	3.8 U	1.3	1.8	1.9 U	740	5.7	3.2	1.0	1.7	0.93	0.93
Ethanol	64-17-5	7.2 U	7.2 U	6.4 U	360 J	2.9 NJ	470 J	11	230 J	3.3	220 J	7.2	420 NJ	9.4
Freon 113	76-13-1	5.8 U	5.8 U	5.2 U	1.2 U	2.2 U	2.6 U	8.1 U	1.3 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U
1,1-Dichloroethene	75-35-4	3.0 U	3.0 U	2.7 U	0.63 U	1.1 U	1.3 U	4.2 U	0.69 U	0.61 U	0.59 U	0.64 U	0.65 U	0.58 U
Methylene Chloride	75-09-2	5.3 U	5.3 U	4.7 U	2.4 J	2.0 UJ	2.3 UJ	7.4 UJ	1.2 UJ	1.1 UJ	1.0 UJ	1.1 UJ	1.1 UJ	1.0 U
Methyl tert-butyl ether	1634-04-4	2.7 U	2.7 U	2.5 U	0.57 U	1.0 U	1.2 U	3.8 U	0.63 U	0.56 U	0.54 U	0.58 U	0.59 U	0.53 U
trans-1,2-Dichloroethene	156-60-5	3.0 U	3.0 U	2.7 U	0.63 U	1.1 U	1.3 U	4.2 U	0.69 U	0.61 U	0.59 U	0.64 U	0.65 U	0.58 U
Hexane	110-54-3	2.7 U	2.7 U	2.4 U	1.6	1.0 U	1.5	3.7 U	0.91	0.55 U	0.78	0.57 U	1.8	1.1
1,1-Dichloroethane	75-34-3	3.1 U	3.1 U	2.8 U	0.64 U	2.2	1.4 U	4.3 U	0.71 U	3.2	0.60 U	0.65 U	0.66 U	0.59 U
2-Butanone (Methyl Ethyl Ketone		2.2 U	2.4	2.4	2.2	3.8	1.8	7.2	1.8	3.1	2.5	2.6	0.95	1.0
cis-1,2-Dichloroethene	156-59-2	3.0 U	3.0 U	2.7 U	0.63 U	1.1 U	1.3 U	4.2 U	0.69 U	0.61 U	0.59 U	0.64 U	0.65 U	0.58 U
Chloroform	67-66-3	3.7 U	3.7 U	3.3 U	0.81	7.9	1.6 U	35	0.85 U	10	0.73 U	0.79 U	0.80 U	0.71 U
1.1.1-Trichloroethane	71-55-6	8.3	8.4	8.6	0.86 U	13	1.8 U	5.8 U	0.95 U	16	0.81 U	0.88 U	0.89 U	0.80 U
Cyclohexane	110-82-7	2.6 U	2.6 U	2.4 U	0.54 U	0.98 U	1.2 U	3.6 U	0.60 U	0.53 U	0.51 U	0.55 U	0.56 U	0.50 U
Benzene	71-43-2	2.4 U	2.4 U	2.2 U	1.7 NJ	0.91 U	1.8 NJ	3.4 U	1.1 NJ	0.50 U	0.87 NJ	0.54 NJ	0.82 NJ	0.75 NJ
1.2-Dichloroethane	107-06-2	3.1 U	3.1 U	2.8 U	0.64 U	1.2 U	1.4 U	4.3 U	0.71 U	0.63 U	0.60 U	0.65 U	0.66 U	0.59 U
1,2-Dichloropropane	78-87-5	3.5 U	3.5 U	3.2 U	0.73 U	1.3 U	1.6 U	4.9 U	0.81 U	0.72 U	0.69 U	0.74 U	0.76 U	0.67 U
1.4-Dioxane	123-91-1	2.7 U	2.7 U	2.5 U	0.57 U	1.0 U	1.2 U	3.8 U	0.63 U	0.56 U	0.54 U	0.58 U	0.59 U	0.53 U
Bromodichloromethane	75-27-4	5.1 U	5.1 U	4.6 U	1.0 U	1.9 U	2.2 U	7.1 U	1.2 U	1.0 U	1.0 U	1.1 U	1.1 U	0.98 U
cis-1,3-Dichloropropene	10061-01-5	3.4 U	3.4 U	3.1 U	0.72 U	1.3 U	1.5 U	4.8 U	0.79 U	0.70 U	0.68 U	0.73 U	0.74 U	0.66 U
4-Methyl-2-pentanone	108-10-1	3.1 U	3.1 U	2.8 U	0.65 U	1.2 U	1.4 U	4.3 U	0.72 U	0.63 U	0.61 U	0.66 U	3.0	0.60 U
Toluene	108-88-3	2.9 U	2.9 U	2.6 U	2.3	1.6	2.4	7.2	2.8	1.2	1.7	2.6	2.4	2.0
trans-1,3-Dichloropropene	10061-02-6	3.4 U	3.4 U	3.1 U	0.72 U	1.3 U	1.5 U	4.8 U	0.79 U	0.70 U	0.68 U	0.73 U	0.74 U	0.66 U
1,1,2-Trichloroethane	79-00-5	4.1 U	4.1 U	3.7 U	0.86 U	1.6 U	1.8 U	5.8 U	0.95 U	0.84 U	0.81 U	0.88 U	0.89 U	0.80 U
Tetrachloroethene	127-18-4	1400	1400	1400	2.4	660	2.3 U	1600	1.2 U	200	1.1	4.0	1.1 U	0.99 U
Dibromochloromethane	124-48-1	6.5 U	6.5 U	5.8 U	1.3 U	2.4 U	2.9 U	9.0 U	1.5 U	1.3 U	1.3 U	1.4 U	1.4 U	1.2 U
1.2-Dibromoethane (EDB)	106-93-4	5.8 U	5.8 U	5.2 U	1.2 U	2.2 U	2.6 U	8.1 U	1.3 U	1.2 U	1.1 U	1.2 U	1.3 U	1.1 U
Chlorobenzene	108-90-7	3.5 U	3.5 U	3.1 U	0.73 U	1.3 U	1.5 U	4.9 U	0.80 U	0.71 U	0.68 U	0.74 U	0.76 U	0.67 U
Ethyl Benzene	100-41-4	3.3 U	3.3 U	3.0 U	0.68	1.2 U	1.4 U	4.6 U	0.76 U	0.67 U	0.65 U	0.70 U	0.71 U	0.63 U
m,p-Xylene	108-38-3/106-42-3	3.3 U	3.3 U	3.0 U	2.6	1.2 U	1.4 U	4.6 U	0.92	1.5	0.86	0.70 U	0.71 U	0.63 U
o-Xylene	95-47-6	3.3 U	3.3 U	3.0 U	1.0	1.2 U	1.4 U	4.6 U	0.76 U	1.0	0.65 U	0.70 U	0.71 U	0.63 U
Styrene	100-42-5	3.2 U	3.2 U	2.9 U	0.67 U	1.2 U	1.4 U	4.5 U	0.74 U	0.66 U	0.63 U	0.68 U	0.70 U	0.62 U
Bromoform	75-25-2	7.8 U	7.8 U	7.1 U	1.6 U	2.9 U	3.5 U	11 U	1.8 U	1.6 U	1.5 U	1.7 U	1.7 U	1.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5.2 U	5.2 U	4.7 U	1.1 U	2.0 U	2.3 U	7.3 U	1.2 U	1.1 U	1.0 U	1.1 U	1.1 U	1.0 U
1,3,5-Trimethylbenzene	108-67-8	3.7 U	3.7 U	3.4 U	0.78 U	1.4 U	1.6 U	5.2 U	0.86 U	1.8	0.82 NJ	0.79 U	0.81 U	0.72 U
1,2,4-Trimethylbenzene	95-63-6	3.7 U	3.7 U	3.4 U	0.78 U	1.4 U	1.6 U	5.2 U	0.86 U	7.5	2.6	0.79 U	1.1	0.72 U
1,3-Dichlorobenzene	541-73-1	4.6 U	4.6 U	4.1 U	0.95 U	1.7 U	2.0 U	6.4 U	1.0 U	0.93 U	0.90 U	0.97 U	0.99 U	0.88 U
1,4-Dichlorobenzene	106-46-7	4.6 U	4.6 U	4.1 U	0.95 U	1.7 U	2.0 U	6.4 U	1.0 U	0.93 U	0.90 U	0.97 U	0.99 U	0.88 U
alpha-Chlorotoluene	100-44-7	3.9 U	3.9 U	3.5 U	0.82 U	1.5 U	1.7 U	5.5 U	0.90 U	0.80 U	0.77 U	0.83 U	0.85 U	0.76 U
1,2-Dichlorobenzene	95-50-1	4.6 U	4.6 U	4.1 U	0.95 U	1.7 U	2.0 U	6.4 U	1.0 U	0.93 U	0.90 U	0.97 U	0.99 U	0.88 U
1,2,4-Trichlorobenzene	120-82-1	28 U	28 U	25 U	5.9 U	10 U	12 U	39 U	6.5 U	5.8 U	5.5 U	6.0 U	6.1 U	5.4 U
Hexachlorobutadiene	87-68-3	40 U	40 U	36 U	8.4 U	15 U	18 U	56 U	9.3 U	8.3 U	7.9 U	8.6 U	8.7 U	7.8 U
2,2,4-Trimethylpentane	540-84-1	18 U	18 U	16 U	3.7 U	6.6 U	7.8 U	25 U	4.1 U	3.6 U	3.5 U	3.8 U	3.8 U	3.4 U
tert-Butyl alcohol	75-65-0	12 U	10 U	10 U	2.4 U	4.3 U	5.1 U	16 U	2.6 U	2.3 U	2.2 U	2.4 U	2.5 U	2.2 U
Trichloroethene	79-01-6	1.9	1.9	1.7	0.17 U	0.40	0.36 U	16	0.19 U	0.26	0.16 U	0.72	0.18 U	0.16 U
Carbon Tetrachloride	56-23-5	0.96 U	0.96 U	0.86 U	0.17 0	0.40	0.36 0	1.3 U	0.40	0.78	0.16 0	0.72	0.18 0	0.10 0
Carbon Tetracificitide	JU-2J-J	U ØB.U	0.80	U.00 U	U.4 I	0.57	U.44	1.3 U	0.40	U./0	0.97	0.52	0.36	0.78

Notes:

Concentrations are in µg/m³.

- U Not detected. Reporting Limit provided.
- D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5B Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results January 2010

	Sample ID	130081-SS-26	130081-SS-26 Lab Dup.	130081-BA-26	130081-SS-27	130081-BA-27	130081-BA-27 Lab Dup.	130081-SS-28	130081-BA-28	130081-SS-29	130081-FD012810	130081-BA-29
	Sampling Date	01/28/2010	01/28/2010	01/28/2010	01/28/2010	01/28/2010	01/28/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010
	Dilution Factor	4.47	3.80	1.41	13.0	1.75	1.75	1.52	6.50	1.52	1.52	1.68
COMPOUND	CAS#	7.77	0.00	1.41	10.0	1.70	1.70	1.02	0.00	1.02	1.02	1.00
Freon 12	75-71-8	46	47	1.7	64	2.2	2.0	3.8	3.2 U	11 J	7.2 J	1.9
Freon 114	76-14-2	3.1 U	2.6 U	0.98 U	9.1 U	1.2 U	1.2 U	1.1 U	4.5 U	1.1 U	1.1 U	1.2 U
Chloromethane	74-87-3	0.92 U	0.78 U	0.79	2.7 U	1.2 U	1.1 U	0.31 U	1.3 U	0.90 J	0.31 UJ	1.1
Vinyl Chloride	75-01-4	1.1 U	0.76 U	0.79 0.36 U	3.3 U	0.45 U	0.45 U	0.31 U	1.7 U	0.39 U	0.31 U	0.43 U
Bromomethane	74-83-9	1.7 U	1.5 U	0.55 U	5.0 U	0.43 U	0.45 U	0.59 U	2.5 U	0.39 U	0.59 U	0.43 U
Chloroethane	75-00-3	1.7 U	1.0 U	0.37 U	3.4 U	0.46 U	0.46 U	0.40 U	1.7 U	0.40 U	0.39 U	0.65 U
									1.7 U 3.6 U		0.40 U 0.85 U	
Freon 11	75-69-4	11	11	0.88	16	1.7	1.7	1.6		0.97		0.94
Ethanol	64-17-5	4.8	3.6	43	12 U	19	18	2.3 NJ	79	1.4 U	1.4 U	10
Freon 113	76-13-1	3.4 U	2.9 U	1.1 U	10 U	1.3 U	1.3 U	1.2 U	5.0 U	1.3	1.2 U	1.3 U
1,1-Dichloroethene	75-35-4	1.8 U	1.5 U	0.56 U	5.2 U	0.69 U	0.69 U	0.60 U	2.6 U	0.60 U	0.60 U	0.67 U
Methylene Chloride	75-09-2	3.1 J	2.6 UJ	27 J	9.0 UJ	3.8 J	2.6 J	1.0 UJ	4.5 UJ	1.0 UJ	1.0 UJ	1.2 UJ
Methyl tert-butyl ether	1634-04-4	1.6 U	1.4 U	0.51 U	4.7 U	0.63 U	0.63 U	0.55 U	2.3 U	0.55 U	0.55 U	0.60 U
trans-1,2-Dichloroethene	156-60-5	1.8 U	1.5 U	0.56 U	5.2 U	0.69 U	0.69 U	0.60 U	2.6 U	0.60 U	0.60 U	0.67 U
Hexane	110-54-3	1.6 U	1.3 U	0.75	4.6 U	0.71	0.65	0.54 U	2.3 U	0.54	0.54 U	0.59 U
1,1-Dichloroethane	75-34-3	1.8 U	1.5 U	0.57 U	5.3 U	0.71 U	0.71 U	0.62 U	2.6 U	0.62 U	0.62 U	0.68 U
2-Butanone (Methyl Ethyl Ketone)		4.5	4.4	2.8	3.8 U	0.83	0.84	2.4	5.8	4.7 J	2.2 J	0.59
cis-1,2-Dichloroethene	156-59-2	1.8 U	1.5 U	0.56 U	5.2 U	0.69 U	0.69 U	0.60 U	2.6 U	0.60 U	0.60 U	0.67 U
Chloroform	67-66-3	3.0	3.0	0.69 U	6.3 U	0.98	0.99	0.74 U	3.2 U	0.74 U	0.74 U	0.82 U
1,1,1-Trichloroethane	71-55-6	2.4 U	2.1 U	0.77 U	7.1 U	0.95 U	0.95 U	1.2	3.5 U	1.7	1.3	0.92 U
Cyclohexane	110-82-7	1.5 U	1.3 U	0.48 U	4.5 U	0.60 U	0.60 U	0.52 U	2.2 U	0.52 U	0.52 U	0.58 U
Benzene	71-43-2	1.4 U	1.2 U	0.98 NJ	4.2 U	1.0 NJ	1.0 NJ	0.48 U	2.1 U	1.3 NJ	1.1 NJ	0.70 NJ
1,2-Dichloroethane	107-06-2	1.8 U	1.5 U	0.57 U	5.3 U	0.71 U	0.71 U	0.62 U	2.6 U	0.62 U	0.62 U	0.68 U
1,2-Dichloropropane	78-87-5	2.1 U	1.8 U	0.65 U	6.0 U	0.81 U	0.81 U	0.70 U	3.0 U	0.70 U	0.70 U	0.78 U
1,4-Dioxane	123-91-1	1.6 U	1.4 U	0.51 U	4.7 U	0.63 U	0.63 U	0.55 U	2.3 U	0.55 U	0.55 U	0.60 U
Bromodichloromethane	75-27-4	3.0 U	2.5 U	0.94 U	8.7 U	1.2 U	1.2 U	1.0 U	4.4 U	1.0 U	1.0 U	1.1 U
cis-1,3-Dichloropropene	10061-01-5	2.0 U	1.7 U	0.64 U	5.9 U	0.79 U	0.79 U	0.69 U	3.0 U	0.69 U	0.69 U	0.76 U
4-Methyl-2-pentanone	108-10-1	1.8 U	1.6 U	0.58 U	5.3 U	0.72 U	0.72 U	0.62 U	2.7 U	0.64 U	0.62 U	0.69 U
Toluene	108-88-3	1.7 U	1.4 U	3.0	4.9 U	2.5	2.5	2.5	33	1.5	1.1	1.0
trans-1,3-Dichloropropene	10061-02-6	2.0 U	1.7 U	0.64 U	5.9 U	0.79 U	0.79 U	0.69 U	3.0 U	0.69 U	0.69 U	0.76 U
1,1,2-Trichloroethane	79-00-5	2.4 U	2.1 U	0.77 U	7.1 U	0.95 U	0.95 U	0.83 U	3.5 U	0.83 U	0.83 U	0.92 U
Tetrachloroethene	127-18-4	480	470	0.96 U	2300	1.8	1.6	81	8.5	270	210	1.1 U
Dibromochloromethane	124-48-1	3.8 U	3.2 U	1.2 U	11 U	1.5 U	1.5 U	1.3 U	5.5 U	1.3 U	1.3 U	1.4 U
1,2-Dibromoethane (EDB)	106-93-4	3.4 U	2.9 U	1.1 U	10 U	1.3 U	1.3 U	1.2 U	5.0 U	1.2 U	1.2 U	1.3 U
Chlorobenzene	108-90-7	2.0 U	1.7 U	0.65 U	6.0 U	0.80 U	0.80 U	0.70 U	3.0 U	0.70 U	0.70 U	0.77 U
Ethyl Benzene	100-41-4	1.9 U	1.6 U	0.61 U	5.6 U	0.76 U	0.76 U	0.66 U	17	0.66 U	0.66 U	0.73 U
m,p-Xylene	108-38-3/106-42-3	1.9 U	1.6 U	0.99	5.6 U	1.1	1.1	1.0	64	0.66 U	0.66 U	0.73 U
o-Xylene	95-47-6	1.9 U	1.6 U	0.61 U	5.6 U	0.76 U	0.76 U	0.66 U	17	0.66 U	0.66 U	0.73 U
Styrene	100-42-5	1.9 U	1.6 U	0.60 U	5.5 U	0.74 U	0.74 U	0.65 U	2.8 U	0.65 U	0.65 U	0.72 U
Bromoform	75-25-2	4.6 U	3.9 U	1.4 U	13 U	1.8 U	1.8 U	1.6 U	6.7 U	1.6 U	1.6 U	1.7 U
1,1,2,2-Tetrachloroethane	79-34-5	3.1 U	2.6 U	0.97 U	8.9 U	1.0 U	1.2 U	1.0 U	4.5 U	1.0 U	1.0 U	1.2 U
1,3,5-Trimethylbenzene	108-67-8	2.2 U	1.9 U	0.69 U	6.4 U	0.86 U	0.86 U	0.75 U	5.3 NJ	0.75 U	0.75 U	0.82 U
1,2,4-Trimethylbenzene	95-63-6	2.2 U	1.9 U	0.69 U	6.4 U	0.86 U	0.86 U	0.75 U	15	0.75 U	0.75 U	0.82 U
1,3-Dichlorobenzene	541-73-1	2.7 U	2.3 U	0.85 U	7.8 U	1.0 U	1.0 U	0.73 U	3.9 U	0.75 U	0.75 U	1.0 U
1,4-Dichlorobenzene	106-46-7	2.7 U	2.3 U	0.85 U	7.8 U	1.0 U	1.0 U	0.91 U	3.9 U	0.91 U	0.91 U	1.0 U
							0.90 U					
alpha-Chlorotoluene	100-44-7	2.3 U 2.7 U	2.0 U	0.73 U	6.7 U	0.90 U		0.79 U	3.4 U 3.9 U	0.79 U	0.79 U 0.91 U	0.87 U
1,2-Dichlorobenzene	95-50-1 120-82-1	2.7 U 16 U	2.3 U 14 U	0.85 U 5.2 U	7.8 U 48 U	1.0 U 6.5 U	1.0 U 6.5 U	0.91 U 5.6 U	3.9 U 24 U	0.91 U 5.6 U	0.91 U 5.6 U	1.0 U 6.2 U
1,2,4-Trichlorobenzene												
Hexachlorobutadiene	87-68-3	24 U	20 U	7.5 U	69 U	9.3 U	9.3 U	8.1 U	35 U	8.1 U	8.1 U	9.0 U
2,2,4-Trimethylpentane	540-84-1	10 U	8.9 U	3.3 U	30 U	4.1 U	4.1 U	3.6 U	15 U	3.6 U	3.6 U	3.9 U
tert-Butyl alcohol	75-65-0	6.8 U	5.8 U	2.1 U	20 U	2.6 U	2.6 U	2.3 U	9.8 U	2.3 U	2.3 U	2.5 U
Trichloroethene	79-01-6	8.1	8.0	0.15 U	46	160	150	0.16 U	0.70 U	0.16 U	0.16 U	0.18 U
Carbon Tetrachloride	56-23-5	0.56 U	0.48 U	0.32	1.6 U	0.44	0.41	0.25	0.82 U	0.53	0.39	0.38

Notes:

Concentrations are in µg/m³.

- U Not detected. Reporting Limit provided.
- D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

Table 5B Munsey Cleaners OU-2 Validated Indoor Air and Sub-Slab Vapor Analytical Results January 2010

	Sample ID	130081-SS-30	130081-SS-30 Lab Dup.	130081-BA-30	130081-OA-30	130081-SS-31	130081-BA-31	130081-SS-32	130081-SS-32 Lab Dup.	130081-BA-32	130081-BA-33	130081-BA-34
	Sampling Date	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010	01/29/2010
	Dilution Factor	1.46	1.46	1.71	1.29	1.41	1.52	1.36	1.36	1.46	1.64	1.52
COMPOUND	CAS #	1.40	1.40	1.71	1.20	1.71	1.02	1.00	1.50	1.40	1.04	1.02
Freon 12	75-71-8	2.9	2.7	1.9	1.5	2.4	2.0	2.1	1.9	1.9	2.0	2.0
Freon 114	76-14-2	1.0 U	1.0 U	1.2 U	0.90 U	0.98 U	1.1 U	0.95 U	0.95 U	1.0 U	1.1 U	1.1 U
Chloromethane	74-87-3	0.38	0.36	0.82	1.3	0.29 U	0.87	0.28 U	0.28 U	0.84	0.89	0.78
Vinyl Chloride	75-01-4	0.37 U	0.37 U	0.44 U	0.33 U	0.36 U	0.39 U	0.35 U	0.25 U	0.37 U	0.42 U	0.39 U
Bromomethane	74-83-9	0.57 U	0.57 U	0.66 U	0.50 U	0.55 U	0.59 U	0.53 U	0.53 U	0.57 U	0.64 U	0.59 U
Chloroethane	75-00-3	0.38 U	0.38 U	0.45 U	0.34 U	0.37 U	0.40 U	0.36 U	0.36 U	0.38 U	0.43 U	0.40 U
Freon 11	75-69-4	1.0	1.0	1.0	0.76	1.2	0.94	1.1	0.97	0.90	1.0	1.1
Ethanol	64-17-5	2.8 NJ	2.6	10	4.9	3.5	34	13	13	29	42	6.9
Freon 113	76-13-1	1.1 U	1.1 U	1.3 U	0.99 U	1.1 U	1.2 U	1.0 U	1.0 U	1.1 U	1.2 U	1.2 U
1.1-Dichloroethene	75-35-4	0.58 U	0.58 U	0.68 U	0.99 U	0.56 U	0.60 U	0.54 U	0.54 U	0.58 U	0.65 U	0.60 U
Methylene Chloride	75-09-2	1.0 UJ	1.0 UJ	1.2 UJ	0.90 UJ	0.98 UJ	1.0 UJ	0.94 UJ	0.94 UJ	1.0 UJ	2.0 J	1.0 UJ
Methyl tert-butyl ether	1634-04-4	0.53 U	0.53 U	0.62 U	0.46 U	0.51 U	0.55 U	0.49 U	0.49 U	0.53 U	0.59 U	0.55 U
trans-1,2-Dichloroethene	156-60-5	0.58 U	0.58 U	0.62 U	0.40 U	0.51 U	0.60 U	0.49 U	0.49 U	0.58 U	0.65 U	0.60 U
Hexane	110-54-3	0.68	0.65	0.60 U	0.45 U	0.50 U	0.54 U	0.48 U	0.48 U	0.56 U	0.58 U	0.54 U
1,1-Dichloroethane	75-34-3	0.59 U	0.59 U	0.60 U	0.45 U	0.50 U	0.54 U	0.48 U	0.46 U	0.51 U	0.56 U	0.54 U
2-Butanone (Methyl Ethyl Ketone		3.2	3.1	0.59 U	0.52 0	2.6	0.62 U	1.2	1.2	0.59 0	1.2	0.62 0
cis-1.2-Dichloroethene	156-59-2	0.58 U	0.58 U	0.50 U	0.43 0.51 U	0.56 U	0.45 U	0.54 U	0.54 U	0.52 0.58 U	0.65 U	0.60 U
Chloroform	67-66-3	0.56 U	0.56 U	0.83 U	0.63 U	0.56 U	0.60 U	0.54 U	0.54 U	0.56 U	0.80 U	0.60 U
	71-55-6	0.71 U	0.71 U 0.80 U	0.83 U	0.63 U 0.70 U	0.69 U 0.77 U	0.74 U 0.83 U	0.66 U	0.66 U 0.74 U	0.71 U 0.80 U	0.80 U	0.74 U 0.83 U
1,1,1-Trichloroethane	110-82-7	0.80 U	0.80 U	0.93 U 0.59 U	0.70 U 0.44 U	0.77 U 0.48 U	0.83 U 0.52 U	0.74 U 0.47 U	0.74 U 0.47 U	0.80 U	0.89 U 0.56 U	0.83 U 0.52 U
Cyclohexane	71-43-2	0.62 NJ	0.50 U	0.59 U 0.62 NJ	0.44 U	0.45 U	0.52 U 0.66 NJ	0.47 U	0.47 U	0.63 NJ	0.56 U	0.52 U 0.77 NJ
Benzene												
1,2-Dichloroethane	107-06-2 78-87-5	0.59 U 0.67 U	0.59 U 0.67 U	0.69 U 0.79 U	0.52 U 0.60 U	0.57 U 0.65 U	0.62 U	0.55 U 0.63 U	0.55 U 0.63 U	0.59 U	0.66 U 0.76 U	0.62 U
1,2-Dichloropropane	78-87-5 123-91-1				0.60 U		0.70 U	0.63 U 0.49 U	0.63 U 0.49 U	0.67 U	0.76 U	0.70 U
1,4-Dioxane		0.53 U	0.54	0.62 U		0.51 U	0.55 U			0.53 U		0.55 U
Bromodichloromethane	75-27-4	0.98 U	0.98 U	1.1 U	0.86 U	0.94 U	1.0 U	0.91 U	0.91 U	0.98 U	1.1 U	1.0 U
cis-1,3-Dichloropropene	10061-01-5	0.66 U	0.66 U	0.78 U	0.58 U	0.64 U	0.69 U	0.62 U	0.62 U	0.66 U	0.74 U	0.69 U
4-Methyl-2-pentanone	108-10-1	0.60 U	0.60 U	0.70 U	0.53 U	0.58 U	0.62 U	0.56 U	0.56 U	0.60 U	0.67 U	0.62 U
Toluene	108-88-3	1.7	1.6	0.81	0.85	0.61	0.87	0.87	0.83	0.92	1.8	1.4
trans-1,3-Dichloropropene	10061-02-6	0.66 U	0.66 U	0.78 U	0.58 U	0.64 U	0.69 U	0.62 U	0.62 U	0.66 U	0.74 U	0.69 U
1,1,2-Trichloroethane	79-00-5	0.80 U	0.80 U	0.93 U	0.70 U	0.77 U	0.83 U	0.74 U	0.74 U	0.80 U	0.89 U	0.83 U
Tetrachloroethene	127-18-4	4.9	4.8	1.2 U	0.88 U	54	1.0 U	32	32	0.99 U	2.9	1.0 U
Dibromochloromethane	124-48-1	1.2 U	1.2 U	1.4 U	1.1 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.4 U	1.3 U
1,2-Dibromoethane (EDB)	106-93-4	1.1 U	1.1 U	1.3 U	0.99 U	1.1 U	1.2 U	1.0 U	1.0 U	1.1 U	1.3 U	1.2 U
Chlorobenzene	108-90-7	0.67 U	0.67 U	0.79 U	0.59 U	0.65 U	0.70 U	0.63 U	0.63 U	0.67 U	0.76 U	0.70 U
Ethyl Benzene	100-41-4	0.63 U	0.63 U	0.74 U	0.56 U	0.61 U	0.66 U	0.59 U	0.59 U	0.63 U	0.71 U	0.66 U
m,p-Xylene	108-38-3/106-42-3	0.63 U	0.63 U	0.74 U	0.56 U	0.61 U	0.87	0.59 U	0.59 U	1.2	0.71 U	0.66
o-Xylene	95-47-6	0.63 U	0.63 U	0.74 U	0.56 U	0.61 U	0.66 U	0.59 U	0.59 U	0.63 U	0.71 U	0.66 U
Styrene	100-42-5	0.62 U	0.62 U	0.73 U	0.55 U	0.60 U	0.65 U	0.58 U	0.58 U	0.62 U	0.70 U	0.65 U
Bromoform	75-25-2	1.5 U	1.5 U	1.8 U	1.3 U	1.4 U	1.6 U	1.4 U	1.4 U	1.5 U	1.7 U	1.6 U
1,1,2,2-Tetrachloroethane	79-34-5	1.0 U	1.0 U	1.2 U	0.88 U	0.97 U	1.0 U	0.93 U	0.93 U	1.0 U	1.1 U	1.0 U
1,3,5-Trimethylbenzene	108-67-8	0.72 U	0.72 U	0.84 U	0.63 U	0.69 U	0.75 U	0.67 U	0.67 U	0.72 U	0.81 U	0.75 U
1,2,4-Trimethylbenzene	95-63-6	0.72 U	0.72 U	0.84 U	0.63 U	0.69 U	0.75 U	0.67 U	0.67 U	0.72 U	0.81 U	0.75 U
1,3-Dichlorobenzene	541-73-1	0.88 U	0.88 U	1.0 U	0.78 U	0.85 U	0.91 U	0.82 U	0.82 U	0.88 U	0.99 U	0.91 U
1,4-Dichlorobenzene	106-46-7	0.88 U	0.88 U	1.3	0.78 U	0.85 U	0.91 U	0.82 U	0.82 U	0.88 U	7.9	0.91 U
alpha-Chlorotoluene	100-44-7	0.76 U	0.76 U	0.88 U	0.67 U	0.73 U	0.79 U	0.70 U	0.70 U	0.76 U	0.85 U	0.79 U
1,2-Dichlorobenzene	95-50-1	0.88 U	0.88 U	1.0 U	0.78 U	0.85 U	0.91 U	0.82 U	0.82 U	0.88 U	0.99 U	0.91 U
1,2,4-Trichlorobenzene	120-82-1	5.4 U	5.4 U	6.3 U	4.8 U	5.2 U	5.6 U	5.0 U	5.0 U	5.4 U	6.1 U	5.6 U
Hexachlorobutadiene	87-68-3	7.8 U	7.8 U	9.1 U	6.9 U	7.5 U	8.1 U	7.2 U	7.2 U	7.8 U	8.7 U	8.1 U
2,2,4-Trimethylpentane	540-84-1	3.4 U	3.4 U	4.0 U	3.0 U	3.3 U	3.6 U	3.2 U	3.2 U	3.4 U	3.8 U	3.6 U
tert-Butyl alcohol	75-65-0	2.2 U	2.2 U	2.6 U	2.0 U	2.1 U	2.3 U	2.1 U	2.1 U	2.2 U	2.5 U	2.3 U
Trichloroethene	79-01-6	0.44	0.42	0.18 U	0.14 U	0.15 U	0.16 U	0.15 U	0.15 U	0.16 U	0.19	0.16 U
Carbon Tetrachloride	56-23-5	0.39	0.38	0.38	0.30	0.23	0.37	0.33	0.32	0.35	0.42	0.40

Notes:

Concentrations are in $\mu g/m^3$.

- U Not detected. Reporting Limit provided.
- D Result from analysis of a diluted sample.
- B- Analyte was detected in the method blank.

TABLE 5C

Former Plaza Cleaners Site #130108

North Hempstead, New York Validated Soil Vapor and Sub-Slab Vapor Analytical Results June 2010

					1
					Scriber-SV2
	Sample ID	Plaza ESG-3D	Plaza SG-9S	Scriber-SV	(Scriber-SV Duplicate)
	Sampling Date	06/08/2010	06/08/2010	06/09/2010	06/09/2010
	Media	Soil Vapor	Sub-slab Vapor	Soil Vapor	Soil Vapor
	Dilution Factor	1.64	16.8	1.61	1.52
	Units	μg/m3	μg/m3	μg/m3	μg/m3
COMPOUND	CAS#				
1,1,1-Trichloroethane	71-55-6	45 U	460 U	0.88 U	0.83 U
1,1,2,2-Tetrachloroethane	79-34-5	56 U	580 U	1.1 U	1 U
1,1,2-Trichloroethane	79-00-5	45 U	460 U	0.88 U	0.83 U
1,1-Dichloroethane	75-34-3	33 U	340 U	0.65 U	0.62 U
1,1-Dichloroethene	75-35-4	32 U	330 U	0.64 U	0.6 U
1,2,4-Trichlorobenzene	120-82-1	240 UJ	2500 UJ	6 UJ	5.6 UJ
1,2,4-Trimethylbenzene	95-63-6	40 U	410 U	2.6	2.5
1,2-Dibromoethane (EDB)	106-93-4	63 U	640 U	1.2 U	1.2 U
1,2-Dichlorobenzene	95-50-1	49 U	500 U	0.97 U	0.91 U
1,2-Dichloroethane	107-06-2	33 U	340 U	0.65 U	0.62 U
1,2-Dichloropropane	78-87-5	38 U	390 U	0.74 U	0.7 U
1,3,5-Trimethylbenzene	108-67-8	40 U	410 U	0.79 U	0.8 U
1,3-Dichlorobenzene	541-73-1	49 U	500 U	0.97 U	0.91 U
1,4-Dichlorobenzene	106-46-7	49 U	500 U	0.97 U	0.91 U
1,4-Dioxane	123-91-1	120 U	1200 U	0.58 U	0.55 U
2,2,4-Trimethylpentane	540-84-1	38 U	390 U	3.8 U	3.6 U
2-Butanone (Methyl Ethyl Ketone)		24 U	250 U	2.8	4.1
4-Methyl-2-pentanone	108-10-1	34 U	340 U	2.4 NJ	2.5 NJ
alpha-Chlorotoluene	100-44-7	42 U	430 U	0.83 U	0.79 U
Benzene	71-43-2	26 U	270 U	2 NJ	1.8 NJ
Bromodichloromethane	75-27-4	55 U	560 U	1.1 U	1 U
Bromoform	75-25-2	85 U	870 U	1.7 U	1.6 U
Bromomethane	74-83-9	32 U	330 U	0.62 U	0.59 U
Carbon Tetrachloride	56-23-5 108-90-7	52 U 38 U	530 U 390 U	0.23 0.74 U	0.23 0.7 U
Chlorobenzene	75-00-3		220 U	0.74 U 0.42 U	
Chloroethane Chloroform	67-66-3	22 U			0.4 U
	74-87-3	190 68 U	410 U	0.79 U	0.76 0.31 U
Chloromethane cis-1,2-Dichloroethene	156-59-2	32 U	690 U 330 U	0.94 NJ 0.64 U	0.31 U 0.6 U
cis-1,3-Dichloropropene	10061-01-5	32 U 37 U	380 U	0.64 U 0.73 U	0.69 U
Cyclohexane	110-82-7	28 U	290 U	1.7	1.8
Dibromochloromethane	124-48-1	70 U	720 U	1.7 1.4 U	1.8 U
Ethanol	64-17-5	62 U	630 U	6.3	7.4
Ethyl Benzene	100-41-4	36 U	360 U	8	7.5
Freon 11	75-69-4	46 U	470 U	1.1	1.4
Freon 113	76-13-1	63 U	640 U	1.1 1.2 U	1.4 1.2 U
Freon 114	76-14-2	57 U	590 U	1.2 U	1.1 U
Freon 12	75-71-8	40 U	420 U	1.1 0	1.6
Hexachlorobutadiene	87-68-3	350 UJ	3600 U	8.6 U	8.1 U
Hexane	110-54-3	29 U	300 U	2.8	2.5
m,p-Xylene	108-38-3/106-42-3	36 U	360 U	2.6	2.5
Methyl tert-butyl ether	1634-04-4	30 U	300 U	0.58 U	0.55 U
Methylene Chloride	75-09-2	28 U	290 U	1.1 U	0.55 U
o-Xylene	95-47-6	36 U	360 U	5	4.6
Styrene	100-42-5	35 U	360 U	1.2	1.2
tert-Butyl alcohol	75-65-0	99 U	1000 U	2.4 U	2.3 U
Tetrachloroethene	127-18-4	19000	400000	16	2.3 U 14
Toluene	108-88-3	31 U	320 U	12	12
trans-1,2-Dichloroethene	156-60-5	31 U	330 U	0.64 U	0.6 U
trans-1,3-Dichloropropene	10061-02-6	32 U	380 U	0.04 U	0.69 U
Trichloroethene	79-01-6	140	740	0.73 U	0.09 U 0.16 U
Vinyl Chloride	75-01-4	21 U	210 U	0.17 U	0.10 U
VIII YI CI IICIIUC	10-01-4	Z1 U	210 0	0.41 0	บ.วิช บ

Notes:

Concentrations are in $\mu g/m^3$.

- U Not detected. Reporting limit provided.
- J Estimated
- N Tentative in identification

TABLE 6A - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY AND PLAZA CLEANERS NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		MC-B-1 (51.6)	MC-B-1 (85)	MC-B-2 (41.4)	MC-B-2 (85)	MC-B-3 (43)	MC-B-3 (85)	MC-B-4 (44)	MC-B-5 (60)	MC-B-5 (85)	MC-B-6 (57)	MC-B-7 (48)	MC-B-8 (60)	MC-B-8 (85)	MC-B-9 (40)	MC-B-9 (85)	MC-B-10 (65)
Sampling Date	NYSDEC Class GA	1/22/2008	1/22/2008	1/23/2008	1/23/2008	1/24/2008	1/24/2008	1/25/2008	1/28/2008	1/28/2008	1/28/2008	1/28/2008	1/29/2008	1/29/2008	1/29/2008	1/30/2008	2/11/2008
Units	Standard or Guidance Value (ug/l)	ug/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	ua/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1.1.1-Trichloroethane	5	μ g/L 1 U	μ α μ.	μ g/L 1 U	μ g/L 1 U	μ α/L 1 U	μ g/L 1 U	1 U	1 U	1 U	1 U	μ g/L 1 U	1 U	1 U	μ g/L 1 U	1 U	1 UJ
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1.1.2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1.1.2-Trichlorotrifluoroethane	·	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1.1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1.2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Acetone	50*	20	16	15 J	6.2 J	7.7	7.8	3.8 J	5 U	5 U	4.2 J	5 U	5 U	5 U	5 U	5 U	18 J
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.8	3.2	1 U	1 U	1 U	1 U	1 UJ
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	0.98 J	1 U	1 U	1 U	0.9 J	1 U	1 U	1 UJ
Chloromethane		1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
cis-1,2-Dichloroethene	5	1 U	0.61 J	1 U	1 U	1.8	2.1	3.3	1 U	1 U	1 U	1.4	1 U	1 U	21	1 U	1 UJ
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Dichlorodifluoromethane	5	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U	1 UJ
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
m/p-Xylenes	5	1.4 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Methyl tert-butyl Ether	10	1.5	1.3	1 J	52	3.5	3.8	14	1 U	1 U	1 U	1	5.4	1 U	1.8	1 U	1 UJ
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	0.56 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
o-Xylene	5	0.83 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Tetrachloroethene	5	91	76	5.6	1 U	18	460	1500	0.86 J	1 U	23	17	1.4	1 U	290	13	1 UJ
Toluene	5	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.4 J
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 UJ
Trichloroethene	5	0.82 J	0.99 J	5	1 U	1 U	5.4	3.4	1 U	1 U	1 U	1.1	1 U	1 U	34	1 U	1 UJ
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Vinvl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 6A - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY AND PLAZA CLEANERS NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		MC-B-11 (25)	MC-B-11 (60)	MC-B-12 (45)	MC-B-13 (44)	MC-B-14 (73)	MC-B-15 (55)	MC-B-16 (55)	MC-B-16 (85)	MC-B-17 (55)	MC-B-17 (100)	MC-B-18 (63)	MC-B-19 (60)	MC-B-20 (55)	MC-B-20 (85)	PC-B-01 (50)	PC-B-01 (99)
Sampling Date	NYSDEC Class GA Standard or Guidance	1/30/2008	1/30/2008	2/11/2008	2/12/2008	2/12/2008	2/12/2008	2/13/2008	2/14/2008	2/13/2008	2/13/2008	2/13/2008	2/14/2008	2/14/2008	2/14/2008	6/23/2009	6/23/2009
Units	Value (ug/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L									
1,1,1-Trichloroethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,1,2-Trichloroethane	1	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,1-Dichloroethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,1-Dichloroethene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,2,4-Trichlorobenzene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,2-Dibromoethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,2-Dichlorobenzene	3	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,2-Dichloroethane	0.6	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,2-Dichloropropane	1	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,3-Dichlorobenzene	3	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
1,4-Dichlorobenzene	3	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
2-Butanone	50	5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	5 UJ	4.9 J	5 U	5 U	5 UJ	8.6 J				
2-Hexanone		5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 UJ	25 U				
4-Methyl-2-Pentanone		5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 J	25 U				
Acetone	50*	5 U	5 U	12 J	12 J	7.2 J	6.9 J	16 J	8.7	8.1 J	17 J	11 J	20 J	5.1	12	30 J	81
Benzene	1	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Bromodichloromethane	50*	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Bromoform	50*	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Bromomethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Carbon Disulfide		1 U	1 U	0.59 J	0.51 J	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 UJ
Carbon Tetrachloride	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Chlorobenzene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Chloroethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Chloroform	7	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	0.71 J	5 U				
Chloromethane		1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
cis-1,2-Dichloroethene	5	1 U	6.1	1 UJ	1 U	1 UJ	1 UJ	1 UJ	2.4	1 U	1 U	1 UJ	1.8 J				
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Cyclohexane		1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Dibromochloromethane	50	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Dichlorodifluoromethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Ethyl Benzene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Isopropylbenzene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
m/p-Xylenes	5	2 U	2 U	2 UJ	2 U	2 UJ	2 UJ	2 UJ	2 U	2 U	2 U	3 J	10 U				
Methyl Acetate		1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Methyl tert-butyl Ether	10	1 U	3.6	1 UJ	1.7 J	1.9 J	1.6 J	1 UJ	1 U	0.87 J	1 UJ	1 UJ	7.2	1 U	1 U	1 UJ	5 U
Methylcyclohexane		1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Methylene Chloride	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
o-Xylene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	0.86 J	5 U				
Styrene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Tetrachloroethene	5	1 U	440	30 J	7.2 J	69 J	24 J	1 UJ	1 U	0.68 J	1 UJ	1 UJ	1 U	1 U	1 U	200 J	170 J
Toluene	5	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	0.52 J	1.2	1 UJ	1 UJ	1 UJ	0.51 J	1 U	1 U	0.57 J	5 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Trichloroethene	5	1 U	9.7	1 UJ	1 UJ	0.83 J	1 UJ	1 UJ	1 U	1 UJ	1 UJ	1 UJ	12	1 U	1 U	2.8 J	14
Trichlorofluoromethane	5	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
Vinyl Chloride	2	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	5 U				
viriyi Grilloride	4	1 0	1 0	1 03	1 03	1 03	1 03	1 03	1 0	1 03	1 03	1 03	1 0	1 0	1 0	1 03	5 0

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

^{*} Guidance Value

TABLE 6A - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY AND PLAZA CLEANERS NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		PC-B-02 (45)	PC-B-02 (89)	PC-B-03 (68)	PC-B-04 (45)	PC-B-04 (99)	PC-B-05 (45)	PC-B-05 (99)	PC-B-06 (50)	PC-B-06 (100)	PC-B-06 (145)	PC-B-07 (60)	PC-B-07 (100)	PC-B-07 (155)	PC-B-08 (60)	PC-B-08 (100) NP	PC-B-08 (140) NP
Sampling Date	NYSDEC Class GA Standard or Guidance	6/24/2009	6/24/2009	6/25/2009	6/25/2009	6/25/2009	6/26/2009	6/26/2009	5/19/2011	5/19/2011	5/19/2011	5/20/2011	5/20/2011	5/20/2011	5/25/2011	5/25/2011	5/25/2011
Units	Value (ug/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L								
1,1,1-Trichloroethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	6.3	1 U
1,1-Dichloroethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 UJ	4.4 J	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 UJ	33 J	5 U	25 U	8.2 J	25 U	8.3 J	5 U	5 U	5 U	4.4 J	5.3	84	5 U	5 U	5 U
2-Hexanone		1 UJ	50 U	5 U	25 U	50 U	4 J	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 UJ	14 J	1 U	25 U	50 U	25 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	6.6 J	510	5 U	25 U	47 J	55	37 J	5 U	5 U	5 U	3.2 J	5 U	80	5 U	5 U	5 U
Benzene	1	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1.3	1 U	1 U	1 U
Bromomethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		0.69 J	10 UJ	2.3 J	5 UJ	10 UJ	5 UJ	10 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	2.1 J	10 U	30	5 U	10 U	2.7 J	10 U	1 U	1 U	1 U	1 U	0.54 J	1 U	1 U	7.8	3.3
cis-1,3-Dichloropropene	0.4**	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 UJ	10 U	1 U	5 U	10 U	13	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	5 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.54 J	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 UJ	10 U	1 U	5 U	10 U	31	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 UJ	10 U	1 U	5 U	10 U	9.6	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2.4 J	20 U	1.6 J	10 U	20 U	67	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	21 J	1.7 J	1 U	5 U	2.2 J	5 U	1.7 J	9.6	0.76 J	9.8	0.55 J	1.7	1 U	0.88 J	9	1.8
Methylcyclohexane		1 UJ	10 U	1 U	5 U	10 U	38	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	0.73 J	10 U	1 U	5 U	10 U	21	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	430 J	8.7 J	1 U	11	7.1 J	81	3 J	1 U	1 U	0.92 J	0.61 J	28	0.4 J	20	0.66 J	0.95 J
Toluene	5	0.73 J	1.2 J	1 U	5 U	10 U	2 J	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.56 J	1.5
trans-1,2-Dichloroethene	5	1 UJ	10 U	2.7	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	3.5 J	10 U	20	1.1 J	10 U	30	10 U	1.2	1 U	1 U	1 U	0.69 J	1 U	1 U	5.1	2.4
Trichlorofluoromethane	5	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 UJ	10 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 6A - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY AND PLAZA CLEANERS NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		PC-B-09 (60)	PC-B-09 (100)	PC-B-09 (145)	PC-B-10 (60)	PC-B-10 (100)	PC-B-10 (135)	PC-B-11 (60)	PC-B-11 (90)	PC-B-11 (120)	TRIP BLANK	TRIP BLANK
Sampling Date	NYSDEC Class GA Standard or Guidance	5/26/2011	5/26/2011	5/26/2011	5/27/2011	5/27/2011	5/27/2011	5/31/2011	5/31/2011	5/31/2011	5/12/2011	5/12/2011
Units	Value (ug/l)	μg/L	μq/L	μq/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	8.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	1.4 J	3.1 J	12	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	5 U	7.9	77	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 U	2.9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	0.65 J	1 U	1 U	0.57 J	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1.7	16	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	0.96 J	1 U	1 U	0.61 J	1 U	0.62 J	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	190 E	1 U	1 U	1 U	1 U	1 U	36	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.63 J	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	11	14	1 U	1 U	1 U	1 U	7.1	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

 Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 6B - SUMMARY OF DIRECT-PUSH SOIL SAMPLE VALIDATED ANALYTICAL RESULTS FORMER PLAZA CLEANERS (SITE #130108) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample Location	PC-B-01	PC-B-02	PC-B-03	PC-B-04	PC-B-05	PC-B-05 DUP
Sample Depth (Feet bgs)	44	40	24	39	25	-
Sample Date	6/23/2009	6/24/2009	6/24/2009	6/25/2009	6/26/2009	6/26/2009
VOCs Method 8260 (ug/kg)						
Dichlorodifluoromethane	33 U	26 U	26 U	27 U	27 U	29 U
Chloromethane	33 U	26 U	26 U	27 U	27 U	29 U
Vinyl Chloride	33 U	26 U	26 U	27 U	27 U	29 U
Bromomethane	33 U	26 U	26 U	27 U	27 U	29 U
Chloroethane	33 U	26 U	26 U	27 U	27 U	29 U
Trichlorofluoromethane	33 U	26 U	26 U	27 U	27 U	29 U
1,1,2-Trichlorotrifluoroethane	33 U	26 U	26 U	27 U	27 U	29 U
1,1-Dichloroethene	33 U	26 U	26 U	27 U	27 U	29 U
Acetone	160 UJ	130 UJ	130 UJ	130 UJ	140 UJ	140 UJ
Carbon Disulfide	33 U	26 U	26 U	27 U	27 U	29 U
Methyl tert-butyl Ether	33 U	26 U	26 U	27 U	27 U	29 U
Methyl Acetate	33 U	26 U	26 U	27 U	27 U	29 U
Methylene Chloride	33 U	26 U	26 U	27 U	27 U	29 U
trans-1,2-Dichloroethene	33 U	26 U	26 U	27 U	27 U	29 U
1,1-Dichloroethane	33 U	26 U	26 U	27 U	27 U	29 U
Cyclohexane	33 U	26 U	26 U	27 U	27 U	29 U
2-Butanone	160 U	130 U	130 U	130 U	140 U	140 U
Carbon Tetrachloride	33 U	26 U	26 U	27 U	27 U	29 U
cis-1,2-Dichloroethene	33 U	26 U	26 U	27 U	27 U	29 U
Chloroform	33 U	26 U	26 U	27 U	27 U	29 U
1,1,1-Trichloroethane	33 U	26 U	26 U	27 U	27 U	29 U
Methylcyclohexane	33 U	26 U	26 U	27 U	27 U	29 U
Benzene	33 U	26 U	26 U	27 U	27 U	29 U
1,2-Dichloroethane	33 U	26 U	26 U	27 U	27 U	29 U
Trichloroethene	33 U	26 U	26 U	27 U	27 U	29 U
1,2-Dichloropropane	33 U	26 U	26 U	27 U	27 U	29 U
Bromodichloromethane	33 U	26 U	26 U	27 U	27 U	29 U
4-Methyl-2-Pentanone	160 U	130 U	130 U	130 U	140 U	140 U
Toluene	33 U	26 U	26 U	27 U	27 U	29 U
t-1,3-Dichloropropene	33 U	26 U	26 U	27 U	27 U	29 U
cis-1,3-Dichloropropene	33 U	26 U	26 U	27 U	27 U	29 U
1,1,2-Trichloroethane	33 U	26 U	26 U	27 U	27 U	29 U
2-Hexanone	160 U	130 U	130 U	130 U	140 U	140 U
Dibromochloromethane	33 U	26 U	26 U	27 U	27 U	29 U
1,2-Dibromoethane	33 U	26 U	26 U	27 U	27 U	29 U
Tetrachloroethene	33 U	26 U	26 U	27 U	27 U	29 U
Chlorobenzene	33 U	26 U	26 U	27 U	27 U	29 U
Ethyl Benzene	33 U	26 U	26 U	27 U	27 U	29 U
m/p-Xylenes	66 U	52 U	52 U	53 U	55 U	57 U
o-Xylene	33 U	26 U	26 U	27 U	27 U	29 U
Styrene	33 U	26 U	26 U	27 U	27 U	29 U
Bromoform	33 U	26 U	26 U	27 U	27 U	29 U
Isopropylbenzene	33 U	26 U	26 U	27 U	27 U	29 U
1,1,2,2-Tetrachloroethane	33 U	26 U	26 U	27 U	27 U	29 U
1,3-Dichlorobenzene	33 U	26 U	26 U	27 U	27 U	29 U
1,4-Dichlorobenzene	33 U	26 U	26 U	27 U	27 U	29 U
1,2-Dichlorobenzene	33 U	26 U	26 U	27 U	27 U	29 U
1,2-Dibromo-3-Chloropropane	33 U	26 U	26 U	27 U	27 U	29 U
1 1,2,4-Trichlorobenzene	33 U	26 U	26 U	27 U	27 U	29 U

All concentrations are in ug/kg

 $\ensuremath{\mathsf{U}}$ - Not Detected; Reporting limit shown

TABLE 7 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class GA	MC-3	MC-3	MC-3	MC-5	MC-5	MC-5	MC-6B	MC-6B	MC-6B	MC-X (MC-6B DUP)	MC-6C	MC-6C	MC-6C	MC-7A	MC-7A	MC-7A	MC-7B	MC-7B	MC-7B
	Standard or Guidance Value	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010
Parameter	(μg/l)	ua/L	ua/L	ua/L	ua/L	μg/L	ua/L	μα/L	ua/L	ua/L	ua/L	ua/L	μg/L	μg/L	ua/L	ua/L	μg/L	μg/L	ua/L	μg/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	5 U	7.4	6.2	5 U	7.7	7.5	5 U	5.5	5 U	10 J	5 U	5.9	5 U	5 U	5 U	5 U	5 U	5 U	6.3
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.2
CarbonTetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	0.57 J	1 U	1 U	1 U	1.2	4.1	3.5	4.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	45	22	17	1 U	1 U	1 U	1.1	1 U	1 U	1 U	21	7.5	5	1.3	1 U	1 U	18	5.8	1.1
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	7.6	1 U	0.59 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.87 J	0.69 J	0.58 J	6.6	0.66 J	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	670	390	240 E	91 J	2.3 J	84	47 J	16	9.6	13	120	100	57	380	290	150 E	240	260	410 E
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	2.2	0.77 J	0.65 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.72 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	17	12	10	0.67 J	1 U	1 U	3	1 U	0.92 J	1 U	12	3.6	3.2	0.8 J	1 U	0.53 J	3.8	2.2	1.8
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance Value.

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 7 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class GA	MC-7C	MC-7C	MC-7C	MC-8A	MC-8A	MC-8A	MC-8B	MC-8B	MC-8B	MC-8C	MC-8C	MC-8C	MC-9A	MC-9A	MC-9A	MC-9B	MC-9B	MC-9B
	Standard or Guidance Value	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010
Parameter	(μg/l)	μg/L	μg/L	μg/L															
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U
Acetone	50*	5 U	5 U	5.1	5 U	4.8 J	5 UJ	5 U	5.1	10	5 U	7	8.1	5 U	6.8	7.2	1 U	7.1	7.8
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CarbonTetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	17	18	14	1 U	1 U	1 U	0.58 J	1 U	1 U	0.53 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	870	580	290 E	1.8 J	21	1 U	28 J	14	1 U	42 J	17	20	4.8 J	1 U	1 U	1 J	6.2	7.2
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	2.5	4.1	4.2	1 U	1 U	1 U	0.63 J	1 U	1 U	0.87 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
viigi oliibildo				1 0	. 0	. 0	. 0	1 0	. 0	. 0	1 0		0		0	, , ,			

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance Value.

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 7 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class GA	MC-9C	MC-9C	MC-9C	MC-10A	MC-10A	MC-10A	MC-10B	MC-10B	MC-10B	MC-10C	MC-10C	MC-10C	MC-11A	MC-11A	MW-XZ (MC-11A Dup)	MC-11A	MW-Y (MC-11A Dup)
	Standard or Guidance Value	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/13/2010	10/21/2010	9/10/2008	5/13/2010	10/21/2010	9/10/2008	5/13/2010	10/21/2010	9/10/2008	5/12/2010	5/12/2010	10/21/2010	10/21/2010
Parameter	(μg/l)	μg/L	μg/L	μg/L	μg/L	μg/L												
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.6	2.4	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	5 U	5.6	8.3 J	5 U	5 U	13	5 U	5 U	12	5 U	5 U	8.3	5 U	5.5	5 U	5.2	5 UJ
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 UJ	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CarbonTetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	0.51 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U
cis-1.3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	0.69 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	31 J	30	40	1 U	1 U	1 U	1 UJ	0.65 J	1 U	1 UJ	1.5 J	1 U	4.9	17	14	17	20
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 J	3.2	4.3	1 U	1 U	1 U	1 U	1 U	1 U	1.7	2.4 NJ	1 U	4.5	9.6	8.7	14	16
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
VIII O I II O I I C		10	1 0	10	10	1 0	10	10	1 0	1 0	10	1 0	1 0	10	10	1 0	10	1 0

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance Value.

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 7 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class GA	MC-11B	MC-11B	MC-11B	MC-11C	MC-X (MC-11C DUP)	MC-11C	MC-11C	MC-12B	MC-12B	MC-12B	MC-12C	MC-12C	MC-12C
	Standard or Guidance Value	9/10/2008	5/12/2010	10/21/2010	9/10/2008	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010	9/10/2008	5/12/2010	10/21/2010
Parameter	(μg/l)	μg/L	μq/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.1.2.2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.1.2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.1.2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.2.4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	5 U	5 U	12	5 U	5 U	5 U	3.8 J	5 U	5 U	4.7 J	5 U	5 U	5
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1.5	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1.2-Dichloroethene	5	0.66 J	1	1.4	1 U	1 U	1 U	1 U	25	15	14	6.2	5.5	4
cis-1.3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	6	3.1	3.6	1 U	0.91 J	0.95 J
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	7.1	10	6.8	1 U	1 U	1 U	1 U	420	640	390 E	170	170	130
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.95 J	0.55 J	1 U	1 U	1 U	1 U
Trichloroethene	5	14	23	24	1 U	1 U	1 U	1 U	40	22	21	32	47	35
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance Value.

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 8 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER PLAZA CLEANERS (SITE #130108) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4	MW-5	MW-X (MW-5 Dup)	MW-5	MW-6	MW-6	MW-7	MW-7	PC-1A	PC-1A
Sampling Date	NYSDEC Class GA	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010
Units	Standard or Guidance Value (ug/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L		μg/L									
1,1,1-Trichloroethane	value (ug/l)	μ g/L 1 U																
1,1,1-1 richioroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
, , ,	5 1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1						1 U											1 U
1,1,2-Trichlorotrifluoroethane	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1 U	1 U	1 U	1 U	1 U	1 U	1 U 1 U	1 U
1,1-Dichloroethane	5 5	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene					1 U		1 U											1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.5 J	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	6.5	5 U	5.6	5 U	5.5	5 U	9.6	5 U	5 U	5 U	5 U	4.3 J	5 U	5 U	5 U	5 U	5 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 UJ	1 U	1 UJ	1 UJ	1 U												
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	0.74 J	1 U	0.54 J	1 U	1 U	1 U	0.57 J	1 U	1 U	0.66 J	1 U	1 U	1 U	0.58 J	1 U	1.8
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	2.1	1 U	1 U	1 U	1 U	2.8	2.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	40	58	510	640 E	93	77	21	53	1200	1400	230 E	3.2	1.4	120	18	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1.1	2.6	1 U	1 U	1 U	1 U	3.7	2.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 8 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER PLAZA CLEANERS (SITE #130108) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		PC-1B	PC-1B	PC-1C	PC-1C	PC-2A	PC-2A	PC-2B	PC-2B	PC-2C	PC-2C	PC-3	PC-3	PC-4A	PC-4A	PC-4B	PC-4B	PC-4C	PC-4C
Sampling Date	NYSDEC Class GA	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010
. •	Standard or Guidance																		
Units	Value (ug/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	6.8	5 U	5 U	5 U	6.6	5 U	7.5	5 U	5 U	5 U	7.7	5 U	5.4	14	5.5	15	6.4	8.4
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	_	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	0.96 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4**	1 U 1 U	1 U	1 U	1 U	1 U	1 U 1 U	1 U	1 U 1 U	1 U	1 U	1 U 1 U	1 U 1 U	1 U	1 U	1 U 1 U	1 U	1 U	1 U
Cyclohexane Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xvlenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate	•	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	13	2.8	16	1 U	1 UJ	1 U	1.6 J	0.7 J	16	13	1 U	1 U	2.1	1 U	1.4	1 U	1 UJ	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.4	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1.8	1.2	2.2	1 U	1 U	1 U	1 U	1 U	13	23	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
y	_																		

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 8 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER PLAZA CLEANERS (SITE #130108) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		PC-5B	PC-5B	PC-5C	PC-5C	PC-6A	PC-6A	PC-6B	PC-6B	PC-6C	PC-6C	PC-7A	PC-7A	PC-7B	PC-7B	PC-7C	PC-7C
Sampling Date	NYSDEC Class GA	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010
Units	Standard or Guidance Value (ug/l)		μg/L	μg/L	μg/L	μg/L	μg/L	μq/L		μg/L							
1.1.1-Trichloroethane	value (ug/i)	μ g/L 1 U															
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachioroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2.4-Trichlorobenzene	5	1 UJ	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1.4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	6.8	5 U	5 U	5 U	7	8.7	9.3	12	9 J	8.6	11	5 U	5 U	5 U	5 U	6.1
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.67 J	1 U	1 U	0.73 J	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	,	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	21	15	52	49	1 U	1 U	23	25	1 U	1 U	0.93 J	1 U	0.58 J	1 U	0.69 J	1 U
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.68 J
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate	J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1.2	1.5	1 U	1 U	2	2.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane	10	1 U	1 U	1 U	1.3 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	5	430 J	280	390	260 E	1.3 J	1 U	820	240 E	1 UJ	1 U	240	52	130	4.5	69	14
Toluene	5	430 J	1 U	1 U	1 U	1.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.5 1 U	1 U	14 1 U
trans-1,2-Dichloroethene	5	0.92 J	0.69 J	1.2	1.2	1 U	1 U	0.75 J	1.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	13	8.6	1.2	1.2	1 U	1 U	36	34	1 U	1 U	4.9	1.1	2.4	1 U	4.1	3.1
Trichlorofluoromethane	5	1 U	0.0 1 U	1 U	14 1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.9 1 U	1.1 1 U	1 U	1 U	4.1 1 U	3.1 1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
viriyi Griloride		10	1 U	1.0	1 U	10	1 U	10	1 U	1.0	1 U	1 U	1 U	10	1 U	10	1 U

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

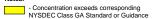
**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 8 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER PLAZA CLEANERS (SITE #130108) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		PC-8A	PC-8A	PC-8B	PC-8B	PC-8C	PC-8C	PC-9	PC-9	PC-10B	PC-10B	PC-10C	PC-10C	PC-11A	PC-11A	PC-11B	PC-11B
Sampling Date	NYSDEC Class GA Standard or Guidance	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010
Units	Value (ug/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μq/L	μg/L	μg/L	μg/L	μq/L	μg/L	μg/L	μq/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	50*	6.1	5 U	5.4	5 U	6.2	5 U	8.2	5 U	5.6	5 U	4.6 J	5 U	6.2	7.2	5.5	9.6
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.71 J	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate	40	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5 5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Styrene	5 0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene Tetrachloroethene	0.4**	2.4	6.2	1 U 57	52	2.7	1.1	0.65 J	0.62 J	1 U	1 U	1 U	1 U	1 UJ	1 U	1 UJ	1 U
	5	2.4 1 U	6.2 1 U	5/ 1 U	52 1 U	1 U	1.1	0.65 J	0.62 J 1 U	1 U	1 U	1 U	0.57 J	1 UJ	1 U	1 UJ	1 U
Toluene trope 1.2 Diableroothene	5	1 U	1 U	1 U	1 U	1 U	1.8 1 U	1 U	1 U	1 U	1 U	1 U	0.57 J 1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	4.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	5	1 U	1 U	1 U	1 U	1 U	4.8 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1.0	1.0	1 U	1.0	1 U	10	1 U	10	1.0	10	1 U	1 U	1 0	1 0	1 U



^{*} Guidance Value

^{**}Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 8 - SUMMARY OF GROUNDWATER SAMPLES - VALIDATED ANALYTICAL RESULTS FORMER PLAZA CLEANERS (SITE #130108) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-14.1

Sample ID		PC-12A	PC-12A	PC-12B	PC-12B	PC-12C	PC-12C	PWSH-1	PWSH-1	PWSH-2	PWSH-2	TRIPBLANK	TRIPBLANK	TRIPBLANK	TRIPBLANK	TRIPBLANK	TRIPBLANK
Sampling Date	NYSDEC Class GA	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/12/2010	10/21/2010	5/20/2010	10/21/2010	5/20/2010	10/21/2010	5/13/2010	5/14/2010	5/12/2010	10/21/2010	10/21/2010	10/21/2010
	Standard or Guidance																
Units	Value (ug/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5 5	1 U			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U 1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U				1 U		1 U		
1,2,4-Trichlorobenzene		1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U	1 U	1 U
1,2-Dibromoethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U		1 U		1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene 1,2-Dichloroethane	3 0.6	1 U 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1 U	1 U	1 U	1 U
,	0.6																
1,2-Dichloropropane		1 U 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U 1 U	1 U	1 U	
1,4-Dichlorobenzene	3 50		1 U 5 U		1 U 5 U		1 U 5 U			1 U							1 U
2-Butanone	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U 5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	50*	6	5 UJ	6.8	5 U	6.6	5 U	5 U	5 U	5 U	5 U	5 U	5 U 5 U	5 U	5 U 5 U	5 U	5 U
Acetone	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	1 50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50*	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ
Bromoform	50	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ
Bromomethane Carbon Disulfide	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulinde Carbon Tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xvlenes	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate	J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	10	1 U	1 U	0.73 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylcyclohexane	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.83 J	1 U	1 U	0.83 J	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.63 J	1 U	1 U	0.63 J	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	0.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.4***	3.5	1.8	0.84 J	2	1.4	1.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	5	3.5 1 U	1.0 1 U	1 U	1 U	1.4 1 U	1.3 1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
vinyi Grilonde	4	1 0	1 0	10	1 0	1 0	1 0	1 0	1 0	1 0	1.0	1 0	1 0	1 0	10	1 0	10

- Concentration exceeds corresponding NYSDEC Class GA Standard or Guidance

* Guidance Value

**Sum of these compounds can not exceed 0.4 ug/L.

U - Compound not detected, Reporting Limit provided.

J - Estimated

TABLE 9 - SUMMARY OF SURFACE WATER SAMPLE ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class C	050 04	*** 050 /	*** *** *	110 7 (0 110 050 1)	110 050 /	*** 050 00	*** *** *	*** *** *	
	Standard or	MC-SFC-01	MC-SFC-1	MC-SFC-1	MC-Z (Dup MC-SFC-1)	MC-SFC-1	MC-SFC-02	MC-SFC-2	MC-SFC-2	MC-SFC-2
B	Guidance Value	1/23/2008	5/13/2010	10/22/2010	10/22/2010	10/3/2011	1/23/2008	5/13/2010	10/22/2010	10/3/2011
Parameter	(μg/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		1 U	1 U	1 U	0.74 J	1	1 U	1 U	1 U	1 U
1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone		5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone		5 UJ	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Benzene	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CarbonTetrachloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	400 or 5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U
cis-1,2-Dichloroethene		2.7	3.7	2.2	2.2	2.3	0.89 J	1.6	0.58 J	1.1
cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	150* or 17*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	23* or 2.6*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	590* or 65*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		3.4	4.4	3.1	2.9	7.7	1.7	3	1.4	4
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	590* or 65*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1*	13	15	6.8	6.7	6.8	14	12	5.4	7.7
Toluene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	6000, 480*, or 100*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	40	1.4	0.99 J	1 U	1 U	0.47 J	0.56 J	1 U	1 U	1 U
Trichlorofluoromethane	-	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
,	<u> </u>									

Notes

- Concentration exceeds corresponding NYSDEC
Class C Standard or Guidance Value from TOGS 1.1.1
- Ambient Water Quality Standards and Guidance
Values and Groundwater Effluent Limitations.

U - Compound not detected, Reporting Limit provided.

TABLE 9 - SUMMARY OF SURFACE WATER SAMPLE ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class C	MC-SFC-03	MC-SFC-3	MC-SFC-3 Dup	MC-SFC-3	MC-SFC-3	MC-SFC-3 Dup	MC-SFC-4	MC-SFC-4	MC-SFC-4
	Standard or Guidance Value	1/23/2008	5/13/2010	5/13/2010	10/22/2010	10/3/2011	10/3/2011	5/13/2010	10/21/2010	10/3/2011
Parameter	(μg/l)	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1,1,1-Trichloroethane	·	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone		5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Disulfide		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CarbonTetrachloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	400 or 5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		1.3	0.7 J	0.72 J	1.4	2	1.5	1 U	1 U	1 U
cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethyl Benzene	150* or 17*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	23* or 2.6*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m/p-Xylenes	590* or 65*	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Methyl Acetate		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether		1 U	0.72 J	0.81 J	0.57 J	1.2	0.88 J	1 U	1 U	0.48 J
Methylcyclohexane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	590* or 65*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1*	6.8	2.5	2.8	5.2	8.5	9	3	2.2	2.4
Toluene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	6000, 480*, or 100*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	40	1 U	1 U	1 U	0.53 J	0.97 J	0.93 J	1 U	1 U	0.49 J
Trichlorofluoromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes

- Concentration exceeds corresponding NYSDEC
Class C Standard or Guidance Value from TOGS 1.1.1
- Ambient Water Quality Standards and Guidance
Values and Groundwater Effluent Limitations.

U - Compound not detected, Reporting Limit provided.

TABLE 9 - SUMMARY OF SURFACE WATER SAMPLE ANALYTICAL RESULTS FORMER MUNSEY CLEANERS (SITE #130081) NORTH HEMPSTEAD, NEW YORK WORK ASSIGNMENT #D-004439-18

	NYSDEC Class C	PC-SFC-1	PC-SFC-2
	Standard or	10/22/2010	10/22/2010
Parameter	Guidance Value (μg/l)	μg/L	μg/L
1,1,1-Trichloroethane	457	1 U	1 U
1,1,2,2-Tetrachloroethane		1 U	1 U
1,1,2-Trichloroethane		1 U	1 U
1,1,2-Trichlorotrifluoroethane		1 U	1 U
1,1-Dichloroethane		1 U	1 U
1,1-Dichloroethene		1 U	1 U
1,2,4-Trichlorobenzene	5	1 U	1 U
1,2-Dibromo-3-Chloropropane	-	1 U	1 U
1,2-Dibromoethane		1 U	1 U
1,2-Dichlorobenzene	5	1 U	1 U
1,2-Dichloroethane		1 U	1 U
1,2-Dichloropropane		1 U	1 U
1,3-Dichlorobenzene	5	1 U	1 U
1,4-Dichlorobenzene	5	1 U	1 U
2-Butanone		5 U	5 U
2-Hexanone		5 U	5 U
4-Methyl-2-Pentanone		5 U	5 U
Acetone		5 U	5 U
Benzene	10	1 U	1 U
Bromodichloromethane		1 U	1 U
Bromoform		1 U	1 U
Bromomethane		1 U	1 U
Carbon Disulfide		1 U	1 U
CarbonTetrachloride		1 U	1 U
Chlorobenzene	400 or 5	1 U	1 U
Chloroethane		1 U	1 U
Chloroform		1 U	1 U
Chloromethane		1 U	1 U
cis-1,2-Dichloroethene		0.64 J	1 U
cis-1,3-Dichloropropene		1 U	1 U
Cyclohexane		1 U	1 U
Dibromochloromethane		1 U	1 U
Dichlorodifluoromethane		1 U	1 U
Ethyl Benzene	150* or 17*	1 U	1 U
Isopropylbenzene	23* or 2.6*	1 U	1 U
m/p-Xylenes	590* or 65*	2 U	2 U
Methyl Acetate		1 U	1 U
Methyl tert-butyl Ether		1 U	1 U
Methylcyclohexane		1 U	1 U
Methylene Chloride		1 U	1 U
o-Xylene	590* or 65*	1 U	1 U
Styrene		1 U	1 U
t-1,3-Dichloropropene		1 U	1 U
Tetrachloroethene	1*	5.1	0.82 J
Toluene	<u> </u>	1 U	1 U
trans-1,2-Dichloroethene	6000, 480*, or 100*	1 U	1 U
Trichloroethene	40	1.3	1 U
Trichlorofluoromethane	- "	1.U	1 U
Vinyl Chloride		1 U	1 U

Notes

- Concentration exceeds corresponding NYSDEC
Class C Standard or Guidance Value from TOGS 1.1.1
- Ambient Water Quality Standards and Guidance
Values and Groundwater Effluent Limitations.

U - Compound not detected, Reporting Limit provided.



Appendix A

Soil Boring and Monitoring Well Construction Logs

MALCOLA PIRNIE		TEST	BORIN	G LO	G	BORING No.CMT-01	
PROJECT Munsey Cleaners OL	-2 LOCAT	ION Port Wa	shington, N	1		SHEET 1 OF 5	
CLIENT New York State Department		ronmental (Conservati	ion		PROJECT No. 0266372	
DRILLING CONTRACTOR						MEAS. PT. ELEV.	
PURPOSE				_		GROUND ELEV.	
WELL MATERIAL				-		DATUM	
DRILLING METHOD(S)		SAMPLE	CORE	CASI	NG	DATE STARTED 7/22/08	
DRILL RIG TYPE CME 75	TYPE			-		DATE FINISHED 7/23/08	
GROUND WATER DEPTH 27.0'	DIA.					DRILLER Chris - ADT	
MEASURING POINT	WEIGHT	#			ŀ	PIRNIE STAFF C. Whipple	
DATE OF MEASUREMENT	FALL					PIRMESTAFF C. WIIIPPIE	
SAMPLE TYPE, RECOVERY, NUMBER SAMPLE SPOON PER 6" OIL GRAPHIC TYPE, SPOON PER 6" OIL GRAPHIC GRAPHIC TYPE, T	GEOLOG KEY - Colo Moist	GIC DESCR r, Major, Mir ure, Etc.		ELEV. DEPTH	WEI Cons	LL REMARKS	
2- 4- 6- 10- 20 ppm 12- 14- 16- 18-	Medium to coa medium gravel		ine to	10.0			

PROJECT New York State Department of Environmental Conservation PROJECT No. 0266372			M	ALC PIRN	OLM IIE		TEST BORI	NG LOG	BORING	No.CMT-01
	PRO.	JECT	Munsey	Clean	ers OU-2	LOCATION	N Port Washington,	NY	SHEET 2 0	F 5
22- 24- 26- 30- 6 ppm 332- 334- 336- 338- 338- 338- 338- 338- 338- 338	CLIE	NT	New Yo	rk State	e Depart	ment of Enviro	nmental Conserva	ation	PROJECT No.	0266372
22- 24- 26- 30- 30- 32- 34- 36- 38- 40- 40- 42- 44- 44- 44-	ОЕРТН FT.	SAMPLE	RECOVERY, NUMBER BLOWS ON SAMPLE	_		KEY - Color, N	Major, Minor	ELEV. WE	LL str.	REMARKS
24- 26- 28- 30- 32- 34- 36- 38- 40- 42- 44-		Ш		24 p	oms V					
28- 28- 30- 32- 34- 36- 38- 40- 40- 42- 44-	- 22- -	-								
28 -	24- -									
30- 32- 34- 36- 38- 40- 40- 42- 44- 44-	26- -	<u> </u>							¥	
32- 32- 34- 36- 38- 40- 40- 42- 44- 44- 44- 44- 44- 44- 44	28-	-								
32- 34- 36- 38- 40- 42- 44- 44- 44- 44- 44-	30- -	- - -		6 pp						
38- 40- 42- 44- 44- 44- 44- 44- 44- 43.0	32-				. D.	S.A.A., color chan	ges to reddish brown.	31.5		
38- 40- 42- 44- 44- 44- 44-	34- -	 - 								
40- 42- 44- 44- 44-	36- -	-								
42-44-44-44-44-44-44-44-44-44-44-44-44-4	38- -	-								
44-	40- -				6 B					
	42- -								43.0	
46.0	4 4-									

		MAI	LCO R N	LM IF	TEST BOF	RING LOG	BORING I	No.CMT-01
PROJ	JECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington	n, NY	SHEET 3 OF	5
CLIEN	NT	New York	State I	Departn	nent of Environmental Conse	rvation	PROJECT No.	0266372
DEPTH FT.	SAMPLE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	N <u>ELEV.</u> WE DEPTH Cor	ELL istr.	REMARKS
48-							47.0 48.0 Port 1	
50~ -			0 ppm				51.0	
52- -							53.0 54.0	
54- -							55.0 Port 2	
56- -							58.0	
58- -								
60- -							61.0	
62-							63.0 Port 3	
64-							65.0	
66-								
68- - 70-			0 ppm					
-							71.0 72.0	

		MAI	CO	LM F		TEST BORI	NG LOG	BORING	No.CMT-01
PRÓJ	ECT M u	ınsey Cl	eaner	s OU-2	LOCATIO	ON Port Washington,	NY	SHEET 4 OF	5
CLIEN	ıt Ne	w York	State I	Departi	nent of Enviro	onmental Conserv	ation	PROJECT No.	0266372
DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Color,	Major, Minor Ire, Etc.	ELEV. WE	LL str.	REMARKS
- 74- -								73.0 Port 4	·
76- - 78-								80.0	
80 - 82-					Coarse gravel. Coarse sandy gr	avel.	82.0	82.0 Port 5	
84- -								84.0	:
86- - 88-								88.0	
90 <i>-</i>			0 ppm					90.0 Port 6	
92 <i>-</i> -								93.0	
94- - 96-								97.0 98.0	

PROJECT Munsey Cleaners QU-2 LOCATION Port Weshington, NY SHEET \$ OF 5 S CLENT New York State Department of Environmental Conservation PROJECT NO. 0266372 LL VAN STATE OF S		MALCOLM PIRNIE TEST BORING LOG BORING No.CMT-01														
CLIENT New York State Department of Environmental Conservation PROJECT No. 0266372 PROJECT No. 0266372 GEOLOGIC DESCRIPTION ELEV. DEPTH Constr. KEY - Color, Major, Minor Moisture, Etc. Grey silty fine sand. 99.0 Port 7	PRO	JECT	Mui	nsey Cl	eaners	s OU-2		LOCATIO	N Por	t Washington, I	NY		SHEET 5	OF	5	
Grey silty fine sand. 98.0 99.0 Port 7						_		Envir	onment	al Conserva	ition		PROJECT	No.	0266372	_
99.0 Port 7	DEPTH FT.	SAMPLE	RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY	- Color, Moistu	Major, re, Etc.	Minor		WEL Cons	L tr.		REMARKS	
		SAN TY	RECO	BLOV SAN SPON		GRA		Moistu	re, Etc.	Minor	98.0		99.0 P	Port 7		

MAL PII	COLM		TEST	BORIN	G LOG	; E	ORING N	lo.CMT-02
PROJECT Munsey Cle	aners OU-2	LOCATIO	ON Port Wa	shington, NY	,	;	SHEET 1 OF	5
CLIENT New York S	tate Departm	ent of Enviror	nmental Co	nservation			PROJECT No.	0266372
DRILLING CONTRACTOR			1			Ī	MEAS, PT. ELEV	<u>/.</u>
PURPOSE							GROUND ELEV.	
WELL MATERIAL							DATUM	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
DRILLING METHOD(S)			SAMPLE	CORE	CASIN	G	DATE STARTED	7/23/08
DRILL RIG TYPE	CME 85	TYPE				F	DATE FINISHED	
GROUND WATER DEPTH	47.0'	DIA.	"			⊢	ORILLER	Shaun - ADT
MEASURING POINT		WEIGHT	#			H		
DATE OF MEASUREMENT	·	FALL	H		<u> </u>		PIRNIÉ STAFF	E. Moskal
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	DIA GRAPHIC LOG	KEY - Color	ıre, Etc.	or	ELEV. DEPTH	WELI Const	r.	REMARKS
2- 4- 6- 8- 10- 12- 14- 16- 18-) ppm	fine gravel.			10.0			

		MAI PI	CC RN	LM IE		TEST BORII	NG LOG	воі	RING N	lo.CMT-02
PRO	JECT	Munsey Ci	eaner	s OU-2	LOCATION	Port Washington,	NY	SHEE	T 2 OF	5
CLIE	NT	New York	State I	Departi	ment of Environ	mental Conserva	ntion	PRO	JECT No.	0266372
DEPTH FT.	SAMPLE TYPE,		1	GRAPHIC LOG	GEOLOGIC KEY - Color, M Moisture,		ELEV. WE	ELL nstr.		REMARKS
22- 24- 26- 28- 30- 32- 34- 36- 38- 40- 42-								33 33 32 32 44 44 44 44	0.0 0.8 1.3 Port 1	

		MAI	LCC RN	MA		TEST BORIN	G LOG	BORING I	No.CMT-02
PRO.	JECT	Munsey Cl	eaners	OU-2	LOCATIO	ON Port Washington, N	Y	SHEET 3 OF	5
CLIE	NT	New York	State D	epartn	ent of Enviror	nmental Conservation	n	PROJECT No.	0266372
DEPTH FT.	SAMPLE TYPE,	NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Color,	IC DESCRIPTION Major, Minor Ire, Etc.	ELEV. WE	ELL istr.	REMARKS
			_	000				Ā	
48- -					Light brown fine gravel.	to medium sand with fine	47.0		:
50- -									
52-									
54- -								54.0 54.8 55.3 Port 3	
56- -								<u>.∵.[56.0</u>	
58- -					Green to gray, do	ense clay with silt.	58.0		
60-			0 ppm					60.0	
62 -									
64-									
66									
68-									
70-									

		MAI	CO RNI	LM E	TEST BORING	LOG	BORING	No.CMT-02
PRO.	JECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington, NY		SHEET 4 OF	
CLIE	NT	New York	State I	Departr	ment of Environmental Conservatio	n	PROJECT No.	0266372
DEPTH FT.	SAMPLE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE DEPTH Con	LL str.	REMARKS
74 - 76 - 78 - 80 - 82 - 84 - 90 - 92 - 94 - 96 - 96 - 96 - 96 - 96 - 96 - 96			0 ppm		Brown, fine to medium occasional fine gravel.	90.0	90.0 90.8 91.3 92.0 97.0 97.8	

		MAI	CO RNI	IM IE		TEST BORING LOG				BORING No.CMT-02			
PRO.	JECT M	unsey Ci	eaner	s OU-2	LOCATI	ION Port Washi	ington, NY		SHI	EET 5 OF	5		
CLIE						ronmental Cor	nservatio	>n	PR	OJECT No.	0266372		
ОЕРТН FT.	ſ .	BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	GEOLOG KEY - Color	GIC DESCRIPT r, Major, Minor ure, Etc.	TION -	ELEV. W			REMARKS		
100-					Moist	ure, Etc.				98.3 Port 7			

MAL	COLM		TEST	BORIN	G LO	G	В	ORING N	o. M C-10
PROJECT Munsey Cle	aners OU-2	LOCATI	ON Port Wa	shington, N	Y		SH	EET 1 OF	3
	tate Departn	nent of Envir	onmental C	Conservat	ion		PR	OJECT No.	0266372
DRILLING CONTRACTOR		_	<u>-</u>				ME	AS, PT. ELEV.	
PURPOSE							GF	OUND ELEV.	
WELL MATERIAL							DA	TUM	
DRILLING METHOD(S)			SAMPLE	CORE	CASI	NG	DA	TE STARTED	7/15/08
DRILL RIG TYPE	CME 75 & 8	5 TYPE						TE FINISHED	
GROUND WATER DEPTH	15.0'	DIA.	"		<u> </u>			ILLER	Shaun - ADT
MEASURING POINT		WEIGHT	#						
DATE OF MEASUREMENT		FALL	"				PI	RNIE STAFF	E. Moskal
SAMPLE TYPE, TYPE, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	KEY - Color	ure, Etc.	ior	<u>ELEV.</u> DEPTH	WEI Cons	LL str.		REMARKS
2-		Gray to green of occassional fine	ay. edium sand wi		15.0			8.0 10.0 20.0	

		MAI	CORN	IF	TEST BORI	NG LOG	BORING No.MC-10	
PROJ	ECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington,	NY	SHEET 2 OF 3	
CLIEN					nent of Environmental Conserva	tion	PROJECT No. 0266372	
ОЕРТН FT.	SAMPLE TYPE,	BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	REMARKS	
_			0 ppm					
							22.0	
22-								
\dashv								
24-			-				24.0 	
-								
26-			1					
_								
00			_					
28-			-					
=	!		1					
30								
J								
32-								
_			1					
34-			1					
20							36.0	
36-								
_			1				38.0	
38-			_					
-			1					
40-			0 ppm					
_								
42-							45.0	
			1					
44-							H 45.0	
_								

		MAI PII	CO RN	IM IE	TEST BORING LOG	BORING No.MC-10
PRO	JECT	Munsey Cle	eaners	OU-2	LOCATION Port Washington, NY	SHEET 3 OF 3
CLIEI				epartm	ent of Environmental Conservation	PROJECT No. 0266372
DEPTH FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELL REMARKS
- 48- - 50-						49.0
52- 54- 56-						54.0
58- - 60- - 62-			0 ppm			58.0 63.0
64-					64.0	63.0
			•			

MALCOLM PIRNIE		TEST	BORING	G LOG	;	BORIN	IG N	o.MC-11
PROJECT Munsey Cleaners OU-2	LOCATI	ON Port Wa	shington, NY		一	SHEET 1	OF	6
CLIENT New York State Department	t of Enviro	nmental Co	пservation			PROJECT	No.	0266372
DRILLING CONTRACTOR						MEAS, PT	. ELEV	
PURPOSE						GROUND	ELEV.	
WELL MATERIAL						DATUM		
DRILLING METHOD(S)		SAMPLE	CORE	CASIN	G	DATE STA	RTED	7/16/08
DRILL RIG TYPE CME 75 & 85	TYPE							7/22/08
GROUND WATER DEPTH 74.0'	DIA.	••			}	DRILLER		Shaun - ADT
MEASURING POINT	WEIGHT	#			-	PIRNIE ST	·^	
DATE OF MEASUREMENT	FALL					PIRNIE SI	AFF	E. Moskal
	EY - Color Moistu	iC DESCRII , Major, Min ure, Etc. rown fine med	ior	ELEV. N	WEL ons	L tr.	l	REMARKS
2- 4- 6- 8- 10- 12- 14- 16- 18-	h occasional	tine gravei .		\$311\$\$11\$\$11\$\$11\$\$11\$\$11\$\$11\$\$11\$\$11\$\$1	<u> </u>	N		

		MA PI	ICO RNI	M E		TEST BORI	NG LOG	BORING	No.MC-11
PROJ	ECT	Munsey C			LOCATIO			SHEET 2 OF	
CLIE	NT TI	New York	State D	epartmei	nt of Enviro	onmental Conserv	ation	PROJECT No.	0266372
DEPTH FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	EY - Color,	IC DESCRIPTION Major, Minor re, Etc.	ELEV. WE	ELL estr.	REMARKS
22-			0 ppm] 	<u> </u>	
24-								<u>XIII KYII KYI</u>	
26- -									
28-							XIIXXIIX XIIXXIIX	X(1)XX(1)X X(1)XX(1)X	
30- -			-				<u> </u>		
32- -								7//////////////////////////////////////	
34- -								77/24/1/24/1/24/1/24/1/24/1/24/1/24/1/24	
36- -							ZXV.//ZXV.// ZXV.//ZXV//		
38-									
40- -			0 ppm				7.847.7.882 7.887.7.882	TKKITKU TKKITKKU	
42 -								<u> </u>	
44-							X///XX///XX/	KUIKUIIKE KUIKUIIKE	

		MAI	CORN	LM IF	TEST BORING LOC	G E	BORING No.MC-11
PROJ	ECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington, NY		SHEET 3 OF 6
CLIE	NT	New York	State	Departr	ment of Environmental Conservation		PROJECT No. 0266372
DEPTH FT.	SAMPLE TYPE.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WEL Cons	L REMARKS
48- - 50- 52-							
54- - 56-						()	
58- - 60-	-		-0 ppm				3 13
62- - 64-			-				
66- -			-				
68- - 70-			-				71.0

PROJECT Munsey Cleaners OU-2 LOCATION Port Washington, NY SHEET 4 OF 6		MALCO	LM E	TEST BOR	ING LOG	BORING	No.MC-11
CLIENT New York State Department of Environmental Conservation PROJECT No. 0286372	PROJEC	T Munsey Cleaner	s OU-2	LOCATION Port Washington	ı, NY	SHEET 4 0	F 6
74- 76- 78- 80- 80- 88- 88- 90-				nt of Environmental Conser	vation	PROJECT No.	0266372
76- 78- 80- 0 ppm 82- 84- 88- 90-	DEPTH FT.	TYPE. RECOVERY. NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG X	(EY - Color, Major, Minor	ELEV. WE	LL str.	REMARKS
94-96-96-0	74- 76- 78- 80- 82- 84- 86- 88- 90- 92- 94-			INIOISIUTE, L.U.		83.0 85.0 87.0	

		MAI PI	CO RNI	LM E	TEST BORING	LOG	BORING No.MC-11
PRO	JECT	Munsey Cl	leaners	OU-2	LOCATION Port Washington, NY		SHEET 5 OF 6
CLIE	NT	New York	State D	epartn	nent of Environmental Conservation		PROJECT No. 0266372
ОЕРТН FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	LEV. WE	117
- 100-			0 ppm				
- 102-							
104-							
106- -							107.0
108-							
110- -							
112 <i>-</i> -							
114-							
116-							
118- - 120-			0 ppm				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
120-							121.0
							123.0

٨	MALCO PIRNI	LM IE	TEST BORING LOG	3 B	ORING No.MC-11		
PROJECT Muns	sey Cleaners	OU-2	LOCATION Port Washington, NY	SI	SHEET 6 OF 6		
CLIENT New	York State D	epartm	ent of Environmental Conservation	Р	ROJECT No. 0266372		
DEPTH FT. SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON	SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WELL Constr.	REMARKS		
126-							
128-			Gray clay 128.0		. <u>128.0</u>		
130-					130.0		
132-			132.0		132.0		

MALCO	MIK		TEST	BORIN	G LO	G	BORING No	.MC-12
PROJECT Munsey Cleaner	s OU-2	LOCATION	ON Port Wa	shington, N	1		SHEET 1 OF 5	
CLIENT New York State		t of Envir	onmental (onservati	on		PROJECT No. 0	266372
DRILLING CONTRACTOR		. 					MEAS, PT. ELEV.	V
PURPOSE							GROUND ELEV.	, M
WELL MATERIAL							DATUM	
DRILLING METHOD(S)			SAMPLE	CORE	CASIN	IG	DATE STARTED 7	7/17/08
DRILL RIG TYPE CMI		TYPE	_		<u></u>		DATE FINISHED 7	7/21/08
GROUND WATER DEPTH -0.5		DIA.	"		<u> </u>	-		Shaun - ADT
MEASURING POINT		WEIGHT	#			ŀ		E. Moskal
DATE OF MEASUREMENT	T 1	FALL					PIRINIE STAFF	E. IVIOSKAI
DEPTH FT. SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SAMPLE SPOON PER 6"	5	EY - Color Moistu	GIC DESCR , Major, Min ure, Etc. pist clayey till.		ELEV. DEPTH	WEI Cons	L RE	EMARKS
2- O ppm 4-		wn, moist sil	ty fine sand.					

		MAI PII	CO	LM E	TEST BORING LO	G	BORING	G No.MC-12
PROJ	JECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington, NY		SHEET 2	OF 5
CLIE	NT	New York	State [Depart	ment of Environmental Conservation		PROJECT N	No. 0266372
DEPTH FT.	SAMPLE TYPE,	I		GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WE Con	str.	REMARKS
22- 24- 24- 26- 30- 32- 34- 36- 38- 40- 42- 44-			0 ppm					

		MAI	CO	LM IF	TEST BORING LO	G	В	ORING No.MC-12
PROJ	ECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington, NY		S⊦	HEET 3 OF 5
CLIEN	١T	New York	State I	Departr	nent of Environmental Conservation		PF	ROJECT No. 0266372
ОЕРТН FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION ELEV. DEPTH OF THE CONTROL OF T	WEI Cons	LL str.	REMARKS
 48- 50- 52-					Reddish-brown silty clay. Medium sand 51.0 lense from 61.5 -62 feet bgs.			
54 - 56 -								
58-								58.0 60.0
60- - 62-			0 ppm					62.0
- 64- -								
66- -								. 67.0
68- -								69.0
70-								71.0

		MAI	CO R N	LM IE	TEST BORING LOG	BORING No.MC-12
PROJ	ECT N	Munsey Cl	eaner	s OU-2	LOCATION Port Washington, NY	SHEET 4 OF 5
CLIEN					nent of Environmental Conservation	PROJECT No. 0266372
DEPTH FT.	SAMPLE TYPE, RECOVERY,	NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION ELEV. DEPTH Control Moisture, Etc.	VELL REMARKS
74- 76- 78- 80- 82- 84- 86- 88- 90- 92-	N. C.		0 ppm		Very coarse sand with medium gravel. 80.0	91.0
94- - 96-			0 ppm	0	Medium sand with silt. 94.0	95.0
L			-			

		MAI	CORN	IM IE		TEST BORI	NG LOG	ВС	ORING No.MC-12
PRO	JECT Mu	nsey Cl	eaner	s OU-2	LOCATIO	N Port Washington,	NY	SH	EET 5 OF 5
CLIE	NT Ne	w York	State I	Depart	ment of Enviro	onmental Conserva	ition	PR	OJECT No. 0266372
DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Color,	IC DESCRIPTION Major, Minor ire, Etc.	ELEV. WE	ELL nstr.	REMARKS
100-	C				Wolstu	ire, Etc.	100.0		100.0

-5
72
e - ADT
ipple
RKS

			MAI PII	CO N	LM E	TEST BORING LO		
PRO	JECT				s OU-2			SHEET 2 OF 2
CLIE	ENT	New	York S	State I	Departr	nent of Environmental Conservation		PROJECT No. 0266372
ОЕРТН FT.	SAMPLE	RECOVERY, NUMBER	SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WEL	L REMARKS
22 24 26 28 30 32				0 ppm		Light brown fine to medium sand with small gravel. 32.0		32.0

MALCOLM PIRNIE		TEST	BORIN	G LO	G	во	RING N	o.MC-6
PROJECT Munsey Cleaners OU-2	LOCATI	ON Port Wa	shington, NY	,	•	SHE	ET 1 OF	4
CLIENT New York State Departme	nt of Enviro	nmental Co	nservation			PRO	DJECT No.	0266372
DRILLING CONTRACTOR		• ***				MEA	S. PT. ELEV	
PURPOSE						GRO	OUND ELEV.	
WELL MATERIAL						DAT	·UM	
DRILLING METHOD(S)		SAMPLE	CORE	CASI	NG	DAT	E STARTED	7/7/08
DRILL RIG TYPE CME 75 & 85	TYPE		4			DAT	E FINISHED	7/8/08
GROUND WATER DEPTH 35.0'	DIA.	*1					LLER	Bernie - ADT
MEASURING POINT	WEIGHT	#			ŀ		VIE STAFF	
DATE OF MEASUREMENT	FALL	•••				PIRI	NIE STAFF	C. Whipple
	KEY - Color Moist	ure, Etc.	or	ELEV. DEPTH			1	REMARKS
	Park brown fine ome fine grave] XX XX XX XX XX XX XX			

		MA	LCC P N	MK	TEST BORING I	LOG	В	ORING No.MC-6
PRO	JECT	Munsey Cl	eaners	OU-2	LOCATION Port Washington, NY		SI	HEET 2 OF 4
CLIE	NT	New York	State D	epartn	ent of Environmental Conservation	PI	ROJECT No. 0266372	
DEPTH FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	GEOLOGIC DESCRIPTION <u>EI</u> KEY - Color, Major, Minor Moisture, Etc.	LEV. V	WELL onstr.	REMARKS
			0 ppm	. O .				
22-							UIKUIKIIKUIKUIKUIKUIKUIKUIKUIKUIKUIKUIKU	
24-								
26- -				, O (
28- 								
30-				, O (
32- -						XIIXXIIX		
34-						XIIXXIIX		¥
36-				, O (
38-						XIXXIX		
40-			0 ppm	, O (Brown to red fine sand with some medium sand.			
42-								
44-						40.0		

		MAI	CO R NI	M	TEST BORING LOG	BORING No.MC-6
PROJ	JECT M u	nsey Cle	eaners	OU-2	LOCATION Port Washington, NY	SHEET 3 OF 4
CLIE	NT Ne	w York S	tate D	epartm	ent of Environmental Conservation	PROJECT No. 0266372
DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	
48- 50- 52- 54- 56- 58- 60- 62- 64- 66-	SAN TY TY RECO		0 ppm		Moisture, Etc.	
68- - 70-						70.0

		MAI	LCO R NI	LM E	TEST BORING LOG BORING No.MC-6	
PRO.	JECT	Munsey C	leaner	s OU-2		
CLIE	NT	New York	State I	Departr	ment of Environmental Conservation PROJECT No. 0266372	
ОЕРТН ЕТ.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION ELEV. DEPTH Constr. KEY - Color, Major, Minor Moisture, Etc.	
74- 76- 78- 80- 82- 84- 86- - 88- - 90-			0 ppm		75.0 80.0 82.0 90.0	

MAI PI	LCOLM RNIE		TEST	BORIN	G LOG	BORING N	o.MC-7	
PROJECT Munsey Ci	eaners OU-2	LOCATIO	ON Port Washington, NY			SHEET 1 OF 4		
CLIENT New York	State Departmen	t of Enviror	mental Co	nservation	1	PROJECT No.	0266372	
DRILLING CONTRACTOR	₹					MEAS. PT. ELEV	-	
PURPOSE						GROUND ELEV.		
WELL MATERIAL						DATUM		
DRILLING METHOD(S)			SAMPLE	CORE	CASING	DATE STARTED	7/7/08	
DRILL RIG TYPE	CME 85	TYPE	.,			DATE FINISHED	7/9/08	
GROUND WATER DEPTH	1 27.0'	DIA.			1	DRILLER	Shaun - ADT	
MEASURING POINT		WEIGHT	# "			PIRNIE STAFF	E. Moskal	
DATE OF MEASUREMEN		FALL				FINNESTALL	E. MOSKAI	
SAMPLE TYPE, RECOVERY NUMBER BLOWS ON SAMPLE SPOON PER 6"	i	KEY - Color,	re, Etc.	or	ELEV. WE	LL str.	REMARKS	
2- 4- 6- 8- 10- 12- 14- 16-		parse sand and ty zones.	el.		10.5 10.5 11.5 11.5 11.5 11.5 11.5 11.5			

M	TCOTW	TEST BORING LOG	BORING No.MC-7
PROJECT Munsey (lkNJC leaners OU-2	LOCATION Port Washington, NY	SHEET 2 OF 4
		nent of Environmental Conservation	PROJECT No. 0266372
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON	PER 6" DIA GRAPHIC LOG	GEOLOGIC DESCRIPTION <u>ELEV.</u> WE KEY - Color, Major, Minor Moisture, Etc.	ELL nstr. REMARKS
22- 24- 26- 28- 30- 32- 34- 36- 36- 40- 42-		ZWIIKWIIKWIIKWIIKWIIKWIIKWIIKWIIKWIIKWII	¥ 36.0 38.0 40.0

		MAI PII	CO RNI	LM E	TEST BORING LOG	В	ORING No.MC-7
PROJ		unsey Cl			LOCATION Port Washington, NY	_	SHEET 3 OF 4
CLIEN	IT N	ew York	State [Departr	ment of Environmental Conservation	F	PROJECT No. 0266372
DEPTH FT.	SAMPLE TYPE, RECOVERY,	BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc. ELEV. WE DEPTH Cor	ELL nst	REMARKS
50- 52- 54- 56- 58- 60- 62- 64- 68- 70-	9				Moisture, Etc.		53.0 54.0 62.0 69.0

			AAL	CO NI	LM F	TEST BORI	NG LOG	BORING N	lo.MC-7
PRO	JECT	Muns	sey Cl	eaners	OU-2	LOCATION Port Washington	, NY	SHEET 4 OF	4
CLIE	NT	New	York S	State [Departr	nent of Environmental Conserv	ation	PROJECT No.	0266372
ОЕРТН FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON	SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL estr.	REMARKS
74- 76- 78- 80- 82- 84- 86- 88- 90-				0 ppm	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		90.0	74.0 82.0 84.0 85.0	

MAL	COLM		TEST	BORING	3 LOG	;	BORING No.MC-8
PROJECT Munsey Cle	aners OU-2	LOCATION Port Washington, NY				SHEET 1 OF 4	
CLIENT New York S	tate Department	of Enviro	nmental Co	nservation			PROJECT No. 0266372
DRILLING CONTRACTOR	<u>-</u>						MEAS. PT. ELEV.
PURPOSE							GROUND ELEV.
WELL MATERIAL							DATUM
DRILLING METHOD(S)	westan	· V 	SAMPLE	CORE	CASIN	G	DATE STARTED 7/14/08
DRILL RIG TYPE	CME 85	TYPE					DATE FINISHED 7/15/08
GROUND WATER DEPTH	52.0'	DIA.	17	w			DRILLER Shaun - ADT
MEASURING POINT		WEIGHT	#				
DATE OF MEASUREMENT		FALL	••		<u> </u>		PIRNIE STAFF E. Moskal
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	· ·	E Y - Color Moistu	IC DESCRII , Major, Min ure, Etc.	ог	ELEV. DEPTH C	WEI Cons	L REMARKS
2- 4- 6- 8- 10- 12- 14- 16- 18-		medium grave	to coarse sandel.	u with line	11) X	III.KKII.KKII.KKII.KKII.KKII.KKII.KKII	

****		MA	LCC	M	TEST BORING LO	G	BOR	ING No.MC-8	
PRO.	JECT	Munsey Cl	eaners	OU-2	LOCATION Port Washington, NY		SHEET	2 OF 4	
CLIE					nent of Environmental Conservation		PROJECT No. 0266372		
DEPTH FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	GEOLOGIC DESCRIPTION ELEV KEY - Color, Major, Minor Moisture, Etc.	WE Con	LL str.	REMARKS	
22- 24- 26- 28- 30- 32- 34- 36- 40- 42- 44-			1 ppm		Moisture, Etc.	TRUTRUTRUTRUTRUTRUTRUTRUTRUTRUTRUTRUTRUT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		

	<u> </u>	MAI	CO	<u>LM</u>	TEST BORING LO	G	BORING No.MC-8
PRO.	JECT	Munsey Cl	eaner	s OU-2	LOCATION Port Washington, NY		SHEET 3 OF 4
CLIE					nent of Environmental Conservation		PROJECT No. 0266372
DEPTH FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION ELEV. DEPTH O Moisture, Etc.	WEL Cons	L REMARKS
50- 52- 54- 56- 58- 60- 62- 64- 68-			0 ppm				47.0 ▼ 57.0 □ 71.0 □

		Ī	MAI	CO R NI	LM E		TEST BORII	NG LOG	BORING	No.MC-8
PRO	JECT				s OU-2	LOCATION	Port Washington,		SHEET 4 OF	
CLIE	NT	New	York \$	State I	Departn	nent of Environ	mental Conserva	ation	PROJECT No.	0266372
DEPTH FT.	SAMPLE	RECOVERY, NUMBER	SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC KEY - Color, M Moisture	DESCRIPTION ajor, Minor , Etc.	ELEV. WE	ELL Istr.	REMARKS
74- 76- 78- 80- 82- 84 86 88 90				0 ppm				92.0	73.0 75.0 82.0 83.0 85.0	

MAL PIF	COLM RNIE		TEST	BORING	G LOC	3 E	BORING N	lo.MC-9
PROJECT Munsey Cle	aners OU-2	LOCATION	ON Port Wa	shington, NY			SHEET 1 OF	4
CLIENT New York S	tate Department	of Enviror	nmental Co	nservation			PROJECT No.	0266372
DRILLING CONTRACTOR							MEAS. PT. ELE	<i>I</i> .
PURPOSE							GROUND ELEV	•
WELL MATERIAL			,		т		DATUM	
DRILLING METHOD(S)			SAMPLE	CORE	CASIN	IG -	DATE STARTED	7/10/08
DRILL RIG TYPE	CME 75 & 85	TYPE					DATE FINISHED	7/11/08
GROUND WATER DEPTH	40.0'	DIA.	11				ORILLER	Shaun - ADT
MEASURING POINT		WEIGHT	#			⊢	PIRNIE STAFF	C. Whipple
DATE OF MEASUREMENT		FALL	<u> </u>		** [INNE STAFF	O. Himppie
SAMPLE TYPE. TYPE. NUMBER BLOWS ON SAMPLE SPOON PER 6"	υ o	EY - Color, Moistu	IC DESCRI Major, Minure, Etc.	ог	ELEV. DEPTH (WELI Const	- r.	REMARKS
2-			y at 77 ft bgs.					

PROJECT Munsey Cleaners OU-2 LOCATION Port Weathington, NY SHEET 2 OF 4			MAI	LCO P NII	M	TEST BORING LOG	В	ORING No.MC-9
CLIENT New York State Department of Environmental Conservation PROJECT No. 0286372	PRO	JECT	Munsey Cic	eaners	OU-2	LOCATION Port Washington, NY	s	SHEET 2 OF 4
22- 24- 26- 28- 30- 32- 34- 36-						ent of Environmental Conservation	Р	PROJECT No. 0266372
22- 24- 28- 30- 32- 34- 36- 36- 38-0	ОЕРТН ГТ.	SAMPLE TYPE,				TALL 1 COIOI, Major, Millor	WELL onstr	. REMARKS
24- 26- 30- 32- 34- 36-				0 ppm				
28- 30- 32- 34- 36- 36- 38- 38- 38- 38- 38- 38- 38- 38- 38- 38	22-							
28- 30- 32- 34- 36- 36- 38- 38-0	24-							
30- 32- 34- 36- 36- 36- 38- 38-0	26- -							
32- 34- 36- 36- 38- 38-0	28-							
34-36-36-36-36-36-36-36-36-36-36-36-36-36-	30- -							
36-	32- -							
36	34-							
38- 40- 42- 44- 44-	36- -			,				36.0
40- 42- 44-	38-							38.0
44-	40-			0 ppm				¥
	42-							
	44-					•		

		MAI	CO R N	LM E		TEST BORII	NG LOG	BOR	ING No.MC-9
PROJ	ECT	Munsey Cl	eaner	s OU-2	LOCATION	Port Washington,	NY	SHEET	3 OF 4
CLIE					ent of Environ	mental Conserva	ation	PROJE	CT No. 0266372
ОЕРТН ЕТ.	SAMPLE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC KEY - Color, M Moisture	DESCRIPTION ajor, Minor, Etc.	ELEV. WE	ELL 1str.	REMARKS
48-								48.0	<u>. </u>
50- -		-13-						50.0	<u>. </u>
52- -									
54- -								55.0	<u>) </u>
56								57.0)
58- - 60-			0 ppm						
62-			o pp					62.0	<u>) </u>
- 64-								64.0	<u>)</u>
- 66-								66.0	<u>)</u>
- 68-								68.0	0
70-									

	MALC	COLM NIE	TEST BORING I	_OG	BORING No.MC-9
ROJECT	Munsey Clea	ners OU-2	LOCATION Port Washington, NY		SHEET 4 OF 4
LIENT	New York Sta	ate Departr	nent of Environmental Conservation		PROJECT No. 0266372
SAMPLE TYPE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION ELI KEY - Color, Major, Minor Moisture, Etc.	EV. WE TH Con	LL REMARKS
74-		ppm		7.0	73.0
				:	

Ш

٨	ALCO PIRNI	LM E		TEST	BORING	G LO	G	ВС	ORING N	o.PC-1 A/B/C
PROJECT Forme	er Plaza Clea	aners	LOCATION	ON Port Wa	shington, NY			SH	EET 1 OF	4
CLIENT NYSD	EC		-					PR	OJECT No.	0266380
DRILLING CONTRA	ACTOR Buffa	alo Drilling	J					ME	AS. PT. ELEV	
PURPOSE	Moni	toring We	ll Installatio	on				GR	OUND ELEV.	
WELL MATERIAL								DA	TUM	
DRILLING METHOD	D(S) Rota	ry		SAMPLE	CORE	CASI	NG	DA	TE STARTED	8/3/09
DRILL RIG TYPE	HSA		TYPE			PV	C		TE FINISHED	
GROUND WATER I			DIA.	"		2		⊢		
MEASURING POIN	Т		WEIGHT	#					ILLER	Larry
DATE OF MEASUR	REMENT		FALL	"				PIF	RNIE STAFF	E. Moskal
SAMPLE TYPE, NUMBER BLOWS ON	SAMPLE SPOON PER 6"	GRAPHIC LOG	EY - Color	IC DESCRII , Major, Min ure, Etc.		ELEV. DEPTH	WE Con	LL str.		REMARKS
2- 4-6 6- 8- 10- 12- 14- 16- 18-	O O O O O O O O O O O O O O O O O O O	Gr Br O	a-sized grave			1.5			<u>16.0</u> <u>18.0</u>	

MALCO PIRNI	LM E	TEST BORIN	IG LOG	BORING I	No.PC-1 A/B/C
PROJECT Former Plaza Clea	aners LOCAT	TION Port Washington, N	IY	SHEET 2 OF	4
CLIENT NYSDEC				PROJECT No.	0266380
SAMPLE TYPE, TYPE, NUMBER BLOWS ON SAMPLE SPOON PER 6"	KEY - Colo	GIC DESCRIPTION or, Major, Minor ture, Etc.	ELEV. WE	ELL nstr.	REMARKS
24- 24- 26- 30- 30- 32- 34- 36- 36- 0 38- 40- 40- 40- 40- 40- 40- 40- 40- 40- 40	Coarse SAND	with medium gravel. zone of high transmissivity		30.0 32.0 36.0	
44-	Fine to mediur	n SAND.	45.0	45.0	

	MAL PII	CO RNI	LM IE	TEST BORING LO)G	BORING No.PC-1 A/B/C
PROJECT	⊤ Former Plaz	za Cle	aners	LOCATION Port Washington, NY		SHEET 3 OF 4
CLIENT	NYSDEC					PROJECT No. 0266380
SAMPLE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	<u>∕.</u> WEI ∃ Cons	LL REMARKS
		0				
48-						
50		0				
52 - 54 -						
56-		0		Very coarse SAND with medium gravel. 55.0	0	
58-						
60						
64-						
66-		0		Brown, fine to medium SAND with 65.0 medium gravel.		
68-						
70		0				

	MAI	COL	М	TEST BORIN	IG LOG	BORI	NG No.PC-1 A/B/C
PROJECT	Former Pla	za Clear	ners	LOCATION Port Washington, N	Υ	SHEET	4 OF 4
CLIENT	NYSDEC					PROJEC	T No. 0266380
DEPTH FT.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL nstr.	REMARKS
74 - 76 - 80 - 82 - 84 - 86 - 88 - 88 -	N	\$ 	o (Gray, silty fine SAND with occasional gravel, sparse clay.	76.0	80.0	
90		0		Gray CLAY.	95.0	90.0	

MAI PI	COL RNIE	M		TEST	BORING	G LO	G	В	ORING N	o.PC-10 B/C
PROJECT Former Pla	za Clean	ners	LOCATION	ON Port Wa	shington, NY			SH	EET 1 OF	7
CLIENT NYSDEC								PR	OJECT No.	0266380
DRILLING CONTRACTOR	Buffalo	o Drilling						ME	AS. PT. ELEV	
PURPOSE	Monito	oring Wel	l Installation	on				GR	OUND ELEV.	
WELL MATERIAL								DA	TUM	
DRILLING METHOD(S)	Rotary	/		SAMPLE	CORE	CASI	NG		TE STARTED	10/6/09
DRILL RIG TYPE	HSA		TYPE			PV	С			
GROUND WATER DEPTH	60.0'		DIA.	"		2		<u> </u>	TE FINISHED	
MEASURING POINT			WEIGHT	#				DR	ILLER	Larry
DATE OF MEASUREMEN	Т		FALL	"				PIF	RNIE STAFF	B. Jordan
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	Ü	EY - Color Moist	IC DESCRII , Major, Min ure, Etc.		ELEV. DEPTH	WE Con	LL str.	l	REMARKS
2- 5 4-				well graded gra	velly SAND	0.5				

	MAI PII	COLV	TEST BORING LOG	BORING No.PC-10 B/C
PROJECT	Former Plaz	za Cleaners	LOCATION Port Washington, NY	SHEET 2 OF 7
CLIENT	NYSDEC			PROJECT No. 0266380
DEPTH FT. SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	LL REMARKS
22	.9			
26- 1	.25		Light brown poorly graded SAND (dry). 25.0	
30 1	.25	0.00	Light gray well graded gravelly SAND (dry). Brown poorly graded SAND with some iron staining (dry).	
34-	1.5			
38-				
MI	75		Light tan well graded sandy GRAVEL, 40.0 with iron staining (dry).	

		MA	LCC R N	MIK		TEST BORI	NG LOG	BORING	No.PC-10 B/C
PROJ	JECT	Former Pl	aza Cle	aners	LOCATION	ON Port Washington,	NY	SHEET 3 O	F 7
CLIEN	NT	NYSDEC						PROJECT No.	0266380
ОЕРТН FT.	SAMPLE TYPE,		PID PID	GRAPHIC LOG	KEY - Color	IC DESCRIPTION , Major, Minor ure, Etc.	ELEV. WE	ELL nstr.	REMARKS
_	<u> </u>	.75							
48- -									
50- -	VIII	0							
52- -									
54 <i>-</i>						aded SAND (dry).	55.0		
56- _		.7			Light tan well gr	aded SAND (dry).	55.0		
58- -									
60-	\bigvee	.9		******	(moist).	rted SAND, trace silt	60.0	¥	
62 -		.0			Medium to dark (moist).	brown well graded SANI	61.0		
64 <i>-</i>					Madium brown	well graded SAND with	65.0	65.0	
66- -		2			gravel (wet).	well graueu SAND WITH	05.0		
68- -								68.0	
70 -	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1.6						70.0	
	\mathbb{N}								

	MAI PII	COLV RNIE	1	TEST BORII	NG LOG	;	BORING No.PC-10 B/C
PROJECT	Former Plaz	za Cleaners	LOCATIO	N Port Washington,	NY		SHEET 4 OF 7
CLIENT	NYSDEC		,				PROJECT No. 0266380
DEPTH FT.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC	GEOLOGIO KEY - Color, Moistur	C DESCRIPTION Major, Minor re, Etc.	ELEV. O	WEL Cons	L REMARKS
74-	1.8						
78- - 80- - 82-	1.6						80.0
84-	0						
88-							
90	.4	. O	Brown fine to med gravel, trace silt.	dium SAND, some	90.0		
94-		. O					
96-	.6	. O	layer of cobble/gr	medium SAND, 1-inch avel.	95.0		

	MAI PII	COLM RNIE	TEST BORIN	IG LOG	BORING No.PC-10 B/C			
PROJEC [*]	⊤ Former Plaz	za Cleaners	LOCATION Port Washington, N	NY	SHEET 5 OF 7			
CLIENT	NYSDEC				PROJECT No. 0266380			
DEPTH FT.	TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WEL	LL REMARKS			
100			•	100.0				
102	1.2							
104-		200						
106-	2		Gray SILT and CLAY. 2-inch medium sand layer.	105.0				
108-								
112	2		2-inch coarse sand layer.					
114-								
116-	2							
118-								
120	2		Gray/blue silty CLAY, trace sand.	120.0				
-								

	MAI PII	COL	M F	TEST BORING L	OG	E	BORING No.PC-10 B/C			
PROJECT	Former Plaz	za Clea	ners	LOCATION Port Washington, NY		†	SHEET 6 OF 7			
CLIENT	NYSDEC					T	PROJECT No. 0266380			
DEPTH FT. SAMPLE TYPE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	TH Co	ELI nst	REMARKS			
126-	2									
128-										
130	2			Gray/red fine to medium SAND (iron 13 staining).	1.0		131.0			
134-							133.0			
136-	1.6			Color change to brown.			135.0			
138-										
140	1.8			Color change to gray. Gray/brown clayey SILT to clayey SAND. 14	0.5		140.0			
142										
144-	1.8			Brown medium SAND (loose). 14	5.0					
148-	1.0									
-										

	MAL PII	COLM NIE	TEST BORIN	TEST BORING LOG				
ROJECT	Former Plaz	a Cleaners	LOCATION Port Washington, N	SHEET	7 OF 7			
LIENT	NYSDEC				PROJE	CT No. 0266380		
SAMPLE TYPE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. DEPTH (WELL Constr.	REMARKS		
2	2		Reddish brown SILT and SAND (dense).	151.5				
- 64 -								
56	1		Brown/tan fine SAND. Gray/red SILT and fine SAND (trace silty clay in shoe).	155.0 156.0	157.	0		

MAL PIF	COLM RNIE		TEST	BORING	LOG	В	ORING N	o.PC-11 A/B/C		
PROJECT Former Plaz	a Cleaners	LOCATI	ON Port W a	shington, NY		SI	HEET 1 OF	7		
CLIENT NYSDEC						PI	ROJECT No.	0266380		
DRILLING CONTRACTOR	Buffalo Drillin	g					MEAS. PT. ELEV.			
PURPOSE	Monitoring W	ell Installati	on			G	ROUND ELEV.			
WELL MATERIAL						\blacksquare	ATUM			
DRILLING METHOD(S)	Rotary		SAMPLE	CORE	CASING	-		10/26/09		
DRILL RIG TYPE	HSA	TYPE			PVC	\vdash	ATE STARTED			
GROUND WATER DEPTH	46.0'	DIA.	"		2	D	ATE FINISHED	10/29/09		
MEASURING POINT		WEIGHT	#			DI	RILLER	Larry		
DATE OF MEASUREMENT	-	FALL	**			PI	RNIE STAFF	B. Jordan		
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	, to	KEY - Color Moist	ilC DESCRI , Major, Mir ure, Etc.		ELEV. W	ELL nstr.	I	REMARKS		
2- 5 4- 6-\ 1.25 8- 10- -\ .92 12- 14- 16-\ 1		orange/brown forange/brown forange/brown forange/brown forange/brown volary).	ine to medium vell graded gra	SAND velly SAND SAND	10.0 16.0					

		MAI PII	CO RN	LM IE	TEST BORIN	IG LO	G	ВО	RING No.PC-11 A/B/C
PROJ	ECT FO	rmer Pla	za Cle	aners	LOCATION Port Washington, NY				ET 2 OF 7
CLIEN		SDEC		1				PRO	JECT No. 0266380
ОЕРТН FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. DEPTH	WEI Cons	L str.	REMARKS
- 22-	1.2		0		Tan/brown medium SAND (dry to wet at 31.5').	20.0			
24-	1.25		0						
28-	/ \								
30-	1.25		0						
34-									
36-	1.2		0		Medium brown sandy CLAY to clayey SILT (moist).	35.5 36.5			
38-					Brown fine to medium micaceous SAND (moist).	30.3			
40 -	1.4		0		Medium brown SAND to silty SAND (moist). Tan fine to coarse SAND (dry).	40.0			
42-	/\								
	\mathbb{A}				Medium brown fine to medium SAND (wet).	45.0		46	3.0 ▼

	ı	MAI	CO	<u>IM</u>	TEST BORING	LOG	BORING No.PC-11 A/B/C
PROJ	ECT For	mer Pla	za Cle	aners	LOCATION Port Washington, NY		SHEET 3 OF 7
CLIEN	IT NYS	SDEC					PROJECT No. 0266380
DEPTH FT.		BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WEI	LL str. REMARKS
	1.5		0				
48-							48.0
50	2		0				50.0
52			Ü		Medium reddish brown to light brown sandy SILT to silty SAND (wet).	51.0	
54-							
56-	2		0		Reddish brown to medium brown fine to medium SAND (wet).	55.0	
58- -							
60	1.5		0				60.0
62			-				
64-							
66-	2		0		Maroon to medium gray silty CLAY to	66.5	
68-					clayey SILT (moist).		
70	1.25		0				

MALCO	ĻМ	TEST BORI	NG LOG	BORING I	No.PC-11 A/B/C
PROJECT Former Plaza Clea	ners LOCAT	TION Port Washington,	NY	SHEET 4 OF	7
CLIENT NYSDEC				PROJECT No.	0266380
SAMPLE TYPE, TYPE, NUMBER BLOWS ON SAMPLE SPOON PER 6"	KEY - Colo	GIC DESCRIPTION or, Major, Minor ture, Etc.	ELEV. WE	LL str.	REMARKS
74	Maroon and moto sandy SILT	edium gray silty fine SANE (moist).	76.0		
80 2 0 82 84 -					
86- 2 0	Color change t	o light to medium gray.		85.0	
90 2 0				90.0	
94- 2 0					

		MAI	CO	M	TEST BORIN	IG LOG	BORING No.PC-11 A/B/C
PRO	JECT F C	ormer Pla	za Cle	aners	LOCATION Port Washington, N	IY	SHEET 5 OF 7
CLIE	NT N	/SDEC					PROJECT No. 0266380
DEPTH FT.	SAMPLE TYPE, RECOVERY, NIMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL REMARKS
100 102	2		0				100.0
104- - 106-	2		0		Medium gray SILT, trace sand and clay.	105.0	
108- - 110- - 112-	2		0		Reddish gray clayey SILT (moist).	110.0	
114- - 116- - 118-	2		0		Reddish gray CLAY, trace silt (moist).	115.0	
120 - - 122 -	2		0				

		MA	LCO	M	TEST BORIN	IG I OG	BORING No.PC-11 A/E	3/C
DPO I	ECT	Former Pl	<u>RN</u>	E	LOCATION Port Washington, N		SHEET 6 OF 7	
CLIEN		NYSDEC	aza Cie	ancis	LOOATION Fort Washington, N		PROJECT No. 0266380	
				7.)			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
ОЕРТН FT.	SAMPLE TYPE,	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON	PID PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE Cor	ELL REMARKS	
			\exists					
126-		2	0					
128 <i>-</i> _								
130-	\prod	2	0					
132								
134-								
136-		2	0					
138 <i>-</i> -			_					
140	\prod	2	0					
142								
144-								
146-		2	0					
148-								
							2007 2007 2007	

	MAI	COI	M	TEST BORIN	G LOG				
PROJECT	Former Plaz	za Clear	ners	LOCATION Port Washington, N	Υ	SH	EET 7 OF 7		
CLIENT	NYSDEC					PR	OJECT No. 0266380		
SAMPLE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. N	WELL onstr.	REMARKS		
ада VS 4 - 152 - 154 - 156 -	2 RECON NUMBER SAN SPAN SPAN SPAN SPAN SPAN SPAN SPAN	0	GRA	KEY - Color, Major, Minor Moisture, Etc.	157.0		157.0		

			MAI PII	CC RN	LM IE		TEST	BORIN	G LOG	•	В	ORING N	o.PC-2 A/B/C
PRO	JEC	⊤ For	mer Pla	za Cle	aners	LOCAT	ION Port Wa	shington, NY	•		SH	EET 1 OF	4
CLIE	NT	NY	SDEC			,					PR	ROJECT No.	0266380
DRIL	LIN	G CON	FRACTOR	Buff	alo Drilli	ing					ME	AS. PT. ELEV	
PUR	205	SE		Mon	itoring V	Vell Installat	ion				GR	ROUND ELEV.	
WELI	L M	ATERIA	L								DA	TUM	
DRIL	LIN	G METH	HOD(S)	Rota	ıry		SAMPLE	CORE	CASIN	IG		TE STARTED	9/12/00
DRIL	L RI	IG TYPI	≣	HSA	ı	TYPE			PVC	:			
GRO	UNE	O WATE	R DEPTH	64.0		DIA.	"		2			TE FINISHED	
MEAS	SUF	RING PO	DINT			WEIGHT	#				DR	RILLER	Joe
DATE	OF	MEAS	UREMEN	Т		FALL	"				PIF	RNIE STAFF	K. Roe
DEPTH FT.	SAMPLE	TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Colo Mois	GIC DESCRI r, Major, Mir ture, Etc.		ELEV. DEPTH (WEI Cons	LL str.		REMARKS
- 2-	-					Asphalt/concrete. SAND with pea		/	0.1				
- 4-	-	5		0		Light to medium medium SAND moist).			1.3				
6-	<u> </u>	1		0.5									
8- 10- 12-	-	1.2		0		Color grade to	orange/red brov	wn (moist).			//////////////////////////////////////		
14- - 16- - 18-	-	1.4		0.1		Orange/brown trace pea-grave		SAND,	15.0	//X///X///X///X///X///X///X///X///X///			

		MAI PII	CO RN	IE IE	TEST BORIN	G LOG	вог	RING N	o.PC-2 A/B/C
PROJ	IECT	Former Pla	za Cle	aners	LOCATION Port Washington, N	Υ	SHEE	T 2 OF	4
CLIEN	NT	NYSDEC				1	PROJ	JECT No.	0266380
ОЕРТН FT.	SAMPLE TYPE,	NUMBER NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	LL str.	l	REMARKS
- 22-	1	.6	0		Light brown medium to coarse SAND, trace pea-gravel (dry to moist).	20.0			
_ 24-									
26-	1	.2	0		Light brown to orange/brown well graded SAND, trace pea-gravel (dry to moist).	25.0			
28- -									
30-	1	.2	0		Light brown to orange/brown medium to coarse SAND (dry to moist).	30.0			
34-						XX///XX///XX/			
36-	1	.2	0						
38- -									
40- - 42-		1	0		Light orange/brown medium SAND, some well graded gravel (moist to dry).	40.0			
44-									
	\bigvee		_		Light to orange/brown well graded gravelly SAND (moist to dry).	45.0			

	MAI PII	CO RNI	LM IE		TEST BORI	NG LOG	BOF	RING No.PC-2 A/B/C
PROJECT	Former Plaz	za Cle	aners	LOCATION Port Washington, NY				T 3 OF 4
CLIENT	NYSDEC						PROJ	ECT No. 0266380
DEPTH FT.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Color,	C DESCRIPTION Major, Minor re, Etc.	ELEV. W DEPTH Co	ELL nstr.	REMARKS
M	1	0						
48-						X//XY//XX//		
50	1.1	0			brown fine to medium rse sand and fine grave	50.0		
52 - 54 - 54 -								
56	1.2	0.5		Light brown to lig SAND (dry to we	ht orange/brown gravel t).	ly 55.0	56.	0
58-							58.	0
62	1.3	0.9					60.	0
64-								Ţ
66-	1.2	0.1						
68-								
70	1.5	0					70.	

		MA	CO	Щ	TEST BORIN	IG LOG	BORING N	o.PC-2 A/B/C
PROJ	ECT F	ormer Pla	za Cle	aners	LOCATION Port Washington, N	Y	SHEET 4 OF	4
CLIEN	IT N	YSDEC					PROJECT No.	0266380
ОЕРТН FT.	SAMPLE TYPE, RECOVERY,	NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL estr.	REMARKS
74- 76- 78-	0						75.0 77.0	
80 - 82 - 84-	2		1.5		Medium brown to orange/brown well graded SAND (wet).	80.0	82.0	
86-	2		0		Light brown fine to medium SAND (wet).	85.0	<u>87.5</u>	
90-	2		0				89.5	
94-	1.5	j.	0		Dark bluish-gray CLAY (very stiff, wet).	95.0	94.5	
						97.0		

MAL PIR	COLM NIE		TEST	BORIN	G LOG	В	ORING N	lo.PC-3
PROJECT Former Plaz	a Cleaners	LOCATI	ON Port W a	shington, NY	•	5	SHEET 1 OF	4
CLIENT NYSDEC						F	PROJECT No.	0266380
DRILLING CONTRACTOR	Buffalo Dril	ling				N	MEAS. PT. ELEV	'.
PURPOSE	Monitoring	Well Installati	on				SROUND ELEV.	
WELL MATERIAL						T-	DATUM	
DRILLING METHOD(S)	Rotary		SAMPLE	CORE	CASING	; -	DATE STARTED	9/24/00
DRILL RIG TYPE	HSA	TYPE			PVC	\vdash		
GROUND WATER DEPTH	65.0'	DIA.	"		2		DATE FINISHED	
MEASURING POINT		WEIGHT	#				RILLER	Larry
DATE OF MEASUREMENT		FALL	"			F	PIRNIE STAFF	B. Jordan
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	KEY - Color Moist	ure, Etc.		ELEV. V	VELL	· .	REMARKS
2- 4- 6-\ 1.5 8- 10-\ 1.5 12- 14- 16-\ 1.5 18-		Orange to tan g	ravelly SAND.					

	MAL	CO NI	LM IF	TEST BORIN	NG LOG	BORIN	IG No.PC-3
PROJECT	T Former Plaz	za Cle	aners	LOCATION Port Washington, I	NY	SHEET	2 OF 4
CLIENT	NYSDEC					PROJECT	Г No. 0266380
DEPTH FT.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. W	ELL nstr.	REMARKS
22	1.5	0					
24-				Orange to tan SAND with gravel.	25.0		
26-	1.5	0					
30	1.5	0					
32							
34-	1.5	0					
38-							
40 42	1.5	0					
44-							
			..**	Silty fine SAND to sandy SILT.	45.0		

		MAI	CO	<u>EM</u>	TEST BORIN	IG LOG	BORING No.PC-3	
PRO	IECT Fo	rmer Pla	za Cle	aners	LOCATION Port Washington, N	IY	SHEET 3 OF 4	
CLIE	NT NY	SDEC					PROJECT No. 0266380	
DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"		GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL REMARKS	
48-	1.5		0					
50- - 52-	1		0					
54 – –	\ <u> </u>							
56- - 58-	1.5		0				59.5	
60-	1.5		0		Orange fine SAND with some medium sand.	60.0	62.0	
64-	\ <u>\</u>			00000	Medium to coarse SAND with some find sand.	65.0	65.0 ▼	
66-	1.5		0		sanu.			
70-	2		0		Medium to coarse SAND, occasional fine gravel.	70.0		

		MAL	CO RNI	E E		TEST BOI	RING LO	G E	BORING No.PC-3		
СТ	For	mer Plaz	za Clea	aners	LOCATION	ON Port Washingt	5	SHEET 4 OF 4			
Τ	NYS	SDEC						F	PROJECT No. 0266380		
SAMPLE TYPE,	RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Color	IC DESCRIPTION , Major, Minor ure, Etc.	N ELEV. DEPTH	WELL Const	r. REMARKS		
	-										
	2		0		Gray CLAY.		75.5		75.0 6		
	_		·				77.0		5.77.0 2.77.0		

MAI Pil	COLM RNIE		TEST	BORING	G LO	G	BORIN	IG N	o.PC-4 A/B/C
PROJECT Former Pla	za Cleaners	LOCATI	ON Port Wa	shington, NY			SHEET	1 OF	3
CLIENT NYSDEC		'					PROJECT	ΓNo.	0266380
DRILLING CONTRACTOR	Buffalo Drilling	g					MEAS. PT	. ELEV	
PURPOSE	Monitoring We	ell Installation	on				GROUND	ELEV.	
WELL MATERIAL							DATUM		
DRILLING METHOD(S)	Rotary		SAMPLE	CORE	CASI	NG	DATE STA	ARTED	8/26/09
DRILL RIG TYPE	HSA	TYPE			PV				8/28/09
GROUND WATER DEPTH	25.0'	DIA.	"		2		DRILLER	HOHED	
MEASURING POINT		WEIGHT	#					TAFF	Larry
DATE OF MEASUREMEN		FALL	•				PIRNIE S	IAFF	B. Jordan
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	Ü	CEY - Color Moist	i IC DESCRII , Major, Min ure, Etc.		ELEV. DEPTH	WEI Cons	LL str.	ļ	REMARKS
2- 3- 4- 6- 1.5 8- 10 1.5 12- 14- 16- 1.5 18-		an SAND with	gravelly SAND		5.0	KVIJKVIJKVIJKVIJKVIJKVIJKVIJKVIJKVIJKVIJ	7//>3///>3///>3///>3///>3///>3///>3///>		

		MAI	CO	<u>ЦМ</u>	TEST BORIN	IG LOG	BORIN	NG No.PC-4 A/B/C
PRO.	IECT FO	rmer Pla	KN za Cle:	anors	LOCATION Port Washington, N			2 OF 3
CLIEN		SDEC	Za Oic		Leon their Tot Hashington, is	·· <u> </u>	PROJEC ⁻	
DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER		PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE		REMARKS
22-	1		0				21.0	
24- -								
26- -	1.5		0		Tan SAND with some micaceous layers.	25.0		
28- -								
30-	2		0					
32-							33.0	
- 36-	1.75		0		3-inch layer of silty SAND.		36.0	
38- -							38.0	
40-	1.5		0		Tan SAND to gravelly SAND.	40.0	40.0	
42- - 44-								
_							45.0	

N	ALCO DID NI	M	TEST BORIN	NG LOG	BORING N	lo.PC-4 A/B/C	
PROJECT Forme	er Plaza Clea	aners	LOCATION Port Washington, I	NY	SHEET 3 OF 3		
CLIENT NYSD	EC		·		PROJECT No.	0266380	
	SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL estr.	REMARKS	
1.25 48- 50- 1.5 52- 54- 56- 0.33- 58-			Tan to orange gravelly SAND.	50.0	53.0		
60 2 62 64 - 1.5	0		Gray fine to coarse SAND. Bluish-gray CLAY.	65.0	63.0		

MAL PIR	COLA NIE	1		TEST	BORIN	G LOC	}	BORING	No.PC-5 B/C
PROJECT Former Plaz	a Cleaners	s	LOCATI	ON Port Wa	shington, N	<u> </u>		SHEET 1 C	DF 5
CLIENT NYSDEC								PROJECT No	0266380
DRILLING CONTRACTOR	Buffalo D	rilling						MEAS. PT. EL	.EV.
PURPOSE	Monitorin	ng Well	Installati	on				GROUND ELE	EV.
WELL MATERIAL								DATUM	
DRILLING METHOD(S)	Rotary			SAMPLE	CORE	CASIN	IG		ED 0/04/00
DRILL RIG TYPE	HSA		TYPE			PVC	**	DATE START	
GROUND WATER DEPTH	21.0'		DIA.	••		2		<u> </u>	ED 9/16/09
MEASURING POINT			WEIGHT	#				DRILLER	Larry
DATE OF MEASUREMENT			FALL	••				PIRNIE STAF	F J. Hock/B. Jordan
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC		EY - Color Moist	I C DESCRI I , Major, Min ure, Etc.		ELEV. DEPTH	WEI		REMARKS
2- 3- 4- 6- 1.5 8- 10- 1.3 12- 14- 16- 1.5		Tan (dry	wn/orange n	dium SAND, so	(dry).	5.0			

		MAI PII	CO RN	LM IE	TEST BORIN	G LOG	E	BORING No.PC-5 B/C
PROJE	ECT Fo	rmer Plaz	za Cle	aners	LOCATION Port Washington, N	′		SHEET 2 OF 5
CLIEN	⊤ NY	SDEC						PROJECT No. 0266380
DEPTH FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	DEPTH	NELI Sonst	REMARKS
22	1.2		0		Brown medium SAND, some gravel (wet).	20.0		*
24-								
26-	1.7		0		Coarse GRAVEL. Gray clayey SILT, oxidized.	25.0		
28-								
30	2		0		Tan medium to coarse SAND with gravel, oxidized.	30.2		
32	V				Brown medium SAND.	31.6		
				0 V (Brown coarse SAND and GRAVEL, oxidized.	35.0		
36-	1.7		0		Gray SAND and SILT.	35.8		
38-							XINVINVINXI	
42	2		0		Red fine to medium SAND, some gravel.	41.0	XI/XXI/XXI/XX	
44-					Gray CLAY, trace sand.	45.5		

	MA	CO	<u>LM</u>	TEST BORING LO	G	BOF	RING No.PC-5 B/C	
PROJECT	Former Pla	za Cle	aners	LOCATION Port Washington, NY		SHEET 3 OF 5		
CLIENT	NYSDEC	<u> </u>	411010				ECT No. 0266380	
DEPTH FT.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	. WEI	LL str.	REMARKS	
M	2	0						
48-						NINNINNI		
50	.5	0						
54-			0	Tan medium SAND with gravel. 55.0		55.	0_	
56-	2	0		Color change to red.		57.	<u>5</u> _	
58-			000			60.	0	
60	2	0		Color change to brown/red.			<u>v</u>	
64-			· O · (
			° 0 (
66-	2	0	, O (, O (
68-								
70	0	0				70.	0	

		MAI PII	CO RN	LM IE	TEST BORING LOG	; B	BORING No.PC-5 B/C
PRO	JECT F	ormer Pla	za Cle	aners	LOCATION Port Washington, NY	5	SHEET 4 OF 5
CLIE	NT N	YSDEC		 		F	PROJECT No. 0266380
ОЕРТН FT.	SAMPLE TYPE, RECOVERY,	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WELL	REMARKS
74- 76-	.3		0		Brown fine to medium SAND. 75.0		
78- - 80-	2		0		Brown medium SAND. 80.0		
82- - 84-							
86- - 88-	1.5		0				
90- - 92-	0		0				
94-	1		0		Brown fine to medium SAND. 95.0		

		MAI PII	CO R N	LM IE	TEST BORING LO	OG	BORIN	G No.PC-5 B/C	
PROJ	IECT F	ormer Pla	za Cle	aners	LOCATION Port Washington, NY		SHEET 5 OF 5		
CLIEN	NT N	NYSDEC					PROJECT I	No. 0266380	
ОЕРТН FT.	SAMPLE TYPE, RECOVERY,	NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	<u>∕.</u> WE H Cor	ELL nstr.	REMARKS	
100- 102- 104- 106- 108- 110- 112-	2		0				113.0		
114- 116- 118- 120-	2		0	amm	Silty CLAY.	8	113.0		
					122	0			

_		MAL PII	CC RN	LM IE		TEST	BORIN	G LO	G	В	ORING N	o.PC-6 A/B/C
PROJEC	CT Fo i	mer Plaz	za Cle	aners	LOCATI	ON Port W a	shington, NY	,		SH	IEET 1 OF	6
CLIENT	NY	SDEC							PF	ROJECT No.	0266380	
DRILLIN	NG CON	TRACTOR	Buff	alo Drilli	ng					ME	EAS. PT. ELEV	
PURPO					Vell Installati	on				GF	ROUND ELEV.	
WELL N	MATERIA	L								H	TUM	
DRILLIN	IG METH	HOD(S)	Rota	ıry		SAMPLE	CORE	CASI	NG	-		0/40/00
DRILL R	RIG TYPI	Ī.	HSA		TYPE			PV	С		TE STARTED	
GROUN	ID WATE	R DEPTH	60.0	1	DIA.	"		2		⊢	TE FINISHED	
MEASU	RING PO	DINT			WEIGHT	#				DF	RILLER	Larry
DATE O	F MEAS	UREMENT	Γ		FALL	"				PII	RNIE STAFF	K. Roe/E. Moskal
DEPTH FT.	TYPE, TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	KEY - Color Moist	GIC DESCRI , Major, Mir ure, Etc.		ELEV. DEPTH			1	REMARKS
					Asphalt. Gravel subbase	<u> </u>		0.5			:	
2- - - 4-	5		0		Orange/brown v some well grad	well graded SA		1.0	<u> </u>	X///X///XX////		
8-	1		0		Light to mediun GRAVEL and fi trace silt (dry).			5.0		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
12	1.7		0		Orange/brown f moist).	ine SAND, trad	ce silt (dry to	10.0		[[[K]][KY]][KY]][KY]][KY]]		
16-	1.8		0							//////////////////////////////////////		

		MAI PII	CO RN	LM IE	TEST BORING	S LO	G I	BORING N	lo.PC-6 A/B/C
PROJ	IECT	Former Pla	za Cle	aners	LOCATION Port Washington, NY			SHEET 2 OF	6
CLIEN		NYSDEC		1				PROJECT No.	0266380
ОЕРТН FT.	SAMPLE TYPE,	NUMBER NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. DEPTH	WEL Cons	L tr.	REMARKS
22	1	.6	0						
24-									
26-	1	.8	0		Gray/brown fine SAND, little to trace silt (very moist to wet).	25.0			
28-									
30-		2	0						
34-		2	0		Brown/gray fine SAND and SILT, iron staining (wet to moist).	35.0			
38-									
40 - - 42 -		2	0.2		Grown/gray SILT, trace fine sand, trace clay, iron staining (moist).	40.0			
44-									
					Medium gray silty CLAY (moist).	45.0			

		MAI PII	CO RN	LM E	TEST BORING LOG	BORING No.PC-6 A/B/C
PROJ	ECT	Former Pla	za Cle	aners	LOCATION Port Washington, NY	SHEET 3 OF 6
CLIEN	NT I	NYSDEC				PROJECT No. 0266380
ОЕРТН FT.	SAMPLE TYPE,			GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELL REMARKS
	X 2	2	0			
48- -						
50 -	2	2	0			
52 <u> </u>						
54- - 56-			0		Medium gray clayey SILT (moist to dry). 55.0	
58-						
60 -	1.	9	0		Medium gray sandy SILT, little to trace 60.0 clay (moist).	▼
62 - -	<u> </u>					
64 – –						
66- -	2	2	0.0.1			
68- -						
70 - -	2	2	0			72.0

	M	ICC IRN		TEST BORING LOG) E	BORING No.PC-6 A/B/C
PROJEC	T Former F	laza Cle	aners	LOCATION Port Washington, NY		SHEET 4 OF 6
CLIENT	NYSDEC		1 1			PROJECT No. 0266380
DEPTH FT.	TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON	PER 6"	GRAPHIC	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WELI Const	L REMARKS
74-						74.0
78-	2	0.1		Gray/brown silty fine SAND (wet). Gray/brown sandy SILT (moist). Dark reddish gray fine to medium SAND (wet). 75.7 75.7 76.5		
82	1	0		Medium gray fine to medium SAND, trace silt, trace coarse sand (wet).		
84-	1.5	0				84.0
88-						
90	1.8	0		Medium brown medium SAND, little to 91.8 trace coarse sand and fine gravel (wet).		
94-						
96-	2	0 0.8		Reddish brown silty fine SAND (wet). 96.5		

		MAI	CO R NI	<u>IM</u>	TEST BORING LOG	BORING No.PC-6 A/B/C
PROJ	IECT F (ormer Pla	za Cle	aners	LOCATION Port Washington, NY	SHEET 5 OF 6
CLIEN	NT N	YSDEC				PROJECT No. 0266380
DEPTH FT.	SAMPLE TYPE, RECOVERY,	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc. WE DEPTH Cor	ELL REMARKS
- 100- - 102- - 104-	0.8		1.4			100.5
104 – 106 – 108 –	1		1			
110 - - 112 -	1		2.1			
114- - 116-	0.1		2.1			115.0
118- - 120-					Medium brown with light tan medium to 120.0	
	1.2		0.2		CAND BUILDED AND COMPANY	123.0

		MAI PII	CO RN	IM IE	TEST BORIN	IG LOG) E	BORING No.PC-6 A/B/C
PRO	JECT	Former Pla	za Cle	aners	LOCATION Port Washington, N	NY	5	SHEET 6 OF 6
CLIE	NT	NYSDEC					F	PROJECT No. 0266380
DEPTH FT.	SAMPLE TYPE.	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. DEPTH (WELL	REMARKS
	M	1 2			Gray fine to medium SAND, some silt (wet). Gray silty CLAY.	135.0		130.0

٨	AALCO PIRNI	LM E		TEST	BORIN	G LOG	В	ORING N	o.PC-7 A/B/C	
PROJECT Forme	er Plaza Clea	aners	LOCATION	TION Port Washington, NY			s	SHEET 1 OF 5		
CLIENT NYSD	EC		,				Р	ROJECT No.	0266380	
DRILLING CONTRA	ACTOR Buffa	alo Drilling	g				N	EAS. PT. ELEV		
PURPOSE	Moni	toring We	ell Installation	on			G	ROUND ELEV.		
WELL MATERIAL								ATUM		
DRILLING METHO	D(S) Rota	ry		SAMPLE	CORE	CASING		ATE STARTED	9/21/09	
DRILL RIG TYPE	HSA		TYPE			PVC	\vdash	ATE FINISHED		
GROUND WATER I			DIA.	"		2		RILLER		
MEASURING POIN			WEIGHT	#					Larry	
DATE OF MEASUR	REMENT		FALL	"			_ P	IRNIE STAFF	K. Roe	
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON	SAMPLE SPOON PER 6"	Ü	KEY - Color	IC DESCRII , Major, Min ure, Etc.	_	ELEV. W	/ELL onstr		REMARKS	
1.2			edium brown seedium brown seed	gravelly SAND. gravelly SAND. proorly graded sand	SAND to	0.3 5.0 6.0 10.0 15.0				

		MAI	CO R NI	<u>LM</u>	TEST BORING LOG	3	BORING No.PC-7 A/B/C
PROJ	ECT Fo	rmer Pla	za Cle	aners	LOCATION Port Washington, NY	\neg	SHEET 2 OF 5
CLIEN	NT NY	SDEC			,		PROJECT No. 0266380
ОЕРТН FT.	SAMPLE TYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	WEL	L REMARKS
22-	1.3						22.0
24-							<u>24.0</u>
26- _	1.1						
28- -							28.0
30-	2				Medium brown well graded SAND (wet). 30.0		
32-							33.0
36- 	2						
38- -							
40-	.8				Medium brown well graded gravelly SAND 40.0 (wet).		
42-							

	MAL	COLA	1	TEST DOD!		POPINO	No.PC-7 A/B/C
	PII	<u>RNIË</u>		TEST BORI	NG LOG	BORING	INU.PC-/ A/B/C
PROJECT	Former Plaz	za Cleaners	LOCATIO	N Port Washington,	NY	SHEET 3	OF 5
CLIENT	NYSDEC					PROJECT No	o. 0266380
DEPTH FT. SAMPLE TYPE	RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	DID GRAPHIC 1.06	GEOLOGIO KEY - Color, Moistur	C DESCRIPTION Major, Minor re, Etc.	ELEV. WI	ELL nstr.	REMARKS
48-	1.7		4 · 0 · · · · · · · · · · · · · · · · ·				
50	2						
54-							
	1.7						
60							
62	1.5					62.0	
64-						65.0	
66-	1.7						
68-						69.0	
70	1.1		· • • • • • • • • • • • • • • • • • • •				

MALCOI PIRNI	TEST BORING	G LOG BORING No.PC-7 A/B/C
PROJECT Former Plaza Clea	ners LOCATION Port Washington, NY	SHEET 4 OF 5
CLIENT NYSDEC		PROJECT No. 0266380
SAMPLE TYPE, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WELL Constr. REMARKS
74- 76- 1.6 78- 80- 2	Color change to reddish brown. Color change to medium brown.	74.0
867	Medium brown poorly graded SAND (wet).	85.0
90 1.7 92 94 96 2	Medium brown well graded SAND (wet). Reddish brown grading to medium brown poorly graded SAND (wet).	91.0

		MAI PII	CO R NI	IF	TEST BORIN	IG LOG	во	RING No.PC-7 A/B/C
PROJ	IECT F	ormer Pla	za Cle	aners	LOCATION Port Washington, N	IY	SHE	ET 5 OF 5
CLIEN	NT N	YSDEC			<u>'</u>		PRO	DJECT No. 0266380
DEPTH FT.	SAMPLE TYPE, RECOVERY,	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WI	ELL nstr.	REMARKS
- 100- 102- 104- 106- - 108- 110-	1.8							
- 112- -	2							<u>11.0</u> <u>13.0</u>
114- - 116-	2				Medium brown silty fine SAND (wet).	116.0	1	<u>15.0</u>
- 118- -	/\				Modium brown sitty line SAND (Wet).	110.0	12	<u>20.0</u>
120-	1.9				Medium brown poorly graded SAND (wet)	120.0		22.0

		MAI PII	CO RN	LM IE		TEST	BORING	G LO	G	В	ORING N	o.PC-8 A/B/C		
PROJE	CT F	ormer Pla	za Cle	aners	LOCATI	ON Port Wa	shington, NY			SH	IEET 1 OF	7		
CLIEN	T N	YSDEC								PF	ROJECT No.	0266380		
DRILLI	NG CON	NTRACTOR	Buffa	alo Drillir	ng					ME	MEAS. PT. ELEV.			
PURPO	OSE		Mon	itoring W	ell Installati	ation					GROUND ELEV.			
WELL	MATERI	AL									TUM			
DRILLI	NG MET	HOD(S)	Rota	ry		SAMPLE	CORE	CASI	NG	-	TE STARTED	9/25/09		
DRILL	DRILL RIG TYPE HSA TYPE							PV	С	-				
GROU	ND WAT	ER DEPTH	32.0'		DIA.	"		2		┢	TE FINISHED			
MEASI	JRING F	POINT			WEIGHT	#					RILLER	Larry		
DATE	OF MEA	SUREMEN [*]	Т		FALL	"				PIF	RNIE STAFF	B. Jordan		
DEPTH FT.	SAMPLE TYPE, RECOVERY,	BLOWS ON SAMPLE SPOON PER 6"	PID	, to	KEY - Color Moist	ure, Etc.	ior	ELEV. DEPTH	WE Con	LL str.	ا	REMARKS		
2- 4- 4- 8- 10- 12- 14- 16-	1.2		0 0		Medium to dark coarse GRAVEI	ine to medium avel (moist).	silty SAND,	10.0	XII XXII XXII XXII XXII XXII XXII XXII	VII TAVII TAVI VII TAVII TAVI				
18-														

MALC PIR	COLM NIF	TEST BORIN	G LOG	BORING No.	.PC-8 A/B/C
PROJECT Former Plaza	Cleaners	LOCATION Port Washington, N	Υ	SHEET 2 OF 7	
CLIENT NYSDEC				PROJECT No.	266380
SAMPLE TYPE, TYPE, NUMBER BLOWS ON SAMPLE SPOON PER 6"	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. WE	ELL estr. RE	MARKS
1.2	0				
24-				25.0	
28-	0			27.0 	
30 1.25	0	Medium to light brown well graded SAND (moist).	30.0	29.0	
32				¥	
36 - 1.75	0				
38-				39.0	
.8	0				
42 44 -				8	

		MAI	CO R NI	LM IF	TEST BORING	GLOG	В	ORING No.PC-8 A/B/C
PROJ	ECT F	rmer Pla	za Cle	aners	LOCATION Port Washington, NY		Sŀ	HEET 3 OF 7
CLIEN	' N TI	YSDEC			·		PF	ROJECT No. 0266380
ОЕРТН FT.	SAMPLE TYPE, RECOVERY,	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. W	/ELL onstr.	REMARKS
	$\left \right $ 2		0					
48-								
50 - 52-	1.25		0		Medium brown well graded SAND with gravel (wet).	50.0		
54 - -								
56- -	2		0					
58- - 60-								
- 62-	2		0					
64-					Medium brown poorly graded SAND (wet).	65.0		
66- _	2		0		Medium brown well graded SAND with gravel (wet).	66.0		
68- - 70-								
-	1.75		0		Medium brown poorly graded SAND (wet).	70.5		

	MAI	COLM	TEST BORING I	LOG	BORING No.PC-8 A/B/C
PROJEC	T Former Pla	za Cleaners	LOCATION Port Washington, NY		SHEET 4 OF 7
CLIENT	NYSDEC				PROJECT No. 0266380
DEPTH FT.	TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	did GRAPHIC LOG	KEY - Color, Major, Minor Moisture, Etc.	LEV. WE	LL str. REMARKS
74- 76- 78- 80- 82- 84-	2		Medium reddish brown to brown well graded SAND with gravel (wet).		
86 -	2		Medium brown well graded SAND (wet).	95.0	94.0
90	2	U			97.0

			MAI PII	CO RN	LM E	TEST BORIN	G LOC	3	BOF	RING No.PC-8 A/B/C
PRO	JEC ⁻	⊺ Fo r	mer Pla	za Cle	aners	LOCATION Port Washington, N	Y		SHEE	T 5 OF 7
CLIE	NΤ	NY	SDEC						PRO	JECT No. 0266380
DEPTH FT.	SAMPLE	IYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. DEPTH	WEL Cons	L str.	REMARKS
100-		.9		0		Medium brown well graded SAND, trace gravel (wet).	100.0		10	<u>0.0</u>
104 <i>-</i>	M	1.8		0					10	<u>5.0</u>
	/ \									
		0				No recovery.	110.0			
		0								
		0								

			MAI PII	CC R N	IF	TES	ST BORING LO	G	BORING No.PC-8 A/B/C	<u> </u>
PRO	JECT	⊺ Fo r	mer Pla	za Cle	aners	LOCATION Port	t Washington, NY		SHEET 6 OF 7	
CLIE	NT	NY	SDEC						PROJECT No. 0266380	
DEPTH FT.	SAMPLE	IYPE, RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESC KEY - Color, Major, Moisture, Etc.	DEDTI-	WEL	ELL nstr. REMARKS	
		1.5		0		Brown fine SAND.	125.0			
						No recovery.	127.0			
		0								
		0								
		0								
									144.0	
		0							146.0	

		MAI	RN	ΪΕ Ν	TEST BORI	NG LOG	B	ORING No.PC-8 A/B/C
ROJE	CT	ormer Pla	za Cle	aners	LOCATION Port Washington,	NY	S	HEET 7 OF 7
LIEN	SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"			_			F	PROJECT No. 0266380
	SAMPLE TYPE, RECOVERY	NUMBER BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOGIC DESCRIPTION KEY - Color, Major, Minor Moisture, Etc.	ELEV. N	WELL Constr	REMARKS
	2	!	0		Brown fine SAND.	150.0		151.0
					Gray CLAY (dense).	151.7		
						152.0		153.0

''Yi i	COLM RNIE		TEST	BORING	LOG	В	ORING N	lo.PC-9		
PROJECT Former Plan	za Cleaners	LOCATION	ON Port Wa	shington, NY		s	HEET 1 OF	2		
CLIENT NYSDEC		<u>'</u>				Р	ROJECT No.	0266380		
DRILLING CONTRACTOR	Buffalo Drillin	g				N	IEAS. PT. ELEV	<i>1</i> .		
PURPOSE	Monitoring We	ell Installation	on			G	GROUND ELEV.			
WELL MATERIAL							ATUM			
DRILLING METHOD(S)	Rotary		SAMPLE	CORE	CASIN	G ├	ATE STARTED	0/20/00		
DRILL RIG TYPE	HSA	TYPE			PVC	\vdash				
GROUND WATER DEPTH	11.0'	DIA.	"		2		ATE FINISHED			
MEASURING POINT		WEIGHT	#			D	RILLER	Larry		
DATE OF MEASUREMEN	Γ	FALL	"			Р	IRNIE STAFF	B. Jordan		
SAMPLE TYPE, RECOVERY, NUMBER BLOWS ON SAMPLE SPOON PER 6"	, to	KEY - Color Moistu	IC DESCRII , Major, Min ure, Etc.	_	ELEV. DEPTH	WELL Constr		REMARKS		
2- 5 4- 6- 0 8- 10 .25 12 14- 16- 1.6		sphalt. Idedium brown with cobbles (dry Idedium brown with a gravel (wet) Idedium brown with a gravel (wet).	vell graded SA	ND with silt	10.0		5.0 7.0 9.0 ▼			

		MAL PIF	NI SNI	IE IE		T	EST BORIN	IG LO	G	BORING	No.PC-9
СТ	For	mer Plaz	za Clea	aners	LOCATI	NC	Port Washington, N	Υ		SHEET 2 OF	2
	NYS	SDEC								PROJECT No.	0266380
SAMPLE TYPE,	RECOVERY, NUMBER	BLOWS ON SAMPLE SPOON PER 6"	PID	GRAPHIC LOG	GEOLOG KEY - Color Moisti	, Maj		ELEV. DEPTH	WEL Cons	.L tr.	REMARKS
	1.6		0				graded SAND (wet).	20.0		21.0	
				<u> </u>	Medium brown	sandy	SILT (wet).	20.5	724172 7	<u>-</u> 20121.0_	
+								21.0			



Appendix B

Data Usability Summary Reports

Data Validation Services, Inc.

Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

> Phone 518-251-4429 Facsimile 518-251-4428

June 30, 2008

Aaron Bobar Malcolm Pirnie, Inc. 43 British American Blvd Latham, NY 12110

RE: Data Usability Summary Report (DUSR) for Munsey Cleaners OU2 site data packages —air and groundwater samples

Chemtech SDG Nos. Z1262, Z1288, Z1311, Z1338, Z1354, Z1538, and Z1547

CAS SDG Sub. P08081397

Dear Mr. Bobar:

Review has been completed for the data packages generated by Chemtech Laboratory and Columbia Analytical Services that pertain to groundwater and air samples collected between 1/23/08 and 5/07/08 at the Munsey Cleaner site. Thirty-one aqueous samples and a field duplicate were analyzed for TCL volatiles by USEPA SW846 method 8260B. Four 6-L summa canister air samples and a field duplicate were analyzed for a site-specific list of volatile analytes by USEPA GC/MS method TO-15. Equipment and trip blanks were also processed.

The data package submitted by the laboratory contains full deliverables for validation, but this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. Full validation has not been performed. However, the reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA National and Regional validation guidance documents, with consideration of the specific requirements of the analytical methodology. The following items were reviewed:

- * Data Completeness
- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Method and Canister Blanks
- * Field Duplicate Correlations
- * Laboratory Control Samples (LCSs)
- * Instrumental Tunes
- * Initial and Continuing Calibration Standards
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level of review.

pg. 2/4

In summary, sample processing was conducted in compliance with the analysis protocol. All sample reported results are usable as reported, or usable with minor qualification. No data are rejected.

Copies of the laboratory client/laboratory sample identifications are attached to this text. Also attached are sample report forms with the recommended qualifiers and edits applied in red ink.

Volatile Analyses by USEPA SW846 860B

In order to reflect the proper reporting limits, the report forms should reflect the "RL" value in the "Conc" field, not the MDL concentrations.

Results for analytes (tetrachloroethene) initially reported with the "E" laboratory flag are to be derived from the dilution analyses of the samples.

The custody associated with the samples reported in Z1538 notes that "some bubbles formed after collection" for the samples. Results for those samples are qualified as estimated.

The result for 1,2-dichloroethane in MC-SURFACE-1 is edited to reflect non-detection due to poor mass spectral quality.

Detections of methylene chloride in MC-B-5-60.0 and MC-B-7-48.0 are considered external contamination and edited to reflect non-detection due to presence in the associated trip blanks.

Matrix spikes of MC-B-9-85.0 and MC-B-17-55.0 show acceptable recoveries and duplicate correlations. Recoveries were within recommended ranges, with the exception of elevated recoveries for undetected analytes and a single outlying recovery for one detected compound.

Results for acetone and chloromethane in the samples reported in Z1262 are qualified as estimated due to low LCS recoveries (61% and 60%).

Initial and continuing calibration standard linearity and calibration verification responses were within laboratory and validation guidelines, with the exception of that for acetone (30%RSD and 22%D; low concentration values elevated) in the calibration associated with a detection of that compound in MC-B-6-57.0. The result for that compound in the sample is qualified as estimated.

Holding times were met, surrogate recoveries and internal standard responses are acceptable, and instrument tunes meet fragmentation requirements.

Some of the samples were processed at initial dilution due to anticipated matrix responses; this results in elevated reporting limits for analytes not detected in the sample.

The Equipment Blank collected 1/23/08 was processed at a twenty-fold dilution, due to what the laboratory noted in the case narrative as "matrix effect". What type of effect that may have been is not understood (the chromatogram was absolutely without matrix response), as there should be no matrix effect from a blank, particularly when the associated samples do not show a matrix effect. Although the reported results for that equipment blank are not qualified, they do reflect twenty-fold

higher reporting limits, thus rendering them unusable for evaluating potential external contamination in the samples. The associated trip and method blanks show no contamination.

Tentatively Identified Compounds that were reported with a CAS number should also have been flagged with the "N" laboratory flag to indicate that the identification is tentative.

Volatile Analyses by EPA TO-15

Sample 130081-SS-04-050708 was received by the laboratory at positive pressure. Because it cannot be determined that no losses occurred, results for that sample have been qualified as estimated ("UJ" or "J").

Holding times were met, surrogate recoveries and internal standard responses are acceptable, and instrument tunes meet fragmentation requirements.

The laboratory duplicate for air sample 130081-SS-04-050708 shows good correlations. Blind field duplicate correlations for air sample 130081-SS-10-050708 are within validation guidelines.

The results for acetone and chloromethane in the samples reported in Z1262 are qualified as estimated due to low recoveries (61% and 60%) in the associated LCS.

Initial and continuing calibration standard linearity and calibration verification responses were within laboratory and validation guidelines. The system was calibrated with analyte weight rather than concentration; there is no negative impact on usability of the resulting data.

Some of the samples were processed at initial dilution due to anticipated matrix responses; this results in elevated reporting limits for analytes not detected in the sample.

Chain-of-Custody

No times of collection were entered for the aqueous samples collected 1/28/08 or for the matrix spikes submitted in SDG Z1354. The laboratory contacted the client to clarify the parent sample of that set of matrix spikes.

It is noted that the custody time entry for the matrix spikes reported in Z1538 match that of a sample other than the one identified as the parent sample. Recoveries and duplicate correlations are acceptable with either one as parent.

Some of the collection date and/or matrix fields were missing down-arrows (i.e. date or matrix only on first entry). The year was omitted from collection dates and some of the relinquish dates.

Several of custodies reflect aqueous sample preservation as being both nitric and hydrochloric acids. The nitric acid code should have been the code for ice.

Strikeovers observed on the custodies should have been dated and initialed.

VALIDATION QUALIFIER DEFINITIONS

DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

- The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification".
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

CLIENT and LABORATORY SAMPLE IDs



ProjectID:

Muncy Cleaners OU2

OrderID: Z1262

CustomerName:

Malcolm Pirnie, Inc.

LAB SAMPLE NO.	CLIENT SAMPLE NO
Z1262-01	MC-B-2-41.4
Z1262-02	MC-B-2-85.0
Z1262-03	MC-SURFACE-1
Z1262-04	MC-SURFACE-2
Z1262-05	MC-SURFACE-3
Z1262-06	EQUIPMENT.BLANK

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:_	Wild	us Vlu	NO	Name:	Mi	dud 1	1 Reyes
Date:2	1610	8	8	Title:	WA/	(QC	

NYDOH CERTIFICATION NO.11376

NJDEP CERTIFICATION NO. 20012



ProjectID:

Muncy Cleaners OU2

OrderID: Z1288

CustomerName:

Malcolm Pirnie, Inc.

LAB SAMPLE NO.

CLIENT SAMPLE NO

Z1288-01

MC-B-3-43.0

Z1288-02

MC-B-3-85.0

Z1288-03

EQUIPMENT.BLANK

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:	Roffelder FL	Name: Routhcetthy,	Falpine
	1011		**
Date:	2181.8	Title: A \ O e	



ProjectID: Muncy Cleaners OU2

OrderID: Z1311 CustomerName:

Malcolm Pimie, Inc.

LAB SAMPLE NO. Z1311-01

CLIENT SAMPLE NO MC-B-4-44.0

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: <u>Wildred VRuys</u> Name: <u>Wildred VRuys</u>

Date: <u>2/11/08</u>

Title: <u>OA/00</u>



ProjectID: Muncy Cleaners OU2

TRIPBLANK.

OrderID: Z1338 CustomerName:

Malcolm Pimie, Inc.

CLIENT SAMPLE NO LAB SAMPLE NO. MC-B-5-60.0 Z1338-01 Z1338-02 MC-B-5-85.0 MC-B-6-57.0 Z1338-03 MC-B-7-48.0 Z1338-04 TRIPBLANK Z1338-05 Z1338-06 MC-B-8-60.0 MC-B-8-85.0 Z1338-07 Z1338-08 MC-B-9-40.0

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:	Reflecther, Folgena	Name: Raythother,	Kalpana
	21131.8	Title: OAL OC	
Date	2113118	Tille	

Z1338-09



ProjectID: Muncy Cleaners OU2

OrderID: Z1354 CustomerName: Malcolm Pirnie, Inc.

 LAB SAMPLE NO.
 CLIENT SAMPLE NO

 Z1354-01
 MC-B-9-85.0

 Z1354-02
 MC-B-11-25.0

 Z1354-03
 MC-B-11-60.0

 Z1354-04
 MS

 Z1354-05
 MSD

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: <u>Wilded Villys</u> Name: <u>Wilded Villy</u>

Date: <u>314108</u> Title: <u>OA/OC</u>

NYDOH CERTIFICATION NO.11376

NJDEP CERTIFICATION NO. 20012



ProjectiD: Muncy Cleaners OU2

OrderID: Z1538 CustomerName: Malcolm Pirnie, Inc.

CLIENT SAMPLE NO
MC-B-10-65.0
MC-B-12-45.0
MC-B-13-44.0
MC-B-14-73.0
MC-B-15-55.0
MC-B-16-55.0
MC-B-17-55.0
MC-B-18-63.0
MC-B-17-55.0-MS
MC-MSD
MC-B-17-100.0

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: <i>Wildule</i>	VReys	Name: <u>Hildu</u>	e U blegs
Date: 2/39/08	8	Title:	<i></i>



ProjectID: Muncy Cleaners OU2

OrderID: Z1547 CustomerName:

Malcolm Pirnie, Inc.

 LAB SAMPLE NO.
 CLIENT SAMPLE NO

 Z1547-01
 MC-B-19-60.0

 Z1547-02
 MC-B-20-85.0

 Z1547-03
 MC-B-20-55.0

 Z1547-04
 MC-B-16-85.0

 Z1547-05
 TRIP BLANK

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: <u>Mildred V Reys</u> Name: <u>Wildred V Reyo</u>s

Date: <u>3/3/08</u> Title: <u>VA/OC</u>

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Sample Code Code	Customer	Laboratory	T		Analytica			····
Code			*VOA	*BNA	*VOA		*Metals	*Other
Method		Code					1	
# # # # # # # # # # # # #								
130081-SS-05-050708					1			
130081-SS-06-050708 P0801397-003 EPA TO-15 130081-SS-04-050708 P0801397-004 EPA TO-15 20080507-FD-1 P0801397-005 EPA TO-15	130081-SS-05-050708	P0801397-001						
130081-SS-04-050708 P0801397-004 EPA TO-15 20080507-FD-1 P0801397-005 EPA TO-15	130081-SS-10-050708	P0801397-002	EPA TO-15					
130081-SS-04-050708 P0801397-004 EPA TO-15 20080507-FD-1 P0801397-005 EPA TO-15		P0801397-003	EPA TO-15					
20080507-FD-1 P0801397-005 EPA TO-15		P0801397-004						
	20080507-FD-1	P0801397-005						
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QUALIFIED SAMPLE REPORT FORMS



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client: Malcolm Pirnie, Inc.

Date Collected:

1/23/2008

Project:

Muncy Cleaners OU2

Date Received:

1/24/2008

Client Sample ID:

MC-B-2-41.4

SDG No.:

Z1262

Lab Sample ID:

Z1262-01

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Dilution:

Soil Extract Vol:

uL

Soil Aliquot Vol:

File ID:

uL

Date Analyzed

Analytical Batch ID

80

VD014763.D	1	1/25/2008	VD01240

CAS Number	Parameter	Con	nc. Qual	ifier (RL)	MDI	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.4	3 U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.3	8 U	WJ 1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.4	5 U		0.46	ug/L
74-83-9	Bromomethane	0.6	3 U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49) U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40) U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.33	5 U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	5 U	_ 1.0	0.55	ug/L
67-64-1	Acetone	15		\int 5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.5	U U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.83	J J	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	2 U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	, U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	' U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	5.0		1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Project:

Muncy Cleaners OU2

Date Collected: Date Received:

1/23/2008

MC-B-2-41.4

SDG No.:

1/24/2008 Z1262

Client Sample ID: Lab Sample ID:

Z1262-01

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

File ID:

Dilution:

Date Analyzed

Analytical Batch ID

VD014763.D

1

1/25/2008

VD012408

CAS Number	Parameter	Conc.	Qualifier	RL	MDI	. Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	5.6		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES	i					
17060-07-0	1,2-Dichloroethane-d4	45.85	92 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	53.84	108 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	50.23	100 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.64	97 %	76 - 119		SPK: 50
INTERNAL ST.	ANDARDS					
363-72-4	Pentafluorobenzene	1349418	4.64			
540-36-3	1,4-Difluorobenzene	2375357	5.37			
3114-55-4	Chlorobenzene-d5	2549856	10.32			
3855-82-1	1,4-Dichlorobenzene-d4	1250946	12.82			
TENTITIVE ID	ENTIFIED COMPOUNDS		,			
000115-11-7	1-Propene, 2-methyl-	8.6	√ J	1.04		ug/L
	unknown1.23	19	1	1.23		ug/L ug/L

U = Not Detected

RL = Reporting Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Date Collected: 1/23/2008 Client: Malcolm Pirnie, Inc. Project: **Muncy Cleaners OU2** Date Received: 1/24/2008 SDG No.: Client Sample ID: MC-B-2-85.0 Z1262 Lab Sample ID: Z1262-02 Matrix: WATER Analytical Method: % Moisture: 100 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: uL

Dilution: Date Analyzed Analytical Batch ID File ID: VD014764.D 1 1/25/2008 VD012408

CAS Number	Parameter	Conc.	Qualifier (RL)	MDL Units
TARGETS				
75-71-8	Dichlorodifluoromethane	0.43	U 1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U U J 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U1.0	0.55 ug/L
67-64-1	Acetone	6.2		2.7 ug/L
75-15-0	Carbon disulfide	0.51	U 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	52	1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66 - 3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55 - 6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Date Collected: Malcolm Pirnie, Inc. 1/23/2008 Client: Project: **Muncy Cleaners OU2** Date Received: 1/24/2008

SDG No.: Client Sample ID: MC-B-2-85.0 Z1262 Lab Sample ID: Z1262-02 Matrix: WATER % Moisture:

100 Analytical Method: 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD014764.D	1	1/25/2008	VD012408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.88	90 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	53.43	10 7 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.26	99 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.43	97 %	76 - 119		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	1327943	4.64			
540-36-3	1,4-Difluorobenzene	2383193	5.38			
3114-55-4	Chlorobenzene-d5	2461423	10.32			
3855-82-1	1,4-Dichlorobenzene-d4	1210146	12.82			
TENTITIVE IDI	ENTIFIED COMPOUNDS		,			
000115-11-7	1-Propene, 2-methyl-	8.6	N , J	1.04		ug/L
002639-63-6	Butanoic acid, hexyl ester	6.3	h 1	16.57		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



CETTLECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Malcolm Pirnie, Inc. Client:

Date Collected: 1/23/2008

Project: **Muncy Cleaners OU2**

Date Received: 1/24/2008

Client Sample ID:

SDG No.:

Soil Extract Vol:

Z1262

Lab Sample ID:

Z1262-03 Matrix: WATER

Analytical Method: Sample Wt/Wol:

8260 5.0 Units: mL

MC-SURFACE-1

% Moisture: 100

uL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID	
VD014766.D	1	1/25/2008	VD012408	

CAS Number	Parameter	Conc.	Qualifier RL	MDL Units
TARGETS				
75 - 71-8	Dichlorodifluoromethane	0.43	U 1.0	0.43 ug/L
74 - 87-3	Chloromethane	0.38	U WJ 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U _1.0	0.55 ug/L
67-64-1	Acetone	2.7	U US 5.0	2.7 ug/L
75-15 - 0	Carbon disulfide	0.51	U 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	3.4	1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	2.7	1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.86	8U 1.0	0.38 ug/L
79-01-6	Trichloroethene	1.4	1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug /L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

1/23/2008

Project:

Muncy Cleaners OU2

Date Received:

1/24/2008

Client Sample ID:

MC-SURFACE-1

SDG No.:

Z1262

Lab Sample ID:

Z1262-03

Matrix:

WATER

Analytical Method:

% Moisture:

100

Sample Wt/Wol:

8260 5.0

Soil Extract Vol:

иL

Soil Aliquot Vol:

иL

Units: mL

File ID:

VD014766.D

Dilution:

1

Date Analyzed

Analytical Batch ID

1/25/2008

VD012408

(2017)	-					
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	13		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	\mathbf{U}	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95 - 50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.3	91 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	52.97	106 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.98	100 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.41	97 %	76 - 119		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1393778	4.62			
540-36-3	1,4-Difluorobenzene	2478692	5.36			
3114-55-4	Chlorobenzene-d5	2505288	10.32			
3855-82-1	1,4-Dichlorobenzene-d4	1219369	12.80			

U = Not Detected

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Lab Sample ID:

Matrix:

WATER

цL

Report of Analysis

Malcolm Pirnie, Inc. Date Collected: 1/23/2008 Client: Project: **Muncy Cleaners OU2** Date Received:

1/24/2008 Client Sample ID: MC-SURFACE-2 SDG No.: Z1262

% Moisture:

Analytical Method: 100 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

Z1262-04

Dilution: Analytical Batch 1D File ID: Date Analyzed VD014767.D 1 1/25/2008 VD012408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	ひいて	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35 - 4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U 🛂	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	1.7		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93 - 3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.89	J	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	J	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0		ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0		ug/L
108-88-3	Toluene	0.51	U	1.0		ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0		ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0		ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc.

Date Collected:

1/23/2008

Project:

Muncy Cleaners OU2

Date Received:

1/24/2008

Client Sample ID:

MC-SURFACE-2

SDG No.:

Z1262

Lab Sample ID:

Z1262-04

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

1

Soil Extract Vol:

uL

Soil Aliquot Vol:

File ID: VD014767.D υL

Dilution:

Date Analyzed

Analytical Batch ID

1/25/2008

VD012408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	14		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	\mathbf{U}	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	\mathbf{U}	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95 - 50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES	5					
17060-07-0	1,2-Dichloroethane-d4	45.8	92 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	54.15	108 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.45	99 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.65	97 %	76 - 119		SPK: 50
INTERNAL ST	ANDARDS					
363 - 72-4	Pentafluorobenzene	1363307	4.63			
540-36-3	1,4-Difluorobenzene	2466101	5.37			
3114-55-4	Chlorobenzene-d5	2562394	10.31			
3855-82-1	1,4-Dichlorobenzene-d4	1196652	12.80			

U = Not Detected

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc.

Date Collected:

1/23/2008

Project:

Muncy Cleaners OU2

Date Received:

1/24/2008

Client Sample ID:

MC-SURFACE-3

SDG No.:

Z1262

Lab Sample ID:

Z1262-05

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

иL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD014768.D I 1/25/2008 VD012408

CAS Number	Parameter	Conc.	Qualifier (RL)	MDL Units
TARGETS	4 -			
75-71-8	Dichlorodifluoromethane	0.43	U _1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U (L) 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U _1.0	0.55 ug/L
67-64-1	Acetone	2.7	U UJ 5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U 1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	1.3	1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client Sample ID:

Report of Analysis

Client: Malcolm Pirnie, Inc.

Project: **Muncy Cleaners OU2**

MC-SURFACE-3

Lab Sample ID: Z1262-05

Analytical Method: 8260

5.0 Units: mL Sample Wt/Wol:

Soil Aliquot Vol:

uL

Date Collected:

1/23/2008

Date Received:

1/24/2008

SDG No.:

Z1262

Matrix:

WATER

% Moisture:

100

Soil Extract Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD014768.D	1	1/25/2008	VD012408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	6.8		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.11	92 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	54.21	108 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	48.73	97 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	48.17	96 %	76 - 119		SPK: 50
INTERNAL STA	ANDARDS					
363-72 - 4	Pentafluorobenzene	1431736	4.62			
540-36-3	1,4-Difluorobenzene	2647034	5.36			
3114-55-4	Chlorobenzene-d5	2677515	10.31			
3855-82-1	1,4-Dichlorobenzene-d4	1279871	12.80			

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc. Date Collected:

1/23/2008

Project:

Muncy Cleaners OU2

Date Received:

1/24/2008

Client Sample ID:

EQUIPMENT.BLANK

SDG No.:

Z1262

Lab Sample ID:

Z1262-06

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

Date Analyzed

Analytical Batch ID

VD014765.D

File ID:

20

1/25/2008

VD012408

Dilution:

VD014765.D 20		1/25/2008	VD012408				
CAS Number	Parameter	Conc.	Qualifier	$\left(\mathbf{RL} \right)$	MDL	Units	
TARGETS							
75-71-8	Dichlorodifluoromethane	8.6	U	20	8.6	ug/L	
74-87 - 3	Chloromethane	7.6	υ <i>Ա</i> ე	5 20	7.6	ug/L	
75-01-4	Vinyl chloride	9.2	U	20	9.2	ug/L	
74-83 - 9	Bromomethane	13	U	20	13	ug/L	
75-00 - 3	Chloroethane	9.8	U	20	9.8	ug/L	
75-69-4	Trichlorofluoromethane	8.0	U	20	8.0	ug/L	
76-13-1	1,1,2-Trichlorotrifluoroethane	7.0	U	20	7.0	ug/L	
75-35 - 4	1,1-Dichloroethene	11	U	_20	11	ug/L	
67-64-1	Acetone	54	υ (()	5 100	54	ug/L	
75-15 - 0	Carbon disulfide	10	U	20	10	ug/L	
1634-04-4	Methyl tert-butyl Ether	10	U	20	10	ug/L	
79-20-9	Methyl Acetate	18	U	20	18	ug/L	
75 - 09-2	Methylene Chloride	10	U	20	10	ug/L	
156-60-5	trans-1,2-Dichloroethene	11	U	20	11	ug/L	
75-34-3	1,1-Dichloroethane	11	U	20	11	ug/L	
10-82-7	Cyclohexane	7.4	U	20	7.4	ug/L	
78-93 - 3	2-Butanone	93	U	100	93	ug/L	
66-23-5	Carbon Tetrachloride	9.8	U	20	9.8	ug/L	
56-59-2	cis-1,2-Dichloroethene	11	U	20	11	ug/L	
57-66-3	Chloroform	9.2	U	20	9.2	ug/L	
1-55-6	1,1,1-Trichloroethane	9.2	U	20	9.2	ug/L	
08-87-2	Methylcyclohexane	8.6	U	20	8.6	ug/L	
1-43-2	Benzene	10	U	20	10	ug/L	
07-06-2	1,2-Dichloroethane	7.6	U	20	7.6	ug/L	
9-01-6	Trichloroethene	11	U	20	11	ug/L	
8-87-5	1,2-Dichloropropane	11	U	20	11	ug/L	
5-27-4	Bromodichloromethane	12	U	20	12	ug/L	
08-10-1	4-Methyl-2-Pentanone	53	U	100	53	u g /L	
08-88-3	Toluene	10	U	20	10	ug/L	
0061-02-6	t-1,3-Dichloropropene	8.8	U	20	8.8	ug/L	
0061-01-5	cis-1,3-Dichloropropene	11	U	20	11	ug/L	
9-00-5	1,1,2-Trichloroethane	10	U	20	10	ug/L	

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Malcolm Pirnie, Inc. Client:

Date Collected:

1/23/2008

Project:

Muncy Cleaners OU2

Date Received:

1/24/2008

Client Sample ID:

EQUIPMENT.BLANK

SDG No.:

Z1262

Lab Sample ID:

Z1262-06

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

Soil Extract Vol:

uL

Soil Aliquot Vol:

VD014765.D

иL

File ID:

Dilution:

20

5.0 Units: mL

Date Analyzed I/25/2008

Analytical Batch ID

VD012408

CAS Number	Parameter	Conc.	Qualifier	RL .	MDL	Units
591-78-6	2-Hexanone	58	U	100	58	ug/L
124-48-1	Dibromochloromethane	9.0	U	20	9.0	ug/L
106-93-4	1,2-Dibromoethane	11	U	20	11	ug/L
127-18-4	Tetrachloroethene	14	U	20	14	ug/L
108-90 - 7	Chlorobenzene	10	U	20	10	ug/L
100-41-4	Ethyl Benzene	10	U	20	10	ug/L
126777-61-2	m/p-Xylenes	19	U	40	19	ug/L
95-47 - 6	o-Xylene	10	U	20	10	ug/L
100-42-5	Styrene	9.6	U	20	9.6	ug/L
75-25-2	Bromoform	8.4	U	20	8.4	ug/L
98-82 - 8	Isopropylbenzene	8.8	U	20	8.8	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	9.8	U	20	9.8	ug/L
541-73-1	1,3-Dichlorobenzene	9.0	\mathbf{U}	20	9.0	ug/L
106-46-7	1,4-Dichlorobenzene	8.6	\mathbf{U}	20	8.6	ug/L
95-50-1	1,2-Dichlorobenzene	9.6	U	20	9.6	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	9.0	U	20	9.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	8.2	U	20	8.2	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.09	90 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	53.58	107 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	50.57	101 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	49.97	100 %	76 - 119		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1358234	4.62			
540-36-3	1,4-Difluorobenzene	2396085	5.37			
3114-55-4	Chlorobenzene-d5	2528893	10.31			
3855-82-1	1,4-Dichlorobenzene-d4	1240463	12.81			

N = Presumptive Evidence of a Compound



1/26/2008

Client: Malcolm Pirnie, Inc. **Date Collected:**

1/24/2008

Project:

Muncy Cleaners OU2

Date Received:

1/25/2008

Client Sample ID:

MC-B-3-43.0

SDG No.:

Z1288

Lab Sample ID:

Z1288-01

Matrix:

WATER

Analytical Method:

8260

Analytical Batch ID

Sample Wt/Wol:

% Moisture:

100

5.0 Units: mL Soil Extract Vol:

uL

Soil Aliquot Vol:

VD014798.D

uL

Dilution: **Date Analyzed** File ID:

1

VD012608

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS				-		
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67 - 64-1	Acetone	7.7		5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	3.5		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	1.8		1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
7 8-8 7-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0		ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0		ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc.

Project: Muncy Cleaners OU2

_

uL

Client Sample ID: MC-B-3-43.0 Lab Sample ID: Z1288-01

Analytical Method: 8260

Sample Wt/Wol: 5.0 Units: mL

Soil Aliquot Vol:

Date Collected:

1/24/2008

Date Received:

1/25/2008

SDG No.:

Z1288

Matrix:

WATER

% Moisture:

100

Soil Extract Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD014798.D	1	1/26/2008	VD012608

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	18		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.69	101 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	50.41	101 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.72	99 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	47.44	95 %	76 - 119		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1359071	4.59			
540-36-3	1,4-Difluorobenzene	2406436	5.32			
3114-55-4	Chlorobenzene-d5	2512110	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1255525	12.79			

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

υL



Report of Analysis

Date Collected: 1/24/2008 Malcolm Pirnie, Inc. Client: Date Received: 1/25/2008 Project: **Muncy Cleaners OU2** SDG No.: Z1288 MC-B-3-85.0 Client Sample ID: Matrix: WATER Lab Sample 1D: Z1288-02

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID	
VD014799.D	1	1/26/2008	VD012608	J

CAS Number	Parameter	Conc.	Qualifier	RI	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	7.8		5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	3.8		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.56	J	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	2,1		1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	5.4		1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

J = Estimated Value

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc. Date Collected: 1/24/2008

Project: Muncy Cleaners OU2 Date Received: 1/25/2008

Client Sample ID: MC-B-3-85.0 SDG No.: Z1288

Lab Sample ID: Z1288-02 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL
Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD014799.D 1 1/26/2008 VD012608

CAS Number	Parameter		Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	····	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane		0.45	\mathbf{U}	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane		0.56	\mathbf{U}_{-}	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	460	480—	E	1.0	0.68	ug/L
108-90-7	Chlorobenzene		0.50	\mathbf{U}	1.0	0.50	ug/L
100-41-4	Ethyl Benzene		0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes		0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene		0.51	U	1.0	0.51	ug/L
100-42-5	Styrene		0.48	\mathbf{U}	1.0	0.48	ug/L
75-25-2	Bromoform		0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene		0.44	\mathbf{U}	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane		0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene		0.45	\mathbf{U}	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene		0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene		0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane		0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene		0.41	U	1.0	0.41	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4		50.99	1 02 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane		48.47	97 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8		48.45	97 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene		48.99	98 %	76 - 119		SPK: 50
INTERNAL STA	NDARDS						
363-72-4	Pentafluorobenzene		1399980	4.59			
540-36-3	1,4-Difluorobenzene		2594748	5.32			
3114-55-4	Chlorobenzene-d5		2608994	10.28			
3855-82-1	1,4-Dichlorobenzene-d4		1325526	12.79			

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

1/24/2008

Project:

Muncy Cleaners OU2

Date Received:

1/25/2008

Client Sample ID:

EQUIPMENT.BLANK

SDG No.:

Z1288

Lab Sample ID:

Z1288-03

Matrix:

WATER

Analytical Method:

8260

.

AA SY I TO I

Sample Wt/Wol:

0200

% Moisture:

100

Sample WEWOI.

5.0 Units: mL

Soil Extract Vol:

цL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD014797.D	1	1/26/2008	VD012608

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS		_ 				0-1
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroetbane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01 - 6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

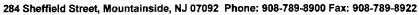
MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



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Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 1/24/2008

Project: Muncy Cleaners OU2 Date Received: 1/25/2008

Client Sample ID: EQUIPMENT.BLANK SDG No.: Z1288
Lab Sample ID: Z1288-03 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:
Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch 1D

VD014797.D 1 1/26/2008 VD012608

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	υ	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	υ	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	υ	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.1	100 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	50.27	101 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	49.19	98 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	50.36	101 %	76 - 119		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	1393036	4.59			
540-36-3	1,4-Difluorobenzene	2496536	5.32			
3114-55-4	Chlorobenzene-d5	2535621	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1287186	12.78			

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

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Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 1/25/2008

Project: Muncy Cleaners OU2 Date Received: 1/28/2008

Client Sample ID: MC-B-4-44.0 SDG No.: Z1311
Lab Sample ID: Z1311-01 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD014808.D 1 1/28/2008 VD012608

CAS Number	Parameter	Conc.	Qualifier	RL	MDL Units
TARGETS					
75- 71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55 ug/L
67-64-1	Acetone	3.8	J	5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	14		1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	3.3		1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43 ug/L
71-43-2	Benzene	0.52	\mathbf{U}	1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38 ug/L
79-01-6	Trichloroethene	3.4		1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	${f U}$	1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7 ug/L
108-88-3	Toluene	0.51	U	1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	\mathbf{U}	1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Malcolm Pirnie, Inc. Client:

Project: **Muncy Cleaners OU2**

Client Sample ID: MC-B-4-44.0

Lab Sample ID: Z1311-01

Analytical Method: 8260

5.0 Units: mL Sample Wt/Wol:

Soil Aliquot Vol:

 $\mathbf{u}\mathbf{L}$

Date Collected:

1/25/2008

Date Received:

1/28/2008

SDG No.:

Matrix:

Z1311

WATER

% Moisture:

100

Soil Extract Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD014808.D	1	1/28/2008	VD012608

CAS Number	Parameter		Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone		2.9	U	5.0	2.9	ug/L
124-48 - 1	Dibromochloromethane		0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane		0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	1500	-1300	— — E	1.0	0.68	ug/L
108-90 - 7	Chlorobenzene		0.50	U	1.0	0.50	ug/L
100-41 -4	Ethyl Benzene		0.50	\mathbf{U}	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes		0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene		0.51	U	1.0	0.51	ug/L
100-42-5	Styrene		0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform		0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene		0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane		0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene		0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene		0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene		0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane		0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene		0.41	U	1.0	0.41	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4		60.2	120 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane		49.34	99 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8		50.12	100 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene		51.46	103 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS						
363-72-4	Pentafluorobenzene		1016501	4.59			
540-36-3	1,4-Difluorobenzene		1970870	5.32			
3114-55-4	Chlorobenzene-d5		2065782	10.28			
3855-82-1	1,4-Dichlorobenzene-d4		956699	12.79			

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Soil Extract Vol:

uL



Sample Wt/Wol:

Report of Analysis

Date Collected: 1/28/2008 Malcolm Pirnie, Inc. Client: Project: Date Received: 1/30/2008 **Muncy Cleaners OU2** Client Sample ID: MC-B-5-60.0 SDG No.: Z1338 Matrix: Lab Sample ID: Z1338-01 WATER Analytical Method: 8260 % Moisture: 100

Soil Aliquot Vol: uL

5.0

Units: mL

File ID: Dilution: Date Analyzed Analytical Batch ID
VE006902.D 1 1/31/2008 VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MD	L Units
TARGETS			(
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Broinomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.66	1 U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	2.0		1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



VE006902.D

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Report of Analysis

Date Collected: 1/28/2008 Malcolm Pirnie, Inc. Client: Project: **Muncy Cleaners OU2** Date Received: 1/30/2008 Client Sample ID: MC-B-5-60.0 SDG No.: Z1338 Matrix: WATER Lab Sample ID: Z1338-01 % Moisture: 100 Analytical Method: 8260 5.0 Sample Wt/Wol: Units: mL Soil Extract Vol: uL uL Soil Aliquot Vol:

File ID: Dilution: Date Analyzed Analytical Batch ID

1/31/2008

VE013008

MDL Qualifier RLUnits **CAS Number** Conc. Parameter 591-78-6 2.9 \mathbf{U} 5.0 2.9 ug/L 2-Hexanone 124-48-1 Dibromochloromethane 0.45 U 1.0 0.45 ug/L 0.56 U 1.0 0.56 ug/L 106-93-4 1,2-Dibromoethane 0.86 J 1.0 0.68 ug/L 127-18-4 Tetrachloroethene 0.50 U 1.0 0.50 ug/L 108-90-7 Chlorobenzene 100-41-4 Ethyl Benzene 0.50 U 1.0 0.50 ug/L 0.97 U 2.0 0.97 ug/L m/p-Xylenes 126777-61-2 o-Xylene 0.51 U 1.0 0.51 ug/L 95-47-6 100-42-5 Styrene 0.48 U 1.0 0.48 ug/L U 1.0 0.42 Bromoform 0.42 ug/L 75-25-2 U 0.44 1.0 0.44 ug/L Isopropylbenzene 98-82-8 79-34-5 1,1,2,2-Tetrachloroethane 0.49 IJ 1.0 0.49 ug/L 0.45 U 1.0 0.45 ug/L 541-73-1 1,3-Dichlorobenzene U 1.0 0.43 ug/L 106-46-7 1,4-Dichlorobenzene 0.43 U 1.0 0.48 1,2-Dichlorobenzene 0.48 ug/L 95-50-1 \mathbf{U} 1,2-Dibromo-3-Chloropropane 0.45 1.0 0.45 ug/L 96-12-8 0.41 U 1.0 0.41 ug/L 120-82-1 1,2,4-Trichlorobenzene **SURROGATES** 17060-07-0 61.1 122 % 55 - 143 SPK: 50 1.2-Dichloroethane-d4 Dibromofluoromethane 53.16 106 % 77 - 128SPK: 50 1868-53-7 103 % 70 - 125 SPK: 50 2037-26-5 Toluene-d8 51.68 106 % 460-00-4 4-Bromofluorobenzene 53.11 71 - 132SPK: 50 INTERNAL STANDARDS 9.36 363-72-4 Pentafluorobenzene 1215945 1,4-Difluorobenzene 2490430 10.47 540-36-3 Chlorobenzene-d5 2497793 14.89 3114-55-4 1,4-Dichlorobenzene-d4 1101544 18.71 3855-82-1 TENTITIVE IDENTIFIED COMPOUNDS 30 \sqrt{J} 3.45 ug/L 000115-07-1 Propene √ J 15 4.09 ug/L 000115-11-7 1-Propene, 2-methyl-

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908-789-8900 Fax: 908-789-8922

Report of Analysis

Client:

Malcolm Pirnie, Inc.

Date Collected:

1/28/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

Client Sample ID:

MC-B-5-85.0

SDG No.:

.....

Lab Sample ID:

Z1338-02

Matrix:

Z1338 WATER

Analytical Method:

% Moisture:

100

Sample Wt/Wol:

8260 5.0 Units: mL

Soil Extract Vol:

цL

Soil Aliquot Vol:

uL

File ID:

VE006904.D

Dilution:

1

Date Analyzed

Analytical Batch ID

1/31/2008

2008 VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDI	Units
TARGETS			···			
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	\mathbf{U}	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	\mathbf{U}	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	\mathbf{U}	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	\mathbf{U}	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	\mathbf{U}	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	${f U}$	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	\mathbf{U}	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.98	J	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	\mathbf{U}	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	\mathbf{U}	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	${f U}$	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Malcolm Pirnie, Inc. **Date Collected:** 1/28/2008 Client: Project: Date Received: 1/30/2008 **Muncy Cleaners OU2**

Client Sample ID: MC-B-5-85.0 SDG No.: Z1338 Matrix: WATER Lab Sample ID: Z1338-02

% Moisture: Analytical Method: 8260 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uLSoil Aliquot Vol: uL

File ID: Dilution: Date Analyzed **Analytical Batch ID**

1 1/31/2008 VE013008 VE006904.D

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	61.99	124 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	52.01	104 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	51.63	103 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.29	105 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1224576	9.36			
540-36-3	1,4-Difluorobenzene	2544564	10.46			
3114-55-4	Chlorobenzene-d5	2525368	14.90			
3855-82-1	1,4-Dichlorobenzene-d4	1137402	18.71			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Date Collected: 1/28/2008 Malcolm Pirnie, Inc. Client: Date Received: 1/30/2008 Project: **Muncy Cleaners OU2**

Client Sample ID: SDG No.: Z1338 MC-B-6-57.0 Matrix: WATER

Lab Sample ID: Z1338-03 % Moisture: Analytical Method: 100 8260

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: цL Soil Aliquot Vol: $\mathbf{u}\mathbf{L}$

File ID: Dilution: Date Analyzed **Analytical Batch ID** 1/31/2008 VE013008 VE006909.D 1

CAS Number	Parameter	Conc.	Qualifier	· (RL)	MDL	Units
TARGETS		<u>-</u>				
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	4.2	1 1	5.0	2.7	ug/L
75-15-0	Carbon disulfide	1.8		1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	\mathbf{U}	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	\mathbf{U}	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	\mathbf{U}	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	\mathbf{U}	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

1/28/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

Client Sample ID:

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SDG No.:

Lab Sample ID:

MC-B-6-57.0

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Z1338 WATER

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Z1338-03

Matrix:

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Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

иL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006909.D	1	1/31/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier	R L	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	23		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	\mathbf{U}	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	\mathbf{U}	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	\mathbf{U}	1.0	0.51	ug/L
100-42-5	Styrene	0.48	\mathbf{U}	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	\mathbf{U}	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	\mathbf{U}	1.0	0.44	ug/L
79- 34-5	1,1,2,2-Tetrachloroethane	0.49	\mathbf{U}	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	\mathbf{U}	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	43.46	87 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	53.1	106 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	48.77	98 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	48.59	97 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	2051129	9.36			
540-36-3	1,4-Difluorobenzene	3488625	10.46			
3114-55-4	Chlorobenzene-d5	3522686	14.89			
3855-82-1	1,4-Dichlorobenzene-d4	1773305	18.70			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Date Collected: 1/28/2008 Malcolm Pirnie, Inc. Client: Project: **Muncy Cleaners OU2** Date Received: 1/30/2008 SDG No.: Client Sample ID: MC-B-7-48.0 Z1338 Matrix: WATER Lab Sample ID: Z1338-04 % Moisture: 100 Analytical Method: 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL Soil Aliquot Vol: иL

File ID: Dilution: Date Analyzed Analytical Batch ID

VE006905.D 1 1/31/2008 VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS		<u></u>				
75 - 71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	3.2		1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	1.0		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.53	y W	_ 1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	Ú	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	1.1		1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	Ū	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

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Report of Analysis

Malcolm Pirnie, Inc. **Date Collected:** 1/28/2008 Client: Project: **Muncy Cleaners OU2** Date Received: 1/30/2008

Client Sample ID: SDG No.: MC-B-7-48.0 Z1338 Lab Sample ID: Z1338-04 Matrix: WATER

% Moisture: 100 Analytical Method: 8260

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006905,D	1	1/31/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	17		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.90	J	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	I,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	63.27	127 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	53.11	106 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	52.07	104 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	53.22	106 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1209155	9.3 6			
540-36-3	1,4-Difluorobenzene	2524276	10.46			
3114-55-4	Chlorobenzene-d5	2555442	14.89			
3855-82-1	1,4-Dichlorobenzene-d4	1136910	18.70			

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

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Sample Wt/Wol:

5.0

Units: mL

Report of Analysis

Malcolm Pirnie, Inc. Date Collected: 1/28/2008 Client:

Project: **Muncy Cleaners OU2** Date Received: 1/30/2008

Client Sample ID: TRIPBLANK SDG No.: Z1338 Matrix: WATER Lab Sample ID: Z1338-05

% Moisture: 100 **Analytical Method:** 8260

Soil Extract Vol: Soil Aliquot Vol: иL

Dilution: Date Analyzed **Analytical Batch ID** File ID: VE013008 VE006898.D 1 1/30/2008

CAS Number	Parameter	Conc.	Qualifier	(RL)	MDL Units
TARGETS					
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U	1.0	0. 6 3 ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	\mathbf{U}	1.0	0.55 ug/L
67-64-1	Acetone	2.7	U	5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.79	J	1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	\mathbf{U}	1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	\mathbf{U}	5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	${f U}$	1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43 ug/L
71-43-2	Benzene	0.52	U	1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	\mathbf{U}	1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7 ug/L
108-88-3	Toluene	0.51	U	1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc.

Date Collected:

1/28/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

Client Sample ID:

TRIPBLANK

SDG No.:

Z1338

Lab Sample ID:

Z1338-05

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL Soil Extract Vol:

 $\mathbf{u}\mathbf{L}$

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006898,D	1	1/30/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	\mathbf{U}	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12 -8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56	112 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	50.48	101 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	51.72	103 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.26	105 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1375711	9.37			
540-36-3	1,4-Difluorobenzene	2758736	10.47			
3114-55-4	Chlorobenzene-d5	2761953	14.91			
3855-82-1	1,4-Dichlorobenzene-d4	1266243	18.72			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Soil Extract Vol:

uL



Sample Wt/Wol:

Report of Analysis

Date Collected: 1/29/2008 Malcolm Pirnie, Inc. Client: Project: **Muncy Cleaners OU2** Date Received: 1/30/2008 Client Sample ID: MC-B-8-60.0 SDG No.: Z1338 Lab Sample ID: Z1338-06 Matrix: WATER **Analytical Method:** 8260 % Moisture: 100

Soil Aliquot Vol: uL

5.0

Units: mL

File ID: Dilution: Date Analyzed Analytical Batch ID
VE006906.D 1 1/31/2008 VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL Units
TARGETS					
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55 ug/L
67-64-1	Асетопе	2.7	\mathbf{U}_{\perp}	5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	5.4		1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55 ug/L
110- 82- 7	Cyclohexane	0.37	U	1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6 ug/L
5 6-2 3-5	Carbon Tetrachloride	0.49	U	1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46 ug/L
1-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46 ug/L
08-87-2	Methylcyclohexane	0.43	U	1.0	0.43 ug/L
71-43-2	Benzene	0.52	U	1.0	0.52 ug/L
07-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38 ug/L
9-01-6	Trichloroethene	0.56	U	1.0	0.56 ug/L
78-87- 5	1,2-Dichloropropane	0.56	U	1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59 ug/L
08-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7 ug/L
08-88-3	Toluene	0.51	U	1.0	0.51 ug/L
0061-02-6	t-1,3-Dichloropropene	0.44	Ü	1.0	0.44 ug/L
0061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54 ug/L
9-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

1/29/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

Client Sample ID:

MC-B-8-60.0

SDG No.:

Z1338

Lab Sample ID:

Z1338-06

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

иL

Soil Aliquot Vol:

μL

File ID:

Dilution:

Date Analyzed

Analytical Batch ID

VE006906.D 1

1/31/2008

VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	1.4		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.91	112 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	53.63	107 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	50.95	102 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.53	105 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1421378	9.36			
540-36-3	1,4-Difluorobenzene	2757080	10.47			
3114-55-4	Chlorobenzene-d5	2809362	14.90			
3855-82-1	1,4-Dichlorobenzene-d4	1290621	18.70			

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc. Date Collected: 1/29/2008

Project: Muncy Cleaners OU2 Date Received: 1/30/2008

Project: Muncy Cleaners OU2 Date Received: 1/30/20

Client Sample ID: MC-B-8-85.0 SDG No.: Z1338

Client Sample ID: MC-B-8-85.0 SDG No.: Z1338
Lab Sample ID: Z1338-07 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006907.D	1	1/31/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS		· · ·	<u>-</u>			
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
7 4-8 7-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	\mathbf{U}	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.90	J	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-02-0	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

1/29/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

MC-B-8-85.0

Client Sample ID: Lab Sample ID:

Z1338-07

SDG No.: Matrix:

Z1338

Analytical Method:

% Moisture:

WATER 100

Sample Wt/Wol:

8260 5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006907.D	1	1/31/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12 -8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.76	1 16 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	52.98	106 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	50.94	102 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.96	106 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	1369742	9.36			
540-36-3	1,4-Difluorobenzene	2707381	10.46			
3114-55-4	Chlorobenzene-d5	2733993	14.89			
3 8 55- 8 2 - 1	1,4-Dichlorobenzene-d4	1258700	1 8.70			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Date Collected:

Soil Extract Vol:

1/29/2008

1/30/2008

цL

Report of Analysis

Malcolm Pirnie, Inc. Client:

Project: **Muncy Cleaners OU2**

Date Received:

Client Sample ID: MC-B-9-40.0 SDG No.: Z1338 Matrix: WATER Lab Sample ID: Z1338-08

% Moisture: Analytical Method: 8260 100

Sample Wt/Wol: 5.0 Units: mL

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006908.D	1	1/31/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier		MDI	Units
TARGETS			,			
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74 -8 3-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67 - 64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	1.8		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	1.1		1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-9 3-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	21		1.0	0.53	ug/L
67-66-3	Chloroform	0.46	\mathbf{U}	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	\mathbf{U}	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	34		1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

1/29/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

Client Sample ID: Lab Sample ID:

MC-B-9-40.0

SDG No.: Matrix:

Z1338

Analytical Method:

Z1338-08

WATER

8260 5.0 Units: mL

% Moisture: Soil Extract Vol:

100

Sample Wt/Wol:

Soil Aliquot Vol: υL

υL

Dilution:

Date Analyzed

Analytical Batch ID

VE006908.D

1

1/31/2008

VE013008

CAS Number	Parameter		Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Нехапопе		2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane		0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	_	0.56	\mathbf{U}	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	290	340	E	1.0	0.68	ug/L
108-90-7	Chlorobenzene	,	0.50	\mathbf{U}	1.0	0.50	ug/L
100-41-4	Ethyl Benzene		0.50	\mathbf{U}	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes		0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene		0.51	U	1.0	0.51	ug/L
100-42-5	Styrene		0.48	\mathbf{U}	1.0	0.48	ug/L
75-25-2	Bromoform		0.42	\mathbf{U}	1.0	0.42	ug/L
98-82-8	Isopropylbenzene		0.44	\mathbf{U}	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane		0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene		0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene		0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene		0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane		0.45	\mathbf{U}	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene		0.41	U	1.0	0.41	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4		57.8	116 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane		51.61	103 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8		51.05	102 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene		52.97	106 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS						
363-72-4	Pentafluorobenzene		1381040	9.36			
540-36-3	1,4-Difluorobenzene		2685183	10.46			
3114-55-4	Chlorobenzene-d5		2714614	14.89			
3855-82-1	1,4-Dichlorobenzene-d4		1260278	18.70			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc.

Muncy Cleaners OU2

Date Collected: Date Received:

1/29/2008

Project:

1/30/2008

Client Sample ID:

TRIPBLANK.

SDG No.: Matrix:

Z1338 WATER

Lab Sample ID:

Z1338-09

% Moisture:

100

Analytical Method: Sample Wt/Wol:

8260 5.0 Units: mL

Soil Extract Vol:

υL

Soil Aliquot Vol:

uL

Dilution:

Date Analyzed

VE013008

Analytical Batch ID

VE006899.D

1

1/30/2008

CAS Number	Parameter	Conc.	Qualifie	(RL)	MDI	L Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87- 3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.78	J	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78 - 87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

1/29/2008

Project:

Muncy Cleaners OU2

Date Received:

1/30/2008

Client Sample ID:

TRIPBLANK.

SDG No.:

Z1338

Lab Sample ID:

Z1338-09

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

 $\mathbf{u}\mathbf{L}$

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE006899.D	1	1/30/2008	VE013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	. Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	\mathbf{U}	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	\mathbf{U}	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	\mathbf{U}	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.11	114 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	50.67	101 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	51.52	103 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.18	104 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	1349310	9.37			
540-36-3	1,4-Difluorobenzene	2745481	10.47			
3114-55-4	Chlorobenzene-d5	2760995	14.90			
3855-82-1	1,4-Dichlorobenzene-d4	1249376	18.71			

N = Presumptive Evidence of a Compound



Date Collected: 1/30/2008 Malcolm Pirnie, Inc. Client: Project: **Muncy Cleaners OU2** Date Received: 1/31/2008 SDG No.: Client Sample ID: MC-B-9-85.0 Z1354 Lab Sample ID: Z1354-01 Matrix: WATER % Moisture: Analytical Method: 8260 100 5.0 Units: mL Sample Wt/Wol: Soil Extract Vol: uL

Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD014905.D 1 1/31/2008 VD013008

CAS Number	Parameter	Conc.	Qualifie	r RL	MDI	_ Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-9 3-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66 - 3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc. Date Collected: 1/30/2008
Project: Muncy Cleaners OU2 Date Received: 1/31/2008

Client Sample ID: MC-B-9-85.0 SDG No.: Z1354

Lab Sample ID: Z1354-01 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD014905.D 1 1/31/2008 VD013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	13		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79- 34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	6 1	122 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	51.47	103 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	53.83	108 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	50.63	101 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	704497	4.57			
540-36-3	1,4-Difluorobenzene	1481354	5.30			
3114-55-4	Chlorobenzene-d5	1668318	10.26			
3855-82-1	1,4-Dichlorobenzene-d4	732314	12.77			

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

1/30/2008

Project:

Muncy Cleaners OU2

Date Received:

1/31/2008

Client Sample ID:

MC-B-11-25.0

SDG No.:

Z1354

Lab Sample ID:

Z1354-02

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

Dilution: **Date Analyzed Analytical Batch ID** File ID: VD013008 VD014906.D 1 1/31/2008

CAS Number	Parameter	Conc.	Qualifier	RL)	MDL	Units
TARGETS						
75 - 71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87- 3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Date Collected: 1/30/2008 Client: Malcolm Pirnie, Inc. Project: Muncy Cleaners OU2 Date Received: 1/31/2008 Client Sample ID: MC-B-11-25.0 SDG No.: Z1354 Lab Sample ID: Z1354-02 Matrix: WATER % Moisture: Analytical Method: 100 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD014906.D	1	1/31/2008	VD013008

CAS Number	Parameter	Conc.	Qualifier	RL	MDI	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	\mathbf{U}	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	\mathbf{U}	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	\mathbf{U}	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	\mathbf{U}	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	\mathbf{U}	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	\mathbf{U}	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	\mathbf{U}	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	60.22	120 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	53.39	107 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	55.23	110 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.08	102 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	696567	4.56			
540-36-3	1,4-Difluorobenzene	1460488	5.30			
3114-55-4	Chlorobenzene-d5	1601898	10.27			
3855-82-1	1,4-Dichlorobenzene-d4	727630	12.77			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc.

Muncy Cleaners OU2

Date Collected: Date Received:

1/30/2008

Project:

SDG No.:

1/31/2008

Client Sample ID: Lab Sample ID:

MC-B-11-60.0

Matrix:

Z1354 WATER

Z1354-03

% Moisture:

100

Analytical Method: Sample Wt/Wol:

8260 5.0 Units: mL

Dilution:

Soil Extract Vol:

uL

Soil Aliquot Vol:

File ID:

иL

Analytical Batch ID Date Analyzed

VD013008 VD014907.D 1 1/31/2008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS			- "			
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	\mathbf{U}	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	3.6		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	6.1		1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	9.7		1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Sample Wt/Wol:

Soil Extract Vol:

uL

Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 1/30/2008

Project: Muncy Cleaners OU2 Date Received: 1/31/2008

Client Sample ID: MC-B-11-60.0 SDG No.: Z1354

Lab Sample ID: Z1354-03 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Soil Aliquot Vol: uL

5.0 Units: mL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD014907.D 1 1/31/2008 VD013008

CAS Number	Parameter		Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Нехапопе		2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane		0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane		0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	440	440-	- E	1.0	0.68	ug/L
108-90-7	Chlorobenzene	• .	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene		0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes		0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene		0.51	U	1.0	0.51	ug/L
100-42-5	Styrene		0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform		0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene		0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane		0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene		0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene		0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene		0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane		0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene		0.41	U	1.0	0.41	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4		64.49	129 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane		54	1 08 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8		54.89	110 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene		53.95	108 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS						
363-72-4	Pentafluorobenzene		703081	4.57			
540-36-3	1,4-Difluorobenzene		1491699	5.30			
3114-55-4	Chlorobenzene-d5		1602152	10.26			
3855-82-1	1,4-Dichlorobenzene-d4		794481	12.77			

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client: Malcolm Pirnie, Inc. Date Collected: 2/11/2008

Project: Muncy Cleaners OU2 Date Received: 2/14/2008

Client Sample ID: MC-B-10-65.0 SDG No.: Z1538

Lab Sample ID: Z1538-01 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015409.D	1	2/15/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier RL	MDL Units
TARGETS				
75-71-8	Dichlorodifluoromethane	0.43	บ ไม้ วี 1.0	0.43 ug/L
74-87 -3	Chloromethane	0.38	U (1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U], 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U ♥ 1.0	0.55 ug/L
67-64-1	Acetone	18	J 5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U W 5 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U 7 1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93 - 3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U √ 5.0	2.7 ug/L
108-88-3	Toluene	2.4	J 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U V 5 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U / 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 🗸 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc.

Date Collected:

2/11/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-10-65.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-01

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

иL

Soil Aliquot Vol:

иL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015409.D	1	2/15/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	บนว	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U.//	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	υY	1.0	0.41	ug/L
SURROGATES)					
17060-07-0	1,2-Dichloroethane-d4	57.98	116 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	49.01	98 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	51.94	104 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	56.75	114 %	71 - 132		SPK: 50
INTERNAL ST.	ANDARDS					
363-72-4	Pentafluorobenzene	655168	4.59			
540-36-3	1,4-Difluorobenzene	1547082	5.32			
3114-55-4	Chlorobenzene-d5	1796746	10.29			
3855-82-1	1,4-Dichlorobenzene-d4	911046	12.79			
TENTITIVE ID	ENTIFIED COMPOUNDS					
000115-07-1	Propene	61	√ J	0.88		ug/L
000115-07-1	1-Propene, 2-methyl-	38	/ J	1.03		ug/L
000287-92-3	Cyclopentane	11	N ,	1.39		ug/L ug/L
000123-72-8	Butanal	5.4	γy	3.68		ug/L ug/L
		J. 1	Γ	2.00		-6-2

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Soil Aliquot Vol:

VD015409.D

Report of Analysis

Date Collected: 2/11/2008 Malcolm Pirnie, Inc. Client: Date Received: 2/14/2008 Project: **Muncy Cleaners OU2** SDG No.: Client Sample ID: MC-B-10-65.0 Z1538 Matrix: WATER Lab Sample ID: Z1538-01 % Moisture: 100 Analytical Method: 8260 Units: mL Sample Wt/Wol: 5.0 Soil Extract Vol: $\mathbf{u}\mathbf{L}$

Dilution: **Analytical Batch ID** File ID: **Date Analyzed** 2/15/2008 VD021408

uL

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CAS Number	Parameter	Conc.	Qualifier	RL	MDL Units
000592-84-7	Formic acid, butyl ester	6.1	√ J	7.36	ug/L
000066-25-1	Hexanal	13	,⁄ J	10.04	ug/L
000124-13-0	Octanal	10	, ∕ ,J	12.99	ug/L
000104-76-7	1-Hexanol, 2-ethyl-	5.2	\sqrt{J}	13.19	ug/L
000124-19-6	Nonanal	19	J	14.01	ug/L



Date Collected: 2/11/2008 Malcolm Pirnie, Inc. Client: 2/14/2008 Date Received: Project: Muncy Cleaners OU2 SDG No.: Z1538 Client Sample ID: MC-B-12-45.0 Matrix: Lab Sample ID: Z1538-02 WATER % Moisture: 100 Analytical Method: 8260 5.0 Units: mL Soil Extract Vol: Sample Wt/Wol: uL

Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD015465.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	RL)	MDL	Units
TARGETS			,			
75-71-8	Dichlorodifluoromethane	0.43	ս Ա՝	1.0 ﴿	0.43	ug/L
74-87-3	Chloromethane	0.38	U [1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U ·	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	\mathbf{u}	1.0	0.35	ug/L
75-35 - 4	1,1-Dichloroethene	0.55	υV	1.0	0.55	ug/L
67-64-1	Acetone	12	I	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.59	1 J	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	υŭ	1.0 ک	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34 - 3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	ប	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	υ¥	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

2/11/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-12-45.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-02

Matrix:

WATER

Analytical Method:

% Moisture:

100

Sample Wt/Wol:

8260

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

File ID:

Dilution:

Date Analyzed

Analytical Batch ID

VD015465.D

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2/16/2008

VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	บนว	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	υĵ	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U 🔨	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	30	1	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	σ	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	υļ	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	Ŭ	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U \/	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U V	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.91	102 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	49.21	98 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	50.53	101 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.33	103 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	781214	4.58			
540-36-3	1,4-Difluorobenzene	1695634	5.32			
3114-55-4	Chlorobenzene-d5	2006439	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	999162	12.78			
TENTITIVE ID	ENTIFIED COMPOUNDS		,			
000106-98-9	1-Butene	5.6	Ŋĵ	1.03		ug/L
000124-19-6	Nonanal	6.6	$^{\sim}$ 1	14.00		ug/L

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



2/12/2008 Date Collected: Client: Malcolm Pirnie, Inc. Project: **Muncy Cleaners OU2** Date Received: 2/14/2008 SDG No.: Z1538 Client Sample ID: MC-B-13-44.0 Lab Sample ID: Z1538-03 Matrix: WATER % Moisture: 100 Analytical Method: 8260 Units: mL Sample Wt/Wol: 5.0 Soil Extract Vol: $\mathbf{u}\mathbf{L}$ иL Soil Aliquot Vol:

File ID: Dilution: Date Analyzed Analytical Batch ID

VD015411.D 1 2/15/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier RL	MDL Units
TARGETS		<u>"</u>		•
75-71-8	Dichlorodifluoromethane	0.43	U () 1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U . 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U 🖖 1.0	0.55 ug/L
67-64-1	Acetone	12	J 5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	J 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	1.7	∀ ∕1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U U ₄ O 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34 - 3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27 - 4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U // 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc.

Date Collected:

2/12/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-13-44.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-03

Matrix:

WATER

Analytical Metbod:

% Moisture:

100

Sample Wt/Wol:

8260 5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

иL

File ID: Dilution: Date Analyzed Analytical Batch ID
VD015411.D 1 2/15/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U U)	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U 🌾	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	7.2	3	, 1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	υųý	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U]	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12 - 8	1,2-Dibromo-3-Chloropropane	0.45	υ ͺͿ/	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	UV	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	61.49	123 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	51.42	103 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	53.33	107 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.16	104 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	596770	4.59			
540-36-3	1,4-Difluorobenzene	1387936	5.33			
3114-55-4	Chlorobenzene-d5	1775550	10.29			
3855-82-1	1,4-Dichlorobenzene-d4	723845	12.79			
TENTITIVE IDI	ENTIFIED COMPOUNDS					
000115-07-1	Propene	65	N J	0.88		ug/L
000115-11-7	1-Propene, 2-methyl-	32	√. J	1.03		ug/L
000109-67-1	1-Pentene	12	√/ J	1.39		ug/L
000124-19-6	Nonanal	5.1	<u>\(\lambda \) \(\lambda \) \(\lambda \) \(\lambda \)</u>	14.00		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

2/12/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-14-73.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-04

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

 $\mathbf{u}\mathbf{L}$

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015466.D	1	2/16/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier (RL)	MDL Units
TARGETS		_		
75-71-8	Dichlorodifluoromethane	0.43	U UJ 1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U / 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U 🗸 1.0	0.55 ug/L
67-64-1	Acetone	7.2	5.0 ح	2.7 ug/L
75-15-0	Carbon disulfide	0.51	սև∫ 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	1.9	J 1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U \15 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U T 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U . 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 🎉 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.83	J J 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	UUJ 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U / 1.0	0.54 ug/L
79-0 0- 5	1,1,2-Trichloroethane	0.52	U ¥ 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Malcolm Pirnie, Inc. Client:

Date Collected:

2/12/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-14-73.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-04

Matrix:

WATER

Analytical Method:

100

Sample Wt/Wol:

8260

% Moisture:

Soil Extract Vol:

uL

5.0 Units: mL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015466.D	1	2/16/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	UWJ	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U 🎶	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	69	1	1.0	0.68	ug/L
10 8 -90 - 7	Chlorobenzene	0.50	UULS	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25 - 2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U 🎷	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.05	102 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	51.7	103 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	51.76	104 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	53.95	108 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	861096	4.59			
540-36-3	1,4-Difluorobenzene	1815680	5.33			
3114-55-4	Chlorobenzene-d5	2365764	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1179237	12.78			
TENTITIVE IDE	NTIFIED COMPOUNDS		,			
000115-11-7	1-Propene, 2-methyl-	10	√ 1	1.03		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

uL



Report of Analysis

Malcolm Pirnie, Inc. Date Collected: 2/12/2008 Client: Project: Date Received: 2/14/2008 **Muncy Cleaners OU2** Client Sample ID: MC-B-15-55.0 SDG No.: Z1538 Matrix: Lab Sample ID: WATER Z1538-05

Analytical Method: 8260 % Moisture: 100
Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uI

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015467.D	I	2/16/2008	VD021408

V D013407.		2/10/2008		1002140		
CAS Number	Parameter	Conc.	Qualifier	RL)	MDL	Units
TARGETS	 -	- · · · · · · · · · · · · · · · · · · ·				-
75-71-8	Dichlorodifluoromethane	0.43	u UJ	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	Մ .∦	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	II -	1.0	0.55	ug/L
67-64-1	Acetone	6.9	J	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	کریا تا	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	1.6	5 /	-1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	υws	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U /	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	υV	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Malcolm Pirnie, Inc. Client:

Date Collected:

2/12/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-15-55.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-05

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

цL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015467 D	1	2/16/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Нехапопе	2.9	UUS	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	υſ	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U A	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	24	3	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	\mathbf{u} \mathbf{u} \mathbf{J}	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	υV	1.0	0.41	ug/L
SURROGATES			•			
17060-07-0	1,2-Dichloroethane-d4	51.65	103 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	49.99	100 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	50.11	100 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	50.65	101 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	848858	4.59			
540-36-3	1,4-Difluorobenzene	1811691	5.32			
3114-55-4	Chlorobenzene-d5	2364593	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1072709	12.78			
TENTITIVE IDE	NTIFIED COMPOUNDS					
000115-07-1	Propene	25	\sqrt{J}	0.88		ug/L
000115-11-7	1-Propene, 2-methyl-	13	$^{\prime}_{\prime}$ 1	1.03		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Malcolm Pirnie, Inc. Client:

Project: **Muncy Cleaners OU2**

Client Sample ID: MC-B-16-55.0

Lab Sample ID: Z1538-06

Analytical Method: 8260

Sample Wt/Wol: 5.0 Units: mL

Soil Aliquot Vol:

Date Collected: Date Received:

2/13/2008 2/14/2008

SDG No.:

Matrix:

Z1538 WATER

% Moisture:

100

Soil Extract Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch 1D
VD015414.D	1	2/15/2008	VD021408

 $\mathbf{u}\mathbf{L}$

CAS Number	Parameter	Conc.	Qualifier	(RL)	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	บ ไม่ว่	آ 1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U \	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	υl,	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	UV	1.0	0.55	ug/L
67-64-1	Acetone	16	3	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	υW	5 1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 🌿	5.0	2.7	ug/L
108-88-3	Toluene	0.52	1 2	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	υus	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 🇸	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

2/13/2008

uL

Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected:

Project: Muncy Cleaners OU2 Date Received: 2/14/2008

Client Sample ID: MC-B-16-55.0 SDG No.: Z1538

Lab Sample ID: Z1538-06 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytica	Batch ID
VD015414	.D 1	2/15/2008	VD02140	8
CAS Number	Parameter	Conc.	Qualifier RL	MDL Units
591-78-6	2-Hexanone	2.9	U 5.0	2.9 ug/L

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	UNI	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U.J/	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	υV	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	66.12	132 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	51.39	103 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	53.66	107 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.08	1 02 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	535377	4.59			
540-36-3	1,4-Difluorobenzene	1245755	5.33			
3114-55-4	Chlorobenzene-d5	1698571	10.29			
3855-82-1	1,4-Dichlorobenzene-d4	673566	12.79			
TENTITIVE IDI	ENTIFIED COMPOUNDS					
000115-11-7	1-Propene, 2-methyl-	9.6	N_1	1.02		ug/L

U = Not Detected

RL = Reporting Limit

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Date Collected: 2/13/2008 Malcolm Pirnie, Inc. Client: 2/14/2008 Project: Date Received: **Muncy Cleaners OU2** Client Sample ID: MC-B-17-55.0 SDG No.: Z1538 Matrix: Lab Sample ID: Z1538-07 WATER Analytical Method: % Moisture: 100 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Soil Aliquot Vol: иL

File ID:	Dilution:	Date Analyzed	Analytica	l Batch ID
VD015468.I	1	2/16/2008	VD02140	<u>8</u>
CAS Number	Parameter	Conc.	Qualifier (RL)	MDL Units
TARGETS				
75-71-8	Dichlorodifluoromethane	0.43	ע על 1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0. 46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U 1.0	0.55 ug/L
67-64-1	Acetone	8.1	J 5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U W 🕽 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.87	J _ 1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	$_{ m U}$ $^{ m U}$ $^{ m S}_{1.0}$	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U /1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U \ 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

2/13/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-17-55.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-07

Matrix:

WATER

Analytical Metbod:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

VD015468.D

uL

File ID:

Dilution:

1

Date Analyzed

Analytical Batch ID

2/16/2008

2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	עע ע	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	υļ	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	n 🥎	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	1 7	_ 1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	ひんさ	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777 - 61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U J/	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	υΨ	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.6	105 %	55 - 143	-	SPK: 50
1868-53-7	Dibromofluoromethane	49.09	98 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	49.6	99 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	50.6	101 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	860033	4.59			
540-36-3	1,4-Difluorobenzene	1888694	5.32			
3114-55-4	Chlorobenzene-d5	2393814	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1109709	12.78			
TENTITIVE IDE	ENTIFIED COMPOUNDS		1			
000115-11-7	1-Propene, 2-methyl-	5.7	$\sqrt{1}$	1.03		ug/L

U = Not Detected

RL = Reporting Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Sample Wt/Wol:

Soil Extract Vol:

цL

Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 2/13/2008

Project: Muncy Cleaners OU2 Date Received: 2/14/2008

Client Sample ID: MC-B-18-63.0 SDG No.: Z1538

Client Sample ID: MC-B-18-63.0 SDG No.: Z1538

Lab Sample ID: Z1538-08 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Soil Aliquot Vol: uL

5.0

Units: mL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD015469.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier (RL)	MDL Units
TARGETS				
75-71-8	Dichlorodifluoromethane	0.43	U U J 1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00 - 3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U 1.0	0.55 ug/L
67-64-1	Acetone	11	J 5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	UUJ 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U 1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Велгене	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U Ų 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, 1nc.

Date Collected:

2/13/2008

Project:

Muncy Cleaners OU2

Date Received:

2/14/2008

Client Sample ID:

MC-B-18-63.0

SDG No.:

Z1538

Lab Sample ID:

Z1538-08

Matrix:

WATER

Analytical Method:

% Moisture:

100

Sample Wt/Wol:

8260 5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

VD015469.D

иL

File ID:

Dilution:

1

Date Analyzed

Analytical Batch ID

2/16/2008

VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U WJ		2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U W	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.83	106 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	50.27	101 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	49.31	99 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.1	104 %	71 - 132		SPK: 50
INTERNAL ST.	ANDARDS					
363-72-4	Pentafluorobenzene	787773	4.59			
540-36-3	1,4-Difluorobenzene	1737301	5.32			
3114-55-4	Chlorobenzene-d5	2269250	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1022399	12.78			
TENTITIVE ID	ENTIFIED COMPOUNDS		_			
000115-11-7	1-Propene, 2-methyl-	20	NI	1.02		ug/L
000287-92-3	Cyclopentane	5.9	$\sqrt{1}$	1.39		ug/L

U = Not Detected

RL = Reporting Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client: Malcolm Pirnie, Inc. Date Collected: 2/13/2008

Project: Muncy Cleaners OU2 Date Received: 2/14/2008

Client Sample ID: MC-B-17-100.0 SDG No.: Z1538

Lab Sample ID: Z1538-11 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL
Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD015470.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier RL	MDL Units
TARGETS				/
75-71-8	Dichlorodifluoromethane	0.43	บ นุป 1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U \(\) 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U 🗸 1.0	0.55 ug/L
67-64-1	Acetone	17	J 5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U ŬJ 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U 1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U 1.0	0.43 ug/L
71-43-2	Benzene	0.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U 1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	0.51	U 1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U]/ 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U V 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Sample Wt/Wol:

Soil Extract Vol:

uL

Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 2/13/2008

Project: Muncy Cleaners OU2 Date Received: 2/14/2008

Client Sample ID: MC-B-17-100.0 SDG No.: Z1538

Lab Sample ID: Z1538-11 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Soil Aliquot Vol: uL

Units: mL

5.0

File ID: Dilution: Date Analyzed Analytical Batch ID

VD015470.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	UUS	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	υĵ	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	υ∜	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.57	107 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	47.89	96 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	48.5	97 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.88	104 %	71 - 132		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	743991	4.59			
540-36-3	1,4-Difluorobenzene	1673940	5.33			
3114-55-4	Chlorobenzene-d5	2125092	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	927668	12.78			

B = Analyte Found in Associated Method Blank



Soil Aliquot Vol:

File ID:

Report of Analysis

Date Collected: 2/14/2008 Malcolm Pirnie, Inc. Client:

Project: **Muncy Cleaners OU2** Date Received: 2/15/2008

SDG No.: Z1547 Client Sample ID: MC-B-19-60.0 Matrix: WATER Lab Sample ID: Z1547-01

% Moisture: 100 Analytical Method: 8260

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

Date Analyzed

Analytical Batch ID

uL

Dilution:

VD015471.D 1		2/16/2008	VD021408			
CAS Number	Parameter	Conc.	Qualifier	(RL)	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87 -3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	20		5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	7.2		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.9	J	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	2.4		1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	\mathbf{U}	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	\mathbf{U}	1.0	0.38	ug/L
79-01-6	Trichloroethene	12		1.0	0.56	ug/L
78-87 - 5	1,2-Dichloropropane	0.56	U	1.0	0.56	u g /L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	1	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Malcolm Pirnie, Inc. Client:

Date Collected:

2/14/2008

Project:

Muncy Cleaners OU2

Date Received:

2/15/2008

Client Sample ID:

MC-B-19-60.0

SDG No.:

Z1547

Lab Sample ID:

Z1547-01

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

цL

File ID: Dilution: Date Analyzed **Analytical Batch ID** VD015471.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDI	. Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106 - 93-4	1,2-Dibromoethane	0.56	\mathbf{U}	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	\mathbf{U}	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	\mathbf{U}	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	\mathbf{U}	1.0	0.51	ug/L
100-42-5	Styrene	0.48	\mathbf{U}	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	\mathbf{U}	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	\mathbf{U}	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	${f U}$	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	${f U}$	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	${f U}$	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	${f U}$	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.93	102 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	48.64	97 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	48.36	97 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	50.75	102 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	829519	4.58			
540-36-3	1,4-Difluorobenzene	1770780	5.32			
3114-55-4	Chlorobenzene-d5	2359881	10.29			
3855-82-1	1,4-Dichlorobenzene-d4	1032482	12.78			
TENTITIVE IDI	ENTIFIED COMPOUNDS					
000115-11-7	1-Propene, 2-methyl-	16	J	1.03		ug/L
000598-61-8	Cyclobutane, methyl-	5.9	J	1.40		ug/L

U = Not Detected

RL = Reporting Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

2/14/2008

Project:

Muncy Cleaners OU2

Date Received:

2/15/2008

Client Sample ID:

MC-B-20-85.0

SDG No.:

Z1547

Lab Sample ID:

Z1547-02

Matrix:

WATER

Analytical Method:

% Moisture:

100

Sample Wt/Wol:

8260

5.0 Units: mL

Soil Extract Vol:

цL

Soil Aliquot Vol:

иL

File ID:

Dilution:

Date Analyzed

Analytical Batch ID

VD015472.D

1

2/16/2008

VD021408

VD015472.D		2/10/2000			
CAS Number	Parameter	Conc.	Qualifier	RL)	MDL Units
TARGETS			/		
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	\mathbf{U}	1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	\mathbf{U}	1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	\mathbf{U}	1.0	0.55 ug/L
67-64-1	Acetone	12		5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53 ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43 ug/L
71-43-2	Benzene	0.52	U	1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	\mathbf{U}	1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7 ug/L
108-88-3	Toluene	0.51	U	1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

2/14/2008

Project:

Muncy Cleaners OU2

Date Received:

2/15/2008

Client Sample ID:

MC-B-20-85.0

SDG No.:

Z1547

Lab Sample ID:

Z1547-02

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

File ID:	Dilution:	Date Analyzed	Analytical Batch 1D
VD015472.D	1	2/16/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	${f U}$	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	1sopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
1 06-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES	8					
17060-07-0	1,2-Dichloroethane-d4	52.13	104 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	48.19	96 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	49.09	98 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	52.21	104 %	71 - 132		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	810621	4.59			
540-36-3	1,4-Difluorobenzene	1757655	5.32			
3114-55-4	Chlorobenzene-d5	2456007	10.29			
3855-82-1	1,4-Dichlorobenzene-d4	1067449	12.78			
TENTITIVE ID	ENTIFIED COMPOUNDS					
000115-07-1	Propene	64	J	0.88		ug/L
000115-11-7	1-Propene, 2-methyl-	34	J	1.02		ug/L
000109-67-1	1-Pentene	12	J	1.39		ug/L
000763-29-1	1-Pentene, 2-methyl-	5.1	J	2.35		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

 $\mathbf{u}\mathbf{L}$



Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 2/14/2008

Project: Muncy Cleaners OU2 Date Received: 2/15/2008

Client Sample ID: MC-B-20-55.0 SDG No.: Z1547

Lab Sample ID: Z1547-03 Matrix: WATER

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

File ID: Dilution: Date Analyzed Analytical Batch ID

VD015473.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	(RL)	MDL Units
TARGETS					
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43 ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38 ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	\mathbf{U}	1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	\mathbf{U}	1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	\mathbf{U}	1.0	0.55 ug/L
67-64-1	Acetone	5.1		5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50 ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	\mathbf{U}	1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	\mathbf{U}	1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55 ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53 ug/L
67-66-3	Chloroform	0.46	\mathbf{U}	1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46 ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43 ug/L
71-43-2	Benzene	0.52	U	1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38 ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56 ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7 ug/L
108-88-3	Toluene	0.51	U	1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52 ug/L

U = Not Detected

J = Estimated Value

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

2/14/2008

Project:

Muncy Cleaners OU2

Date Received:

2/15/2008

Client Sample ID:

MC-B-20-55.0

SDG No.:

71212

Lab Sample ID:

Matrix:

Z1547 WATER

Analytical Metbod:

Z1547-03

% Moisture:

100

Sample Wt/Wol:

8260 5.0 Units: mL

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. 1.

Soil Aliquot Vol:

uL

Soil Extract Vol:

uL

File ID:

Dilution:

Date Analyzed

Analytical Batch ID

VD015473.D

1

2/16/2008

VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
10 6- 93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	52.5	105 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	48.45	97 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	49.05	98 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	51.19	102 %	71 - 132		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	812850	4.59			
540-36-3	1,4-Difluorobenzene	1748405	5.32			
3114-55-4	Chlorobenzene-d5	2290469	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1057799	12.78			
TENTITIVE ID	ENTIFIED COMPOUNDS					
000115-07-1	Propene	39	J	0.88		ug/L
000287-23-0	Cyclobutane	21	J	1.02		ug/L
000109-67-1	1-Pentene	8.0	J	1.40		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Malcolm Pirnie, Inc. Date Collected: 2/14/2008 Client: Project: **Muncy Cleaners OU2** Date Received: 2/15/2008

Client Sample 1D: MC-B-16-85.0 SDG No.: Z1547 Matrix: WATER Lab Sample ID:

% Moisture: Analytical Method: 8260 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: иL

Soil Aliquot Vol: υL

Z1547-04

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VD015474.D	1	2/16/2008	VD021408

CAS Number	Parameter	Conc.	Qualifier	$\left(\widehat{\mathbf{RL}}\right)$	MDI	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	8.7		5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	\mathbf{U}	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	\mathbf{U}	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
78-87- 5	1,2-Dichloropropane	0.56	\mathbf{U}	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	1.2		1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Client:

Malcolm Pirnie, Inc.

Date Collected:

2/14/2008

Project:

Muncy Cleaners OU2

Date Received:

2/15/2008

Client Sample ID:

MC-B-16-85.0

SDG No.:

Z1547

Lab Sample ID:

Z1547-04

WATER

Analytical Method:

Matrix:

100

Sample Wt/Wol:

8260 5.0

Units: mL

% Moisture: Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

File ID:

Dilution:

Date Analyzed

Analytical Batch 1D VD02I408

VD015474.D 1 2/16/2008

CAS Number	Parameter	Conc.	Qualifier	RL	MDI	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	52.23	104 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	48.42	97 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	49.38	99 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	49.91	100 %	71 - 132		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	850194	4.58			
540-36-3	1,4-Difluorobenzene	1858505	5.32			
3114-55-4	Chlorobenzene-d5	2408206	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	1125748	12.79			
TENTITIVE ID	ENTIFIED COMPOUNDS					
000115-07-1	Propene	50	J	0.88		ug/L
000115-11-7	1-Propene, 2-methyl-	23	J	1.02		ug/L
000287-92-3	Cyclopentane	6.8	J	1.40		ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Sample Wt/Wol:

Soil Extract Vol:

 $\mathbf{u}\mathbf{L}$

Report of Analysis

Malcolm Pirnie, Inc. Date Collected: 2/14/2008 Client:

Project: **Muncy Cleaners OU2** Date Received: 2/15/2008

Client Sample ID: TRIP BLANK SDG No.: Z1547 Matrix: WATER Lab Sample ID: Z1547-05

% Moisture: 100 Analytical Method: 8260

5.0 Units: mL Soil Aliquot Vol: uL

Dilution: **Analytical Batch ID** File ID: Date Analyzed VD015456.D 1 2/16/2008 VD021408

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.43	U	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.46	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.63	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.49	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	0.55	U	1.0	0.55	ug/L
67-64-1	Acetone	2.7	U	5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.51	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.92	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.52	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0.55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	0.37	U	1.0	0.37	ug/L
78-9 3-3	2-Butanone	4.6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0.49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0.52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	0.38	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.56	U	1.0	0.56	ug/L
7 8-87 -5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.59	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.51	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	0.44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Client:

Malcolm Pirnie, Inc.

Date Collected:

2/14/2008

Project:

Muncy Cleaners OU2

Date Received:

2/15/2008

Client Sample ID:

TRIP BLANK

SDG No.:

Z1547

Lab Sample ID:

Z1547-05

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Soil Extract Vol:

uL

Soil Aliquot Vol:

uL

Analytical Batch ID

File ID:

Dilution:

Date Analyzed

VD021408

VD015456.D 1 2/16/2008

CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	0.68	U	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.50	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.81	110 %	55 - 143		SPK: 50
1868-53-7	Dibromofluoromethane	50.45	101 %	77 - 128		SPK: 50
2037-26-5	Toluene-d8	51.09	102 %	70 - 125		SPK: 50
460-00-4	4-Bromofluorobenzene	53.06	106 %	71 - 132		SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	736941	4.59			
540-36-3	1,4-Difluorobenzene	1603771	5.32			
3114-55-4	Chlorobenzene-d5	2011820	10.28			
3855-82-1	1,4-Dichlorobenzene-d4	943996	12.79			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

> Phone 518-251-4429 Facsimile 518-251-4428

March 19, 2009

Ely Moskel Malcolm Pirnie, Inc. 43 British American Blvd Latham, NY 12110

RE: Validation of Munsey Cleaners OU2 site data packages –groundwater samples

Chemtech SDG Nos. Z1238

Dear Mr. Moskel:

Review has been completed for the data package generated by Chemtech Laboratory that pertains to groundwater samples collected 1/22/08 at the Munsey Cleaner site. Two aqueous samples were analyzed for TCL volatiles by USEPA SW846 method 8260B.

The data package submitted by the laboratory contains full deliverables for validation, but this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. Full validation has not been performed. However, the reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA National and Regional validation guidance documents, with consideration of the specific requirements of the analytical methodology. The following items were reviewed:

- * Data Completeness
- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Method and Canister Blanks
- * Field Duplicate Correlations
- * Laboratory Control Samples (LCSs)
- * Instrumental Tunes
- * Initial and Continuing Calibration Standards
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level of review.

In summary, sample processing was conducted in compliance with the analysis protocol. All sample reported results are usable as reported, or usable with minor qualification. No data are rejected.

Copies of the laboratory case narrative and client/laboratory sample identifications are attached to this text. Also attached are sample report forms with the recommended qualifiers and edits applied in red ink.

Volatile Analyses by USEPA SW846 860B

In order to reflect the proper reporting limits, the report forms should reflect the "RL" value in the "Conc" field, not the MDL concentrations.

Results for the analyte initially reported with the "E" laboratory flag is derived from the dilution analyses of the sample.

The results for dichlorodifluoromethane in the samples are qualified as estimated due to low recovery in (65%, below 70%) the associated LCS.

Initial and continuing calibration standard linearity and calibration verification responses were within laboratory and validation guidelines, with the exception of those for dichlorodifluoromethane (23%RSD, 22%D, and 30%D). The results for that compound are qualified as estimated.

Holding times were met, surrogate recoveries and internal standard responses are acceptable, and instrument tunes meet fragmentation requirements. Blanks show no contamination.

The Tentatively Identified Compounds that was reported with a CAS number should also have been flagged with the "N" laboratory flag to indicate that the identification is tentative. There should have been an acknowledgement on the laboratory report form for MC-B-1-85.0 that no TICs were found.

Chain-of-Custody

The second sample on the custody does not show the collection date or matrix entries. The year was omitted from collection and relinquish dates; it was present on the laboratory receipt date.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judv Harřv

VALIDATION QUALIFIER DEFINITIONS

DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit.

 However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

CLIENT and LABORATORY SAMPLE IDS and CASE NARRATIVE



COVER PAGE

ProjectID:

Muncy Cleaners OU2

OrderID: Z1238

CustomerName:

Malcolm Pimie, Inc.

LAB SAMPLE NO.

CLIENT SAMPLE NO

Z1238-01

MC-B-1-51.6

Z1238-02

MC-B-1-85.0

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature: Milduell	1 Reys	Name: Wilded V Kyls
Date: 2/1/08	0	

CHEMIECH

CASE NARRATIVE

Malcolm Pirnie, Inc.
Project Name: Muncy Cleaners OU2
Project # N/A
Chemtech Project # Z1238

A. Number of Samples and Date of Receipt:

2 Water samples were received on 1/23/08.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and TCL Volatiles + 10. This data package contains results for TCL Volatiles + 10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA D were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analyses were performed on instrument MSVOAE using GC column ZB-624 which is 60 meters, 0.25 mm ID,1.40 um df. Vendor: Zebron,Part #: 7KG-G005-27,Serial #: 130107. The analysis of TCL Volatiles + 10 was based on method SW 846 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The Blank Spike met requirements for all samples except for Chloromethane, Acetone and Dichlorodifluoromethane. Acetone was found in the samples.

The Blank analysis did not indicate the presence of lab contamination.

The Tuning criteria met requirements.

Sample MC-B-1-85.0 was diluted due to high concentrations.

E. Additional Comments:

The Continuing Calibration met the requirements except for Dichlorodifluoromethane but it was not detected in samples.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

If there was an intercept on the Y axis, this could result in false negative identification of compounds. Hence, in such cases, the Average Response Curve Fit was used and plots for both types of curve fit are provided.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signatur	e WildredVkrys	Name: Mildred V. Reyes
Date:	211108	Title: QA/QC

QUALIFIED RESULTS FORMS



Report of Analysis

Malcolm Pirnie, Inc. Client:

Date Collected:

1/22/2008

Project:

Muncy Cleaners OU2

Date Received:

1/23/2008

Client Sample ID:

MC-B-1-51.6

SDG No.:

Z1238

Lab Sample ID:

Z1238-01

Matrix:

WATER

Analytical Method:

8260

% Moisture:

100

Sample Wt/Wol:

5.0 Units: mL

Dilution:

1

Soil Extract Vol:

иL

Soil Aliquot Vol:

VE006771.D

File 1D:

uL

Date Analyzed

Analytical Batch 1D

VE011908 1/23/2008

VE000771.				
CAS Number	Parameter	Conc.	Qualifier (RL)	MDL Units
TARGETS				
75-71-8	Dichlorodifluoromethane	0.43	UUJ 1.0	0.43 ug/L
74-87-3	Chloromethane	0.\$8	U 1.0	0.38 ug/L
75-01-4	Vinyl chloride	0/46	U 1.0	0.46 ug/L
74-83-9	Bromomethane	0.63	U 1.0	0.63 ug/L
75-00-3	Chloroethane	0.49	U 1.0	0.49 ug/L
75-69-4	Trichlorofluoromethane	∮.40	U 1.0	0.40 ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.35	U 1.0	0.35 ug/L
75-35-4	1,1-Dichloroethene	0.55	U 1.0	0.55 ug/L
67-64-1	Acetone	20	5.0	2.7 ug/L
75-15-0	Carbon disulfide	0.51 -	U 1.0	0.51 ug/L
1634-04-4	Methyl tert-butyl Ether	1.5	1.0	0.50 ug/L
79-20-9	Methyl Acetate	192]	U 1.0	0.92 ug/L
75-09-2	Methylene Chloride	0.52	U 1.0	0.52 ug/L
156-60-5	trans-1,2-Dichloroethene	0.57	U 1.0	0.57 ug/L
75-34-3	1,1-Dichloroethane	0.5≴	U 1.0	0.55 ug/L
110-82-7	Cyclohexane	7ا.3	U 1.0	0.37 ug/L
78-93-3	2-Butanone	4.6	U 5.0	4.6 ug/L
56-23-5	Carbon Tetrachloride	0.49	U 1.0	0.49 ug/L
156-59-2	cis-1,2-Dichloroethene	0.53	U 1.0	0.53 ug/L
67-66-3	Chloroform	0/46	U 1.0	0.46 ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U 1.0	0.46 ug/L
108-87-2	Methylcyclohexane	ø .43	U 1.0	0.43 ug/L
71-43-2	Benzene	þ.52	U 1.0	0.52 ug/L
107-06-2	1,2-Dichloroethane	10.38	U 1.0	0.38 ug/L
79-01-6	Trichloroethene	0.82	J 1.0	0.56 ug/L
78-87- 5	1,2-Dichloropropane	1 0.5/ 6	U 1.0	0.56 ug/L
75-27-4	Bromodichloromethane	0/59	U 1.0	0.59 ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U 5.0	2.7 ug/L
108-88-3	Toluene	1.1	1.0	0.51 ug/L
10061-02-6	t-1,3-Dichloropropene	- 0.4 4	U 1.0	0.44 ug/L
10061-01-5	cis-1,3-Dichloropropene	0/54	U 1.0	0.54 ug/L
79-00-5	1,1,2-Trichloroethane	0.52	U 1.0	0.52 ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound



Report of Analysis

Date Collected: 1/22/2008 Malcolm Pirnie, Inc. Client: **Muncy Cleaners OU2** Date Received: Project: 1/23/2008 SDG No.: Client Sample ID: MC-B-I-51.6 Z1238 Matrix: WATER Lab Sample ID: Z1238-01

Analytical Method: 8260 % Moisture: 100

Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol:

Soil Aliquot Vol: uL

File ID:	Dilution:	Date Analyzed	Analytical Batch ID			
VE006771.D	1	1/23/2008	VE011908			
CAS Number	Parameter	Conc.	Qualifier	RL	MDL	Units
591-78-6	2-Hexanone	2.97	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	0.45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	8. 56 -	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	91		1.0	0.68	ug/L
108-90-7	Chlorobenzene	0 .5p >	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0/50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	1.4	J	2.0	0.97	ug/L
95-47-6	o-Xylene	0.83	J	1.0	0.51	ug/L
100-42-5	Styrene	- 0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.4/2	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0/45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0,43	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0.48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0 .45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	441	U	1.0	0.41	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.16	112 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	52.62	105 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	51.27	103 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	52	104 %	76 - 119		SPK: 50
INTERNAL STA	NDARDS					
363-72-4	Pentafluorobenzene	950280	9.39			
540-36-3	1,4-Difluorobenzene	1743107	10.49			
3114-55-4	Chlorobenzene-d5	1487825	14.92			
3855-82-1	1,4-Dichlorobenzene-d4	709243	18.73			
TENTITIVE IDE	NT1FIED COMPOUNDS					
000115-07-1	Propene	33	ИJ	3.52		ug/L

υL

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

B = Analyte Found in Associated Method Blank

Sample Wt/Wol:

Soil Extract Vol:

иL

Report of Analysis

Date Collected: 1/22/2008 Malcolm Pirnie, Inc. Client: Date Received: 1/23/2008 Project: **Muncy Cleaners OU2** SDG No.: Z1238 Client Sample ID: MC-B-1-85.0 Matrix: WATER Z1238-02 Lab Sample ID:

% Moisture: 100 Analytical Method: 8260

5.0 иL Soil Aliquot Vol:

Units: mL

Dilution: **Date Analyzed Analytical Batch 1D** File ID: VE006772.D I 1/23/2008 VE011908

CAS Number	Parameter	Conc.	Qualifier	(RL)	MDL Units	
TARGETS						
75-71 -8	Dichlorodifluoromethane	.0.43	υ <i>۷-</i> ン	1.0	0.43	ug/L
74-87-3	Chloromethane	0.38	U	1.0	0.38	ug/L
75-01-4	Vinyl chloride	0.45	U	1.0	0.46	ug/L
74-83-9	Bromomethane	0.6₿	U	1.0	0.63	ug/L
75-00-3	Chloroethane	0.4	U	1.0	0.49	ug/L
75-69-4	Trichlorofluoromethane	0.40	U	1.0	0.40	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.₿5	U	1.0	0.35	ug/L
75-35-4	1,1-Dichloroethene	g/55	U	1.0	0.55	ug/L
67-64-1	Acetone	16		5.0	2.7	ug/L
75-15-0	Carbon disulfide	0.5 1	U	1.0	0.51	ug/L
1634-04-4	Methyl tert-butyl Ether	1.3		1.0	0.50	ug/L
79-20-9	Methyl Acetate	0.9 ¢	U	1.0	0.92	ug/L
75-09-2	Methylene Chloride	0.5/2	U	1.0	0.52	ug/L
156-60-5	trans-1,2-Dichloroethene	0.∳7	U	1.0	0.57	ug/L
75-34-3	1,1-Dichloroethane	0/55	U	1.0	0.55	ug/L
110-82-7	Cyclohexane	9 .37	U	1.0	0.37	ug/L
78-93-3	2-Butanone	∮ .6	U	5.0	4.6	ug/L
56-23-5	Carbon Tetrachloride	0:49	U	1.0	0.49	ug/L
156-59-2	cis-1,2-Dichloroethene	0.61	J	1.0	0.53	ug/L
67-66-3	Chloroform	0.46	U	1.0	0.46	ug/L
71-55-6	1,1,1-Trichloroethane	0.46	U	1.0	0.46	ug/L
108-87-2	Methylcyclohexane	0.43	U	1.0	0.43	ug/L
71-43-2	Benzene	0/52	U	1.0	0.52	ug/L
107-06-2	1,2-Dichloroethane	(/.38 -	U	1.0	0.38	ug/L
79-01-6	Trichloroethene	0.99	J	1.0	0.56	ug/L
78-87-5	1,2-Dichloropropane	0.56	U	1.0	0.56	ug/L
75-27-4	Bromodichloromethane	0.5	U	1.0	0.59	ug/L
108-10-1	4-Methyl-2-Pentanone	2.7	U	5.0	2.7	ug/L
108-88-3	Toluene	0.\$1	U	1.0	0.51	ug/L
10061-02-6	t-1,3-Dichloropropene	o <i> </i> 44	U	1.0	0.44	ug/L
10061-01-5	cis-1,3-Dichloropropene	d .54	U	1.0	0.54	ug/L
79-00-5	1,1,2-Trichloroethane	b.52	U	1.0	0.52	ug/L

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

Report of Analysis

Date Collected: 1/22/2008 Malcolm Pirnie, Inc. Client: Date Received: 1/23/2008 Project: **Muncy Cleaners OU2** Z1238 MC-B-1-85.0SDG No.: Client Sample ID: Matrix: WATER Lab Sample ID: Z1238-02 % Moisture: 100 Analytical Method: 8260 Sample Wt/Wol: 5.0 Units: mL Soil Extract Vol: uL

uL Soil Aliquot Vol:

File ID:	Dilution:	Date Analyzed	Analytical Batch ID
VE00677	2.D 1	1/23/2008	VE011908

VE000//2.D		1/20/2000				
CAS Number	Parameter	Conc.	Qualifier	\mathbb{R}	MDL	Units
591-78-6	2-Hexanone	2.9	U	5.0	2.9	ug/L
124-48-1	Dibromochloromethane	9 .45	U	1.0	0.45	ug/L
106-93-4	1,2-Dibromoethane	0.56	U	1.0	0.56	ug/L
127-18-4	Tetrachloroethene	76 110	E	1.0	0.68	ug/L
108-90-7	Chlorobenzene	0.507	U	1.0	0.50	ug/L
100-41-4	Ethyl Benzene	0.50	U	1.0	0.50	ug/L
126777-61-2	m/p-Xylenes	0.97	U	2.0	0.97	ug/L
95-47-6	o-Xylene	0.51	U	1.0	0.51	ug/L
100-42-5	Styrene	0.48	U	1.0	0.48	ug/L
75-25-2	Bromoform	0.42	U	1.0	0.42	ug/L
98-82-8	Isopropylbenzene	0.44	U	1.0	0.44	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.49	U	1.0	0.49	ug/L
541-73-1	1,3-Dichlorobenzene	0.45	U	1.0	0.45	ug/L
106-46-7	1,4-Dichlorobenzene	0.#3	U	1.0	0.43	ug/L
95-50-1	1,2-Dichlorobenzene	0/48	U	1.0	0.48	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0,45	U	1.0	0.45	ug/L
120-82-1	1,2,4-Trichlorobenzene	-∯. -41	U	1.0	0.41	ug/L
SURROGATES	\$					
17060-07-0	1,2-Dichloroethane-d4	54.63	109 %	72 - 119		SPK: 50
1868-53-7	Dibromofluoromethane	52.27	105 %	85 - 115		SPK: 50
2037-26-5	Toluene-d8	50.8	1 02 %	81 - 120		SPK: 50
460-00-4	4-Bromofluorobenzene	50.94	102 %	76 - 119		SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	977078	9.39			
540-36-3	1,4-Difluorobenzene	1777070	10.49			
3114-55-4	Chlorobenzene-d5	1501557	14.91			
3855-82-1	1,4-Dichlorobenzene-d4	687128	18.72			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

> Phone 518-251-4429 Facsimile 518-251-4428

November 6, 2008

Elias Moskal Malcolm Pirnie, Inc. 43 British American Blvd Latham, NY 12110

RE: Data Usability Summary Report (DUSR) for Munsey Cleaners OU2 site data packages
--groundwater samples
Chemtech SDG Nos. Z4521 and Z4522

Dear Mr. Moskal:

Review has been completed for the data packages generated by Chemtech Laboratory that pertain to groundwater samples collected 9/09/08 and 9/10/08 at the Munsey Cleaner site. Thirty-nine aqueous samples and a field duplicate were analyzed for TCL volatiles by USEPA SW846 method 8260B. Field and trip blanks were also processed.

The data package submitted by the laboratory contains full deliverables for validation, but this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. Full validation has not been performed. However, the reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA National and Regional validation guidance documents, with consideration of the specific requirements of the analytical methodology. The following items were reviewed:

- * Data Completeness
- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Method, Trip, and Equipment Blanks
- * Field Duplicate Correlations
- * Laboratory Control Samples (LCSs)
- * Instrumental Tunes
- * Initial and Continuing Calibration Standards
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level of review.

In summary, sample processing was conducted in compliance with the analysis protocol. All sample reported results are usable as reported, or usable with minor qualification. No data are rejected.

Copies of the laboratory client/laboratory sample identifications are attached to this text. Also attached are sample report forms with the recommended qualifiers and edits applied in red ink.

Volatile Analyses by USEPA SW846 860B

The initial analyses of MC-CMT-01-4, MC-CMT-01-5, and MC-CMT-01-6 are to be used, without qualification. The reanalyses exhibited outlying surrogate and internal standard responses.

The initial analysis of MC-10B is to be used, with no qualification. Two of the internal internal standards that were not associated with detected analytes exhibited marginally low responses, not affecting reporting limits of non-detected analytes. The reanalysis was less acceptable.

Results for analytes initially reported with the "E" laboratory flag are to be derived from the dilution analyses of the samples.

The detection of vinyl chloride in MC–CMT-02-6 is qualified as being tentative identification and estimated in value, due to poor mass spectral quality.

Blanks show no contamination of the analytes detected in associated field samples.

No project matrix spikes were evaluated. Therefore, the effect, if any, of sample matrix on recovery of the analytes has not been determined. Batch QC recoveries and duplicate correlations are acceptable, spiked blanks (LCSs) show good recoveries, and the field duplicate correlations for MC-11C are within validation guidelines.

Initial and continuing calibration standard linearity and calibration verification responses were\ within laboratory and validation guidelines, with the exception of that for tetrachloroethene (29%D) in samples reported in Z4522 and processed 9/15/08. Those results have been qualified as estimated in value, with a possible low bias.

Holding times were met and instrument tunes meet fragmentation requirements.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

VALIDATION QUALIFIER DEFINITIONS

DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit.

 However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

CLIENT and LABORATORY SAMPLE IDs and CASE NARRATIVES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I $\,$

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MC-CMT-02-7	Z4521-01	8260					
MC-CMT-02-6	Z4521-02	8260					
MC-CMT-02-4	Z4521-03	8260					
MC-CMT-02-3	Z4521-04	8260					
MC-CMT-02-2	Z4521-05	8260					
MC-CMT-02-1	Z4521-06	8260					
MC-CMT-01-7	Z4521-07	8260				1	
MC-CMT-01-6	Z4521-08	8260					
MC-CMT-01-5	Z4521-09	8260					
MC-CMT-01-4	Z4521-10	8260					
FIELDBLANK	Z4521-11	8260					
MC-CMT-01-3	Z4521-12	8260					
MC-CMT-01-2	Z4521-13	8260					
MC-CMT-01-1	Z4521-14	8260			,		
X-73	Z4521-15	8260					
X-71	Z4521-16	8260					
X-72	Z4521-17	8260					
MC-11A	Z4521-18	8260					
MC-11C	Z4521-19	8260					
MC-11B	Z4521-20	8260					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MC-12B	Z4522-01	8260					
MC-12C	Z4522-02	8260			-		
MC-10A	Z4522-03	8260					
MC-10B	Z4522-04	8260					
MC-10C	Z4522-05	8260					
MC-9A	Z4522-06	8260					
MC-9B	Z4522-07	8260					
MC-9C	Z4522-08	8260					
MC-6B	Z4522-09	8260					
MC-6C	Z4522-10	8260					
MC-3	Z4522-11	8260					
MC-5	Z4522-12	8260					
MC-8A	Z4522-13	8260					
MC-8B	Z4522-14	8260					
MC-8C	Z4522-15	8260					
PWSH-2	Z4522-16	8260					
PWSH-1	Z4522-17	8260					
MC-7A	Z4522-18	8260					
MC-7B	Z4522-19	8260					
MC-7C	Z4522-20	8260					
MC-X	Z4522-21	8260					
TRIPBLANK	Z4522-22	8260					

CHEMITECH

CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Muncy Cleaners OU2

Project # N/A

Chemtech Project # Z4521

A. Number of Samples and Date of Receipt:

20 Water samples were received on 9/11/08.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and TCL Volatiles + 10. This data package contains results for TCL Volatiles + 10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA E were done using GC column RTX-VMS which is 60 meters, 0.25 ID, 1.40 df, Zebron. #ZB-624. The Trap was supplied by OI Analytical, OI #130107 Trap, OI Eclipse 4660 Concentrator.

The analysis of TCL Volatiles + 10 was based on method 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for MC-CMT-01-6RE, MC-CMT-01-5RE and MC-CMT-01-4RE.

The Internal Standards Areas met the acceptable requirements except for MC-CMT-01-6RE, MC-CMT-01-5RE and MC-CMT-01-4RE.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria except for Methyl Acetate.

The Blank Spike met requirements for all samples except for 1,2-Dibromoethane.

The Blank analysis did not indicate the presence of lab contamination.

The Tuning criteria met requirements.

E. Additional Comments:

The Calibration File ID met the requirements except for 2-Butanone.

Bromodichloromethane and Chloromethane but it is not present in the sample,. Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_ Mildred V. Reyes
I am approving this document 2008.09.24 16:34:00 -04'00'



CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Muncy Cleaners OU2

Project # N/A

Chemtech Project # Z4522

A. Number of Samples and Date of Receipt:

22 Water samples were received on 9/11/08.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and TCL Volatiles + 10. This data package contains results for TCL Volatiles + 10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA E were done using GC column RTX-VMS which is 60 meters, 0.25 ID, 1.40 df, Zebron. #ZB-624. The Trap was supplied by OI Analytical, OI #130107 Trap , OI Eclipse 4660 Concentrator. The analysis performed on instrument MSVOA G were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for MC-10BRE.

The Internal Standards Areas met the acceptable requirements except for MC-10B and MC-10BRE.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria except for Methyl Acetate.

The Blank Spike met requirements for all samples except for 1,2-Dibromoethane and 1,2-Dibromo-3-Chloropropane.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

The Continuing Calibration met the requirements except for Chloromethane. Samples MC-12B, MC-12C, MC-6C, MC-3, MC-7A, MC-7B and MC-7C were diluted due to high concentrations.

Please use %D calculated based on AvgRF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature___ Modern VReys

Mildred V. Reyes I am approving this document 2008.09.25 11:07:19 -04'00'

Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

> Phone 518-251-4429 Facsimile 518-251-4428

August 19, 2009

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Christine Thomas Malcolm Pirnie, Inc 855 Route 146 Suite 210 Clifton Park, NY 12065

RE Plaza Cleaners site
Data Usability Summary Report (DUSR)
Chemtech SDG No. A3331

Dear Ms. Thomas:

Review has been completed for the data package generated by Chemtech Laboratories that pertains to samples collected 06/23/09 through 06/26/09 at the Plaza Cleaners site. Five soil samples, nine aqueous samples, and field duplicates of both matrices were processed for volatiles by USEPA SW846 method 8260B.

The data packages submitted by the laboratory contain full deliverables for validation, but this usability report is primarily generated from review of the summary form information, with full review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA CLP National Functional Guidelines for Data Review, with consideration of the requirements of the specific analytical methodologies. The following items were reviewed:

- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Matrix Spike Recoveries/Duplicate Correlations
- * Preparation/Calibration Blanks
- * Matrix Spiked Blanks/Laboratory Control Samples (LCSs)
- * Field Duplicate Correlations
- * Instrumental Tunes
- * Calibration Standards
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for this level of review.

In summary, results for the samples are usable as reported, or usable with minor qualification due to sample matrix or to processing outliers.

Copies of the sample identification summary and laboratory case narrative are attached to this text, and should be reviewed in conjunction with this report. Also included with this report are validation qualifier definitions and red-ink qualified sample report forms.

The following text discusses quality issues of concern.

Chain-of-Custody/Sample Receipt

·,

The interim receipt signature was not present on the custody.

TCL Volatiles by EPA 8260B

Results for analytes initially reported with the laboratory "E" flag are derived from those analyses, due to inconsistent results between the initial and undiluted analyses. Those results are qualified as estimated due to response above the linear range of the instrument.

PC-B-02-GW-45 and PC-B-01GW-50 exhibit outlying low responses for all four internal standards in the initial analyses. Therefore, all volatile results in those samples are qualified as estimated in value.

The matrix spikes (MS/MSD) of PC-B-04-39 and PC-SB-04-GW show acceptable accuracy and precision.

Field duplicates of PC-B-05-GW-45 and PC-B-05-25 show acceptable correlations.

The detected results for acetone and tetrachloroethene in all of the aqueous samples except PC-B-01-GW-50, PC-B-02-GW-45, and PC-B-03-GW-68 are qualified as estimated due to elevated recoveries (150% and 165%) in the associated LCS.

Calibrations standard responses were within laboratory and validation guidelines, with the following exceptions:

- o acetone in the soil samples are qualified as estimated due to low response factors
- carbon disulfide (23%D) in PC-B-01-GW-99, PC-B-02-GW-89, PC-B-04-GW-45, PC-B-04-GW-99, PC-B-05-GW-99, PC-B-05-GW-45, PC-B-01-GW-99, FIELD BLANK, and TRIP BLANK

Tentatively Identified Compounds that are not part of the analytical software target list should have been flagged by the laboratory as "N" to indicate that the identification is tentative. These have been added to the attached forms during this review. Additionally, some of the TICs were overcharacterized by the laboratory, and should show more general identifications.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

Judy Harry

Att

VALIDATION DATA QUALIFIER DEFINITIONS

- The compound was analyzed for, but was not detected above the level of the associated value.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ The compound was not detected. The associated reporting limit is an estimate and may be inaccurate or imprecise.
- NJ The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- **R** The data are unusable. The analyte may or may not be present.
- EMPC The results do not meet all criteria for a confirmed identification.

 The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

CLIENT and LABORATORY SAMPLE IDS and CASE NARRATIVE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
PC-B-01-44	A3331-01	8260					Chemtech - SOP
PC-B-02-40	A3331-02	8260				•	Chemtech - SOP
PC-B-03-24	A3331-03	8260					Chemtech - SOP
PC-B-04-39	A3331-04	8260					Chemtech - SOP
PC-B-05-25	A3331-07	8260					Chemtech - SOP
FIELDDUP	A3331-08	8260					Chemtech - SOP
PC-B-01-GW- 50	A3331-09	8260					
PC-B-01-GW- 99	A3331-10	8260		000			
PC-B-02-GW- 89	A3331-11	8260					
PC-B-02-GW- 45	A3331-12	8260					27
PC-B-03-GW- 68	A3331-13	8260					
PC-B-04-GW- 45	A3331-14	8260					
PC-B-04-GW- 99	A3331-17	8260					
PC-B-05-GW- 99	A3331-18	8260					
PC-B-05-GW- 45	A3331-19	8260					
FIELDDUP	A3331-20	8260					12
TRIPBLANK	A3331-22	8260					

CHEMITECH

CASE NARRATIVE

Malcolm Pirnie, Inc.
Project Name: Plaza Cleaners
Project # N/A
Chemtech Project # A3331

A. Number of Samples and Date of Receipt:

8 Solid samples were received on 6/26/09. 13 Water samples were received on 6/26/09.

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10, and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

B. Parameters

The analysis performed on instrument MSVOA K were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI 4560 Concentrator. The analysis performed on instrument MSVOA G were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The analysis performed on instrument MSVOA H were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.

The analysis of VOC-TCLVOA-10 was based on method 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements except for PC-B-02-GW-45 and PC-B-01-GW-50.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except for 1,2-Dichloroethane.

The MSD recoveries met the acceptable requirements except for 1,1-Dichloroethene.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples except for 1,1,1-Trichloroethane,

Bromodichloromethane, t-1,3-Dichloropropene, Ethylbenzene, 1,1,2,2-

Tetrachloroethane, Acetone, Tetrachloroethene and Dichlorodifluoromethane.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration File ID VG019924.D met the requirements except for Chloromethane and Ethylbenzene.

The Calibration File ID VH030203.D met the requirements except for Methylcyclohexane but it is not present in the sample. The Tuning criteria met requirements.

Samples PC-B-02-GW-89, PC-B-04-GW-99 and PC-B-05-GW-99 were diluted as a straight run due to limited volume received.

Samples PC-B-01-GW-99 and PC-B-02-GW-45 were diluted due to high concentrations.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

Tetrachloroethane in Sample # PC-B-01-GW-50 is coming just above the initial calibration points(E flag) and this sample is failing in internal standard also but due to limited volume there is no vials to run a dilution.

Sample # 9, 12 and 13 were analyzed with 1 PPB other samples can not run with that low level because of samples high in sediment and not enough volume.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature

Mildred V. Reyes
I am approving this document
2009.07.08 13:42:47 -04'00'

QUALIFIED SAMPLE RESULTS FORMS



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

		_	EPA SAMPLE NO.
			PC-B-01-44
Lab Name: Chemtech		Contract: Malcolm Pirnie,	Inc.
Lab Code: CHEM	Case No.: A3331	SAS No.: <u>A3331</u> S	DG No.: <u>A3331</u>
Matrix (soil/water):	SOIL	Lab Sample ID.	A3331-01
Sample wt/vol:		•	(033305.D
		_	
Level: (low/med)	LOW	Date Received 06	26/09
% Moisture: not dec.	24	Date Analyzed: 06	29/09
GC Column: RTX-V	MS ID: 0.18 (mm)	Dilution Factor:	1
Soil Extract Volume:	5000 (uL)	Soil Aliquot Volume:	(uL)
		Commenter United	
		Concentration Units:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>u</u>	g/Kg Q
75-71-8	Dichlorodifluoromethane	33	Ü
74-87-3	Chloromethane	33	U
75-01-4	Vinyl Chloride	33	Ŭ
74-83-9	Bromomethane	33	U
75-00-3	Chloroethane	33	U
75-69-4	Trichlorofluoromethane	33	U
76-13-1	1,1,2-Trichlorotrifluoroethane	33	U
75-35-4	1,1-Dichloroethene	33	U
67-64-1	Acetone	160	u UJ
75-15-0	Carbon Disulfide	33	Ü
1634-04-4	Methyl tert-butyl Ether	33	U
79-20-9	Methyl Acetate	33	U
75-09-2	Methylene Chloride	33	U
156-60-5	trans-1,2-Dichloroethene	33	U
75-34-3	1,1-Dichloroethane	33	U
110-82-7	Cyclohexane	33	U
78-93-3	2-Butanone	160	U
56-23-5	Carbon Tetrachloride	33	U
156-59-2	cis-1,2-Dichloroethene	33	U
67-66-3	Chloroform	33	U
71-55-6	1,1,1-Trichloroethane	33	U
108-87-2	Methylcyclohexane	33	Ŭ
71-43-2	Benzene	33	U
107-06-2	1,2-Dichloroethane	33	U
79-01-6	Trichloroethene	33	U
78-87-5	1,2-Dichloropropane	33	U
75-27-4	Bromodichloromethane	33	U



1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

		PC	-B-01-44
Lab Name. Chemtech		Contract: Malcolm Pirnie, Inc.	
Lab Code: <u>CHEM</u>	Case No. A3331	SAS No.: <u>A3331</u> SDG No.:	A3331
Matrix (soil/water):	SOIL	Lab Sample ID: A3331-0)]
Sample wt/vol: 1	(g/mL) g	Lab File ID: VK033305	D
Level: (low/med)	LOW	Date Received: 06/26/09	
% Moisture: not dec.	24	Date Analyzed 06/29/09	
GC Column: RTX-VMS	ID: 0 18 (mm)	Dilution Factor 1	
Soil Extract Volume: 5000	(uL)	Soil Aliquot Volume:	(uL)
		Concentration Units:	
CAS NO	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
108-10-1	4-Methyl-2-Pentanone	160	U
108-88-3	Toluene	33	U
10061-02-6	t-1,3-Dichloropropene	33	U
10061-01-5	cis-1,3-Dichloropropene	33	Ų
79-00-5	1,1,2-Trichloroethane	33	Ŭ
591-78-6	2-Hexanone	160	U
124-48-1	Dibromochloromethane	33	U
106-93-4	1,2-Dibromoethane	33	U
127-18-4	Tetrachloroethene	33	U
108-90-7	Chlorobenzene	33	U
100-41-4	Ethyl Benzene	33	U
179601-23-1	m/p-Xylenes	66	U
95-47-6	o-Xylene	33	Ŭ
100-42-5	Styrene	33	U
75-25-2	Bromoform	33	U
98-82-8	Isopropylbenzene	33	U
79-34-5	1,1,2,2-Tetrachloroethane	33	U
541-73-1	1,3-Dichlorobenzene	33	U
106-46-7	1,4-Dichlorobenzene	33	U
95-50-1	1,2-Dichlorobenzene	33	U
96-12-8	1,2-Dibromo-3-Chloropropane	33	U
120-82-1	1,2,4-Trichlorobenzene	33	U



-1E-

SOIL VOLATILE ANALYSIS TENTIVELY IDENTIFIED COMPOUNDS

						EP	A SAMPLE NO.
						PC-B-	01-44
Lab Name:	Chemtech			Contr	act: Malcolm F	irnie, Inc.	
Lab Code:	CHEM	_ Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/wa	ater):	SOIL			Lab Sample 1D:	A3331-01	
Sample wt/vol	1	(g/ml	L) <u>g</u>		Lab File ID:	VK033305.D	
Level: (low/me	ed)	LOW			Date Received:	06/26/09	
% Moisture: no	ot dec. 24				Date Analyzed:	06/29/09	
GC Column:	RTX-VM	ID: 0.18			Dilution Factor:	1	
Soil Extract Vo	olume: <u>500</u>	00			Soil Aliquot Volume	•	<u></u>
Number TICS	found:	1			Concentration Units	: ug/Kg	
	_				(ug/L or ug/Kg)	
CAS NU	MRFR	COMPOUND N	AMF		RT	EST. CON	C. Q
141-78-6		Ethyl Acetate		- 	2.85	300	N ₁



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

					E	PA SAMPLE NO.
					PC-B	3-02-40
Lab Name:	Chemtech		Cont	tract: Malcolm I	Pirnie, Inc.	
Lab Code:	СНЕМ	Case No.: A3331	SAS No.:	A3331	_ SDG No.:	A3331
Matrix (soil/wa	iter):	SOIL		Lab Sample ID:	– A3331-02	
Sample wt/vol:		(g/mL) g		Lab File ID:	VK033306.D	
_evel: (low/me		LOW		Date Received:		
					06/26/09	<u> </u>
% Moisture: no	t dec.	7		Date Analyzed	06/29/09	
GC Column:	RTX-VMS	ID: 0.18 (mm)		Dilution Factor:	1	
Soil Extract Vo	lume: 5000	(uL)		Soil Aliquot Volume		(uL)
					-	
				Concentration Units	s:	
CAS NO.		COMPOUND		(ug/L or ug/k	(g) <u>ug/Kg</u>	_ Q
75-71-8		Dichlorodifluoromethane	1	26		U
74-87-3		Chloromethane	İ	26	i	U
75-01-4		Vinyl Chloride		26		U
74-83-9		Bromomethane	İ	26		U
75-00-3		Chloroethane		26	j	U
75-69-4		Trichlorofluoromethane		26		U
76-13-1		1,1,2-Trichlorotrifluoroethane		26	İ	U
75-35-4		1,1-Dichloroethene		26		U
67-64-1		Acetone		130		U U 1
75-15-0		Carbon Disulfide		26	5	U
1634-04-4		Methyl tert-butyl Ether		26	1	U
79-20-9		Methyl Acetate		26 *		U
75-09-2		Methylene Chloride		26	Ī	U
156-60-5		trans-1,2-Dichloroethene		26	ĺ	U
75-34-3		1,1-Dichloroethane		26		U
110-82-7		Cyclohexane		26		U
78-93-3		2-Butanone	1	130		U
56-23-5		Carbon Tetrachloride		26		U
156-59-2		cis-1,2-Dichloroethene		26		U
67-66-3		Chloroform		26		Ŭ
71-55-6		1,1,1-Trichloroethane		26		U
108-87-2		Methylcyclohexane		26		U
71-43-2		Benzene		26		U
107-06-2		1,2-Dichloroethane		26		U
79-01-6		Trichloroethene		26		υ
78-87-5		1,2-Dichloropropane		26		U
75-27-4		Bromodichloromethane		26		U
108-10-1		4-Methyl-2-Pentanone		130		U
108-88-3		Toluene		26		U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

		_	EPA SAMPLE NO.
			PC-B-02-40
Lab Name: Chem	ntech	Contract Malcolm Pirnie,	Inc.
Lab Code: CHE	M Case No.: <u>A3331</u>	SAS No.: <u>A3331</u> S	DG No.: A3331
Matrix (soil/water):	SOIL	Lab Sample ID	A3331-02
Sample wt/vol:	1.03 (g/mL) g	Lab File ID: Vk	C033306.D
Level: (low/med)	LOW		/26/09
% Moisture: not dec.	7	Date Analyzed: 06	/29/09
GC Column: RTX	<u>X-VMS</u> ID: <u>0.18</u> (mm)	Dilution Factor	1
Soil Extract Volume:	5000 (uL)	Soil Aliquot Volume:	(uL)
		Concentration Units:	
CAS NO.	COMPOUND	(ug/L or ug/Kg) u	g/Kg Q
10061-02-6	t-1,3-Dichloropropene	26	U
10061-01-5	cis-1,3-Dichloropropene	26	Ū
79-00-5	1,1,2-Trichloroethane	26	Ū
591-78-6	2-Hexanone	130	U
124-48-1	Dibromochloromethane	26	Ū
106-93-4	1,2-Dibromoethane	26	Ų
127-18-4	Tetrachloroethene	26	Ü
108-90-7	Chlorobenzene	26	U
100-41-4	Ethyl Benzene	26	บ
179601-23-1	m/p-Xylenes	52	. U
95-47-6	o-Xylene	26	ט
100-42-5	Styrene	26	U
75-25-2	Bromoform	26	υ
98-82-8	lsopropy lbenzene	26	υ
79-34-5	1,1,2,2-Tetrachloroethane	26	U
541-73-1	1,3-Dichlorobenzene	26	U
106-46-7	1,4-Dichlorobenzene	26	υ
95-50-1	1,2-Dichlorobenzene	26	<u></u> ប
96-12-8	1,2-Dibromo-3-Chloropropar	ne 26	U
120-82-1	1.2.4-Trichlorobenzene	26	1 11



-1E-

SOIL VOLATILE ANALYSIS TENTIVELY IDENTIFIED COMPOUNDS

						E	A SAMPLE NO.
						PC-B	-02-40
Lab Name:	Chemtech			Contrac	t: <u>Malcolm</u>	Pirnie, Inc.	<u> </u>
Lab Code:	СНЕМ	Case No.:	A3331	SAS No.:	A3331	_ SDG No.:	A3331
Matrix (soil/w	ater)	SOIL		L	ab Sample ID:	A3331-02	
Sample wt/vol	i: <u>1.0</u> 2	3 (g/r	nL) <u>g</u>	I	ab File ID [.]	VK033306.D	
Level: (low/m	ed)	LOW		Ε	Date Received	06/26/09	
% Moisture: n	ot dec. 7			Ē	Date Analyzed:	06/29/09	
GC Column	RTX-VM	ID: <u>0.18</u>		Ľ	Dilution Factor:	1	
Soil Extract V	olume: <u>5</u> 0	000		S	oil Aliquot Volum	e:	_
Number TICS	found:	1		(Concentration Uni	ts: ug/Kg	
					(ug/L or ug/K	g)	
CAS NU	MBER	COMPOUND	MAME		RT	EST. CON	√C. Q
141-78-6		Fthy L Acetate		Í	2.85	220	Δá



108-88-3

Toluene

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-03-24 Lab Name: Chemtech Contract: Malcolm Pirnie, Inc. A3331 Lab Code: CHEM Case No.: A3331 SAS No.: A3331 SDG No.: SOIL Lab Sample ID: Matrix (soil/water): A3331-03 Sample wt/vol: 1.02 (g/mL) Lab File ID: VK033307.D LOW Date Received: 06/26/09 Level: (low/med) % Moisture: not dec. 5 Date Analyzed: 06/30/09 GC Column: Dilution Factor: RTX-VMS ID: 0.18(mm) (uL) Soil Extract Volume: 5000 Soil Aliquot Volume: (uL) Concentration Units: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q 75-71-8 U Dichlorodifluoromethane 26 74-87-3 Chloromethane 26 U 75-01-4 Vinyl Chloride 26 U 74-83-9 Bromomethane 26 U 75-00-3 Chloroethane 26 U 75-69-4 Trichlorofluoromethane 26 U 76-13-1 1,1,2-Trichlorotrifluoroethane 26 U U 75-35-4 1,1-Dichloroethene 26 UII 67-64-1 130 Acetone 75-15-0 Carbon Disulfide 26 U U 1634-04-4 Methyl tert-butyl Ether 26 79-20-9 Methyl Acetate 26 U U 75-09-2 Methylene Chloride 26 156-60-5 trans-1,2-Dichloroethene 26 U 1.1-Dichloroethane U 75-34-3 26 110-82-7 Cyclohexane 26 U 78-93-3 U 2-Butanone 130 56-23-5 Carbon Tetrachloride 26 U U 156-59-2 cis-1.2-Dichloroethene 26 U 67-66-3 Chloroform 26 U 71-55-6 1,1,1-Trichloroethane 26 Methylcyclohexane U 108-87-2 26 71-43-2 U Benzene 26 1.2-Dichloroethane U 107-06-2 26 U 79-01-6 Trichloroethene 26 78-87-5 26 U 1,2-Dichloropropane Bromodichloromethane 26 U 75-27-4 108-10-1 4-Methyl-2-Pentanone 130 U

26

U



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-03-24 Malcolm Pirnie, Inc. Lab Name: Chemtech Contract: Lab Code: CHEM Case No.: A3331 SAS No.: A3331 SDG No.: A3331 SOIL Lab Sample ID: A3331-03 Matrix (soil/water): 1.02 Lab File ID: VK033307.D Sample wt/vol: (g/mL) LOW Date Received: Level: (low/med) 06/26/09 06/30/09 % Moisture: not dec. Date Analyzed: GC Column: Dilution Factor: RTX-VMS ID: 0.18 (mm) (uL) Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: Concentration Units: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q 10061-02-6 t-1,3-Dichloropropene 26 U 10061-01-5 cis-1,3-Dichloropropene 26 U 79-00-5 1,1,2-Trichloroethane 26 U 130 U 591-78-6 2-Hexanone 124-48-1 Dibromochloromethane 26 U 26 U 106-93-4 1,2-Dibromoethane U 127-18-4 Tetrachloroethene 26 108-90-7 Chlorobenzene 26 U Ų 100-41-4 Ethyl Benzene 26 U 179601-23-1 -52 m/p-Xylenes U 95-47-6 o-Xylene 26 U 100-42-5 26 Styrene 75-25-2 Bromoform 26 U U 98-82-8 26 Isopropylbenzene U 79-34-5 1,1,2,2-Tetrachloroethane 26 U 541-73-1 26 1,3-Dichlorobenzene U 106-46-7 1.4-Dichlorobenzene 26 Ū 95-50-1 1,2-Dichlorobenzene 26 U 26 96-12-8 1,2-Dibromo-3-Chloropropane 120-82-1 1,2,4-Trichlorobenzene 26 U

-1E-

SOIL VOLATILE ANALYSIS TENTIVELY IDENTIFIED COMPOUNDS

						EP	A SAMPLE NO.
						PC-B-	03-24
Lab Name.	Chemtech			Contra	net: Malcolm P	Pirnie, Inc.	
Lab Code	СНЕМ	Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	ater):	SOIL			Lab Sample ID:	A3331-03	
Sample wt/vol	l: <u>1.02</u>	2 (g/m	L) <u>g</u>		Lab File ID:	VK033307.D	.
Level: (low/m	ed)	LOW			Date Received:	06/26/09	
Moisture: n	ot dec. 5	·			Date Analyzed:	06/30/09	
GC Column:	RTX-VM	ID: <u>0.18</u>	·		Dilution Factor:	1	
Soil Extract V	olume: <u>50</u>	000			Soil Aliquot Volume	:	
Number TICS	found:	1			Concentration Units	s: ug/Kg	
					(ug/L or ug/Kg)	
CAS NU	MBFR	COMPOUND	JAME		RT	EST. CON	C. O
141-78-6		Ethyl Acetate	171112		2.85	120	0√ J



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

]	EPA SAMP	LE NO.
							PC-	B-04-39	
La	b Name:	Chemtech		Cont	ract:	Malcolm Pi	rnie, Inc.		
La	b Code:	СНЕМ	Case No.: A3331	SAS No.:	A3	331	SDG No.:	A3331	
Ma	atrix (soil/wa	ter):	SOIL		Lab Sar	nple ID:	A3331-0)4	
	mple wt/vol:	,	(t T)		Lab File				
	-		(g/mL) <u>g</u>				VK033295.	<u> </u>	
Le	vel: (low/me	^{d)} —	LOW		Date Re	ceived:	06/26/09		
%	Moisture: no	t dec.	8		Date Ar	nalyzed:	06/29/09		
GC	Column	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution	r Factor:	<u>i</u>		<u> </u>
So	il Extract Vo	lume: 5000	(uL)		Soil Ali	quot Volume:	_		(uL)
					Concer	ntration Units:			
	CAS NO.		COMPOUND			(ug/L or ug/Kg	z) ug/Kg	Q	
				1			* <u>-00</u>		
	75-71-8		Dichlorodifluoromethane		27			U	
	74-87-3		Chloromethane		27			U	
	75-01-4		Vinyl Chloride	<u> </u>	27				
	74-83-9		Bromomethane					U	
	75-00-3		Chloroethane		27			U	
	75-69-4	 	Trichlorofluoromethane		27			U	
	76-13-1		1,1,2-Trichlorotrifluoroethane		27			U	
	75-35-4		1,1-Dichloroethene		27			U ,	
	67-64-1		Acetone		130		-		13
	75-15-0		Carbon Disulfide		27	· · · · · · · · · · · · · · · · · · ·		U	
	1634-04-4		Methyl tert-butyl Ether		27			Ü	
	79-20-9		Methyl Acetate		27	•		U	
	75-09-2		Methylene Chloride		27	- 1		U	
	156-60-5		trans-1,2-Dichloroethene		27	- 4		U	
	75-34-3		1,1-Dichloroethane		27			U	
	110-82-7		Cyclohexane		27			U	
	78-93-3		2-Butanone		130			U	
	56-23-5		Carbon Tetrachloride		27			U	
	156-59-2		cis-1,2-Dichloroethene		27			U	
	67-66-3		Chloroform		27		ł	U	
	71-55-6				27			U	
	108-87-2		Methylcyclohexane	i	27			U	
	71-43-2		Benzene		27			U	
	107-06-2		1,2-Dichloroethane		27			U	
	79-01-6		Trichloroethene	- 	27			υ	
	78-87-5	·	1,2-Dichloropropane		27	····		บ	
	75-27-4		Bromodichloromethane		27			บ	
	108-10-1		4-Methyl-2-Pentanone		130			U	
	108-88-3		Toluene		27			U	
	.00.00-5			ı				-	



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

					EP	A SAMPLI	E NO.
					PC-B-	04-39	
Lab Name:	Chemtech		Contract:	Malcolm P	irnie, Inc.		
_ab Code:	СНЕМ	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331	
Matrix (soil/wa	ater):	SOIL	Lab	Sample ID:	A3331-04		
Sample wt/vol	1.02	(g/mL) g	Lah	File ID:	VK033295.D		•
Level: (low/me		LOW		e Received:	06/26/09		
	_						
% Moisture: no	ot dec.	8	Dat	e Analyzed:	06/29/09		
GC Column:	RTX-VMS	1D: <u>0.18</u> (mm)	Dile	ition Factor:	1		
Soil Extract Vo	olume: <u>5000</u>	(uL)	Soil	Aliquot Volume:	: <u> </u>		(uL)
			Со	ncentration Units:	:		
CAS NO.		COMPOUND		(ug/L or ug/K	g) ug/Kg	Q	
10061-02	-6	t-1,3-Dichloropropene	27	·	1	υ	
10061-01-	-5	cis-1,3-Dichloropropene	27	•		U	
79-00-5		1,1,2-Trichloroethane	27			U	
591-78-6		2-Hexanone	130			ប	ŀ
124-48-1		Dibromochloromethane	27			U	
106-93-4		1,2-Dibromoethane	27			U	
127-18-4		Tetrachloroethene	27			U	
108-90-7		Chlorobenzene	27			U	
100-41-4		Ethyl Benzene	27			U	
179601-23	3-1	m/p-Xylenes	53			U 🌣	
95-47-6		o-Xylene	27			U	
100-42-5		Styrene	27			U	•
75-25-2		Bromoform	27			U	.0
98-82-8		Isopropylbenzene	27			U	
79-34-5		1,1,2,2-Tetrachloroethane	27			U	
541-73-1		1,3-Dichlorobenzene	27			U	
106-46-7		1,4-Dichlorobenzene	27			U	
95-50-1		1,2-Dichlorobenzene	27			U	
96-12-8		1,2-Dibromo-3-Chloropropane	27			U	
120-82-1		1.2.4-Trichlorobenzene	27			II	



-1E-

SOIL VOLATILE ANALYSIS TENTIVELY IDENTIFIED COMPOUNDS

						EPA S	AMPLE NO.
						PC-B-04-3	9
Lab Name:	Chemtech			Contra	ct: Malcolm F	Pirnie, Inc	
Lab Code:	СНЕМ	Case No.:	A3331	SAS No.:	A3331	SDG No.: A	3331
Matrix (soil/v	vater):	SOIL			Lab Sample ID:	A3331-04	
Sample wt/vo	ol. <u>1.02</u>	. (g/mL	.) <u>g</u>		Lab File ID:	VK033295.D	
Level: (low/m	ned)	LOW			Date Received:	06/26/09	<u></u>
% Moisture: r	not dec. 8				Date Analyzed:	06/29/09	_
GC Column:	RTX-VM	ID: 0.18	_		Dilution Factor:	1	
Soil Extract V	/olume: <u>50</u>	000			Soil Aliquot Volume	×	
Number TICS	S found:	1			Concentration Units	s: ug/Kg	
	_				(ug/L or ug/Kg)	
CAS NU	JMBER	COMPOUND NA	AME		RT	EST. CONC	0
141-78-6		Ethyl Acetate			2.86	240	10/3



					E	PA SAMPLE NO.
					PC-B	-05-25
Lab Name:	Chemtech		Cont	ract: Malcolm F	Pirnie, Inc.	
Lab Code:	СНЕМ	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	ater):	SOIL	-	Lab Sample ID:	A3331-07	
Sample wt/vol				Lab File ID:	VK033308.D	
Level: (low/m	ed)	LOW		Date Received:	06/26/09	
% Moisture: n	ot dec.	9		Date Analyzed:	06/30/09	
GC Column	RTX-VMS	1D: <u>0.18</u> (mm)		Dilution Factor:	<u>1</u>	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume		(uL)
				Concentration Units	••	
CAS NO		COMPOUND		(ug/L or ug/k		Q
					rg) ug/rg	
75-71-8		Dichlorodifluoromethane		27		U
74-87-3		Chloromethane		27		U
75-01-4		Vinyl Chloride	<u> </u>	27		Ü
74-83-9		Bromomethane		27		U
75-00-3		Chloroethane		27		Ü
75-69-4		Trichlorofluoromethane	<u> </u>	27		U
76-13-1		1,1,2-Trichlorotrifluoroethane		27		U
75-35-4		1,1-Dichloroethene		27		U
67-64-1		Acetone		140		U (2)
75-15-0		Carbon Disulfide		27		U
1634-04-	4	Methyl tert-butyl Ether	<u> </u>	27		υ
79-20-9		Methyl Acetate		27		บ
75-09-2		Methylene Chloride		27		U
156-60-5		trans-1,2-Dichloroethene		27		Ŭ
75-34-3		1,1-Dichloroethane		27		U
110-82-7		Cyclohexane		27		U
78-93-3		2-Butanone		140		Ü
56-23-5		Carbon Tetrachloride		27		U
156-59-2		cis-1,2-Dichloroethene		27		U
67-66-3		Chloroform		27		U
71-55-6		1,1,1-Trichloroethane		27		Ü
108-87-2		Methylcyclohexane		27		U
71-43-2		Benzene		27		Ŭ
107-06-2		1,2-Dichloroethane		27		U
79-01-6		Trichloroethene		27		U
78-87-5		1,2-Dichloropropane		27		U
75-27-4		Bromodichloromethane		27		U
108-10-1		4-Methyl-2-Pentanone		140		U
108-88-3		Toluene		27		U



					EP	A SAMPLE NO.
					PC-B-	-05-25
Lab Name:	Chemtech		Cor	ntract: Malcolm P	irnie, Inc.	
Lab Code:	СНЕМ	Case No.: A3331	SAS No.	: <u>A3331</u>	SDG No.:	A3331
Matrix (soil/wa	ater):	SOIL		Lab Sample ID:	A3331-07	
Sample wt/vol				Lab File ID:	VK033308.D	
Level: (low/me	- a) –	LOW		Date Received:	06/26/09	
% Moisture: no	ot dec.	9		Date Analyzed:	06/30/09	
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	1	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume:		(uL)
				Concentration Units:	:	
CAS NO.		COMPOUND		(ug/L or ug/K	g) ug/Kg	Q
10061-02	-6	t-1,3-Dichloropropene	1	27		U
10061-01	-5	cis-1,3-Dichloropropene		27		Ū
79-00-5		1,1,2-Trichloroethane		27		U
591-78-6		2-Hexanone		140	T	U
124-48-1		Dibromochloromethane		27		U
106-93-4		1,2-Dibromoethane		27		U
127-18-4		Tetrachloroethene		27		U
108-90-7		Chlorobenzene		27		U
100-41-4		Ethyl Benzene		27		U
179601-2	3-1	m/p-Xylenes		55		U
95-47-6		o-Xylene	•	27		U
100-42-5		Styrene		27	J	U
75-25-2		Bromoform		27	l	U
98-82-8		Isopropylbenzene		27		U
79-34-5		1,1,2,2-Tetrachloroethane		27		U
541-73-1		1,3-Dichlorobenzene		27		U
106-46-7		1,4-Dichlorobenzene		27		U
95-50-1		1,2-Dichlorobenzene		27		U
96-12-8		1,2-Dibromo-3-Chloropropane		27	ĵ	U
120-82-1		1.2.4-Trichlorobenzene		27		U



						EP.	A SAMPLE NO.	
						FIELD	DDUP	
Lab Name:	Chemtech		Cont	ract: Mal	colm Pir	nie, Inc.		
Lab Code:	СНЕМ	Case No.: A3331	SAS No.:	A3331		SDG No.:	A3331	
Matrix (soil/w	ater):	SOIL		Lab Sample II	D.	A3331-08		
Sample wt/vol				Lab File ID:		VK033309.D		
					ı.	18,000		
Level: (low/m		LOW		Date Received		06/26/09		
% Moisture: n	ot dec.	13		Date Analyze	d:	06/30/09		
GC Column:	RTX-VMS	1D 0.18 (mm)		Dilution Facto	or:	1		
Soil Extract V		(uL)		Soil Aliquot V	/olume		(uL)	
oon Lander .	<u> </u>	(42)		oon miliquot v	orume.	_	(uL)	
				Concentration	n Units:			
CAS NO		COMPOUND		(ug/L o	or ug/Kg)	ug/Kg	Q	
75-71-8		Dichlorodifluoromethane	1	29			U	
74-87-3		Chloromethane		29			U	一
75-01-4		Vinyl Chloride		29			U	
74-83-9		Bromomethane		29			U	\dashv
75-00-3		Chloroethane		29			U	\neg
75-69-4		Trichlorofluoromethane	İ	29		İ	U	\neg
76-13-1		1,1,2-Trichlorotrifluoroethane	İ	29			U	\neg
75-35-4		1,1-Dichloroethene		29			U /	
67-64-1		Acetone		140			U US	
75-15-0		Carbon Disulfide]	29			υ	
1634-04-	4	Methyl tert-butyl Ether		29		(1)	υ	
79-20-9	#	Methyl Acetate		29			U	
75~09~2	*	Methylene Chloride		29			U	
156-60-5		trans-1,2-Dichloroethene		29			U	_
75-34-3		1,1-Dichloroethane		29			Ü	_
110-82-7		Cyclohexane		29		<u></u>	U	
78-93-3		2-Butanone		140			U	_
56-23-5		Carbon Tetrachloride		29			Ų	_
156-59-2		cis-1,2-Dichloroethene		29			U	_
67-66-3		Chloroform		29		*	U	—
71-55-6		1,1,1-Trichloroethane		29			U	
108-87-2		Methylcyclohexane		29			U	_
71-43-2		Benzene		29			U	
107-06-2		1,2-Dichloroethane		29			U	
79-01-6		Trichloroethene		29			U	
78-87-5		1,2-Dichloropropane		29			U	
75-27-4		Bromodichloromethane		29			U	_
108-10-1		4-Methy 1-2-Pentanone		140			U	_
108-88-3		Toluene		29			U	



					<u> E</u> P	A SAMPLE N	NO.
					FIELI	ODUP	
Lab Name:	Chemtech		Cont	ract: Malcolm F	Pirnie, Inc.		
Lab Code:	СНЕМ	Case No.: <u>A3331</u>	SAS No.:	A3331	SDG No.:	A3331	
Matrix (soil/w	rater):	SOIL		Lab Sample ID:	A3331-08		
Sample wt/vo	le 1	(g/mL) g		Lab File ID:	VK033309.D		
Level: (low/m		LOW		Date Received:	06/26/09		
	_						
Moisture: n	ot dec.	13		Date Analyzed:	06/30/09		
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	1		
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume	:: <u> </u>	(u	L)
				Concentration Units	S;		
CAS NO		COMPOUND		(ug/L or ug/k	(g) ug/Kg	Q	
10061-02				29	1	- U	
10061-02		t-1,3-Dichloropropene		29		Ū	
79-00-5	.=-,	1,1,2-Trichloroethane		29	<u> </u>	บ	
591-78-6		2-Hexanone	$\overline{}$	140		U	
124-48-1		Dibromochloromethane		29		บ	
106-93-4		1,2-Dibromoethane		29			
127-18-4		Tetrachloroethene		29		U	
108-90-7		Chlorobenzene		29		u U	
100-41-4		Ethyl Benzene		29		บ	
179601-2		m/p-Xylenes		57		U	
95-47-6		o-Xylene		29		U	
100-42-5		Styrene *		29		U	
75-25-2		Bromoform		29		U	
98-82-8		Isopropylbenzene		29	i	U	
79-34-5		1,1,2,2-Tetrachloroethane	$\overline{}$	29		U	
541-73-1		1,3-Dichlorobenzene	$\overline{}$	29		υ	
106-46-7		1,4-Dichlorobenzene		29	i	υ	-
95-50-1		1,2-Dichlorobenzene		29		U	
96-12-8		1,2-Dibromo-3-Chloropropane		29	i	U	
120-82-1		1,2,4-Trichlorobenzene		29	1	U	

-1E-

SOIL VOLATILE ANALYSIS TENTIVELY IDENTIFIED COMPOUNDS

							A SA III LE NO.
						FIELD	DDUP
Lab Name;	Chemtech			Contr	act: Malcolm Pi	rnie, Inc.	
Lab Code	СНЕМ	Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	ater):	SOIL			Lab Sample ID	A3331-08	
Sample wt/vo	l: <u>1</u>	(g/n	nL) <u>g</u>		Lab File ID:	VK033309.D	
Level: (low/m	ed)	LOW			Date Received:	06/26/09	
% Moisture: n	ot dec. 1	3			Date Analyzed:	06/30/09	
GC Column:	RTX-VM	ID 0.18			Dilution Factor:	1	
Soil Extract V	olume: <u>5</u>	000			Soil Aliquot Volume:		_
Number TICS	found:	1			Concentration Units:	ug/Kg	
					(ug/L or ug/Kg)		
CAS NU	MBER	COMPOUND	NAME		RT	EST. CON	C. Q
141-78-6	1	Ethyl Acetate			2.85	260	a/J



19 11 1

1**A**

VOLATILE ORGANICS ANALYSIS DATA SHEET

					EF	A SAMPL	LE NO.
					PC-B	-01-GW-50)
Lab Name:	Chemtech		Cont	ract: Malcolm Pi	rnie, Inc.		
Lab Code:	CHEM	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331	<u></u>
Matrix (soil/w	rater):	WATER		Lab Sample ID:	A3331-09		
Sample wt/vol		(g/mL) ml		Lab File ID	VG019930.D		_
•		(g/IIL) III					
Level: (low/m	ed)			Date Received:	06/26/09		
% Moisture: n	ot dec.	100		Date Analyzed	07/02/09		
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor;	1		
Soil Extract V	olume: 5000	(uL)		Soil Aliquot Volume:	_		(uL)
				Concentration Units:			
CAS NO		COMPOUND		(ug/L or ug/K	g) ug/L	Q	
	<u> </u>						UT
75-71-8		Dichlorodifluoromethane		1		U	V.
74-87-3		Chloromethane		1		U U	
75-01-4		Vinyl Chloride	<u></u>	1	-	U	-
74-83-9		Bromomethane	<u> </u>	1			-
75-00-3		Chloroethane		1		ับ บ	
75-69-4		Trichlorofluoromethane	<u> </u>	1	<u>_</u>		
76-13-1		1,1,2-Trichlorotrifluoroethane		1		U	1/
75-35-4		1,1-Dichloroethene		1		U	V
67-64-1		Acetone		30	<u> </u>)
75-15-0		Carbon Disulfide	<u> </u>	1	<u> </u>		14.I
1634-04-	4	Methyl tert-butyl Ether		1		U	-
79-20-9		Methyl Acetate		1		U	
75-09-2		Methylene Chloride		1		U	
156-60-5		trans-1,2-Dichloroethene		1		U	
75-34-3		1,1-Dichloroethane		1	<u> </u>	U	+
110-82-7		Cyclohexane		1	<u> </u>	υ	
78-93-3		2-Butanone		5	<u>_</u>	U	-
56-23-5		Carbon Tetrachloride		1		U	1/
156-59-2		cis-1,2-Dichloroethene		1		U	<u> </u>
67-66-3		Chloroform	-	0.71			
71-55-6		1,1,1-Trichloroethane		1			17
108-87-2		Methylcyclohexane		1		U	\
71-43-2		Benzene		1		U	
107-06-2		1,2-Dichloroethane		1			<u>√</u>
79-01-6		Trichloroethene		2.8			<u></u>
78-87-5		1,2-Dichloropropane		1			<u>u5</u>
75-27-4		Bromodichloromethane		1		U	
108-10-1		4-Methyl-2-Pentanone		5			<u> </u>
108-88-3		Toluene		0.57		J	1



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EPA SAMPLE NO.

						PC-B-	-01-GW-50
Lab Name:	Chemtech			Cont	ract: Malcolm	Pirnie, Inc.	
Lab Code:	CHEM	Case No.:	A3331	SAS No.:	A3331	_ SDG No.:	A3331
Matrix (soil/w	ater):	WATER			Lab Sample ID:	A3331-09	
Sample wt/vol	: 5	(g/n	ıL) ml		Lab File ID	VG019930.D	
Level: (low/m	ed)				Date Received:	06/26/09	
% Moisture: n	•	100				•	
% Moisture: n	ot dec.	100	_		Date Analyzed:	07/02/09	
GC Column	RTX-VMS	ID: 0.13	(mm)		Dilution Factor:	1	
Soil Extract V	olume: <u>500</u>	0 (uL)	_		Soil Aliquot Volum	e:	(uL)
					Concentration Unit	s:	
CAS NO		COMPOUN	ID		(ug/L or ug/l		Q
		COMIT COL			(ug):: or ug):	(E) UE/L	
10061-02		t-1,3-Dichlo			1		υ (1.7
10061-01	-5		loropropene		1		U
79-00-5		1,1,2-Trichl			<u>_1</u>		U
591-78-6		2-Hexanone	•		5		U
124-48-1		Dibromochl	oromethane		1		U
106-93-4		1,2-Dibrom	oethane		1		υV
127-18-4		Tetrachloro	ethene		200		E J
108-90-7		Chlorobenzo	ene		1		UNJ
100-41-4		Ethyl Benze	ne		1		UUS
179601-2	3-1	m/p-Xylene	s		3		5
95-47-6		o-Xylene			0.86	1	1 J
100-42-5		Styrene			1		UUT
75-25-2		Bromoform		1	1		U ,
98-82-8		lsopropylbe	nzene		1		U
79-34-5			achloroethane		1		U
541-73-1		1,3-Dichlore	benzene		l		U
106-46-7		1,4-Dichlor	 		1		U
95-50-1		1,2-Dichlor		i	1	i	U
96-12-8		-	o-3-Chloropropane	j	1		U
120-82-1		1,2,4-Trichl		j	1		U V



108-88-3

Toluene

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

PC-B-01-GW-99 Lab Name: Chemtech Contract Malcolm Pirnie, Inc. CHEM A3331 SDG No.: Lab Code: Case No.: SAS No.: A3331 A3331 Lab Sample ID: A3331-10 Matrix (soil/water): WATER Sample wt/vol: ____ (g/mL) ml Lab File ID: VH030191.D Date Received: 06/26/09 Level: (low/med) % Moisture: not dec. 100 Date Analyzed: 07/01/09 GC Column: RTX-VMS ID: 0.18 Dilution Factor: (mm) (uL) Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: Concentration Units: CAS NO. COMPOUND Q (ug/L or ug/Kg) ug/L U 75-71-8 5 Dichlorodifluoromethane 74-87-3 Chloromethane 5 U U 75-01-4 Vinyl Chloride 5 U 74-83-9 Bromomethane 5 U 75-00-3 Chloroethane 5 5 U 75-69-4 Trichlorofluoromethane U 76-13-1 1,1,2-Trichlorotrifluoroethane 5 U 75-35-4 1,1-Dichloroethene 5 67-64-1 81 Acetone 75-15-0 Carbon Disulfide 5 U 5 U 1634-04-4 Methyl tert-butyl Ether 79-20-9 Methyl Acetate 5 U 5 U 75-09-2 Methylene Chloride 156-60-5 trans-1,2-Dichloroethene 5 U 1,1-Dichloroethane 75-34-3 5 U 110-82-7 Cyclohexane 5 U 8.6 J 78-93-3 2-Butanone 56-23-5 Carbon Tetrachloride 5 U cis-1,2-Dichloroethene 1.8 J 156-59-2 5 U 67-66-3 Chloroform 5 U 71-55-6 1,1,1-Trichloroethane 108-87-2 Methylcyclohexane 5 U 5 U 71-43-2 Benzene 107-06-2 1,2-Dichloroethane 5 U 79-01-6 14 Trichloroethene 78-87-5 5 U 1,2-Dichloropropane 75-27-4 Bromodichloromethane 5 U 108-10-1 4-Methyl-2-Pentanone 25 U

U

5



			ETA SANIFLE NO.
			PC-B-01-GW-99
Lab Name; Chemtech		Contract: Malcolm P	irnie, Inc.
Lab Code: <u>CHEM</u>	Case No.: A3331	SAS No.: <u>A3331</u>	SDG No . A3331
Matrix (soil/water):	WATER	Lab Sample ID;	A3331-10
Sample wt/vol: 5	(g/mL) ml	Lab File ID:	VH030191 D
Level: (low/med)	(4.12)	Date Received:	06/26/09
% Moisture not dec.	100	Date Analyzed:	07/01/09
GC Column: RTX-VN	<u>AS</u> ID: <u>0.18</u> (mm)	Dilution Factor:	1
Soil Extract Volume:	5000 (uL)	Soil Aliquot Volume	(uL)
		Concentration Units	:
CAS NO.	COMPOUND	(ug/L or ug/K	g) <u>ug/L</u> Q
10061-02-6	t-1,3-Dichloropropene	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	25	Ŭ
124-48-1	Dibromochloromethane	5	Ŭ
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	170 170	-EtJ
108-90-7	Chlorobenzene	5	U
100-41-4	Ethyl Benzene	5	U
179601-23-1	m/p-Xylenes	10	Ü
95-47-6	o-Xylene	5	Ŭ
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	Ü
98-82-8	Isopropyibenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	Ŭ
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120 92 1	1.2.4 Truphlorohenzone	5	TT



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108-88-3

Toluene

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-02-GW-89 Lab Name: Chemtech Contract: Malcolm Pirnie, Inc. Lab Code: CHEM A3331 SAS No.: Case No .: A3331 SDG No.: A3331 Matrix (soil/water): WATER Lab Sample ID: A3331-11 Sample wt/vol: Lab File ID: (g/mL) ml VH030197.D Level: (low/med) Date Received: 06/26/09 % Moisture: not dec. 100 07/01/09 Date Analyzed: GC Column: RTX-VMS ID: 0.18 Dilution Factor: (mm) Soil Extract Volume: 5000 Soil Aliquot Volume: (uL) (uL) Concentration Units: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q 75-71-8 Dichlorodifluoromethane 10 U 74-87-3 Chloromethane 10 U 75-01-4 Vinvl Chloride 10 U 74-83-9 Bromomethane 10 U 75-00-3 Chloroethane 10 U 75-69-4 Trichlorofluoromethane 10 U 76-13-1 1,1,2-Trichlorotrifluoroethane 10 U 75-35-4 1,1-Dichloroethene 10 U 67-64-1 Acetone 510 75-15-0 Carbon Disulfide 10 U 1634-04-4 Methyl tert-butyl Ether 1.7 J 79-20-9 Methyl Acetate 10 U 75-09-2 Methylene Chloride 10 U 156-60-5 trans-1₂-Dichloroethene 10 U 75-34-3 1,1-Dichloroethane 10 U 110-82-7 Cyclohexane 10 U 78-93-3 2-Butanone 33 J 10 56-23-5 Carbon Tetrachloride U 156-59-2 cis-1.2-Dichloroethene 10 U 10 67-66-3 Chloroform U 71-55-6 1,1,1-Trichloroethane 10 U 108-87-2 Methylcyclohexane 10 U 71-43-2 10 U Benzene 107-06-2 1.2-Dichloroethane 10 U 79-01-6 10 U Trichloroethene 78-87-5 1,2-Dichloropropane 10 U 75-27-4 U Bromodichloromethane 10 108-10-1 4-Methyl-2-Pentanone 14 J

1.2

J



								EPA SAMPL	E NO.
							PC-	B-02-GW-89	
Lab Name:	Chemtech	·		Con	ntract:	Malcolm	Pirnie, Inc.		
Lab Code:	CHEM	_ Case No.:	A3331	SAS No.	:	A3331	SDG No.:	A3331	
Matrix (soil/wa	ater):	WATER			Lab	Sample ID:	A3331-1	I	
Sample wt/vol	•	(g/n	nL) m!			File ID:	VH030197,1		-
Level: (low/me			<u> </u>				2001 (2001)		
6.7	_					Received:	06/26/09		
% Moisture: no	ot dec.	100	_		Date	Analyzed:	07/01/09		
GC Column:	RTX-VMS	ID: <u>0.18</u>	8 (mm)		Dilu	tion Factor:	2		
Soil Extract Vo	olume: <u>5000</u>	(uL)			Soil	Aliquot Volum	ie:		(uL)
					Con	centration Uni	ts:		
CAS NO.		COMPOUN	1D			(ug/L or ug/	Kg) ug/L	_ Q	
10061-02	-6	t-1,3-Dichlo	ropropene	1	10			U	
10061-01	-5 /	cis-1,3-Dich	loropropene	T i	10			U	
79-00-5	70	1,1,2-Trichl	oroethane		10			U	
591-78-6		2-Hexanone		1	50	,		U	
124-48-1		Dibromochl	oromethane		10			U	
106-93-4		1,2-Dibrome	oethane		10			U	
127-18-4		Tetrachloro	ethene	. 1	8.7			J	
108-90-7		Chlorobenzo	ene		10			U	
100-41-4		Ethyl Benze	ene		10			U	
179601-2	3-1	m/p-Xylene	s		20			Ų.	
95-47-6		o-Xylene			10			U	
100-42-5		Styrene			10			U *	
75-25-2		Bromoform			10			U	
98-82-8		Isopropylbe	nzene		10			U É	
79-34-5		1,1,2,2-Tetra	achloroethane		10			U	
541-73-1		1,3-Dichloro	obenzene		10			Ŭ	
106-46-7		1,4-Dichloro	obenzene		10			Ų	
95-50-1		1,2-Dichloro	obenzene		10			U	
96-12-8		1,2-Dibromo	o-3-Chloropropane		10			U	
120-82-1		1,2,4-Trichle	orobenzene		4.4			J	



VOLATILE ORGANICS ANALYSIS DATA SHEET TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.	
PC-B-02-GW-89	

Lab Name:	Chemtech			Contr	act: Malcolm Pir	mie, Inc.	
Lab Code:	СНЕМ	Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/wa	iter):	WATER			Lab Sample ID:	A3331-11	
Sample wt/vol:	5	(g/m	L) <u>ml</u>		Lab File ID:	VH030197.D	
Level: (low/me	ed) <u>LC</u>	ow			Date Received:	06/26/09	
% Moisture: no	ot dec. 100				Date Analyzed:	07/01/09	
GC Column:	RTX-VM	D: 0.18			Dilution Factor:	2	
Soil Extract Vo	olume: <u>5000</u>	<u> </u>			Soil Aliquot Volume:		
Number TICS	found:	10			Concentration Units:	ug/L	
					(ug/L or ug/Kg)		

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
001191-96-4	Cyclopropane, ethyl-	1.12	10	MI
75-65-0	Tert butyl alcohol	1.87	18	₩j
000108-11-2	2-Pentanol, 4-methyl-	5.88	12	ΝJ
98-06-6	tert-Butylbenzene	9.27	1.1	NJ
135-98-8	sec-Butylbenzene	9.44	2.1	J
99-87-6	p-lsopropyltoluene	9.61	2.0	.1
104-51-8	n-Butylbenzene	10	3.2	J
67-72-1	Hexachloroethane	10.05	2.4	√ J
91-20-3	Naphthalene	11.58	3.1	J
87-61-6	1,2,3-Trichlorobenzene	11.72	5.7	J



				E	PA SAMPLE NO.
				PC-B	-02-GW-45
Lab Name	Chemtech		Contract: Mal	colm Pirnie, Inc.	
Lab Code:	CHEM	Case No.: A3331	SAS No.: <u>A3331</u>	SDG No.:	A3331
Matrix (soil/w	ater):	WATER	Lab Sample II	D: A3331-12	
Sample wt/vol		(g/mL) ml	Lab File ID:	VG019931.D	
Level: (low/m			Date Received		
% Moisture. n	-	100	Date Analyzed		
70 MOISTUIC, II	ot ucc.	100	Date Allaly zet	1, 07/02/09	
GC Column	RTX-VMS	ID: <u>0.18</u> (mm)	Dilution Facto	r: <u>1</u>	
Soil Extract V	olume: 5000	(uL)	Soil Aliquot V	'olume:	(uL)
				_	
			Concentration	n Units:	
CAS NO.		COMPOUND	(ug/L c	or ug/Kg) <u>ug/L</u>	_ Q
75-71-8		Dichlorodifluoromethane	1		u ut
74-87-3		Chloromethane	1		υ
75-01-4		Vinyl Chloride	1		U
74-83-9		Bromomethane	1		U
75-00-3		Chloroethane	1		U
75-69-4		Trichlorofluoromethane	1		υ
76-13-1		1,1,2-Trichlorotrifluoroethane	1		υ
75-35-4	•	1.1-Dichloroethene	1		U V
67-64-1		Acetone	6.6	1	J
75-15-0		Carbon Disulfide	0.69		J J
1634-04-	4	Methyl tert-butyl Ether	21		+
79-20-9		Methyl Acetate	1		U 105
75-09-2		Methylene Chloride	1		U
156-60-5		trans-1,2-Dichloroethene	1 1	i	υ
75-34-3		1,1-Dichloroethane	1 1	i	U
110-82-7		Cyclohexane	1 1		U
78-93-3		2-Butanone	5	1	U
56-23-5		Carbon Tetrachloride	1	i	U
156-59-2		cis-1,2-Dichloroethene	2.1	i	.1
67-66-3		Chloroform	1		UILT
71-55-6		1,1,1-Trichloroethane	1		U
108-87-2		Methylcyclohexane	1	1	U
71-43-2		Benzene	1		υ
107-06-2		1,2-Dichloroethane	1	i	U V
79-01-6	· · · · · · · · · · · · · · · · · · ·	Trichloroethene	3,5	1	
78-87-5		1,2-Dichloropropane	1	i	U 11 J
75-27-4		Bromodichloromethane	1		U
108-10-1		4-Methy I-2-Pentanone	5		U
108-88-3		Toluene	0.73		i j



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1A

			EPA SAMPLE NO.
			PC-B-02-GW-45
Lab Name: Chemtech		Contract: Malcolm Pirnie, Inc.	
Lab Code: CHEM	Case No.: A3331	SAS No.: <u>A3331</u> SDG	No: <u>A3331</u>
Matrix (soil/water):	WATER	Lab Sample ID: A33	31-12
Sample wt/vol: 5	(g/mL) ml	Lab File ID: VG019	
-	(g/nill) in		
Level: (low/med)		Date Received: 06/26/0	9
% Moisture: not dec	100	Date Analyzed: 07/02/0	9
GC Column: RTX-VMS	ID: <u>0.18</u> (mm)	Dilution Factor:	1
Soil Extract Volume: 500	00 (uL)	Soil Aliquot Volume:	(uL)
		Concentration Units:	
CAS NO	COMPOUND	(ug/L or ug/Kg) ug/L	Q
10061-02-6	t-1,3-Dichloropropene	1	l v lts
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U V
127-18-4	Tetrachloroethene	430	E J
108-90-7	Chlorobenzene]	U 115
100-41-4	Ethyl Benzene	1	u US
179601-23-1	m/p-Xylenes	2.4	J
95-47-6	o-Xylene	0.73	1 1 5
100-42-5	Styrene	1	I u nz
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	Î	Ü
541-73-1	1,3-Dichlorobenzene	1	Ū
106-46-7	1,4-Dichlorobenzene	1	Ū
95-50-1	1,2-Dichlorobenzene	1	Ü
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1.2.4-Trichlorobenzene		Tu V



					EI	PA SAMPLE NO.
					PC-B	-03-GW-68
Lab Name:	Chemtech		Cont	ract: Malcolm Pi	rnie, Inc.	
Lab Code:	СНЕМ	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (söil/w	ater):	WATER		Lab Sample ID:	A3331-13	
Sample wt/vol		(g/mL) ml		Lab File ID:	VG019932.D	
		(8,um) <u>uu</u>				
Level: (low/m	ed)			Date Received:	06/26/09	
% Moisture: n	ot dec.	100		Date Analyzed:	07/02/09	
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	1	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume:		(uL)
				Concentration Units:		
CAS NO.		COMPOUND		(ug/L or ug/K		0
CAS NO.	•	COMPOUND		(ng/L or ng/K)	g) <u>ug/L</u>	Q
75-71-8		Dichlorodifluoromethane		1		U
74-87-3		Chloromethane		1		U
75-01-4		Vinyl Chloride		1		Ŭ.
74-83-9		Bromomethane		1		U
75-00-3		Chloroethane		1		U
75-69-4		Trichlorofluoromethane		1		Ü
76-13-1		1,1,2-Trichlorotrifluoroethane		1		U
75-35-4		1,1-Dichloroethene		1		U
67-64-1		Acetone		5		U
75-15-0		Carbon Disulfide	Ì	2.3	==	3
1634-04-	4	Methyl tert-butyl Ether		1		U
79-20-9		Methyl Acetate	j	i *		Ŭ
75-09-2		Methylene Chloride	İ	1		U
156-60-5		trans-1,2-Dichloroethene		2.7		
75-34-3		1,1-Dichloroethane		1	i	U
110-82-7		Cyclohexane		1		U
78-93-3		2-Butanone		5		U
56-23-5		Carbon Tetrachloride		1		U
156-59-2		cis-1,2-Dichloroethene		30		
67-66-3		Chloroform		1	i i	U
		1,1,1-Trichloroethane				U
71-55-6				1	1	
108-87-2		Methylcyclohexane		1		U
71-43-2	· · ·	Benzene	<u> </u>	1	<u>[</u>	U
107-06-2		1,2-Dichloroethane		1		U
79-01-6		Trichloroethene		20		
78-87-5		1,2-Dichloropropane		1		U
75-27-4		Bromodichloromethane		1		U
108-10-1		4-Methyl-2-Pentanone		5		U
108-88-3		Toluene		1		U



						EP	A SAMPLE NO.
						PC-B	-03-GW-68
Lab Name.	Chemtech			Contr	ract: Malcolm	Pirnie, Inc.	
Lab Code:	CHEM	Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	ater):	WATER			Lab Sample ID:	A3331-13	
Sample wt/vol		(g/ml	L) ml		Lab File ID:	VG019932.D	
			- III				
Level: (low/me	_				Date Received:	06/26/09	
% Moisture: no	ot dec.	100	_		Date Analyzed:	07/02/09	
GC Column:	RTX-VMS	ID: <u>0.18</u>	(mm)		Dilution Factor:	1	<u> </u>
Soil Extract Vo	olume: <u>5000</u>	(uL)			Soil Aliquot Volum	ne:	(uL)
					Concentration Uni	ts:	
CAS NO.		COMPOUNI)		(ug/L or ug/	Kg) <u>ug/L</u>	_ Q
10061-02	-6	t-1,3-Dichlor	оргорепе		1		Ū
10061-01	-5	cis-1,3-Dichl	огоргорепе		1		Ū
79-00-5		1,1,2-Trichlo	roethane		1		U
591-78-6		2-Hexanone			5		Ü
124-48-1		Dibromochlo	romethane		1		U
106-93-4		1,2-Dibromo	ethane		1		U
127-18-4		Tetrachloroet	hene		1		U
108-90-7		Chlorobenzer	ne		1	1	U
100-41-4		Ethyl Benzen	ie	1	1	1	U
179601-2	3-1	m/p-Xylenes			1.6		J
95-47-6		o-Xylene			1		U
100-42-5		Styrene			1		U *
75-25-2		Bromoform			1		U
98-82-8		lsopropy lben	zene		1		U
79-34-5		1,1,2,2-Tetrac	chloroethane		1		U
541-73-1		1,3-Dichlorol			I		U
106-46-7		1,4-Dichlorol	enzene		1	İ	U
95-50-1		1,2-Dichlorol	enzene	i	I	İ	U
96-12-8			-3-Chloropropane	j	1		U
120-82-1		1,2,4-Trichlo	robenzene		1		U



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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-04-GW-45 Malcolm Pirnie, Inc. Lab Name Contract: Chemtech CHEM Lab Code. Case No.: A3331 SAS No.: A3331 SDG No.: A3331 A3331-14 WATER Lab Sample ID: Matrix (soil/water): Lab File ID: VH030194.D Sample wt/vol ____(g/mL) Date Received: 06/26/09 Level: (low/med) 07/01/09 100 % Moisture: not dec. Date Analyzed: Dilution Factor: ID: GC Column: RTX-VMS 0.18 (mm) Soil Extract Volume: 5000 Soil Aliquot Volume: (uL) (uL) Concentration Units: COMPOUND CAS NO. (ug/L or ug/Kg) ug/L Q 75-71-8 Dichlorodifluoromethane 5 U 5 U 74-87-3 Chloromethane 75-01-4 Vinyl Chloride 5 U 74-83-9 Bromomethane 5 U 75-00-3 Chloroethane 5 U Trichlorofluoromethane 5 U 75-69-4 76-13-1 1,1.2-Trichlorotrifluoroethane 5 U 75-35-4 5 U 1.1-Dichloroethene 67-64-1 Acetone 25 U u s 75-15-0 Carbon Disulfide 5 U 1634-04-4 Methyl tert-butyl Ether 5 U 79-20-9 5 U Methyl Acetate 75-09-2 Methylene Chloride 5 Ų 156-60-5 trans-1,2-Dichloroethene 5 U 75-34-3 1,1-Dichloroethane 5 U 110-82-7 Cyclohexane 5 U 78-93-3 2-Butanone 25 U U 56-23-5 Carbon Tetrachloride 5 U 156-59-2 cis-1.2-Dichloroethene 5 5 U 67-66-3 Chloroform U 71-55-6 1.1.1-Trichloroethane 5 108-87-2 Methylcyclohexane 5 U U 71-43-2 Benzene 5 107-06-2 1,2-Dichloroethane 5 U J 79-01-6 Trichloroethene 1.1 78-87-5 1,2-Dichloropropane 5 U U 75-27-4 Bromodichloromethane 5 108-10-1 4-Methyl-2-Pentanone 25 U U 108-88-3 Toluene 5



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120-82-1

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-04-GW-45 Malcolm Pirnie, Inc. Lab Name: Contract: Chemtech Lab Code: CHEM Case No.: A3331 SAS No.: A3331 SDG No.: A3331 Matrix (soil/water): WATER Lab Sample ID: A3331-14 Lab File ID: VH030194,D Sample wt/vol: (g/mL) Level: (low/med) Date Received: 06/26/09 % Moisture: not dec. 100 Date Analyzed: 07/01/09 GC Column: Dilution Factor: RTX-VMS ID: 0.18 (mm) Soil Extract Volume: 5000 Soil Aliquot Volume: (uL) (uL) Concentration Units: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q 10061-02-6 t-1,3-Dichloropropene 5 U 5 10061-01-5 cis-1,3-Dichloropropene U 5 U 79-00-5 1.1.2-Trichloroethane 591-78-6 2-Hexanone 25 U 5 U 124-48-1 Dibromochloromethane 5 106-93-4 1.2-Dibromoethane U 11 127-18-4 Tetrachloroethene 5 108-90-7 Chlorobenzene U 5 100-41-4 Ethyl Benzene U 10 U 179601-23-1 m/p-Xylenes 95-47-6 o-Xylene 5 U 5 U 100-42-5 Styrene 75-25-2 Bromoform 5 U U 98-82-8 Isopropylbenzene 5 5 U 79-34-5 1,1,2,2-Tetrachloroethane U 541-73-1 1,3-Dichlorobenzene 5 106-46-7 1.4-Dichlorobenzene 5 U 5 U 95-50-1 1,2-Dichlorobenzene 5 U 96-12-8 1,2-Dibromo-3-Chloropropane

5

1,2,4-Trichlorobenzene

U



1A

					E	PA SAMPLE NO.
					PC-B	3-04-GW-99
Lab Name:	Chemtech		Cont	ract: Malcolm P	Pirnie, Inc	
_ab Code;	СНЕМ	Case No.: A3331	SAS No.:	A3331	SDG No	A3331
Matrix (soil/w	rater):	WATER		Lab Sample ID:	- A3331-17	
Sample wt/vol				Lab File ID:		
		(g/mL) <u></u> _			VH030198.D	
Level: (low/m	ed)			Date Received:	06/26/09	
Moisture: n	ot dec.	100		Date Analyzed:	07/01/09	
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	2	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume	: <u> </u>	(uL)
				Concentration Units	:	
CAS NO		COMPOUND		(ug/L or ug/K	g) ug/L	_ Q
75-71-8		Dichlorodifluoromethane		10	1	Ū
74-87-3		Chloromethane		10		U
75-01-4		Vinyl Chloride	i	10		U
74-83-9		Bromomethane	i	10	i	U
75-00-3		Chloroethane		10	i	U
75-69-4		Trichlorofluoromethane		10	i	U
76-13-1		1,1,2-Trichlorotrifluoroethane		10	<u> </u>	U
75-35-4		1,1-Dichloroethene	i	10	i	υ
67-64-1		Acetone	i	47		J
75-15-0		Carbon Disulfide		10	ĺ	บนร์
1634-04-	4	Methyl tert-butyl Ether	• 1	2 2	i	J
79-20-9		Methyl Acetate		10	i	U
75-09-2		Methylene Chloride	i	10	i	U
156-60-5		trans-1,2-Dichloroethene	i	10	i	U
75-34-3		1,1-Dichloroethane	i	10		U
110-82-7		Cyclohexane		10	i	U
78-93-3		2-Butanone	ĺ	8 2	i	J
56-23-5		Carbon Tetrachloride		10		U
156-59-2		cis-1,2-Dichloroethene		10	İ	U
67-66-3	·	Chloroform	•	10		U
71-55-6		1,1,1-Trichloroethane		10		U
108-87-2		Methylcyclohexane		10		U
71-43-2		Benzene	i	10	i	U
107-06-2		1,2-Dichloroethane	1	10		U
79-01-6		Trichloroethene	i	10		U
78-87-5		1,2-Dichloropropane	j	10		U
75-27-4		Bromodichloromethane		10		U
108-10-1		4-Methyl-2-Pentanone	i	50		U
108-88-3		Toluene	i	10		U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-04-GW-99 Lab Name: Chemtech Contract: Malcolm Pirnie, Inc. Lab Code: CHEM A3331 A3331 SDG No.: Case No... SAS No.: A3331 Matrix (soil/water): WATER Lab Sample ID: A3331-17 Lab File ID: VH030198.D Sample wt/vol: (g/mL) ml Date Received: 06/26/09 Level: (low/med) 07/01/09 % Moisture: not dec. 100 Date Analyzed: Dilution Factor: GC Column: RTX-VMS ID: 0.18 (mm) Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL) Concentration Units: (ug/L or ug/Kg) ug/L CAS NO. COMPOUND Q U 10061-02-6 10 t-1,3-Dichloropropene 10061-01-5 10 U cis-1,3-Dichloropropene U 10 79-00-5 1,1,2-Trichloroethane U 591-78-6 50 2-Hexanone 10 U 124-48-1 Dibromochloromethane 10 U 1,2-Dibromoethane 106-93-4 J 127-18-4 Tetrachloroethene 7.1 U 108-90-7 10 Chlorobenzene U Ethyl Benzene 10 100-41-4 20 U 179601-23-1 m/p-Xylenes U 95-47-6 10 o-Xylene U 100-42-5 Styrene 10 U 10 75-25-2 Bromoform 10 U 98-82-8 Isopropylbenzene Ų 79-34-5 1,1,2,2-Tetrachloroethane 10 10 U 1,3-Dichlorobenzene 541-73-1 U 10 106-46-7 1,4-Dichlorobenzene 10 U 95-50-1 1,2-Dichlorobenzene U 1,2-Dibromo-3-Chloropropane 10 96-12-8 U 120-82-1 1,2,4-Trichlorobenzene 10



VOLATILE ORGANICS ANALYSIS DATA SHEET TENTIVELY IDENTIFIED COMPOUNDS

					<u>EPA</u>	SAMPLE NO.
					PC-B-0	04-GW-99
Lab Name:	Chemtech		Contr	act: Malcolm]	Pirnie, Inc.	
Lab Code:	СНЕМ	Case No.: <u>A3331</u>	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	vater):	WATER		Lab Sample ID:	A3331-17	
Sample wt/vo	l <u>5</u>	(g/mL) <u>ml</u>		Lab File ID.	VH030198.D	
Level: (low/m	ned)	LOW		Date Received:	06/26/09	
% Moisture: n	not dec. 10	00		Date Analyzed:	07/01/09	
GC Column:	RTX-VMS	ID; 0.18		Dilution Factor:	2	
Soil Extract V	olume: 50	000		Soil Aliquot Volume	e:	
Number TICS	found:	1		Concentration Unit	s: ug/L	
	•			(ug/L or ug/Kg	g)	
CAS NU	MBER	COMPOUND NAME		RT	EST. CONC	c. Q
001191-9		Cyclopropane, ethyl-		1.11	14	N/J



VOLATILE ORGANICS ANALYSIS DATA SHEET

			<u></u>	EPA SAMPLE NO.
				PC-B-05-GW-99
Lab Name:	Chemtech		Contract: Malcolm Pirnie, In	с.
Lab Code:	СНЕМ	Case No.: A3331	SAS No.: <u>A3331</u> SD0	G No.: <u>A3331</u>
Matrix (soil/w	ater):	WATER	Lab Sample ID A	3331-18
Sample wt/vol		(g/mL) ml	-	30199 D
		(gint)		
Level: (low/m	ed) _		Date Received 06/26	/09
% Moisture: n	ot dec.	100	Date Analyzed: 07/01	/09
GC Column.	RTX-VMS	ID: <u>0.18</u> (mm)	Dilution Factor:	2
Soil Extract V	olume: <u>5000</u>	(uL)	Soil Aliquot Volume:	(uL)
			Concentration Units:	
CAS NO		COMPOUND	(ug/L or ug/Kg) ug/L	Q Q
75-71-8		Dichlorodifluoromethane	1 10	`
74-87-3		Chloromethane	10	U
75-01-4		Vinyl Chloride	10	U
74-83-9		Bromomethane	10	U
75-00-3		Chloroethane	10	U
75-69-4		Trichlorofluoromethane	10	Ü
76-13-1		1,1,2-Trichlorotrifluoroethane	10	U
75-35-4		1,1-Dichloroethene	10	U
67-64-1		Acetone	37	J
75-15-0		Carbon Disulfide	10	U U 5
1634-04-	4	Methyl tert-butyl Ether	1.7	J
79-20-9		Methyl Acetate	10	U
75-09-2		Methylene Chloride	10	U
156-60-5		trans-1,2-Dichloroethene	10	U
75-34-3		1,1-Dichloroethane	10	Ŭ
110-82-7		Cyclohexane	10	U
78-93-3		2-Butanone	8.3	J
56-23-5		Carbon Tetrachloride	10	U
156-59-2		cis-1,2-Dichloroethene	10	U
67-66-3	•	Chloroform	10	Ŭ
71-55-6		1,1,1-Trichloroethane	10	U
108-87-2		Methylcyclohexane	10	U
71-43-2		Benzene	10	Ŭ
107-06-2		1,2-Dichloroethane	10	U
79-01-6		Trichloroethene	10	U
78-87-5		1,2-Dichloropropane	10	Ŭ
75-27-4		Bromodichloromethane	10	Ū
108-10-1		4-Methyl-2-Pentanone	50	U
108-88-3		Toluene	10	U



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-05-GW-99 Lab Name: Chemtech Contract: Malcolm Pirnie, Inc. **CHEM** Lab Code: Case No .: A3331 SAS No.: A3331 SDG No.: A3331 Matrix (soil/water): WATER Lab Sample 1D: A3331-18 Lab File ID: VH030199.D Sample wt/vol: (g/mL) ml Level: (low/med) Date Received: 06/26/09 07/01/09 100 % Moisture: not dec. Date Analyzed: GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: (uL) Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: Concentration Units: COMPOUND CAS NO. (ug/L or ug/Kg) ug/L Q

10061-02-6	t-1,3-Dichloropropene	10	υ
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
591-78-6	2-Hexanone	50	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
127-18-4	Tetrachloroethene	3	J
108-90-7	Chlorobenzene	10	Ū
100-41-4	Ethyl Benzene	10	U
179601-23-1	m/p-Xylenes	20	U
95-47-6	o-Xylene	10	Ü
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	Ū
98-82-8	lsopropylbenzene	10	υ
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	υ
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-Chloropropane	10	U
120-82-1	1.2.4-Trichlorobenzene	10	U



-1E-

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTIVELY IDENTIFIED COMPOUNDS

						EP	A SAMPL	E NO.
						PC-B-	-05-GW-99)
Lab Name:	Chemtech			Contra	act: Malcolm F	irnie, Inc.		
Lab Code:	СНЕМ	Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331	
Matrix (soil/wa	ter):	WATER	<u></u>		Lab Sample ID:	A3331-18		_
Sample wt/vol:	5	(g/m	nL) <u>ml</u>		Lab File ID:	VH030199.D		
Level: (low/me	đ)	LOW			Date Received.	06/26/09		
% Moisture: no	t dec. <u>10</u>	0			Date Analyzed:	07/01/09		
GC Column:	RTX-VM	ID: 0.18			Dilution Factor:	2		
Soil Extract Vo	lume: <u>50</u>	000			Soil Aliquot Volume	:		
Number TICS f	ound:	1			Concentration Units	s: ug/L		
					(ug/L or ug/Kg	g)		
CAS NUM	1BER	COMPOUND	NAME		RT	EST. CON	C.	Q
001191-96	i-4	Cyclopropane,	ethyl-		L/11	14		MI



EPA SAMPLE NO.

					PC-B-	-05-GW-45
Lab Name:	Chemtech		Cont	ract: Malcolm Pi	rnie, Inc.	
Lab Code:	CHEM	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	ater):	WATER		Lab Sample ID:	A3331-19	
Sample wt/vol				Lab File ID:	VH030200.D	* ***
		(g/mL)ml				
Level: (low/m	ed)			Date Received:	06/26/09	
% Moisture: n	ot dec.	100		Date Analyzed:	07/01/09	
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm))	Dilution Factor:	1	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume:	_	(uL)
				Concentration Units:		
CAS NO.		COMPOUND		(ug/L or ug/Kg	g) <u>ug/L</u>	_ Q
75-71-8	· · · · · · · · · · · · · · · · · · ·	Dichlorodifluoromethane		5	1	U
74-87-3		Chloromethane		5		U
75-01-4	-	Vinyl Chloride		5		U
74-83-9		Bromomethane	-	5		U
75-00-3		Chloroethane		5		U
75-69-4		Trichlorofluoromethane		5		U
76-13-1		1,1,2-Trichlorotrifluoroethan	ne	5		U
75-35-4		1,1-Dichloroethene		5		U
67-64-1		Acetone		55	<u></u>	
75-15-0		Carbon Disulfide		5		u UJ
1634-04-4	4	Methyl tert-butyl Ether		5		U
79-20-9		Methyl Acetate		5		U
75-09-2		Methylene Chloride		5		U
156-60-5		trans-1,2-Dichloroethene		5		U
75-34-3		1,1-Dichloroethane		5		U
110-82-7		Cyclohexane		13		
78-93-3		2-Butanone		25		U
56-23-5		Carbon Tetrachloride		5		U
156-59-2		cis-1,2-Dichloroethene		2,7		J
67-66-3		Chloroform		5		U
71-55-6		1,1,1-Trichloroethane		5		U
108-87-2		Methylcyclohexane		38	<u> </u>	
71-43-2		Benzene		5		U
107-06-2		1,2-Dichloroethane		5		U
79-01-6		Trichloroethene		30		
78-87-5		1,2-Dichloropropane		5		U
75-27-4		Bromodichloromethane		5		U
108-10-1		4-Methyl-2-Pentanone		25		U
108-88-3		Toluene	1	2		J



5 30 75%

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. PC-B-05-GW-45 Lab Name: Malcolm Pirnie, Inc. Contract: Chemtech Lab Code: CHEM Case No.: A3331 SAS No.: A3331 SDG No.: A3331 WATER Lab Sample ID: Matrix (soil/water): A3331-19 Lab File ID: Sample wt/vol: (g/mL) VH030200.D Level: (low/med) Date Received: 06/26/09 % Moisture: not dec. 07/01/09 100 Date Analyzed: GC Column: RTX-VMS ID: 0.18 Dilution Factor: (mm) Soil Extract Volume: 5000 Soil Aliquot Volume: (uL) (uL) Concentration Units: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q 10061-02-6 t-1,3-Dichloropropene 5 U 10061-01-5 5 U cis-1,3-Dichloropropene 79-00-5 1.1.2-Trichloroethane 5 U 591-78-6 2-Hexanone 4 J U 124-48-1 Dibromochloromethane 5 106-93-4 1,2-Dibromoethane 5 U 127-18-4 Tetrachloroethene 81 108-90-7 Chlorobenzene 5 U 100-41-4 Ethyl Benzene 31 179601-23-1 m/p-Xylenes 67 95-47-6 o-Xylene 21 100-42-5 Styrene 5 U 75-25-2 Bromoform 5 U 98-82-8 Isopropylbenzene 9.6 5 79-34-5 1,1,2,2-Tetrachloroethane U 5 U 541-73-1 1,3-Dichlorobenzene 106-46-7 1,4-Dichlorobenzene 5 U 5 U 95-50-1 1,2-Dichlorobenzene 5 Ų 96-12-8 1,2-Dibromo-3-Chloropropane 5 U 120-82-1 1,2;4-Trichlorobenzene



VOLATILE ORGANICS ANALYSIS DATA SHEET TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PC-B-05-GW-45

Lab Name: Chemtech	Contract: Malcolm Pir	nie, Inc
Lab Code CHEM Case No.: A3331 S	SAS No.: <u>A3331</u>	SDG No · <u>A3331</u>
Matrix (soil/water): WATER	Lab Sample ID:	A3331-19
Sample wt/vol: 5 (g/mL) ml	Lab File ID:	VH030200.D
Level: (low/med) LOW	Date Received:	06/26/09
% Moisture: not dec. 100	Date Analyzed:	07/01/09
GC Column: RTX-VM! ID: 0.18	Dilution Factor:	<u> 1</u>
Soil Extract Volume: 5000	Soil Aliquot Volume:	
Number TICS found: 16	Concentration Units:	ug/L
	(ug/L or ug/Kg)	

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
001191-96-4	Cyclopropane, ethyl-	1.11	13	N/J
000107-83-5	Pentane, 2-methyl-	1.5	7.1	NJ
000592-76-7	1-Heptene	1.76	7.4	N
000591-49-1	Cyclohexene, 1-methyl-	4.61	7.2	V J
103-65-1	n-propylbenzene	8.7	30	j
000611-14-3	Benzene, 1-ethyl-2-methyl-	8.84	120	NJ
108-67-8	1,3,5-Trimethylbenzene	8.95	62	J
000526-73-8	Benzene, 1,2,3-trimethyl-	9.15	53	J
95-63-6	1,2,4-Trimethylbenzene	9.34	170	J
135-98-8	sec-Butylbenzene	9.45	4.2	J
99-87-6	p-Isopropyltoluene	9.58	9.1	J
000620-14-4	Benzene, 1-ethyl-3-methyl-	9.75	48	N J
000496-11-7	Indane	9.86	21	NJ
000105-05-5	Benzene, 1,4-diethyl-	9.89	8.2	J
001074-43-7	Benzene, 1-methyl-3-propyl-	9 93	20	N J
91-20-3	Naphthalene	11.58	8.5	J



					EP	A SAMPLE NO.
					FIELI	DDUP
Lab Name:	Chemtech		Contr	ract: Malcolm Pi	rnie, Inc.	
Lab Code:	СНЕМ	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w		WATER		Lab Sample ID:	A3331-20	
				-		
Sample wt/vol		(g/mL)		Lab File ID:	VH030201.D	
Level: (low/me	ed)			Date Received:	06/26/09	
% Moisture: n	ot dec.	100		Date Analyzed:	07/01/09	
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	1	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume:	_	(uL)
				Concentration Units:		
CAS NO.		COMPOUND		(ug/L or ug/Kg		_ Q
75-71-8		Dichlorodifluoromethane	<u> </u>	5		บ
74-87-3	<u>.</u>	Chloromethane		5		U
75-01-4		Vinyl Chloride	- +	5	·	U
74-83-9		Bromomethane		5		บ
75-00-3		Chloroethane	-+	5		U U
75-69-4		Trichlorofluoromethane		5	· - · · · · · · · · · · · · · · · · · ·	U
76-13-1		1,1,2-Trichlorotrifluoroethane		5		U
75-35-4		1,1-Dichloroethene		5		U
67-64-1		Acetone		53	+	
75-15-0		Carbon Disulfide		5		UHT
1634-04-		Methyl tert-butyl Ether		5	- 1	U J
79-20-9	†	Methyl Acetate		5		U
75-09-2	ē.	Methylene Chloride		5	+	U
156-60-5	1	trans-1,2-Dichloroethene		5		U
75-34-3		1,1-Dichloroethane	<u></u>	5		U
110-82-7		1	-	12		
78-93-3		Cyclohexane 2-Butanone		13		J
56-23-5		Carbon Tetrachloride	-	5	<u></u>	U
156-59-2		cis-1,2-Dichloroethene	$\overline{}$	2.8		1
67-66-3		Chloroform		5	-	U
71-55-6		1,1,1-Trichloroethane		5		U
1	·	Methylcyclohexane		32		
108-87-2 71-43-2		Benzene		5		U
107-06-2		1,2-Dichloroethane		5	<u> </u>	U
79-01-6		Trichloroethene		34		
-						
78-87-5		1,2-Dichloropropane	-+	5		U
75-27-4		Bromodichloromethane		5	<u> </u>	U
108-10-1		4-Methyl-2-Pentanone		25		U
108-88-3		Toluene		1.6		J



					EP	A SAMPLE NO.
					FIELI	DDUP
Lab Name:	Chemtech		Cont	ract: Malcolm Pi	rnie, Inc.	
Lab Code:	CHEM	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/w	ater):	WATER		Lab Sample ID:	A3331-20	
Sample wt/vol	·	(g/mL) ml		Lab File ID:	VH030201.D	<u></u>
-		(g/mz)				
Level: (low/m				Date Received:	06/26/09	
% Moisture: n	ot dec.	100		Date Analyzed:	07/01/09	
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	1	
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume:	_	(uL)
				Concentration Units:		
CAS NO		COMPOUND		(ug/L or ug/K	g) ug/L	_ Q
10061-02	!-6	t-1,3-Dichloropropene		5		U
10061-01	•	cis-1,3-Dichloropropene		5		U
79-00-5		1,1,2-Trichloroethane		5		U
591-78-6		2-Hexanone		2.6		J
124-48-1		Dibromochloromethane		5		U
106-93-4		1,2-Dibromoethane		5		U
127-18-4		Tetrachloroethene		65		
108-90-7		Chlorobenzene		5		U
100-41-4		Ethyl Benzene		26		
179601-2	3-1	m/p-Xylenes		50		
95-47-6		o-Xylene		17		
100-42-5		Styrene		5		U
75-25-2	·	Bromoform		5		U
98-82-8		Isopropylbenzene		7.6	[
79-34-5		1,1,2,2-Tetrachloroethane		5		U
541-73-1		1,3-Dichlorobenzene		5		U
106-46-7		1,4-Dichlorobenzene		5		U
95-50-1		1,2-Dichlorobenzene		5		U
96-12-8		1,2-Dibromo-3-Chloropropane		5		U
120-82-1		1.2.4-Trichlorobenzene		5		U

CHEMITECH

*

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.	
FIELDDUP	

Lab Name:	Chemtech			Conti	ract: Malcolm Pir	nie, Inc.	
Lab Code:	СНЕМ	Case No.:	A3331	SAS No.:	A3331	SDG No.:	A3331
Matrix (soil/wa	ter):	WATER			Lab Sample ID:	A3331-20	
Sample wt/vol:	5	(g/ml	_) <u>_ml</u> _		Lab File ID:	VH030201.D	
Level: (low/me	d) <u>LC</u>	ow			Date Received:	06/26/09	
% Moisture: no	t dec. <u>100</u>				Date Analyzed:	07/01/09	
GC Column:	RTX-VM: I	D 0.18			Dilution Factor:	1	
Soil Extract Vo	lume: <u>5000</u>				Soil Aliquot Volume:		<u></u>
Number TICS f	found:	17			Concentration Units:	ug/L	
		<u> </u>			(ug/L or ug/Kg)		

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
001191-96-4	Cyclopropane, ethyl-	1.111	13	ŊJ
000107-83-5	Pentane, 2-methyl-	1.505	6.7	,]
003524-73-0	1-Hexene, 5-methyl-	1.759	7.2	J
000763-29-1	1-Pentene, 2-methyl-	2.142	6.7	J
000142-82-5	Heptane	3.164	7.1	V J
103-65-1	n-propylbenzene	8.71	23	J
	unknown9.15	8.83	93	N/ J
108-67-8	1,3,5-Trimethylbenzene	8.95	49	J
000611-14-3	Benzene, I-ethyl-2-methyl-	9.153	42	NJ
95-63-6	1,2,4-Trimethylbenzene	9.34	130	J
135-98-8	sec-Butylbenzene	9.45	3.8	J
99-87-6	p-lsopropyltoluene	9.58	8.0	J
000095-63-6	Benzene, 1,2,4-trimethyl-	9.748	38	J
000496-11-7	Indane	9.85	16	ΝJ
001074-43-7	Benzene, 1-methyl-3-propyl-	9.931	24	ΝJ
104-51-8	n-Butylbenzene	9.99	15	J
91-20-3	Naphthalene	11.57	6.7	J



					EF	PA SAMPLE N	io.
					TRIP	BLANK	
Lab Name:	Chemtech		Contr	ract: <u>Malcolm Pi</u>	rnie, Inc.		
Lab Code:	CHEM	Case No.: A3331	SAS No.:	A3331	SDG No.:	A3331	
Matrix (soil/w	ater):	WATER		Lab Sample ID:	A3331-22		
	,			-			
Sample wt/vol		(g/mL) ml		Lab File ID:	VH030189.D		
Level: (low/m	ed) _			Date Received:	06/26/09		
% Moisture: n	ot dec.	100		Date Analyzed:	07/01/09		
GC Column:	RTX-VMS	ID: <u>0.18</u> (mm)		Dilution Factor:	1		
Soil Extract V	olume: <u>5000</u>	(uL)		Soil Aliquot Volume:		(u	L)
				Concentration Units:			
CAS NO.		COMPOUND		(ug/L or ug/K		Q	
	G.		· · · · · · · · · · · · · · · · · · ·		5) <u>ug/L</u>		
75-71-8		Dichlorodifluoromethane		5	. <u>. </u>	U	
74-87-3		Chloromethane		5		U	<u> </u>
75-01-4		Vinyl Chloride		5		Ü	
74-83-9		Bromomethane		5		U	
75-00-3		Chloroethane		5		U	
75-69-4	12	Trichlorofluoromethane		5		U	
76-13-1		1,1,2-Trichlorotrifluoroethane		5		U	
75-35-4		1,1-Dichloroethene		5		U	
67-64-1		Acetone		25		U	/
75-15-0		Carbon Disulfide		5	·	บนร	
1634-04-4	4	Methyl tert-butyl Ether	1	5		U	
79-20-9		Methyl Acetate		5	i	U *	
75-09-2		Methylene Chloride		5		U b	Š.
156-60-5		trans-1,2-Dichloroethene		5		U ?	i i
75-34-3		1,1-Dichloroethane		5		U	
110-82-7		Cyclohexane	i	5	i	U	
78-93-3		2-Butanone		25	i	U	
56-23-5		Carbon Tetrachloride		5	i	U	
156-59-2		cis-1,2-Dichloroethene		5	- i	U	
67-66-3		Chloroform		5		U	
71-55-6		1,1,1-Trichloroethane	<u> </u>	5		U	
108-87-2		Methylcyclohexane		5		υ	
71-43-2		Benzene		5		U	
107-06-2		1,2-Dichloroethane	+	5		U	
79-01-6		Trichloroethene	<u></u>	5	<u></u>	U	
1		: 		5		U	
78-87-5		1,2-Dichloropropane	+		1		
75-27-4		Bromodichloromethane		5		U	
108-10-1		4-Methyl-2-Pentanone		25		U	
108-88-3		Toluene	- 1	5		U	



VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. TRIPBLANK Lab Name: Malcolm Pirnie, Inc. Chemtech Contract: Lab Code: CHEM Case No.: A3331 SAS No.: A3331 SDG No.: A3331 WATER Lab Sample ID: Matrix (soil/water): A3331-22 _ml Lab File ID: Sample wt/vol: (g/mL)VH030189.D Level: (low/med) Date Received: 06/26/09 07/01/09 % Moisture: not dec. 100 Date Analyzed: GC Column: RTX-VMS ID: 0.18 Dilution Factor: (mm) Soil Extract Volume: 5000 Soil Aliquot Volume: (uL) (uL) Concentration Units: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q 10061-02-6 t-1,3-Dichloropropene 5 U 10061-01-5 5 Ü cis-1,3-Dichloropropene 79-00-5 1.1.2-Trichloroethane 5 U 591-78-6 2-Hexanone 25 U U 124-48-1 Dibromochloromethane 5 106-93-4 1,2-Dibromoethane 5 U U 127-18-4 Tetrachloroethene 5 108-90-7 Chlorobenzene 5 U 100-41-4 Ethyl Benzene 5 U U 179601-23-1 m/p-Xylenes 10 95-47-6 o-Xylene 5 U 5 U 100-42-5 Styrene 75-25-2 Bromoform 5 U U 98-82-8 Isopropylbenzene 5 79-34-5 1,1,2,2-Tetrachloroethane 5 U U 541-73-1 1,3-Dichlorobenzene 5 106-46-7 1.4-Dichlorobenzene 5 U 5 U 95-50-1 1,2-Dichlorobenzene 5 U 96-12-8 1,2-Dibromo-3-Chloropropane 5 U 120-82-1 1,2,4-Trichlorobenzene

Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

> Phone 518-251-4429 Facsimile 518-251-4428

August 23, 2010

Mark Flusche Malcolm Pirnie, Inc 855 Route 146 Suite 210 Clifton Park, NY 12065

RE Plaza Cleaners site

Data Usability Summary Report (DUSR) Chemtech SDG Nos. B2286, B2287, B2288, B2331, and B2333 AirToxics SDG 1006286

Dear Mr. Flusche:

Review has been completed for the data packages generated by Chemtech and AirToxics laboratories that pertain to samples collected between 05/12/10 and 06/08/10 at the Plaza Cleaners site. Seventy-three aqueous samples and four field duplicates were processed for volatiles by USEPA SW846 method 8260B, and four 6 L summa canisters were processed for volatile analytes by a modified USEPA method TO-15, including the use of Selective Ion Monitoring (SIM) to reach the desired reporting limits where possible.

The data packages submitted by the laboratory contain full deliverables for validation, but this usability report is primarily generated from review of the summary form information, with full review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA CLP National Functional Guidelines for Data Review, with consideration of the requirements of the specific analytical methodologies. The following items were reviewed:

- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Matrix Spike Recoveries/Duplicate Correlations
- * Preparation/Calibration/Canister Blanks
- * Matrix Spiked Blanks/Laboratory Control Samples (LCSs)
- * Instrumental Tunes
- * Calibration Standards
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for this level of review.

In summary, results for the samples are usable as reported, or usable with edit or minor qualification.

Copies of the sample identification summary and laboratory case narrative are attached to this text, and should be reviewed in conjunction with this report. Also included with this report are validation qualifier definitions and red-ink qualified sample report forms.

The following text discusses quality issues of concern.

TCL Volatiles by EPA 8260B

Results for analytes initially reported with the laboratory "E" flag are derived from the dilution analyses of the samples.

The matrix spikes of MC-CMT-2, MC-10C, MC-11C, and MC-SFC-3 show acceptable accuracy and precision for all analytes. The matrix spikes of PWSH-2 show all recoveries within recommended range, but nine elevated duplicate correlations (up to 46%RPD). Because the recoveries are acceptable, there is no qualification to the parent results.

Field duplicates of MW-5, MC-SFC-3, MC-CMT-2(P4), and MC-11A show acceptable correlations.

The result for trichloroethene in MC-10C is qualified as tentative in identification and estimated in value due to poor mass spectral quality:

Detected results of methylene chloride in the samples are considered external contamination due to presence in the associated field blank, and one of the trip blanks. Tentatively Identified Compounds were reported for some of the samples. Those identified as t-butyl alcohol and diethyl ether are also to be rejected from consideration as sample components due to presence in the field blank.

The detected result for acetone in PC-6C is qualified as estimated due to elevated recovery (150%) in the associated LCS.

Calibrations standard responses were within laboratory and validation guidelines, with the following exceptions, results for which are qualified as estimated, with a possible low bias, in the indicated samples:

- bromoform (20%RSD) in the samples reported in B2286 and B2288, and nine of the samples reported in B2287
- o tetrachloroethene (17%RSD) and 1,2,4-trichlorobenzene (35%RSD) in twelve samples reported in B2287

Volatiles by EPA TO-15

Laboratory modifications to the method are outlined in the case narrative, and include analysis by Selective Ion Monitoring (SIM) for increased sensitivity and lower reporting limits for trichloroethene and carbon tetrachloride in the two soil gas samples. The modifications in laboratory processing do not negatively impact the reported results of the samples.

Samples Plaza-SG-9S and Plaza-ESG-3D report detections of 1,1,2-trichloroethane. However, these are misidentified responses of the highly concentrated tetrachloroethene in those samples. The retention time and mass spectra are incorrect for 1,1,2-trichloroethane, that analyte was not detected in the samples, and those results have been edited to reflect non-detection at the CRDL.

The results for the following analytes are qualified as tentative in identification and estimated in value due to poor mass spectral quality:

- o 4-methyl-2-pentanone and benzene in Scriber-SV2
- o chloromethane, 4-methyl-2-pentanone, and benzene in Scriber-SV

The result for 1,3,5-trimethylbenzene in Scriber-SV2 is edited to non-detection due to very poor mass spectral quality.

The results for 1,2,4-trichlorobenzene and hexachlorobutadiene in Plaza ESG-3D are qualified as estimated, and may have a low bias, as indicated by the low recoveries (61% to 68%) in the associated LCS and continuing calibration standard.

Holding times were met. Internal standard responses are within the required limits, and surrogate recoveries fall within the acceptance range.

The laboratory duplicate of Scriber SV-2 shows acceptable correlations.

The method and clean canister certification blanks show no contamination.

Calibrations standard responses were within laboratory and validation guidelines, with the exceptions of 1,2,4-trichlorobenzene and hexachlorobutadiene noted above, the former also showing erratic responses in the initial calibration (35%RSD). Results for 1,2,4-trichlorobenzene are therefore qualified as estimated in the project samples.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

Judy Harry

Att

VALIDATION DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.
- NJ The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- **R** The data are unusable. The analyte may or may not be present.
- EMPC The results do not meet all criteria for a confirmed identification.

 The quantitative value represents the Estimated Maximum Possible

 Concentration of the analyte in the sample.

CLIENT and LABORATORY SAMPLE IDS and CASE NARRATIVES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MW-1	B2286-01	8260B					
MW-2	B2286-02	8260B					
MW-3	B2286-03	8260B					
MW-4	B2286-04	8260B					
MW-5	B2286-05	8260B					
MW-6	B2286-06	8260B					
MW-7	B2286-07	8260B					
MW-X	B2286-08	8260B					
PC-7A	B2286-09	8260B					
TRIPBLANK	B2286-10	8260B					
PC-7B	B2286-11	8260B					
PC-7C	B2286-12	8260B					
MC-7A	B2286-13	8260B					
MC-7B	B2286-14	8260B					
MC-7C	B2286-15	8260B					
PC-8A	B2286-16	8260B					
PC-8B	B2286-17	8260B					
PC-8C	B2286-18	8260B				,	
MC-6B	B2286-19	8260B	,				
MC-6C	B2286-20	8260B					
MC-CMT-2 (P4)	B2286-21	8260B					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MC-3	B2287-01	8260B					
PC-5B	B2287-02	8260B					
PC-5C	B2287-03	8260B			.,		
MC-5	B2287-04	8260B					
MC-8A	B2287-05	8260B					
MC-8B	B2287-06	8260B					
MC-8C	B2287-07	8260B					
MC-9A	B2287-08	8260B					
MC-9B	B2287-09	8260B					
MC-9C	B2287-10	8260B					
PC-4A	B2287-11	8260B					
PC-4B	B2287-12	8260B					
PC-4C	B2287-13	8260B					
PC-6A	B2287-14	8260B					
PC-6B	B2287-15	8260B					
PC-6C	B2287-16	8260B					
PC-11A	B2287-17	8260B					
PC-11B	B2287-18	8260B					
PC-2A	B2287-19	8260B					
PC-2B	B2287-20	8260B					
MC-10C	B2287-21	8260B					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
PC-2C	B2288-01	8260B					
MC-11A	B2288-02	8260B					
MC-11B	B2288-03	8260B					
MC-11C	B2288-04	8260B					
MW-XZ	B2288-07	8260B					
MC-12B	B2288-08	8260B					
MC-12C	B2288-09	8260B					
PC-1A	B2288-10	8260B					
PC-1B	B2288-11	8260B					
PC-1C	B2288-12	8260B					
PC-10B	B2288-13	8260B					
PC-10C	B2288-14	8260B					
PC-9	B2288-15	8260B					
PC-3	B2288-16	8260B					
PC-12A	B2288-17	8260B					
PC-12B	B2288-18	8260B					
PC-12C	B2288-19	8260B					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample	Laboratory Sample	VOA GC/MS	BNA GC/MS	VOA GC (Method	Pest PCBs (Method	Metals (Method	Other (Method
ID/Code	ID/Code	(Method #)	(Method #)	#)	*)	#)	*#)
MC-SFC-3	B2331-01	8260B					
MC-SFC-X	B2331-04	8260B					
MC-SFC-4	B2331-05	8260B					
MC-SFC-2	B2331-06	8260B					
MC-SFC-1	B2331-07	8260B					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION FORM S-I SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
MC-CMT-2(P7)	B2333-01	8260B					
FIELDBLANK	B2333-02	8260B					
TRIPBLANK	B2333-03	8260B					
MC-CMT-2(P3)	B2333-04	8260B					
MC-CMT-2(P2)	B2333-05	8260B					
MC-CMT-X3	B2333-06	8260B					
MC-CMT-1(P2)	B2333-07	8260B					
MC-CMT-1(P3)	B2333-08	8260B			<u></u> .		
MC-CMT-1(P4)	B2333-09	8260B					
MC-CMT-1(P5)	B2333-10	8260B					
MC-CMT-1(P6)	B2333-11	8260B					
MC-CMT-1(P7)	B2333-12	8260B					
MC-10A	B2333-13	8260B					
MC-10B	B2333-14	8260B					
PWSH-1	B2333-15	8260B					
PWSH-2	B2333-16	8260B					
TRIPBLANK	B2333-19	8260B					



WORK ORDER #: 1006286

Work Order Summary

CLIENT:

Mr. Dan Lang

Malcolm Pirnie

855 Route 146

Suite 210

Clifton Park, NY 12065

PHONE:

518-782-2100

FAX:

(518) 250-7300

DATE RECEIVED: DATE COMPLETED: 06/11/2010

06/25/2010

BILL TO: Ms. Accounts Payable

Malcolm Pirnie

P.O. Box 1240

White Plains, NY 10602-1240

P.O. # 0266380

1.0.# 0200300

PROJECT # 0266380 Plaza Cleaners

CONTACT: Ausha Scott

FRACTION#	<u>NAME</u>	<u>TEST</u>	RECEIPT <u>VAC./PRES.</u>	FINAL <u>PRESSURE</u>
01A	Plaza SG-9S	Modified TO-15	6.0 "Hg	5 psi
02A	Plaza ESG-3D	Modified TO-15	5.5 "Hg	5 psi
03A	Scriber-SV	Modified TO-15	5.0 "Hg	5 psi
03B	Scriber-SV	Modified TO-15	5.0 "Hg	5 psi
04A	Scriber-SV2	Modified TO-15	3.5 "Hg	5 psi
04AA	Scriber-SV2 Lab Duplicate	Modified TO-15	3.5 "Hg	5 psi
04B	Scriber-SV2	Modified TO-15	3.5 "Hg	5 psi
04BB	Scriber-SV2 Lab Duplicate	Modified TO-15	3.5 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
05C	Lab Blank	Modified TO-15	NA	NA
05D	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
06C	CCV	Modified TO-15	NA	NA
06D	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA

Continued on next page



WORK ORDER #: 1006286

Work Order Summary

CLIENT:

Mr. Dan Lang

Malcolm Pirnie 855 Route 146

Suite 210

Clifton Park, NY 12065

PHONE:

518-782-2100

FAX:

(518) 250-7300 06/11/2010

DATE RECEIVED: DATE COMPLETED:

06/25/2010

BILL TO:

Ms. Accounts Payable

Malcolm Pirnie

P.O. Box 1240

White Plains, NY 10602-1240

P.O. # 0

0266380

PROJECT #

0266380 Plaza Cleaners

CONTACT:

Ausha Scott

			RECEIPT	FINAL
FRACTION #	NAME	<u>TEST</u>	VAC./PRES.	<u>PRESSURE</u>
07B	LCS	Modified TO-15	NA	NA
07C	LCS	Modified TO-15	NA	NA
07D	LCS	Modified TO-15	NA	NA

CERTIFIED BY: ____ XXXa X Frances

DATE: $\frac{06/25/10}{}$

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

CHEMITECH

CASE NARRATIVE

Malcolm Pirnie, Inc. Project Name: Plaza Cleaners Project # N/A Chemtech Project # B2286

A. Number of Samples and Date of Receipt:

20 Water samples were received on 5/12/10.

3 Water samples were received on 5/15/10.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA H were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples except for Chloroethane, Methyl Acetate and isopropylbenzene.

The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 15% in the Initial Calibration (Method 82H051210W.M) for Bromoform, Chloroethane, Methyl Acetate, Carbon Tetrachloride Linear /Quadratic regression was performed for these compounds and the coef of det (r ^2) is greater than 0.99. These compound were kept in Average factor.

The Calibration File ID VH036146.D met the requirements except for

Dichlorodifluoromethane, Chloromethane, Vinyl Chloride, isopropylbenzene,

Chloroethane and Methyl Acetate. These compounds were biased high and These compounds were not present in any of the samples.

The Calibration File ID VH036186.D met the requirements except for Vinyl Chloride and Chloroethane. These compounds were biased high and These compounds were not present in any of the samples.

The Tuning criteria met requirements.

Samples MW-2, MW-3, MW-5, MW-7, MW-X, PC-7A, PC-7B, MC-7A, MC-7B, MC-7C and MC-6C were diluted due to high concentrations.

E. Additional Comments:

Please use %D calculated based on AvgRF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration Curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature		

CHEMITECH

CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Plaza Cleaners

Project # N/A

Chemtech Project # B2287

A. Number of Samples and Date of Receipt:

20 Water samples were received on 5/12/10.

3 Water samples were received on 5/15/10.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA H were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The analysis performed on instrument MSVOA I were done using GC column RTXVMS, which is 60 meters, 0.25 ID, 1.4 df, Restek Cat. #19916. The Trap was supplied by OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator. The method of analysis was 8260.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 15% in Initial Calibration (Method 82H051210W.M) for

Bromoform, Carbon Tetrachloride, Chloroethane and Methyl Acetate.

The The %RSD is greater than 15% in Initial Calibration (Method 82I051910W.M) for Dichlorodifluoromethane, Methylene Chloride and Tetrachloroethene.

The Calibration File 1D VI031457.D met the requirements except for 2-Butanone and 2-

Hexanone. They are biased high and samples did not have hits for these compounds.

The Tuning criteria met requirements.

E. Additional Comments:

Samples MC-3, PC-5B, PC-5C and PC-6B were diluted due to high concentrations.

Please use %D calculated based on AvgRF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration Curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Mildred V. Reyes

I am approving this document 2010.05.27 14:46:21 -04'00'

CHEMIECH

CASE NARRATIVE

Malcolm Pirnie, Inc. Project Name: Plaza Cleaners Project # N/A Chemtech Project # B2288

A. Number of Samples and Date of Receipt:

19 Water samples were received on 05/12/2010.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA H were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples except for Chloroethane and

Chloroethane but they were not detected in Samples.

The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 15% in the Initial Calibration (Method 82H051210W.M) for Chloroethane, Methyl Acetate, Carbon Tetrachloride and Bromoform. These compounds are passing on Linear/quadratic regressions, however in this case they were left on average response factor.

The Continuing Calibration (File ID: VH036186.D Method 82H051210W.M) met the requirements except for Vinyl chloride and Chloroethane but they were not detected in Samples.

The Continuing Calibration (File ID: VH036316.D Method 82H051210W.M) met the requirements except for 1,2-Dibromoethane but it was not detected in Samples.

E. Additional Comments:

Samples MC-12B and MC-12C were diluted due to high concentrations.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

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Mildred V. Reyes
I am approving this document
2010.05.25 13:18:37 -04'00' Signature

CHEMIECH

CASE NARRATIVE

Malcolm Pirnie, Inc. Project Name: Plaza Cleaners Project # N/A Chemtech Project # B2331

A. Number of Samples and Date of Receipt:

7 Water samples were received on 05/15/2010.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA G were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for MC-SFC-3MS and MC-SFC-3MSD.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except for cis-1,3-

Dichloropropene.

The MSD recoveries met the acceptable requirements except for Acetone.

The RPD for (B2331-03MSD) recoveries met criteria except for Acetone.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The %RSD is greater than 15% in the Initial Calibration (Method 82E051810W.M) for Dichlorodifluoromethane. This compound is passing on Linear regressions, however in this case it was left on average response factor.

The Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____ Wildred VReys

Mildred V. Reyes I am approving this document 2010.05.26 14:40:58 -04'00'

CHEMIECH

CASE NARRATIVE

Malcolm Pirnie, Inc. Project Name: Plaza Cleaners Project # N/A Chemtech Project # B2333

A. Number of Samples and Date of Receipt:

14 Water samples were received on 05/15/2010. 5 Water samples were received on 05/21/2010.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA G were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD for (B2333-18MSD) recoveries met criteria except for 1,1-Dichloroethene,2-Butanone,Acetone, Chloroform,Methyl Acetate, Methyl tert-butyl Ether, Methylene Chloride,trans-1,2-Dichloroethene and Vinyl chloride.

The Blank Spike met requirements for all samples.

The %RSD is greater than 15% in the Initial Calibration (Method 82G051810W.M) for Dichlorodifluoromethane. This compound is passing on linear regressions, however in this case it was left on average response factor.

The Continuing Calibration (File ID: VG027947.D Method 82G051810W.M) met the requirements except for Acetone but it was not detected in Samples.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

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Mildred V. Reyes
I am approving this document 2010.06.03 13:47:25 -04'00' Signature_



LABORATORY NARRATIVE Modified TO-15 Full Scan/SIM Malcolm Pirnie Workorder# 1006286

Three 6 Liter Summa Canister and one 6 Liter Summa Canister (SIM Certified) samples were received on June 11, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	=30% RSD with 2<br compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is =30% RSD with 10% of compounds allowed out to < 40% RSD</td
Daily Calibration	+- 30% Difference	For Full Scan: = 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers</td
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.



All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Samples Plaza SG-9S and Plaza ESG-3D were transferred from SIM/Low Level analysis to full scan TO-15 due to high levels of target compounds.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
 - J Estimated value.
 - E Exceeds instrument calibration range.
 - S Saturated peak.
 - Q Exceeds quality control limits.
 - U Compound analyzed for but not detected above the reporting limit.
 - UJ- Non-detected compound associated with low bias in the CCV
 - N The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

QUALIFIED SAMPLE RESULTS FORMS

Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, NY 12853

> Phone 518-251-4429 Facsimile 518-251-4428

August 5, 2011

Elias Moskal ARCADIS Malcolm Pirnie, Inc 855 Route 146 Suite 210 Clifton Park, NY 12065

RE Plaza Cleaners site
Data Usability Summary Report (DUSR)
Chemtech SDG Nos. C2318, C2352, C2392, C2425, C2435, and C2449

Dear Mr. Moskal:

Review has been completed for the data packages generated by Chemtech that pertain to samples collected between 05/19/11 and 05/31/11 at the Plaza Cleaners site. Eighteen aqueous samples and a field duplicate were processed for volatiles by USEPA SW846 method 8260B.

The data packages submitted by the laboratory contain full deliverables for validation, but this usability report is primarily generated from review of the summary form information, with full review of sample raw data, and limited review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, per the USEPA Region 2 validation SOPs and the USEPA CLP National Functional Guidelines for Data Review, with consideration of the requirements of the specific analytical methodologies. The following items were reviewed:

- * Case Narrative
- * Custody Documentation
- * Holding Times
- * Surrogate and Internal Standard Recoveries
- * Matrix Spike Recoveries/Duplicate Correlations
- * Preparation Blanks
- * Laboratory Control Samples (LCSs)
- * Instrumental Tunes
- * Calibration Standards
- * Method Compliance
- * Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for this level of review.

In summary, results for the samples are usable as reported, or usable with edit or minor qualification.

Copies of the laboratory sample identification summaries and case narratives are attached to this text, and should be reviewed in conjunction with this report. Also included with this report are validation qualifier definitions and red-ink qualified sample report forms.

The following text discusses quality issues of concern.

Chain-of-Custody/Sample Receipt

The relinquish date was not present on the custody for samples collected 05/20/11. The signature and time were present on that entry.

Samples PC-B-8(100') and PC-B-8(145') formed very small bubbles after sample collection. Results for these samples are therefore qualified as estimated in value, with a possible low bias.

A more complete copy of the chain-of-custody for samples reported in SDG C2435 was provided by the laboratory upon request.

TCL Volatiles by EPA 8260B

Results for analytes initially reported with the laboratory "E" flag are derived from the dilution analyses of the samples.

Due to very poor spectral quality, the reported detections of trichloroethene in PC-B-06(50) and PC-B-07(100) are to be edited to reflect non-detection at either the analyte reporting limit, or the originally reported concentration, whichever is greater.

The matrix spikes of PC-B-06(100) show acceptable accuracy and precision for all analytes.

Elevated duplicate correlations observed with one set of duplicate LCS analyses do not affected sample reported results. All LCS recoveries fall within required limits.

The field duplicate of PC-B-008 shows acceptable correlations.

With the exception of naphthalene, the Tentatively Identified Compounds (TICs) that are reported with a CAS number should have also been flagged as "N" by the laboratory, indicating tentative identification.

The TICs reported in PC-B-11(120) and PC-B-11(90) are also present in the associated trip blank and are to be disregarded as sample components. The identification of this TIC should have been "Unknown Conjugated Alkane" rather than a specific compound, since the spectral match was not sufficient.

The first TIC in the trip blank reported in SDG C2449 is methylene chloridc (also reported as a target analyte in that blank).

PC-B-07(155) was reanalyzed to confirm detected results. The initial analysis is to be used.

Calibrations standard responses are within laboratory and validation guidelines, with the exception of that for bromoform (24%D) in the standard associated with the detection of PC-B-09(145). That detected value is qualified as estimated, with a possible high bias.

Surrogate recoveries and internal standard responses associated with the reported sample results are acceptable. Blanks show no contamination of target analytes also detected in associated samples.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Very truly yours,

Judy Harry

Att

VALIDATION DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ The analyte was not detected. The associated reported quantitation limit is an estimate and may be inaccurate or imprecise.
- NJ The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- **R** The data are unusable. The analyte may or may not be present.
- EMPC The results do not meet all criteria for a confirmed identification.

 The quantitative value represents the Estimated Maximum Possible

 Concentration of the analyte in the sample.

CLIENT and LABORATORY SAMPLE IDs and CASE NARRATIVES



Cover Page

Order ID: C2318

Project ID: Plaza Cleaners

Client: Malcolm Pirnie, Inc.

Lab Sample Number	Client Sample Number
C2248 04	PC-R-06(145)

C2318-01 PC-B-06(145)
C2318-02 TB-01-051911
C2318-03 PC-B-06(100)
C2318-04 PC-B-06(50)
C2318-05 FB-01-051911

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Mildred V. Reves, OA/OC Supervisor

Signature: ______Signature:

Mildred V. Reyes, QA/QC Supervisor 2011.06.06 14:35:58 -04'00'

NYDOH CERTIFICATION NO - 11376



284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

C2352 Order ID:

Project ID: Plaza Cleaners

> Client: Malcolm Pirnie, Inc.

Client Sample Number Lab Sample Number

C2352-01 PC-B-07(155) TB-02-052011 C2352-02 C2352-03 PC-B-07(100) PC-B-07(60) C2352-04

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

NYDOH CERTIFICATION NO - 11376

Mildred V. Reyes, QA/QC Supervisor 2011.06.03 15:18:41 -04'00'

Signature:



Cover Page

C2392 Order ID:

Plaza Cleaners Project ID:

> Client: Malcolm Pirnie, Inc.

Lab Sample Number

Client Sample Number

TB-03-052511 C2392-01 PC-B-08(140)NP C2392-02 PC-B-08(100)NP C2392-03 PC-B-08 C2392-04 PC-B-DUP01 C2392-05

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following Mildred V. Reyes, QAVQU St 2011.06.09 15:19:55 -04'00' signature.

Signature:

Mildred V. Reyes, QA/QC Supervisor

NYDOH CERTIFICATION NO - 11376



284 Sheffield Street, Mountainside, New Jersey 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

C2425 Order ID:

Project ID: Plaza Cleaners

> Malcolm Pirnie, Inc. Client:

Lab Sample Number

Client Sample Number

TB-04-052611 C2425-01 PC-B-09(145) C2425-02 PC-B-09(100) C2425-03 PC-B-09(60) C2425-04

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature. Mildred V. Reyes, QA/QC Supervisor 2011.06.10 14:34:24 -04'00'

Signature:



Cover Page

C2435 Order ID:

Plaza Cleaners Project ID:

> Client: Malcolm Pirnie, Inc.

Client Sample Number Lab Sample Number

TB-05-052711 C2435-01 PC-B-10(135) C2435-02 PC-B-10(100) C2435-03 PC-B-10(60) C2435-04

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following Mildred V. Reyes, QA/QC Supervisor 2011.06.09 11:10:10 -04'00' signature.

Signature:

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Cover Page

C2449 Order ID:

Plaza Cleaners Project ID:

> Malcolm Pirnie, Inc. Client:

Lab Sample Number

Client Sample Number

TB-06-053111 C2449-01 PC-B-11(120) C2449-02 PC-B-11(90) C2449-03 PC-B-11(60) C2449-04

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature:

Mildred V. Reyes, QA/QC Supervisor 2011.06.16 07:54:00 -04'00'

CHEMIECH

CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Plaza Cleaners

Project # N/A

Chemtech Project # C2318 Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

5 Water samples were received on 05/20/2011.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_F were done using GC column RTX-VMS, which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the acceptable requirements.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

CHEMIECH

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature 11 Signature

Mildred V. Reyes, QA/QC Supervisor 2011.06.06 14:35:47 -04'00'



CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Plaza Cleaners

Project # N/A

Chemtech Project # C2352 Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

4 Water samples were received on 05/21/2011.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_F were done using GC column RTX-VMS, which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator. The analysis performed on instrument MSVOA_G were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis performed on instrument MSVOA_H were done using GC column RTX-VMS which is 20 meters, 0.18 mm id. 1.0 um df. Restek Cat. #49914. The Trap was supplied BY OI Analytical. OI #10 Trap. OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for PC-B-07(155)RE [4-Bromofluorobenzene 134%].

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {C2289-02MS} with File ID: VH041025.D recoveries met the requirements for all compounds except for Trichloroethene[396%].

The MSD {C2289-03MSD} with File ID: VH041026.D recoveries met the acceptable requirements except for Trichloroethene[376%].

The RPD for {C2289-03MSD} with File ID: VH041026.D recoveries met criteria except for 2-Butanone[25%].

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration File ID: 82F051711W.M met the requirements except for Bromomethane. Chlorocthane. Methylical Pentanone and men. Methylical Pentanone and men. Methylical Calibration File 10182C022211W.M

CHEMIECH

met the requirements except for Bromomethane, Acetone, Methylene Chloride, 2-Butanone and 2-Hexanone. The Initial Calibration File ID:82H050911.W.M met the requirements except for Dichlorodifluoromethane, Bromomethane, Acetone and Methylene Chloride.

The Continuous Calibration File ID VF026806.D met the requirements except for Bromomethane .The Continuous Calibration File ID VG035092.D.D met the requirements except for Acetone, Methyl Acetate and 4-Methyl-2-Pentanone .The Continuous Calibration File ID VH041020.D met the requirements except for 1,2-Dichloroethane-d4 .

The Tuning criteria met requirements.

E. Additional Comments:

Sample # C2352-01(VG035107.D) has hit of Acetone, it was rerun for confirmation.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Mildred V. Reyes, QA/QC Supervisor 2011.06.03 15:18:30 -04'00'

CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Plaza Cleaners

Project # N/A

Chemtech Project # C2392

Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

5 Water samples were received on 05/26/2011.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_G were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD recoveries met criteria.

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration File ID VG035109.D met the requirements except for

Acetone, Methylene Chloride and 2-Butanone. These compounds were bias high and are not found on the samples. No further corrective action was taken.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments: Please refer to the Manual integration Re on the manual integrations performed.	port included with the Run Logs for information
contract, both technically and for comp	mpliance with the terms and conditions of the pleteness, for other than the conditions detailed signee, as verified by the following signature has in this hard copy data package.
Signature	Mildred V. Reyes, QA/QC Supervisor 2011.06.09 15:19:22 -04'00'

CASE NARRATIVE

Malcolm Pirnie, Inc.
Project Name: Plaza Cleaners
Project # N/A
Chemtech Project # C2425

A. Number of Samples and Date of Receipt:

4 Water samples were received on 5/27/11.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_H were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD recoveries met criteria except for Methylene Chloride.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has amborized release of the data contained in this hard copy data package.

Middled	VREWS	Mildred V. Reyes, QA/QC Supervisor 2011.06.10 14:34:11 -04'00'
Signature	<u>d</u>	

CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Plaza Cleaners

Project # N/A

Chemtech Project # C2435 Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

4 Water samples were received on 05/28/2011.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_H were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD for {BSH0606W2} with File ID: VH041251.D recoveries met criteria except for 1,1,1-Trichloroethane[24%], 1,1-Dichloroethane[22%], Bromomethane[29%], Carbon disulfide[24%], Chloroform[29%], Chloromethane[24%] and trans-1,2-

Dichloroethene[24%].

The Blank Spike met requirements for all samples.

The Blank Spike Duplicate met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount

for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature Mildred V. Reyes, QA/QC Supervisor 2011.06.09 11:09:29 -04'00'

CASE NARRATIVE

Malcolm Pirnie, Inc.

Project Name: Plaza Cleaners

Project # N/A

Chemtech Project # C2449 Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:

4 Water samples were received on 06/01/2011.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_H were done using GC column RTX-VMS which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator. The analysis of VOC-TCLVOA-10 was based on method 8260B/5030.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD for {BSH0606W2} with File ID: VH041251.D recoveries met criteria except for 1,1,1-Trichloroethane[24%], 1,1-Dichloroethane[22%], Bromomethane[29%], Carbon disulfide[24%], Chloroform[29%], Chloromethane[24%] and trans-1,2-

Dichloroethene[24%].

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Lincar Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

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Signature_		<u> </u>

Mildred V. Reyes, QA/QC Supervisor 2011.06.16 07:53:50 -04'00'

QUALIFIED SAMPLE REPORT FORMS



Date Collected: 05/19/11 Malcolm Pirnie, Inc. Client: 05/20/11 Project: Plaza Cleaners Date Received: Client Sample ID: PC-B-06(145) SDG No.: C2318 Lab Sample ID: C2318-01 Matrix: WATER Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: Units: mL Final Vol: 5000 uL VOC-TCLVOA-10 Soil Aliquot Vol: uL Test: GC Column: ID: 0.18 LOW RTX-VMS Level:

File 1D/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VF026731.D

1

05/23/11

VF052311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/l.
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	9.8		0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	ł	ug/L
71-43-2	Benzene	l	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug 2 9
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



Client;	Malcolm Pirnie, Inc.	Date Collected:	05/19/11
Project:	Plaza Cleaners	Date Received:	05/20/11
Client Sample ID:	PC-B-06(145)	SDG No.:	C2318
Lab Sample ID:	C2318-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF026731.D	1		05/23/11	VF052311

VF026731.D	I	U	3/23/11		VF032311	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.92	J	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	I	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/l,
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	}					
17060-07-0	1,2-Dichloroethane-d4	45.2		66 - 150	91%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		76 - 130	104%	SPK: 50
2037-26-5	Toluene-d8	44.5		78 - 121	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.4		70 - 131	113%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	2007410	3.18			
540-36-3	1,4-Difluorobenzene	2971900	3.79			
3114-55-4	Chlorobenzene-d5	2567110	7.13			
3855-82-1	1,4-Dichlorobenzene-d4	1391620	9.01			



Client: Malcolm Pirnie, Inc. Date Collected: 05/12/11 Project: Plaza Cleaners Date Received: 05/20/11 Client Sample ID: TB-01-051911 SDG No.: C2318 Lab Sample 1D: C2318-02 Matrix: WATER Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: Units: Final Vol: 5000 mLSoil Aliquot Vol: uL Test: VOC-TCLVOA-10

GC Column: ID: 0.18 RTX-VMS Level: LOW

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

uL

VF026727.D

05/23/11

VF052311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexanc	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	Ü	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	Ü	0.2	1	ug/L
71-43-2	Benzene	1	Ü	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	Ü	0.48	1	ug/L
79-01-6	Trichloroethene	i	Ŭ	0.28	· I	ug/L
78-87-5	1,2-Dichloropropane	1	Ü	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	Ü	0.36	i	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	Ū	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	Ū	0.29	1	ug/ 4 2
10061-01-5	cis-1,3-Dichloropropene	1	Ü	0.31	1	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/12/11
Project:	Plaza Cleaners	Date Received:	05/20/11
Client Sample ID:	TB-01-051911	SDG No.:	C2318
Lab Sample 1D:	C2318-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	ul.	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VF026727.D 1 05/23/11 VF052311

VI 020727.B	•	_				
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	35.9		66 - 150	72%	SPK: 50
1868-53-7	Dibromofluoromethane	40.2		76 - 130	80%	SPK: 50
2037-26-5	Toluene-d8	39.3		78 - 121	79%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		70 - 131	91%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	2054880	3.19			
540-36-3	1,4-Difluorobenzene	3091410	3.79			
3114-55-4	Chlorobenzene-d5	2683010	7.13			
3855-82-1	1,4-Dichlorobenzene-d4	1435140	9.01			



Client: Malcolm Pirnie, Inc. Date Collected: 05/19/11 Date Received: 05/20/11 Project: Plaza Cleaners SDG No.: C2318 Client Sample ID: PC-B-06(100) Matrix: WATER Lab Sample ID: C2318-03 % Moisture: 100 SW8260B Analytical Method: Final Vol: 5000 Sample Wt/Vol: Units: mL

Soil Aliquot Vol: uL Test: VOC-TCLVOA-10

uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VF026729.D 1 05/23/11 VF052311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	I	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.76	J	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/ 5 4
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax , 908 789 8922

Report of Analysis

Date Collected: 05/19/11 Client: Malcolm Pirnie, Inc. Project: Plaza Cleaners Date Received: 05/20/11 Client Sample ID: PC-B-06(100) SDG No.: C2318 WATER C2318-03 Matrix: Lab Sample ID: % Moisture: SW8260B 100 Analytical Method: Units: Final Vol: 5000 uL Sample Wt/Vol: mL VOC-TCLVOA-10 Test: Soil Aliquot Vol: uL LOW

GC Column: RTX-VMS ID: 0.18 Level:

Prep Date Prep Batch ID Date Analyzed File ID/Qc Batch: Dilution: 05/23/11 VE052311 VE026729 D

VF026729.D	1	0.	5/23/11		VF052311	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromocthane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	I	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	I	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	3					
17060-07-0	1,2-Dichloroethane-d4	42.4		66 - 150	85%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		76 - 130	98%	SPK: 50
2037-26-5	Toluene-d8	42.6		78 - 121	85%	SPK: 50
460-00-4	4-Bromofluorobenzene	53		70 - 131	106%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1967680	3.19			
540-36-3	1,4-Difluorobenzene	2949240	3.79			
3114-55-4	Chlorobenzene-d5	2618100	7.13			
3855-82-1	1,4-Dichlorobenzene-d4	1389000	9.01			



Client: Malc	colm Pirnie, Inc.	Date Collected:	05/19/11
Project: Plaza	a Cleaners	Date Received:	05/20/11
Client Sample ID: PC-B	3-06(50)	SDG No.:	C2318
Lab Sample ID: C231	18-04	Matrix:	WATER
Analytical Method: SW8:	2260B	% Moisture:	100
Sample Wt/Vol: 5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column; RTX-	I-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VF026730.D

- 1

05/23/11

VF052311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	9.6		0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1.2	Ц	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/67
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



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Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 05/19/11 Project: Plaza Cleaners Date Received: 05/20/11 Client Sample ID: PC-B-06(50) SDG No.: C2318 C2318-04 Lab Sample ID: Matrix: WATER Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: Final Vol: Units: mL5000 uL Soil Aliquot Vol: Test: VOC-TCLVOA-10 uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VF026730.D I 05/23/11 VF052311

CAS Number	Parameter	Сопс.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	ĺ	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	3					
17060-07-0	1,2-Dichloroethane-d4	43.3		66 - 150	87%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		76 - 130	96%	SPK: 50
2037-26-5	Toluene-d8	39.7		78 - 121	79%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.4		70 - 131	103%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1872360	3.18			
540-36-3	1,4-Difluorobenzene	2803860	3.79			
3114-55-4	Chlorobenzene-d5	2415360	7.13			
3855-82-1	1,4-Dichlorobenzene-d4	1284560	9.01			



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/19/11
Project:	Plaza Cleaners	Date Received:	05/20/11
Client Sample ID:	FB-01-051911	SDG No.:	C2318
Lab Sample ID:	C2318-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch:Dilution:Prep DateDate AnalyzedPrep Batch IDVF026726.D105/23/11VF052311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	3.1	J	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	\mathbf{U}	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	Ü	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methyleyelohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	Ü	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug & 0
10061-01-5	cis-1,3-Dichloropropene	1	Ū	0.31	1	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/19/11
Project:	Plaza Cleaners	Date Received:	05/20/11
Client Sample ID:	FB-01-051911	SDG No.:	C2318
Lab Sample ID:	C2318-05	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column;	RTX-VMS ID: 0.18	Level:	LOW

_	A C Number	Darameter		Cone	Qualifian	MDI	LOOZCROL	
	VF026726.D	1			05/23/11		VF052311	
	File ID/Qc Batch:	: Dilution:	Prep Date		Date Analyzed		Prep Batch ID	

VF026726.D	1	0	5/23/11		VF052311	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	39		66 - 150	78%	SPK: 50
1868-53-7	Dibromofluoromethane	45.2		76 - 130	90%	SPK: 50
2037-26-5	Toluene-d8	43		78 - 121	86%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		70 - 131	97%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1765710	3.18			
540-36-3	1,4-Difluorobenzene	2635810	3.78			
3114-55-4	Chlorobenzene-d5	2307020	7.13			
3855-82-1	1,4-Dichlorobenzene-d4	1181520	9.01			

363-72-4	Pentafluorobenzene	1765710	3.18
540-36-3	1,4-Difluorobenzene	2635810	3.78
3114-55-4	Chlorobenzene-d5	2307020	7.13
3855-82-1	1,4-Dichlorobenzene-d4	1181520	9.01



Client: Malcolm Pirnie, Inc. Date Collected: 05/20/11 Date Received: 05/21/11 Plaza Cleaners Project: SDG No.: C2352 Client Sample ID: PC-B-07(155) WATER Matrix: Lab Sample ID: C2352-01 SW8260B % Moisture: 100 Analytical Method: Final Vol: Sample Wt/Vol: Units: 5000 mLSoil Aliquot Vol: иL Test: VOC-TCLVOA-10

ID: 0.18 Level: LOW GC Column: RTX-VMS

File 1D/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

uL

VG035107.D

05/26/11

VG052511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
6 7-64- 1	Acetone	80		0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	l	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	84		1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	l	U	0.34	I	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	l	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	u g 40
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



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Report of Analysis

Client:

Malcolm Pirnie, Inc.

Date Collected:

05/20/11

Project:

Plaza Cleaners

Date Received:

05/21/11

Client Sample ID:

PC-B-07(155)

SDG No.:

C2352

Lab Sample ID:

C2352-01

Matrix:

WATER

Analytical Method:

SW8260B

5

% Moisture:

100

Sample Wt/Vol:

Units:

Final Vol:

5000

Soil Aliquot Vol:

Test:

VOC-TCLVOA-10

uL

GC Column:

RTX-VMS

uL ID: 0.18

mL

Level:

LOW

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VG035107.D

3114-55-4

3855-82-1

1

Chlorobenzene-d5

1,4-Dichlorobenzene-d4

05/26/11

VG052511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.54	J	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.4	J	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	rn/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1.3		0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.1		66 - 150	102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		76 - 130	104%	SPK: 50
2037-26-5	Toluene-d8	42.8		78 - 121	86%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		70 - 131	91%	SPK: 50
INTERNAL STA	ANDARDS					
363-72-4	Pentafluorobenzene	1402970	3.88			
540-36-3	1,4-Difluorobenzene	2296460	4.69			

1920980

795271

9.65

13.36



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/12/11
Project:	Plaza Cleaners	Datc Received:	05/21/11
Client Sample ID:	TB-02-052011	SDG No.:	C2352
Lab Sample ID:	C2352-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VH041030.D

1

05/24/11

VH052411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS			* 1	0.2	1	/I
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74 - 87-3	Chloromethane	l	U	0.2	1	ug/L
75 - 01-4	Vinyl Chloride	1	U	0.34	1	ug/L ug/L
74-83-9	Bromomethane	1	U	0.2	1	
75-00-3	Chloroethane	1	U	0.2	l	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/I
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	u g /
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/12/11
Project:	Plaza Cleaners	Date Received:	05/21/11
Client Sample ID:	TB-02-052011	SDG No.:	C2352
Lab Sample 1D:	C2352-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041030.D 1 05/24/11 VH052411

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	40.1		66 - 150	80%	SPK: 5
1868-53-7	Dibromofluoromethane	47.1		76 - 130	94%	SPK: 5
2037-26-5	Toluene-d8	44.8		78 - 121	90%	SPK: 5
460-00-4	4-Bromofluorobenzene	42.1		70 - 131	84%	SPK: 5
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	678634	4.09			
540-36-3	1,4-Difluorobenzene	1248550	4.6			
3114-55-4	Chlorobenzene-d5	1056020	7.95			
3855-82-1	1,4-Dichlorobenzene-d4	430021	10.44			
TENTATIVE II	DENTIFIED COMPOUNDS					68
75-65-0	Tert butyl alcohol	4.0	Ŋı		2.52	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/20/11
Project:	Plaza Cleaners	Date Received:	05/21/11
Client Sample ID:	PC-B-07(100)	SDG No.:	C2352
Lab Sample ID:	C2352-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol.	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VF026818.D

- 1

05/26/11

VF052611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	l	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	l	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1.7		0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichlorocthane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5.3		1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.54	J	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	l	ug/L
79-01-6	Trichloroethene	0.69	ru	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug∕L,
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	սջԴ_Կ
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



Date Collected:

05/20/11

Malcolm Pirnic, Inc.

Client:

Report of Analysis

Project:	Plaza Cleaners			Date Re	ceived:	05/21/11	
Client Sample ID	PC-B-07(100)			SDG No).;	C2352	
Lab Sample ID:	C2352-03			Matrix:		WATER	
Analytical Metho				% Mois	ture:	100	
·							•
Sample Wt/Vol:	5 Units: mL			Final Vo	ol:	5000	uL
Soil Aliquot Vol:	uL			Test:		VOC-TCLVO	A-10
GC Column:	RTX-VMS ID: 0	0.18		Level:		LOW	
File ID/Qc Batch	: Dilution:	Prep Date	г	Date Analyzed		Prep Batch ID	
		Trep Date					
VF026818.D	1		O	05/26/11		VF052611	
CAS Number	Parameter		Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane		1	U	0.38	1	ug/L
591-78-6	2-Hexanone		5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane		1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane		1	U	0.41	I	ug/L
127-18-4	Tetrachloroethene		28		0.27	1	ug/L
108-90-7	Chlorobenzene		1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene		1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes		2	U	0.95	2	ug/L
95-47-6	o-Xylene		1	U	0.43	1	ug/L
100-42-5	Styrene		1	U	0.36	1	ug/L
75-25-2	Bromoform		1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene		1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane		1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene		1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene		1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene		1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane		1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene		1	U	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4		49.4		66 - 150	99%	SPK: 50
1868-53-7	Dibromofluoromethane		54.5		76 - 130	109%	SPK: 50
2037-26-5	Toluene-d8		46.1		78 - 121	92%	SPK: 50
460-00-4	4-Bromofluorobenzene		58.9		70 - 131	118%	SPK: 50
INTERNAL STA							
363-72-4	Pentafluorobenzene		1529070	3.18			
540-36-3	1,4-Difluorobenzene		2418680	3.79			
3114-55-4	Chlorobenzene-d5		2140910	7.13			
3855-82-1	1,4-Dichlorobenzene-d4		1220360	9.01			



05/20/11 Date Collected: Client: Malcolm Pirnie, Inc. Date Received: 05/21/11 Plaza Cleaners Project: SDG No.: C2352 Client Sample ID: PC-B-07(60) WATER Matrix: Lab Sample ID: C2352-04 % Moisture: 100 SW8260B Analytical Method: Final Vol: 5000 $\mathbf{u}\mathbf{L}$ Sample Wt/Vol: 5 Units: mLVOC-TCLVOA-10 Test: uLSoil Aliquot Vol: LOW ID: 0.18 Level: GC Column: RTX-VMS

File ID/Qc Batch:

Dilution:

Prep Date

Date Analyzed

Prep Batch ID

VF026819.D

1

05/26/11

VF052611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	3.2	J	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.55	J	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	4.4	J	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	I	ug/L
71-55-6	1,1,1-Trichlorocthane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug∕l.
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/20/11
Project:	Plaza Cleaners	Date Received:	05/21/11
Client Sample ID:	PC-B-07(60)	SDG No.:	C2352
Lab Sample ID:	C2352-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	ul.	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

Prep Date Prep Batch ID File ID/Qc Batch: Dilution: Date Analyzed 05/26/11 VF052611 VF026819.D 1

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.61	J	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	Į	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	l	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	5					
17060-07-0	1,2-Dichloroethane-d4	49.4		66 - 150	99%	SPK: 50
1868-53-7	Dibromofluoromethane	56		76 - 130	112%	SPK: 50
2037-26-5	Toluene-d8	45.5		78 - 121	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	57.6		70 - 131	115%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1503500	3.19			
540-36-3	1,4-Difluorobenzene	2349610	3.79			
3114-55-4	Chlorobenzene-d5	2048970	7.13			
3855-82-1	1,4-Dichlorobenzene-d4	1155480	9.01			



Date Collected: 05/20/11 Malcolm Pirnie, Inc. Client: 05/26/11 Date Received: Plaza Cleaners Project: C2392 TB-03-052511 SDG No.: Client Sample ID: WATER Matrix: Lab Sample ID: C2392-01 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uLSample Wt/Vol: 5 Units: mL VOC-TCLVOA-10 Test: Soil Aliquot Vol: uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VG035116.D 1 05/26/11 VG052611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	ĺ	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	l	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug A 1
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax 908 789 8922

Report of Analysis

05/20/11 Date Collected: Malcolm Pirnie, Inc. Client: Date Received: 05/26/11 Plaza Cleaners Project: SDG No.: C2392 Client Sample ID: TB-03-052511 Matrix: WATER C2392-01 Lab Sample ID: % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uL Sample Wt/Vol: Units: mL VOC-TCLVOA-10 uL Test: Soil Aliquot Vol:

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
VG035116 D 1 05/26/11 VG052611

VG035116.D	1	0	5/26/11		VG052611	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78 - 6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	I	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	; ;					
17060-07-0	1,2-Dichloroethane-d4	51.4		66 - 150	103%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		76 - 130	101%	SPK: 50
2037-26-5	Toluenc-d8	47.3		78 - 121	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.9		70 - 131	96%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1411830	3.89			
540-36-3	1,4-Difluorobenzene	2299410	4.69			
3114-55-4	Chlorobenzene-d5	1934010	9.65			
3855-82-1	1,4-Dichlorobenzene-d4	788659	13.36			
	DENTIFIED COMPOUNDS	- 0	•		16.0	22
91-20-3	Naphthalene	7.0	J		16.9	ug/L



Client:	Malcolm Pirnie, Inc.		Date Collected:	05/25/11
Project:	Plaza Cleaners		Date Received:	05/26/11
Client Sample ID:	PC-B-08(140)NP		SDG No.:	C2392
Lab Sample ID:	C2392-02		Matrix:	WATER
Analytical Method:	SW8260B		% Moisture:	100
Sample Wt/Vol:	5 Units: mL		Final Vol:	5000 uL
Soil Aliquot Vol:	uL		Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.1	18	Level:	LOW
File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VG035121.D	1		05/26/11	VG052611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS				<u>-</u>		
75-71-8	Dichlorodifluoromethane	1	U 45	0.2	1	ug/L
74-87-3	Chloromethane	l	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75- 00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U J/	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	UV	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1.8	ン	0.35	1	ug/L
79-20-9	Methyl Acctate	1	uus	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U [0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/l.
78-93-3	2-Butanone	5	U .	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	UV	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	3.3	J	0.35	1	ug/L
67-66-3	Chloroform	1	U VJ	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Mcthylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U ,	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U 💆	0.48	1	ug/L
79-01-6	Trichloroethene	2.4	J	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	UKJ	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	υ.[,	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	υV	2.1	5	ug/L
108-88-3	Toluene	1.5		0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	UUJ	0.29	1	_{ug} 345
10061-01-5	cis-1,3-Dichloropropene	1	uùJ	0.31	1	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/25/11
Project:	Plaza Cleaners	Date Received:	05/26/11
Client Sample ID:	PC-B-08(140)NP	SDG No.:	C2392
Lab Sample ID:	C2392-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	ul.	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level :	LOW

Date Analyzed Prep Batch ID Prep Date Dilution: File ID/Qc Batch: 05/26/11 VG052611 VG035121.D

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	บนุป	0.38	1	ug/L
591-78-6	2-l lexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.95	1]	0.27	1	ug/L
108-90-7	Chlorobenzene	1	uus	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1.4-Dichlorobenzene	1	U	0.32	l	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U V	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.1		66 - 150	102%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		76 - 130	89%	SPK: 50
2037-26-5	Toluene-d8	47.3		78 - 121	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		70 - 131	95%	SPK: 50
INTERNAL ST						
363-72-4	Pentafluorobenzene	1444700	3.88			
540-36-3	1,4-Difluorobenzene	2491440	4.68			
3114-55-4	Chlorobenzene-d5	2042950	9.66			
3855-82-1	1,4-Dichlorobenzene-d4	804650	13.36			



Client:	Malcolm Pirnie, Inc.	Malcolm Pirnie, Inc.		05/25/11	
Project:	Plaza Cleaners		Date Received:	05/26/11	
Client Sample ID:	PC-B-08(100)NP		SDG No.:	C2392	
Lab Sample ID:	C2392-03		Matrix:	WATER	
Analytical Method:	SW8260B		% Moisture:	100	
Sample Wt/Vol:	5 Units: mL		Final Vol:	5000 uL	
Soil Aliquot Vol:	ul.		Test:	VOC-TCLVOA-10	
GC Column:	RTX-VMS ID:	0.18	Level:	LOW	
File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID	
VG035119.D	1		05/26/11	VG052611	

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS				-		
75-71-8	Dichlorodifluoromethane	1	ひひつ	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U 🖖	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	6.3	J.	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	UUJ	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	ս √_	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	9	1.	0.35	1	ug/L
79-20-9	Methyl Acetate	1	บนั้ว	0.2	1	ug/L
75-09-2	Methylene Chloride	1	υĺ	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	υ	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	υ	0.36	1	ug/L
110-82-7	Cyclohexane	1	υ	0.2	1	ug/L
78-93-3	2-Butanone	5	U /	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	UV	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	7.8	J	0.35	1	ug/L
67-66-3	Chloroform	1	uus	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	υĨ	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	υl,	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	u V	0.48	1	ug/L
79-01-6	Trichloroethene	5.1	.1	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	\cup \bigvee \mathcal{J}	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U Î	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	u 🌾	2.1	5	ug/L
108-88-3	Toluene	0.56	1 1	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	UUI	0.29	1	ug A 7
10061-01-5	cis-1,3-Dichloropropene	1	บนิวั	0.31	1	ug/L



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Report of Analysis

Date Collected: 05/25/11 Malcolm Pirnie, Inc. Client: 05/26/11 Date Received: Plaza Cleaners Project: C2392 SDG No.: PC-B-08(100)NP Client Sample ID: WATER Matrix: C2392-03 Lab Sample ID: % Moisture: 100 SW8260B Analytical Method: Final Vol: 5000 uL Units: mL Sample Wt/Vol: Test: VOC-TCLVOA-10 uL Soil Aliquot Vol: LOW Level: RTX-VMS ID: 0.18 GC Column:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VG035119.D 1 05/26/11 VG052611

VG035119.D	ı	U.	3/20/11		V G032011	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	UUJ	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U V	0.41	1	ug/L
127-18-4	Tetrachloroethene	0.66	1 1	0.27	l	ug/L
108-90-7	Chlorobenzene	1	บหว	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541 - 73-1	1,3-Dichlorobenzene	l	U	0.43	I	ug/L
106-46-7	1,4-Dichlorobenzene	l	U	0.32	1	ug/L
95-50-1	I,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U /	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	UV	0.2	1	ug/L
SURROGATES	3					
17060-07-0	1,2-Dichloroethane-d4	50.3		66 - 150	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		76 - 130	101%	SPK: 50
2037-26-5	Toluene-d8	49.1		78 - 121	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		70 - 131	98%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1416830	3.88			
540-36-3	1,4-Difluorobenzene	2310200	4.68			
3114-55-4	Chlorobenzene-d5	1941530	9.66			
3855-82-1	1,4-Dichlorobenzene-d4	772747	13.36			
	DENTIFIED COMPOUNDS	0.72	r		16.9	48
91-20-3	Naphthalene	0.72	J		10.9	ug/L



Date Collected: 05/25/11 Client: Malcolm Pirnie, Inc. 05/26/11 Date Received: Plaza Cleaners Project: c2392 SDG No.: PC-B-08 Client Sample ID: Matrix: WATER C2392-04 Lab Sample ID: % Moisture: 100 SW8260B Analytical Method: uL Final Vol: 5000 Units: mLSample Wt/Vol: VOC-TCLVOA-10 Test: uL Soil Aliquot Vol:

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VG035117.D 1 05/26/11 VG052611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichlorocthene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.88	J	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug A
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/25/11
Project:	Plaza Cleaners	Date Received:	05/26/11
Client Sample ID:	PC-B-08	SDG No.:	e2392
Lab Sample ID:	C2392-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
VG035117.D 1 05/26/11 VG052611

V G U 3 3 1 1 7 . L 7	1	OJ/EU/II			, 0022011		
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units	
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L	
591-78-6	2-Hexanone	5	U	1.9	5	ug/L	
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L	
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L	
127-18-4	Tetrachloroethene	20		0.27	1	ug/L	
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L	
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L	
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L	
95-47-6	o-Xylene	1	U	0.43	1	ug/L	
100-42-5	Styrene	1	U	0.36	1	ug/L	
75-25-2	Bromoform	1	U	0.47	1	ug/L	
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L	
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L	
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L	
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L	
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L	
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L	
SURROGATES	8						
17060-07-0	1,2-Dichloroethane-d4	49.9		66 - 150	100%	SPK: 50	
1868-53-7	Dibromofluoromethane	50.9		76 - 130	102%	SPK: 50	
2037-26-5	Toluene-d8	43.3		78 - 121	87%	SPK: 50	
460-00-4	4-Bromofluorobenzene	46.2		70 - 131	92%	SPK: 50	
INTERNAL ST	ANDARDS						
363-72-4	Pentafluorobenzene	1476150	3.88				
540-36-3	1,4-Difluorobenzene	2371550	4.69				
3114-55-4	Chlorobenzene-d5	1983760	9.66				
3855-82-1	1,4-Dichlorobenzene-d4	773574	13.36				
	DENTIFIED COMPOUNDS					65	
91-20-3	Naphthalene	1.8	J		16.9	ug/L	



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Report of Analysis

05/25/11 Client: Malcolm Pirnie, Inc. Date Collected: Date Received: 05/26/11 Plaza Cleaners Project: SDG No.: C2392 PC-B-DUP01 Client Sample ID: WATER C2392-05 Matrix: Lab Sample 1D: % Moisture: 100 SW8260B Analytical Method: Final Vol: 5000 uL Units: Sample Wt/Vol: mL VOC-TCLVOA-10 Test: Soil Aliquot Vol: uL Level: LOW RTX-VMS ID: 0.18 GC Column:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VG052611 05/26/11 VG035118.D 1

Conc. Qualifier MDL LOQ / CRQL Units **CAS Number** Parameter **TARGETS** U 0.2 ug/L 75-71-8 Dichlorodifluoromethane U 0.2 ug/L 74-87-3 Chloromethane 1 U 0.34 1 ug/L Vinyl Chloride 75-01-4 74-83-9 Bromomethane U 0.2 ug/L U 0.2 75-00-3 Chloroethane 1 ug/L 1 U 0.35 ug/L Trichlorofluoromethane 75-69-4 U 0.45 ug/L 1.1.2-Trichlorotrifluoroethane 76-13-1 ug/L 75-35-4 1,1-Dichloroethene 1 U 0.47 1 5 U 0.5 5 ug/L Acetone 67-64-1 U 0.2 Carbon Disulfide 1 1 ug/L 75-15-0 0.87 0.35 1634-04-4 Methyl tert-butyl Ether J ug/L U 0.2 ug/L 79-20-9 Methyl Acetate 0.41 1 U ug/L Methylene Chloride 75-09-2 trans-1,2-Dichloroethene U 0.41 ug/L 156-60-5 U 0.36 1,1-Dichloroethanc 1 1 ug/L 75-34-3 U 0.2 110-82-7 Cyclohexane 1 ug/L 5 5 1.3 78-93-3 2-Butanone U ug/L U 0.2 1 1 ug/L 56-23-5 Carbon Tetrachloride cis-1.2-Dichloroethene Ū 0.35 ug/L 156-59-2 U 0.34 67-66-3 Chloroform ug/L U 0.4 1 1 ug/L 1,1,1-Trichloroethane 71-55-6 U 0.2 108-87-2 Methylcyclohexane ug/L U 0.32 71-43-2 Benzene 1 ug/L U 0.48 1,2-Dichloroethane ug/L 107-06-2 Trichloroethene U 0.28 ug/L 79-01-6 U 0.46 1 ug/L 1,2-Dichloropropane 78-87-5 U ug/L 75-27-4 Bromodichloromethane 0.36 1 5 U 2.1 5 ug/L 4-Methyl-2-Pentanone 108-10-1 ug/L U 0.37 108-88-3 Toluene ug/<u>[8</u> U 0.29 1 10061-02-6 t-1,3-Dichloropropene 1 U 0.31 1 ug/L 10061-01-5 cis-1,3-Dichloropropene



Date Collected: 05/25/11 Malcolm Pirnie, Inc. Client: Date Received: 05/26/11 Project: Plaza Cleaners C2392 PC-B-DUP01 SDG No.: Client Sample ID: WATER Matrix: Lab Sample ID: C2392-05 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uL 5 Units: Sample Wt/Vol: mLVOC-TCLVOA-10 Test: Soil Aliquot Vol: uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VG035118.D 1 05/26/11 VG052611

VG035118.D	1	0	5/26/11		VG052611	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	21		0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75 - 25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	3					
17060-07-0	1,2-Dichloroethane-d4	51.9		66 - 150	104%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		76 - 130	104%	SPK: 50
2037-26-5	Toluene-d8	45.4		78 - 121	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		70 - 131	102%	SPK: 50
INTERNAL ST						
363-72-4	Pentafluorobenzene	1431520	3.89			
540-36-3	1,4-Difluorobenzene	2324240	4.69			
3114-55-4	Chlorobenzene-d5	1965080	9.66			
3855-82-1	1,4-Dichlorobenzene-d4	828913	13.36			
	DENTIFIED COMPOUNDS					79
91-20-3	Naphthalene	1.1	J		16.9	ug/L



10061-02-6

10061-01-5

t-1,3-Dichloropropene

cis-1,3-Dichloropropene

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Report of Analysis

Date Collected: 05/20/11 Client: Malcolm Pirnie, Inc. Date Received: 05/27/11 Project: Plaza Cleaners SDG No.: C2425 TB-04-052611 Client Sample ID: Lab Sample ID: C2425-01 Matrix: WATER % Moisture: 100 Analytical Method: SW8260B Sample Wt/Vol: Units: mLFinal Vol: 5000 uL Soil Aliquot Vol: uL Test: VOC-TCLVOA-10 LOW

Level: GC Column: RTX-VMS ID: 0.18

Prep Date Date Analyzed Prep Batch ID File ID/Qc Batch: Dilution: VH041175.D 06/02/11 VH060211

Parameter Conc. **Oualifier MDL** LOQ / CRQL Units **CAS Number TARGETS** U 75-71-8 Dichlorodifluoromethane 1 0.2 1 ug/L U 74-87-3 Chloromethane 0.2 ug/L U 0.34 75-01-4 Vinyl Chloride ug/L 74-83-9 Bromomethane U 0.2 ug/L Chloroethane 1 U 0.2 75-00-3 ug/L U 75-69-4 Trichlorofluoromethane 1 0.35 ug/L 76-13-1 1,1,2-Trichlorotrifluoroethane U 0.45 ug/L 75-35-4 1,1-Dichloroethene U 0.47 1 ug/L 67-64-1 Acctone 5 U 0.5 5 ug/L 75-15-0 Carbon Disulfide U 0.2 1 ug/L U 0.35 1634-04-4 Methyl tert-butyl Ether 1 ug/L 79-20-9 Methyl Acetate 1 U 0.2 ug/L 75-09-2 Methylene Chloride U 0.41 ug/L 156-60-5 trans-1,2-Dichloroethene U 0.41 ug/L 75-34-3 1,1-Dichloroethane 1 U 0.36 ug/L 110-82-7 Cyclohexane U 0.2 1 ug/L 5 78-93-3 2-Butanone U ug/L 1.3 5 56-23-5 Carbon Tetrachloride 1 U 0.2 ug/L 156-59-2 cis-1,2-Dichloroethene U 0.35 ug/L 67-66-3 Chloroform U 0.34 ug/L 71-55-6 1,1,1-Trichloroethane 1 U 0.4 ug/L 108-87-2 Methyleyelohexane 1 U 0.2 ug/L 1 U 0.32 71-43-2 Benzene 1 ug/L 107-06-2 1.2-Dichloroethane U 0.48 ug/L U 0.28 79-01-6 Trichloroethene ug/L 78-87-5 1,2-Dichloropropane U 0.46 1 ug/L ug/L 75-27-4 Bromodichloromethane U 0.36 4-Methyl-2-Pentanone 5 U 2.1 5 108-10-1 ug/L 108-88-3 Toluene 1 U 0.37 1 ug/L

U

U

0.29

0.31

1

1

1

ug/\$2

ug/L



Client:	Malcolm Pirnie, lnc.	Date Collected:	05/20/11
Project:	Plaza Cleaners	Date Received:	05/27/11
Client Sample ID:	TB-04-052611	SDG No.:	C2425
Lab Sample ID:	C2425-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041175.D I 06/02/11 VH060211

V11041173.D	•		o, o <u>-</u> , 11		***********	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	l	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	;					
17060-07-0	I,2-Dichloroethane-d4	38.3		66 - 150	77%	SPK: 50
1868-53-7	Dibromofluoromethane	45.4		76 - 130	91%	SPK: 50
2037-26-5	Toluene-d8	44.8		78 - 121	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	43		70 - 131	86%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	1029020	4.07			
540-36-3	1,4-Difluorobenzene	2080890	4.58			
3114-55-4	Chlorobenzene-d5	1685990	7.92			
3855-82-1	1,4-Dichlorobenzene-d4	781702	10.42			
	DENTIFIED COMPOUNDS					33
000124-18-5	Decane	50	√ J		9.56	ug/L



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Report of Analysis

Date Collected: 05/26/11 Client: Malcolm Pirnie, Inc. 05/27/11 Date Received: Plaza Cleaners Project: SDG No.: C2425 Client Sample ID: PC-B-09(145) WATER Matrix: C2425-02 Lab Sample ID: % Moisture: 100 Analytical Method: SW8260B Units: Final Vol: 5000 uL mL Sample Wt/Vol: Test: VOC-TCLVOA-10 uL Soil Aliquot Vol: Level: LOW GC Column: RTX-VMS ID: 0.18

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041204.D 1 06/03/11 VH060311

VH041204.D 1 06/03/11 VH060311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	υ	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	77		0.5	5	ug/L
75-15 - 0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09 - 2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	12		1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1.2-Dichloroethanc	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	I	ug/L
78-87-5	1,2-Dichloropropane	l	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	l	U	0.29	1	ug/ 4_4
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



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Report of Analysis

Date Collected: 05/26/11 Malcolm Pirnie, Inc. Client: 05/27/11 Date Received: Plaza Cleaners Project: SDG No.: C2425 PC-B-09(145) Client Sample ID: Matrix: WATER C2425-02 Lab Sample ID: % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uL Units: mL Sample Wt/Vol: VOC-TCLVOA-10 Test: uL Soil Aliquot Vol: Level: LOW

ID: 0.18 RTX-VMS GC Column:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH060311 06/03/11

VH041204.D	1	C	6/03/11		VH060311	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	I	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.96	J	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	2.9	J	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	i	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12 - 8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	8					
17060-07-0	1,2-Dichloroethane-d4	42.2		66 - 150	84%	SPK: 50
1868-53-7	Dibromofluoromethane	43.6		76 - 130	87%	SPK: 50
2037-26-5	Tolucne-d8	44.5		78 - 121	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.2		70 - 131	88%	SPK: 50
INTERNAL ST	CANDARDS					
363-72-4	Pentafluorobenzene	794643	4.08			
540-36-3	1,4-Difluorobenzene	1688320	4.59			
3114-55-4	Chlorobenzene-d5	1387080	7.93			
3855-82-1	1,4-Dichlorobenzene-d4	638083	10.43			
	DENTIFIED COMPOUNDS		,			45
75-65-0	Tert butyl alcohol	2.2	N_1		2.51	ug/Ĺ



05/26/11 Date Collected: Malcolm Pirnie, Inc. Client: Date Received: 05/27/11 Project: Plaza Cleaners C2425 SDG No.: PC-B-09(145) Client Sample 1D: Matrix: WATER Lab Sample 1D: C2425-02 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uL Sample Wt/Vol: 5 Units: mL VOC-TCLVOA-10 Soil Aliquot Vol: uL Test:

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041204.D 1 06/03/11 VH060311

CAS Number Parameter Conc. Qualifier MDL LOQ/CRQL Units

002847-72-5 Decane, 4-methyl- 50 NJ 9.89 ug/L

^{* -} Values outside of QC limits

D = Dilution



Date Collected: 05/26/11 Client: Malcolm Pirnie, Inc. 05/27/11 Date Received: Project: Plaza Cleaners SDG No.: C2425 PC-B-09(100) Client Sample ID: WATER Matrix: Lab Sample 1D: C2425-03 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uL Sample Wt/Vol: Units: mL Test: VOC-TCLVOA-10 Soil Aliquot Vol: $\mathbf{u}\mathbf{L}$ LOW Level: GC Column: RTX-VMS ID: 0.18

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041205.D 1 06/03/11 VH060311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	7.9		0.5	5	ug/L
75-15-0	Carbon Disulfide	0.65	J	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	2		0.35	1	ug/L
79-20-9	Mcthyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1.8		0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	3.1	J	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	16		0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	14		0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug.660
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



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Report of Analysis

Client:	Malcolm Pirnie, Inc.	Date Collected:	05/26/11
Project:	Plaza Cleaners	Date Received:	05/27/11
Client Sample ID:	PC-B-09(100)	SDG No.:	C2425
Lab Sample ID:	C2425-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
VH041205.D I 06/03/11 VH060311

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	43.2		66 - 150	86%	SPK: 50
1868-53-7	Dibromofluoromethane	46.2		76 - 130	92%	SPK: 50
2037-26-5	Toluene-d8	46.7		78 - 121	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.8		70 - 131	90%	SPK: 50
INTERNAL ST	'ANDARDS					
363-72-4	Pentafluorobenzene	775133	4.07			
540-36-3	1,4-Difluorobenzene	1669590	4.59			
3114-55-4	Chlorobenzene-d5	1342200	7.93			
3855-82-1	1,4-Dichlorobenzene-d4	588830	10.43			
	DENTIFIED COMPOUNDS		1.			61 ug/L
75-65-0	Tert butyl alcohol	1.5	N_1		2.5	ug/L



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Report of Analysis

Date Collected: 05/26/11 Malcolm Pirnie, Inc. Client: Date Received: 05/27/11 Plaza Cleaners Project: SDG No.: C2425 PC-B-09(100) Client Sample ID: Matrix: WATER Lab Sample ID: C2425-03 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uLSample Wt/Vol: Units: mLTest: VOC-TCLVOA-10 Soil Aliquot Vol: uL LOW

Level: ID: 0.18 GC Column: RTX-VMS

Prep Batch ID File ID/Qc Batch: Dilution: Prep Date Date Analyzed 06/03/11 VH060311 VH041205.D 1

LOQ / CRQL Qualifier MDL Units **CAS Number** Parameter Conc. N I **5**0 9.89 ug/L 007659-86-1 2-Ethylhexyl mercaptoacetate

^{* =} Values outside of QC limits



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Report of Analysis

Date Collected: 05/26/11 Client: Malcolm Pirnie, Inc. 05/27/11 Plaza Cleaners Date Received: Project: SDG No.: C2425 Client Sample ID: PC-B-09(60) WATER Lab Sample ID: C2425-04 Matrix: % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uLUnits: mLSample Wt/Vol: Test: VOC-TCLVOA-10 Soil Aliquot Vol: uL LOW GC Column: RTX-VMS ID: 0.18 Level:

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
VH041206.D 1 06/03/11 VH060311

Conc. Qualifier MDL LOQ / CRQL Units **CAS Number** Parameter **TARGETS** 1 U 0.2 ug/L 75-71-8 Dichlorodifluoromethane U 0.2 ug/L Chloromethane 74-87-3 U 0.34 ug/L 75-01-4 Vinyl Chloride U 0.2 Bromomethane 1 ug/L 74-83-9 1 U 0.2 ug/L 75-00-3 Chloroethane 75-69-4 Trichlorofluoromethane 1 U 0.35 ug/L 1 U 0.45 1,1,2-Trichlorotrifluorocthane ug/L 76-13-1 1,1-Dichloroethene U 0.47 1 ug/L 75-35-4 5 U 0.5 5 ug/L 67-64-1 Acetone 1 U 0.2 75-15-0 Carbon Disulfide 1 ug/L 1 U 0.35 1 ug/L Methyl tert-butyl Ether 1634-04-4 1 U 0.2 79-20-9 Methyl Acetate ug/L 75-09-2 Methylene Chloride 1 U 0.41 ug/L U 0.41 1 ug/L trans-1,2-Dichloroethene 1 156-60-5 0.36 75-34-3 1.1-Dichloroethane 1.4 ug/L U 110-82-7 Cyclohexane 1 0.2 1 ug/L 78-93-3 2-Butanone 1.4 J 1.3 5 ug/L Carbon Tetrachloride 1 U 0.2 56-23-5 ug/L 0.35 1.7 156-59-2 cis-1,2-Dichloroethene ug/L Ū Chloroform 0.34 1 ug/L 67-66-3 71-55-6 1.1.1-Trichloroethane 1 U 0.4 ug/L Ū 0.2 1 108-87-2 Methylcyclohexane ug/L 1 U 0.32 71-43-2 Benzene ug/L 1.2-Dichloroethane 8.1 0.48 ug/L 107-06-2 11 0.28 1 ug/L 79-01-6 Trichloroethene 78-87-5 1.2-Dichloropropane U 0.46 ug/L 1 U 0.36 1 ug/L Bromodichloromethane 75-27-4 5 U 2.1 5 ug/L 108-10-1 4-Methyl-2-Pentanone U 0.37 ug/L 1 1 108-88-3 Toluene ug/77 U 0.29 t-1,3-Dichloropropene 1 10061-02-6 cis-1,3-Dichloropropene U 0.31 1 ug/L 10061-01-5



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Report of Analysis

Date Collected: 05/26/11 Malcolm Pirnie, Inc. Client: 05/27/11 Date Received: Plaza Cleaners Project: SDG No.: C2425 PC-B-09(60) Client Sample ID: Matrix: WATER C2425-04 Lab Sample ID: % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uLSample Wt/Vol: Units: mL VOC-TCLVOA-10 Test: uLSoil Aliquot Vol: LOW

Level: ID: 0.18 GC Column: RTX-VMS

Prep Batch ID Date Analyzed File ID/Qc Batch: Dilution: Prep Date 06/03/11 VH060311 VH041206.D

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	19 0 160	سط	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	t	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	Į	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1.2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	8					
17060-07-0	1,2-Dichloroethane-d4	46.1		66 - 150	92%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		76 - 130	107%	SPK: 50
2037-26-5	Toluene-d8	54.2		78 - 121	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.9		70 - 131	104%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	865201	4.07			
540-36-3	1,4-Difluorobenzene	1743800	4.59			
3114-55-4	Chlorobenzene-d5	1427290	7.93			
3855-82-1	1,4-Dichlorobenzene-d4	664048	10.43			
TENTATIVE I	DENTIFIED COMPOUNDS		/			78
75-65-0	Tert butyl alcohol	1.9	μ_1		2.51	ug/L



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Report of Analysis

05/26/11 Date Collected: Client: Malcolm Pirnie, Inc. 05/27/11 Date Received: Plaza Cleaners Project: SDG No.: C2425 PC-B-09(60) Client Sample ID: WATER Matrix: Lab Sample ID: C2425-04 % Moisture: 100 SW8260B Analytical Method: Final Vol: 5000 uL Units: Sample Wt/Vol: mL Test: VOC-TCLVOA-10 $\mathbf{u}\mathbf{L}$ Soil Aliquot Vol:

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041206.D 1 06/03/11 VH060311

CAS Number Parameter Conc. Qualifier MDL LOQ/CRQL Units

108-20-3 Diisopropyl ether 2.2 N J 2.71 ug/L

N = Presumptive Evidence of a Compound

^{* =} Values outside of QC limits

D = Dilution



Date Collected: 05/25/11 Malcolm Pirnie, Inc. Client: 05/28/11 Date Received: Project: Plaza Cleaners SDG No.: C2435 TB-05-052711 Client Sample ID: WATER Matrix: Lab Sample ID: C2435-01 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 uLSample Wt/Vol: 5 Units: mLVOC-TCLVOA-10 uLTest: Soil Aliquot Vol:

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
VH041255.D 1 06/06/11 VH060611

CAS Number Parameter Conc. Qualifier **MDL** LOQ / CRQL Units **TARGETS** U 0.2 ug/L 75-71-8 Dichlorodifluoromethane 1 1 Chloromethane 1 U 0.2 1 ug/L 74-87-3 U 0.34 Vinyl Chloride 1 ug/L 75-01-4 U 0.2 1 1 ug/L 74-83-9 Bromomethane Chloroethane 1 U 0.2 ug/L 75-00-3 Trichlorofluoromethane U 0.35 ug/L 75-69-4 U I 0.45 1 ug/L 1,1,2-Trichlorotrifluoroethane 76-13-1 U 0.47 75-35-4 1,1-Dichloroethene 1 1 ug/L Acetone 5 U 0.5 5 ug/L 67-64-1 1 U 0.2 1 ug/L 75-15-0 Carbon Disulfide 1 U 0.35 1634-04-4 Methyl tert-butyl Ether ug/L U 0.2 79-20-9 Methyl Acetate ug/L U 0.41 75-09-2 Methylene Chloride 1 1 ug/L trans-1,2-Dichloroethene 1 U 0.41 1 ug/L 156-60-5 75-34-3 1.1-Dichlorocthanc U 0.36 ug/L U 0.2 1 I ug/L 110-82-7 Cyclohexane 5 5 U 1.3 ug/L 78-93-3 2-Butanone 56-23-5 Carbon Tetrachloride 1 U 0.2 1 ug/L cis-1,2-Dichloroethene 1 U 0.35 1 156-59-2 ug/L Chloroform 1 U 0.34 1 67-66-3 ug/L ug/L 1.1.1-Trichloroethane U 0.4 71-55-6 U 108-87-2 Methylcyclohexane 1 0.2 1 ug/L 1 U 0.32 1 ug/L 71-43-2 Benzene 1,2-Dichloroethane U 0.48 ug/L 107-06-2 1 U 0.28 1 ug/L Trichloroethene 79-01-6 U 0.46 78-87-5 1,2-Dichloropropane 1 1 ug/L 75-27-4 Bromodichloromethane 1 U 0.36 1 ug/L 4-Methyl-2-Pentanone 5 U 2.1 5 ug/L 108-10-1 Ū 0.37 ug/L 1 1 Toluene 108-88-3 U 0.29 1 ug/L t-1,3-Dichloropropene 1 10061-02-6 10061-01-5 cis-1.3-Dichloropropene U 0.31 1 ug/L



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Report of Analysis

Date Collected: 05/25/11 Client: Malcolm Pirnie, Inc. 05/28/11 Date Received: Project: Plaza Cleaners SDG No.: C2435 Client Sample ID: TB-05-052711 Matrix: WATER Lab Sample ID: C2435-01 SW8260B % Moisture: 100 Analytical Method: Sample Wt/Vol: Units: mL Final Vol: 5000 uL uLTest: VOC-TCLVOA-10 Soil Aliquot Vol: LOW ID: 0.18 Level:

GC Column: RTX-VMS

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID 06/06/11 VH060611 VII041255.D

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	ı	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	l	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	l	U	0.2	1	ug/L
SURROGATE	s					
17060-07-0	1,2-Dichloroethane-d4	38.5		66 - 150	77%	SPK: 50
1868-53-7	Dibromofluoromethane	43.6		76 - 130	87%	SPK: 50
2037-26-5	Toluene-d8	46.1		78 - 121	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		70 - 131	91%	SPK: 50

INTERNAL STANDARDS 363-72-4 Pentafluorobenzene 901183 4.08 4.59 1699200 540-36-3 1,4-Difluorobenzene 3114-55-4 Chlorobenzene-d5 1338110 7.94 10.43 618761 1,4-Dichlorobenzene-d4 3855-82-1

uL



Report of Analysis

Date Collected: 05/27/11 Client: Malcolm Pirnie, Inc. Date Received: 05/28/11 Plaza Cleaners Project: PC-B-10(135) SDG No.: C2435 Client Sample ID: Matrix: WATER Lab Sample ID: C2435-02 % Moisture: 100 Analytical Method: SW8260B Final Vol: 5000 Sample Wt/Vol: 5 Units: mL VOC-TCLVOA-10 Soil Aliquot Vol: uLTest:

Level: LOW GC Column: RTX-VMS $ID: \quad 0.18$

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

06/06/11 VH060611 VH041262.D 1

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	Ţ	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethanc	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L



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Report of Analysis

Client:	Malcolm Pirnie, Inc.	Date Collected:	05/27/11
Project:	Plaza Cleaners	Date Received:	05/28/11
Client Sample ID:	PC-B-10(135)	SDG No.:	C2435
Lab Sample ID:	C2435-02	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	ul.	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041262.D 1 06/06/11 VH060611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.61	J	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	I	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	45.4		66 - 150	91%	SPK: 50
1868-53-7	Dibromofluoromethane	47.5		76 - 130	95%	SPK: 50
2037-26-5	Toluene-d8	49		78 - 121	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.7		70 - 131	93%	SPK: 50

INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	654682	4.08
540-36-3	1,4-Difluorobenzene	1436450	4.59
3114-55-4	Chlorobenzene-d5	1163400	7.94
3855-82-1	1,4-Dichlorobenzene-d4	533600	10.43



10061-01-5

cis-1,3-Dichloropropene

Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 05/27/11 Project: Plaza Cleaners Date Received: 05/28/11 SDG No.: PC-B-10(100) C2435 Client Sample ID: Lab Sample ID: C2435-03 Matrix: WATER Analytical Method: SW8260B % Moisture: 100 Final Vol: Sample Wt/Vol: 5 Units: mL5000

Soil Aliquot Vol: uL Test: VOC-TCLVOA-10

uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID
VH041263.D 1 06/06/11 VH060611

CAS Number Parameter Conc. Qualifier MDL LOQ / CRQL Units **TARGETS** Dichlorodifluoromethane 1 U 0.2 75-71-8 1 ug/L 74-87-3 Chloromethane 1 Ū 0.2 1 ug/L Vinyl Chloride 75-01-4 1 U 0.34 ug/L 74-83-9 1 Bromomethane U 0,2 1 ug/L 75-00-3 Chloroethane 1 U 0.2 1 ug/L 75-69-4 Trichlorofluoromethane U 0.35 ug/L 1,1,2-Trichlorotrifluoroethane 1 U 76-13-1 0.45 1 ug/L 75-35-4 1.1-Dichloroethene 1 U 0.47 Ī ug/L 67-64-1 Acetone 5 U 0.5 5 ug/L 0.57 75-15-0 Carbon Disulfide J 0.2 ug/L 1634-04-4 Methyl tert-butyl Ether 1 U 0.35 ug/L 79-20-9 Methyl Acetate U 0.2 ug/L 75-09-2 Methylene Chloride U 1 0.41 ug/L 156-60-5 trans-1,2-Dichloroethene 1 U 0.41 1 ug/L 75-34-3 1,1-Dichloroethane U 0.36 1 ug/L 110-82-7 Cyclohexane U 0.2 ug/L İ 1 78-93-3 2-Butanone 5 U 1.3 5 ug/L 56-23-5 Carbon Tetrachloride U 0.2 ug/L 156-59-2 cis-1,2-Dichloroethene U 0.35 ug/L Chloroform 67-66-3 1 U 0.34 ug/L 1,1,1-Trichlorocthanc 71-55-6 U 0.4 ug/L U 108-87-2 Methylcyclohexane 0.2 ug/L 71-43-2 Benzene 1 U 0.32 ug/L 107-06-2 1,2-Dichloroethane U 0.48 ug/L 79-01-6 Trichloroethene 1 U 0.28 ug/L 78-87-5 1,2-Dichloropropane U 0.46 1 ug/L 75-27-4 Bromodichloromethane U 0.36 1 ug/L 108-10-1 4-Methyl-2-Pentanone 5 U 2.1 5 ug/L U 108-88-3 Toluene 1 0.37 1 ug/L 10061-02-6 t-1,3-Dichloropropene 1 U 0.29 1 ug/L

U

0.31

1

ug/L



Papart of Analysis

		Report of	Analysis	1			
Client:	Malcolm Pirnie, Inc	> .		Date Co	llected:	05/27/11	
Project:	Plaza Cleaners			Date Re	ceived:	05/28/11	
Client Sample ID	PC-B-10(100)			SDG No).;	C2435	
Lab Sample ID:	C2435-03			Matrix:		WATER	
Analytical Metho				% Moist	hire.	100	
•				Final Vo			
Sample Wt/Vol:	5 Units:	mL			DI:	5000	uL
Soil Aliquot Vol:	:	uL		Test:		VOC-TCLVO	A-10
GC Column:	RTX-VMS I	D: 0.18		Level:		LOW	
File ID/Qc Batch	: Dilution:	Prep Date		Date Analyzed		Prep Batch ID	
VH041263.D	1			06/06/11		VH060611	
CAS Number	Parameter		Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane		1	U	0.38	1	ug/L
591-78-6	2-Hexanone		5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane		1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane		1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene		1	U	0.27	1	ug/L
108-90-7	Chlorobenzene		1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene		l	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes		2	U	0.95	2	ug/l.
95-47-6	o-Xylene		1	U	0.43	1	ug/L
100-42-5	Styrene		1	U	0.36	1	ug/L
75-25-2	Bromoform		1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene		1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane		1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene		l	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene		1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene		1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloroprop	oane	1	U	0.46	1	ug/L
	·						1-7 —

17060-07-0 1,2-Dichloroethane-d4 44.3 1868-53-7 Dibr omofluoromeths

1,2,4-Trichlorobenzene

	-,				~
1868-53-7	Dibromofluoromethane	46.5	76 - 130	93%	SPK: 50
2037-26-5	Toluene-d8	48	78 - 121	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.5	70 - 131	93%	SPK: 50

1

U

0.2

66 - 150

89%

ug/L

SPK: 50

INTERNAL STANDARDS

120-82-1

SURROGATES

363-72-4	Pentafluorobenzene	750978	4.08
540-36-3	1,4-Difluorobenzene	1629840	4.6
3114-55-4	Chlorobenzene-d5	1362200	7.93
3855-82-1	1.4-Dichlorobenzene-d4	587431	10.43



Client: Malcolm Pirnie, Inc. Date Collected: 05/27/11 Project: Plaza Cleaners Date Received: 05/28/11 Client Sample ID: PC-B-10(60) SDG No.: C2435 Lab Sample 1D: C2435-04 Matrix: WATER Analytical Method: SW8260B % Moisture: 100

Sample Wt/Vol: 5 Units: mL Final Vol: 5000 uL

Soil Aliquot Vol: uL Test: VOC-TCLVOA-10

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041264.D 1 06/06/11 VH060611

CAS Number Parameter Conc. **Oualifier** MDL LOQ / CRQL Units **TARGETS** 75-71-8 Dichlorodifluoromethane 1 U 0.2 ug/L 74-87-3 Chloromethane 1 U 0.2 1 ug/L 75-01-4 Vinyl Chloride U 0.34 ug/L 74-83-9 Bromomethane 1 U 0.2 ug/L 75-00-3 Chloroethane 1 U 0.2 ug/L 75-69-4 Trichlorofluoromethane U 0.35 ug/L U 76-13-1 1,1,2-Trichlorotrifluoroethane 1 0.45 ug/L 75-35-4 1,1-Dichloroethene 1 U 0.47 1 ug/L 67-64-1 Acetone 5 U 5 0.5 ug/L 75-15-0 Carbon Disulfide 1 U 0.2 ug/L 1634-04-4 Methyl tert-butyl Ether 1 U 0.35 ug/L 79-20-9 Methyl Acetate U 1 0.2 1 ug/L Methylene Chloride 75-09-2 1 U 0.41 ug/L 156-60-5 trans-1,2-Dichloroethene 1 U 0.41 1 ug/L 75-34-3 1,1-Dichloroethane 1 U 0.36 ug/L 110-82-7 Cyclohexane 1 U 0.2 ug/L 78-93-3 2-Butanone 5 U 1.3 5 ug/L 56-23-5 Carbon Tetrachloride 1 U 0.2 ug/L 156-59-2 cis-1,2-Dichloroethene U 0.35 1 ug/L 67-66-3 Chloroform 0.34 1 U ug/L 71-55-6 1.1.1-Trichloroethane 1 U 0.4 1 ug/L 108-87-2 Methylcyclohexane 1 U 0.2 ug/L 71-43-2 Benzene 1 U 0.32 ug/L 107-06-2 1,2-Dichloroethane U 0.48 ug/L 79-01-6 Trichloroethene 1 U 0.28 ug/L 1.2-Dichloropropane 78-87-5 1 U 0.46 ug/L 75-27-4 Bromodichloromethane 1 U 0.36 1 ug/L 108-10-1 4-Methyl-2-Pentanone 5 U 5 2.1 ug/L 108-88-3 Toluene 1 U 0.37 1 ug/L 10061-02-6 t-1,3-Dichloropropene 1 U 0.29 1 ug/L 10061-01-5 cis-1,3-Dichloropropene 1 U 0.31 ug/L



Client:	Malcolm Pirnie, Inc.	Date Collected:	05/27/11
Project:	Plaza Cleaners	Date Received:	05/28/11
Client Sample ID:	PC-B-10(60)	SDG No.:	C2435
Lab Sample ID:	C2435-04	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL.
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH041264.D	1		06/06/11	VI1060611

CAS Number	Parameter	Conc.	Qualifier	MDŁ	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylhenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	38.7		66 - 150	77%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		76 - 130	89%	SPK: 50
2037-26-5	Toluene-d8	46.9		78 - 121	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.3		70 - 131	89%	SPK: 50

INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	984602	4.08
540-36-3	1,4-Difluorobenzene	1854910	4.59
3114-55-4	Chlorobenzene-d5	1507620	7.93
3855-82-1	1,4-Dichlorobenzene-d4	672711	10.43



Date Collected: Client: Malcolm Pirnie, Inc. 05/25/11 Project: Plaza Cleaners Date Received: 06/01/11 Client Sample ID: TB-06-053111 SDG No.: C2449 Lab Sample ID: Matrix: WATER C2449-01 Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: 5 Units: mL Final Vol: 5000

Soil Aliquot Vol: uL Test: VOC-TCLVOA-10

uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041306.D I 06/07/11 VH060711

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	i	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	14		0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1.1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	Ü	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	i	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L 28



05/25/11 Date Collected: Malcolm Pirnie, Inc. Client: Date Received: 06/01/11 Plaza Clcancrs Project: SDG No.: C2449 TB-06-053111 Client Sample ID: WATER Matrix: C2449-01 Lab Sample ID: % Moisture: 100 SW8260B Analytical Method: 5000 uL Final Vol: Sample Wt/Vol: Units: mL

VOC-TCLVOA-10 uL Test: Soil Aliquot Vol:

Level: LOW ID: 0.18 RTX-VMS GC Column:

Date Analyzed Prep Batch ID Dilution: Prep Date File ID/Qc Batch: 06/07/11 VH060711 VH041306.D

VH041306.D	1	·	10/0 // 11		V11000711	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	;					
17060-07-0	1,2-Dichloroethane-d4	46.9		66 - 150	94%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		76 - 130	107%	SPK: 50
2037-26-5	Toluene-d8	54.4		78 - 121	109%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.8		70 - 131	102%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	673957	4.09			
540-36-3	1,4-Difluorobenzene	1382140	4.6			
3114-55-4	Chlorobenzene-d5	1134880	7.94			
3855-82-1	1,4-Dichlorobenzene-d4	502292	10.43			
	DENTIFIED COMPOUNDS		./-			
60-29 - 7	Diethyl Ether	1.1	Νı		1.7	ug/L





Client:	Malcolm Pirnie, Inc.	Date Collected:	05/25/11
Project:	Plaza Cleaners	Date Received:	06/01/11
Client Sample ID:	TB-06-053111	SDG No.:	C2449
Lab Sample ID:	C2449-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID: 0.18	Level:	LOW

Prep Batch ID Prep Date Date Analyzed Dilution: File ID/Qc Batch: 06/07/11 VH060711 VH041306.D

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
	unknown2.20	6.0	/ J		2.2	ug/L
007154-80-5	Heptane, 3,3,5-trimethyl-	50	ΝJ		9.9	ug/L

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

^{* =} Values outside of QC limits

D = Dilution



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Report of Analysis

Date Collected: 05/31/11 Client: Malcolm Pirnie, Inc. 06/01/11 Project: Plaza Cleaners Date Received: SDG No.: C2449 Client Sample ID: PC-B-11(120) Lab Sample ID: C2449-02 Matrix: WATER Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: Units: mL Final Vol: 5000

Soil Aliquot Vol: uL Test: VOC-TCLVOA-10

uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VH041259.D 1 06/06/11 VH060611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	t	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	0.63	J	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L 43



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Report of Analysis

Date Collected: 05/31/11 Malcolm Pirnie, Inc. Client: Project: Plaza Cleaners Date Received: 06/01/11 PC-B-11(120) SDG No.: C2449 Client Sample ID: Lab Sample ID: C2449-02 Matrix: WATER SW8260B % Moisture: 100 Analytical Method: Final Vol: 5000 uL Sample Wt/Vol: Units: mI. Test: VOC-TCLVOA-10 Soil Aliquot Vol. uL ID: 0.18 Level: LOW GC Column: RTX-VMS

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041259.D 1 06/06/11 VH060611

VII041239.D	1	· ·	70/00/11		V 11000011	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	ı	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	3					
17060-07-0	1,2-Dichloroethane-d4	45.6		66 - 150	91%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		76 - 130	99%	SPK: 50
2037-26-5	Toluene-d8	50.2		78 - 121	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	50		70 - 131	100%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	589906	4.08			
540-36-3	1,4-Difluorobenzene	1219830	4.59			
3114-55-4	Chlorobenzene-d5	983482	7.93			
3855-82-1	1,4-Dichlorobenzene-d4	440469	10.43			
	DENTIFIED COMPOUNDS					
007154-80-5	Heptane, 3,3,5-trimethyl-	50	N_1		9.89	ug/L



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Report of Analysis

Client: Malcolm Pirnie, Inc. Date Collected: 05/31/11 Plaza Cleaners Date Received: 06/01/11 Project: Client Sample ID: PC-B-11(90) SDG No.: C2449 C2449-03 WATER Lab Sample ID: Matrix: Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: Units: Final Vol: 5000 mL uL Test: VOC-TCLVOA-10 Soil Aliquot Vol: uL GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041260.D 1 06/06/11 VH060611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L 57



Date Collected: 05/31/11 Client: Malcolm Pimie, Inc. Date Received: 06/01/11 Project: Plaza Cleaners PC-B-11(90) SDG No.: C2449 Client Sample 1D: Lab Sample ID: C2449-03 Matrix: WATER % Moisture: 100 Analytical Method: SW8260B Sample Wt/Vol: 5 Units: mL Final Vol: 5000 uLTest: VOC-TCLVOA-10 Soil Aliquot Vol: uL

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID VH041260.D 1 06/06/11 VH060611

VHU41200.D	1	U	0/00/11		V 11000011	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	0.62	J	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	3					
17060-07-0	1,2-Dichloroethane-d4	40.4		66 - 150	81%	SPK: 50
1868-53-7	Dibromofluoromethane	43.1		76 - 130	86%	SPK: 50
2037-26-5	Toluene-d8	45.2		78 - 121	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		70 - 131	85%	SPK: 50
INTERNAL ST	ANDARDS					
363-72-4	Pentafluorobenzene	697145	4.08			
540-36-3	1,4-Difluorobenzene	1490120	4.59			
3114-55-4	Chlorobenzene-d5	1226670	7.94			
3855-82-1	1,4-Dichlorobenzene-d4	536949	10.43			
TENTATIVE II	DENTIFIED COMPOUNDS					
001189-99-7	Heptane, 2,5,5-trimethyl-	50	\mathcal{N}_1		9.89	ug/L



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax: 908-789-8922

Report of Analysis

Malcolm Pirnie, Inc. Date Collected: 05/31/11 Client: Date Received: 06/01/11 Project: Plaza Cleaners Client Sample ID: PC-B-11(60) SDG No.: C2449 Lab Sample ID: C2449-04 Matrix: WATER Analytical Method: SW8260B % Moisture: 100 Sample Wt/Vol: Units: шL Final Vol: 5000 uL Soil Aliquot Vol: uL Test: VOC-TCLVOA-10 GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VH041261.D 1 06/06/11 VH060611

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	U	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1.1-Dichloroethane	ı	U	0.36	1	ug/L
110-82-7	Cyclohexanc	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1		0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	Ü	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	Ū	0.2	1	ug/L
71-43-2	Benzene	1	Ü	0.32	1	ug/L
107-06-2	1.2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	7.1		0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	Ü	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L 71



Date Collected: 05/31/11 Malcolm Pirnie, Inc. Client: 06/01/11 Date Received: Project: Plaza Cleaners SDG No.: C2449 PC-B-11(60) Client Sample ID: WATER Matrix: Lab Sample 1D: C2449-04 % Moisture: 100 SW8260B Analytical Method: Final Vol: 5000 $\mathbf{u}\mathbf{L}$ 5 Units: Sample Wt/Vol: mL VOC-TCLVOA-10 uL Test: Soil Aliquot Vol:

GC Column: RTX-VMS ID: 0.18 Level: LOW

File ID/Qc Batch: Dilution: Prep Date Date Analyzed Prep Batch ID

VH041261 D 1 VH060611

VH041261.D	1	0	6/06/11		VH060611	
CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ/CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	36		0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES	S					
17060-07-0	1,2-Dichloroethane-d4	40.1		66 - 150	80%	SPK: 50
1868-53-7	Dibromofluoromethane	43.7		76 - 130	87%	SPK: 50
2037-26-5	Toluene-d8	45		78 - 121	90%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.5		70 - 131	87%	SPK: 50
INTERNAL ST	(ANDARDS					
363-72-4	Pentafluorobenzene	690406	4.08			
540-36-3	1,4-Difluorobenzene	1404770	4.59			
3114-55-4	Chlorobenzene-d5	1100790	7.94			
3855-82-1	1,4-Dichlorobenzenc-d4	505080	10.43			



Appendix C

Geophysical Survey Report

Hager Richter Geoscience, Inc

GEOPHYSICAL SURVEY PLAZA CLEANERS SITE (#1-30-108) 966 PORT WASHINGTON BOULEVARD PORT WASHINGTON, NEW YORK

Prepared for:

Malcolm Pirnie, Inc. 855 Route 146, Suite 210 Clifton Park, New York 12065

Prepared by:

Hager-Richter Geoscience, Inc. 846 Main Street Fords, New Jersey 08863

File 08JCC42 November, 2009

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HAGER-RICHTER GEOSCIENCE, INC.

CONSULTANTS IN GEOLOGY AND GEOPHYSICS

846 MAIN STREET
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November 9, 2009 File 08JCC42

Daniel C. Lang, PHG Malcolm Pirnie, Inc. 855 Route 146, Suite 210 Clifton Park, New York 12065

T: 518-250-7358 F: 518-250-7301

Email: DLang@Pirnie.com

RE: Geophysical Survey

Plaza Cleaners Site (#1-30-108) 966 Port Washington Boulevard Port Washington, New York

Dear Mr. Lang:

In this report, we summarize the results of a geophysical survey conducted on October 29, 2009 by Hager-Richter Geoscience, Inc. (H-R) at the above referenced site for Malcolm Pirnie, Inc. (Pirnie). The scope of the survey and area of interest were specified by Pirnie. The geophysical survey is part of an environmental investigation by Pirnie, performed under New York State Department of Environmental Conservation (NYSDEC) Standby Contracts No D004439 for Investigation/Design Engineering Services, and No. D004443 for Design/Construction Engineering Services.

INTRODUCTION

The Plaza Cleaners Site (#1-30-108) is an active dry cleaner facility located at 966 Port Washington Boulevard, in Port Washington, New York. Figure 1 shows the general location of the site. Pirnie specified the area of interest (AOI) as the accessible exterior portions of the site, approximately 110 feet by 100 feet in size. The AOI is an asphalt-paved parking lot for the dry cleaner facility. A concrete sidewalk was also present along the perimeter of the north and east sides of the AOI.

Pirnie was interested in determining whether underground storage tanks (USTs) are present and in locating subsurface utilities within the accessible portions of the AOI. At the time of the survey, no UST fill port or vent pipe was visible.

OBJECTIVES

The objectives of the geophysical survey were to detect, and if detected, to locate possible USTs and subsurface utilities in the accessible exterior portions of the AOI.

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THE SURVEY

Brooks MacFarquhar and Harrison Newman of Hager-Richter conducted the field operations on October 29, 2009. The project was coordinated with Mr. Ely Moskal of Pirnie. Mr Dwight Symonds, also of Pirnie was present in the field and specified the AOI.

The geophysical survey was conducted using three complementary geophysical methods: time domain electromagnetic induction (EM61), ground penetrating radar (GPR), and precision utility location (PUL). The EM61 data were acquired at approximately 8-inch intervals along lines spaced 5 feet apart in the accessible portions of the area of interest. The EM survey detects and outlines areas containing buried metal. However, the EM method cannot provide information on the type of objects causing EM anomalies. In order to aid in the identification of the objects, GPR data were acquired in two mutually perpendicular directions and spaced no more than 5 feet apart across the accessible portions of the AOI. The GPR method is useful for detecting and identifying both metallic and non-metallic subsurface objects. The GPR system was used with a 250 MHz antenna and a 90 ns¹ time window. A PUL survey was conducted to aid in detecting possible subsurface utilities. No UST vent pipe and fill port were visible at the time of the survey. At the time of the survey, a bulldozer was present in the northwest corner of the building and limited severely access to that portion of the AOI.

EQUIPMENT

EM61. For the EM61 survey, we used a Geonics EM61-MK2 time domain electromagnetic induction metal detector. The EM61 is a time-domain electromagnetic induction type instrument designed specifically for detecting buried metal objects. An air-cored 1-meter by ½-meter transmitter coil generates a pulsed primary magnetic field in the earth, thereby inducing eddy currents in nearby metal objects. The decay of the eddy current produces a secondary magnetic field that is sensed by two receiver coils, one coincident with the transmitter and one positioned 40 cm above the main coil. By measuring the secondary magnetic field after the current in the ground has dissipated but before the current in metal objects has dissipated, the instrument responds only to the secondary magnetic field produced by metal objects. Four channels of secondary response are measured in mV and are recorded on a digital data logger. The system is generally operated by pushing the coils as a wagon with an odometer mounted on the axle to trigger the data logger automatically at approximately 8-inch intervals.

GPR. The GPR survey was conducted using a Sensors & Software Smart Cart Noggin Plus digital subsurface interface radar system. The GPR unit includes a survey wheel, which

¹ns, abbreviation for nanosecond, 1/1,000,000,000 second. Light and the GPR signal require about 1 ns to travel 1 ft in air. The GPR signal requires about 3.5 ns to travel 1 ft in unsaturated sandy soil.

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provides data at a uniform horizontal scale, increasing the precision of locating subsurface objects over that of units without the survey wheel. The system was used with a 250 MHz antenna and a 90 ns¹ time window.

GPR uses a high-frequency electromagnetic pulse (referred to herein as "radar signal") transmitted from a radar antenna to probe the subsurface. The transmitted radar signals are reflected from subsurface interfaces of materials with contrasting electrical properties. The travel times of the radar signal can be converted to *approximate* depth below the surface by correlation with targets of known depths, including stratigraphic horizons, pipes, cables, and other utilities, or by using handbook values of velocities for the materials in the subsurface. The acquisition of GPR data was monitored in the field on a graphic recorder and the real time images were immediately available for field use. The GPR data were also recorded digitally for subsequent processing. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

PUL. The PUL survey was conducted using a precision electromagnetic pipe and cable locator, Radiodetection RD4000 series. The RD4000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

LIMITATIONS OF THE METHODS

HAGER-RICHTER GEOSCIENCE, INC. MAKES NO GUARANTEE THAT ALL SUBSURFACE TARGETS OF INTEREST WERE DETECTED IN THIS SURVEY. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR DETECTING SUBSURFACE TARGETS THAT NORMALLY CANNOT BE DETECTED BY THE METHODS EMPLOYED OR THAT CANNOT BE DETECTED BECAUSE OF SITE CONDITIONS. GPR SIGNAL PENETRATION MAY NOT BE DEEP ENOUGH TO DETECT SOME TARGETS. HAGER-RICHTER GEOSCIENCE, INC. IS NOT RESPONSIBLE FOR MAINTAINING FIELD MARKOUTS AFTER LEAVING THE WORK AREA. MPI UNDERSTANDS THAT MARK-OUTS MADE DURING INCLEMENT WEATHER OR IN AREAS OF HIGH PEDESTRIAN OR VEHICULAR TRAFFIC MAY NOT LAST.

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EM61. All electromagnetic geophysical methods, including the EM method used here, are affected by the presence of power lines and surface metal objects (steel sided buildings, dumpsters, vehicles, railroad tracks, reinforced concrete, etc.). Where such are present, the effects of materials in the subsurface may be masked, and firm conclusions about subsurface conditions cannot be made.

Detection and identification should be clearly differentiated. Detection is the recognition of the presence of a metal object, and the electromagnetic method is excellent for such purposes. Identification, on the other hand, is determination of the nature of the causative body (i.e., what is the body -- a cache of drums, UST, automobile, white goods, etc.?). Although the EM61 data cannot be used to *identify* buried metal objects, they provide excellent guides to the identification of some objects. For example, buried metal utilities produce anomalies with lengths many times their widths.

GPR. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities. GPR surveys inside buildings may be severely constrained by space limitations and interference from abovegrade structures.

The electrical conductivity of the ground determines the attenuation of the GPR signals, and thereby limits the maximum depth of exploration. For example, the GPR signal does not penetrate clay-rich soils, and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small, possibly due to construction details or deeply corroded metal in the target, then the reflection may be too weak to recognize and the target can be missed. In many cases, plastic, clay, asbestos concrete (transite), brick-lined, stone-lined, and other non-metallic utilities cannot be detected.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target. The GPR operator

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controls the spacing between lines, and the design of the survey is based on the dimensions of the smallest feature of interest. Targets with dimensions smaller than the spacing between GPR survey lines can be missed.

PUL. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

RESULTS

The geophysical survey was conducted using EM61 and GPR methods across the accessible portions of the specified AOI. The PUL method was also used to track utilities present in the AOI. Figure 2 is a color contour plot of the results of the EM61 survey, and Figure 3 shows the locations of the GPR traverses and the integrated interpretation of the geophysical data.

EM61. Interpretation of EM data is based on the relative response of the instrument in millivolts to local conditions. The instrument is not calibrated to provide an absolute measure of a particular property, such as the conductivity of the soil or the strength of the earth's magnetic field. Subsurface metal objects produce sharply defined positive anomalies when the EM61 is positioned directly over them. Acquiring data at short intervals along closely spaced lines, as was done at the subject site, provides high spatial resolution of the location and footprint of the targets. Thus, buried metal is recognized in contour plots of EM data by positive anomalies roughly corresponding to the dimensions of the buried metal.

Several areas of moderate to high-amplitude EM61 response are located throughout the AOI. Linear EM61 anomalies are interpreted as possible metallic utilities, and their locations are shown in Figure 3. Other EM anomalies are attributed to buried metal. The GPR records for the locations of EM anomalies were carefully examined to determine the cause of the anomalies.

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Surface metal objects also produce positive EM anomalies. EM61 anomalies are evident in Figure 2 near surface metal present in the building, sidewalk, manholes, signs, monitoring wells, a bulldozer, etc. We note that the presence or absence of subsurface metal in such areas cannot be determined on the basis of the EM data alone due to the anomaly caused by the surface metal object.

GPR. The locations of the GPR traverses and integrated interpretation of the geophysical data are shown in Figure 3. Apparent GPR signal penetration for most of the area of interest was fair with reflections received for about 40-60 nsec. Based on handbook time-to-depth conversions for the GPR signal in average soils, the GPR signal penetration is estimated to have been approximately 6-8 feet.

GPR reflections typical of one small UST were detected at the location of an EM61 anomaly north of the building. Reflections typical of USTs were not observed in the GPR records for other portions of the AOI. No other USTs were detected at the location of other EM anomalies. The location of the possible UST is shown in Figure 3, and Figure 4 shows two example GPR records acquired at the location of the possible UST.

A somewhat complex high amplitude group of EM anomalies is present along the east side of the AOI. The GPR records exhibit reflections typical of rebar and segments of utilities at the location of the group of EM anomalies, and we infer that the EM anomaly is caused in part by reinforcement in the east concrete sidewalk, segments of utilities and other surface site features such as manholes, light poles, signs, monitoring wells, and catch basins present at that location. We note that the proximity of the above referenced surface and buried metallic structures makes it difficult to separate EM anomalies caused by buried objects and surface objects.

The GPR records also show reflections typical of a subsurface buried structure in the vicinity of a manhole located near the northeast corner of the building. The GPR data were also used to confirm the location of utilities detected with the EM61 and the PUL equipment and to detect other segments of utilities. Small scattered unidentified buried objects were also detected with the GPR.

PUL. The PUL transmitter was attached to a water valve, a gas meter, a gas valve, a drain vent, and light poles. We also conducted a PUL survey in "passive" mode to detect signals carried by utilities from nearby power lines. Gas lines, a water pipe and electric conduits were detected with the PUL and marked on the ground with color coded spray paint.

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CONCLUSIONS

Based on the geophysical survey performed by Hager-Richter Geoscience at Plaza Cleaners Site located at 966 Port Washington Boulevard in Port Washington, New York, we conclude that:

- One possible UST was detected at the location of an EM61 anomaly. No other UST with: (1) electrical properties to produce an EM61 anomaly or sufficiently contrasting with the surrounding soils to produce GPR reflections, or (2) a capacity of 500 gallons or more was detected within the effective depth of penetration of the GPR signal. Whether a UST occurs at a depth greater than the effective depth of penetration of the GPR signal (approximately 6-8 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.
- A subsurface buried structure was detected at the vicinity of a manhole located near the northeast corner of the building.
- Segments of possible utilities and small scattered buried objects were detected.

LIMITATIONS ON USE OF REPORT

This letter report was prepared for the exclusive use of Malcolm Pirnie, Inc. (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to the Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for which H-R has been retained and shall not be used or relied upon by the Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by the Client or any third party shall be at the Client's or such third party's own risk and without any liability to H-R.

H-R has used reasonable care, skill, competence and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

HAGER-RICHTER GEOSCIENCE, INC.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with Malcolm Pirnie on this project. We look forward to working with you again in the future.

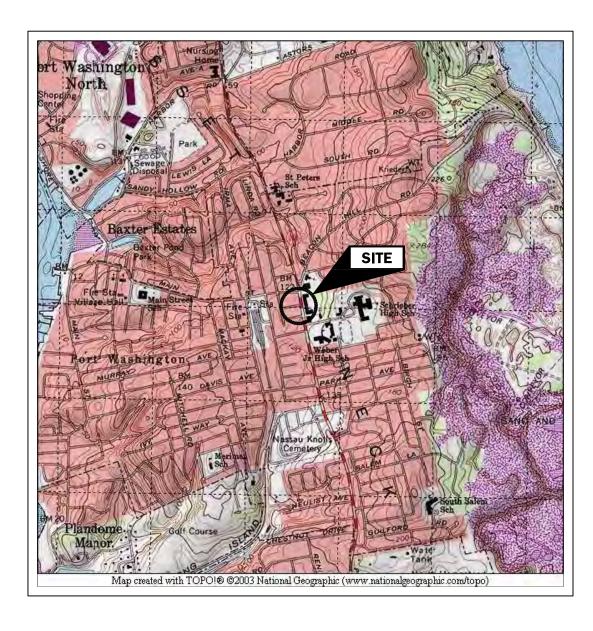
Sincerely yours,

HAGER-RICHTER GEOSCIENCE, INC.

José Carlos Cambero Calzada Senior Geophysicist Dorothy Richter, P.G. President

Down Richt

Attachments: Figures 1 - 4





LOCATION



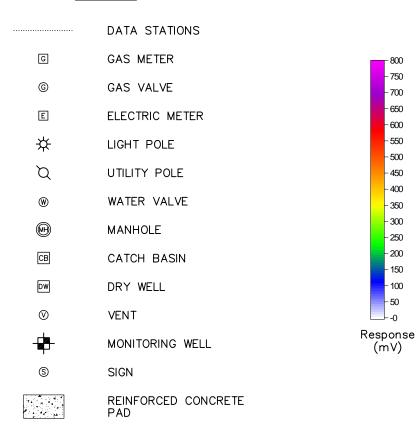
Figure 1
General Site Location
Plaza Cleaners Site (#1-30-108)
966 Port Washington Boulevard
Port Washington, New York

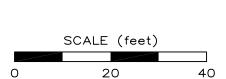
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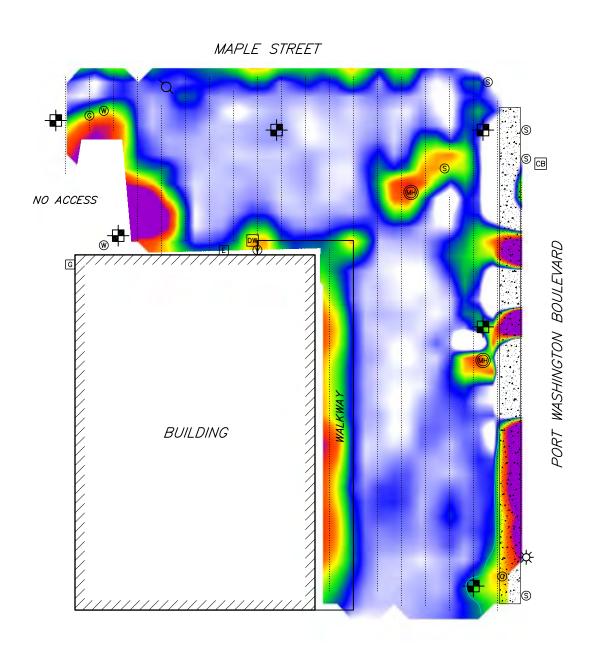
November, 2009

HAGER-RICHTER GEOSCIENCE, INC. Fords, New Jersey

<u>LEGEND</u>







NOTES:

- 1. Site sketch generated from field notes.
- 2. Data were acquired with Geonics EM61—MK2. Differential response shown.
- 3. Differential response equals top coil response bottom coil response.

Figure 2
EM Survey
Plaza Cleaners Site (#1-30-108)
966 Port Washington Boulevard
Port Washington, New York

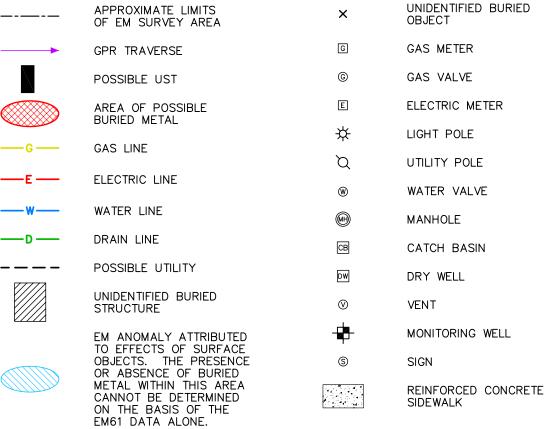
APPROX.

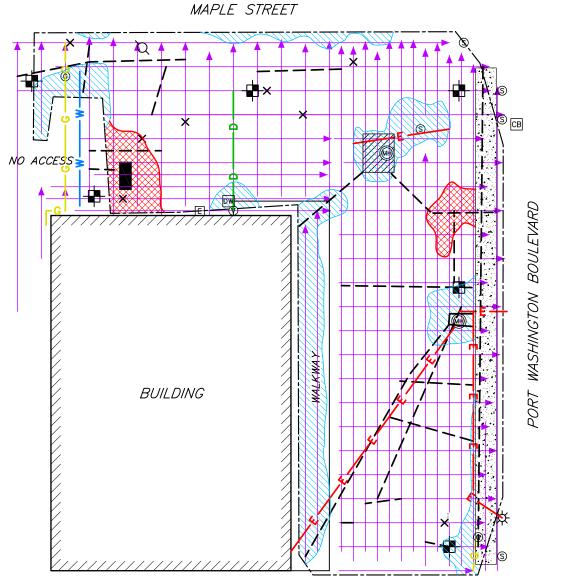
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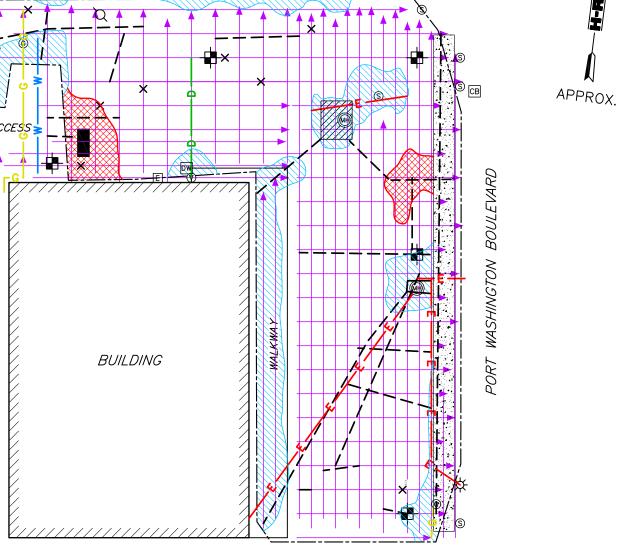
November, 2009

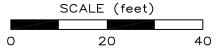
HAGER-RICHTER GEOSCIENCE, INC. Fords, New Jersey

LEGEND









NOTES:

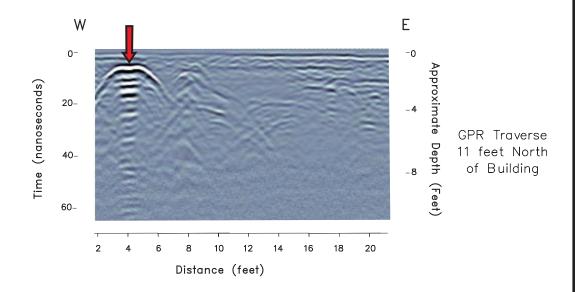
Site sketch generated from field notes.

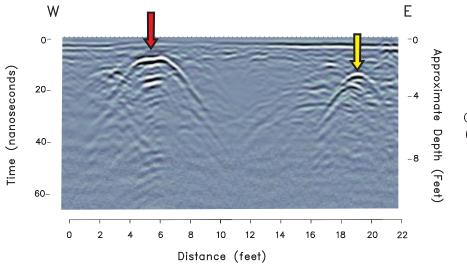
Figure 3 GPR Survey & Integrated Interpretation Plaza Cleaners Site (#1-30-108)966 Port Washington Boulevard Port Washington, New York

File 08JCC42

November, 2009

HAGER-RICHTER GEOSCIENCE, INC. Fords, New Jersey





GPR Traverse 6 feet North of Building

GPR records acquired parallel to the North side of the Building.

Legend



Possible UST



Possible Utility

Notes:

- Shading represents relative amplitude of reflected signals. Lighter shades are lower amplitude; Darker shades are higher amplitude.
- 2. Accuracy of distance along the GPR record is approximately ±1 foot.

Figure 4
GPR Records of a Possible UST
Plaza Cleaners Site (#1-30-108)
966 Port Washington Boulevard
Port Washington, New York

FILE 08JCC42 | November 2009

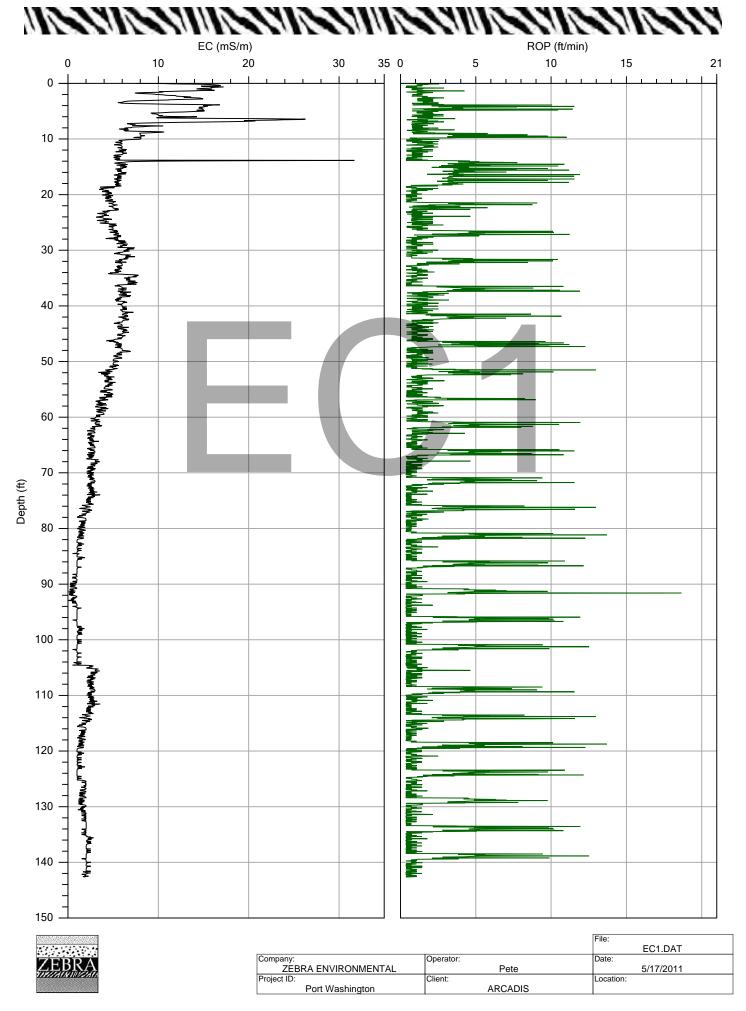
HAGER-RICHTER GEOSCIENCE, INC. Fords, New Jersey

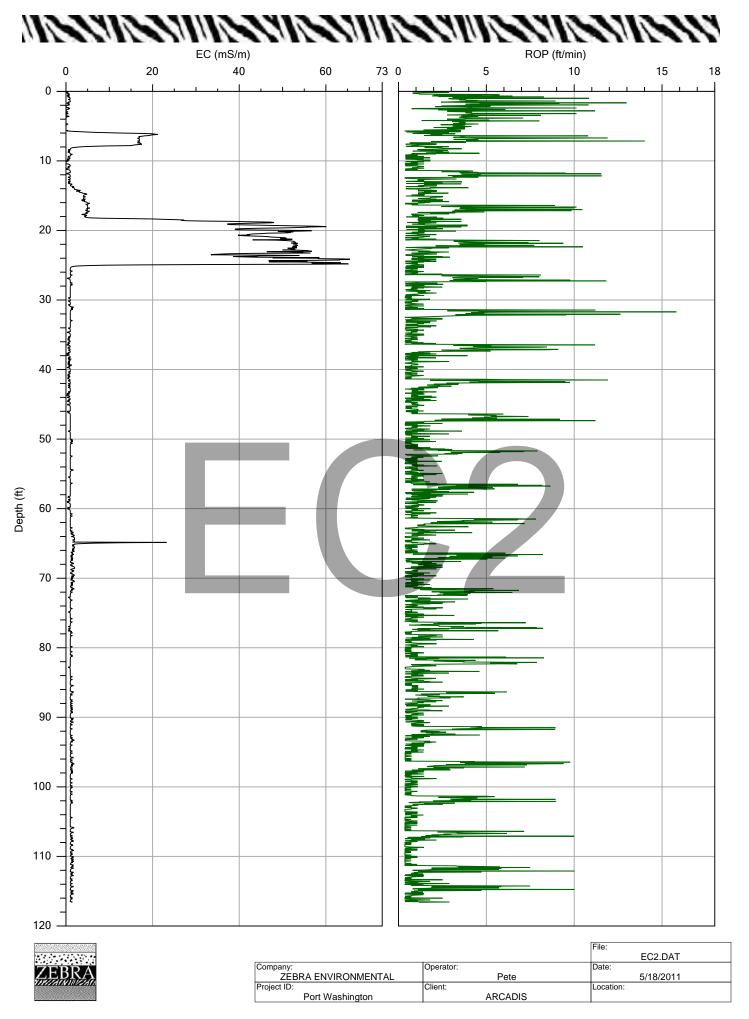


Appendix D

Electrical Conductivity Logs

Zebra Environmental





MERINGALINI MERINGALIAN MERINGALIA EC (mS/m \times 10 3) ROP (ft/min) 0.0 0.2 0.4 0.6 1.0 1.2 0 15 0 — 5 10 15 20 25 30 35 40 Depth (ft) 45 50 55 60 65 70 75 80 85 90 File: EC3.DAT Date: Company: ZEBRA ENVIRONMENTAL Operator: Pete 5/18/2011 Port Washington **ARCADIS**

