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Vapor Intrusion Evaluation Report

Former Binghamton Plastics Site

July 2, 2007

From: Mark S Sergott <mss04@health.state.ny.us>
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CC: RBrink@co.broome.ny.us; rdenz@co.broome.ny.us; jhd01@health.state.ny.us;...
Date: 9/30/2008 11:59 AM
Subject: Former Binghamton Plastics (704024) - Pre-Design Investigation Work Planfor the Active Slab Depressurization System

John,
I've completed my review of the August 2008 Pre-Design Investigation Work Plan for the Active Slab Depressurization System at the Former Binghamton Plastics site and have the following comments:

1) Page 2 - As we have discussed in prior teleconferences, any mitigation design that is implemented should address the entire building slab, not just the isolated sub-slab areas that were previously sampled. The Work Plan only addresses half of the building and should be revised accordingly.

2) Page 3 (Sub-slab Soil Gas Delineation and Sampling) - What is the rationale for installing temporary sub-slab delineation points radiating from previously sampled sub-slab points (i.e., in 5-foot increments upwards to around 20-feet)? It is also not clear why these points would only be sampled if they exceeded 100 parts per million by volume with a photoionization detector. This particular screening method is not supported in the State's Guidance for Evaluating Soil Vapor Intrusion and should not be the sole basis for determining if a particular location beneath the building slab is negatively impacted by volatile organic compounds. However, if the consultant wishes to proceed with further delineating potential sub-slab vapor/indoor air contaminants, I recommend sampling be completed in areas of the building not previously sampled during the March 2007 event.

3) Page 4 (Sub-slab Air Flow Testing) - In conjunction with comment #1, communication testing should be completed across the entire building slab.

Please call me to discuss when your review of the document is complete.
Thanks.

- Mark

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CC: jhd01@health.state.ny.us; kma06@health.state.ny.us
Date: 9/26/2008 10:13 AM
Subject: Former Binghamton Plastics (704024) - Remedial Action Progress Report (March2008 Groundwater Monitoring Event)

John,
I've completed my review of the July 2008 Remedial Action Progress Report (summarizing March 2008 Groundwater Monitoring) and have the following minor comment:

1). In the conclusions section on page 7 of the report, the consultant proposes to continue injections of sodium permanganate at a 10% solution (followed by the addition of catalyzed persulfate as an oxidant amendment in monitoring wells MW-8, -11, -16, and -17. According to Table 3, elevated concentrations of TCE above the Class GA standard have repeatedly been detected in MW-9 (16 out of 17 sampling events) and MW-10 (18 out of 18 sampling events), which are both located hydraulically upgradient of the perceived source area. Based on groundwater flow direction towards adjacent off-site buildings, why would the oxidant not be added to wells MW-9 and MW-10 as well? The additional injections in these upgradient wells could assist with TCE breakdown and help minimize the potential off-site migration of TCE via groundwater and soil vapor. Please call me with any questions, thanks.

- Mark

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Vapor Intrusion Evaluation Report

Former Binghamton Plastics Site

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1. Introduction

This report summarizes the results of a vapor intrusion evaluation conducted at the former Binghamton Plastics Site (site) in Binghamton, New York. Figure 1 is the site location map. An evaluation of volatile organic compounds (VOCs) in subslab soil gas and indoor air at the site was requested by the New York State Department of Environmental Conservation (NYSDEC) in an August 19, 2005 letter to Dover Corporation. A work plan to evaluate the potential for vapor intrusion via the collection of subslab soil gas and indoor air samples was submitted to NYSDEC on March 13, 2006 and approved with December 8, 2006 and February 26, 2007 amendments.

A brief summary of the site background, a preliminary conceptual site model (CSM) for vapor intrusion, the sampling methodology, and results of subslab and indoor air sampling are discussed below.

2. Background

The former Binghamton Plastics Site is approximately two acres in size and features a one-story industrial building of approximately 45,000 square feet. The facility was constructed in 1956, with additions to the original building occurring in 1963, 1974, and 1982. From 1956 to the early 1980's the site was used for manufacturing operations by Binghamton Plastics. The facility was then sold to Universal Instruments who manufactured circuit boards at the site. Manufacturing activities ceased in the early 1990's. Between the early 1990's and 2001 the facility was used by McIntosh Laboratories for electronics repair operations. From 2002 to the present day, the site has been used by Team World, Inc. for silk screening, packaging, and storage of clothing. Past contamination at the site is attributed to leakage from a 1,000-gallon underground storage tank (UST), which had been used as a hydraulic oil reservoir and left in place by Binghamton Plastics. The tank was removed in 1986, though no documentation exists detailing the work performed at that time. The Phase III Investigation final report (Stetson-Harza 1992) indicated that approximately 650 gallons of hydraulic oil containing 1,1,1-trichloroethane (1,1,1-TCA) and trichloroethene (TCE) were found inside the tank.

3. Conceptual Site Model

A CSM was developed to support the interpretation of the soil gas, subslab soil gas, and indoor air sampling results at the site. As described below, the CSM combines

information on hydrogeology, potential vapor sources (i.e., constituents detected in groundwater), migration pathways, potential human receptors, and exposure routes.

3.1 Geology and Hydrogeology

The site subsurface is composed of weathered and unweathered till with the weathered till layer present from the surface to a depth of approximately 25 feet. The weathered till is comprised of brown clay and silt containing some poorly sorted sands and gravels. The weathered till layer is found throughout the site except near the southwestern corner of the building outside of the 1963 addition where the hydraulic oil UST was located. In this area, sands and gravels, with minor amounts of silt as a fill material, account for most of the soil to a depth of approximately 12 feet. The fill appears to taper upward and thins towards the limits of its aerial extent. In this area and other areas of the site, below the weathered till, the unweathered till is found. This soil unit is very similar to the unweathered till, except that the color is more olive-gray and there is a lesser content of sand and gravel.

The groundwater beneath the site can be separated into two distinct water-bearing zones: a shallow, perched zone and the underlying saturated zone. Perched groundwater is present 2 to 6 feet below ground surface (bgs), but it is limited in geographic extent and not hydrologically connected to the underlying saturated zone. The shallow perched unit is located on the southwestern side of the site and does not extend to the north, east or west sides of the site. The soil boring logs indicate that the perched water-body is associated with recharge and storage within the sands and gravel of the fill. Based on the soil boring logs for the site, the thickness of this perched unit does not appear to exceed 9 feet, coincident with the greatest thickness of the fill.

The deeper groundwater zone is a saturated interval apparently located somewhat coincident with the boundary between the weathered and unweathered till. This groundwater is found at a depth of 23 to 32 feet bgs.

Groundwater data for the site was collected starting in 1998 and a semi-annual monitoring program continues at present. Perched groundwater containing trichloroethane (TCA), TCE, tetrachloroethene (PCE), 1,1-dichloroethene (DCE), trans-1,2-dichloroethene (trans-1,2-DCE), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride is located near the southwestern corner of the building. Although groundwater concentrations have declined over time, results from 2004 and 2005 indicate that several wells still contain residual VOCs above NYSDEC Ambient Water Quality Standards.

Soil gas data were collected in August 2001 as a preliminary step to evaluate a soil vapor extraction (SVE) treatment system for groundwater. The results indicated that chlorinated hydrocarbons and petroleum hydrocarbons including 1,1-dichloroethane (DCA), DCE, 1,2,4-trimethylbenzene, cis-1,2-DCE, PCE, TCE, and toluene were detected in soil gas below the building.

In 2005 and 2006, sodium permanganate was injected into several wells to enhance the degradation of chlorinated ethenes such as TCE and its daughter products. These treatments have reduced TCE concentrations in groundwater.

3.2 Site Reconnaissance and Building Conditions

Prior to collecting subslab soil gas and indoor air samples, a site reconnaissance was conducted inside the building. As part of the site reconnaissance, the New York State Department of Health (NYSDOH) (2006) Indoor Air Questionnaire and Building Inventory was completed (Appendix A). The objective of the site reconnaissance was to identify any sources of background VOCs. This was accomplished partially through the use of a parts per billion (ppb) RAE VOC detector. Because the building is actively used for the manufacture of silk screened t-shirts, bottles, and other products, widespread chemical use was evident inside the building. Cans of printing inks, silk screens, unused materials, and other print process items were noted throughout the building. Freshly printed shirts, water bottles, and other items were in boxes awaiting shipment at various locations around the building. Many boxes were stored or located in a packing and shipping station located in the northwest corner of the building. Items were also being printed in the southern portion of the building during the site reconnaissance and sampling events.

As shown in the Building Survey, ppb RAE readings exceeded 25 parts per million by volume (ppmv) at all locations inside the building. Readings ranged from 25 ppmv to over 200 ppmv in various areas inside the facility. In addition, bottles of various print process supplies were observed in the back corner of the main printing room containing a wide variety of chemicals including: xylene, 2-propoxyethanol, diacetyl alcohol, 2-butoxyethanol, and isopropyl alcohol. It should also be noted that a section of the building was being remodeled during the sampling event. This area was located in the northern half of the building. Some construction supplies were found in this location including all purpose joint compound containing ethylene vinyl acetate polymer, and an interior latex sealer containing acrylic vinyl polymer and ethylene glycol. Some surfaces in the area had also been recently painted.

3.3 Vapor Migration Pathways

Overall, historical groundwater concentrations and previous soil gas investigations indicate that there is a potential for diffusion of vapors from VOC-impacted perched groundwater into overlying soil gas including subslab soil gas. No preferential pathways have been identified; however, it is known that storm sewer and other utility lines are located on-site. Building heating, ventilation, and air conditioning (HVAC) systems may have an influence on the movement of vapors.

In addition, the active use of chemicals in the current building production processes is expected to significantly influence any indoor air concentrations. Indeed, it is expected that chemicals will be detected in indoor air due to current facility practices. These results are not indicative of a vapor intrusion issue.

4. Sampling Approach

Consistent with the approved work plan and amendments, soil gas, subslab soil gas, and indoor air samples were collected at the site on March 17 and March 18. A description of the sample locations, the site reconnaissance, and the sample methodology is provided below.

4.1 Sample Locations

A total of four soil gas, four subslab soil gas, and four indoor air samples were collected at the site. Although six soil gas samples were originally proposed in the work plan, due to weather conditions (i.e., heavy rains and spring melt) prior to the sampling event that caused water saturation of shallow and surface soil, it was not possible to collect a soil gas sample at two of the locations. The specific soil gas locations sampled and not sampled are identified on Figure 2. All soil gas samples were collected at a depth of approximately four feet bgs. All planned subslab soil gas and indoor air samples were collected during the sampling event, consistent with the approved work plan. These locations are also presented on Figure 2.

4.2 Sampling Methods

This section presents the sampling methods for collecting soil gas, subslab soil gas and indoor air samples at the site. Sampling logs for all sampling events are presented in Appendix B.

4.2.1 Soil Gas

Soil gas samples were collected in accordance with NYSDOH (2006) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (VI Guidance), and using the methods described in the approved work plan and amendments.

Soil gas sampling points were installed using a direct push drill rig employing decontaminated 1.25 inch diameter steel drive rods. After reaching the desired sampling depth, the assembly was retracted approximately six inches creating a sampling annulus. A decontaminated six-inch stainless steel screen attached to a new piece of Teflon tubing was lowered inside the probe rod to the bottom of the annular space. Clean sand was then filled in around the screen to a total depth of six inches above the screen. As material was added to the sample point, the probe rod was gradually retracted. Upon completion of the sand pack, dry bentonite chips were added to the sample point until it was flush with the ground surface. The bentonite chips were fully hydrated and allowed to sit undisturbed for approximately ten minutes before sampling begun. To test the integrity of the sample probe installation a helium tracer test was administered prior to collecting each sample. This tracer test is detailed in the approved work plan amendment.

Upon successful completion of the helium tracer test and purge, a batch certified pre-cleaned six-liter SUMMA canisters provided by Columbia Analytical Services (CAS) in Simi Valley, California was used to collect the subslab soil gas sample. The SUMMA canister was attached and allowed to collect a sample using a flow controller set for a 30 minute period (i.e., 200 milliliters per minute [ml/min]). Samples were submitted to the CAS for analysis using U.S. Environmental Protection Agency (USEPA) Method TO-15.

All soil gas samples were collected in the early spring (March) following heavy rain and spring melting. As a result, the groundwater table was elevated and some soils were saturated. Water level was taken into consideration as sample points were installed. If water was present down-hole after the drill rig reached the desired depth (approximately 3 to 5 feet bgs), the sample location was moved. If water was encountered again, the sample depth was reduced to take the deepest possible sample possible without encountering water. Consistent with NYSDOH (2006) VI Guidance, and under the supervision of NYSDEC personnel (John Grathwol), samples were not taken at depths less than three feet bgs. Sampling personnel also verified each soil gas point was capable of yielding vapor at the rate required to properly collect the soil gas sample (200 ml/min). This was accomplished by

temporarily increasing the purge rate and verifying the purge pump did not strain to pump at a higher rate.

4.2.2 Subslab Soil Gas

Temporary subslab soil gas probes were installed and samples were collected using the methods described in the approved work plan and amendments, and in accordance with the NYSDOH VI Guidance. For each sample, a hand held hammer drill was used to core a 3/8 inch hole through the concrete slab to approximately four inches into the subslab material. New Teflon tubing was then inserted below the concrete slab, approximately two inches into the subslab material. The tubing was sealed to the surrounding concrete slab using inert clay to ensure an air tight seal between the sample tubing and the concrete slab. Consistent with the work plan, a helium tracer test was completed prior to sampling each vapor point to test the integrity of the probe installation and all seals in the sample train. This tracer test is detailed in the approved work plan and amendments, and was conducted concurrently with purging each sample point. A low-flow pump was used to purge approximately three volumes of air through the probe and tubing at a purge rate of roughly 20 ml/min. Upon successful completion of the helium tracer test and purge, a batch certified pre-cleaned six-liter SUMMA canisters provided by CAS was used to collect the subslab soil gas sample. The SUMMA canister was attached and allowed to collect a sample using a flow controller set for an eight-hour period, consistent with the indoor air sample collection period. Samples were submitted to the CAS for analysis using USEPA Method TO-15.

4.2.3 Indoor and Ambient Air

All indoor air and ambient air samples were collected in accordance with the approved work plan and amendments and NYSDOH (2006) VI Guidance using batch certified six-liter SUMMA canisters obtained from CAS. All SUMMA canisters were placed at approximately breathing height (3 to 5 feet above grade) by propping on stools or boxes. The canisters were calibrated to collect samples for an eight-hour period consistent with the subslab soil gas samples. Indoor and ambient air samples were submitted to CAS air lab for analysis using USEPA Method TO-15.

5.0 Results and Findings

This section presents the results of the soil gas, subslab soil gas, indoor air, and ambient air sampling, including a comparison of the data to relevant screening values.

All sampling results were also used to refine the CSM regarding potential vapor intrusion. Complete analytical results from the laboratory are provided in Appendix C.

5.1 Soil Gas, Subslab Soil Gas and Indoor Air Results

Tables 1, 2 and 3 present the results of the soil gas, subslab soil gas, and indoor air sampling, respectively. A total of 29 constituents were detected at least once in soil gas. Thirty-four constituents were detected in subslab soil gas. Twenty-one constituents were detected in indoor air. Ambient air sampling results are also summarized in Table 3. Nineteen constituents were detected at least once in ambient air.

5.2 Evaluation of Subslab Soil Gas and Indoor Air Results

The evaluation of subslab soil gas and indoor air results focuses on identifying those constituents, if any, which have the potential to migrate from the subsurface into indoor air. Although all Method TO-15 constituents were analyzed, based on the CSM, TCE, and PCE are the primary groundwater constituents of concern. During the site reconnaissance, other potential sources of chemicals into indoor air, in addition to groundwater, were identified, although it was not possible to remove any background sources prior to sampling.

The subslab soil gas and indoor air data were evaluated using the following steps.:

1. Identification of constituents of potential concern (COPCs) for the vapor intrusion pathway;
2. Comparison of COPC concentrations in subslab soil gas and indoor air to applicable NYSDOH air guidelines;
3. Comparison of COPC concentrations in indoor air to background concentrations identified by NYSDOH; and
4. Evaluation of subslab soil gas and indoor air data using the matrices provided in the NYSDOH VI Guidance.

Each of these steps is described below in detail.

5.2.1 Selection of COPCs

The first step in the evaluation is to identify constituents potentially associated with the vapor intrusion pathway. Existing groundwater quality data are used as the starting

point for the selection of COPCs. Recent groundwater data are presented in Appendix A. A constituent was retained as a COPC under the following conditions: (1) the constituent was not analyzed for in groundwater, but was detected in soil gas or subslab soil gas; or (2) the constituent was detected in groundwater, and either soil gas, subslab soil gas or indoor air. Constituents were removed from further consideration if they were detected in indoor air, but not detected in either soil gas or subslab soil gas or if they were only detected in soil gas, but not subslab soil gas or indoor air. For these constituents, the vapor intrusion pathway is either incomplete or groundwater is not the source.

Table 4 presents the selection of COPCs starting with the full analyte list for USEPA Method TO-15. A total of 35 COPCs were identified at the site that could be associated with vapor intrusion. Of the COPCs identified, 19 constituents were detected in both subslab soil gas and indoor air. Of these 19 constituents, 17 were detected with a higher frequency in indoor air compared to subslab soil gas. Although this may be attributed to the higher detection limits associated with subslab soil gas, it may also suggest the presence of background sources.

5.2.2 Comparison to Screening Levels

In the second step, all COPCs were further evaluated through a comparison to NYSDOH air guidelines. NYSDOH (2006) VI Guidance presents air guideline values for three VOCs: methylene chloride, TCE, and PCE. Table 5 presents the comparison of COPCs in subslab soil gas and indoor air to the air guidelines. As shown in Table 5, TCE, PCE and methylene chloride were detected above NYSDOH air guidelines in subslab soil gas and indoor air.

5.2.3 Comparison to Background Concentrations

Third, COPCs in indoor air were compared to background indoor air concentrations reported by USEPA (2001) as part of the building assessment and survey evaluation (BASE) database. As recommended by NYSDOH (2006), the 90th percentile value was used for comparative purposes (Table 5). A total of 11 constituents were detected above background concentrations at least once in indoor air. Of these 11 constituents, most were not detected or were detected at lower concentrations in subslab soil gas. Although one subslab soil gas sample had elevated detection limits, the results suggest the presence of background sources to indoor air. A partial list of chemicals used in the facility was previously provided to NYSDEC (Appendix D).

5.2.4 Evaluation of Data Using NYSDOH Matrices

PCE, 1,1,1-TCA, and TCE were also further evaluated using the matrices presented in NYSDOH (2006) VI Guidance. As described in the VI Guidance, Matrix 1 is applicable to TCE and Matrix 2 is applicable to PCE and 1,1,1-TCA. Although Matrix 1 is also applicable to carbon tetrachloride, this constituent was not detected in either subslab soil gas or indoor air and was not identified as a COPC for vapor intrusion.

Table 6 presents a comparison of paired subslab soil gas and indoor air results and the matrix recommended action. As shown on Table 6, mitigation may be necessary at all subslab soil gas locations.

5.3 Evaluation of Soil Gas Results

As described above, a total of four soil gas samples were taken on the western (two samples), southern (one sample) and eastern (one sample) sides of the on-site building. Of these samples, two (i.e., SG-1 and SG-6) had detected concentrations of TCE and PCE. PCE concentrations are all less than 100 micrograms per cubic meter ($\mu g/m^3$), however, TCE concentrations at both SG-1 and SG-6 exceeded the NYSDOH air guideline of 5 $\mu g/m^3$. Sample locations SG-1 and SG-6 are located near the southwest corner of the building and the area associated with historical releases of TCE and PCE. These results are consistent with those found in subslab soil gas, which suggest that TCE and PCE are present in soil gas near the historical release areas. As a result, the soil gas data supports the subslab soil gas and indoor air results already collected at the building.

6.0 Summary and Conclusions

Soil gas, subslab soil gas, indoor air, and ambient air sampling results were used to investigate the potential for the vapor intrusion pathway to be complete at the site. As described in the CSM, groundwater sampling data indicate that perched groundwater beneath the site is impacted with VOCs, in particular TCE and PCE. VOCs in groundwater are expected to be the source of vapors below the slab. Consistent with the approved March 13, 2006 work plan and amendments, four soil gas, four subslab soil gas, four indoor air samples, and two outdoor ambient air samples were collected in March 2007.

The subslab soil gas and indoor air data were evaluated further to identify if vapor intrusion was potentially occurring at the site or if additional steps were necessary.

TCE and PCE were detected at high concentrations in subslab soil gas. In addition, TCE and PCE were detected in indoor air above NYSDOH air guidelines. Using the NYSDOH (2006) matrices, potential actions at each sampling location were predicted. Based on this analysis, the data suggest that mitigation may be warranted at all subslab soil gas and indoor air locations. However, the data also suggest that background sources are present in the building and that concentrations of some constituents, including methylene chloride, d-Limonene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, acetone, ethylbenzene, xylenes, n-nonane, and toluene, will not be affected by mitigation.

7.0 References

NYSDOH. 2006. Guidance for Evaluating Soil Vapor Intrusion in the State of New York. New York State Department of Health, Center for Environmental Health, Bureau of Environmental Exposure Investigation. October.

Stetson-Harza. 1992. Dover Electronics Company DEM-East Phase III Investigation. December.

USEPA. 2001. Draft: A Standard EPA Protocol for Characterizing Indoor Air Quality in Large Buildings. U.S. Environmental Protection Agency, Office of Air and Radiation, Washington, D.C.

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Table 1. Concentrations of Volatile Organic Compounds in Soil Gas
Former Binghamton Plastics Site, Binghamton, New York

Compound / Sample ID:	SG-1	SG-2	SG-4	SG-6
Sample Depth:	3-5 feet bgs (a)	3-5 feet bgs (a)	3-5 feet bgs (a)	3-5 feet bgs (a)
Lab ID:	P2700781-010	P2700781-011	P2700781-012	P2700781-013
Date:	3/15/2007	3/15/2007	3/15/2007	3/15/2007
Units:	µg/m³	µg/m³	µg/m³	µg/m³
1,1,1-Trichloroethane	29	1.7 U	4.0	130
1,1,2,2-Tetrachloroethane	1.5 U	1.7 U	1.5 U	29 U
1,1,2-Trichloroethane	1.5 U	1.7 U	1.5 U	29 U
1,1-Dichloroethane	1.5 U	1.7 U	2.1	29 U
1,1-Dichloroethene	1.5 U	1.7 U	1.5 U	29 U
1,2,4-Trichlorobenzene	1.5 U	1.7 U	1.5 U	29 U
1,2,4-Trimethylbenzene	3.1	1.7 U	1.5 U	29 U
1,2-Dibromo-3-chloropropane	1.5 U	1.7 U	1.5 U	29 U
1,2-Dibromoethane	1.5 U	1.7 U	1.5 U	29 U
1,2-Dichloro-1,1,2,2-	1.5 U	1.7 U	1.5 U	29 U
1,2-Dichlorobenzene	1.5 U	1.7 U	1.5 U	29 U
1,2-Dichloroethane	1.5 U	1.7 U	1.5 U	29 U
1,2-Dichloropropane	1.5 U	1.7 U	1.5 U	29 U
1,3,5-Trimethylbenzene	1.5 U	1.7 U	1.5 U	29 U
1,3-Butadiene	1.5 U	11	12	29 U
1,3-Dichlorobenzene	1.5 U	1.7 U	1.5 U	29 U
1,4-Dichlorobenzene	6.1	1.7 U	1.5 U	29 U
1,4-Dioxane	1.5 U	1.7 U	1.5 U	29 U
2-Butanone (MEK)	6.9	14	9.0	29 U
2-Hexanone	1.9	1.7 U	1.5 U	29 U
2-Propanol (Isopropyl Alcohol)	26	15	15	29 U
3-Chloro-1-propene (Allyl Chloride)	1.5 U	1.7 U	1.5 U	29 U
4-Ethyltoluene	1.5 U	1.7 U	1.5 U	29 U
4-Methyl-2-pentanone	3.7	3.3	1.5 U	29 U
Acetone	27	55	50 M	150 U
Acetonitrile	1.5 U	1.7 U	1.5 U	29 U
Acrolein	1.5 U	3.1	3.3	29 U
Acrylonitrile	1.5 U	1.7 U	1.5 U	29 U
alpha-Pinene	1.5 U	1.7 U	2.1	29 U
Benzene	1.5	43	6.4	29 U
Benzyl Chloride	1.5 U	1.7 U	1.5 U	29 U
Bromodichloromethane	1.5 U	1.7 U	1.5 U	29 U
Bromoform	1.5 U	1.7 U	1.5 U	29 U
Bromomethane	1.5 U	1.7 U	1.5 U	29 U
Carbon Disulfide	1.8	17	5.0	29 U
Carbon Tetrachloride	1.5 U	1.7 U	1.5 U	29 U
Chlorobenzene	1.5 U	1.7 U	1.5 U	29 U
Chloroethane	1.5 U	1.7 U	1.5 U	29 U
Chloroform	6.4	1.7 U	1.5 U	29 U
Chloromethane	1.5 U	1.7 U	1.5 U	29 U
cis-1,2-Dichloroethene	1.5 U	1.7 U	1.5 U	29 U
cis-1,3-Dichloropropene	1.5 U	1.7 U	1.5 U	29 U
Cumene	1.5 U	1.7 U	1.5 U	29 U
Dibromochloromethane	1.5 U	1.7 U	1.5 U	29 U
Dichlorodifluoromethane (CFC 12)	1.9	3.2	2.2	29 U
d-Limonene	120	1.7 U	1.5 U	29 U
Ethanol	7.5 U	8.3 U	7.7 U	150 U
Ethylbenzene	1.5 U	1.7 U	1.8	29 U
Hexachlorobutadiene	1.5 U	1.7 U	1.5 U	29 U
m,p -Xylenes	4.3	4.1	6.5	29 U
Methyl tert-Butyl Ether	1.5 U	1.7 U	1.5 U	29 U
Methylene chloride	1.5 U	1.7 U	1.5 U	29 U
Naphthalene	1.5 U	1.7 U	1.5 U	29 U
n-Butyl Acetate	1.5 U	1.7 U	1.5 U	29 U
n-Hexane	2.4	120	5.6	29 U
n-Nonane	1.6	2.8	1.9	29 U
o-Xylene	1.6	2.1	2.3	29 U
Styrene	1.5 U	1.7 U	1.5 U	29 U
Tetrachloroethene	7.7	1.7 U	1.5 U	38
Toluene	9	98	18	29 U
trans-1,2-Dichloroethene	1.5 U	1.7 U	1.5 U	29 U
trans-1,3-Dichloropropene	1.5 U	1.7 U	1.5 U	29 U
Trichloroethene	130	1.7 U	1.5 U	460
Trichlorofluoromethane	1.5 U	1.7 U	1.7	29 U
Trichlorotrifluoroethane	15	1.7 U	1.5 U	2,600
Vinyl Acetate	2.1 M	1.7 U	7.5 M	29 U
Vinyl Chloride	1.5 U	1.7 U	3	29 U

Notes:

(a) Depending on site conditions; water table level

bgs = Below ground surface

M = Matrix interference; results may be biased high.

U = Compound was analyzed for, but not detected above the laboratory reporting limit.

µg/m^3 = micrograms per cubic meter

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Table 2. Concentrations of Volatile Organic Compounds in Subslab Soil Gas.
Former Binghamton Plastics Site, Binghamton, New York

Compound / Sample ID: / Lab ID: / Date: / Units:	SS-1	SS-2	SS-3	SS-4
Lab ID:	P2700781-001	P2700781-002	P2700781-003	P2700781-004
Date:	3/15/2007	3/15/2007	3/15/2007	3/15/2007
Units:	µg/m³	µg/m³	µg/m³	µg/m³
1,1,1-Trichloroethane	890 U	130	9.1	39
1,1,2,2-Tetrachloroethane	890 U	74 U	1.3 U	1.3 U
1,1,2-Trichloroethane	890 U	74 U	1.3 U	1.3 U
1,1-Dichloroethane	890 U	74 U	1.4	5.2
1,1-Dichloroethene	890 U	74 U	1.3 U	1.3 U
1,2,4-Trichlorobenzene	890 U	74 U	1.3 U	1.3 U
1,2,4-Trimethylbenzene	890 U	74 U	1.3 U	11
1,2-Dibromo-3-chloropropane	890 U	74 U	1.3 U	1.3 U
1,2-Dibromoethane	890 U	74 U	1.3 U	1.3 U
1,2-Dichloro-1,1,2,2-	890 U	74 U	1.3 U	1.3 U
1,2-Dichlorobenzene	890 U	74 U	1.3 U	1.3 U
1,2-Dichloroethane	890 U	74 U	1.3 U	1.3 U
1,2-Dichloropropane	890 U	74 U	1.3 U	1.3 U
1,3,5-Trimethylbenzene	890 U	74 U	1.3 U	4.2
1,3-Butadiene	890 U	74 U	1.3 U	1.3 U
1,3-Dichlorobenzene	890 U	74 U	1.3 U	1.3 U
1,4-Dichlorobenzene	890 U	74 U	1.3 U	1.3 U
1,4-Dioxane	890 U	74 U	70	1.3 U
2-Butanone (MEK)	890 U	74 U	3.1	13
2-Hexanone	890 U	74 U	1.3 U	7.4
2-Propanol (Isopropyl Alcohol)	890 U	74 U	15	830
3-Chloro-1-propene (Allyl Chloride)	890 U	74 U	1.3 U	1.3 U
4-Ethyltoluene	890 U	74 U	1.3 U	4.0
4-Methyl-2-pentanone	890 U	74 U	4.8	2.1
Acetone	4,500 U	370 U	25 M	650
Acetonitrile	890 U	74 U	1.3 U	6.5
Acrolein	890 U	74 U	2.1	7.3
Acrylonitrile	890 U	74 U	1.3 U	1.3 U
alpha-Pinene	890 U	74 U	1.3 U	1.6
Benzene	890 U	74 U	1.3 U	7.3
Benzyl Chloride	890 U	74 U	1.3 U	1.3 U
Bromodichloromethane	890 U	74 U	1.3 U	1.3 U
Bromoform	890 U	74 U	1.3 U	1.3 U
Bromomethane	890 U	74 U	1.3 U	1.3 U
Carbon Disulfide	890 U	74 U	6.3	17
Carbon Tetrachloride	890 U	74 U	1.3 U	1.3 U
Chlorobenzene	890 U	74 U	1.3 U	1.3 U
Chloroethane	890 U	74 U	1.3 U	1.3 U
Chloroform	890 U	74 U	1.3 U	1.3 U
Chloromethane	890 U	74 U	1.3 U	1.3 U
cis-1,2-Dichloroethene	2,000	74 U	3.1	1.3 U
cis-1,3-Dichloropropene	890 U	74 U	1.3 U	1.3 U
Cumene	890 U	74 U	1.3 U	1.4
Dibromochloromethane	890 U	74 U	1.3 U	1.3 U
Dichlorodifluoromethane (CFC 12)	890 U	74 U	4.1	23
d-Limonene	890 U	74 U	1.3 U	15
Ethanol	4,500 U	370 U	6.7 U	19
Ethylbenzene	890 U	74 U	2.1	29
Hexachlorobutadiene	890 U	74 U	1.3 U	1.3 U
m,p -Xylenes	890 U	74 U	8.3	100
Methyl tert-Butyl Ether	890 U	74 U	1.3 U	1.3 U
Methylene chloride	890 U	74 U	4.9	100
Naphthalene	890 U	74 U	1.3 U	3.7
n-Butyl Acetate	890 U	74 U	1.3 U	1.3 U
n-Hexane	890 U	74 U	1.3 U	38
n-Nonane	890 U	74 U	1.3 U	16
o-Xylene	890 U	74 U	2.2	29
Styrene	890 U	74 U	1.3 U	1.3 U
Tetrachloroethene	890 U	74 U	200	260
Toluene	890 U	74 U	1.6	14
trans-1,2-Dichloroethene	890 U	74 U	1.3 U	1.3 U
trans-1,3-Dichloropropene	890 U	74 U	1.3 U	1.3 U
Trichloroethene	130,000	5,900	66	57
Trichlorofluoromethane	890 U	74 U	1.4	1.5
Trichlorotrifluoroethane	890 U	550	7.1	330
Vinyl Acetate	890 U	74 U	3.6	18
Vinyl Chloride	890 U	74 U	1.3 U	1.3 U

Notes:

M = Matrix interference; results may be biased high.

U = Compound was analyzed for, but not detected above the laboratory reporting limit.

$\mu g/m^3$ = micrograms per cubic meter

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Table 3. Concentrations of Volatile Organic Compounds in Indoor Air and Ambient Air
Former Binghamton Plastics Site, Binghamton, New York

Compound / Sample ID: / Lab ID: / Date: / Units:	AA-1	AA-1 DUP	IA-1	IA-2	IA-3	IA-4
Lab ID:	P2700781-005	P2700781-005DUP	P2700781-006	P2700781-007	P2700781-008	P2700781-009
Date:	3/15/2007	3/15/2007	3/15/2007	3/15/2007	3/15/2007	3/15/2007
Units:	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,1,1-Trichloroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,1,2,2-Tetrachloroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,1,2-Trichloroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,1-Dichloroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,1-Dichloroethene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2,4-Trichlorobenzene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2,4-Trimethylbenzene	1.3	1.3	320	270	300	400
1,2-Dibromo-3-chloropropane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2-Dibromoethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2-Dichloro-1,1,2,2-	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2-Dichlorobenzene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2-Dichloroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,2-Dichloropropane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,3,5-Trimethylbenzene	0.70 U	0.70 U	97	85	90	120
1,3-Butadiene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,3-Dichlorobenzene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,4-Dichlorobenzene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
1,4-Dioxane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
2-Butanone (MEK)	2.5	2.4	12	12 U	15 U	32 U
2-Hexanone	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
2-Propanol (Isopropyl Alcohol)	22	21	6,100	6,400	7,800	9,900
3-Chloro-1-propene (Allyl Chloride)	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
4-Ethyltoluene	0.70 U	0.70 U	110	97	100	140
4-Methyl-2-pentanone	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Acetone	24	23	1,300	1,300	1,400	1,500
Acetonitrile	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Acrolein	2.0	2	8.6 U	12 U	15 U	32 U
Acrylonitrile	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
alpha-Pinene	0.70 U	0.70 U	14	13	15 U	32 U
Benzene	0.97	0.92	8.6 U	12 U	15 U	32 U
Benzyl Chloride	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Bromodichloromethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Bromoform	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Bromomethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Carbon Disulfide	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Carbon Tetrachloride	0.42	0.41	1.7 U	2.4 U	3.0 U	6.4 U
Chlorobenzene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Chloroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Chloroform	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Chloromethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
cis-1,2-Dichloroethene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
cis-1,3-Dichloropropene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Cumene	0.70 U	0.70 U	24	23	26	35
Dibromochloromethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Dichlorodifluoromethane (CFC 12)	2.1	2	8.6 U	12 U	15 U	32 U
d-Limonene	0.70 U	0.70 U	430	400	380	430
Ethanol	12	11	190	180	200	320 U
Ethylbenzene	4.8	4.7	960	960	1,200	1,300
Hexachlorobutadiene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
m,p -Xylenes	18	18	3,500	3,500	4,500	4,800
Methyl tert-Butyl Ether	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Methylene chloride	2.6	2.5	700	580	590	660
Naphthalene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
n-Butyl Acetate	0.70 U	0.70 U	32	32	44	84
n-Hexane	0.72	0.71	55	47	42	44
n-Nonane	1.1	1.2	280	240	250	280
o-Xylene	5.0	4.8	990	980	1,300	1,300
Styrene	0.70 U	0.70 U	11	12 U	15 U	32 U
Tetrachloroethene	1.2	1.2	190	160	160	180
Toluene	4.4	4.3	86	86	100	110
trans-1,2-Dichloroethene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
trans-1,3-Dichloropropene	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Trichloroethene	0.14 U	0.14 U	10	9.7	11	11
Trichlorofluoromethane	1.1	1	8.6 U	12 U	15 U	32 U
Trichlorotrifluoroethane	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U
Vinyl Acetate	5.9	5.6	17 U	24 U	30 U	64 U
Vinyl Chloride	0.70 U	0.70 U	8.6 U	12 U	15 U	32 U

Notes:

U = Compound was analyzed for, but not detected above the laboratory reporting limit.

µg/m^3 = micrograms per cubic meter

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Table 4. Identification of COPCs Associated with Potential Vapor Intrusion
Former Binghamton Plastics Site, Binghamton, New York

Compound	Groundwater	Soil Gas Data		Subslab Data		Indoor Air Data		Ambient Air Data		COPC
	Detected	FOD	Detected	FOD	Detected	FOD	Detected	FOD	Detected	
1,1,1-Trichloroethane	X	3 / 4	X	3 / 4	X	0 / 4	ND	0 / 1	ND	Y
1,1,2,2-Tetrachloroethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,1,2-Trichloroethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,1-Dichloroethane	X	1 / 4	X	2 / 4	X	0 / 4	ND	0 / 1	ND	Y
1,1-Dichloroethene	X	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2,4-Trichlorobenzene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2,4-Trimethylbenzene	NA	1 / 4	X	1 / 4	X	4 / 4	X	1 / 1	X	Y
1,2-Dibromo-3-chloropropane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2-Dibromoethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2-Dichlorobenzene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2-Dichloroethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,2-Dichloropropane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,3,5-Trimethylbenzene	NA	0 / 4	ND	1 / 4	X	4 / 4	X	0 / 1	ND	Y
1,3-Butadiene	NA	2 / 4	X	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,3-Dichlorobenzene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,4-Dichlorobenzene	NA	1 / 4	X	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
1,4-Dioxane	NA	0 / 4	ND	1 / 4	X	0 / 4	ND	0 / 1	ND	Y
2-Butanone (MEK)	NA	3 / 4	X	2 / 4	X	1 / 4	X	1 / 1	X	Y
2-Hexanone	NA	1 / 4	X	1 / 4	X	0 / 4	ND	0 / 1	ND	Y
2-Propanol (Isopropyl Alcohol)	NA	3 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
3-Chloro-1-propene (Allyl Chloride)	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
4-Ethyltoluene	NA	0 / 4	ND	1 / 4	X	4 / 4	X	0 / 1	ND	Y
4-Methyl-2-pentanone	NA	2 / 4	X	2 / 4	X	0 / 4	ND	0 / 1	ND	Y
Acetone	NA	3 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
Acetonitrile	NA	0 / 4	ND	1 / 4	X	0 / 4	ND	0 / 1	ND	Y
Acrolein	NA	2 / 4	X	2 / 4	X	0 / 4	ND	1 / 1	X	Y
Acrylonitrile	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
alpha-Pinene	NA	1 / 4	X	1 / 4	X	2 / 4	X	0 / 1	ND	Y
Benzene	NA	3 / 4	X	1 / 4	X	0 / 4	ND	1 / 1	X	Y
Benzyl Chloride	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Bromodichloromethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Bromoform	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Bromomethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Carbon Disulfide	NA	3 / 4	X	2 / 4	X	0 / 4	ND	0 / 1	ND	Y
Carbon Tetrachloride	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	1 / 1	X	N
Chlorobenzene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Chloroethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Chloroform	NA	1 / 4	X	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Chloromethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
cis-1,2-Dichloroethene	X	0 / 4	ND	2 / 4	X	0 / 4	ND	0 / 1	ND	Y
cis-1,3-Dichloropropene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Cumene	NA	0 / 4	ND	1 / 4	X	4 / 4	X	0 / 1	ND	Y
Dibromochloromethane	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Dichlorodifluoromethane (CFC 12)	NA	3 / 4	X	2 / 4	X	0 / 4	ND	1 / 1	X	Y
d-Limonene	NA	1 / 4	X	1 / 4	X	4 / 4	X	0 / 1	ND	Y
Ethanol	NA	0 / 4	ND	1 / 4	X	3 / 4	X	1 / 1	X	Y
Ethylbenzene	NA	1 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
Hexachlorobutadiene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
m,p -Xylenes	NA	3 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
Methyl tert-Butyl Ether	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Methylene chloride	NA	0 / 4	ND	2 / 4	X	4 / 4	X	1 / 1	X	Y
Naphthalene	NA	0 / 4	ND	1 / 4	X	0 / 4	ND	0 / 1	ND	Y
n-Butyl Acetate	NA	0 / 4	ND	0 / 4	ND	4 / 4	X	0 / 1	ND	N
n-Hexane	NA	3 / 4	X	1 / 4	X	4 / 4	X	1 / 1	X	Y
n-Nonane	NA	3 / 4	X	1 / 4	X	4 / 4	X	1 / 1	X	Y
o-Xylene	NA	3 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
Styrene	NA	0 / 4	ND	0 / 4	ND	1 / 4	X	0 / 1	ND	N
Tetrachloroethene	X	2 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
Toluene	NA	3 / 4	X	2 / 4	X	4 / 4	X	1 / 1	X	Y
trans-1,2-Dichloroethene	X	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
trans-1,3-Dichloropropene	NA	0 / 4	ND	0 / 4	ND	0 / 4	ND	0 / 1	ND	N
Trichloroethene	X	2 / 4	X	4 / 4	X	4 / 4	X	0 / 1	ND	Y
Trichlorofluoromethane	NA	1 / 4	X	2 / 4	X	0 / 4	ND	1 / 1	X	Y
Trichlorotrifluoroethane	NA	2 / 4	X	3 / 4	X	0 / 4	ND	0 / 1	ND	Y
Vinyl Acetate	NA	2 / 4	X	2 / 4	X	0 / 4	ND	1 / 1	X	Y
Vinyl Chloride	X	1 / 4	X	0 / 4	ND	0 / 4	ND	0 / 1	ND	Y

Notes:
COPC = Constituent of potential concern
FOD = Frequency of detection
N = No
NA = Constituent not analyzed
ND = Constituent not detected
Y = Yes

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Table 5. Comparison of Subslab Soil Gas and Indoor Air Results for COPCs to NYSDOH Air Guidelines and Background Values
Former Binghamton Plastics Site, Binghamton, New York

Compound	NYSDOH Air Guideline Value µg/m³	NYSDOH Background Value µg/m³	Sample ID: Lab ID: Date: Units:	AA-1 P2700781-005 3/15/2007 µg/m³	AA-1 DUP P2700781-005DUP 3/15/2007 µg/m³	IA-1 P2700781-006 3/15/2007 µg/m³	IA-2 P2700781-007 3/15/2007 µg/m³	IA-3 P2700781-008 3/15/2007 µg/m³
1,1,1-Trichloroethane		3.1		0.70 U	0.70 U	8.6 U	12 U	15 U
1,1-Dichloroethane		<0.25		0.70 U	0.70 U	8.6 U	12 U	15 U
1,2,4-Trimethylbenzene		9.5		1.3	1.3	**320**	**270**	**300**
1,3,5-Trimethylbenzene		3.6		0.70 U	0.70 U	**97**	**85**	**90**
1,4-Dioxane		--		0.70 U	0.70 U	8.6 U	12 U	15 U
2-Butanone (MEK)		16		2.5	2.4	12	12 U	15 U
2-Hexanone		--		0.70 U	0.70 U	8.6 U	12 U	15 U
2-Propanol (Isopropyl Alcohol)		--		22	21	6,100	6,400	7,800
4-Ethyltoluene		--		0.70 U	0.70 U	110	97	100
4-Methyl-2-pentanone		2.2		0.70 U	0.70 U	8.6 U	12 U	15 U
Acetone		110		24	23	**1,300**	**1,300**	**1,400**
Acetonitrile		--		0.70 U	0.70 U	8.6 U	12 U	15 U
Acrolein		--		2.0	2	8.6 U	12 U	15 U
alpha-Pinene		14		0.70 U	0.70 U	14	13	15 U
Benzene		15		0.97	0.92	8.6 U	12 U	15 U
Carbon Disulfide		--		0.70 U	0.70 U	8.6 U	12 U	15 U
cis-1,2-Dichloroethene		<0.25		0.70 U	0.70 U	8.6 U	12 U	15 U
Cumene		0.9		0.70 U	0.70 U	**24**	**23**	**26**
Dichlorodifluoromethane (CFC 12)		15		2.1	2	8.6 U	12 U	15 U
d-Limonene		24		0.70 U	0.70 U	**430**	**400**	**380**
Ethanol		1400		12	11	190	180	200
Ethylbenzene		7.3		4.8	4.7	**960**	**960**	**1,200**
m,p -Xylenes		12		**18**	**18**	**3,500**	**3,500**	**4,500**
Methylene chloride	60	22		2.6	2.5	700	580	590
Naphthalene		--		0.70 U	0.70 U	8.6 U	12 U	15 U
n-Hexane		18		0.72	0.71	**55**	**47**	**42**
n-Nonane		8.8		1.1	1.2	**280**	**240**	**250**
o-Xylene		7.6		5.0	4.8	**990**	**980**	**1,300**
Tetrachloroethene	100	2.9		1.2	1.2	190	160	160
Toluene		58		4.4	4.3	**86**	**86**	**100**
Trichloroethene	5	0.5		0.14 U	0.14 U	10	9.7	11
Trichlorofluoromethane		17		1.1	1	8.6 U	12 U	15 U
Trichlorotrifluoroethane		1.8		0.70 U	0.70 U	8.6 U	12 U	15 U
Vinyl Acetate		--		5.9	5.6	17 U	24 U	30 U
Vinyl Chloride		<0.25		0.70 U	0.70 U	8.6 U	12 U	15 U

Notes:

Cells exceeding the NYSDOH Air Guideline are shaded gray.

Cells exceeding the NYSDOH Background Value are boldfaced.

COPC = Constituent of potential concern

M = Matrix interference; results may be biased high.

NYSDOH = New York State Department of Health

U = Compound was analyzed for, but not detected above the laboratory reporting limit.

$\mu g/m^3$ = micrograms per cubic meter

Table 5. Comparison of Subslab Soil Gas and Indoor Air Results for COPCs to NYSDOH Air Guidelines and Background Values
Former Binghamton Plastics Site, Binghamton, New York

Compound	NYSDOH Air Guideline Value µg/m³	NYSDOH Background Value µg/m³	Sample ID: Lab ID: Date: Units:	IA-4 P2700781-009 3/15/2007 µg/m³	SS-1 P2700781-001 3/15/2007 µg/m³	SS-2 P2700781-002 3/15/2007 µg/m³	SS-3 P2700781-003 3/15/2007 µg/m³	SS-4 P2700781-004 3/15/2007 µg/m³
1,1,1-Trichloroethane		3.1		32 U	890 U	**130**	**9.1**	**39**
1,1-Dichloroethane		<0.25		32 U	890 U	74 U	**1.4**	**5.2**
1,2,4-Trimethylbenzene		9.5		**400**	890 U	74 U	1.3 U	**11**
1,3,5-Trimethylbenzene		3.6		**120**	890 U	74 U	1.3 U	**4.2**
1,4-Dioxane		--		32 U	890 U	74 U	70	1.3 U
2-Butanone (MEK)		16		32 U	890 U	74 U	3.1	13
2-Hexanone		--		32 U	890 U	74 U	1.3 U	7.4
2-Propanol (Isopropyl Alcohol)		--		9,900	890 U	74 U	15	830
4-Ethyltoluene		--		140	890 U	74 U	1.3 U	4.0
4-Methyl-2-pentanone		2.2		32 U	890 U	74 U	**4.8**	2.1
Acetone		110		**1,500**	4,500 U	370 U	25 M	**650**
Acetonitrile		--		32 U	890 U	74 U	1.3 U	6.5
Acrolein		--		32 U	890 U	74 U	2.1	7.3
alpha-Pinene		14		32 U	890 U	74 U	1.3 U	1.6
Benzene		15		32 U	890 U	74 U	1.3 U	7.3
Carbon Disulfide		--		32 U	890 U	74 U	6.3	17
cis-1,2-Dichloroethene		<0.25		32 U	**2,000**	74 U	**3.1**	1.3 U
Cumene		0.9		**35**	890 U	74 U	1.3 U	**1.4**
Dichlorodifluoromethane (CFC 12)		15		32 U	890 U	74 U	4.1	**23**
d-Limonene		24		**430**	890 U	74 U	1.3 U	15
Ethanol		1400		320 U	4,500 U	370 U	6.7 U	19
Ethylbenzene		7.3		**1,300**	890 U	74 U	2.1	**29**
m,p -Xylenes		12		**4,800**	890 U	74 U	8.3	**100**
Methylene chloride	60	22		660	890 U	74 U	4.9	100
Naphthalene		--		32 U	890 U	74 U	1.3 U	3.7
n-Hexane		18		**44**	890 U	74 U	1.3 U	**38**
n-Nonane		8.8		**280**	890 U	74 U	1.3 U	**16**
o-Xylene		7.6		**1,300**	890 U	74 U	2.2	**29**
Tetrachloroethene	100	2.9		180	890 U	74 U	200	260
Toluene		58		**110**	890 U	74 U	1.6	14
Trichloroethene	5	0.5		11	130,000	5,900	66	57
Trichlorofluoromethane		17		32 U	890 U	74 U	1.4	1.5
Trichlorotrifluoroethane		1.8		32 U	890 U	**550**	**7.1**	**330**
Vinyl Acetate		--		64 U	890 U	74 U	3.6	18
Vinyl Chloride		<0.25		32 U	890 U	74 U	1.3 U	1.3 U

Notes:

Cells exceeding the NYSDOH Air Guideline are shaded gray.

Cells exceeding the NYSDOH Background Value are boldfaced.

COPC = Constituent of potential concern

M = Matrix interference; results may be biased high.

NYSDOH = New York State Department of Health

U = Compound was analyzed for, but not detected above the laboratory reporting limit.

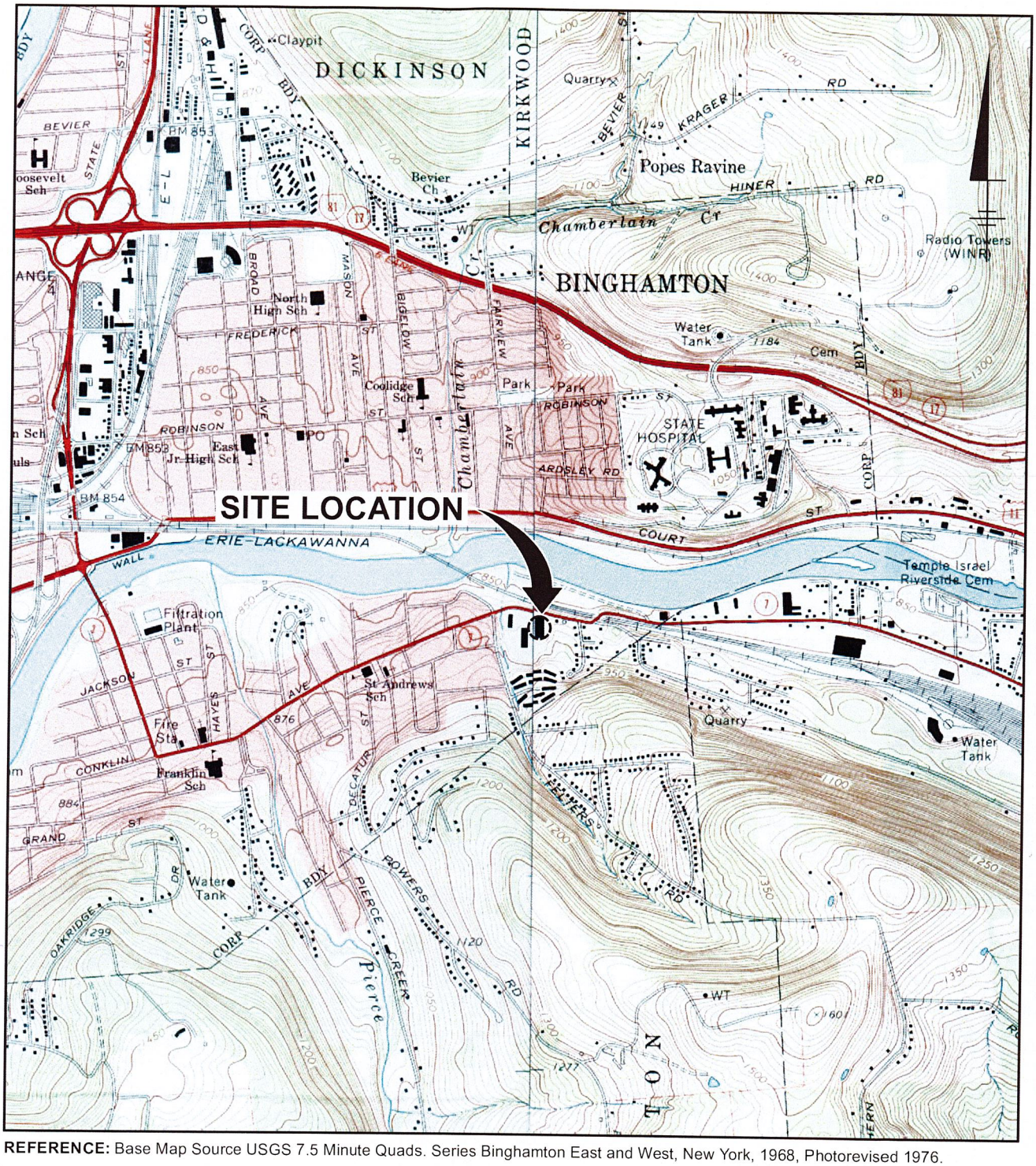
µg/m^3 = micrograms per cubic meter

Table 6. NYSDOH Matrix Evaluation for TCE, PCE, and 1,1,1-TCA
Former Binghamton Plastics Site, Binghamton, New York

Matrix 1 Compound	Subslab Concentration µg/m³	Indoor Air Concentration µg/m³	Matrix Result
Sample Point 1			
Trichloroethene	130,000	10	Mitigate
Sample Point 2			
Trichloroethene	5,900	9.7	Mitigate
Sample Point 3			
Trichloroethene	66	11	Mitigate
Sample Point 4			
Trichloroethene	57	11	Mitigate

Matrix 2 Compound	Subslab Concentration µg/m³	Indoor Air Concentration µg/m³	Matrix Result
Sample Point 1			
1,1,1-Trichloroethane	*445*	*4.3*	Monitor/Mitigate
Tetrachloroethene	*445*	190	Mitigate
Sample Point 2			
1,1,1-Trichloroethane	130	*6*	Monitor/Mitigate
Tetrachloroethene	*37*	160	Mitigate
Sample Point 3			
1,1,1-Trichloroethane	*9.1*	*7.5*	Background (a)
Tetrachloroethene	200	160	Mitigate
Sample Point 4			
1,1,1-Trichloroethane	39	*16*	Background (a)
Tetrachloroethene	260	180	Mitigate

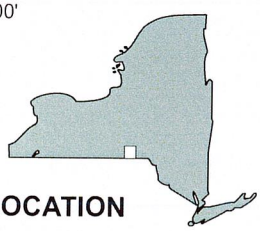
Notes:
(a) Take reasonable and practical actions to identify source(s) and reduce exposures.
Italicized values are one-half the detection limit.
NYSDOH = New York State Department of Health
PCE = tetrachloroethene
1,1,1-TCA = 1,1,1-trichloroethane
TCE = trichloroethene
µg/m^3 = micrograms per cubic meter



REFERENCE: Base Map Source USGS 7.5 Minute Quads. Series Binghamton East and West, New York, 1968, Photorevised 1976.

2000' 0 2000'

Approximate Scale: 1" = 2000'



AREA LOCATION

UNIVERSAL INSTRUMENTS CORPORATION
BINGHAMTON, NEW YORK

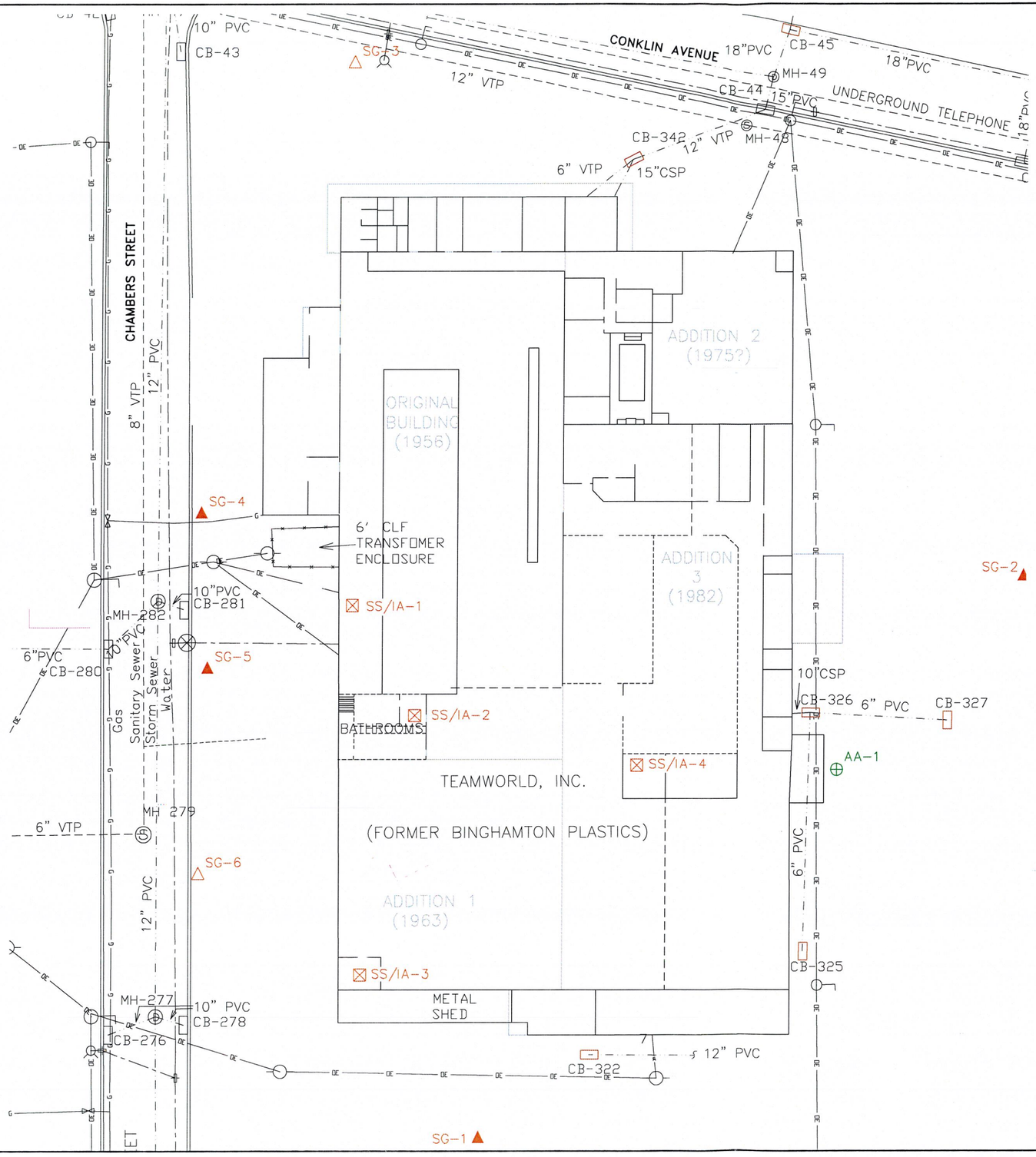
VAPOR INTRUSION EVALUATION REPORT

SITE LOCATION

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 1

06/07/07 CRA-85-TLF
NJ000616/NJ000N01.CDR



LEGEND

- UTILITY POLE
- UTILITY POLE W/LIGHT
- STORM MANHOLE
- CATCH BASIN
- SANITARY MANHOLE
- POST INDICATOR VALVE
- HYDRANT
- WATER VALVE
- GAS VALVE
- FORMER WALL
- SUBSLAB AND INDOOR AIR SAMPLING LOCATIONS
- SOIL GAS SAMPLING LOCATIONS (SAMPLED)
- SOIL GAS SAMPLING LOCATIONS (NOT SAMPLED)
- AMBIENT AIR

NOTE:

THIS DRAWING TAKEN FROM PLATE 1 OF THE REMEDIAL INVESTIGATION REPORT DATED JUNE 2000 BY SHIELD ENVIRONMENTAL ASSOCIATES, INC. LEXINGTON, KENTUCKY.

0 20' 40'
GRAPHIC SCALE

UNIVERSAL INSTRUMENTS CORPORATION
BINGHAMTON, NEW YORK
VAPOR INTRUSION EVALUATION REPORT

SOIL GAS, SUBSLAB SOIL GAS AND INDOOR AIR SAMPLING LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
2

ARCADIS

Appendix A

Indoor Air Quality Questionnaire and Building Inventory

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

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

Preparer's Name Margaret Bartee/Mitch Wadsman Date/Time Prepared _____

Preparer's Affiliation ARCADIS Phone No. 609.860.0590/

Purpose of Investigation _____

1. OCCUPANT:

Interviewed: Y / N

Last Name: Cox First Name: Don

Address: 498 Conklin Avenue

County: _____

Home Phone: n/a Office Phone: 607.352.1441

Number of Occupants/persons at this location _____ Age of Occupants _____

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

Interviewed: Y / N

Last Name: Wozniak First Name: Steve Chamber Street Development LLC

Address: 498 Conklin Avenue

County: _____

Home Phone: n/a Office Phone: 607.352.1405

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

If the property is residential, type? (Circle appropriate response) n/a

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) printing / design of T-Shirts, Clothing, Bottles

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

Other characteristics:

Number of floors 1 1/2 Building age ~50 yrs

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

	a. Above grade construction:	wood frame	concrete	stone	brick
	b. Basement type:	full	crawlspace	slab	other _____
n/a	**c. Basement floor:**	concrete	dirt	stone	other _____
n/a	**d. Basement floor:**	uncovered	covered	covered with _____	
	e. Concrete floor:	unsealed	sealed	sealed with _____	
	f. Foundation walls:	poured	block	stone	other Steel panels
	g. Foundation walls:	unsealed	sealed	sealed with _____	
n/a	**h. The basement is:**	wet	damp	dry	moldy
n/a	**i. The basement is:**	finished	unfinished	partially finished	
	j. Sump present?	Y N			
	k. Water in sump?	Y / N / not applicable			

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

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

_____

_____

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

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

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

** **The primary type of fuel used is:**

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other n/a
Air conditioning:	Central Air	Window units	Open Windows	None

rooftop units for air & heat

Are there air distribution ducts present? (Y) / N

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

_____

_____

_____

_____

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	n/a
1st Floor	showroom, offices, manufacturing/printing
2nd Floor	~~file storage~~ office (IT)
3rd Floor	n/a
4th Floor	n/a

**

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N) 1 (in use) 2 loading docks

b. Does the garage have a separate heating unit? Y / N / (NA) 2 unit heaters

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify trucks @ docks

d. Has the building ever had a fire? Y (N) When? _____

e. Is a kerosene or unvented gas space heater present? (Y) / N Where? unit heaters use natural gas

f. Is there a workshop or hobby/craft area? (Y) / N Where & Type? back area of bldg

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? (Y) / N When & Type? before shifts every day

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

latex
oil-based?
enamel

remodeling
added offices

** **j. Has painting/staining been done in the last 6 months?** (Y) / N Where & When? August to last month

** **k. Is there new carpet, drapes or other textiles?** (Y) / N Where & When? August to last month

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

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

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

o. Is there a clothes dryer? (Y) / N If yes, is it vented outside? (Y) / N

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

** **Are there odors in the building?** (Y) / N
If yes, please describe: due to remodeling, painting, printing

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

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

11. FLOOR PLANS

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

Basement: n/a

First Floor: see map/plan

12. OUTDOOR PLOT

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

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

see map/plan

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y/N
screen maint room	alcohol		U/UO	alcohol		N
	universal screen wash		U/UO	ethers, ? unpoxy ethanol dimethylbenzene, ethylbenzene		N
middle of maint floor	ink		U/UO			N
screen room	sodium hydroxide		U	sodium hydroxide		N
screen room	adhesive (screen)		U			N
drying ink room	inks		UO/U			N
	adhesives		U/UO			N
cabinet in drying room	mineral spirits		UO	pet distillates		N
	dichloromethane		UO	dichloromethane		N
	retarder		UO	alcohol / petroleum hydrocarbons		N
	screen cleaner		UO			N
embroidery room	sizing spray		U/UO	glycol, pet hydrocarbons		N
	static guard		U/UO	ethyl alcohol, propane butane		N

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

* ingredients from MSDS of typical products
* Neither MSDSs used for universal screen wash, ink, retarder

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Appendix B

Sampling Logs

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Subslab Sample Log

Sample ID:	SS-1	Project Name:	Binghamton, Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:	NJ000579.0001.0002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wadsman	Time On/Off:	1000/1804

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1-story - slab on grade

General Description of Building Materials (e.g., concrete, cinder block): tile

Slab Thickness:

PROBE INSTALLATION

Date:	3/15/07	Method:	hammer drill
Diameter:	3/8"	Depth:	2" below slab
Packing Material:	clay		

PURGE

Date:	3/15/07	Rate:	20 ml 1 min
Time:	3 minutes 0955	Volume:	60 ml

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1000	29	45°F	88%	29.90 in	12 mph		
1804	-3						

SUMMA CANISTER INFORMATION

Summa Can s	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	6-8-14			
Canister ID:	SC00319			

GENERAL OBSERVATIONS/NOTES:

He shroud - start 76070
No He in purge

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Subslab Sample Log

Sample ID:	SS-2	Project Name:	Binghamton Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:		Misc. Equipment:	
Samplers:	M Barree, M Wadsman	Time On/Off:	1045/1840

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story slab on grade

General Description of Building Materials (e.g., concrete, cinder block): tile floor

Slab Thickness: 9"

PROBE INSTALLATION

Date:	3/15/07	Method:	hammer drill
Diameter:	3/8	Depth:	2" below slab
Packing Material:	clay		

PURGE

Date:	3/15/07	Rate:	20 ml/min
Time:	1042	Volume:	60 ml

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Airspeed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1045	-28	45° F	88%	29.90in	12mph		
1840	< -1						

SUMMA CANISTER INFORMATION

Summa Can s	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	6-8-001		Gauge	MG00257
Canister ID:	SC00287			

GENERAL OBSERVATIONS/NOTES:

He shroud - start 60% end 42%
no He in purge (<1%)

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Subslab Sample Log

Sample ID:	SS-3	Project Name:	Binghamton Lower
Date:	3/15/07	Location:	Binghamton, NY
Project No:		Misc. Equipment:	
Samplers:	M. Bodree, M Wadsman	Time On/Off:	1105/1902

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story - slab on grade

General Description of Building Materials (e.g., concrete, cinder block): tile floor

Slab Thickness: 8"

PROBE INSTALLATION

Date:	3/15/07	Method:	hammer drill
Diameter:	3/8"	Depth:	2" below slab
Packing Material:	clay		

PURGE

Date:	3/15/07	Rate:	20 ml/min 3 min
Time:	1100	Volume:	60 ml

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1105	-29" Hg	45°F	88%	29.90 in	12 mph		
1902	-4						

SUMMA CANISTER INFORMATION

Summa Can s	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	6-8-20			
Canister ID:	SC00260			

GENERAL OBSERVATIONS/NOTES:

Initial He in shroud 63%
No He in purge
Final He in shroud 94%

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Subslab Sample Log

Sample ID:	SS-4	Project Name:	Binghamton Paper
Date:	3/18/07	Location:	Binghamton, NY
Project No.:		Misc. Equipment:	
Samplers:	M. Barker M Wadsman	Time On/Off:	1128/1930

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story slab on grade

General Description of Building Materials (e.g., concrete, cinder block): tile floor

Slab Thickness: 6"

PROBE INSTALLATION

Date:	3/18/07	Method:	hammer drill
Diameter:	3/8"	Depth:	6"
Packing Material:	clay		

PURGE

Date:	3/18/07	Rate:	20 ml/min
Time:	1123	Volume:	60 ml

INSTRUMENT READINGS

Time	Canister Pressure (Inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (Inches of Hg)	Air speed (mph)	Pressure Differential (Inches of H2O)	PID (ppb)
1128	-30+	48°F	88%	29.90in	12mph		
1930	-4						

SUMMA CANISTER INFORMATION

Summa Can s	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	6-8-25			
Canister ID:	SC00274			

GENERAL OBSERVATIONS/NOTES:

He leak check shroud start - 65% end - 53%
No He in purge

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Indoor/Ambient Air Sample Log

Sample ID:	AA - 1	Project Name:	Binghamton, Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:	N5000579.0001.00002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wadsman	Time On/Off:	0927 / 1730

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story + lab office, slab on grade

General Description of Building Materials (e.g., concrete, cinder block): concrete, metal siding

Floor Level: Basement (1st Floor) Other

Sample Intake Height: ~ 4.5 ft

Room size ft x ft:

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Airspeed (mph)	Pressure Differential (inches of H20)	PID (ppb)
0927	-28	45°F	88%	29.90 in	12 mph		
1730	-5						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other
Flow Regulator No:	FC00505	Gauge	AVG00507
Canister ID:	AC00470		
Flow Rate:			

GENERAL OBSERVATIONS/NOTES:

1050 - snowing outside

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Indoor/Ambient Air Sample Log

Sample ID:	IA - 1	Project Name:	Binghamton, Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No.:	NJ000579.0001.0002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wadsman	Time On/Off:	1004/1804

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): one story slab on grade, IA office

General Description of Building Materials (e.g., concrete, cinder block): concrete slab, metal siding

Floor Level: Basement (1st Floor) Other

Sample Intake Height: ~ 3ft-4ft

Room size ft x ft:

INSTRUMENT READINGS

Time	Canister Pressure (Inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (Inches of Hg)	Airspeed (mph)	Pressure Differential (Inches of H20)	PID (ppb)
1004	-29	45°F	88%	29.90 in	12mph		
1804	-8						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other
Flow Regulator No:	FC00350	Gauge	AVG00464
Canister ID:	AC01218		
Flow Rate:			

GENERAL OBSERVATIONS/NOTES:

open area in boxes/shelves area

ARCADIS

Indoor/Ambient Air Sample Log

Sample ID:	IA-2	Project Name:	Binghamton, Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:	N5000579.0001.00002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wadsman	Time On/Off:	1046/1840

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story, slab on grade, lab-office

General Description of Building Materials (e.g., concrete, cinder block): concrete, metal siding

Floor Level: Basement (1st Floor) Other

Sample Intake Height: 4 ft

Room size ft x ft: 10 x 10

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H2O)	PID (ppb)
1046	-29	45°F	88%	29.90in	12mph		
1840	-15						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other
Flow Regulator No:	FC005760		
Canister ID:	AC010160	Gauge	AVG00499
Flow Rate:			

GENERAL OBSERVATIONS/NOTES:

ARCADIS

Indoor/Ambient Air Sample Log

Sample ID:	IA-3	Project Name:	Binghamton, Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:	NJ000579.0001.0002	Misc. Equipment:	
Samplers:	M. Barree, M. Wadsman	Time On/Off:	1106/1907

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story 1 loft office, slab on grade

General Description of Building Materials (e.g., concrete, cinder block): concrete, metal siding

Floor Level: Basement (1st Floor) Other

Sample Intake Height:

Room size ft x ft:

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H2O)	PID (ppb)
1106	-29	45°F	88%	29.90 in	12 mph		
1907	-6						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other
Flow Regulator No:			
Canister ID:	AC01367	Gauge	AV600886
Flow Rate:	FC00458		

GENERAL OBSERVATIONS/NOTES:

ARCADIS

Indoor/Ambient Air Sample Log

Sample ID:	IA-4	Project Name:	Binghamton Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:	NJ000579.0001.00002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wacksman	Time On/Off:	1130/1930

DESCRIPTION OF SAMPLE LOCATION:

Current Building Type: Residential (Commercial) Industrial

Building Construction Characteristics (e.g., rancher, apartment): 1 story + loft office, slab on grade

General Description of Building Materials (e.g., concrete, cinder block): concrete, metal siding

Floor Level: Basement (1st Floor) Other

Sample Intake Height:

Room size ft x ft:

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air Speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1130	-29	45°F	88%	29.90in	12mph		
1930	-7						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other
Flow Regulator No:	FC003368		
Canister ID:	AC61251	Gauge	MG00311
Flow Rate:			

GENERAL OBSERVATIONS/NOTES:

ARCADIS

Soil Gas Sample Log

Sample ID	SG-1	Project Name	Binghamton Dover
Date	3/15/07	Location	Binghamton NY
Project No.	NJ000579.0001.0002	Misc. Equipment	
Samplers	M. Bartee, M Wadsman	Time On/Off	1338/

PROBE INSTALLATION

Date	3/15/07	Method	Geoprobe
Diameter		Depth	3-5 ft bgs
Packing Material	clay	Soil Type	
Est. Depth to Water		Soil Info	

PURGE

Date	3/15/07	Rate	
Time	1332 - 1335 (3 min)	Volume	

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air Speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1338	-30+	45°F	88%	29.90 in	12mph		
1408	not recorded						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	6V-.5-081			
Canister ID:	SC00816			

GENERAL OBSERVATIONS/NOTES:

He shroud - start 67%
end 46%
no He in shroud

ARCADIS

Soil Gas Sample Log

Sample ID:	SG-2	Project Name:	Binghamton Dover
Date:	3/15/07	Location:	Binghamton, NY
Project No:	NJ000579.0001,0002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wadsman	Time On/Off:	1759/1822

PROBE INSTALLATION

Date:	3/15/07	Method:	Geoprobe
Diameter:		Depth:	3-5 ft bgs
Packing Material:	clay	Soil Type:	
Est. Depth to Water:		Soil Info:	

PURGE

Date:	3/15/07	Rate:	
Time:	1746	Volume:	

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1752	-29	45°F	88%	29.90 in	12 mph	→	
1755	→					→	
1759	not recorded						
1822	not recorded						

leak indicated can changed can hissing, changed

SUMMA CANISTER INFORMATION

final appadis

Summa Can size:	1 L	6 L	Other	Flow Rate:
Flow Regulator No:	6V-.5-0960			
Canister ID:	SC00889			

GENERAL OBSERVATIONS/NOTES:

initial location → drilled @ 1416, leak check, He in shroud-start 60% flow meter stopped, purge continued beyond 3 min, sample could not be collected
new location in corner of parking lot, He in shroud - start 64%, end 37%

2 cans w/ leaks SC00091
SC00810
leak attributed to initial flow controller/gauge 6V-0.5-108/AVG00344

ARCADIS

Soil Gas Sample Log

Sample ID:	SG-3	Project Name:	Binghamton Dover
Date:	3/15/07	Location:	Binghamton NY
Project No:	NJ000579.0001.0002	Misc. Equipment:	
Samplers:	M Barlee, M Wadsworth	Time On/Off:	could not be collected

PROBE INSTALLATION

Date:	3/15/07	Method:	Geoprobe
Diameter:		Depth:	3-5 ft bgs
Packing Material:	clay	Soil Type:	
Est. Depth to Water:		Soil Info:	

PURGE

Date:	3/15/07	Rate:	
Time:	1507	Volume:	

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air Speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
sample	could not be collected						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	6 L	Other	Flow Rate:
Flow Regulator No:				
Canister ID:				

GENERAL OBSERVATIONS/NOTES:

ground saturated (squishy) in vicinity of sample location
could not pull vapor into sampling apparatus
pump to 0.7 ml
sample apparatus left in place for future sample attempt 1717

ARCADIS

Soil Gas Sample Log

Sample ID:	SG-4	Project Name:	Binghamton Dover
Date:	3/15/07	Location:	Binghamton NY
Project No.:	NJ000579.0001.0002	Misc. Equipment:	
Samplers:	M. Bartee, M. Wadsman	Time On/Off:	1547 / 1617

PROBE INSTALLATION

Date:	3/15/07	Method:	Geoprobe
Diameter:		Depth:	3-5 ft bgs
Packing Material:	clay	Soil Type:	
Est. Depth to Water:		Soil Info:	

PURGE

Date:	3/15/07	Rate:	
Time:	1540 - 1542	Volume:	

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1547	-30 r	45°F	88%	29.90	12mph		
1617	-10						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	6V-DS-094			
Canister ID:	SC00706			

GENERAL OBSERVATIONS/NOTES:

couldn't thread screen into tip, so capped & submerged, sand, bentonite
lte shroud - start 67%
end 36%
no lte in purge

ARCADIS

Soil Gas Sample Log

Sample ID	SG-5	Project Name	Binghamton Dover
Date	3/15/07	Location	Binghamton NY
Project No	NJ000579.0001,0002	Misc. Equipment	
Samplers	M. Bartee, M Wadsman	Time On/Off	not sampled

PROBE INSTALLATION

Date	3/15/07	Method	Geoprobe
Diameter		Depth	3-5' bgs
Packing Material		Soil Type	
Est. Depth to Water		Soil Info	

PURGE

Date		Rate	
Time		Volume	

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H2O)	PID (ppb)

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	6 L	Other	Flow Rate:
Flow Regulator No:				
Canister ID:				

GENERAL OBSERVATIONS/NOTES:

saturated soil, water in hole
sample could not be collected

ARCADIS

Soil Gas Sample Log

Sample ID	SG-6	Project Name	Binghamton Dover
Date	3/15/07	Location	Binghamton NY
Project No	NJ000579.0001.0002	Misc. Equipment	
Samplers	M. Barker, M. Wadsman	Time On/Off	1647 / 1717

PROBE INSTALLATION

Date	3/15/07	Method	Geoprobe
Diameter		Depth	3.5' ft bgs
Packing Material	clay	Soil Type	
Est. Depth to Water		Soil Info	

PURGE

Date	3/15/07	Rate	
Time	1645 - 1647	Volume	

INSTRUMENT READINGS

Time	Canister Pressure (inches of Hg)	Temperature (F or C)	Relative Humidity (%)	Barometric Pressure (inches of Hg)	Air speed (mph)	Pressure Differential (inches of H20)	PID (ppb)
1647	-29	45°F	88%	29.90in	12mph		
1717	-5						

SUMMA CANISTER INFORMATION

Summa Can size:	1 L	(6 L)	Other	Flow Rate:
Flow Regulator No:	GV-05-121			
Canister ID:	SC006006		NG00262	

GENERAL OBSERVATIONS/NOTES:

the shroud - start 64%
end 45%

ARCADIS

Appendix C

Laboratory Analytical Data

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00319

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 0.0015 Liter(s)
0.00040 Liter(s)

Pi 1 = -0.9 Pf 1 = 3.8
Can D.F. = 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	890	ND	180	
74-87-3	Chloromethane	ND	890	ND	430	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	890	ND	130	
75-01-4	Vinyl Chloride	ND	890	ND	350	
106-99-0	1,3-Butadiene	ND	890	ND	400	
74-83-9	Bromomethane	ND	890	ND	230	
75-00-3	Chloroethane	ND	890	ND	340	
64-17-5	Ethanol	ND	4,500	ND	2,400	
75-05-8	Acetonitrile	ND	890	ND	530	
107-02-8	Acrolein	ND	890	ND	390	
67-64-1	Acetone	ND	4,500	ND	1,900	
75-69-4	Trichlorofluoromethane	ND	890	ND	160	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	890	ND	360	
107-13-1	Acrylonitrile	ND	890	ND	410	
75-35-4	1,1-Dichloroethene	ND	890	ND	230	
75-09-2	Methylene chloride	ND	890	ND	260	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	890	ND	290	
76-13-1	Trichlorotrifluoroethane	ND	890	ND	120	
75-15-0	Carbon Disulfide	ND	890	ND	290	
156-60-5	trans-1,2-Dichloroethene	ND	890	ND	230	
75-34-3	1,1-Dichloroethane	ND	890	ND	220	
1634-04-4	Methyl tert-Butyl Ether	ND	890	ND	250	
108-05-4	Vinyl Acetate	ND	890	ND	250	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00319

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 0.0015 Liter(s)
0.00040 Liter(s)

Pi 1 = -0.9 Pf 1 = 3.8
Can D.F. = 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	890	ND	300	
156-59-2	cis-1,2-Dichloroethene	**2,000**	890	**520**	230	
110-54-3	n-Hexane	ND	890	ND	250	
67-66-3	Chloroform	ND	890	ND	180	
107-06-2	1,2-Dichloroethane	ND	890	ND	220	
71-55-6	1,1,1-Trichloroethane	ND	890	ND	160	
71-43-2	Benzene	ND	890	ND	280	
56-23-5	Carbon Tetrachloride	ND	890	ND	140	
78-87-5	1,2-Dichloropropane	ND	890	ND	190	
75-27-4	Bromodichloromethane	ND	890	ND	130	
79-01-6	Trichloroethene	**130,000**	890	**24,000**	170	
123-91-1	1,4-Dioxane	ND	890	ND	250	
10061-01-5	cis-1,3-Dichloropropene	ND	890	ND	200	
108-10-1	4-Methyl-2-pentanone	ND	890	ND	220	
10061-02-6	trans-1,3-Dichloropropene	ND	890	ND	200	
79-00-5	1,1,2-Trichloroethane	ND	890	ND	160	
108-88-3	Toluene	ND	890	ND	240	
591-78-6	2-Hexanone	ND	890	ND	220	
124-48-1	Dibromochloromethane	ND	890	ND	100	
106-93-4	1,2-Dibromoethane	ND	890	ND	120	
123-86-4	n-Butyl Acetate	ND	890	ND	190	
127-18-4	Tetrachloroethene	ND	890	ND	130	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00319

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 0.0015 Liter(s)
0.00040 Liter(s)

Pi 1 = -0.9 Pf 1 = 3.8
Can D.F. = 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	890	ND	190	
100-41-4	Ethylbenzene	ND	890	ND	210	
179601-23-1	*m,p*-Xylenes	ND	890	ND	210	
75-25-2	Bromoform	ND	890	ND	86	
100-42-5	Styrene	ND	890	ND	210	
95-47-6	o-Xylene	ND	890	ND	210	
111-84-2	n-Nonane	ND	890	ND	170	
79-34-5	1,1,2,2-Tetrachloroethane	ND	890	ND	130	
98-82-8	Cumene	ND	890	ND	180	
80-56-8	alpha-Pinene	ND	890	ND	160	
622-96-8	4-Ethyltoluene	ND	890	ND	180	
108-67-8	1,3,5-Trimethylbenzene	ND	890	ND	180	
95-63-6	1,2,4-Trimethylbenzene	ND	890	ND	180	
100-44-7	Benzyl Chloride	ND	890	ND	170	
541-73-1	1,3-Dichlorobenzene	ND	890	ND	150	
106-46-7	1,4-Dichlorobenzene	ND	890	ND	150	
95-50-1	1,2-Dichlorobenzene	ND	890	ND	150	
5989-27-5	d-Limonene	ND	890	ND	160	
96-12-8	1,2-Dibromo-3-chloropropane	ND	890	ND	92	
120-82-1	1,2,4-Trichlorobenzene	ND	890	ND	120	
91-20-3	Naphthalene	ND	890	ND	170	
87-68-3	Hexachlorobutadiene	ND	890	ND	84	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00287

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 0.017 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

Can D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	74	ND	15	
74-87-3	Chloromethane	ND	74	ND	36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	74	ND	11	
75-01-4	Vinyl Chloride	ND	74	ND	29	
106-99-0	1,3-Butadiene	ND	74	ND	34	
74-83-9	Bromomethane	ND	74	ND	19	
75-00-3	Chloroethane	ND	74	ND	28	
64-17-5	Ethanol	ND	370	ND	200	
75-05-8	Acetonitrile	ND	74	ND	44	
107-02-8	Acrolein	ND	74	ND	32	
67-64-1	Acetone	ND	370	ND	160	
75-69-4	Trichlorofluoromethane	ND	74	ND	13	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	74	ND	30	
107-13-1	Acrylonitrile	ND	74	ND	34	
75-35-4	1,1-Dichloroethene	ND	74	ND	19	
75-09-2	Methylene chloride	ND	74	ND	21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	74	ND	24	
76-13-1	Trichlorotrifluoroethane	**550**	74	**72**	9.7	
75-15-0	Carbon Disulfide	ND	74	ND	24	
156-60-5	trans-1,2-Dichloroethene	ND	74	ND	19	
75-34-3	1,1-Dichloroethane	ND	74	ND	18	
1634-04-4	Methyl tert-Butyl Ether	ND	74	ND	21	
108-05-4	Vinyl Acetate	ND	74	ND	21	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00287

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 0.017 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5
Can D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	74	ND	25	
156-59-2	cis-1,2-Dichloroethene	ND	74	ND	19	
110-54-3	n-Hexane	ND	74	ND	21	
67-66-3	Chloroform	ND	74	ND	15	
107-06-2	1,2-Dichloroethane	ND	74	ND	18	
71-55-6	1,1,1-Trichloroethane	**130**	74	**24**	14	
71-43-2	Benzene	ND	74	ND	23	
56-23-5	Carbon Tetrachloride	ND	74	ND	12	
78-87-5	1,2-Dichloropropane	ND	74	ND	16	
75-27-4	Bromodichloromethane	ND	74	ND	11	
79-01-6	Trichloroethene	**5,900**	74	**1,100**	14	
123-91-1	1,4-Dioxane	ND	74	ND	21	
10061-01-5	cis-1,3-Dichloropropene	ND	74	ND	16	
108-10-1	4-Methyl-2-pentanone	ND	74	ND	18	
10061-02-6	trans-1,3-Dichloropropene	ND	74	ND	16	
79-00-5	1,1,2-Trichloroethane	ND	74	ND	14	
108-88-3	Toluene	ND	74	ND	20	
591-78-6	2-Hexanone	ND	74	ND	18	
124-48-1	Dibromochloromethane	ND	74	ND	8.7	
106-93-4	1,2-Dibromoethane	ND	74	ND	9.6	
123-86-4	n-Butyl Acetate	ND	74	ND	16	
127-18-4	Tetrachloroethene	ND	74	ND	11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00287

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 0.017 Liter(s)

Pi 1 = -0.3 Pf 1 = 3.5

Can D.F. = 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	74	ND	16	
100-41-4	Ethylbenzene	ND	74	ND	17	
179601-23-1	*m,p*-Xylenes	ND	74	ND	17	
75-25-2	Bromoform	ND	74	ND	7.2	
100-42-5	Styrene	ND	74	ND	17	
95-47-6	o-Xylene	ND	74	ND	17	
111-84-2	n-Nonane	ND	74	ND	14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	74	ND	11	
98-82-8	Cumene	ND	74	ND	15	
80-56-8	alpha-Pinene	ND	74	ND	13	
622-96-8	4-Ethyltoluene	ND	74	ND	15	
108-67-8	1,3,5-Trimethylbenzene	ND	74	ND	15	
95-63-6	1,2,4-Trimethylbenzene	ND	74	ND	15	
100-44-7	Benzyl Chloride	ND	74	ND	14	
541-73-1	1,3-Dichlorobenzene	ND	74	ND	12	
106-46-7	1,4-Dichlorobenzene	ND	74	ND	12	
95-50-1	1,2-Dichlorobenzene	ND	74	ND	12	
5989-27-5	d-Limonene	ND	74	ND	13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	74	ND	7.7	
120-82-1	1,2,4-Trichlorobenzene	ND	74	ND	10	
91-20-3	Naphthalene	ND	74	ND	14	
87-68-3	Hexachlorobutadiene	ND	74	ND	7.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-3**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00260

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07 & 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Pi 1 = -0.9 Pf 1 = 3.6

Can D.F. = 1.33

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**4.1**	1.3	**0.83**	0.27	
74-87-3	Chloromethane	ND	1.3	ND	0.64	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.3	ND	0.19	
75-01-4	Vinyl Chloride	ND	1.3	ND	0.52	
106-99-0	1,3-Butadiene	ND	1.3	ND	0.60	
74-83-9	Bromomethane	ND	1.3	ND	0.34	
75-00-3	Chloroethane	ND	1.3	ND	0.50	
64-17-5	Ethanol	ND	6.7	ND	3.5	
75-05-8	Acetonitrile	ND	1.3	ND	0.79	
107-02-8	Acrolein	**2.1**	1.3	**0.90**	0.58	
67-64-1	Acetone	**25**	6.7	**10**	2.8	**M**
75-69-4	Trichlorofluoromethane	**1.4**	1.3	**0.25**	0.24	
67-63-0	2-Propanol (Isopropyl Alcohol)	**15**	1.3	**6.2**	0.54	
107-13-1	Acrylonitrile	ND	1.3	ND	0.61	
75-35-4	1,1-Dichloroethene	ND	1.3	ND	0.34	
75-09-2	Methylene chloride	**4.9**	1.3	**1.4**	0.38	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.3	ND	0.43	
76-13-1	Trichlorotrifluoroethane	**7.1**	1.3	**0.92**	0.17	
75-15-0	Carbon Disulfide	**6.3**	1.3	**2.0**	0.43	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	ND	0.34	
75-34-3	1,1-Dichloroethane	**1.4**	1.3	**0.35**	0.33	
1634-04-4	Methyl tert-Butyl Ether	ND	1.3	ND	0.37	
108-05-4	Vinyl Acetate	**3.6**	1.3	**1.0**	0.38	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-3**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00260

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07 & 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Pi 1 = -0.9 Pf 1 = 3.6
Can D.F. = 1.33

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**3.1**	1.3	**1.1**	0.45	
156-59-2	cis-1,2-Dichloroethene	**3.1**	1.3	**0.78**	0.34	
110-54-3	n-Hexane	ND	1.3	ND	0.38	
67-66-3	Chloroform	ND	1.3	ND	0.27	
107-06-2	1,2-Dichloroethane	ND	1.3	ND	0.33	
71-55-6	1,1,1-Trichloroethane	**9.1**	1.3	**1.7**	0.24	
71-43-2	Benzene	ND	1.3	ND	0.42	
56-23-5	Carbon Tetrachloride	ND	1.3	ND	0.21	
78-87-5	1,2-Dichloropropane	ND	1.3	ND	0.29	
75-27-4	Bromodichloromethane	ND	1.3	ND	0.20	
79-01-6	Trichloroethene	**66**	1.3	**12**	0.25	
123-91-1	1,4-Dioxane	**70**	1.3	**19**	0.37	
10061-01-5	cis-1,3-Dichloropropene	ND	1.3	ND	0.29	
108-10-1	4-Methyl-2-pentanone	**4.8**	1.3	**1.2**	0.32	
10061-02-6	trans-1,3-Dichloropropene	ND	1.3	ND	0.29	
79-00-5	1,1,2-Trichloroethane	ND	1.3	ND	0.24	
108-88-3	Toluene	**1.6**	1.3	**0.43**	0.35	
591-78-6	2-Hexanone	ND	1.3	ND	0.32	
124-48-1	Dibromochloromethane	ND	1.3	ND	0.16	
106-93-4	1,2-Dibromoethane	ND	1.3	ND	0.17	
123-86-4	n-Butyl Acetate	ND	1.3	ND	0.28	
127-18-4	Tetrachloroethene	**200**	1.3	**30**	0.20	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-3**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00260

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07 & 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Pi 1 = -0.9 Pf 1 = 3.6
Can D.F. = 1.33

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.3	ND	0.29	
100-41-4	Ethylbenzene	**2.1**	1.3	**0.49**	0.31	
179601-23-1	*m,p* -Xylenes	**8.3**	1.3	**1.9**	0.31	
75-25-2	Bromoform	ND	1.3	ND	0.13	
100-42-5	Styrene	ND	1.3	ND	0.31	
95-47-6	o-Xylene	**2.2**	1.3	**0.51**	0.31	
111-84-2	n-Nonane	ND	1.3	ND	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.3	ND	0.19	
98-82-8	Cumene	ND	1.3	ND	0.27	
80-56-8	alpha-Pinene	ND	1.3	ND	0.24	
622-96-8	4-Ethyltoluene	ND	1.3	ND	0.27	
108-67-8	1,3,5-Trimethylbenzene	ND	1.3	ND	0.27	
95-63-6	1,2,4-Trimethylbenzene	ND	1.3	ND	0.27	
100-44-7	Benzyl Chloride	ND	1.3	ND	0.26	
541-73-1	1,3-Dichlorobenzene	ND	1.3	ND	0.22	
106-46-7	1,4-Dichlorobenzene	ND	1.3	ND	0.22	
95-50-1	1,2-Dichlorobenzene	ND	1.3	ND	0.22	
5989-27-5	d-Limonene	ND	1.3	ND	0.24	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.3	ND	0.14	
120-82-1	1,2,4-Trichlorobenzene	ND	1.3	ND	0.18	
91-20-3	Naphthalene	ND	1.3	ND	0.25	
87-68-3	Hexachlorobutadiene	ND	1.3	ND	0.12	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00274

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -1.0 Pf 1 = 3.6
Can D.F. = 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**23**	1.3	**4.7**	0.27	
74-87-3	Chloromethane	ND	1.3	ND	0.65	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.3	ND	0.19	
75-01-4	Vinyl Chloride	ND	1.3	ND	0.52	
106-99-0	1,3-Butadiene	ND	1.3	ND	0.61	
74-83-9	Bromomethane	ND	1.3	ND	0.35	
75-00-3	Chloroethane	ND	1.3	ND	0.51	
64-17-5	Ethanol	**19**	6.7	**10**	3.6	
75-05-8	Acetonitrile	**6.5**	1.3	**3.9**	0.80	
107-02-8	Acrolein	**7.3**	1.3	**3.2**	0.58	
67-64-1	Acetone	**650**	6.7	**270**	2.8	
75-69-4	Trichlorofluoromethane	**1.5**	1.3	**0.26**	0.24	
67-63-0	2-Propanol (Isopropyl Alcohol)	**830**	1.3	**340**	0.55	
107-13-1	Acrylonitrile	ND	1.3	ND	0.62	
75-35-4	1,1-Dichloroethene	ND	1.3	ND	0.34	
75-09-2	Methylene chloride	**100**	1.3	**29**	0.39	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.3	ND	0.43	
76-13-1	Trichlorotrifluoroethane	**330**	1.3	**43**	0.17	
75-15-0	Carbon Disulfide	**17**	1.3	**5.5**	0.43	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	ND	0.34	
75-34-3	1,1-Dichloroethane	**5.2**	1.3	**1.3**	0.33	
1634-04-4	Methyl tert-Butyl Ether	ND	1.3	ND	0.37	
108-05-4	Vinyl Acetate	**18**	1.3	**5.2**	0.38	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00274

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -1.0 Pf 1 = 3.6
Can D.F. = 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**13**	1.3	**4.5**	0.45	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	ND	0.34	
110-54-3	n-Hexane	**38**	1.3	**11**	0.38	
67-66-3	Chloroform	ND	1.3	ND	0.27	
107-06-2	1,2-Dichloroethane	ND	1.3	ND	0.33	
71-55-6	1,1,1-Trichloroethane	**39**	1.3	**7.1**	0.25	
71-43-2	Benzene	**7.3**	1.3	**2.3**	0.42	
56-23-5	Carbon Tetrachloride	ND	1.3	ND	0.21	
78-87-5	1,2-Dichloropropane	ND	1.3	ND	0.29	
75-27-4	Bromodichloromethane	ND	1.3	ND	0.20	
79-01-6	Trichloroethene	**57**	1.3	**11**	0.25	
123-91-1	1,4-Dioxane	ND	1.3	ND	0.37	
10061-01-5	cis-1,3-Dichloropropene	ND	1.3	ND	0.30	
108-10-1	4-Methyl-2-pentanone	**2.1**	1.3	**0.52**	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	1.3	ND	0.30	
79-00-5	1,1,2-Trichloroethane	ND	1.3	ND	0.25	
108-88-3	Toluene	**14**	1.3	**3.6**	0.36	
591-78-6	2-Hexanone	**7.4**	1.3	**1.8**	0.33	
124-48-1	Dibromochloromethane	ND	1.3	ND	0.16	
106-93-4	1,2-Dibromoethane	ND	1.3	ND	0.17	
123-86-4	n-Butyl Acetate	ND	1.3	ND	0.28	
127-18-4	Tetrachloroethene	**260**	1.3	**38**	0.20	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SS-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00274

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -1.0 Pf 1 = 3.6
Can D.F. = 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.3	ND	0.29	
100-41-4	Ethylbenzene	**29**	1.3	**6.7**	0.31	
179601-23-1	*m,p*-Xylenes	**100**	1.3	**23**	0.31	
75-25-2	Bromoform	ND	1.3	ND	0.13	
100-42-5	Styrene	ND	1.3	ND	0.31	
95-47-6	o-Xylene	**29**	1.3	**6.6**	0.31	
111-84-2	n-Nonane	**16**	1.3	**3.0**	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.3	ND	0.20	
98-82-8	Cumene	**1.4**	1.3	**0.28**	0.27	
80-56-8	alpha-Pinene	**1.6**	1.3	**0.28**	0.24	
622-96-8	4-Ethyltoluene	**4.0**	1.3	**0.82**	0.27	
108-67-8	1,3,5-Trimethylbenzene	**4.2**	1.3	**0.86**	0.27	
95-63-6	1,2,4-Trimethylbenzene	**11**	1.3	**2.2**	0.27	
100-44-7	Benzyl Chloride	ND	1.3	ND	0.26	
541-73-1	1,3-Dichlorobenzene	ND	1.3	ND	0.22	
106-46-7	1,4-Dichlorobenzene	ND	1.3	ND	0.22	
95-50-1	1,2-Dichlorobenzene	ND	1.3	ND	0.22	
5989-27-5	d-Limonene	**15**	1.3	**2.7**	0.24	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.3	ND	0.14	
120-82-1	1,2,4-Trichlorobenzene	ND	1.3	ND	0.18	
91-20-3	Naphthalene	**3.7**	1.3	**0.70**	0.26	
87-68-3	Hexachlorobutadiene	ND	1.3	ND	0.13	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **AA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00470

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5

Can D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.1**	0.70	**0.42**	0.14	
74-87-3	Chloromethane	ND	0.70	ND	0.34	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.70	ND	0.10	
75-01-4	Vinyl Chloride	ND	0.70	ND	0.27	
106-99-0	1,3-Butadiene	ND	0.70	ND	0.32	
74-83-9	Bromomethane	ND	0.70	ND	0.18	
75-00-3	Chloroethane	ND	0.70	ND	0.27	
64-17-5	Ethanol	**12**	7.0	**6.2**	3.7	
75-05-8	Acetonitrile	ND	0.70	ND	0.42	
107-02-8	Acrolein	**2.0**	0.70	**0.88**	0.31	
67-64-1	Acetone	**24**	7.0	**9.9**	2.9	
75-69-4	Trichlorofluoromethane	**1.1**	0.70	**0.19**	0.12	
67-63-0	2-Propanol (Isopropyl Alcohol)	**22**	0.70	**8.8**	0.28	
107-13-1	Acrylonitrile	ND	0.70	ND	0.32	
75-35-4	1,1-Dichloroethene	ND	0.70	ND	0.18	
75-09-2	Methylene chloride	**2.6**	0.70	**0.74**	0.20	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.70	ND	0.22	
76-13-1	Trichlorotrifluoroethane	ND	0.70	ND	0.091	
75-15-0	Carbon Disulfide	ND	0.70	ND	0.22	
156-60-5	trans-1,2-Dichloroethene	ND	0.70	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.70	ND	0.17	
1634-04-4	Methyl tert-Butyl Ether	ND	0.70	ND	0.19	
108-05-4	Vinyl Acetate	**5.9**	1.4	**1.7**	0.40	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **AA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00470

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5
Can D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**2.5**	0.70	**0.83**	0.24	
156-59-2	cis-1,2-Dichloroethene	ND	0.70	ND	0.18	
110-54-3	n-Hexane	**0.72**	0.70	**0.21**	0.20	
67-66-3	Chloroform	ND	0.70	ND	0.14	
107-06-2	1,2-Dichloroethane	ND	0.70	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.70	ND	0.13	
71-43-2	Benzene	**0.97**	0.70	**0.30**	0.22	
56-23-5	Carbon Tetrachloride	**0.42**	0.14	**0.067**	0.022	
78-87-5	1,2-Dichloropropane	ND	0.70	ND	0.15	
75-27-4	Bromodichloromethane	ND	0.70	ND	0.10	
79-01-6	Trichloroethene	ND	0.14	ND	0.026	
123-91-1	1,4-Dioxane	ND	0.70	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.70	ND	0.15	
108-10-1	4-Methyl-2-pentanone	ND	0.70	ND	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.70	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.70	ND	0.13	
108-88-3	Toluene	**4.4**	0.70	**1.2**	0.19	
591-78-6	2-Hexanone	ND	0.70	ND	0.17	
124-48-1	Dibromochloromethane	ND	0.70	ND	0.082	
106-93-4	1,2-Dibromoethane	ND	0.70	ND	0.091	
123-86-4	n-Butyl Acetate	ND	0.70	ND	0.15	
127-18-4	Tetrachloroethene	**1.2**	0.70	**0.18**	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **AA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00470

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5
Can D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.70	ND	0.15	
100-41-4	Ethylbenzene	**4.8**	0.70	**1.1**	0.16	
179601-23-1	*m,p*-Xylenes	**18**	0.70	**4.2**	0.16	
75-25-2	Bromoform	ND	0.70	ND	0.068	
100-42-5	Styrene	ND	0.70	ND	0.16	
95-47-6	o-Xylene	**5.0**	0.70	**1.2**	0.16	
111-84-2	n-Nonane	**1.1**	0.70	**0.21**	0.13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.70	ND	0.10	
98-82-8	Cumene	ND	0.70	ND	0.14	
80-56-8	alpha-Pinene	ND	0.70	ND	0.13	
622-96-8	4-Ethyltoluene	ND	0.70	ND	0.14	
108-67-8	1,3,5-Trimethylbenzene	ND	0.70	ND	0.14	
95-63-6	1,2,4-Trimethylbenzene	**1.3**	0.70	**0.27**	0.14	
100-44-7	Benzyl Chloride	ND	0.70	ND	0.14	
541-73-1	1,3-Dichlorobenzene	ND	0.70	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.70	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.70	ND	0.12	
5989-27-5	d-Limonene	ND	0.70	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.70	ND	0.072	
120-82-1	1,2,4-Trichlorobenzene	ND	0.70	ND	0.094	
91-20-3	Naphthalene	ND	0.70	ND	0.13	
87-68-3	Hexachlorobutadiene	ND	0.70	ND	0.066	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **AA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-005DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00470

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5
Can D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.0**	0.70	**0.41**	0.14	
74-87-3	Chloromethane	ND	0.70	ND	0.34	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.70	ND	0.10	
75-01-4	Vinyl Chloride	ND	0.70	ND	0.27	
106-99-0	1,3-Butadiene	ND	0.70	ND	0.32	
74-83-9	Bromomethane	ND	0.70	ND	0.18	
75-00-3	Chloroethane	ND	0.70	ND	0.27	
64-17-5	Ethanol	**11**	7.0	**5.9**	3.7	
75-05-8	Acetonitrile	ND	0.70	ND	0.42	
107-02-8	Acrolein	**2.0**	0.70	**0.87**	0.31	
67-64-1	Acetone	**23**	7.0	**9.7**	2.9	
75-69-4	Trichlorofluoromethane	**1.0**	0.70	**0.19**	0.12	
67-63-0	2-Propanol (Isopropyl Alcohol)	**21**	0.70	**8.6**	0.28	
107-13-1	Acrylonitrile	ND	0.70	ND	0.32	
75-35-4	1,1-Dichloroethene	ND	0.70	ND	0.18	
75-09-2	Methylene chloride	**2.5**	0.70	**0.73**	0.20	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.70	ND	0.22	
76-13-1	Trichlorotrifluoroethane	ND	0.70	ND	0.091	
75-15-0	Carbon Disulfide	ND	0.70	ND	0.22	
156-60-5	trans-1,2-Dichloroethene	ND	0.70	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.70	ND	0.17	
1634-04-4	Methyl tert-Butyl Ether	ND	0.70	ND	0.19	
108-05-4	Vinyl Acetate	**5.6**	1.4	**1.6**	0.40	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **AA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-005DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00470

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5
Can D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**2.4**	0.70	**0.80**	0.24	
156-59-2	cis-1,2-Dichloroethene	ND	0.70	ND	0.18	
110-54-3	n-Hexane	**0.71**	0.70	**0.20**	0.20	
67-66-3	Chloroform	ND	0.70	ND	0.14	
107-06-2	1,2-Dichloroethane	ND	0.70	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.70	ND	0.13	
71-43-2	Benzene	**0.92**	0.70	**0.29**	0.22	
56-23-5	Carbon Tetrachloride	**0.41**	0.14	**0.065**	0.022	
78-87-5	1,2-Dichloropropane	ND	0.70	ND	0.15	
75-27-4	Bromodichloromethane	ND	0.70	ND	0.10	
79-01-6	Trichloroethene	ND	0.14	ND	0.026	
123-91-1	1,4-Dioxane	ND	0.70	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.70	ND	0.15	
108-10-1	4-Methyl-2-pentanone	ND	0.70	ND	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.70	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.70	ND	0.13	
108-88-3	Toluene	**4.3**	0.70	**1.1**	0.19	
591-78-6	2-Hexanone	ND	0.70	ND	0.17	
124-48-1	Dibromochloromethane	ND	0.70	ND	0.082	
106-93-4	1,2-Dibromoethane	ND	0.70	ND	0.091	
123-86-4	n-Butyl Acetate	ND	0.70	ND	0.15	
127-18-4	Tetrachloroethene	**1.2**	0.70	**0.17**	0.10	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: ARCADIS U.S., Inc.
Client Sample ID: AA-1
Client Project ID: Binghamton Dover/NJ000579.0001

CAS Project ID: P2700781
CAS Sample ID: P2700781-005DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00470

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5
Can D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.70	ND	0.15	
100-41-4	Ethylbenzene	**4.7**	0.70	**1.1**	0.16	
179601-23-1	*m,p*-Xylenes	**18**	0.70	**4.1**	0.16	
75-25-2	Bromoform	ND	0.70	ND	0.068	
100-42-5	Styrene	ND	0.70	ND	0.16	
95-47-6	o-Xylene	**4.8**	0.70	**1.1**	0.16	
111-84-2	n-Nonane	**1.2**	0.70	**0.22**	0.13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.70	ND	0.10	
98-82-8	Cumene	ND	0.70	ND	0.14	
80-56-8	alpha-Pinene	ND	0.70	ND	0.13	
622-96-8	4-Ethyltoluene	ND	0.70	ND	0.14	
108-67-8	1,3,5-Trimethylbenzene	ND	0.70	ND	0.14	
95-63-6	1,2,4-Trimethylbenzene	**1.3**	0.70	**0.26**	0.14	
100-44-7	Benzyl Chloride	ND	0.70	ND	0.14	
541-73-1	1,3-Dichlorobenzene	ND	0.70	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.70	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.70	ND	0.12	
5989-27-5	d-Limonene	ND	0.70	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.70	ND	0.072	
120-82-1	1,2,4-Trichlorobenzene	ND	0.70	ND	0.094	
91-20-3	Naphthalene	ND	0.70	ND	0.13	
87-68-3	Hexachlorobutadiene	ND	0.70	ND	0.066	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01218

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/31/07 & 4/2/07
Volume(s) Analyzed: 0.10 Liter(s)
0.0050 Liter(s)

Pi 1 = -3.5 Pf 1 = 4.4
Can D.F. = 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	8.6	ND	1.7	
74-87-3	Chloromethane	ND	8.6	ND	4.1	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	8.6	ND	1.2	
75-01-4	Vinyl Chloride	ND	8.6	ND	3.3	
106-99-0	1,3-Butadiene	ND	8.6	ND	3.9	
74-83-9	Bromomethane	ND	8.6	ND	2.2	
75-00-3	Chloroethane	ND	8.6	ND	3.2	
64-17-5	Ethanol	**190**	86	**100**	45	
75-05-8	Acetonitrile	ND	8.6	ND	5.1	
107-02-8	Acrolein	ND	8.6	ND	3.7	
67-64-1	Acetone	**1,300**	86	**570**	36	
75-69-4	Trichlorofluoromethane	ND	8.6	ND	1.5	
67-63-0	2-Propanol (Isopropyl Alcohol)	**6,100**	8.6	**2,500**	3.5	
107-13-1	Acrylonitrile	ND	8.6	ND	3.9	
75-35-4	1,1-Dichloroethene	ND	8.6	ND	2.2	
75-09-2	Methylene chloride	**700**	8.6	**200**	2.5	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	8.6	ND	2.7	
76-13-1	Trichlorotrifluoroethane	ND	8.6	ND	1.1	
75-15-0	Carbon Disulfide	ND	8.6	ND	2.7	
156-60-5	trans-1,2-Dichloroethene	ND	8.6	ND	2.2	
75-34-3	1,1-Dichloroethane	ND	8.6	ND	2.1	
1634-04-4	Methyl tert-Butyl Ether	ND	8.6	ND	2.4	
108-05-4	Vinyl Acetate	ND	17	ND	4.9	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01218

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/31/07 & 4/2/07
Volume(s) Analyzed: 0.10 Liter(s)
0.0050 Liter(s)

Pi 1 = -3.5 Pf 1 = 4.4
Can D.F. = 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**12**	8.6	**4.2**	2.9	
156-59-2	cis-1,2-Dichloroethene	ND	8.6	ND	2.2	
110-54-3	n-Hexane	**55**	8.6	**16**	2.4	
67-66-3	Chloroform	ND	8.6	ND	1.8	
107-06-2	1,2-Dichloroethane	ND	8.6	ND	2.1	
71-55-6	1,1,1-Trichloroethane	ND	8.6	ND	1.6	
71-43-2	Benzene	ND	8.6	ND	2.7	
56-23-5	Carbon Tetrachloride	ND	1.7	ND	0.27	
78-87-5	1,2-Dichloropropane	ND	8.6	ND	1.9	
75-27-4	Bromodichloromethane	ND	8.6	ND	1.3	
79-01-6	Trichloroethene	**10**	1.7	**1.9**	0.32	
123-91-1	1,4-Dioxane	ND	8.6	ND	2.4	
10061-01-5	cis-1,3-Dichloropropene	ND	8.6	ND	1.9	
108-10-1	4-Methyl-2-pentanone	ND	8.6	ND	2.1	
10061-02-6	trans-1,3-Dichloropropene	ND	8.6	ND	1.9	
79-00-5	1,1,2-Trichloroethane	ND	8.6	ND	1.6	
108-88-3	Toluene	**86**	8.6	**23**	2.3	
591-78-6	2-Hexanone	ND	8.6	ND	2.1	
124-48-1	Dibromochloromethane	ND	8.6	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	8.6	ND	1.1	
123-86-4	n-Butyl Acetate	**32**	8.6	**6.8**	1.8	
127-18-4	Tetrachloroethene	**190**	8.6	**29**	1.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01218

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/31/07 & 4/2/07
Volume(s) Analyzed: 0.10 Liter(s)
0.0050 Liter(s)

Pi 1 = -3.5 Pf 1 = 4.4
Can D.F. = 1.71

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	8.6	ND	1.9	
100-41-4	Ethylbenzene	**960**	8.6	**220**	2.0	
179601-23-1	*m,p* -Xylenes	**3,500**	8.6	**800**	2.0	
75-25-2	Bromoform	ND	8.6	ND	0.83	
100-42-5	Styrene	**11**	8.6	**2.6**	2.0	
95-47-6	o-Xylene	**990**	8.6	**230**	2.0	
111-84-2	n-Nonane	**280**	8.6	**53**	1.6	
79-34-5	1,1,2,2-Tetrachloroethane	ND	8.6	ND	1.2	
98-82-8	Cumene	**24**	8.6	**4.9**	1.7	
80-56-8	alpha-Pinene	**14**	8.6	**2.6**	1.5	
622-96-8	4-Ethyltoluene	**110**	8.6	**22**	1.7	
108-67-8	1,3,5-Trimethylbenzene	**97**	8.6	**20**	1.7	
95-63-6	1,2,4-Trimethylbenzene	**320**	8.6	**65**	1.7	
100-44-7	Benzyl Chloride	ND	8.6	ND	1.7	
541-73-1	1,3-Dichlorobenzene	ND	8.6	ND	1.4	
106-46-7	1,4-Dichlorobenzene	ND	8.6	ND	1.4	
95-50-1	1,2-Dichlorobenzene	ND	8.6	ND	1.4	
5989-27-5	d-Limonene	**430**	8.6	**77**	1.5	
96-12-8	1,2-Dibromo-3-chloropropane	ND	8.6	ND	0.88	
120-82-1	1,2,4-Trichlorobenzene	ND	8.6	ND	1.2	
91-20-3	Naphthalene	ND	8.6	ND	1.6	
87-68-3	Hexachlorobutadiene	ND	8.6	ND	0.80	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01016

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/31/07 & 4/5/07
Volume(s) Analyzed: 0.10 Liter(s)
0.025 Liter(s)

Pi 1 = -7.1 Pf 1 = 3.6
Can D.F. = 2.41

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	12	ND	2.4	
74-87-3	Chloromethane	ND	12	ND	5.8	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	12	ND	1.7	
75-01-4	Vinyl Chloride	ND	12	ND	4.7	
106-99-0	1,3-Butadiene	ND	12	ND	5.4	
74-83-9	Bromomethane	ND	12	ND	3.1	
75-00-3	Chloroethane	ND	12	ND	4.6	
64-17-5	Ethanol	**180**	120	**94**	64	
75-05-8	Acetonitrile	ND	12	ND	7.2	
107-02-8	Acrolein	ND	12	ND	5.3	
67-64-1	Acetone	**1,300**	120	**540**	51	
75-69-4	Trichlorofluoromethane	ND	12	ND	2.1	
67-63-0	2-Propanol (Isopropyl Alcohol)	**6,400**	12	**2,600**	4.9	
107-13-1	Acrylonitrile	ND	12	ND	5.6	
75-35-4	1,1-Dichloroethene	ND	12	ND	3.0	
75-09-2	Methylene chloride	**580**	12	**170**	3.5	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	12	ND	3.9	
76-13-1	Trichlorotrifluoroethane	ND	12	ND	1.6	
75-15-0	Carbon Disulfide	ND	12	ND	3.9	
156-60-5	trans-1,2-Dichloroethene	ND	12	ND	3.0	
75-34-3	1,1-Dichloroethane	ND	12	ND	3.0	
1634-04-4	Methyl tert-Butyl Ether	ND	12	ND	3.3	
108-05-4	Vinyl Acetate	ND	24	ND	6.8	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01016

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/31/07 & 4/5/07
Volume(s) Analyzed: 0.10 Liter(s)
0.025 Liter(s)

Pi 1 = -7.1 Pf 1 = 3.6
Can D.F. = 2.41

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	12	ND	4.1	
156-59-2	cis-1,2-Dichloroethene	ND	12	ND	3.0	
110-54-3	n-Hexane	**47**	12	**13**	3.4	
67-66-3	Chloroform	ND	12	ND	2.5	
107-06-2	1,2-Dichloroethane	ND	12	ND	3.0	
71-55-6	1,1,1-Trichloroethane	ND	12	ND	2.2	
71-43-2	Benzene	ND	12	ND	3.8	
56-23-5	Carbon Tetrachloride	ND	2.4	ND	0.38	
78-87-5	1,2-Dichloropropane	ND	12	ND	2.6	
75-27-4	Bromodichloromethane	ND	12	ND	1.8	
79-01-6	Trichloroethene	**9.7**	2.4	**1.8**	0.45	
123-91-1	1,4-Dioxane	ND	12	ND	3.3	
10061-01-5	cis-1,3-Dichloropropene	ND	12	ND	2.7	
108-10-1	4-Methyl-2-pentanone	ND	12	ND	2.9	
10061-02-6	trans-1,3-Dichloropropene	ND	12	ND	2.7	
79-00-5	1,1,2-Trichloroethane	ND	12	ND	2.2	
108-88-3	Toluene	**86**	12	**23**	3.2	
591-78-6	2-Hexanone	ND	12	ND	2.9	
124-48-1	Dibromochloromethane	ND	12	ND	1.4	
106-93-4	1,2-Dibromoethane	ND	12	ND	1.6	
123-86-4	n-Butyl Acetate	**32**	12	**6.8**	2.5	
127-18-4	Tetrachloroethene	**160**	12	**24**	1.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01016

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 3/31/07 & 4/5/07
Volume(s) Analyzed: 0.10 Liter(s)
0.025 Liter(s)

Pi 1 = -7.1 Pf 1 = 3.6
Can D.F. = 2.41

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	12	ND	2.6	
100-41-4	Ethylbenzene	**960**	12	**220**	2.8	
179601-23-1	*m,p*-Xylenes	**3,500**	12	**810**	2.8	
75-25-2	Bromoform	ND	12	ND	1.2	
100-42-5	Styrene	ND	12	ND	2.8	
95-47-6	o-Xylene	**980**	12	**230**	2.8	
111-84-2	n-Nonane	**240**	12	**45**	2.3	
79-34-5	1,1,2,2-Tetrachloroethane	ND	12	ND	1.8	
98-82-8	Cumene	**23**	12	**4.6**	2.5	
80-56-8	alpha-Pinene	**13**	12	**2.3**	2.2	
622-96-8	4-Ethyltoluene	**97**	12	**20**	2.5	
108-67-8	1,3,5-Trimethylbenzene	**85**	12	**17**	2.5	
95-63-6	1,2,4-Trimethylbenzene	**270**	12	**56**	2.5	
100-44-7	Benzyl Chloride	ND	12	ND	2.3	
541-73-1	1,3-Dichlorobenzene	ND	12	ND	2.0	
106-46-7	1,4-Dichlorobenzene	ND	12	ND	2.0	
95-50-1	1,2-Dichlorobenzene	ND	12	ND	2.0	
5989-27-5	d-Limonene	**400**	12	**72**	2.2	
96-12-8	1,2-Dibromo-3-chloropropane	ND	12	ND	1.2	
120-82-1	1,2,4-Trichlorobenzene	ND	12	ND	1.6	
91-20-3	Naphthalene	ND	12	ND	2.3	
87-68-3	Hexachlorobutadiene	ND	12	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-3**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01367

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 0.050 Liter(s)
0.010 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5
Can D.F. = 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	15	ND	3.0	
74-87-3	Chloromethane	ND	15	ND	7.3	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	15	ND	2.1	
75-01-4	Vinyl Chloride	ND	15	ND	5.9	
106-99-0	1,3-Butadiene	ND	15	ND	6.8	
74-83-9	Bromomethane	ND	15	ND	3.9	
75-00-3	Chloroethane	ND	15	ND	5.7	
64-17-5	Ethanol	**200**	150	**110**	80	
75-05-8	Acetonitrile	ND	15	ND	8.9	
107-02-8	Acrolein	ND	15	ND	6.5	
67-64-1	Acetone	**1,400**	150	**590**	63	
75-69-4	Trichlorofluoromethane	ND	15	ND	2.7	
67-63-0	2-Propanol (Isopropyl Alcohol)	**7,800**	15	**3,200**	6.1	
107-13-1	Acrylonitrile	ND	15	ND	6.9	
75-35-4	1,1-Dichloroethene	ND	15	ND	3.8	
75-09-2	Methylene chloride	**590**	15	**170**	4.3	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	15	ND	4.8	
76-13-1	Trichlorotrifluoroethane	ND	15	ND	2.0	
75-15-0	Carbon Disulfide	ND	15	ND	4.8	
156-60-5	trans-1,2-Dichloroethene	ND	15	ND	3.8	
75-34-3	1,1-Dichloroethane	ND	15	ND	3.7	
1634-04-4	Methyl tert-Butyl Ether	ND	15	ND	4.2	
108-05-4	Vinyl Acetate	ND	30	ND	8.5	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-3**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01367

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 0.050 Liter(s)
0.010 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5
Can D.F. = 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	15	ND	5.1	
156-59-2	cis-1,2-Dichloroethene	ND	15	ND	3.8	
110-54-3	n-Hexane	**42**	15	**12**	4.3	
67-66-3	Chloroform	ND	15	ND	3.1	
107-06-2	1,2-Dichloroethane	ND	15	ND	3.7	
71-55-6	1,1,1-Trichloroethane	ND	15	ND	2.8	
71-43-2	Benzene	ND	15	ND	4.7	
56-23-5	Carbon Tetrachloride	ND	3.0	ND	0.48	
78-87-5	1,2-Dichloropropane	ND	15	ND	3.2	
75-27-4	Bromodichloromethane	ND	15	ND	2.2	
79-01-6	Trichloroethene	**11**	3.0	**2.1**	0.56	
123-91-1	1,4-Dioxane	ND	15	ND	4.2	
10061-01-5	cis-1,3-Dichloropropene	ND	15	ND	3.3	
108-10-1	4-Methyl-2-pentanone	ND	15	ND	3.7	
10061-02-6	trans-1,3-Dichloropropene	ND	15	ND	3.3	
79-00-5	1,1,2-Trichloroethane	ND	15	ND	2.8	
108-88-3	Toluene	**100**	15	**27**	4.0	
591-78-6	2-Hexanone	ND	15	ND	3.7	
124-48-1	Dibromochloromethane	ND	15	ND	1.8	
106-93-4	1,2-Dibromoethane	ND	15	ND	2.0	
123-86-4	n-Butyl Acetate	**44**	15	**9.3**	3.2	
127-18-4	Tetrachloroethene	**160**	15	**24**	2.2	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-3**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01367

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 0.050 Liter(s)
0.010 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5
Can D.F. = 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	15	ND	3.3	
100-41-4	Ethylbenzene	**1,200**	15	**280**	3.5	
179601-23-1	*m,p*-Xylenes	**4,500**	15	**1,000**	3.5	
75-25-2	Bromoform	ND	15	ND	1.5	
100-42-5	Styrene	ND	15	ND	3.5	
95-47-6	o-Xylene	**1,300**	15	**290**	3.5	
111-84-2	n-Nonane	**250**	15	**47**	2.9	
79-34-5	1,1,2,2-Tetrachloroethane	ND	15	ND	2.2	
98-82-8	Cumene	**26**	15	**5.4**	3.1	
80-56-8	alpha-Pinene	ND	15	ND	2.7	
622-96-8	4-Ethyltoluene	**100**	15	**21**	3.1	
108-67-8	1,3,5-Trimethylbenzene	**90**	15	**18**	3.1	
95-63-6	1,2,4-Trimethylbenzene	**300**	15	**60**	3.1	
100-44-7	Benzyl Chloride	ND	15	ND	2.9	
541-73-1	1,3-Dichlorobenzene	ND	15	ND	2.5	
106-46-7	1,4-Dichlorobenzene	ND	15	ND	2.5	
95-50-1	1,2-Dichlorobenzene	ND	15	ND	2.5	
5989-27-5	d-Limonene	**380**	15	**68**	2.7	
96-12-8	1,2-Dibromo-3-chloropropane	ND	15	ND	1.6	
120-82-1	1,2,4-Trichlorobenzene	ND	15	ND	2.0	
91-20-3	Naphthalene	ND	15	ND	2.9	
87-68-3	Hexachlorobutadiene	ND	15	ND	1.4	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01251

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 0.025 Liter(s)
0.0050 Liter(s)

Pi 1 = -3.2 Pf 1 = 3.7
Can D.F. = 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	32	ND	6.5	
74-87-3	Chloromethane	ND	32	ND	16	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	32	ND	4.6	
75-01-4	Vinyl Chloride	ND	32	ND	13	
106-99-0	1,3-Butadiene	ND	32	ND	14	
74-83-9	Bromomethane	ND	32	ND	8.2	
75-00-3	Chloroethane	ND	32	ND	12	
64-17-5	Ethanol	ND	320	ND	170	
75-05-8	Acetonitrile	ND	32	ND	19	
107-02-8	Acrolein	ND	32	ND	14	
67-64-1	Acetone	**1,500**	320	**640**	130	
75-69-4	Trichlorofluoromethane	ND	32	ND	5.7	
67-63-0	2-Propanol (Isopropyl Alcohol)	**9,900**	32	**4,000**	13	
107-13-1	Acrylonitrile	ND	32	ND	15	
75-35-4	1,1-Dichloroethene	ND	32	ND	8.1	
75-09-2	Methylene chloride	**660**	32	**190**	9.2	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	32	ND	10	
76-13-1	Trichlorotrifluoroethane	ND	32	ND	4.2	
75-15-0	Carbon Disulfide	ND	32	ND	10	
156-60-5	trans-1,2-Dichloroethene	ND	32	ND	8.1	
75-34-3	1,1-Dichloroethane	ND	32	ND	7.9	
1634-04-4	Methyl tert-Butyl Ether	ND	32	ND	8.9	
108-05-4	Vinyl Acetate	ND	64	ND	18	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01251

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 0.025 Liter(s)
0.0050 Liter(s)

Pi 1 = -3.2 Pf 1 = 3.7
Can D.F. = 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	32	ND	11	
156-59-2	cis-1,2-Dichloroethene	ND	32	ND	8.1	
110-54-3	n-Hexane	**44**	32	**13**	9.1	
67-66-3	Chloroform	ND	32	ND	6.6	
107-06-2	1,2-Dichloroethane	ND	32	ND	7.9	
71-55-6	1,1,1-Trichloroethane	ND	32	ND	5.9	
71-43-2	Benzene	ND	32	ND	10	
56-23-5	Carbon Tetrachloride	ND	6.4	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	32	ND	6.9	
75-27-4	Bromodichloromethane	ND	32	ND	4.8	
79-01-6	Trichloroethene	**11**	6.4	**2.1**	1.2	
123-91-1	1,4-Dioxane	ND	32	ND	8.9	
10061-01-5	cis-1,3-Dichloropropene	ND	32	ND	7.1	
108-10-1	4-Methyl-2-pentanone	ND	32	ND	7.8	
10061-02-6	trans-1,3-Dichloropropene	ND	32	ND	7.1	
79-00-5	1,1,2-Trichloroethane	ND	32	ND	5.9	
108-88-3	Toluene	**110**	32	**29**	8.5	
591-78-6	2-Hexanone	ND	32	ND	7.8	
124-48-1	Dibromochloromethane	ND	32	ND	3.8	
106-93-4	1,2-Dibromoethane	ND	32	ND	4.2	
123-86-4	n-Butyl Acetate	**84**	32	**18**	6.7	
127-18-4	Tetrachloroethene	**180**	32	**26**	4.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **IA-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:
Container ID: AC01251

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 0.025 Liter(s)
0.0050 Liter(s)

Pi 1 = -3.2 Pf 1 = 3.7
Can D.F. = 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	32	ND	7.0	
100-41-4	Ethylbenzene	**1,300**	32	**290**	7.4	
179601-23-1	*m,p*-Xylenes	**4,800**	32	**1,100**	7.4	
75-25-2	Bromoform	ND	32	ND	3.1	
100-42-5	Styrene	ND	32	ND	7.5	
95-47-6	o-Xylene	**1,300**	32	**300**	7.4	
111-84-2	n-Nonane	**280**	32	**54**	6.1	
79-34-5	1,1,2,2-Tetrachloroethane	ND	32	ND	4.7	
98-82-8	Cumene	**35**	32	**7.1**	6.5	
80-56-8	alpha-Pinene	ND	32	ND	5.7	
622-96-8	4-Ethyltoluene	**140**	32	**28**	6.5	
108-67-8	1,3,5-Trimethylbenzene	**120**	32	**25**	6.5	
95-63-6	1,2,4-Trimethylbenzene	**400**	32	**82**	6.5	
100-44-7	Benzyl Chloride	ND	32	ND	6.2	
541-73-1	1,3-Dichlorobenzene	ND	32	ND	5.3	
106-46-7	1,4-Dichlorobenzene	ND	32	ND	5.3	
95-50-1	1,2-Dichlorobenzene	ND	32	ND	5.3	
5989-27-5	d-Limonene	**430**	32	**78**	5.7	
96-12-8	1,2-Dibromo-3-chloropropane	ND	32	ND	3.3	
120-82-1	1,2,4-Trichlorobenzene	ND	32	ND	4.3	
91-20-3	Naphthalene	ND	32	ND	6.1	
87-68-3	Hexachlorobutadiene	ND	32	ND	3.0	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00816

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07 & 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -2.5 Pf 1 = 3.5
Can D.F. = 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**1.9**	1.5	**0.38**	0.30	
74-87-3	Chloromethane	ND	1.5	ND	0.72	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.5	ND	0.21	
75-01-4	Vinyl Chloride	ND	1.5	ND	0.58	
106-99-0	1,3-Butadiene	ND	1.5	ND	0.67	
74-83-9	Bromomethane	ND	1.5	ND	0.38	
75-00-3	Chloroethane	ND	1.5	ND	0.56	
64-17-5	Ethanol	ND	7.5	ND	4.0	
75-05-8	Acetonitrile	ND	1.5	ND	0.89	
107-02-8	Acrolein	ND	1.5	ND	0.65	
67-64-1	Acetone	**27**	7.5	**12**	3.1	
75-69-4	Trichlorofluoromethane	ND	1.5	ND	0.27	
67-63-0	2-Propanol (Isopropyl Alcohol)	**26**	1.5	**10**	0.61	
107-13-1	Acrylonitrile	ND	1.5	ND	0.69	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.38	
75-09-2	Methylene chloride	ND	1.5	ND	0.43	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.5	ND	0.48	
76-13-1	Trichlorotrifluoroethane	**15**	1.5	**2.0**	0.19	
75-15-0	Carbon Disulfide	**1.8**	1.5	**0.57**	0.48	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.38	
75-34-3	1,1-Dichloroethane	ND	1.5	ND	0.37	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.41	
108-05-4	Vinyl Acetate	**2.1**	1.5	**0.61**	0.42	**M**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00816

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07 & 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -2.5 Pf 1 = 3.5
Can D.F. = 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**6.9**	1.5	**2.3**	0.51	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.38	
110-54-3	n-Hexane	**2.4**	1.5	**0.69**	0.42	
67-66-3	Chloroform	**6.4**	1.5	**1.3**	0.31	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.37	
71-55-6	1,1,1-Trichloroethane	**29**	1.5	**5.3**	0.27	
71-43-2	Benzene	**1.5**	1.5	**0.48**	0.47	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.24	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.32	
75-27-4	Bromodichloromethane	ND	1.5	ND	0.22	
79-01-6	Trichloroethene	**130**	1.5	**24**	0.28	
123-91-1	1,4-Dioxane	ND	1.5	ND	0.41	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.33	
108-10-1	4-Methyl-2-pentanone	**3.7**	1.5	**0.90**	0.36	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.33	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.27	
108-88-3	Toluene	**9.0**	1.5	**2.4**	0.40	
591-78-6	2-Hexanone	**1.9**	1.5	**0.47**	0.36	
124-48-1	Dibromochloromethane	ND	1.5	ND	0.17	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.19	
123-86-4	n-Butyl Acetate	ND	1.5	ND	0.31	
127-18-4	Tetrachloroethene	**7.7**	1.5	**1.1**	0.22	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-1**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00816

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07 & 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Pi 1 = -2.5 Pf 1 = 3.5
Can D.F. = 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.5	ND	0.32	
100-41-4	Ethylbenzene	ND	1.5	ND	0.34	
179601-23-1	*m,p*-Xylenes	**4.3**	1.5	**0.99**	0.34	
75-25-2	Bromoform	ND	1.5	ND	0.14	
100-42-5	Styrene	ND	1.5	ND	0.35	
95-47-6	o-Xylene	**1.6**	1.5	**0.37**	0.34	
111-84-2	n-Nonane	**1.6**	1.5	**0.30**	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.22	
98-82-8	Cumene	ND	1.5	ND	0.30	
80-56-8	alpha-Pinene	ND	1.5	ND	0.27	
622-96-8	4-Ethyltoluene	ND	1.5	ND	0.30	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ND	0.30	
95-63-6	1,2,4-Trimethylbenzene	**3.1**	1.5	**0.63**	0.30	
100-44-7	Benzyl Chloride	ND	1.5	ND	0.29	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.25	
106-46-7	1,4-Dichlorobenzene	**6.1**	1.5	**1.0**	0.25	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.25	
5989-27-5	d-Limonene	**120**	1.5	**21**	0.27	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.5	ND	0.15	
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	ND	0.20	
91-20-3	Naphthalene	ND	1.5	ND	0.28	
87-68-3	Hexachlorobutadiene	ND	1.5	ND	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00859

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.7 Pf 1 = 3.5
Can D.F. = 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**3.2**	1.7	**0.64**	0.33	
74-87-3	Chloromethane	ND	1.7	ND	0.80	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.7	ND	0.24	
75-01-4	Vinyl Chloride	ND	1.7	ND	0.65	
106-99-0	1,3-Butadiene	**11**	1.7	**4.8**	0.75	
74-83-9	Bromomethane	ND	1.7	ND	0.43	
75-00-3	Chloroethane	ND	1.7	ND	0.63	
64-17-5	Ethanol	ND	8.3	ND	4.4	
75-05-8	Acetonitrile	ND	1.7	ND	0.98	
107-02-8	Acrolein	**3.1**	1.7	**1.4**	0.72	
67-64-1	Acetone	**55**	8.3	**23**	3.5	
75-69-4	Trichlorofluoromethane	ND	1.7	ND	0.29	
67-63-0	2-Propanol (Isopropyl Alcohol)	**15**	1.7	**6.2**	0.67	
107-13-1	Acrylonitrile	ND	1.7	ND	0.76	
75-35-4	1,1-Dichloroethene	ND	1.7	ND	0.42	
75-09-2	Methylene chloride	ND	1.7	ND	0.48	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.7	ND	0.53	
76-13-1	Trichlorotrifluoroethane	ND	1.7	ND	0.22	
75-15-0	Carbon Disulfide	**17**	1.7	**5.3**	0.53	
156-60-5	trans-1,2-Dichloroethene	ND	1.7	ND	0.42	
75-34-3	1,1-Dichloroethane	ND	1.7	ND	0.41	
1634-04-4	Methyl tert-Butyl Ether	ND	1.7	ND	0.46	
108-05-4	Vinyl Acetate	ND	1.7	ND	0.47	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00859

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.7 Pf 1 = 3.5
Can D.F. = 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**14**	1.7	**4.8**	0.56	
156-59-2	cis-1,2-Dichloroethene	ND	1.7	ND	0.42	
110-54-3	n-Hexane	**120**	1.7	**34**	0.47	
67-66-3	Chloroform	ND	1.7	ND	0.34	
107-06-2	1,2-Dichloroethane	ND	1.7	ND	0.41	
71-55-6	1,1,1-Trichloroethane	ND	1.7	ND	0.30	
71-43-2	Benzene	**43**	1.7	**13**	0.52	
56-23-5	Carbon Tetrachloride	ND	1.7	ND	0.26	
78-87-5	1,2-Dichloropropane	ND	1.7	ND	0.36	
75-27-4	Bromodichloromethane	ND	1.7	ND	0.25	
79-01-6	Trichloroethene	ND	1.7	ND	0.31	
123-91-1	1,4-Dioxane	ND	1.7	ND	0.46	
10061-01-5	cis-1,3-Dichloropropene	ND	1.7	ND	0.36	
108-10-1	4-Methyl-2-pentanone	**3.3**	1.7	**0.82**	0.40	
10061-02-6	trans-1,3-Dichloropropene	ND	1.7	ND	0.36	
79-00-5	1,1,2-Trichloroethane	ND	1.7	ND	0.30	
108-88-3	Toluene	**98**	1.7	**26**	0.44	
591-78-6	2-Hexanone	ND	1.7	ND	0.40	
124-48-1	Dibromochloromethane	ND	1.7	ND	0.19	
106-93-4	1,2-Dibromoethane	ND	1.7	ND	0.21	
123-86-4	n-Butyl Acetate	ND	1.7	ND	0.35	
127-18-4	Tetrachloroethene	ND	1.7	ND	0.24	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-2**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00859

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.7 Pf 1 = 3.5
Can D.F. = 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.7	ND	0.36	
100-41-4	Ethylbenzene	ND	1.7	ND	0.38	
179601-23-1	*m,p*-Xylenes	**4.1**	1.7	**0.95**	0.38	
75-25-2	Bromoform	ND	1.7	ND	0.16	
100-42-5	Styrene	ND	1.7	ND	0.39	
95-47-6	o-Xylene	**2.1**	1.7	**0.48**	0.38	
111-84-2	n-Nonane	**2.8**	1.7	**0.53**	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.7	ND	0.24	
98-82-8	Cumene	ND	1.7	ND	0.34	
80-56-8	alpha-Pinene	ND	1.7	ND	0.30	
622-96-8	4-Ethyltoluene	ND	1.7	ND	0.34	
108-67-8	1,3,5-Trimethylbenzene	ND	1.7	ND	0.34	
95-63-6	1,2,4-Trimethylbenzene	ND	1.7	ND	0.34	
100-44-7	Benzyl Chloride	ND	1.7	ND	0.32	
541-73-1	1,3-Dichlorobenzene	ND	1.7	ND	0.27	
106-46-7	1,4-Dichlorobenzene	ND	1.7	ND	0.27	
95-50-1	1,2-Dichlorobenzene	ND	1.7	ND	0.27	
5989-27-5	d-Limonene	ND	1.7	ND	0.30	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.7	ND	0.17	
120-82-1	1,2,4-Trichlorobenzene	ND	1.7	ND	0.22	
91-20-3	Naphthalene	ND	1.7	ND	0.31	
87-68-3	Hexachlorobutadiene	ND	1.7	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00706

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.8 Pf 1 = 3.5

Can D.F. = 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	**2.2**	1.5	**0.44**	0.31	
74-87-3	Chloromethane	ND	1.5	ND	0.74	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.5	ND	0.22	
75-01-4	Vinyl Chloride	**3.0**	1.5	**1.2**	0.60	
106-99-0	1,3-Butadiene	**12**	1.5	**5.5**	0.69	
74-83-9	Bromomethane	ND	1.5	ND	0.39	
75-00-3	Chloroethane	ND	1.5	ND	0.58	
64-17-5	Ethanol	ND	7.7	ND	4.1	
75-05-8	Acetonitrile	ND	1.5	ND	0.91	
107-02-8	Acrolein	**3.3**	1.5	**1.4**	0.67	
67-64-1	Acetone	**50**	7.7	**21**	3.2	**M**
75-69-4	Trichlorofluoromethane	**1.7**	1.5	**0.30**	0.27	
67-63-0	2-Propanol (Isopropyl Alcohol)	**15**	1.5	**6.0**	0.62	
107-13-1	Acrylonitrile	ND	1.5	ND	0.71	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.39	
75-09-2	Methylene chloride	ND	1.5	ND	0.44	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.5	ND	0.49	
76-13-1	Trichlorotrifluoroethane	ND	1.5	ND	0.20	
75-15-0	Carbon Disulfide	**5.0**	1.5	**1.6**	0.49	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.39	
75-34-3	1,1-Dichloroethane	**2.1**	1.5	**0.53**	0.38	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.42	
108-05-4	Vinyl Acetate	**7.5**	1.5	**2.1**	0.43	**M**

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M = Matrix interference; results may be biased high.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00706

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.8 Pf 1 = 3.5
Can D.F. = 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	**9.0**	1.5	**3.1**	0.52	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.39	
110-54-3	n-Hexane	**5.6**	1.5	**1.6**	0.43	
67-66-3	Chloroform	ND	1.5	ND	0.31	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.38	
71-55-6	1,1,1-Trichloroethane	**4.0**	1.5	**0.74**	0.28	
71-43-2	Benzene	**6.4**	1.5	**2.0**	0.48	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.24	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.33	
75-27-4	Bromodichloromethane	ND	1.5	ND	0.23	
79-01-6	Trichloroethene	ND	1.5	ND	0.28	
123-91-1	1,4-Dioxane	ND	1.5	ND	0.42	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.34	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.37	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.34	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.28	
108-88-3	Toluene	**18**	1.5	**4.9**	0.41	
591-78-6	2-Hexanone	ND	1.5	ND	0.37	
124-48-1	Dibromochloromethane	ND	1.5	ND	0.18	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.20	
123-86-4	n-Butyl Acetate	ND	1.5	ND	0.32	
127-18-4	Tetrachloroethene	ND	1.5	ND	0.23	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-4**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00706

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.8 Pf 1 = 3.5
Can D.F. = 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.5	ND	0.33	
100-41-4	Ethylbenzene	**1.8**	1.5	**0.41**	0.35	
179601-23-1	*m,p*-Xylenes	**6.5**	1.5	**1.5**	0.35	
75-25-2	Bromoform	ND	1.5	ND	0.15	
100-42-5	Styrene	ND	1.5	ND	0.36	
95-47-6	o-Xylene	**2.3**	1.5	**0.53**	0.35	
111-84-2	n-Nonane	**1.9**	1.5	**0.36**	0.29	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.22	
98-82-8	Cumene	ND	1.5	ND	0.31	
80-56-8	alpha-Pinene	**2.1**	1.5	**0.37**	0.27	
622-96-8	4-Ethyltoluene	ND	1.5	ND	0.31	
108-67-8	1,3,5-Trimethylbenzene	ND	1.5	ND	0.31	
95-63-6	1,2,4-Trimethylbenzene	ND	1.5	ND	0.31	
100-44-7	Benzyl Chloride	ND	1.5	ND	0.30	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.25	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ND	0.25	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.25	
5989-27-5	d-Limonene	ND	1.5	ND	0.27	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.5	ND	0.16	
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	ND	0.21	
91-20-3	Naphthalene	ND	1.5	ND	0.29	
87-68-3	Hexachlorobutadiene	ND	1.5	ND	0.14	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-6**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00606

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = -2.3 Pf 1 = 3.5
Can D.F. = 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	29	ND	5.9	
74-87-3	Chloromethane	ND	29	ND	14	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	29	ND	4.2	
75-01-4	Vinyl Chloride	ND	29	ND	12	
106-99-0	1,3-Butadiene	ND	29	ND	13	
74-83-9	Bromomethane	ND	29	ND	7.6	
75-00-3	Chloroethane	ND	29	ND	11	
64-17-5	Ethanol	ND	150	ND	78	
75-05-8	Acetonitrile	ND	29	ND	18	
107-02-8	Acrolein	ND	29	ND	13	
67-64-1	Acetone	ND	150	ND	62	
75-69-4	Trichlorofluoromethane	ND	29	ND	5.2	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	29	ND	12	
107-13-1	Acrylonitrile	ND	29	ND	14	
75-35-4	1,1-Dichloroethene	ND	29	ND	7.4	
75-09-2	Methylene chloride	ND	29	ND	8.5	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	29	ND	9.4	
76-13-1	Trichlorotrifluoroethane	**2,600**	29	**340**	3.8	
75-15-0	Carbon Disulfide	ND	29	ND	9.4	
156-60-5	trans-1,2-Dichloroethene	ND	29	ND	7.4	
75-34-3	1,1-Dichloroethane	ND	29	ND	7.3	
1634-04-4	Methyl tert-Butyl Ether	ND	29	ND	8.2	
108-05-4	Vinyl Acetate	ND	29	ND	8.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-6**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00606

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = -2.3 Pf 1 = 3.5
Can D.F. = 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	29	ND	10	
156-59-2	cis-1,2-Dichloroethene	ND	29	ND	7.4	
110-54-3	n-Hexane	ND	29	ND	8.3	
67-66-3	Chloroform	ND	29	ND	6.0	
107-06-2	1,2-Dichloroethane	ND	29	ND	7.3	
71-55-6	1,1,1-Trichloroethane	**130**	29	**25**	5.4	
71-43-2	Benzene	ND	29	ND	9.2	
56-23-5	Carbon Tetrachloride	ND	29	ND	4.7	
78-87-5	1,2-Dichloropropane	ND	29	ND	6.4	
75-27-4	Bromodichloromethane	ND	29	ND	4.4	
79-01-6	Trichloroethene	**460**	29	**86**	5.5	
123-91-1	1,4-Dioxane	ND	29	ND	8.2	
10061-01-5	cis-1,3-Dichloropropene	ND	29	ND	6.5	
108-10-1	4-Methyl-2-pentanone	ND	29	ND	7.2	
10061-02-6	trans-1,3-Dichloropropene	ND	29	ND	6.5	
79-00-5	1,1,2-Trichloroethane	ND	29	ND	5.4	
108-88-3	Toluene	ND	29	ND	7.8	
591-78-6	2-Hexanone	ND	29	ND	7.2	
124-48-1	Dibromochloromethane	ND	29	ND	3.5	
106-93-4	1,2-Dibromoethane	ND	29	ND	3.8	
123-86-4	n-Butyl Acetate	ND	29	ND	6.2	
127-18-4	Tetrachloroethene	**38**	29	**5.6**	4.3	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **SG-6**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P2700781-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:
Container ID: SC00606

Date Collected: 3/15/07
Date Received: 3/21/07
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 0.050 Liter(s)

Pi 1 = -2.3 Pf 1 = 3.5
Can D.F. = 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	29	ND	6.4	
100-41-4	Ethylbenzene	ND	29	ND	6.8	
179601-23-1	*m,p* -Xylenes	ND	29	ND	6.8	
75-25-2	Bromoform	ND	29	ND	2.8	
100-42-5	Styrene	ND	29	ND	6.9	
95-47-6	o-Xylene	ND	29	ND	6.8	
111-84-2	n-Nonane	ND	29	ND	5.6	
79-34-5	1,1,2,2-Tetrachloroethane	ND	29	ND	4.3	
98-82-8	Cumene	ND	29	ND	6.0	
80-56-8	alpha-Pinene	ND	29	ND	5.3	
622-96-8	4-Ethyltoluene	ND	29	ND	6.0	
108-67-8	1,3,5-Trimethylbenzene	ND	29	ND	6.0	
95-63-6	1,2,4-Trimethylbenzene	ND	29	ND	6.0	
100-44-7	Benzyl Chloride	ND	29	ND	5.7	
541-73-1	1,3-Dichlorobenzene	ND	29	ND	4.9	
106-46-7	1,4-Dichlorobenzene	ND	29	ND	4.9	
95-50-1	1,2-Dichlorobenzene	ND	29	ND	4.9	
5989-27-5	d-Limonene	ND	29	ND	5.3	
96-12-8	1,2-Dibromo-3-chloropropane	ND	29	ND	3.0	
120-82-1	1,2,4-Trichlorobenzene	ND	29	ND	4.0	
91-20-3	Naphthalene	ND	29	ND	5.6	
87-68-3	Hexachlorobutadiene	ND	29	ND	2.8	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070330-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070330-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070330-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 3/30/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	*m,p* -Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070402-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070402-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070402-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/2/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	*m,p*-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070404-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070404-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070404-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/4/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	*m,p*-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070405-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070405-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070405-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	*m,p*-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070405-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070405-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070405-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 4/5/07
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	*m,p*-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	o-Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781

Surrogate Spike Recovery Results

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8
Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell/Liliana Marghitoiu
Sampling Media: Summa Canister(s)
Test Notes:

Date Collected: 3/15/07
Date Received: 3/21/07
Date Analyzed: 3/30 - 4/5/07

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P070330-MB	**93**	70-130	**99**	70-130	**107**	70-130	
Method Blank	P070402-MB	**93**	70-130	**99**	70-130	**111**	70-130	
Method Blank	P070404-MB	**95**	70-130	**100**	70-130	**102**	70-130	
Method Blank	P070405-MB	**102**	70-130	**98**	70-130	**99**	70-130	
Method Blank	P070405-MB	**96**	70-130	**97**	70-130	**102**	70-130	
Lab Control Sample	P070330-LCS	**94**	70-130	**100**	70-130	**107**	70-130	
Lab Control Sample	P070402-LCS	**92**	70-130	**100**	70-130	**111**	70-130	
Lab Control Sample	P070404-LCS	**96**	70-130	**101**	70-130	**103**	70-130	
Lab Control Sample	P070405-LCS	**99**	70-130	**100**	70-130	**103**	70-130	
Lab Control Sample	P070405-LCS	**102**	70-130	**96**	70-130	**102**	70-130	
SS-1	P2700781-001	**99**	70-130	**99**	70-130	**101**	70-130	
SS-2	P2700781-002	**102**	70-130	**97**	70-130	**99**	70-130	
SS-3	P2700781-003	**91**	70-130	**98**	70-130	**112**	70-130	
SS-4	P2700781-004	**89**	70-130	**93**	70-130	**107**	70-130	
AA-1	P2700781-005	**94**	70-130	**99**	70-130	**105**	70-130	
AA-1	P2700781-005DUP	**93**	70-130	**99**	70-130	**105**	70-130	
IA-1	P2700781-006	**96**	70-130	**96**	70-130	**101**	70-130	
IA-2	P2700781-007	**96**	70-130	**97**	70-130	**103**	70-130	
IA-3	P2700781-008	**94**	70-130	**94**	70-130	**111**	70-130	
IA-4	P2700781-009	**94**	70-130	**95**	70-130	**111**	70-130	
SG-1	P2700781-010	**88**	70-130	**97**	70-130	**112**	70-130	
SG-2	P2700781-011	**94**	70-130	**94**	70-130	**110**	70-130	
SG-4	P2700781-012	**89**	70-130	**95**	70-130	**109**	70-130	
SG-6	P2700781-013	**102**	70-130	**97**	70-130	**101**	70-130	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070330-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/30/07
Volume(s) Analyzed: NA Liter

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	25.5	22.7	**89**	68-124	
74-87-3	Chloromethane	24.3	22.1	**91**	65-120	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	25.5	26.9	**105**	47-130	
75-01-4	Vinyl Chloride	24.8	24.9	**100**	67-127	
106-99-0	1,3-Butadiene	26.0	24.8	**95**	65-118	
74-83-9	Bromomethane	25.0	20.0	**80**	65-134	
75-00-3	Chloroethane	25.0	27.3	**109**	71-121	
64-17-5	Ethanol	22.3	24.9	**112**	66-133	
75-05-8	Acetonitrile	23.3	25.3	**109**	64-124	
107-02-8	Acrolein	23.3	25.2	**108**	61-121	
67-64-1	Acetone	26.5	23.9	**90**	62-113	
75-69-4	Trichlorofluoromethane	24.3	25.9	**107**	68-130	
67-63-0	2-Propanol (Isopropyl Alcohol)	24.5	24.9	**102**	72-119	
107-13-1	Acrylonitrile	25.5	30.2	**118**	71-129	
75-35-4	1,1-Dichloroethene	27.3	31.5	**115**	74-126	
75-09-2	Methylene chloride	26.8	26.1	**97**	68-120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	26.0	27.8	**107**	61-128	
76-13-1	Trichlorotrifluoroethane	27.0	27.4	**101**	68-127	
75-15-0	Carbon Disulfide	25.0	27.1	**108**	69-126	
156-60-5	trans-1,2-Dichloroethene	26.3	30.1	**114**	76-124	
75-34-3	1,1-Dichloroethane	26.3	26.7	**102**	75-120	
1634-04-4	Methyl tert-Butyl Ether	26.3	24.6	**94**	68-123	
108-05-4	Vinyl Acetate	24.3	25.0	**103**	56-139	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070330-LCS
0
0

Laboratory Control Sample (LCS) Summary

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Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	NA
Analyst:	Liliana Marghitoiu	Date Analyzed:	3/30/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	26.8	27.6	**103**	74-126	
156-59-2	cis-1,2-Dichloroethene	26.5	29.5	**111**	77-122	
110-54-3	n-Hexane	26.8	25.4	**95**	72-119	
67-66-3	Chloroform	30.0	30.4	**101**	75-119	
107-06-2	1,2-Dichloroethane	26.0	27.9	**107**	74-125	
71-55-6	1,1,1-Trichloroethane	26.3	25.0	**95**	75-129	
71-43-2	Benzene	26.3	27.0	**103**	69-118	
56-23-5	Carbon Tetrachloride	25.8	26.9	**104**	72-139	
78-87-5	1,2-Dichloropropane	26.0	27.5	**106**	75-122	
75-27-4	Bromodichloromethane	27.5	30.0	**109**	79-125	
79-01-6	Trichloroethene	27.3	31.3	**115**	74-123	
123-91-1	1,4-Dioxane	27.3	32.3	**118**	80-128	
10061-01-5	cis-1,3-Dichloropropene	26.0	28.8	**111**	81-126	
108-10-1	4-Methyl-2-pentanone	26.5	29.4	**111**	78-132	
10061-02-6	trans-1,3-Dichloropropene	27.8	30.8	**111**	80-130	
79-00-5	1,1,2-Trichloroethane	25.8	28.5	**110**	76-123	
108-88-3	Toluene	26.0	25.7	**99**	74-124	
591-78-6	2-Hexanone	26.0	30.5	**117**	77-140	
124-48-1	Dibromochloromethane	26.5	30.2	**114**	81-139	
106-93-4	1,2-Dibromoethane	26.0	29.6	**114**	77-133	
123-86-4	n-Butyl Acetate	25.0	30.6	**122**	71-146	
127-18-4	Tetrachloroethene	25.8	26.5	**103**	71-135	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070330-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 3/30/07
Sampling Media: Summa Canister Volume(s) Analyzed: NA Liter
Test Notes:

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	26.0	26.7	**103**	76-126	
100-41-4	Ethylbenzene	25.8	29.9	**116**	77-127	
179601-23-1	m,p-Xylenes	61.5	71.6	**116**	77-128	
75-25-2	Bromoform	31.3	35.8	**114**	77-143	
100-42-5	Styrene	25.8	34.2	**133**	71-139	
95-47-6	o-Xylene	29.0	34.3	**118**	76-128	
111-84-2	n-Nonane	25.0	28.3	**113**	73-131	
79-34-5	1,1,2,2-Tetrachloroethane	29.3	29.7	**101**	79-130	
98-82-8	Cumene	26.0	30.1	**116**	77-128	
80-56-8	alpha-Pinene	25.3	26.6	**105**	66-140	
622-96-8	4-Ethyltoluene	26.3	30.9	**117**	74-132	
108-67-8	1,3,5-Trimethylbenzene	25.5	30.5	**120**	72-134	
95-63-6	1,2,4-Trimethylbenzene	26.0	31.2	**120**	74-134	
100-44-7	Benzyl Chloride	25.5	32.0	**125**	72-174	
541-73-1	1,3-Dichlorobenzene	25.3	29.7	**117**	73-137	
106-46-7	1,4-Dichlorobenzene	26.0	30.4	**117**	71-136	
95-50-1	1,2-Dichlorobenzene	25.5	30.2	**118**	70-140	
5989-27-5	d-Limonene	25.3	32.2	**127**	20-202	
96-12-8	1,2-Dibromo-3-chloropropane	24.8	32.2	**130**	77-157	
120-82-1	1,2,4-Trichlorobenzene	26.8	36.8	**137**	68-154	
91-20-3	Naphthalene	26.0	37.0	**142**	63-160	
87-68-3	Hexachlorobutadiene	26.5	32.3	**122**	61-147	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **Binghamton Dover/NJ000579.0001**

CAS Project ID: P2700781
CAS Sample ID: P070402-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Chris Parnell
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/2/07
Volume(s) Analyzed: NA Liter

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	25.5	22.5	**88**	68-124	
74-87-3	Chloromethane	24.3	23.2	**95**	65-120	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	25.5	26.3	**103**	47-130	
75-01-4	Vinyl Chloride	24.8	24.6	**99**	67-127	
106-99-0	1,3-Butadiene	26.0	26.9	**103**	65-118	
74-83-9	Bromomethane	25.0	19.9	**80**	65-134	
75-00-3	Chloroethane	25.0	25.0	**100**	71-121	
64-17-5	Ethanol	22.3	23.9	**107**	66-133	
75-05-8	Acetonitrile	23.3	22.7	**97**	64-124	
107-02-8	Acrolein	23.3	24.7	**106**	61-121	
67-64-1	Acetone	26.5	23.5	**89**	62-113	
75-69-4	Trichlorofluoromethane	24.3	24.2	**100**	68-130	
67-63-0	2-Propanol (Isopropyl Alcohol)	24.5	25.1	**102**	72-119	
107-13-1	Acrylonitrile	25.5	27.6	**108**	71-129	
75-35-4	1,1-Dichloroethene	27.3	27.8	**102**	74-126	
75-09-2	Methylene chloride	26.8	23.2	**87**	68-120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	26.0	26.3	**101**	61-128	
76-13-1	Trichlorotrifluoroethane	27.0	27.9	**103**	68-127	
75-15-0	Carbon Disulfide	25.0	24.8	**99**	69-126	
156-60-5	trans-1,2-Dichloroethene	26.3	26.7	**102**	76-124	
75-34-3	1,1-Dichloroethane	26.3	24.8	**94**	75-120	
1634-04-4	Methyl tert-Butyl Ether	26.3	26.0	**99**	68-123	
108-05-4	Vinyl Acetate	24.3	27.3	**112**	56-139	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070402-LCS
0
0

Laboratory Control Sample (LCS) Summary

0

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	NA
Analyst:	Chris Parnell	Date Analyzed:	4/2/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	26.8	28.6	**107**	74-126	
156-59-2	cis-1,2-Dichloroethene	26.5	26.0	**98**	77-122	
110-54-3	n-Hexane	26.8	25.1	**94**	72-119	
67-66-3	Chloroform	30.0	28.2	**94**	75-119	
107-06-2	1,2-Dichloroethane	26.0	25.3	**97**	74-125	
71-55-6	1,1,1-Trichloroethane	26.3	26.4	**100**	75-129	
71-43-2	Benzene	26.3	25.8	**98**	69-118	
56-23-5	Carbon Tetrachloride	25.8	28.4	**110**	72-139	
78-87-5	1,2-Dichloropropane	26.0	26.8	**103**	75-122	
75-27-4	Bromodichloromethane	27.5	29.1	**106**	79-125	
79-01-6	Trichloroethene	27.3	28.8	**105**	74-123	
123-91-1	1,4-Dioxane	27.3	31.0	**114**	80-128	
10061-01-5	cis-1,3-Dichloropropene	26.0	29.0	**112**	81-126	
108-10-1	4-Methyl-2-pentanone	26.5	29.8	**112**	78-132	
10061-02-6	trans-1,3-Dichloropropene	27.8	31.7	**114**	80-130	
79-00-5	1,1,2-Trichloroethane	25.8	27.9	**108**	76-123	
108-88-3	Toluene	26.0	26.0	**100**	74-124	
591-78-6	2-Hexanone	26.0	31.1	**120**	77-140	
124-48-1	Dibromochloromethane	26.5	30.5	**115**	81-139	
106-93-4	1,2-Dibromoethane	26.0	29.2	**112**	77-133	
123-86-4	n-Butyl Acetate	25.0	30.9	**124**	71-146	
127-18-4	Tetrachloroethene	25.8	26.9	**104**	71-135	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070402-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Chris Parnell Date Analyzed: 4/2/07
Sampling Media: Summa Canister Volume(s) Analyzed: NA Liter
Test Notes:

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	26.0	26.6	**102**	76-126	
100-41-4	Ethylbenzene	25.8	26.6	**103**	77-127	
179601-23-1	m,p-Xylenes	61.5	64.2	**104**	77-128	
75-25-2	Bromoform	31.3	37.7	**120**	77-143	
100-42-5	Styrene	25.8	30.4	**118**	71-139	
95-47-6	o-Xylene	29.0	30.7	**106**	76-128	
111-84-2	n-Nonane	25.0	25.0	**100**	73-131	
79-34-5	1,1,2,2-Tetrachloroethane	29.3	31.5	**108**	79-130	
98-82-8	Cumene	26.0	26.9	**103**	77-128	
80-56-8	alpha-Pinene	25.3	27.9	**110**	66-140	
622-96-8	4-Ethyltoluene	26.3	27.7	**105**	74-132	
108-67-8	1,3,5-Trimethylbenzene	25.5	27.3	**107**	72-134	
95-63-6	1,2,4-Trimethylbenzene	26.0	28.0	**108**	74-134	
100-44-7	Benzyl Chloride	25.5	32.1	**126**	72-174	
541-73-1	1,3-Dichlorobenzene	25.3	26.7	**106**	73-137	
106-46-7	1,4-Dichlorobenzene	26.0	27.3	**105**	71-136	
95-50-1	1,2-Dichlorobenzene	25.5	27.2	**107**	70-140	
5989-27-5	d-Limonene	25.3	29.9	**118**	20-202	
96-12-8	1,2-Dibromo-3-chloropropane	24.8	30.4	**123**	77-157	
120-82-1	1,2,4-Trichlorobenzene	26.8	32.5	**121**	68-154	
91-20-3	Naphthalene	26.0	33.5	**129**	63-160	
87-68-3	Hexachlorobutadiene	26.5	29.1	**110**	61-147	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070404-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 4/4/07
Volume(s) Analyzed: NA Liter

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	25.5	21.7	**85**	68-124	
74-87-3	Chloromethane	24.3	22.5	**93**	65-120	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	25.5	24.2	**95**	47-130	
75-01-4	Vinyl Chloride	24.8	23.7	**96**	67-127	
106-99-0	1,3-Butadiene	26.0	27.2	**105**	65-118	
74-83-9	Bromomethane	25.0	20.7	**83**	65-134	
75-00-3	Chloroethane	25.0	24.3	**97**	71-121	
64-17-5	Ethanol	22.3	23.2	**104**	66-133	
75-05-8	Acetonitrile	23.3	22.6	**97**	64-124	
107-02-8	Acrolein	23.3	25.4	**109**	61-121	
67-64-1	Acetone	26.5	22.6	**85**	62-113	
75-69-4	Trichlorofluoromethane	24.3	22.9	**94**	68-130	
67-63-0	2-Propanol (Isopropyl Alcohol)	24.5	22.3	**91**	72-119	
107-13-1	Acrylonitrile	25.5	27.9	**109**	71-129	
75-35-4	1,1-Dichloroethene	27.3	27.0	**99**	74-126	
75-09-2	Methylene chloride	26.8	23.3	**87**	68-120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	26.0	26.3	**101**	61-128	
76-13-1	Trichlorotrifluoroethane	27.0	26.4	**98**	68-127	
75-15-0	Carbon Disulfide	25.0	24.0	**96**	69-126	
156-60-5	trans-1,2-Dichloroethene	26.3	26.2	**100**	76-124	
75-34-3	1,1-Dichloroethane	26.3	24.4	**93**	75-120	
1634-04-4	Methyl tert-Butyl Ether	26.3	25.2	**96**	68-123	
108-05-4	Vinyl Acetate	24.3	26.5	**109**	56-139	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070404-LCS
0
0

Laboratory Control Sample (LCS) Summary

0

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	NA
Analyst:	Liliana Marghitoiu	Date Analyzed:	4/4/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	26.8	28.1	**105**	74-126	
156-59-2	cis-1,2-Dichloroethene	26.5	25.9	**98**	77-122	
110-54-3	n-Hexane	26.8	24.9	**93**	72-119	
67-66-3	Chloroform	30.0	27.1	**90**	75-119	
107-06-2	1,2-Dichloroethane	26.0	24.6	**95**	74-125	
71-55-6	1,1,1-Trichloroethane	26.3	25.6	**97**	75-129	
71-43-2	Benzene	26.3	25.2	**96**	69-118	
56-23-5	Carbon Tetrachloride	25.8	27.6	**107**	72-139	
78-87-5	1,2-Dichloropropane	26.0	26.2	**101**	75-122	
75-27-4	Bromodichloromethane	27.5	28.0	**102**	79-125	
79-01-6	Trichloroethene	27.3	27.8	**102**	74-123	
123-91-1	1,4-Dioxane	27.3	31.8	**116**	80-128	
10061-01-5	cis-1,3-Dichloropropene	26.0	27.1	**104**	81-126	
108-10-1	4-Methyl-2-pentanone	26.5	29.6	**112**	78-132	
10061-02-6	trans-1,3-Dichloropropene	27.8	30.4	**109**	80-130	
79-00-5	1,1,2-Trichloroethane	25.8	27.1	**105**	76-123	
108-88-3	Toluene	26.0	24.6	**95**	74-124	
591-78-6	2-Hexanone	26.0	30.1	**116**	77-140	
124-48-1	Dibromochloromethane	26.5	29.4	**111**	81-139	
106-93-4	1,2-Dibromoethane	26.0	28.7	**110**	77-133	
123-86-4	n-Butyl Acetate	25.0	30.3	**121**	71-146	
127-18-4	Tetrachloroethene	25.8	26.5	**103**	71-135	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070404-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 4/4/07
Sampling Media: Summa Canister Volume(s) Analyzed: NA Liter
Test Notes:

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	26.0	25.1	**97**	76-126	
100-41-4	Ethylbenzene	25.8	26.3	**102**	77-127	
179601-23-1	m,p-Xylenes	61.5	63.6	**103**	77-128	
75-25-2	Bromoform	31.3	36.5	**117**	77-143	
100-42-5	Styrene	25.8	30.6	**119**	71-139	
95-47-6	o-Xylene	29.0	30.1	**104**	76-128	
111-84-2	n-Nonane	25.0	25.7	**103**	73-131	
79-34-5	1,1,2,2-Tetrachloroethane	29.3	30.8	**105**	79-130	
98-82-8	Cumene	26.0	26.3	**101**	77-128	
80-56-8	alpha-Pinene	25.3	28.8	**114**	66-140	
622-96-8	4-Ethyltoluene	26.3	27.1	**103**	74-132	
108-67-8	1,3,5-Trimethylbenzene	25.5	26.8	**105**	72-134	
95-63-6	1,2,4-Trimethylbenzene	26.0	27.5	**106**	74-134	
100-44-7	Benzyl Chloride	25.5	32.0	**125**	72-174	
541-73-1	1,3-Dichlorobenzene	25.3	25.6	**101**	73-137	
106-46-7	1,4-Dichlorobenzene	26.0	26.5	**102**	71-136	
95-50-1	1,2-Dichlorobenzene	25.5	25.7	**101**	70-140	
5989-27-5	d-Limonene	25.3	34.1	**135**	20-202	
96-12-8	1,2-Dibromo-3-chloropropane	24.8	28.2	**114**	77-157	
120-82-1	1,2,4-Trichlorobenzene	26.8	27.9	**104**	68-154	
91-20-3	Naphthalene	26.0	27.7	**107**	63-160	
87-68-3	Hexachlorobutadiene	26.5	26.4	**100**	61-147	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070405-LCS

Laboratory Control Sample (LCS) Summary

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	NA
Analyst:	Liliana Marghitoiu	Date Analyzed:	4/5/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	25.5	22.1	**87**	68-124	
74-87-3	Chloromethane	24.3	22.8	**94**	65-120	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	25.5	24.2	**95**	47-130	
75-01-4	Vinyl Chloride	24.8	24.4	**98**	67-127	
106-99-0	1,3-Butadiene	26.0	27.2	**105**	65-118	
74-83-9	Bromomethane	25.0	20.3	**81**	65-134	
75-00-3	Chloroethane	25.0	23.8	**95**	71-121	
64-17-5	Ethanol	22.3	22.9	**103**	66-133	
75-05-8	Acetonitrile	23.3	22.7	**97**	64-124	
107-02-8	Acrolein	23.3	25.0	**107**	61-121	
67-64-1	Acetone	26.5	22.2	**84**	62-113	
75-69-4	Trichlorofluoromethane	24.3	23.0	**95**	68-130	
67-63-0	2-Propanol (Isopropyl Alcohol)	24.5	22.3	**91**	72-119	
107-13-1	Acrylonitrile	25.5	28.0	**110**	71-129	
75-35-4	1,1-Dichloroethene	27.3	27.0	**99**	74-126	
75-09-2	Methylene chloride	26.8	23.2	**87**	68-120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	26.0	25.8	**99**	61-128	
76-13-1	Trichlorotrifluoroethane	27.0	25.8	**96**	68-127	
75-15-0	Carbon Disulfide	25.0	23.9	**96**	69-126	
156-60-5	trans-1,2-Dichloroethene	26.3	26.1	**99**	76-124	
75-34-3	1,1-Dichloroethane	26.3	24.6	**94**	75-120	
1634-04-4	Methyl tert-Butyl Ether	26.3	24.9	**95**	68-123	
108-05-4	Vinyl Acetate	24.3	25.4	**105**	56-139	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070405-LCS
0
0

Laboratory Control Sample (LCS) Summary

0

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	NA
Analyst:	Liliana Marghitoiu	Date Analyzed:	4/5/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	26.8	27.8	**104**	74-126	
156-59-2	cis-1,2-Dichloroethene	26.5	26.1	**98**	77-122	
110-54-3	n-Hexane	26.8	24.9	**93**	72-119	
67-66-3	Chloroform	30.0	27.2	**91**	75-119	
107-06-2	1,2-Dichloroethane	26.0	25.0	**96**	74-125	
71-55-6	1,1,1-Trichloroethane	26.3	25.3	**96**	75-129	
71-43-2	Benzene	26.3	24.8	**94**	69-118	
56-23-5	Carbon Tetrachloride	25.8	27.3	**106**	72-139	
78-87-5	1,2-Dichloropropane	26.0	25.7	**99**	75-122	
75-27-4	Bromodichloromethane	27.5	28.0	**102**	79-125	
79-01-6	Trichloroethene	27.3	27.4	**100**	74-123	
123-91-1	1,4-Dioxane	27.3	30.7	**112**	80-128	
10061-01-5	cis-1,3-Dichloropropene	26.0	26.4	**102**	81-126	
108-10-1	4-Methyl-2-pentanone	26.5	29.3	**111**	78-132	
10061-02-6	trans-1,3-Dichloropropene	27.8	29.2	**105**	80-130	
79-00-5	1,1,2-Trichloroethane	25.8	26.5	**103**	76-123	
108-88-3	Toluene	26.0	23.7	**91**	74-124	
591-78-6	2-Hexanone	26.0	29.0	**112**	77-140	
124-48-1	Dibromochloromethane	26.5	28.0	**106**	81-139	
106-93-4	1,2-Dibromoethane	26.0	27.0	**104**	77-133	
123-86-4	n-Butyl Acetate	25.0	29.3	**117**	71-146	
127-18-4	Tetrachloroethene	25.8	24.9	**97**	71-135	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070405-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 4/5/07
Sampling Media: Summa Canister Volume(s) Analyzed: NA Liter
Test Notes:

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	26.0	24.1	**93**	76-126	
100-41-4	Ethylbenzene	25.8	25.3	**98**	77-127	
179601-23-1	m,p-Xylenes	61.5	61.6	**100**	77-128	
75-25-2	Bromoform	31.3	34.2	**109**	77-143	
100-42-5	Styrene	25.8	29.1	**113**	71-139	
95-47-6	o-Xylene	29.0	29.3	**101**	76-128	
111-84-2	n-Nonane	25.0	25.2	**101**	73-131	
79-34-5	1,1,2,2-Tetrachloroethane	29.3	29.8	**102**	79-130	
98-82-8	Cumene	26.0	25.2	**97**	77-128	
80-56-8	alpha-Pinene	25.3	27.5	**109**	66-140	
622-96-8	4-Ethyltoluene	26.3	26.0	**99**	74-132	
108-67-8	1,3,5-Trimethylbenzene	25.5	25.9	**102**	72-134	
95-63-6	1,2,4-Trimethylbenzene	26.0	26.7	**103**	74-134	
100-44-7	Benzyl Chloride	25.5	29.4	**115**	72-174	
541-73-1	1,3-Dichlorobenzene	25.3	24.5	**97**	73-137	
106-46-7	1,4-Dichlorobenzene	26.0	25.4	**98**	71-136	
95-50-1	1,2-Dichlorobenzene	25.5	24.5	**96**	70-140	
5989-27-5	d-Limonene	25.3	32.9	**130**	20-202	
96-12-8	1,2-Dibromo-3-chloropropane	24.8	26.2	**106**	77-157	
120-82-1	1,2,4-Trichlorobenzene	26.8	25.8	**96**	68-154	
91-20-3	Naphthalene	26.0	25.9	**100**	63-160	
87-68-3	Hexachlorobutadiene	26.5	25.0	**94**	61-147	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070405-LCS

Laboratory Control Sample (LCS) Summary

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8	Date Received:	NA
Analyst:	Liliana Marghitoiu	Date Analyzed:	4/5/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	25.5	23.9	**94**	68-124	
74-87-3	Chloromethane	24.3	23.3	**96**	65-120	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	25.5	24.2	**95**	47-130	
75-01-4	Vinyl Chloride	24.8	25.0	**101**	67-127	
106-99-0	1,3-Butadiene	26.0	27.3	**105**	65-118	
74-83-9	Bromomethane	25.0	22.0	**88**	65-134	
75-00-3	Chloroethane	25.0	19.7	**79**	71-121	
64-17-5	Ethanol	22.3	20.7	**93**	66-133	
75-05-8	Acetonitrile	23.3	23.8	**102**	64-124	
107-02-8	Acrolein	23.3	22.9	**98**	61-121	
67-64-1	Acetone	26.5	21.7	**82**	62-113	
75-69-4	Trichlorofluoromethane	24.3	22.4	**92**	68-130	
67-63-0	2-Propanol (Isopropyl Alcohol)	24.5	21.8	**89**	72-119	
107-13-1	Acrylonitrile	25.5	25.2	**99**	71-129	
75-35-4	1,1-Dichloroethene	27.3	25.1	**92**	74-126	
75-09-2	Methylene chloride	26.8	23.2	**87**	68-120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	26.0	26.0	**100**	61-128	
76-13-1	Trichlorotrifluoroethane	27.0	24.4	**90**	68-127	
75-15-0	Carbon Disulfide	25.0	22.9	**92**	69-126	
156-60-5	trans-1,2-Dichloroethene	26.3	24.8	**94**	76-124	
75-34-3	1,1-Dichloroethane	26.3	25.4	**97**	75-120	
1634-04-4	Methyl tert-Butyl Ether	26.3	25.3	**96**	68-123	
108-05-4	Vinyl Acetate	24.3	26.1	**107**	56-139	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070405-LCS
0
0

Laboratory Control Sample (LCS) Summary

0

Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8	Date Received:	NA
Analyst:	Liliana Marghitoiu	Date Analyzed:	4/5/07
Sampling Media:	Summa Canister	Volume(s) Analyzed:	NA Liter
Test Notes:			

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
78-93-3	2-Butanone (MEK)	26.8	24.7	**92**	74-126	
156-59-2	cis-1,2-Dichloroethene	26.5	25.2	**95**	77-122	
110-54-3	n-Hexane	26.8	25.3	**94**	72-119	
67-66-3	Chloroform	30.0	26.8	**89**	75-119	
107-06-2	1,2-Dichloroethane	26.0	25.2	**97**	74-125	
71-55-6	1,1,1-Trichloroethane	26.3	24.7	**94**	75-129	
71-43-2	Benzene	26.3	24.4	**93**	69-118	
56-23-5	Carbon Tetrachloride	25.8	23.5	**91**	72-139	
78-87-5	1,2-Dichloropropane	26.0	24.6	**95**	75-122	
75-27-4	Bromodichloromethane	27.5	25.5	**93**	79-125	
79-01-6	Trichloroethene	27.3	25.1	**92**	74-123	
123-91-1	1,4-Dioxane	27.3	26.3	**96**	80-128	
10061-01-5	cis-1,3-Dichloropropene	26.0	23.9	**92**	81-126	
108-10-1	4-Methyl-2-pentanone	26.5	27.3	**103**	78-132	
10061-02-6	trans-1,3-Dichloropropene	27.8	26.9	**97**	80-130	
79-00-5	1,1,2-Trichloroethane	25.8	24.7	**96**	76-123	
108-88-3	Toluene	26.0	23.1	**89**	74-124	
591-78-6	2-Hexanone	26.0	24.9	**96**	77-140	
124-48-1	Dibromochloromethane	26.5	24.3	**92**	81-139	
106-93-4	1,2-Dibromoethane	26.0	23.9	**92**	77-133	
123-86-4	n-Butyl Acetate	25.0	25.1	**100**	71-146	
127-18-4	Tetrachloroethene	25.8	22.8	**88**	71-135	

Verified By:_____ Date:_____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: **ARCADIS U.S., Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P2700781
Client Project ID: **Binghamton Dover/NJ000579.0001** CAS Sample ID: P070405-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 4/5/07
Sampling Media: Summa Canister Volume(s) Analyzed: NA Liter
Test Notes:

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
108-90-7	Chlorobenzene	26.0	23.3	**90**	76-126	
100-41-4	Ethylbenzene	25.8	23.9	**93**	77-127	
179601-23-1	m,p-Xylenes	61.5	57.0	**93**	77-128	
75-25-2	Bromoform	31.3	28.6	**91**	77-143	
100-42-5	Styrene	25.8	24.7	**96**	71-139	
95-47-6	o-Xylene	29.0	27.1	**93**	76-128	
111-84-2	n-Nonane	25.0	23.6	**94**	73-131	
79-34-5	1,1,2,2-Tetrachloroethane	29.3	27.6	**94**	79-130	
98-82-8	Cumene	26.0	24.5	**94**	77-128	
80-56-8	alpha-Pinene	25.3	24.4	**96**	66-140	
622-96-8	4-Ethyltoluene	26.3	25.5	**97**	74-132	
108-67-8	1,3,5-Trimethylbenzene	25.5	24.9	**98**	72-134	
95-63-6	1,2,4-Trimethylbenzene	26.0	25.8	**99**	74-134	
100-44-7	Benzyl Chloride	25.5	26.5	**104**	72-174	
541-73-1	1,3-Dichlorobenzene	25.3	24.7	**98**	73-137	
106-46-7	1,4-Dichlorobenzene	26.0	25.5	**98**	71-136	
95-50-1	1,2-Dichlorobenzene	25.5	25.4	**100**	70-140	
5989-27-5	d-Limonene	25.3	27.3	**108**	20-202	
96-12-8	1,2-Dibromo-3-chloropropane	24.8	29.9	**121**	77-157	
120-82-1	1,2,4-Trichlorobenzene	26.8	33.0	**123**	68-154	
91-20-3	Naphthalene	26.0	33.3	**128**	63-160	
87-68-3	Hexachlorobutadiene	26.5	33.2	**125**	61-147	

Verified By:_____ Date:_____

ARCADIS

Appendix D

Partial List of Chemicals Used in the Facility (Attachment B of this Appendix provided upon request)

MEMORANDUM

BBL®

an ARCADIS company

To: Greg Albright **Date:** 07/17/06

From: Margaret Bartee **cc:**

Re: MSDS forms for TeamWorld Chemical Inventory

At the request of the New York State Department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC), a list of products used during TeamWorld's printing processes was obtained from Steve Wozniak at TeamWorld. Material Safety Data Sheets (MSDSs) were then obtained for those products on the list that had manufacturer's names associated with them. MSDS have been received from NAZDAR, Amrex Chemical Company, Autoroll Print Technologies, and Pentex Print Master Industries, Inc. MSDS are forthcoming from Markham Packaging Company, LLC. A copy of the product list received from TeamWorld is included in Attachment A. The MSDSs received to date are included in Attachment B.

The chemical inventory developed from the available MSDSs is presented in Table 1. The chemicals primarily consist of petroleum hydrocarbons, metals, resins, and alcohols. No chlorinated solvents were listed on the MSDS that were obtained. The most prevalent chemicals in terms of the number of products that contain them and the percent by weight in these products are butoxyethanol and resin mixtures.

MPB/mpb

8 South River Road • Cranbury, NJ 08512-3698 • Tel (609) 860-0590 • Fax (609) 860-0491

TABLE 1
CHEMICAL INVENTORY

FORMER BINGHAMTON PLASTICS SITE
BINGHAMTON, NEW YORK

CAS No.	Chemical Name	Number of Products	Range of Percent by Weight	
			Minimum	Maximum
111-76-2	2-Butoxyethanol	32	38%	100%
NA	Resin Mixtures	32	13%	47%
13463-67-7	Titanium Dioxide	31	0%	45%
NA	Pigments	31	0%	24%
85-68-7	Butyl Benzyl Phthalate	31	<2%	<2%
112945-52-5	Silicon Dioxide (Amorphous Fumed Silica)	30	0%	8%
1333-86-4	Carbon Black	21	0%	10%
112-07-2	2-Butoxyethanol Acetate	20	0%	50%
112926-00-8	Silica, Amorphous	18	0%	23%
1330-20-7	Xylene	18	1%	75%
100-41-4	Ethylbenzene	18	1%	25%
64742-95-6	Solvent Naphtha (Petroleum), Light Arom.	16	10%	85%
108-65-6	2-Methoxy-1-Methylethyl Acetate (Methoxy Propyl Acetate)	16	5%	15%
108-90-7	Chlorobenzene	16	0.1%	1%
64742-94-5	Solvent Naphtha (Petroleum), Heavy Arom.	15	5%	15%
97-86-9	Isobutyl Methacrylate	15	0%	1%
1344-37-2	Lead Sulfochromate	10	0%	24%
12656-85-8	Lead Chromate/Molybdate	10	0%	21%
111-15-9	Ethoxyethyl Acetate	3	10%	100%
7727-43-7	Barium Sulfate	3	0%	45%
NA	Acrylic Resin	2	8%	25%
108-94-1	Cyclohexanone	2	1%	25%
NA	Vinyl Resin	2	8%	25%
9002-88-4	Polyethylene Wax	2	0%	20%
7440-50-8	Copper Compounds	2	5%	10%
7440-66-6	Zinc Compounds	2	<2%	<2%
67-63-0	Isopropyl Alcohol (Isopropanol, 2-Propanol)	1	100%	100%
230-991-7	Butylglycolate	1	95%	100%
28182-81-2	Polyisocyanate Polymer	1	75%	75%
64742-88-7	Petroleum Distillate	1	25%	39%
2807-30-9	2-Propoxyethanol	1	25%	30%
107-98-2	1-Methoxy-2-Propanol	1	20%	25%
7429-90-5	Aluminum Compounds	1	15%	20%
123-42-2	Diacetone alcohol	1	10%	15%
7439-96-5	Manganese Compounds	1	0%	5%
NA	Plasticizer	1	2%	5%
64-17-5	Ethanol	1	<2%	<2%
96-29-7	Methyl Ethyl Keoxime	1	<2%	<2%
822-06-0	Hexamethylene 1,6 Diisocyante	1	0%	1%

Notes:
Number of Products - The number of products on the TeamWorld product list that contain the compound.
Range of Percent by Weight - The lowest and highest percent weight listed for each compound, based on the product MSDSs obtained as of July 17, 2006.

Attachment A

TeamWorks (Former Binghamton Plastics)

Description	Item #	Size	On Hand	
Spl 97 So White	6669509703	QT		NAZDAR 856 663 7878
Spl 97 So White	6669509704	GL		NAZDAR 856 663 7879
Spl 97 So White	6669509704SPL	GL	6gal	NAZDAR 856 663 7880
Spl 97 Red 485c	6780959702	PT	1	NAZDAR 856 663 7881
Spl 97 Red 485c	6780959704	GL	2	NAZDAR 856 663 7882
Spl 97 485c Red	6793959702	PT	1	NAZDAR 856 663 7883
Spl 97 Like 9712 Medium Yellow	6793999702	PT		NAZDAR 856 663 7884
Spl 97 Like 9712 Medium Yellow	6793999704	GL	0.75	NAZDAR 856 663 7885
9710 Primrose Yellow	971003	QT	4	NAZDAR 856 663 7886
9711 Lemon Yellow	971103	QT	3	NAZDAR 856 663 7887
9712 Medium Yellow	971203	QT	3	NAZDAR 856 663 7888
9712 Medium Yellow	971204	GL	1.5	NAZDAR 856 663 7889
9713 Emerald Green	971303	QT		NAZDAR 856 663 7890
9718 Scarlet Red	971803	QT		NAZDAR 856 663 7891
9719 Fire Red	971903	QT	3	NAZDAR 856 663 7892
9720 Brilliant Orange	972003	QT	3	NAZDAR 856 663 7893
9721 Peacock Blue	972103	QT	4	NAZDAR 856 663 7894
9722 Ultra Blue	972203	QT	4	NAZDAR 856 663 7895
9724 Black	972404	GL	2	NAZDAR 856 663 7896
9727 Mixing/Overprint Clear	972703	QT	1	NAZDAR 856 663 7897
9758 Tinting White	975803	QT		NAZDAR 856 663 7898
9758 Tinting White	975804	GL		NAZDAR 856 663 7899
9759 Tinting Black	975903	QT		NAZDAR 856 663 7900
9759 Tinting Black	975904	GL	1	NAZDAR 856 663 7901
9760 Orange	976003	QT	3	NAZDAR 856 663 7902
9761 Yellow	976103	QT	3.5	NAZDAR 856 663 7903
9762 Warm Red	976203	QT	1	NAZDAR 856 663 7904
9763 Rubine Red	976303	QT	2	NAZDAR 856 663 7905
9764 Rhodamine Red	976403	QT	4	NAZDAR 856 663 7906
9765 Purple	976503	QT	4	NAZDAR 856 663 7907
9766 Violet	976603	QT	3.5	NAZDAR 856 663 7908
9767 Reflex Blue	976703	QT	2	NAZDAR 856 663 7909
9768 Process Blue	976803	QT	2	NAZDAR 856 663 7910
9769 Green	976903	QT	3	NAZDAR 856 663 7911
Spl 97 871c Gold	F047529703	QT	1	NAZDAR 856 663 7912
Spl 97 Silver 877	F608479703	QT	1	NAZDAR 856 663 7913
Spl 97 873c Metallic Copper	F732279703	QT	1	NAZDAR 856 663 7914
Px15 Dark Green	PX1503	QT		NAZDAR 856 663 7915
Wipes	DRWF20	CS	8	
Alcohol	IPA-5P	GL	1	Amrex Chemical Co 607 772 8747
Gloves	61-XHDL	BX	4	
Re180 Thinner	RE18004	GL		NAZDAR 856 663 7915
Re180 Thinner	RE18005	5G		NAZDAR 856 663 7916
Sw37 Universal Screen Wash	SW3705	5G	1	NAZDAR 856 663 7917
TAPE				
2" Machine Tape		BX		MARKHAM PKG 607 648 8004
3" machine tape	HP 100	RLS	0	MARKHAM PKG 607 648 8005
2" tapegun tape		CS		MARKHAM PKG 607 648 8006
3" tapegune tape		CS	144	MARKHAM PKG 607 648 8007

MAGIC TAPE		RLS	8	MARKHAM PKG 607 648 8008
SHRINK WRAP				
CRYOVAC D955 .75 18"	D955.7518CF	RLS		MARKHAM PKG 607 648 8008
CRYOVAC D955 .75 12"	D955.7512CF	RLS	1	MARKHAM PKG 607 648 8009
CRYOVAC D955 .75 10"	D955.7510CF	RLS		MARKHAM PKG 607 648 8010
Pad Printing				
Lemon	PP 020	LT	1	AUTOROLL 978-777-2160
Med. Yellow	PP 021	LT	1	AUTOROLL 978-777-2161
Yellow-Orange	PP 022	LT	1	AUTOROLL 978-777-2162
Magenta	PP 033	LT	1	AUTOROLL 978-777-2163
Bright Red	PP 035	LT	1	AUTOROLL 978-777-2164
Vermilion	PP 036	LT	1	AUTOROLL 978-777-2165
Dark Brown	PP 045	LT	1	AUTOROLL 978-777-2166
Ultramarine Blue	PP 055	LT	1	AUTOROLL 978-777-2167
Deep Blue	PP 058	LT	1	AUTOROLL 978-777-2168
Royal Blue	PP 059	LT	1	AUTOROLL 978-777-2169
Grass Green	PP 067	LT	1	AUTOROLL 978-777-2170
Brilliant Green	PP 068	LT	1	AUTOROLL 978-777-2171
White	PP 070	LT	1	AUTOROLL 978-777-2172
Black	PP 073	LT	1	AUTOROLL 978-777-2173
Opaque White	PP 170	LT	1	AUTOROLL 978-777-2174
P2 Primer	3514 97 019	LT	1	AUTOROLL 978-777-2175
SV1-Retarder	3507 98 002	Lt	1	AUTOROLL 978-777-2176
PPTPV Thinner	3501 97 065	LT	1	AUTOROLL 978-777-2177
INK FLEX				
White	MP2000-01	LT	1	DAVIS INTERNATIONAL 585-546-6
Hardner	MP2000-51	LT	1	DAVIS INTERNATIONAL 585-546-6
Retarder	MP2000-58	LT	1	DAVIS INTERNATIONAL 585-546-6
Thinner	MP2000-101	LT	1	DAVIS INTERNATIONAL 585-546-6
FOIL				
RED	SAMPLE	RLS		
WHITE	SAMPLE	RLS		
SILVER	SAMPLE	RLS		
GOLD	SAMPLE	RLS		
CLEAR	SAMPLE	RLS		