REMEDIAL INVESTIGATION / FEASIBILITY STUDY REPORT LOOHNS CORNING SITE SITE # 851028

WORK ASSIGNMENT NO. D004434-35

Prepared for:

New York State Department of Environmental Conservation

Albany, New York

Prepared by:
MACTEC Engineering and Consulting, P.C.
Portland, Maine

MACTEC: 3612102148

FEBRUARY 2012

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
cis-1,2-DCE	cis-1,2-Dichloroethene
DUSR	data usability summary report
°F	degrees Fahrenheit
FS	Feasibility Study
IRM	Interim Remedial Measure
MACTEC	MACTEC Engineering and Consulting, P.C.
mg/kg	milligram(s) per kilogram
msl	mean sea level
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
O&M	operation and maintenance
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PID	photoionization detector
PW	present worth
QHHEA	Qualitative Human Health Exposure Assessment
RAOs	remedial action objectives

GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

RA	remedial alternatives
Report	Remedial Investigation/Feasibility Study Report
RI	Remedial Investigation
SC	site characterization
SCGs	standards, criteria and guidance values
Site	Loohns Corning site
SVE	soil vapor extraction
SVI	soil vapor intrusion
SVOC	semi-volatile organic compound
TCA	1,1,1-trichloroethane
TCE	trichloroethene
µg/Kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
$\mu g/M^3$	microgram(s) per cubic meter
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
WA	Work Assignment

1.0 INTRODUCTION

This Remedial Investigation/Feasibility Study (RI/FS) report (Report) has been prepared by MACTEC Engineering and Consulting, P.C., (MACTEC) in response to Work Assignment (WA) No. D004434-35 from the New York State Department of Environmental Conservation (NYSDEC) for the Loohns Corning site (Site) in the Town of Corning, New York (Figure 1.1). The Site is a former dry cleaner with a documented release of dry-cleaning solvents into onsite media. The Site is currently listed as a Class 2 Inactive Hazardous Waste Site; Site No. 8-51-028, in the Registry of Hazardous Waste Sites in New York State (NYS). This Report has been prepared in accordance with the NYSDEC requirements in WA No. D004434-35, dated February 19, 2010; with the July 2005 Superfund Standby Contract between MACTEC and the NYSDEC; and with DER-10/Technical Guidance for the Completion of Site Investigation and Remediation (NYSDEC, 2010).

The RI/FS for the Site has been conducted in accordance with the WA, as well as with applicable portions of the following documents:

- NYSDEC Final DER-10 "Technical Guidance for Site Investigation and Remediation"(NYSDEC, 2010);
- 6 New York Codes, Rules and Regulations (NYCRR) Part 375 "Environmental Remediation Programs"; and
- United States Environmental Protection Agency (USEPA) "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (USEPA, 1988).

Based on historic soil, groundwater, and sub-slab vapor/indoor air contamination, the Site poses a potential significant threat to public health and the environment as defined in 6 NYCRR 375 (NYS, 2006). Existing historical site data was not sufficient to fully characterize the Site and therefore the RI was performed. This Report presents the technical scope of work for the RI field activities and a summary of the data collected; also presented is the FS which develops remedial objectives and evaluates potential remedial alternatives (RAs) from an engineering, environmental, public health, and economic perspective, with a recommended preferred alternative.

1.1 REPORT ORGANIZATION

The RI/FS includes Sections 1.0 to 12.0, and associated appendices. The RI portion of the report consists of Sections 1.0 to 7.0, outlined below.

Section 1.0: Discusses the purpose of the RI, Site history, and previous investigations.

Section 2.0: Presents the specific scope of work for the RI.

Section 3.0: Summarizes the physical characteristics of the Site and surrounding area. This includes results of physical characteristics as determined during the RI field program.

Section 4.0: Presents results of the analytical data and discusses the nature and extent of contamination.

Section 5.0: Discusses the fate and transport of the Site contaminants.

Section 6.0: Presents the qualitative human health exposure assessment (QHHEA).

Section 7.0: Presents the Summary and Conclusions, including a discussion of remedial action objectives (RAOs).

The FS portion of the Report consists of Sections 8.0 to 12.0, outlined below.

Section 8.0: Discusses the development of RAOs, the general response actions, and the contamination requiring remediation.

Section 9.0: Discusses the identification and screening of applicable remedial technologies.

Section 10.0: Discusses the development and screening of alternatives.

Section 11.0: Presents a detailed analysis of each of the RAs. The detailed analysis is intended to provide decision-makers with the relevant information with which to aid in selection of a site remedy.

Section 12.0: Presents a comparative analysis of the alternatives. This section evaluates the relative performance of each alternative using the same criteria by which the detailed analysis of each alternative was conducted. The purpose of the comparative analysis is to identify the advantages and disadvantages of each alternative relative to one another to aid in selecting a remedy for the Site.

Field data sheets and supporting information are included in the appendices attached to this report.

This Report is supplemented by the following attached documents:

- Appendix A – Previous Investigation Information
- Appendix B – Site Photographs
- Appendix C – Field Data Records

- Appendix D – Survey Data
- Appendix E – Data Usability Summary Reports (DUSRs)
- Appendix F – Detailed Cost Estimate and Calculations

1.2 PURPOSE OF REPORT

Previous studies identified tetrachloroethene (PCE) in surficial and shallow unpaved soils behind (north of) the former dry cleaner. Prior soil vapor and indoor air sampling identified PCE in soil vapor beneath the floor of the former dry cleaner.

The objectives of the RI are to determine the nature and extent of PCE contamination associated with the Site. The investigation assessed potential threats to human health and the environment from the Site by delineating the residual soil contamination in the source area and the extent of potential groundwater and soil vapor contamination. The FS develops remedial objectives and evaluates potential RAs from an engineering, environmental, public health, and economic perspective.

1.3 SITE BACKGROUND

1.3.1 Site Description

The Site is located at 37 East Pulteney Street in a mixed residential/commercial neighborhood, in the City of Corning, Steuben County, New York (Figure 1.1). The Site property consists of 0.5 acres including a retail building covering much of the rear (north) half of the lot and a paved large parking area covering the front (south) portion of the lot. According to the City of Corning Assessor's office, the Site building was constructed in 1971. The building is one story with a slab-on-grade foundation. The building is currently configured for four tenants, and recent businesses include: a tanning salon in the building's west end, a former delicatessen and a tattoo parlor in the center, and a financial services office on the east end. The former delicatessen, which ceased operations late in 2011, occupied the former dry cleaner's space.

Residential property is located north of the Site, a restaurant is located to the east, and commercial property is located west of the Site. Commercial property is also located south of the Site across East Pulteney Street.

1.3.2 Site History

In 2005 the NYSDEC asked MACTEC to perform an initial site characterization study at 37 East Pulteney Street based on available information which indicated the presence of solvents in Site media (see the prior investigations summarized in the following section below). MACTEC performed a site walk over, reviewed available city records, and completed an electronic database records search. In 1968, according to the Sanborn Fire Insurance Map a building was located on the site property in the approximate location of the current Site parking lot. The 1961, 1965 and 1970 Mannings City Directory list the property as a residence (35 East Pulteney Street). Property use before this time is unknown. According to discussions with the City of Corning tax assessor, the one story cement block building currently located on the property was constructed in 1971.

No dry cleaner is listed at the location in the Corning City Directory of 1970, which is consistent with the information that the building was reportedly constructed in 1971. Although it is not known if a dry cleaner was one of the original tenants in 1971, Gilliam's One Hour Cleaners was listed at the location in the 1975 city directory. The 1981 and 1989 directories reviewed listed Loohns Cleaners Launderers, Inc. at the location. The date the dry cleaner ceased operation is not known. The former dry cleaner space was most recently leased and used as a delicatessen. As of December 2011, there is no active tenant in this space.

The Site is served by public water and sewer which were installed along Pulteney Street in the early 1900s (Panton, 2005); it is therefore assumed that the Site building has always been serviced by public water and sewer.

1.3.3 Previous Field Investigations

Various environmental studies were conducted between 1997 and 2006 by the current and previous site owners. These are described below based on the available records.

Sear-Brown Phase II – March 1997. A Phase II Site Assessment was conducted by Sear-Brown Group for Fleet Financial Group (Sear-Brown, 1997a). This investigation included soil sampling north of the building in the vicinity of the rear door of the former dry cleaners and installation of two

monitoring wells. MW-1 is located approximately 8 feet north of the back door and MW-2 is located approximately 5 feet south of the front door of the former dry cleaners. Both wells were installed with 10-foot long well screens set from 10 to 20 feet below ground surface (bgs). The water table is typically measured at 15 feet bgs in these wells. PCE was reported in soil from beneath the slab at 0.154 and 0.223 milligram per kilogram (mg/kg) and in soil samples from north of the building at concentrations ranging from 0.028 to 311 mg/kg, exceeding the 1994 Technical Administration Guidance Memorandum 4046 soil cleanup objective of 1.4 mg/kg. Groundwater sample results were 84.5 micrograms per liter (ug/L) in MW-1 and 18.7 ug/L in MW-2 exceeding the Class GA groundwater standard of 5 ug/L. Excerpts from the Sear-Brown 1997 report showing sample locations and analytical results for soil and groundwater samples are provided in Appendix A. Results of this investigation suggested that a source of contamination existed north of the building, and that PCE was being transported via the groundwater to the south and beneath the building.

Sear-Brown Recommendations for Additional Level II Environmental Site Assessment – March 1997. Based on the Sear-Brown Phase II Investigation, Sear-Brown presented a letter report to Fleet National Bank (Sear-Brown, 1997b). The letter identified Site environmental concerns, and recommended additional investigation at the Site to provide additional data to support evaluation and development of remedial objectives. Recommendations for additional soil borings, installation of groundwater monitoring wells, and collection of passive soil gas samples were presented.

Stantec Consulting Services – November 2005. In November 2005, Stantec Consulting Services collected groundwater samples from MW-1 and MW-2 for the new property owner (Cadle's East Pulteney Street Plaza, Inc.) (Stantec, 2005). PCE, reported at a concentration of 41.3 µg/L in MW-1, was the only contaminant detected during the sampling round. A figure from the report indicating the approximate well locations and a summary of detected VOCs is provided in Appendix A.

Teeter Environmental Services, Inc. - May 2006. Teeter Environmental Services performed a Phase II Site Assessment for the new property owner (Ms. Angela Hickey) in April 2006 (Teeter, 2006). Field work included a one day Geoprobe® effort and the collection of soil and groundwater samples. Due to the size of the Geoprobe® rig and the limited access space to the rear of the Site building, no soil samples were collected in the vicinity of the rear door of the former dry cleaners, the location of the reported historic soil exceedances. No photoionization detector (PID) readings were noted over the soil samples, and no volatile organic compound (VOCs) were detected in the single soil sample

analyzed. PCE was detected in two of the eight groundwater samples collected. PCE was reported in MW-1 at a concentration of 29.8 µg/L and in a groundwater sample from B-8, located approximately 40 feet southeast of MW-2, at a concentration of 8.8 µg/L. PCE was the sole VOC reported in the groundwater samples. A figure from the report indicating the boring locations and PCE results is provided in Appendix A.

MACTEC Site Characterization Investigation – 2006. At NYSDEC's request, MACTEC performed a Site Characterization (SC) at the Site in 2006 and presented results of additional subsurface investigation activities in a SC report submitted to the NYSDEC in March 2007 (MACTEC, 2007). The purpose of the SC was to provide information to be used by the NYSDEC to reclassify the site into one of four hazardous waste site classifications (the previous reports submitted by Sear-Brown and Stantec, Inc. had not been provided to the NYSDEC prior to the SC investigation). Re-classification required determining if VOC contamination was present in Site media and if it may be migrating offsite. An additional objective was to determine whether the VOCs detected in the City supply wells originated from the Site. The Scope of Work for this investigation included field work performed in two rounds of exploration activities including the sampling and analysis of soils, groundwater, soil vapor, ambient air, and indoor air samples. Additionally, a land survey of the Site and surrounding area was conducted to create a base map and to locate relevant site features including the four new microwells and two existing wells used to determine the groundwater flow direction.

Results of the SC investigation show PCE concentrations in soils ranging from non-detect to 7.3 mg/kg, exceeding the 2006 Soil Cleanup Objective of 1.3 mg/kg. PCE was detected in 10 of the 21 groundwater samples collected, at concentrations that ranged from 2.1 J µg/L (GW-2) to 37 J µg/L (MW-1). Concentrations in two groundwater samples (MW-1 and GW-8A (5.1 J µg/L)) exceeded the NYS Class GA groundwater standard for PCE of 5 µg/L.

A sub-slab soil vapor sample collected from beneath the onsite building detected PCE at 32,842 micrograms per cubic meter (µg/M^3) and the indoor air analytical result was 35.8 µg/M^3. Although the indoor air was below the New York State Department of Health (NYSDOH) regulatory guidance value for PCE (100 µg/M^3), the NYSDOH recommends mitigation based on the soil vapor intrusion matrix for PCE (Matrix 2), considering both soil vapor and indoor air concentrations (NYSDOH, 2006).

PCE, trichloroethene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA) were detected in the Geoprobe soil vapor samples collected outside of the building footprint. However, there are no guidance values for soil vapor.

Selected figures from the report indicating investigation locations and results are provided in Appendix A.

The SC report listed the following findings:

1) Groundwater flow is generally to the south towards the river and not towards the City of Corning drinking water supply wells 1 and 2 contaminated with PCE.
2) Onsite groundwater is contaminated above the NYS GA classification; however, analytical results do not indicate that PCE contamination is migrating off-site in groundwater at concentrations above the NYS standards.
3) Although only trace concentrations of PCE, TCE, and 1,1,1-TCA were detected in soil vapor samples collected from Geoprobe borings around the Site property (each less than 80 µg/M^3), sub-slab soil vapor results for PCE of 32,842 ED µg/m^3 indicate a need for mitigation based on Matrix 2 from the New York State Department of Health, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, October 2006.
4) PCE was detected in soil in directly north of the former dry cleaners at a concentration of 7,300 micrograms per kilogram (µg/Kg), compared to a Soil Cleanup Objective of 1,300 µg/Kg. It is likely that contaminants were disposed in this area.

2.0 SCOPE OF WORK

Based on the findings from the SC completed by MACTEC in 2007 and other prior environmental investigations, the NYSDEC reclassified the Site as a Class 2 Inactive hazardous waste site (Site No. 851028), and in 2010 directed MACTEC to perform a RI/FS.

The RI investigation was conducted based on the presence of chlorinated VOCs, specifically PCE, in Site media. PCE is a listed hazardous waste under Title 6 NYCRR Part 371 (NYS, 1999a). Based on SC and historical data, PCE is present in groundwater, soil, soil vapor (sub-slab and exterior soils), and indoor air at the Site. As a result of reported concentrations of PCE in soil, groundwater, sub-slab soil vapor, and indoor air samples, NYSDEC recommended further action. Although concentrations and locations of PCE detected in groundwater indicate a release at the Site, results do not indicate that PCE contamination is migrating off-site in groundwater at concentrations above the NYS GA standard.

During the RI, the NYSDEC identified a soil removal interim remedial measure (IRM) as a priority. The NYSDEC determined that removing accessible contaminated soil would be an appropriate remedial action to mitigate residual soil contamination and potentially reduce levels of PCE in sub-slab vapor beneath the Site structure.

In June 2010, MACTEC conducted a sampling investigation to further evaluate the area of impacted soils and provide supporting data needed to design a soil removal IRM (MACTEC, 2011). The 2010 field investigation included sampling and analysis at 14 soil boring locations, four surface soil locations, and three downgradient groundwater sample locations. A site map showing RI sampling locations is shown on Figure 2.1. Photographs taken during the RI investigation are located in Appendix B. Field Data Records including, boring logs and groundwater low flow sheets are included as Appendix C.

In December 2010, removal of accessible impacted soil from the apparent release area to the rear of the former dry cleaners was completed. MACTEC collected post removal samples from the excavation consistent with DER-10, Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010) to document the levels of contamination remaining in Site soils at the limits of the

soil remediation. As part of the soil IRM, MACTEC installed a soil vapor extraction well within the backfilled excavation that could be used for further source area contaminant reduction, if needed.

In June 2011, MACTEC collected groundwater samples from the two permanent monitoring wells and collected soil vapor samples from the exterior extraction well and from a sub-slab location within the former dry cleaner space. This sampling indicated reduced levels of impact to Site groundwater but persistent elevated levels of PCE in sub-slab vapor. Based on the results, the NYSDEC identified a soil vapor extraction (SVE) interim remedial measure (IRM) as a priority. The NYSDEC determined that installing a modified SVE system would be an appropriate remedial action to reduce residual source area impact in shallow soil beneath the building slab and to mitigate potential human exposure to potential soil vapor impact.

In January 2012, MACTEC installed a modified soil vapor extraction system within the former dry cleaner. The system includes a single extraction point located in the rear hallway with a radon-type fan used to extract sub-slab vapor and vent above the structure roof. The system is currently operating.

Sampling activities accomplished during the RI are discussed in more detail in the following sections.

2.1 PRE-IRM INVESTIGATION

To establish current conditions and better define the areal and vertical extent of PCE impact, MACTEC completed a soil sampling program along the north side of the former dry cleaners where prior sampling indicated the presence of PCE in shallow soils. Field work was completed during the week of June 8, 2010.

The field investigation included:

- eleven direct-push soil borings (PDI-01 to PDI-09, PDI-12, PDI-13),
- three hand borings with shallow soil samples (PDI-10, PDI-11 and PDI-14),
- one surface soil location (SS-1)
- three offsite soil samples (BKSS-01, BKSS-02 and BKSS-03)
- installation of 3 groundwater monitoring wells

Soil borings were completed to depths of between 16 and 22 feet bgs. Samples were retrieved continuously via 4-foot long sampling liners and each soil interval was logged and examined. Hand sampling was accomplished at three locations (PDI-10, PDI-11 and PDI-14) due to the presence of overhead utilities. A total of 26 soil samples, plus quality assurance/quality control samples were collected from PDI-01 through PDI-14. Sample locations were selected based on PID response and to provide spatial coverage to assess the levels of PCE in soils laterally and vertically in the area of impact. Samples were analyzed for VOCs.

One surface soil sample was collected to characterize surficial soil for contaminants other than VOCs. SS-1 was collected from soil near the elbow of the natural gas feeder line that enters the rear of the building. This sample was analyzed for semi-volatile organic compounds (SVOCs), pesticides, polychlorinated biphenyls (PCBs) and inorganics (metals).

Three surface soil samples were obtained at locations apart from the area impacted by dry cleaning solvent (Figure 2.1). Sample BKSS-01 is located south of the Site from the grass strip bordering East Pulteney Street and within the town right-of-way. BKSS-02 was collected from an unpaved vacant lot to the northwest of the former dry cleaner space. BKSS-03 was collected from the grass strip along the south side of Ontario Street north of the Site. These samples were analyzed for SVOCs, pesticides, PCBs, and metals.

Three direct push borings (GW-13 through GW-15) were installed were drilled in front of the structure and to the southeast of MW-1 to refine information related to groundwater flow and potential contamination migrating offsite (Figure 2.1). Grab samples from the water table (19 feet bgs) were obtained from each of the three borings. These samples, along with prior groundwater samples from MW-2 provided a transect positioned cross-gradient to groundwater flow direction.

A survey of the contaminated soil area was completed by James Evans, a licensed surveyor, on November 30, 2010 (Appendix D).

2.2 SOIL REMOVAL IRM

The June 2010 soil sampling and analysis results confirmed that the dry cleaning solvent PCE was the principal Site-related contaminant of concern, and that it was present locally at levels above soil

criteria. In December 2010, impacted soils from a release area to the rear of the former dry cleaners were excavated to an approximate depth of six feet below grade and disposed off-site at a NYSDEC-approved landfill.

A total of seven confirmation samples (EX-01 to EX-07) from within the excavated area were collected by MACTEC in December 2010 and analyzed for VOCs. Samples EX-01 through EX-05 were collected from the bottom of the excavation. Samples EX-06 and EX-07 were collected from the north sidewall, approximately 4-feet below original grade.

A survey of the excavation was conducted by James Evans, a licensed surveyor, on December 9, 2010. A survey of the area showing the ground surface after backfilling the excavation was conducted on December 17, 2010. Surveys of conditions prior to the excavation, the extent of the excavation and restored conditions are provided in Appendix D.

2.3 POST IRM SAMPLING

In June 2011 groundwater samples from each of the onsite monitoring wells, a sub-slab soil vapor sample from inside the former drycleaner, and a vapor sample from the extraction well located in the IRM excavation area were collected to evaluate the potential need for additional remedial action (Figure 2.1).

3.0 SITE BACKGROUND AND PHYSICAL SETTING

This section describes the Site topography, climate, surface water and groundwater hydrology, and geology.

3.1 TOPOGRAPHY

The Site is located in the Chemung River Valley, which is oriented east-west. The Site property is located at 935 feet above mean sea level (msl), sloping slightly to the south. The surrounding area slopes slightly down to the south, before reaching the dike at the edge of the Chemung River, located 1,000 feet from the Site. The Chemung River is located at an elevation of approximately 920 feet above msl, just south of the dike. The topography to the north of the site is relatively flat for approximately 0.7 miles, and then rises to a ridge at 1,700 feet above msl approximately 1.75 miles from the Site.

3.2 CLIMATE

The climate of the area is characterized by moderately warm summers and cold winters. Mean monthly temperatures range from 23 degrees Fahrenheit (°F) in January to 68°F in July. Average annual precipitation is 32 inches. Average annual snowfall is 37 inches (NCDC, 2004).

3.3 GEOLOGY

Shallow overburden soils at the Site consist primarily of alluvial silts, sands and gravels. Surficial geology is mapped as oxidized, non calcareous, fine sand to gravel (Muller et al., 1986). Overburden thickness is estimated to be 60 feet based on published data on the saturated thickness of the Corning Aquifer in the vicinity of the Site (USGS, 1982). Based on regional geologic mapping (Rickard and Fisher, 1970) bedrock is expected to consist of shale and siltstones associated with the Upper Devonian West Falls Group; specifically, the Gardeau Formation, consisting of shale and siltstone; and/or Roricks Glen shale (Rickard and Fisher, 1970). Bedrock was not penetrated or characterized as part of MACTEC's RI investigation.

3.4 SURFACE WATER HYDROLOGY

The Site is relatively flat with a paved parking lot in the front (south) of the building. The rear of the building, where contaminated soil was encountered, is unpaved. Surface drainage from the site flows toward the municipal storm drains located on East Pulteney Street. These storm drains flow to a treatment plant located approximately 2.2 miles south east of the site. The treatment plant discharges to the Chemung River downstream of the site (Panton, 2005). The site is not located within the 100 or 500 year flood zones (EDR, 2006).

3.5 GROUNDWATER HYDROLOGY

The Site and the nearby Chemung River overlie the Corning Aquifer, a contiguous valley-fill aquifer that extends along the river valley upstream and downstream of Corning, NY. Groundwater at the Site is approximately 15 feet bgs, and is interpreted to flow south to southeast towards the river (USGS, 1982).

4.0 NATURE AND EXTENT OF CONTAMINATION

This section presents the results of the RI. The subsections below describe results of laboratory analysis for soil, groundwater, and vapor collected during the RI field work. To determine whether the laboratory data met the project specific criteria for data quality and data use, DUSRs (Appendix E) were prepared in accordance with the "Guidance for the Development of Data Usability Reports" (NYSDEC, 2002). The data presented in this report meets the data quality objectives.

Analytical results were compared to the following standards, criteria, and guidance values (SCGs):

- Water Quality Regulations Surface Water and Groundwater Classifications and Standards (NYS, 1999b), New York Codes, Rules, and Regulations, Title 6, Part 700-705.
- Soil SCGs are based on the Department's Cleanup Objectives included in 6 NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives for Unrestricted and Restricted Uses (NYS, 2006).
- Concentrations of VOCs in air were evaluated using the air guidelines provided in the NYSDOH guidance document titled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," (the NYSDOH Guidance) dated October 2006 (NYSDOH, 2006).

4.1 SITE SOILS

Soil boring and surface soil samples were collected at the Loohn's facility to characterize soil in the vicinity of the apparent release, delineate the extent of contaminated soils, and to design a remedial action for removal of contaminated soils. Soil samples were submitted to a laboratory for analysis of VOCs, SVOCs, pesticides, PCBs, and metals.

Remedial Investigation

PCE was reported at all of the 15 soil sample locations, at concentrations ranging from 0.0011 mg/Kg (SS-01 at 1 ft bgs) to 63 mg/Kg (PDI-9 at 1 ft bgs). PCE was reported above the soil criteria of 1.3 mg/Kg in samples PDI-8 (49 mg/Kg), PDI-9 (63 mg/Kg), and PDI-14 (8 mg/Kg) at depths between 0 and 3 ft bgs. Figure 4.1 shows the PCE levels in Site soils as well as in prior exploration samples that contributed to an understanding of the extent of impact behind the former dry cleaners.

Several PCE breakdown products were also detected in soil, including TCE and cis-1,2-dichloroethene at concentrations below their respective soil criteria. Concentrations of metals and SVOCs reported in

soils from the area of contamination (samples from PDI-6, PDI-11 and SS-01) were consistent with concentrations reported in the three off-site background soil samples, and no onsite results exceeded criteria. PCBs were not detected in any onsite or offsite background soil sample. Three pesticides (4,4-dichlorodiphenyldichloroethane, 4,4-dichlorodiphenyldichloroethylene, and 4,4-dichlorodiphenyltrichloroethane) were reported in one or more of the onsite samples at concentrations above criteria. However, pesticides were also detected in one of the three offsite background samples. RI analytical soil results are presented on Tables 4.1 and 4.2.

IRM Confirmation Sampling

PCE was detected in all seven confirmation samples collected from the IRM excavation ranging from 0.015 to 6.3 mg/Kg (EX-07) (Figure 4.2). Of the seven confirmation samples, only sidewall sample EX-07 had a PCE concentration that exceeded the soil cleanup criteria of 1.3 mg/Kg. Sample EX-07 is located at the northern limit of the Site property and is immediately adjacent to an off-site building structure. Further excavation could not be completed in this area. Sample EX-06 also had detections of TCE (0.0031 J mg/Kg) and cis-1,2-dichloroethene (cis-1,2-DCE) (0.0026 J mg/Kg), both of which were below soil cleanup criteria.

4.2 GROUNDWATER

Pre-RI sampling investigations identified PCE above the criteria of 5 µg/L in groundwater from monitoring well MW-1, (in the area where PCE was present in shallow soils that were removed during the excavation IRM) and from MW-2, (located downgradient from MW-1 and in front (south) of the former dry cleaner). In 2006, PCE was reported at 37 J µg/L at MW-1 and 5.1 J µg/L in downgradient well MW-2.

Remedial Investigation

In June, 2010, MACTEC collected groundwater grab samples from three direct push borings (GW-13, GW-14 and GW-15) positioned adjacent to MW-2 and cross-gradient to flow with the objective to provide additional lateral coverage to assure that groundwater impact was not bypassing MW-2. PCE was detected at concentrations below the criteria of 5 µg/L in two of the three groundwater samples. PCE at GW-014 was reported at 1.2 µg/L and at GW-015 at 1.8 µg/L. PCE was not detected at GW-013. Relatively low levels of fuel-related compounds (e.g. benzene, ethyl benzene, toluene, xylene)

were also present in the groundwater grab samples. Groundwater results from these wells are shown on Table 4.3 and Figure 4.3.

Post IRM Groundwater Sampling

Samples were collected on June 1, 2011, from monitoring wells MW-1 and MW-2 (Table 4.4). PCE was detected in MW-1 at 1.1 ug/L and MW-2 at 4.5 ug/L (below the criteria of 5 ug/L). This shows a significant reduction in the level of PCE in MW-1 compared to the sample collected in 2006 (37 ug/L).

4.3 SOIL VAPOR AND INDOOR AIR

Post IRM Vapor Sampling

On June 1, 2011 MACTEC collected two vapor samples from the site. PCE was reported at 130,000 $\mu g/m^3$ in the sub-slab sample (SV-02) collected from the former drycleaner, and at 3,200 $\mu g/m^3$ in a sample (EW-01) collected from the vapor extraction well installed in the excavation area (Table 4.5).

5.0 CONTAMINANT FATE AND TRANSPORT

5.1 CONCEPTUAL SITE MODEL

Based on the review of the historical and RI data, a conceptual site model was developed. The conceptual model presents a description of the media affected, the source of impact, types of contamination, contaminants of potential concern, primary or secondary release mechanisms, migration pathways, and potential receptors. The conceptual model for the Site is presented in Table 5.1. Based on historic and RI data reviewed, PCE and its breakdown products are the only contaminant of concern at the Site.

Historical data indicates that chlorinated solvents, specifically PCE, migrated into the soil from improper disposal and/or storage at the Loohns Corning Site. PCE was originally discovered in Site groundwater in 1997. Further investigations indicated that PCE exists in Site soils behind the building at concentrations exceeding Part 375 SCGs for unrestricted use. PCE has migrated from the soil into shallow groundwater.

Groundwater is present at approximately 15 feet bgs and is interpreted to flow to the south towards the Chemung River. PCE has been detected at concentrations above applicable SCG in overburden groundwater.

PCE has the potential to volatilize into soil vapor and migrate into indoor air. Detected concentrations of chlorinated VOCs in sub-slab vapor and indoor air have resulted in the recommendation of installing a vapor mitigation system at the Site.

5.2 CONTAMINANT MIGRATION

The elevated groundwater concentrations of PCE detected at MW-1, located to the rear of the Loohns Corning building, are likely attributed to the improper disposal of PCE at the ground surface, or improper storage of PCE to the north of the building. Much of the contaminant mass appears to have been bound up in the soils located behind the building. Data suggest that the source area is limited to a 200 square foot area of contaminated soil. PCE can readily leach from soils with infiltration of

precipitation, as well as with simple groundwater flux through the soil and migrate to groundwater. Once dissolved in groundwater, PCE can migrate with groundwater flow. However, groundwater flows from north to south and must pass beneath the Loohns Coring building, limiting rainwater infiltration. Groundwater at and in the vicinity of the Site is located at approximately 15 feet bgs and flows primarily to the south, towards the Chemung River.

Analytical data indicates that PCE is migrating in groundwater from the residual soil source area around MW-1 southward across the Site property and ultimately towards the Chemung River. Contaminants are present in groundwater at and downgradient of the Site with contaminant concentrations diminishing from the highest detection at MW-1 located in the source area to the next highest detection at GW-8A located south of the building. The relatively small size of the source area, its proximity to the building, and the groundwater flow direction have limited migration of the contamination from the source area, resulting in lower groundwater concentrations downgradient of MW-1.

There are two primary mechanisms for migration of contaminants in the soil vapor pathway: PCE can volatilize directly from contaminated soil, and also partition from groundwater to soil gas and then migrate through the soil column. Detections of PCE in soil vapor samples collected from the Loohns Coring building sub-slab as well as in an indoor air sample indicate that PCE is migrating in the soil vapor. These sample results indicate that the soil vapor to indoor air migration pathway is complete.

6.0 QUALITATIVE EXPOSURE ASSESSMENT

6.1 PUBLIC HEALTH EVALUATION

This section provides a QHHEA for the Loohns Corning Site. The QHHEA is performed in accordance with NYSDEC Technical Guidance (NYSDEC, 2010), which indicates that the QHHEA should evaluate the populations of humans that may potentially occur at and in the vicinity of the Site, the mechanisms or exposure pathways by which those humans may be potentially exposed to contamination associated with the Site, and the significance of exposure that may occur through the potential exposure pathways. This process involves three steps:

1. Characterization of the exposure setting in terms of physical characteristics, current and future uses of the Site, and the populations that may be potentially exposed to Site-related contamination under the current and future land uses;
2. Identification of potential exposure pathways and exposure points to which the populations may be exposed (discussed in detail in Section 5.0); and
3. Screening of potentially complete exposure pathways to identify the Site-related constituents of concern from a health risk perspective.

Exposure Pathway Evaluation and Qualitative Risk Analysis

The current and anticipated future use of the Site property is commercial. The properties to the east, west and south (downgradient) of the Site include industrial/commercial uses. Properties north of the site are currently residential.

PCE and its breakdown products were determined to be the only contaminants of concern at the Site from a health risk perspective. Potentially complete exposure pathways were identified for direct contact with soil and groundwater, and for inhalation of vapors that may migrate from soil and/or groundwater to air within overlying structures.

The significance of exposure pathways associated with soil, groundwater and soil vapor/indoor air media is evaluated in this subsection through comparison of analytical data to standard and guidance concentrations published by the NYS and NYSDOH and/or to background concentrations.

6.1.1 Soil

VOCs were detected in soils located to the rear (north side) of the Loons Corning facility. The Site is currently occupied by four commercial establishments; however, the area north of the building is not actively used by the onsite businesses, which limits worker exposure to contamination located in this area. During the IRM conducted in 2010, contaminated soils were excavated to depths ranging from 2 to 6 feet below grade. Post excavation confirmation samples were collected from each of the sidewalls and the bottom of the excavation; only one location had contamination levels exceeding the soil clean-up criteria (EX-07 at 6.3 mg/kg). This sample was collected from the northern side wall of the soil removal excavation at a depth of 4 feet.

Direct contact with impacted soils located beneath the onsite building is not anticipated because the building foundation serves as a barrier. Under current use scenarios, the direct contact exposure pathway to contaminated soils is not anticipated to be a concern from a health risk perspective for commercial or industrial workers. Because the Site property access is not restricted (i.e. no fencing in place), trespassers could enter the property and come in contact with VOCs in soil that exceed the Part 375 SCGs.

If future sub-surface work were to occur in the vicinity of the noted contaminated soil, a health and safety plan would need to be initiated to address potential worker exposure scenarios and minimize the risk of direct contact to contaminated soil. Residual VOCs in soils may also be a continued source of groundwater contamination. Groundwater exposure scenarios are discussed in the following paragraphs. VOCs in soil near the Site building also have the potential to migrate into the building via soil vapor intrusion (SVI) as discussed further below.

6.1.2 Groundwater

There are no direct exposures to groundwater associated with the site based on the current or foreseeable land uses. Although, a comparison of historical groundwater analytical data to NYS drinking water standards shows that groundwater could be a health risk if extracted for potable uses, the most recent groundwater samples (June 2011) show that current concentrations of contaminants do not exceed the GA standard. Therefore, the groundwater pathway is not an exposure pathway of concern from a health risk perspective under existing and foreseeable land use conditions.

6.1.3 Soil Vapor Intrusion

SVI is the process by which volatile chemicals migrate from a subsurface source into the indoor air of overlying structures. Evaluations of the SVI pathways are often confounded by VOCs in indoor air which are present in part or all due to anthropogenic (background) sources and not the result of the migration of a subsurface source through soil vapor into an enclosed space. Therefore, the evaluation of the SVI pathway was performed by comparing sub-slab vapor sampling data, indoor air sampling data, outdoor (ambient) air sampling data, and air guideline values. The NYSDOH Guidance for evaluating the potential for vapor migration into indoor air was also followed for compounds that have been assigned to the soil vapor indoor air decision matrices (available for carbon tetrachloride, 1,1-DCE, cis-1,2-DCE, PCE, 1,1,1-TCA, TCE and vinyl chloride) (NYSDOH, 2006 and 2007). Recommendations resulting from the decision matrices include: no further action, monitor, and mitigate.

PCE, the primary contaminant of concern at the site was detected at a concentration of 130,000 $\mu g/m^3$ in a RI sample collected from below the former dry cleaning facilities concrete slab. Although the indoor air analytical result for PCE of 35.8 $\mu g/m^3$ was below the NYSDOH regulatory guidance value for PCE of 100 $\mu g/m^3$, the NYSDOH recommends mitigation based on the soil vapor intrusion matrix for PCE (Matrix 2), considering both soil vapor and indoor air concentrations (NYSDOH, 2006).

7.0 SUMMARY AND CONCLUSIONS

7.1 SUMMARY

The Site is located at 37 East Pulteney Street in a mixed residential/commercial neighborhood, in the City of Corning, Steuben County, New York. The property consists of 0.5 acres including a 1 story concrete block retail building and a large parking lot. Between the early 1970's and at least the late 1980s, a dry cleaner operated on the property. The former dry cleaner space was subsequently leased and used as a delicatessen. This business vacated the property in late 2011 and the former dry cleaners space is currently vacant (January 2012).

A RI was completed on the property between June 2010 and January 2012. RI field work included: soil sampling via borings and hand sampling methods, groundwater sampling from direct-push borings and permanent monitoring wells, and soil vapor sampling from an interior sub-slab point and an exterior vapor extraction well. Based on the results of the work conducted:

- PCE concentrations in soil exceeded the NYS SCGs
- PCE concentrations in groundwater exceeded the NYS groundwater criteria of 5 ug/L in onsite wells. Groundwater sampled downgradient of the site did not show contaminants exceeding the groundwater criteria.
- PCE in sub-slab soil vapor exceeded the NYSDOH-recommended value indicating mitigation.

Based on the RI analytical findings two IRMs were conducted at the Site as part of the RI:

- In December 2010, a soil-removal IRM was completed to mitigate impacted soils behind (north) of the former dry cleaner space. The IRM included excavation and off-site disposal of contaminated soil and soil documentation sampling from the excavation limits. The IRM removed accessible soils with PCE-impact and subsequent PCE concentrations in post-IRM onsite groundwater samples (June 2011) were less than the SCGs
- In January 2012, a soil vapor extraction system was implemented. The system draws soil vapor from a sub-slab extraction point located within the former dry cleaner space and will serve to reduce residual PCE impact to sub-slab soils and to limit potential human exposure to impacted sub-slab vapors.

7.2 CONCLUSIONS

An RI was conducted at the Loohns Corning site to evaluate the extent of PCE contamination in soils located north of the building in anticipation of conducting an IRM and to determine if contamination was migrating off site via the groundwater pathway. Findings from the RI confirmed the presence of PCE above the NYS SCGs in soil and groundwater. Based on these findings an IRM was conducted to remove contaminated soil identified during the RI. Post excavation sample results were below the SCGs at all but one location, which was collected on the northern property boundary at a depth of 4 feet. Further excavation at this location was impeded by a building located on the abutting property.

Groundwater sampling results indicate that chlorinated VOCs present in shallow (i.e. overburden) groundwater attenuate to near or below their respective SCGs by the time groundwater reaches the southern site property boundary. Post IRM samples collected from the two onsite monitoring wells in June 2011 show that PCE concentrations do not exceed the NYS groundwater standard in either well. The contaminated soil that was removed from the site appears to represent the most significant source of PCE contamination on the Site. PCE concentrations in groundwater should continue to diminish as a result of the contaminant source removal. Direct contact with contaminated soils and water is not anticipated to be a health risk in the vicinity of the Site because there is no known ongoing or planned excavation at the Site, and the facility is served by public water.

Soil vapor intrusion of PCE into indoor air is the primary health risk associated with the Site. PCE in sub-slab soil and shallow groundwater appears to be volatilizing to soil vapor, as is indicated by the concentrations of PCE found in the onsite sub-slab vapor sample. The NYSDOH guidance recommends mitigation based on the soil vapor intrusion matrix for PCE (Matrix 2), considering both soil vapor concentrations and the indoor air concentration detected during the SC investigation.

Based on the findings, an IRM designed to reduce the concentration of PCE in soil vapor at the Site was implemented. This will minimize the potential for exposure via indoor air.

8.0 DEVELOPMENT OF REMEDIAL ACTION OBJECTIVES, GENERAL RESPONSE ACTIONS, AND CONTAMINATION REQUIRING REMEDIATION

RAOs form the basis for identifying remedial technologies and developing RAs. RAOs are medium-specific or operable unit-specific objectives for the protection of public health and the environment, and are developed based on contaminant-specific SCGs (NYSDEC, 2002).

Site-specific contaminants of concern were determined by comparison of contaminant levels to Chemical-Specific SCGs, which include 6 NYCRR Parts 700-706 Water Quality Standards (NYSDEC, 1998), Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC, 1998), and 6 NYCRR Part 375 Remedial Program Soil Cleanup Objectives (NYS, 2006).

The RI results indicate that groundwater contamination exceeded Chemical-Specific SCGs as a result of source area soils present at the Site. The nature and extent of site-related contamination is discussed in Subsections 4.1 and 4.2, and presented in Figures 4.1 and 4.2.

RAOs have been developed consistent with the remedy selection process set forth in 6 NYCRR Part 375 (NYS, 2006) and DER-10 (NYSDEC, 2010). The goal for remedial action is to restore the Site to pre-disposal/pre-release conditions, to the extent practicable. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contaminants disposed at the Site through the proper application of scientific and engineering principles (NYSDEC, 2010).

8.1 REMEDIAL ACTION OBJECTIVES FOR SUBSURFACE SOIL

The QHHEA presented in Subsection 3.14, NYSDEC Technical Guidance (NYSDEC, 2010), did not identify subsurface soil as a potentially complete human health exposure pathway at, or in the vicinity of, the Site. However, subsurface soil contamination continues to be a source of contamination for groundwater and for soil vapor.

The RAOs for subsurface soils at, and in the vicinity of, the Site are:

- prevent ingestion/direct contact with contaminated soil
- prevent soil vapor migration into occupied building spaces
- prevent migration of contaminants in groundwater.

8.2 REMEDIAL ACTION OBJECTIVES FOR GROUNDWATER

The QHHEA did not identify groundwater as an exposure pathway of concern from a health risk perspective under the existing and foreseeable land use conditions. As an apparent result of the soil removal IRM, levels of contaminants in Site groundwater have dropped below GA standards.

The RAOs for groundwater at, and in the vicinity of, the Site are:

- prevent ingestion of groundwater with contaminant levels exceeding drinking water standards
- prevent direct contact with, or inhalation of volatiles, from contaminated groundwater
- restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable

8.3 IDENTIFICATION OF GENERAL RESPONSE ACTIONS AND EXTENT OF CONTAMINATION REQUIRING REMEDIAL ACTION

General response actions describe those actions that will satisfy the RAOs (USEPA, 1988). General response actions may include treatment, containment, excavation, disposal, institutional actions, or a combination of these. Like RAOs, general response actions are medium-specific. The general response actions presented in the following subsections address those media identified as potential threats to human health and the environment at the Site:

- subsurface soil contamination at the Site
- groundwater contamination at and downgradient of the Site
- potential soil vapor intrusion at Site

Site-specific RAOs were developed to address the contamination requiring remedial action for subsurface soil and groundwater, including the identified contaminant source areas.

8.3.1 General Response Actions for Soil

The following general response actions would address the RAOs identified for soil:

- no action
- in-situ treatment
- removal

These general response actions are appropriate for site-specific soil contamination requiring remediation.

8.3.2 General Response Actions for Groundwater

The following general response actions would address the RAOs identified for groundwater:

- no action
- long term monitoring
- in-situ Treatment

These general response actions are appropriate for site-specific groundwater contamination requiring remediation.

8.4 CONTAMINATION REQUIRING REMEDIAL ACTION

This subsection identifies the extent of contaminated media to which the RAOs and general response actions identified above and within the RAs developed in Section 9.0 apply. The nature and extent of site-related contamination is discussed in Subsections 4.1 and 4.2.

In general, the contaminant source area is located in the vicinity of the former Loohns Cleaners Launderers, Inc. building. During the IRM performed in December 2010, approximately 50 tons of soil were removed from behind the dry cleaners. The soil excavation extended from existing grade to approximately 2.5 to 6 feet bgs, depending on location. Accessible source area soils were removed, and leaching of contaminants to groundwater was mitigated. Residual contamination is present beneath the building in the vicinity of the former dry cleaners as evidenced by sub-slab soil vapor analysis.

The RAs developed in Section 9.0 consider the distribution of the contaminants, both horizontally and vertically, co-location of various types of contaminants, and the distribution of contaminants by media.

9.0 IDENTIFICATION AND SCREENING OF TECHNOLOGIES

This section presents the identification and screening of potential remedial technologies. Technologies are identified for the purpose of attaining the RAOs established in Subsections 8.1 and 8.2. Identified technologies correspond to the categories of general response actions described in Subsection 8.3.

Following identification, candidate technologies are screened based on their applicability to site- and contaminant-limiting characteristics. The purpose of the screening is to produce an inventory of suitable technologies that can be assembled into RAs capable of mitigating actual or potential risks at the Site. Potential technologies representing a range of general response actions are considered. The result of technology screening is a list of potential remedial technologies that may be developed into candidate RAs.

9.1 TECHNOLOGY IDENTIFICATION

Table 9.1 summarizes remedial technologies and associated process options identified for screening. These technologies were identified based on USEPA's guidance for Conducting RI/FS (USEPA, 1988) and on experience preparing FS documents and performing site remediation. General response actions were developed for soil and groundwater in Section 8.0.

9.2 TECHNOLOGY SCREENING

The technology screening process reduces the number of potentially applicable technologies and process options by evaluating factors that may influence process-option effectiveness and implementability. This overall screening is consistent with guidance for conducting an FS under Comprehensive Environmental Response, Compensation, and Liability Act (USEPA, 1988). Effectiveness and implementability are incorporated into two screening criteria: waste- and site-limiting characteristics. Waste-limiting characteristics consider the suitability of a technology based on contaminant types, individual compound properties (e.g., volatility, solubility, specific gravity, adsorption potential, and biodegradability), and interactions that may occur between mixtures of compounds. Site-limiting characteristics consider the effect of site-specific physical features on the implementability of a technology, such as site topography and geology, the location of buildings and

underground utilities, available space, and proximity to sensitive operations. Technology screening serves a two-fold purpose of screening out technologies whose applicability is limited by site-specific waste or site considerations, while retaining as many potentially applicable technologies as possible.

Table 9.1 presents the technology-screening process. Technologies and process options judged ineffective or prohibitively difficult to implement have been eliminated from further consideration. The technologies retained following screening represent an inventory of technologies considered most suitable for remediation of soil and groundwater at the Site.

10.0 DEVELOPMENT AND SCREENING OF ALTERNATIVES

The retained technologies identified in Table 9.1 are considered technically feasible and applicable to the waste types and physical conditions at the Site. These medium-specific technologies have been assembled into potential Site-specific RAs capable of achieving the RAOs for the contaminated media requiring remediation.

10.1 DEVELOPMENT OF REMEDIAL ALTERNATIVES FOR THE SITE

The retained remedial technologies presented in Table 9.1 have been combined into the following RAs:

- Alternative 1: No Action
- Alternative 2: No Further Action (Continued Operation of Modified Soil Vapor Extraction System and Land Use Restictions
- Alternative 3: Restoration to Pre-Disposal Conditions

10.1.1 Alternative 1: No Further Action

This alternative will be used as a baseline for comparison to other RAs. No further action would be taken to address contaminated media at the Site.

10.1.2 Alternative 2: No Further Action (Continued Operation of Modified Soil Vapor Extraction System and Land Use Restrictions)

Alternative 2 includes continued operation of the modified SVE system and institutional controls in accordance with NYCRR Part 375 Restricted-Commercial Use to prevent exposure to contamination left in-place. Under this alternative the single SVE point installed as an IRM to protect indoor air quality and reduce residual sub-slab solvent concentrations would be maintained. Based upon results of soil vapor sampling conducted previously at the site, soil vapor intrusion poses a continuing threat to receptors within the building, although indoor air sample results were less than the NYS SCGs. The SVE point consists of a blower exhausting to the atmosphere from an extraction well consist of a slotted pipe installed at an approximate depth of 2-feet bgs. This depth was based on the depth of PCE

contamination found during the soil excavation and capping IRM completed in 2010. This alternative is expected to have little or no impact towards achieving unrestricted cleanup objectives.

Institutional controls would be implemented to restrict future use of the Site as part of an environmental easement. Implementation of the environmental easement would include the development of a Site Management Plan which would set forth the institutional controls necessary to manage exposure to contamination remaining at the Site. Institutional controls would likely include implementation of land-use restrictions restricting subsurface activity, prohibiting installation of drinking water wells in the area of contamination, and restricting changes in zoning of the Site (e.g., change from commercial to residential use). Land-use restrictions would be implemented through legal instruments such as deeds and/or water well permitting processes.

10.1.3 Alternative 3: Restoration to Pre-Disposal Conditions

Alternative 3 includes:

- demolition of the building at 37 East Pulteney
- excavation and off-site disposal of on-site soils including all soil to bedrock within the extent of the building footprint
- site restoration
- treating overburden and bedrock groundwater contamination in-situ through chemical oxidation.

Under this alternative, on-site soils would first be excavated and then transported off-site for treatment and/or disposal.

Imported clean fill would be used to establish the designed finish grades.

Prior to backfilling, chemical oxidation reagent would be placed and mixed with backfill material below the water table. Approximately 80,000 pounds of chemical oxidant (Carus Remediation Technologies' RemOx® L ISCO Reagent is used for estimating purposes) would be mixed with backfill material using the excavator bucket.

10.2 SCREENING OF ALTERNATIVES

This subsection presents a screening of the RAs developed for soil and groundwater. Consistent with DER-10, the developed medium-specific RAs are screened on the basis of whether they are technically implementable for the Site (Implementability) and whether they can meet the RAOs (Effectiveness). Additionally, based upon available information, the relative cost of each RA is also evaluated. Those RAs which are not technically implementable, would not achieve RAOs for the Site, or would incur costs significantly higher than other RAs without providing greater effectiveness or implementability, are eliminated from further evaluation.

The media-specific screening of RAs is presented in Table 10.1. The No Action alternative is not evaluated according to the media-specific screening criteria, as it passes through screening to be evaluated during the detailed analysis as a baseline for other retained alternatives.

Alternative 2: No Further Action (continued Soil Vapor Extraction with Land Use Restrictions). Addresses immediate potential threats to onsite receptors as well as potential future threats due to changing site use.

Alternative 3: Restoration to Pre-Disposal Conditions would be effective in the short term at reducing VOC concentration on site below the unrestricted use criteria. The excavation of contaminated site soils and in-situ chemical oxidation of overburden and bedrock groundwater would eliminate VOC impacts on site soil, groundwater and soil vapor. This alternative would be readily implemented pending the demolition and removal of the building. Also, the unknown depth of contaminants in bedrock groundwater would require further site characterization prior to performing in-situ chemical oxidation of bedrock groundwater. This alternative would have high costs to implement due to the relatively large quantities of soil to excavate and haul, and the potentially large quantities of chemical oxidant required to treat contaminants that may be present in overburden and bedrock groundwater. Furthermore, treatment of overburden groundwater may be difficult due to the low hydraulic conductivity of the tight site soils, and treatment of bedrock groundwater may be difficult given the unknown infiltration characteristics between the overburden-bedrock interface layer and bedrock.

11.0 DETAILED ANALYSIS OF ALTERNATIVES

This section presents the detailed analyses of remedial action alternatives for soil and groundwater at the Site. The detailed analysis is intended to provide decision-makers with relevant information to aid in selection of a site remedy. The detailed description of technologies or processes used for each alternative includes, where appropriate, a discussion of limitations, assumptions, and uncertainties for each component. The descriptions provide a conceptual design of each alternative and are intended to support alternatives-comparison and cost-estimation.

The detailed analysis of each alternative includes an evaluation using the criteria identified in DER-10 (NYSDEC, 2010) and Subpart 375-1.8(f) (NYS, 2006). A description of each of the evaluation criteria are presented in the following paragraphs.

Compliance with Standards, Criteria, and Guidance. Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance. SCGs for the Site will be listed along with a discussion of whether or not the remedy will achieve compliance. For those SCGs that will not be met, there will be a discussion and evaluation of the impacts of each, and whether waivers are necessary. Chemical-specific SCGs were previously identified in this FS Report. Location- and Action-specific SCGs will be identified for each alternative in this Section and are presented in Table 11.1.

Overall Protection of Public Health and the Environment. This criterion is an evaluation of the remedy's ability to protect public health and the environment, assessing how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through removal, treatment, engineering controls or institutional controls. The remedy's ability to achieve each of the RAOs will be evaluated.

Short-term Impacts and Effectiveness. The potential short-term adverse impacts and risks of the remedy upon the community, the workers, and the environment during the construction and/or implementation are evaluated. A discussion of how the identified adverse impacts and health risks to the community or workers at the Site will be controlled, and the effectiveness of the controls, will be presented, along with a discussion of engineering controls that will be used to mitigate short term

impacts (e.g., dust control measures). The length of time needed to achieve the remedial objectives will be estimated.

Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedy after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items will be evaluated:

1. magnitude of remaining risks
2. adequacy of the engineering and institutional controls intended to limit the risk
3. reliability of these controls
4. ability of the remedy to continue to meet RAOs in the future

Effectiveness of alternatives in protecting human health and the environment after RAOs are met will be evaluated. This will include an evaluation of the permanence of the alternative, the magnitude of residual risk, and the adequacy and reliability of controls required to manage wastes or residuals remaining at the Site.

Reduction of Toxicity, Mobility, or Volume with Treatment. The remedy's ability to reduce the toxicity, mobility or volume of site contamination will be evaluated. Preference will be given to remedies that permanently and significantly reduce the toxicity, mobility, or volume of the wastes at the Site.

Implementability. The technical and administrative feasibility of implementing the remedy will be evaluated. Technical feasibility includes the difficulties associated with the construction and the ability to monitor the effectiveness of the remedy. For administrative feasibility, the availability of the necessary personnel and material will be evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, or other issues.

Cost-Effectiveness. Capital and Site Management costs, including Operation, Maintenance and Monitoring costs, will be estimated for the remedy and presented on a present worth (PW) basis.

Community Acceptance. The public's comments, concerns and overall perception of the remedy will be evaluated following a public meeting presenting the proposed remedial action plan in a format

that responds to questions that are raised (i.e., the responsiveness summary). This criterion is not evaluated in this FS Report.

Land Use. The current, intended, and reasonably anticipated future land uses of the Site and its surroundings will be considered in the evaluation of RAs.

11.1 COST ANALYSIS PROCEDURES

Estimated costs presented in this FS Report are intended to be within the target accuracy range of minus 30 to plus 50 percent of actual cost (USEPA, 1988). Costs are presented as a PW and as a total cost for up to a 30-year period.

A summary of the costs for each alternative identifying capital and PW costs are included in each alternative's cost description. Each cost estimate includes a PW analysis to evaluate expenditures that occur over different time periods. The analysis discounts future costs to a PW and allows the cost of RAs to be compared on an equal basis. PW represents the amount of money that, if invested now and disbursed as needed, would be sufficient to cover costs associated with the remedial action over its planned life. A discount rate of 5 percent was used to prepare the cost estimates.

Consistent with USEPA FS cost estimating guidance (USEPA, 2000), the RA cost estimates include costs for project management, remedial design, construction management, technical support, and scope contingency.

Project management includes planning and reporting, community relations support during construction or Operation and Maintenance (O&M), bid or contract administration, permitting (not already provided by the construction or O&M contractor), and legal services outside of institutional controls.

Remedial design applies to capital cost and includes services to design the remedial action. Activities that are part of remedial design include pre-design collection and analysis of field data, engineering survey for design, treatability study/pilot-scale testing, and the various design components such as design analysis, plans, specifications, cost estimate, and schedule.

Construction management applies to capital cost and includes services to manage construction or installation of the remedial action, except any similar services provided as part of regular construction activities. Activities include review of submittals, design modifications, construction observation or oversight, engineering survey for construction, preparation of O&M manual, documentation of quality control/quality assurance, and record drawings.

Technical support during O&M includes services to monitor, evaluate, and report progress of remedial action. This includes oversight of O&M activities, update of O&M manual, and progress reporting and is generally between 10 percent and 20 percent of total annual O&M costs depending on complexity of the remedial action (USEPA, 2000).

Scope contingency represents project risks associated with the feasibility-level of design presented in this FS Report. This type of contingency represents costs, unforeseeable at the time of estimate preparation, which are likely to become known as the remedial design proceeds. Scope contingency ranges from 10 to 25 percent, with higher values appropriate for alternatives with greater levels of cost growth potential (USEPA, 2000).

Project management, remedial design, and construction management costs presented in this FS Report are based upon the following matrix presented in the USEPA FS cost estimating guidance (USEPA, 2000).

Professional and Technical Costs as Percentage of Direct Costs					
Indirect Cost	< $100K (%)	$100K-$500K (%)	$500K-$2M (%)	$2M-$10M (%)	>$10M (%)
Project Management	10	8	6	5	5
Remedial Design	20	15	12	8	6
Construction Management	15	10	8	6	6

11.2 GENERAL ASSUMPTIONS

Details and assumptions pertaining to the cost estimates are included in each alternative's cost description. In addition to the alternative-specific assumptions, the following cost assumptions were applied, as applicable:

- long-term activities would be conducted for no more than 30 years
- institutional control inspections would be conducted periodically over 30 years

The following RAs developed in Section 10.0 were retained for detailed analysis.

- Alternative 1: No Action
- Alternative 2: No Further Action (continued operation of SVE with Land Use Restrictions)
- Alternative 3: Restoration to Pre-Disposal Conditions

The following subsections present a conceptual design and cost estimate for each of these RAs and a discussion of each alternative relative to the evaluation criteria as set forth in DER-10 (NYSDEC, 2010).

11.3 ALTERNATIVE 1: NO ACTION

This alternative would not include any further actions to address soil and groundwater contamination at the Site.

11.3.1 Detailed Evaluation of Alternative 1

Compliance with Standards, Criteria, and Guidance. This alternative would not meet Chemical-specific SCGs because it would not address soil contamination in excess of the 6 NYCRR Part 375 Remedial Program SCGs for unrestricted use (NYS, 2006) or groundwater in excess of Class GA groundwater standards. This alternative would not trigger any Location- or Action-specific SCGs.

Overall Protection of Public Health and the Environment. This RA would not protect public health and the environment through eliminating, reducing, or controlling existing or potential exposure pathways through removal, treatment, engineering controls, or institutional controls. This RA would not achieve the RAOs for soil and groundwater.

Short-term Effectiveness. Because no further action would be taken, this alternative would not result in short-term adverse impacts and risks to the community, site workers, and the environment.

Long-term Effectiveness and Permanence. This alternative would not include actions to address contaminated soils and groundwater at or in the vicinity of the Site. This remedy does not currently

meet RAOs for soil and groundwater and, due to the properties of the Site-specific conditions (e.g., longevity of VOCs bound in the soils), would not be expected to meet RAOs in the future.

Reduction of Toxicity, Mobility, or Volume with Treatment. This alternative would not result in the reduction of toxicity, mobility, or volume of soil or sediment contamination through treatment.

Implementability. No further action would be conducted, therefore there are no technical difficulties associated with this alternative. However, obtaining regulatory and/or public approval of this alternative would be difficult.

Land Use. The current and reasonably anticipated future land use of the Site is for commercial purposes. Because no further action would be taken as part of this alternative and there would be no restrictions to future use, this alternative would not be protective of potential commercial workers conducting subsurface work at the Site.

Cost. There are no costs associated with this alternative.

11.4 ALTERNATIVE 2: MODIFIED SVE WITH LAND USE RESTRICTIONS

Alternative 2 consists of the following components:

- institutional controls
- modified sub slab ventilation system
- periodic institutional control and SVE system inspections and reporting

Institutional Controls. Institutional controls would be implemented to restrict future use of the Site as part of an environmental easement. Implementation of the environmental easement would include the development of a Site Management Plan which would set forth the institutional controls necessary to manage exposure to contamination remaining at the Site. Institutional controls would likely include implementation of land-use restrictions restricting subsurface activity, prohibiting installation of drinking water wells in the area of contamination, and restricting changes in zoning of the Site (e.g., change from commercial to residential or industrial use). Land-use restrictions would be implemented through legal instruments such as deeds and/or water well permitting processes.

Modified Soil Vapor Extraction System. The soil vapor extraction installation would consist of a single extraction point inside the Loohn's Corning building. The extraction system would consist of a slotted pipe installed to approximately 6-feet in depth through the existing building slab. A blower would vent the exhaust to atmosphere.

Long-term Monitoring. Long-term monitoring would consist of the sampling and analysis of existing on-site and off-site monitoring wells for VOCs. It is assumed that long-term monitoring would be conducted on a periodic basis for thirty years, and that several groundwater monitoring wells would be included in the program.

Periodic Institutional Control Inspections and Reporting. Periodic inspections would be conducted to ensure deed and land-use restrictions are being enforced. A report would be prepared documenting the inspection and the conditions observed.

11.4.1 Detailed Evaluation of Alternative 2

Compliance with Standards, Criteria, and Guidance. This alternative would not meet Chemical-specific SCGs because it would not substantially address soil contamination in excess of the 6 NYCRR Part 375 Remedial Program SCGs for unrestricted use (NYS, 2006) or groundwater in excess of Class GA groundwater standards. Institutional controls would be implemented in accordance with Action- and Location-specific SCGs.

Overall Protection of Public Health and the Environment. This RA would protect public health and the environment through eliminating, reducing, or controlling existing or potential exposure pathways through engineering and institutional controls. This RA would not achieve the RAOs for soil and groundwater in the short-term.

Short-term Effectiveness. Because no substantial active remediation would be conducted as part of this alternative, it would not result in short-term adverse impacts and risks to the community, site workers, and the environment.

Long-term Effectiveness and Permanence. This alternative would not include actions to address groundwater at or in the vicinity of the Site. Soils would not be substantially addressed either. This

remedy does not currently meet RAOs for soil and groundwater and, due to the properties of the Site-specific conditions (e.g., longevity of VOCs bound in the silt and organic soils), would not be expected to meet RAOs in the future.

Reduction of Toxicity, Mobility, or Volume with Treatment. This alternative would result in a small reduction of toxicity, mobility, or volume of soil or groundwater contamination through treatment. The modified SVE point would reduce contaminant mobility to the building. A small reduction in mobility and toxicity would occur as a result of the single SVE point, although this reduction is not expected to be notable.

Implementability. Installation of the SVE system would create minimal site disturbance and the installation could likely be completed in two days or less.

Land Use. The current and reasonably anticipated future land use of the Site is for commercial purposes. This alternative would be protective of potential site occupants including occupants and customers.

Cost. The capital cost estimate for this Alternative is $19,000. The PW of this Alternative is estimated to be $64,000. A summary of the costs associated with this alternative is presented in Table 11.3. Detailed cost analysis backup is provided in Appendix F.

11.5 ALTERNATIVE 3: RETURN TO PREDISPOSAL CONDITIONS

Alternative 3 consists of the following components:

- pre-design investigation
- mobilization and temporary facilities and controls
- demolition of the building
- excavation and off-site treatment or disposal or both of on-site soils, including all soil to bedrock within the extents of the property east of the historic former site building's western extents and soil removals
- in-situ chemical oxidation of bedrock groundwater
- site restoration

Pre-Design Investigations and Studies. Pre-design investigations and/or studies would be conducted to support the remedial design, and would include, but not be limited to:

- subsurface soil sampling and analysis to provide characterization for treatment/disposal purposes
- asbestos and lead analyses study in the Site building

Mobilization and Temporary Facilities and Controls. Site preparation, mobilization, and temporary facilities and controls would include activities required to prepare the Site for remediation, including, but not limited to:

- delivery and setup of site trailers
- installation of temporary utilities
- construction of wastewater treatment facilities and equipment decontamination facilities
- implementation of erosion and sediment control measures
- survey layout of the various work extents

Demolition of the Existing Building and Foundation. Prior to excavating contaminated site soils, the existing building and foundation would be demolished, along with pavement and concrete surface covers overlying the excavation area. A treatment trailer would be required for on-site for treatment of contaminated groundwater generated during dewatering activities. The size would depend on a pre-design analysis.

Excavation and Off-Site Treatment or Disposal or Both of Site Soils. On-site soils would be excavated and transported off-site for treatment or disposal, or both. This alternative assumes that wastewater generated as a result of excavation would be treated and discharged on-site; this alternative also assumes that site space may not be available to dewater soils prior to transport, and hence an absorbent has been included in the cost estimate for excavated saturated zone soils. This alternative also assumes that the approximate excavation area would include the footprint of the existing building to a depth of 6 feet. The soils behind the building were removed during a previous IRM. The excavation would be shored along its perimeter both for space considerations on site and to protect and support adjacent buildings. Dewatering throughout excavation will support the identification of fractures in the bedrock surface for infiltration of chemical oxidant into the bedrock; dewatering will be discontinued once chemical oxidation activities commence.

Approximately 2,950 cubic yards of soil would be excavated. Per DER-10, nine excavation floor samples would be taken (at a rate of 1 sample per 900 square feet); no side wall sampling would be taken due to the use of sheet piling.

In-Situ Chemical Oxidation of Bedrock Groundwater. Assuming the pre-design investigation activities do not reveal high concentrations of VOCs deep in bedrock groundwater, chemical oxidant will be administered to the excavation and allowed to infiltrate into the bedrock. It is assumed that approximately 80,356 pounds of oxidant would be added to the excavation to treat groundwater contamination in bedrock beneath the site. It is assumed that contaminant concentrations in bedrock may extend to a depth of 10 feet within bedrock; the vertical extents of bedrock contamination would need to be investigated during pre-design investigations. A permanganate natural oxidant demand of 2 grams/kg has been assumed for site soils and backfill (http://www.ncbi.nlm.nih.gov/pubmed/17140696).

Site Restoration. Site restoration would include backfilling, compacting, grading the excavation area, and paving the area impacted by the excavation.

11.5.1 Detailed Evaluation of Alternative 3

Compliance with Standards, Criteria, and Guidance. Alternative 3 would meet Chemical-specific SCGs for soil and groundwater by removing soil contamination on-site in excess of the Protection of Groundwater SCGs, extracting overburden and interface groundwater in excess of water quality standards and treating bedrock groundwater in excess of water quality standards. Implementation of excavation, transportation, and treatment and/or disposal would be implemented in accordance with Action- and Location-specific SCGs.

Overall Protection of Public Health and the Environment. Alternative 3 would protect public health and the environment through eliminating both the source of soil, groundwater and soil vapor contamination and residual contamination. This remedial action would achieve the RAOs for soil, on-site groundwater, and soil vapor in the short-term and reduce the time to achieve RAOs for potentially contaminated, downgradient, and off-site groundwater and soil vapor.

Short-term Effectiveness. Alternative 3 includes excavation and off-site treatment or disposal, or both of the on-site soils and application of chemical oxidant to the open excavation. Short-term adverse impacts and risks to the community, site workers, and the environment are possible during the excavation and transportation of soils on-site and at adjacent properties. However, these risks could be controlled through coordination and communication, erosion, sedimentation, and dust control, and a comprehensive contractor health and safety program.

Long-term Effectiveness and Permanence. Alternative 3 would provide permanent reduction of site-related soil contamination through the excavation and off-site treatment and disposal of soils on-site and at adjacent properties. This alternative would rely upon natural attenuation to degrade downgradient groundwater VOC contamination and potential soil vapor contamination. The time required for Alternative 3 to achieve remediation goals for downgradient groundwater would be significant.

Reduction of Toxicity, Mobility, or Volume with Treatment. Alternative 3 would provide reduction in the mobility of VOC soil contamination, but would only provide reduction in toxicity and volume if off-site treatment is conducted prior to disposal. Removal of soils on-site and at adjacent properties, extraction of source area groundwater, and in-situ treatment of bedrock groundwater would result in long-term reduction in the toxicity, mobility, and volume of groundwater contamination migrating off site.

Implementability. Implementation of Alternative 3 would be technically difficult due to the presence of source area contamination beneath an adjacent building, the limited site area available to support remediation activities, the relatively shallow water table which would require excavation dewatering, and the difficulty in treating bedrock groundwater in-situ through infiltration. However, implementation from a practical perspective may be prohibitively difficult. The site is currently occupied by three tenants.

Land Use. The current and reasonably anticipated future land use of the Site is for commercial purposes. This alternative would be protective of commercial workers.

Cost. The capital cost estimate for Alternative 3 is $3,720,000 The PW of this Alternative is estimated to be $3,720,000, as well. A summary of the costs associated with this alternative is presented in Table 11.2. Detailed cost analysis backup is provided in Appendix F.

12.0 COMPARATIVE ANALYSIS OF ALTERNATIVES

The comparative analysis evaluates the relative performance of each alternative using the same criteria by which the detailed analysis of each alternative was conducted. The purpose of the comparative analysis is to identify the advantages and disadvantages of each alternative relative to one another to aid in selecting an overall remedy for the Site.

The comparative analysis includes a narrative discussion of the strengths and weaknesses of the alternatives relative to one another with respect to each criterion, and how reasonable variations of key uncertainties could change the expectations of their relative performance, as applicable. The comparative analysis presented in this document uses a qualitative approach to comparison, with the exceptions of comparing alternative costs and the required time to implement each alternative.

A comparison of the capital and long-term costs associated with the RAs is presented in Table 12.1. A summary of the performance of each of the RAs presented in Section 11.0 is provided in Table 12.2. Detailed cost analysis backup is provided in Appendix F.

Compliance with Standards, Criteria, and Guidance.

Alternatives 1 and 2 would not meet Chemical-specific SCGs because they would not address contamination at and in the vicinity of the Site which exceeds applicable SCG values. Alternative 2 would rely upon institutional and engineering controls to prevent future exposure to soil contamination for soils exceeding the Part 375 Industrial Use SCGs remaining at the Site.

Alternative 3 would meet all chemical-specific SCGs and return the Site to its pre-disposal condition.

Implementation of RAs would be conducted in accordance with applicable municipal, state, and federal guidance and regulations. Table 11.1 presents a summary of Location- and Action-Specific SCGs associated with RAs evaluated in this Section.

Overall Protection of Public Health and the Environment. Alternative 1 would not protect public health through eliminating, reducing, or controlling existing or potential exposure pathways through

removal, treatment, engineering controls, or institutional controls. This RA would not achieve the RAOs for soil and groundwater.

Alternative 2 would rely upon institutional and engineering controls to prevent human exposure to VOC soil and groundwater contamination, and would allow for continued industrial use of the property in accordance with a Site Management Plan.

Alternative 3 would be most protective of public health and the environment through implementation of remedial actions to immediately and permanently reduce on-site soil and groundwater contamination. Alternative 4 would allow for unrestricted use of the Site.

Short-term Effectiveness. Because no action would be taken, Alternative 1 would not result in short-term adverse impacts and risks to the community, site workers, and the environment. Alternative 2 would include the implementation of institutional and engineering controls, and would result in a short term reduction in potential exposure pathways.

Alternative 3 includes remedial activities which would result in potential short-term risks to the community, site workers, and the environment. However, the risks could be addressed through coordination and communication with the property owner(s), erosion, sedimentation and dust control where applicable, and preparation and implementation of a comprehensive contractor health and safety plan. It is estimated that this alternative could be fully implemented in less than one year.

Long-term Effectiveness and Permanence. Alternatives 1 and 2 would not include actions to address contaminated soils and groundwater at and in the vicinity of the Site. These remedies do not currently meet RAOs for soil and groundwater and, due to the magnitude of the source area contamination, would not be expected to meet RAOs in the near future.

Alternative 3 would be expected to provide significantly increased contamination reduction in the long-term as compared to the other alternatives.

Reduction of Toxicity, Mobility, or Volume with Treatment. Alternatives 1 and 2 would not result in a significant reduction of toxicity, mobility, or volume of soil or groundwater contamination through treatment.

Alternative 3 would result in the reduction of mobility and volume of soil and groundwater contamination at and in the vicinity of the Site through excavation and off-site treatment and/or in-situ remediation of VOC contaminated soils present at the Site. This alternative would not result in a reduction in the toxicity of contamination unless contaminated soil removed from the Site received off-site treatment prior to disposal.

Implementability. Alternative 1 includes no action, therefore there are no technical difficulties associated with this alternative. However, obtaining regulatory approval of this alternative would be difficult.

Alternative 2 includes only the implementation of institutional and engineering controls, and therefore would not be technically difficult to implement. The largest impediment would be receiving owner consent for the installation of the SVE point and institutional controls.

Alternative 3 is anticipated to be very difficult to implement due to the site being used by multiple commercial tenants. The businesses would be required to relocate entirely.

Land Use. The current and reasonably anticipated future land use of the Site is for commercial purposes; however, residential property is located to the west and north of the Site. Because no action would be taken as part of Alternative 1 and there would be no restrictions to future use, Alternative 1 would not be protective of potential occupants/visitors to the Site and the immediate vicinity.

Alternative 2 would be compatible with current land use and reasonably anticipated future land use.

Alternative 3 would be compatible with current land use. After remediation and restoration activities, the site could be used commercially.

Cost. A comparison of the capital and long-term costs associated with the RAs is presented in Table 12.1.

Alternative 3 appears to be prohibitively expensive.

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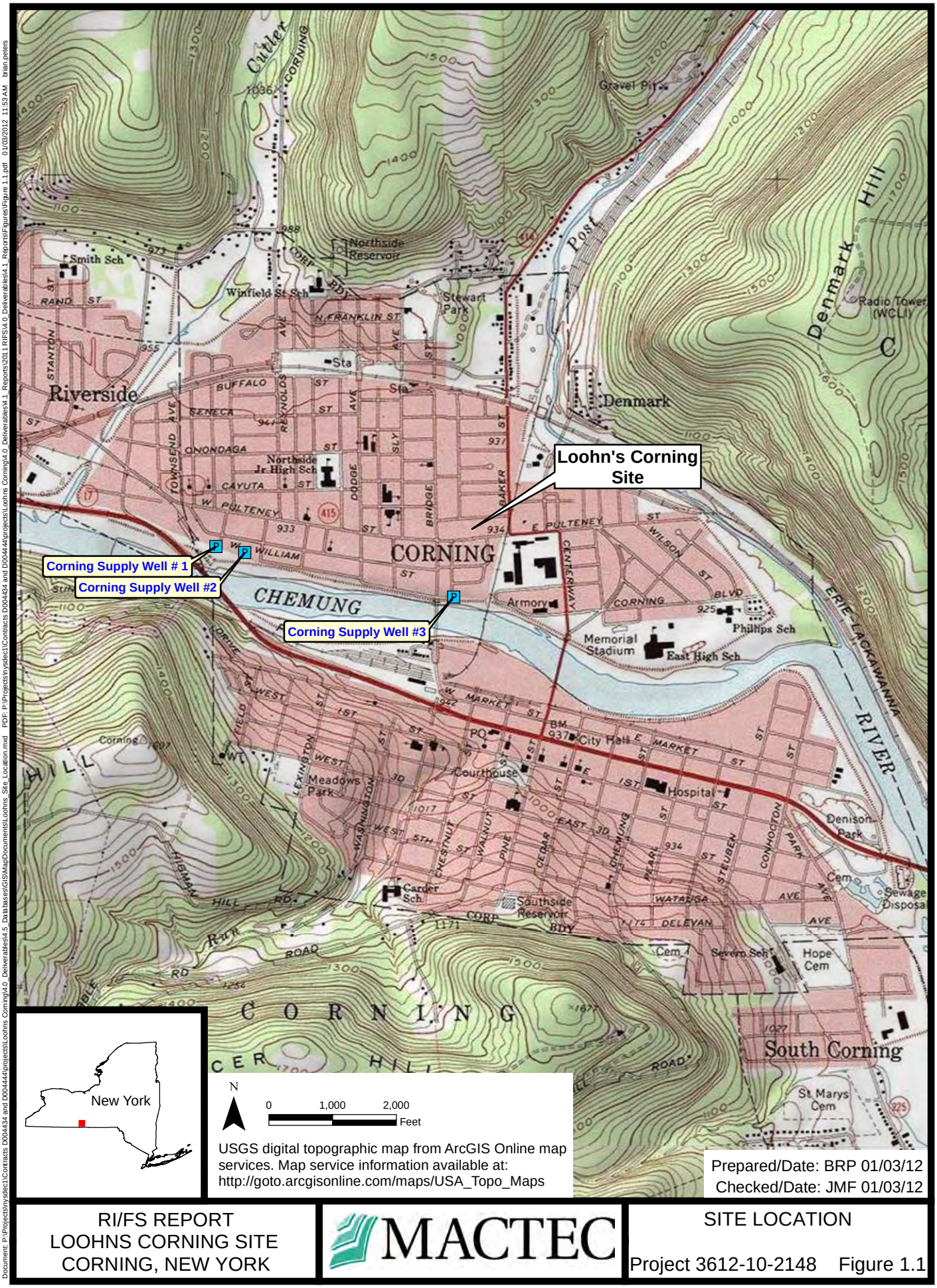
FIGURES



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Prepared/Date: BRP 01/03/12
Checked/Date: JMF 01/03/12

RI/FS REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

MACTEC

SITE LOCATION

Project 3612-10-2148 Figure 1.1

Legend

- Soil Boring (MACTEC, 2010)
- Surface Soil (MACTEC, 2010)
- Subslab Vapor Location (MACTEC, 2010)
- Geoprobe Groundwater Sample Location (MACTEC, 2010)
- Monitoring Well (Sear-Brown,1997)
- Vapor Extraction Well (MACTEC, 2010)
- Approximate Site Property Boundary

N

0 20 40 Feet

Steuben County color digital orthoimagery (2002) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

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Checked/Date: ECS 01/09/12

RI/FS REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

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SITE MAP
RI SAMPLING LOCATIONS
Project 3612-10-2148 Figure 2.1

Barn (Wood on Fieldstone Foundation)

PDI-1	PCE
11	0.0076

PDI-2	PCE
8	0.039

PDI-3	PCE
13	0.0026

PDI-4	PCE
5	0.018
10	0.014

C-8 (1997)	PCE
0-3	**310**

MW-1 (1997)	PCE
6-8	**79**

PDI-8	PCE
3	**49 D**
15	0.0049

PDI-9	PCE
1	**63 D**
10	0.016

PDI-10	PCE
2	0.063

PDI-5	PCE
5	0.007

PDI-6	PCE
1*	1 JN
5	0.026
10	0.024

PDI-7	PCE
5	0.015
10	0.017

PDI-13	PCE
5	1.2 D
10	0.035

PDI-14	PCE
2	**8 D**

GS-1A (2006)	PCE
4-6	**7.3**

SS-1	PCE
1*	1.1 JN

PDI-12	PCE
5	0.014
10	0.027
19	0.0031 J

PDI-11	PCE
1*	0.24 JN
2	0.096

C-7 (1997)	PCE
0-3	**70**

Concrete Pad

Door

Former Loohns Cleaners

Location ID (Year) — PDI-9 | PCE: 1 | **63 D**; 10 | 0.016

Depth in feet below ground surface

PCE Result in mg/Kg

Exceedance of PCE criteria (1.3 mg/Kg) shown in **Bold**

PCE result from June 2010 unless otherwise noted
* = Detected compounds reported as TICs in SVOC analyses (SW8270C)
D = Result is reported from a dilution
N = Presumptive evidence of compound identification (TICs)
J = Estimated value

Legend

- Soil Sample Location (MACTEC, 2010)
- Geoprobe (MACTEC, 2006)
- Monitoring Well (Sear-Brown, 1997)
- Soil Coring (Sear-Brown, 1997)
- Limit of Proposed Soil Excavation IRM
- Fence
- Property Line
- Concrete Pad
- Gas line
- Building

N

0 1 2 Feet

Buildings, utilities, property line and monitoring well surveyed by Lu Engineers.
MACTEC sample locations plotted using 3-point ties.
Sear-Brown locations approximated based on historic reports.

Prepared/Date: BRP 01/09/12
Checked/Date: ECS 01/09/12

RI/FS REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

MACTEC

PCE RESULTS IN SOIL
2010 AND PRIOR EXPLORATIONS
Project 3612-10-2148 Figure 4.1

Barn (Wood on Fieldstone Foundation)

Soils removed to 3 feet bgs

EX07	PCE
4	**6.3**

EX06	PCE
4	0.17

MW-1

EX03	PCE
6	0.029

Soils removed to 6 feet bgs

EX01	PCE
6	0.015

EX05	PCE
6	0.042

EX04	PCE
6	0.11

EX02	PCE
6	0.079

Soils removed to top of footing (2.5 feet bgs)

Edge of Building Footer

Door

Former Loohns Cleaners

Location ID — EX07 | PCE — 4 | **6.3**

Exceedance of PCE criteria (1.3 mg/Kg) shown in **Bold**

Depth in feet below ground surface

PCE Result in mg/Kg

Legend

- Documentation Sample Location
- Monitoring Well (Sear-Brown, 1997)
- Actual Limit of Excavation
- Fence
- Property Line
- Gas line
- Building

N

0 1 2 Feet

Buildings, utilities, property line and monitoring well surveyed by Lu Engineers.
Excavation and sample locations surveyed by James D. Evans

Prepared/Date: BRP 01/09/12
Checked/Date: ECS 01/09/12

RI/FS REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

MACTEC

SOIL IRM
EXCAVATION DOCUMENTATION SAMPLES
Project 3612-10-2148 Figure 4.2

Legend

- Monitoring Well (Sampled 6/1/2011)
- Geoprobe Groundwater Sample Location (Sampled 6/9/2010)
- Approximate Site Property Boundary

N

0 20 40 Feet

PCE Results reported in micrograms per liter (µg/L)
ND - Non-Detect

Steuben County color digital orthoimagery (2002) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: BRP 01/09/12
Checked/Date: ECS 01/09/12

RI/FS REPORT
LOOHNS CORNING SITE
CORNING, NEW YORK

MACTEC

PCE IN GROUNDWATER - RI SAMPLES

Project 3612-10-2148 Figure 4.3

TABLES

Table 4.1: RI Soil Results - VOCs

		Sample Location	PDI-001		PDI-001		PDI-002		PDI-003		PDI-004		PDI-004		PDI-005	
		Sample ID	LCPDI00101110XD		LCPDI00101110XX		LCPDI00200810XX		LCPDI00301310XX		LCPDI00400510XX		LCPDI00401010XX		LCPDI00500510XX	
		QC Code	FD		FS		FS		FS		FS		FS		FS	
		Sample Depth	11 ft bgs		11 ft bgs		8 ft bgs		13 ft bgs		5 ft bgs		10 ft bgs		5 ft bgs	
		Sample Date	06/08/10		06/08/10		06/08/10		06/09/10		06/09/10		06/09/10		06/08/10	
Method	**Parameter**	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
SW8260B	1,2-Dichlorobenzene	1	0.0048	U	0.0041	U	0.0053	U	0.0057	U	0.0045	U	0.0074	U	0.0047	U
SW8260B	1,4-Dichlorobenzene	1.8	0.0048	U	0.0041	U	0.0053	U	0.0057	U	0.0045	U	0.0074	U	0.0047	U
SW8260B	Acetic acid, methyl este	NC	0.0048	U	0.0041	U	0.0053	U	**0.0032**	J	0.0045	U	**0.0076**		0.0047	U
SW8260B	Acetone	0.05	0.024	U	0.021	U	0.026	UJ	0.028	U	**0.016**	J	**0.023**	J	0.023	U
SW8260B	Cis-1,2-Dichloroethene	0.25	0.0048	U	0.0041	U	0.0053	U	0.0057	U	0.0045	U	0.0074	U	0.0047	U
SW8260B	Cyclohexane	NC	0.0048	U	0.0041	U	0.0053	U	0.0057	U	0.0045	U	0.0074	U	0.0047	U
SW8260B	Methyl cyclohexane	NC	0.0048	U	0.0041	U	0.0053	U	0.0057	U	**0.0027**	J	0.0074	U	0.0047	U
SW8260B	Methylene chloride	0.05	0.0048	U	0.0041	U	0.0056	U	**0.0067**		**0.0031**	J	**0.0078**		0.0047	U
SW8260B	Tetrachloroethene	1.3	**0.0062**		**0.0073**		**0.039**		**0.0026**	J	**0.018**		**0.014**		**0.007**	
SW8260B	Toluene	0.7	0.0048	U	**0.0012**	J	0.0053	U	0.0057	U	0.0045	U	0.0074	U	0.0047	U
SW8260B	Trichloroethene	0.47	0.0048	U	0.0041	U	0.0053	U	0.0057	U	0.0045	U	0.0074	U	0.0047	U
SW8260B	Xylene, m/p	0.26	0.0095	U	0.0082	U	0.011	U	0.011	U	0.0091	U	0.015	U	0.0093	U

Notes:
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limi
D = Result is reported from a dilution
N = Presumptive evidence of compound identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.1: RI Soil Results - VOCs

		Sample Location	PDI-006*		PDI-006		PDI-006		PDI-007		PDI-007		PDI-008		PDI-008	
		Sample ID	LCPDI00600110XX		LCPDI00600510XX		LCPDI00601010XX		LCPDI00700510XX		LCPDI00701010XX		LCPDI00800310XX		LCPDI00801510XX	
		QC Code	FS		FS		FS		FS		FS		FS		FS	
		Sample Depth	1 ft bgs		5 ft bgs		10 ft bgs		5 ft bgs		10 ft bgs		3 ft bgs		15 ft bgs	
		Sample Date	06/08/10		06/08/10		06/08/10		06/08/10		06/08/10		06/08/10		06/08/10	
Method	**Parameter**	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
SW8260B	1,2-Dichlorobenzene	1	--		0.0047	U	0.0049	U	0.0049	U	0.0043	U	**0.027**		0.0046	U
SW8260B	1,4-Dichlorobenzene	1.8	--		0.0047	U	0.0049	U	0.0049	U	0.0043	U	**0.012**		0.0046	U
SW8260B	Acetic acid, methyl ester	NC	--		0.0047	U	0.0049	U	**0.0028**	J	**0.0087**		0.0051	U	**0.0042**	J
SW8260B	Acetone	0.05	--		0.024	U	0.025	U	0.025	U	0.026	U	0.025	U	0.023	UJ
SW8260B	Cis-1,2-Dichloroethene	0.25	--		0.0047	U	0.0049	U	0.0049	U	0.0043	U	**0.19**		0.0046	U
SW8260B	Cyclohexane	NC	--		0.0047	U	0.0049	U	0.0049	U	0.0043	U	0.0051	U	0.0046	U
SW8260B	Methyl cyclohexane	NC	--		0.0047	U	0.0049	U	0.0049	U	0.0043	U	0.0051	U	0.0046	U
SW8260B	Methylene chloride	0.05	--		0.0047	U	0.0049	U	0.0049	U	0.0044	U	0.0077	U	0.0051	U
SW8260B	Tetrachloroethene	1.3	**1**	JN	**0.026**		**0.024**		**0.015**		**0.017**		**49**	D	**0.0049**	
SW8260B	Toluene	0.7	--		0.0047	U	0.0049	U	0.0049	U	**0.001**	J	0.0051	U	**0.0014**	J
SW8260B	Trichloroethene	0.47	--		0.0047	U	0.0049	U	0.0049	U	0.0043	U	**0.18**		0.0046	U
SW8260B	Xylene, m/p	0.26	--		0.0094	U	0.0098	U	0.0098	U	0.0087	U	0.01	U	0.0091	U

Notes:
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limi
D = Result is reported from a dilution
N = Presumptive evidence of compound identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.1: RI Soil Results - VOCs

		Sample Location	PDI-009		PDI-009		PDI-010		PDI-011*		PDI-011		PDI-012		PDI-012	
		Sample ID	LCPDI00900110XX		LCPDI00901010XX		LCPDI01000210XX		LCPDI01100110XX		LCPDI01100210XX		LCPDI01200510XX		LCPDI01201010XX	
		QC Code	FS		FS		FS		FS		FS		FS		FS	
		Sample Depth	1 ft bgs		10 ft bgs		2 ft bgs		1 ft bgs		2 ft bgs		5 ft bgs		10 ft bgs	
		Sample Date	06/09/10		06/09/10		06/09/10		06/09/10		06/09/10		06/08/10		06/08/10	
Method	**Parameter**	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
SW8260B	1,2-Dichlorobenzene	1	**0.0052**	J	0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	1,4-Dichlorobenzene	1.8	**0.0023**	J	0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	Acetic acid, methyl este	NC	0.0068	U	**0.0023**	J	0.0048	U	--		0.0041	U	**0.0019**	J	0.0044	U
SW8260B	Acetone	0.05	**0.012**	J	**0.012**	J	0.024	U	--		0.02	U	0.022	U	0.022	U
SW8260B	Cis-1,2-Dichloroethene	0.25	**0.0028**	J	0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	Cyclohexane	NC	0.0068	U	0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	Methyl cyclohexane	NC	0.0068	U	0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	Methylene chloride	0.05	**0.0042**	J	**0.0046**		**0.004**	J	--		**0.003**	J	0.0045	U	0.0055	U
SW8260B	Tetrachloroethene	1.3	**63**	D	**0.016**		**0.063**		**0.24**	JN	**0.096**		**0.014**		**0.027**	
SW8260B	Toluene	0.7	0.0068	U	0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	Trichloroethene	0.47	**0.0093**		0.0045	U	0.0048	U	--		0.0041	U	0.0045	U	0.0044	U
SW8260B	Xylene, m/p	0.26	0.014	U	0.0091	U	0.0096	U	--		0.0081	U	0.009	U	0.0088	U

Notes:
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC
in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limi
D = Result is reported from a dilution
N = Presumptive evidence of compound identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.1: RI Soil Results - VOCs

		Sample Location	PDI-012		PDI-013		PDI-013		PDI-014		SS-001*	
		Sample ID	LCPDI01201910XX		LCPDI01300510XX		LCPDI01301010XX		LCPDI01400210XX		LCSS00100110XX	
		QC Code	FS		FS		FS		FS		FS	
		Sample Depth	19 ft bgs		5 ft bgs		10 ft bgs		2 ft bgs		1 ft bgs	
		Sample Date	06/08/10		06/08/10		06/08/10		06/09/10		06/08/10	
Method	**Parameter**	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
SW8260B	1,2-Dichlorobenzene	1	0.0041	U	**0.0012**	J	0.0044	U	**0.00079**	J	--	
SW8260B	1,4-Dichlorobenzene	1.8	0.0041	U	0.0045	U	0.0044	U	0.0042	U	--	
SW8260B	Acetic acid, methyl ester	NC	0.0041	U	0.0045	U	0.0044	U	0.0042	U	--	
SW8260B	Acetone	0.05	0.025	U	0.022	UJ	0.022	U	0.021	U	--	
SW8260B	Cis-1,2-Dichloroethene	0.25	0.0041	U	**0.0016**	J	0.0044	U	0.0042	U	--	
SW8260B	Cyclohexane	NC	**0.0025**	J	0.0045	U	0.0044	U	0.0042	U	--	
SW8260B	Methyl cyclohexane	NC	**0.0028**	J	0.0045	U	0.0044	U	0.0042	U	--	
SW8260B	Methylene chloride	0.05	0.0053	U	0.0045	U	0.0044	U	**0.0045**		--	
SW8260B	Tetrachloroethene	1.3	**0.0031**	J	**1.2**	D	**0.035**		**8**	D	**1.1**	JN
SW8260B	Toluene	0.7	**0.0022**	J	**0.00091**	J	0.0044	U	0.0042	U	--	
SW8260B	Trichloroethene	0.47	0.0041	U	0.0045	U	0.0044	U	**0.0051**		--	
SW8260B	Xylene, m/p	0.26	**0.0015**	J	0.0089	U	0.0088	U	0.0084	U	--	

Notes:
VOCs = Volatile organic compounds
* = Detected compounds reported as TIC in SVOC analyses (SW8270C)
TICs = Tentatively Identified Compunds
SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg
ft bgs = feet below ground surface
Only detected compounds shown.
"--" = Parameter not analyzed
QC Code:
FS = Field Sample
FD = Field Duplicate
Qualifiers:
U = Not detected greater than the reporting limi
D = Result is reported from a dilution
N = Presumptive evidence of compound identification (TICs)
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
NC = no criteria available
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.2: RI Soil Results - Metals, PCBs, Pesticides and SVOCs

Sample Location		BKSS-001		BKSS-002		BKSS-003		BKSS-003		PDI-006		PDI-011		SS-001	
Sample ID		LCBKSS00100110XX		LCBKSS00200110XX		LCBKSS00300110XD		LCBKSS00300110XX		LCPDI00600110XX		LCPDI01100110XX		LCSS00100110XX	
Qc Code		FS		FS		FD		FS		FS		FS		FS	
Sample Depth		1 ft bgs		1 ft bgs		1 ft bgs		1 ft bgs		1 ft bgs		1 ft bgs		1 ft bgs	
Sample Date		06/09/10		06/09/10		06/09/10		06/09/10		06/08/10		06/09/10		06/08/10	
Parameter	**Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
Metals by USEPA Method 6010															
Aluminum	NC	**7050**	J	**5430**	J	**6400**	J	**5470**	J	**5420**		**6180**	J	**8240**	
Antimony	NC	**0.7**	J	2.58	U	**1.37**	J	**1.08**	J	2.76	U	**0.58**	J	2.89	U
Arsenic	13	**5.67**		**3.94**		**9.37**		**7.69**		**4.22**		**4.34**		**6**	
Barium	350	**83.2**	J	**36.7**	J	**106**	J	**93.6**	J	**49.1**		**66.6**	J	**97.3**	
Beryllium	7.2	**0.42**		**0.26**	J	**0.46**		**0.36**	J	**0.26**	J	**0.3**		**0.41**	
Cadmium	2.5	**1.09**		**0.66**		**1.37**		**0.96**		**0.61**		**0.79**		**1.16**	
Calcium	NC	**3400**	J	**13000**	J	**12600**	J	**2060**	J	**1050**		**6320**	J	**2570**	
Chromium	30	**12.6**		**7.69**		**9.65**		**8.8**		**7.63**		**8.64**		**10.7**	
Cobalt	NC	**8.35**		**5.57**		**7.74**		**6.87**		**4.68**		**5.79**		**7.13**	
Copper	50	**15.6**		**18.1**		**37.5**		**32.8**		**11.8**		**21**		**25.2**	
Iron	NC	**16600**	J	**13500**	J	**15700**	J	**13100**	J	**12000**		**13900**	J	**17400**	
Lead	63	**47.9**		**12.1**		**190**		**144**		**28.8**		**44.1**		**38.8**	
Magnesium	NC	**2480**	J	**4840**	J	**2290**	J	**1540**	J	**1450**		**1790**	J	**2380**	
Manganese	1,600	**488**	J	**317**	J	**467**	J	**415**	J	**405**		**343**	J	**413**	
Nickel	30	**17.8**		**13**		**14.9**		**12.3**		**9.78**		**12.8**		**16.3**	
Potassium	NC	**767**	J	**382**	J	**584**	J	**507**	J	**407**		**400**	J	**671**	
Selenium	3.9	**2.28**	J	**1.68**	J	**2.73**	J	**2.32**	J	**1.88**		**1.92**	J	**2.45**	
Sodium	NC	**605**	J	**96.8**	J	**211**	J	**188**	J	**225**		**120**	J	**119**	
Vanadium	NC	**11.2**		**9.13**		**11.3**		**9.9**		**10.4**		**9.88**		**13.9**	
Zinc	109	**77.1**	J	**58.1**	J	**137**	J	**113**	J	**59.2**		**76.4**	J	**105**	
Mercury	0.18	**0.088**	J	**0.017**	J	**0.164**	J	**0.193**	J	**0.106**	J	**0.134**	J	**0.081**	J
Pesticides by USEPA Method 8081															
4,4`-DDD	0.0033	0.0021	U	0.00394	U	0.0021	U	0.0021	U	0.0019	U	**0.0013**	J	**0.016**	
4,4`-DDE	0.0033	0.0021	U	0.0367	U	**0.0027**	JP	**0.003**	JP	0.0019	U	**0.0047**		**0.01**	
4,4`-DDT	0.0033	0.0021	U	0.00026	U	**0.0029**		**0.0031**		**0.017**		**0.0057**		**0.036**	
Dieldrin	0.005	0.0021	U	0.00066	U	0.0021	U	0.0021	U	0.0019	U	**0.0032**	JP	0.0039	U
Methoxychlor	NC	0.0021	U	13	U	0.0021	U	0.0021	U	0.0019	U	**0.012**		**0.038**	J
SVOCs by USEPA Method 8270															
Benzo(a)anthracene	1	**0.21**	J	0.00769	U	**0.1**	J	**0.11**	J	0.38	U	0.39	U	**0.054**	J
Benzo(a)pyrene	1	**0.22**	J	0.00557	U	**0.11**	J	**0.1**	J	0.38	U	0.39	U	**0.055**	J
Benzo(b)fluoranthene	1	**0.29**	J	0.0181	U	**0.16**	J	**0.15**	J	0.38	U	0.39	U	**0.087**	J
Benzo(ghi)perylene	100	**0.16**	J	13.5	U	**0.083**	J	**0.078**	J	0.38	U	0.39	U	**0.093**	J
Benzo(k)fluoranthene	0.8	**0.13**	J	0.0121	U	**0.054**	J	0.41	U	0.38	U	0.39	U	0.38	U
Bis(2-Ethylhexyl)phthalate	NC	0.41	U	4.84	U	0.41	U	0.41	U	**0.13**	J	**0.34**	J	**1.8**	
Butylbenzylphthalate	NC	0.41	U	0.317	U	0.41	U	0.41	U	0.38	U	0.39	U	**0.13**	J
Chrysene	1	**0.24**	J	0.013	U	**0.13**	J	**0.13**	J	0.38	U	0.39	U	**0.08**	J
Di-n-butylphthalate	NC	0.41	U	0.382	U	0.41	U	0.41	U	0.38	U	0.39	U	**0.063**	J
Di-n-octylphthalate	NC	0.41	U	0.00168	U	0.41	U	0.41	U	0.38	U	0.39	U	**0.055**	J
Fluoranthene	100	**0.48**		0.0968	U	**0.24**	J	**0.26**	J	0.38	U	**0.056**	J	**0.16**	J
Indeno(1,2,3-cd)pyrene	0.5	**0.14**	J	0.00913	U	**0.072**	J	**0.068**	J	0.38	U	0.39	U	**0.049**	J
Phenanthrene	100	**0.16**	J	0.0581	U	**0.11**	J	**0.14**	J	0.38	U	0.39	U	**0.061**	J
Pyrene	100	**0.35**	J	0.000017	U	**0.19**	J	**0.2**	J	0.38	U	0.39	U	**0.13**	J

Notes:

SVOCs = Semi-volatile organic compounds
Results in milligrams per kilogram (mg/Kg
ft bgs = feet below ground surface
Only detected compounds shown.
NC = no criteria available
QC Code:
FS = Field Sample
FD = Field Duplicate

Qualifiers:
U = Not detected greater than the reporting limit
P = Indicates >25% difference for detected concentrations between the two GC columns.
J = Estimated value
Criteria - 6 NYCRR 375 Soil Cleanup Objectives for unrestricted use.
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.3: RI Groundwater Results - VOCs

	Sample Location	GW-013		GW-014		GW-015	
	Sample ID	LCGW01302010XX		LCGW01402010XX		LCGW01502010XX	
	Sample Date	06/09/10		06/09/10		06/09/10	
	Qc Code	FS		FS		FS	
	Sample Depth	19 ft bgs		19 ft bgs		19 ft bgs	
Parameter	**GA Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**	**Result**	**Qualifier**
Benzene	1	1	U	1	U	**2**	
Cyclohexane	NC	1	U	1	U	**1.8**	
Ethyl benzene	5	1	U	1	U	**0.57**	J
Methyl cyclohexane	NC	1	U	**0.76**	J	**1.2**	
Tetrachloroethene	5	1	U	**1.2**		**1.8**	
Toluene	5	**0.91**	J	**0.88**	J	**3.8**	
Xylene, m/p	5	**1.2**	J	2	U	**2.9**	
Xylene, o	5	**0.51**	J	1	U	**1.2**	

Notes:
Samples analyzed for volatile organic compounds (VOCs) by USEPA Method 8260
Results reported in micrograms per liter (µg/L)
Only detected compounds shown.
ft bgs = feet below ground surface
QC Code:
FS = Field Sample;
Qualifiers:
U = Not detected greater than the reporting limit
J = Estimated value
Criteria = New York State GA Standards, part 703.
NC = no criteria established
Detections are indicated in **BOLD**
Highlighted results exceed criteria

Table 4.4: Post IRM Groundwater Results - VOCs, Metals, PCBs, Pesticide and SVOCs

	Sample Location	**MW-01**		**MW-02**	
	Sample ID	LCMW001016		LCMW002019	
	Sample Date	06/01/11		06/01/11	
	Qc Code	FS		FS	
	Sample Depth	16 ft bgs		19 ft bgs	
Parameter	**GA Criteria**	**Result**	**Qualifier**	**Result**	**Qualifier**
VOCs					
Tetrachloroethene	5	**1.1**		**4.7**	
SVOCs					
no analytes detected					
Pesticides					
no analytes detected					
PCBs					
no analytes detected					
Metals					
Barium	1000	**89**		**98.4**	
Calcium		**59,900**		**83,300**	
Copper	200	**2.26**	J	**2.08**	J
Iron	300	**50.4**		**190**	
Magnesium	35,000	**11,300**		**18,200**	
Manganese	300	**3.26**	J	**27.3**	
Potassium		**3,090**		**4,390**	
Selenium	10	10	U	**5.87**	J
Sodium	20,000	**55,700**		**115,000**	
Zinc	2000	**10.6**	J	**20**	U
Mercury	0.7	**0.14**	J	**0.2**	U

Notes:
Results reported in micrograms per liter (µg/L)
Only detected compounds shown (Tetrachloroethene was the sole compound detected).
ft bgs = sounded well depth - feet below ground surface
QC Code:
FS = Field Sample;
NC = no criteria established
Detections are indicated in **BOLD**
Shaded cell indicated an exceedance of the GA criteria

Table 4.5: Post IRM Vapor Results

	Location	EW-01		SV-02	
	Sample Date	6/1/2011		6/1/2011	
	Sample ID	LCSVEW1005		LCSV002007	
	Qc Code	FS		FS	
Analysis	**Parameter**	**Result**	**Qualifier**	**Result**	**Qualifier**
EPA TO-15	1,1,1-Trichloroethane	1.1	U	2	
EPA TO-15	1,1,2,2-Tetrachloroethane	1.4	UJ	3.4	J
EPA TO-15	1,2,4-Trimethylbenzene	1.6		4.9	
EPA TO-15	1,3,5-Trimethylbenzene	5.2		9.4	
EPA TO-15	1,4-Dichlorobenzene	1.2	U	1.5	
EPA TO-15	2-Butanone	6.9	J	5.6	J
EPA TO-15	2-Propanol	36	J	5	UJ
EPA TO-15	4-Ethyltoluene	3.7		4.8	
EPA TO-15	Acetone	200		55	
EPA TO-15	Benzene	0.65	U	7.9	
EPA TO-15	Carbon disulfide	1.1		2.1	
EPA TO-15	Cis-1,2-Dichloroethene	5.7		1.6	
EPA TO-15	Cyclohexane	0.7	U	19	
EPA TO-15	Dichlorodifluoromethane	2.5		2.6	
EPA TO-15	Ethyl benzene	2.6		2.8	
EPA TO-15	Heptane	1.2		43	
EPA TO-15	Hexane	1.3		38	
EPA TO-15	Styrene	3		2.8	
EPA TO-15	Tetrachloroethene	3,200		130,000	
EPA TO-15	Tetrahydrofuran	0.6	U	1.3	
EPA TO-15	Toluene	90		92	
EPA TO-15	Trichloroethene	29		170	
EPA TO-15	Trichlorofluoromethane	2.3		2.7	
EPA TO-15	Xylene, o	3.2		5.5	
EPA TO-15	Xylenes (m&p)	7.9		19	

Notes:
Results reported in micrograms per cubic meter (µg/m3)
QC Code:
FS = Field Sample
Qualifiers:
U = Not detected at a concentration greater than the reporting limit
J = Estimated value

Table 5.1: Conceptual Site Model

Media	Known or Suspected Source of Contamination	Type of Contamination (General)	COPCs (Specific)	Primary or Secondary Source Release mechanism	Migration Pathways	Potential Receptors
Soil	Disposal and or improper storage of PCE	Solvents	PCE	Leaks and or Spills	Infiltration / percolation	Human: direct contact if excavation occurs in contaminated area (s)
Groundwater	Contaminated Soil (Secondary Source)	Solvents	PCE	Infiltration / percolation from contaminated soils	Groundwater flow	Human: Although no water supply wells are located in the vicinity, if excavation is conducted onsite workers could be exposed to contaminated groundwater.
Air /Soil Vapor	Contaminated Soil and or contaminated groundwater.	Solvents	PCE	Volatilization of contaminated groundwater	Migration into buildings / residences	Human: Inhalation

Notes:
COPCs = contaminants of potential concern
TCE = Trichloroethene
DCE = Dichloroethene

Table 9.1: Identification and Screening of Potential Remedial Technologies and Process Options

Environmental Media	General Response Action	Remedial Technology	Process Option	Applicability to		Screening Status	Comments
				Site-Limiting Characteristics	Waste-Limiting Characteristics		
Soil	No Action			Not Applicable	Not Applicable	Retained.	Retained to be carried through detailed analysis of alternatives.
	Access Restrictions	Land Use Restrictions		Would require coordination and approval from the current owner.	Would not reduce toxicity, mobility, or volume of site related contaminants.	Retained.	Viable as a component of remedial actions which do not involve remediation allowing for unrestricted use.
		Fencing		A fence would have to abut the building as contamination is under the building.	Would not provide reliable human or ecological exposure control. Would not reduce toxicity, mobility, or volume of VOC contaminants.	Eliminated.	
	Containment	Capping	Soil Cover	Contamination is genearlly limited to the area beneath the building slab.	Would not prevent leaching of VOC soil contamination to groundwater.	Eliminated.	
			Low Permeability Cover System	Contamination is generally limited to locations under the building slab and therefore capping is impractical.	None.	Eliminated.	
		Vertical Barriers	Slurry wall, sheet piling	Contamination is generally limited to the area beneath the building slab and therefore a vertical barrier would not reduce leaching to the groundwater. This technology would require the wall to be keyed into the confining layer.	None.	Eliminated.	
		Surface Controls	Diversion/collection, grading, soil stabilization	Contamination is generally limited to the saturated zone under the building slab and therefore surface controls would not prevent leaching to the groundwater. Surface controls alone would not prevent leaching of VOC soil contamination to groundwater.	None.	Eliminated.	
	In-Situ Treatment	Biological Treatment	Enhanced Biodegradation	The location of the contamination under the building slab would limit the effectiveness of the application of this technology.	None.	Eliminated.	
		Physical Treatment	Solidification/ Stabilization	The location of the contamination under the building slab would limit the effectiveness of the application of this technology.	Solidification/ stabilization has limited ability to effectively immobilize VOC contamination in soil.	Eliminated.	
			Soil Vapor Extraction	None	Treatment would be limited dependent on the size and type of system installed due to owner's operational constraints.	Retained.	Viable as a modified system. Would protect indoor air quality. May be used in conjunction with other alternatives.
		Thermal Treatment	Electrical Resistance Heating	The contaminants appear to be located primarily in the shallow saturated and vadose zones. ERH is typically less cost-effective than other alternatives for shallow contamination.	Requires capture of VOC off-gasses.	Eliminated.	

Table 9.1: Identification and Screening of Potential Remedial Technologies and Process Options

Environmental Media	General Response Action	Remedial Technology	Process Option	Applicability to		Screening Status	Comments
				Site-Limiting Characteristics	Waste-Limiting Characteristics		
Soil (continued)	Removal	Excavation	Solids Excavation	The ability to conduct excavation would be limited due to the location of the contamination under the existing building slab. Excavation of contaminated soils occurred outside of the building under a previous IRM.	None.	Retained.	Viable if building can be demolished.
		Disposal On-site		Space is limited, would require treatment of the soils.	Removal not technically feasible.	Eliminated.	
		Disposal Off-site		None	Removal not technically feasible.	Retained.	
	Ex-situ Treatment	Thermal Treatment	Incineration	Removal not technically feasible.	Removal not technically feasible.	Eliminated.	
			Thermal Desorption	Removal not technically feasible.	Removal not technically feasible.	Eliminated.	
		Chemical Treatment	Chemical Dehalogenation	Removal not technically feasible.	Removal not technically feasible.	Eliminated.	
			Solvent Extraction	Removal not technically feasible.	Removal not technically feasible.	Eliminated.	
		Physical Treatment	Soil Washing	Removal not technically feasible.	Removal not technically feasible.	Eliminated.	

Table 9.1: Identification and Screening of Potential Remedial Technologies and Process Options

Environmental Media	General Response Action	Remedial Technology	Process Option	Applicability to		Screening Status	Comments
				Site-Limiting Characteristics	Waste-Limiting Characteristics		
Groundwater	No Action			Not Applicable	Not Applicable	Retained.	Retained to be carried through detailed analysis of alternatives.
	Access Restrictions	Land Use Restrictions		Would require coordination and approval with current owner.	Would not reduce toxicity, mobility, or volume of VOC contaminants.	Retained.	Viable as a component of remedial actions which do not involve remediation of all contamination above RGs.
	Containment	Capping	Low Permeability Cover System	Contamination is generally limited to locations under the building slab and therefore capping is impractical.	None.	Eliminated.	
		Vertical Barriers	Slurry wall, sheet piling	This technology would require the wall to be keyed into the confining layer which is prohibitively expensive.	None.	Eliminated.	
		Surface Controls	Diversion/collection, grading, soil stabilization	Surface controls alone would not prevent leaching of VOC soil contamination to groundwater.	None.	Eliminated.	
		Collection	Extraction Wells/ Monitoring Wells	This technology would be limited by the location and existing use of the building.	None.	Eliminated.	
			Collection Trench	This technology would be limited by the location and existing use of the building.	None.	Eliminated.	
	In-Situ Treatment	Biological Treatment	Enhanced Biodegradation	The location of the contamination under the building slab would limit the effectiveness of the application of this technology.	None.	Eliminated.	
		Physical Treatment	Permeable Reactive Barrier	Area to be treated is too small to make mobilization cost effective.	None.	Eliminated.	
			Air Sparging	This technology would require the capture and treatment of generated vapors.	Removes VOC contaminants from the soil in the saturated zone, but requires additional technologies to treat off-gases.	Eliminated.	
		Thermal Treatment	Electrical Resistance Heating	The contaminants appear to be located primarily in the shallow saturated and vadose zones. ERH is typically less cost-effective than other alternatives for shallow contamination.	None.	Eliminated.	

Table 9.1: Identification and Screening of Potential Remedial Technologies and Process Options

Environmental Media	General Response Action	Remedial Technology	Process Option	Applicability to		Screening Status	Comments
				Site-Limiting Characteristics	Waste-Limiting Characteristics		
Groundwater (continued)		Chemical Treatment	Oxidation/ Reduction	Oxidation/ Reduction would be limited by poor conductivity due to the silty characteristics of the soil.	None.	Eliminated.	
	Ex-Situ Treatment	Onsite Treatment	Granular Activated Carbon	Site is limited due to the space required for extraction wells and a treatment process.	None.	Eliminated.	
			Air Stripping	Site is limited due to the space required for extraction wells and a treatment process.	Removes VOC contaminants from groundwater, but may require additional technologies to treat off-gases.	Eliminated.	
		Offsite treatment and Disposal	Discharge to POTW after treatment	Site is limited due to the space required for extraction wells and a treatment process.	Subject to discharge limitations.	Eliminated.	
			Discharge to Surface Water after treatment	No nearby sources of surface water.	Subject to discharge limitations.	Eliminated.	
			Reinjection after treatment	Limited by the high water table.	None.	Eliminated.	

Table 10.1: Screening of Remedial Alternatives

Remedial Alternative	Effectiveness	Implementability	Relative Cost	Comments
Alternative 1: No Action	This alternative would not be effective at reducing contamination concentrations, or addressing the identified exposure pathways.	There would not be any technical issues with implementing this alternative; however, it is unlikely that the NYSDEC will approve of this alternative.	No cost associated with this alternative.	Retained as base-line for comparison of other alternatives.
Alternative 2: No Further Action (Continued Operation of Modified SVE System with Land Use Restrictiosn on Property)	This alternative would address the identified exposure pathways at the Site through the use of SVE system. The SVE system removes harmful soil vapors and creates a negative air pressure gradient across the floor slab. This alternative would not be effective at reducing contaminant concentrations. Institutional controls would be used to address potential exposure to residual subsurface contaminants	There would not be any technical issues with implementing this alternative; however, it would be necessary to get property owner cooperation.	Estimated relative costs for this alternative would be low.	Retained.
Alternative 3: Return to Pre-disposal Conditions	This alternative would be effective at meeting chemical specific SCGs.	This alternative does not have any technical issues. Practically, however, vacating the sites existing tennants could be a protracted process.	Estimated relative costs for this alternative would be extremely high.	Retained.

Prepared by: KAW 12/21/20011
Revised by: ECS 1/11/2012
Checked by: MJS1/11/2012

Table 11.1: Applicable Location- and Action-Specific Standards, Criteria, and Guidance

Requirement	Consideration in the Remedial Response Process
29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response	Applicable to implementation of Health and Safety implementation, enforcement, and emergency response.
6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes (November 1998)	Applicable to the characterization, handling, transportation, and treatment/disposal of soils to be removed from the Site.
6 NYCRR Part 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (November 1998)	Applicable to the handling, transportation, and treatment/disposal of soils to be removed from the Site.
6 NYCRR Part 375 - Environmental Remediation Programs (as amended December 2006)	Applicable to the development and implementation of remedial programs.
6 NYCRR Part 376 - Land Disposal Restrictions	Applicable to disposal of hazardous wastes. Identifies those wastes that are restricted from land disposal.
6 NYCRR Part 608 - Use and Protection of Waters	Potentially Applicable to remediation that may impact the wetland areas or stream at the Site.
6 NYCRR Part 662 - Freshwater Wetlands - Interim Permits	Potentially Applicable to remediation that may impact the wetland areas or stream at the Site.
6 NYCRR Part 663 - Freshwater Wetlands - Permit Requirements	Potentially Applicable to remediation that may impact the wetland areas or stream at the Site.
6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)	Potentially Applicable to remediation that may impact the wetland areas or stream at the Site.
6 NYCRR Part 750 through 758 - Implementation of NPDES Program in NYS (“SPDES Regulations”)	Applicable to construction in and adjacent to water bodies and discharge of treated wastewater.
DER-10 Technical Guidance for Site Investigation and Remediation	Applicable to the development and implementation of remedial programs.
Citizen Participation in New York’s Hazardous Waste Site Remediation Program: A Guidebook (June 1998)	Applicable to the development and implementation of remedial programs.
TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations	Applicable to construction in and adjacent to water bodies and discharge of treated wastewater.
Solidification/Stabilization and its Application to Waste Materials	Applicable to disposal of wastes generated during implementation of remedial program.

Table 11.2: Cost Summary for Alternative 3 – Restoration to Unrestricted Conditions

ITEM		COST
DIRECT CAPITAL COSTS		
Pre-Design Investigation	$	78,000
Mobilization and Temporary Facilities and Controls	$	804,000
Excavation and Off-site Disposal of Site Soil	$	1,447,000
In-Situ Chemical Oxidation	$	252,000
Site Restoration	$	1,000
Direct Cost Subtotal	$	2,582,000
INDIRECT CAPITAL COSTS		
Project Management (@ 5 Percent)	$	130,000
Remedial Design (@ 8 Percent)	$	207,000
Construction Management (@ 6 Percent)	$	155,000
Contingency (@ 25 Percent)	$	646,000
Indirect Cost Subtotal	$	1,138,000
TOTAL CAPITAL COSTS	**$**	**3,720,000**
ANNUAL OPERATION AND MAINTENANCE COSTS*		
Quarterly Monitoring (years 1-2)	$	-
Semi-annual Monitoring (years 3-4)	$	-
Annual Monitoring (years 5-30)	$	-
Annual Performance Reporting (years 1-30)	$	-
PRESENT WORTH OF ANNUAL AND PERIODIC COSTS (30 yrs)	**$**	**-**
TOTAL PRESENT WORTH OF ALTERNATIVE 3 (30 yrs)	**$**	**3,720,000**
TOTAL NON-DISCOUNTED COST OF ALTERNATIVE 3 (30 yrs)	**$**	**3,720,000**

NOTES:

Costs have been rounded to the nearest thousand.

* Costs include additional 10 percent for bid contingency and 25 percent for scope contingency unforeseen project complexities including insurance, taxes, and licensing costs (USEPA 2000).

Table 11.3: Cost Summary for Alternative 2 - Modified SVE with Land Use Restrictions

ITEM		COST
DIRECT CAPITAL COSTS		
- Institutional Controls and Modified SVE System	$	11,000
- Direct Cost Subtotal	$	11,000
INDIRECT CAPITAL COSTS		
- Project Management (@ 10 Percent)	$	1,000
- Remedial Design (@ 20 Percent)	$	2,000
- Construction Management (@ 15 Percent)	$	2,000
- Contingency (@ 25 Percent)	$	3,000
- Indirect Cost Subtotal	$	8,000
TOTAL CAPITAL COSTS	**$**	**19,000**
OPERATION AND MAINTENANCE COSTS*		
- Periodic Institutional Control Inspections and Reporting	$	5,000
- Long-Term Monitoring (Years 1-5)	$	4,000
PERIODIC COSTS*		
- None	$	-
PRESENT WORTH OF ANNUAL AND PERIODIC COSTS (5 yrs)	**$**	**39,000**
TOTAL PRESENT WORTH OF ALTERNATIVE 2 (5 yrs)	**$**	**58,000**
TOTAL NON-DISCOUNTED COST OF ALTERNATIVE 2 (5 yrs)	**$**	**64,000**

NOTES:
Costs have been rounded to the nearest thousand.
* - Costs include additional 10 percent for technical support and 25 percent contingency for unforeseen project complexities, including insurance, taxes, and licensing costs. Costs based on annual inspection and reporting.

Table 12.1: Summary of Estimated Remedial Alternative Costs

Item	Description	Alternative 1	Alternative 2	Alternative 3
1	Capital Costs	$ -	$ 19,000	$ 3,720,000
2	Present Worth of Annual and Periodic Costs	$ -	$ 39,000	$ -
3	Total Present Worth (Item 1 plus 2)	$ -	$ 58,000	$ 3,720,000
4	Total Nondiscounted Cost	$ -	$ 64,000	$ 3,720,000

Notes:
Alternative 1: NoAction
Alternative 2: Modified SVE System with Land Use Restrictions
Alternative 3: Restoration to Pre-Disposal Conditions

Table 12.2: Comparative Analysis of Remedial Alternatives

Remedial Alternative	Alternative 1: No Action	Alternative 4: Restoration to Unrestricted Conditions	Alternative 5: Modified SVE with Land Use Restrictions
Compliance with New York State SCGs	Alternative 1 would include no actions to address VOC-contaminated soils or groundwater at or downgradient of the Site. Alternative 1 would not meet Chemical-specific SCGs for soil or groundwater.	Alternative 4 would meet all Chemical-specific SCGs for soil and groundwater. Excavation of contaminated soils and in-situ treatment of site groundwater would be implemented in order to restore the site to pre-disposal conditions.	Alternative 4 would not meet Chemical-specific SCGs for soil or groundwater. Site Management, including implementation of insitutional and engineering controls, would be implemented in accordance with Action- and Location-specific SCGs.
Overall Protection of Human Health and the Environment	Alternative 1 would not protect public health and the environment through eliminating, reducing, or controlling existing or potential exposure pathways through removal or treatment of VOC soil and groundwater contamination, or institutional controls. Existing engineering controls are in-place to address the existing soil vapor to indoor air pathway downgradient of the Site. No potential risks to environmental receptors have been identified.	Alternative 4 would protect public health and the enviornment through removing and treating site contamination.	Alternative 4 would protect public health through controlling existing or potential exposure pathways through institutional and engineering controls. Engineering controls would be in place to address the existing soil vapor to indoor air pathway at the Site. No potential risks to environmental receptors have been identified.
Short-term Impacts and Effectiveness	Alternative 1 would include no actions, and therefore would not result in short-term adverse impacts and risks to the community, site workers, and the environment.	Alternative 4 would have manageable short term impacts. The soil excavation and disposal process would require excavation, disposal, and decontamination procedures designed to ensure the health and safety of the public and environment.	Alternative 4 would includes on implementation of institutional and engineering controls, and therefore would not result in short-term adverse impacts and risks to the community, site workers, and the environment.
Long-term Effectiveness and Permanence	Alternative 1 would rely upon existing engineering controls to address the soil vapor to indoor air pathway, and natural attenuation to address the soil and groundwater VOC contamination contributing to the downgradient groundwater and soil vapor contamination. The time required for Alternative 1 to achieve RGs would be significant.	Alternative 4 would be an effective and permanent solution to onsite contamination.	Alternative 2 would rely upon institutional controls and existing engineering controls to protect human health and natural attenuation to address the soil and groundwater VOC contamination contributing to the downgradient groundwater and soil vapor contamination. The time required for Alternative 2 to achieve RGs would be significant.
Reduction of Toxicity, Mobility, and Volume	Alternative 1 would not provide reduction in the toxicity, mobility, or volume of VOC soil or groundwater contamination through treatment.	Alternative 4 would eliminate all on-site contamination.	Alternative 4 would not provide significant reduction in the toxicity, mobility, or volume of VOC soil or groundwater contamination through treatment.
Implementability	Alternative 1 would include no actions, therefore there are no technical difficulties associated with this alternative. Obtaining regulatory approval of this alternative would be unlikely.	Alternative 4 would be difficult to implement. The site is currently occupied by several tennants. The excavation would require the demolition and removal of the existing building.	Alternative 4 includes only institutional and enginnering controls, which do not pose significant technical difficulties. However, obtaining regulatory approval or property owner cooperation may be difficult.
Land Use	Alternative 1 would not limit land use.	Alternative 4 would not limit land use once site activitires were completed. The land could be redeveloped.	Alternative 4 would limit land use through deed restrictions to limit zoning changes.

Prepared by: KAW 12/21/2012
Checked by: MJS 1/9/2012

APPENDIX A

PREVIOUS INVESTIGATION INFORMATION

APPENDIX A-1

SEAR-BROWN 1997 PHASE II ENVIRONMENTAL SITE ASSESSMENT

PHASE II ENVIRONMENTAL SITE ASSESSMENT

LOOHN'S CONVENIENT PLAZA
33-35 EAST PULTNEY STREET
CORNING, NEW YORK

FFG/CERM FILE NO. EO2824

MARCH 1997

Prepared for:

FLEET BANK
777 MAIN STREET, CT MO H20B
P. O. BOX 5078
HARTFORD, CONNECTICUT 06102-5078

Prepared by:

THE SEAR-BROWN GROUP, INC.
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March 19, 1997

Mr. Ronald Punska
Fleet Bank
777 Main Street, CT MO H20B
Hartford, Connecticut 06102-5078

RE: Phase II Environmental Site Assessment **14301.02**
Loohn's Convenient Plaza
33-35 East Pultney Street
Corning, New York 14830

Dear Mr. Punska:

Pursuant to our contractual agreement with Fleet National Bank (Fleet), The Sear-Brown Group (Sear-Brown) is pleased to submit this Phase II Environmental Site Assessment of Loohn's Convenient Plaza, located at 33-35 East Pultney Street in the City of Corning, New York (Figure 1). This investigation was requested to address several potential issues identified in Sear-Brown's February 1997 Level I Environmental Site Assessment Report of the above referenced property. All the information contained herein is true to the best of our knowledge.

This letter confirms the agreement between Fleet National Bank (Fleet) and Sear-Brown that this report shall be for the benefit of, and may be relied upon by Fleet, and the entities affiliated with Fleet which own or hold a mortgage on the subject property, and each of their respective successors and assigns.

Background

The $0.8^{\pm}$ acre subject property is located at 33-35 East Pultney Street, in the City of Corning, New York (see Figure 1). The subject property is occupied by a $7{,}560^{\pm}$ sq. ft. strip plaza, known as Loohn's Convenient Plaza, and contains a Convenient Food Mart, Loohn's Cleaners and Launders, Cellular One and H&R Block (Figure 2). The building was constructed in 1972 and has contained small businesses and a laundromat since its date of construction.

A recommendation for a Level II Environmental Site Assessment was made based upon the potential for soil contamination as a result of the former dry cleaning operations. The scope of work included four shallow soil cores collected from the interior area, immediately near the

former dry cleaning operation equipment, and four soil cores from the grassy area outside the back door of this area. To investigate the potential for soil and groundwater contamination, drilling and sampling of two soil borings was completed, including monitoring wells, on the north (upgradient) and south (downgradient) side of the dry cleaners. Analytical sampling included a total of six soil samples and two groundwater samples for analysis of volatile organic compounds by EPA Method 8260.

The scope of work was completed by Sear-Brown on March 7, 1997. The following report summarizes the results of the Phase II Environmental Site Assessment.

Soil and Groundwater Investigation

Former Dry Cleaning Operation

Soil coring was performed on March 3, 1997 in the vicinity of the exit door and floor drains observed in the back of the Loohn's Cleaners and Launders building. The soil coring program performed by Sear-Brown involved the extraction of a series of 1-inch diameter soil cores using a JMC® subsurface soil probe that allowed for the collection and screening of volatile organic vapors from the soil matrix. Portions of the soil core samples were collected and placed in sealed containers. Each soil core sample was screened with an HNu photoionization detector (PID) equipped with a 10.2 eV lamp for the presence of volatile organic vapors (Table 1). Volatile organic vapors are an indicator of the potential presence of petroleum products and/or solvents. In addition, soil samples were visually evaluated for indications of staining, odors, etc.

A total of eight soil cores were collected during the Phase II Investigation (Figure 2). Four soil cores were taken inside the Loohn's Cleaners store (C-1 through C-4). Soil cores C-1 and C-2 were placed adjacent to floor drains, C-3 was placed in the boiler room and C-4 was placed adjacent to the boiler room. Four soil cores were taken immediately outside the building in the vicinity of the exit door (C-5 through C-8). Attempts were made to core to a depth of 6 ft. below ground surface (BGS) at each location. Refusal depth of five feet was encountered at coring locations C-3, C-5, and C-6.

Soil samples from the soil cores consisted mainly of brown silty sand and fine gravel. Samples from C-1 through C-6 did not exhibit elevated headspace readings. Location C-7, however, did exhibit increased headspace readings in the 0.0 to 3.0 ft. interval. In addition, slightly elevated readings above background were encountered in the 3.0 to 6.0 ft. interval. Location C-8 was impacted from 0.0 to 0.3 ft. BGS with elevated headspace readings of approximately 280 ppm.

Based upon PID readings, visual observations, and odors, four samples were collected for analytical testing. One sample was taken from the shallow zone at location C-3, C-7, and C-8, at

depths of 0.0 to 3.0 ft. The fourth sample was collected from location C-4 at a depth of 3.0 to 6.0 ft. Each sample was submitted for analysis of volatile organic compounds using EPA Method 8260.

Test Borings and Soil Sampling

To investigate the potential for soil and groundwater contamination, Nothnagle Drilling of Scottsville, New York was mobilized to the site on March 4, 1997 to conduct a soil boring and well installation program. Prior to performing the soil borings, underground utilities were located by the Underground Facilities Protection Organization (UFPO). Two soil borings, designated B-1 and B-2 were augured to collect soil samples adjacent to and downgradient of the back of the dry cleaners (see Figure 2).

Each soil boring was drilled and sampled using standard field procedures. A Sear-Brown geologist was present during all drilling and sampling activities. Access by the drilling rig to the rear of the building was restricted, which required an undersized rig for the conditions. Soil conditions consisted of coarse grained sand and gravel, with numerous cobbles. Boring logs describing soil conditions at each location are included in Appendix A.

Field headspace screening of split-spoon samples was conducted using a calibrated HNu PID to evaluate the potential presence of volatile organic vapors (Table 1). Elevated headspace readings were encountered in B-1, with the highest sustained readings of 3.5 ppm in the sample from the interval 6 to 6.4 ft BGS.

Based on visual field observations and the presence of elevated headspace readings, one soil sample from each boring was collected for laboratory analysis. Each sample was submitted for analyses which included volatile organic compounds using EPA Method 8260 .

The drill cuttings from B-1 and B-2 were not containerized due to the low headspace readings. to the borehole.

Monitoring Well Installation

Each of the two test borings were completed as overburden monitoring wells: MW-1 and MW-2 (Figure 2). Monitoring well MW-1 was located on the north side of the building, immediately adjacent to the back door of the building. Monitoring well MW-2 was located downgradient of the dry cleaners, on the south side of the building.

The well diameter for each monitoring well was one inch. Well screens were factory milled PVC with 0.010 inch slots. Fine sand was used to fill the annular space between the well screen and

the borehole. The sandpack extended one to two feet above the well screen. An average three ft. thick bentonite seal was placed over the sandpack and cement/bentonite grout was added up to the ground surface. The wells were completed with flush-mounted, protective casings. Monitoring well construction details are summarized in Table 3. Monitoring well diagrams are presented in Appendix A.

Well Development and Sampling

After allowing 48 hrs. for the bentonite seals to hydrate, the monitoring wells were developed and purged using a peristaltic pump and dedicated HDPE tubing. The wells were purged in an effort to reduce turbidity and to allow representative groundwater to enter the well prior to sample collection.

Static water levels at MW-1 and MW-2 were approximately 14.9 and 15.0 ft. BGS, respectively. General water quality field parameters (pH, specific conductance and temperature) were monitored as successive well volumes were removed during purging. The field parameters stabilized during purging indicating inflow was representative of groundwater prior to groundwater sampling. A summary of well development parameters is presented in Table 4.

Two groundwater samples were collected with the peristaltic pump and submitted for the same analyses as the soils samples, including volatile organic compounds using EPA Method 8260. The groundwater samples and analyses are summarized in Table 2.

Analytical Results

Summaries of detected soil and groundwater analytical results are presented in Tables 5 and 6 according to the analytical methods that were performed. The laboratory analytical reports are presented in Appendix B.

Analytical Soil Results

Detectable concentrations of volatile organic compounds (VOCs), as shown in Table 5, were found in each of the six soil samples that were analyzed by EPA Method 8260.

Three of these six samples exhibited tetrachloroethene (PCE) concentrations which were above soil guidance values established by the New York State Department of Environmental Conservation (DEC): C-7, 0' -3'; C-8, 0' -3'; and B-1, S-2, 6' -8'. In addition to PCE, low concentrations of toluene and xylene were detected in sample B-2, S-4 (15'-17'). Elevated levels of PCE were found in the soil samples taken from the rear of the building, adjacent to the back

door. Corresponding headspace readings (Table 1) indicate that the impacted soils likely extend beyond the area from which the samples collected were selected for analytical testing.

Analytical Groundwater Results

As summarized in Table 6, detectable concentrations of VOCs by EPA Method 8260 were found in the groundwater samples from MW-1 and MW-2.

Sample MW-1 corresponds to the upgradient side and MW-2 to the downgradient side of the facility. Concentrations of PCE in each well exceed NYSDEC Class GA groundwater standards. In addition, an elevated concentration of acetone was detected in MW-1. A low level concentration of toluene was detected in MW-2.

Summary and Conclusions

This soil and groundwater investigation identified the presence of PCE, a chlorinated solvent in soil and groundwater on the subject property. The concentrations of these compounds exceed NYSDEC soil guidance values and/or groundwater standards and guidance values. The zone of most affected soil and groundwater appears to be in the area adjacent to the rear door of the dry cleaning shop.

Should you have any questions or require further information, I would invite your calls.

Sincerely,

Lawrence R. Keefe
Senior Environmental Engineer

LRK:PHS:glv:1430102\R0001.doc

c. Helen M. Sahi

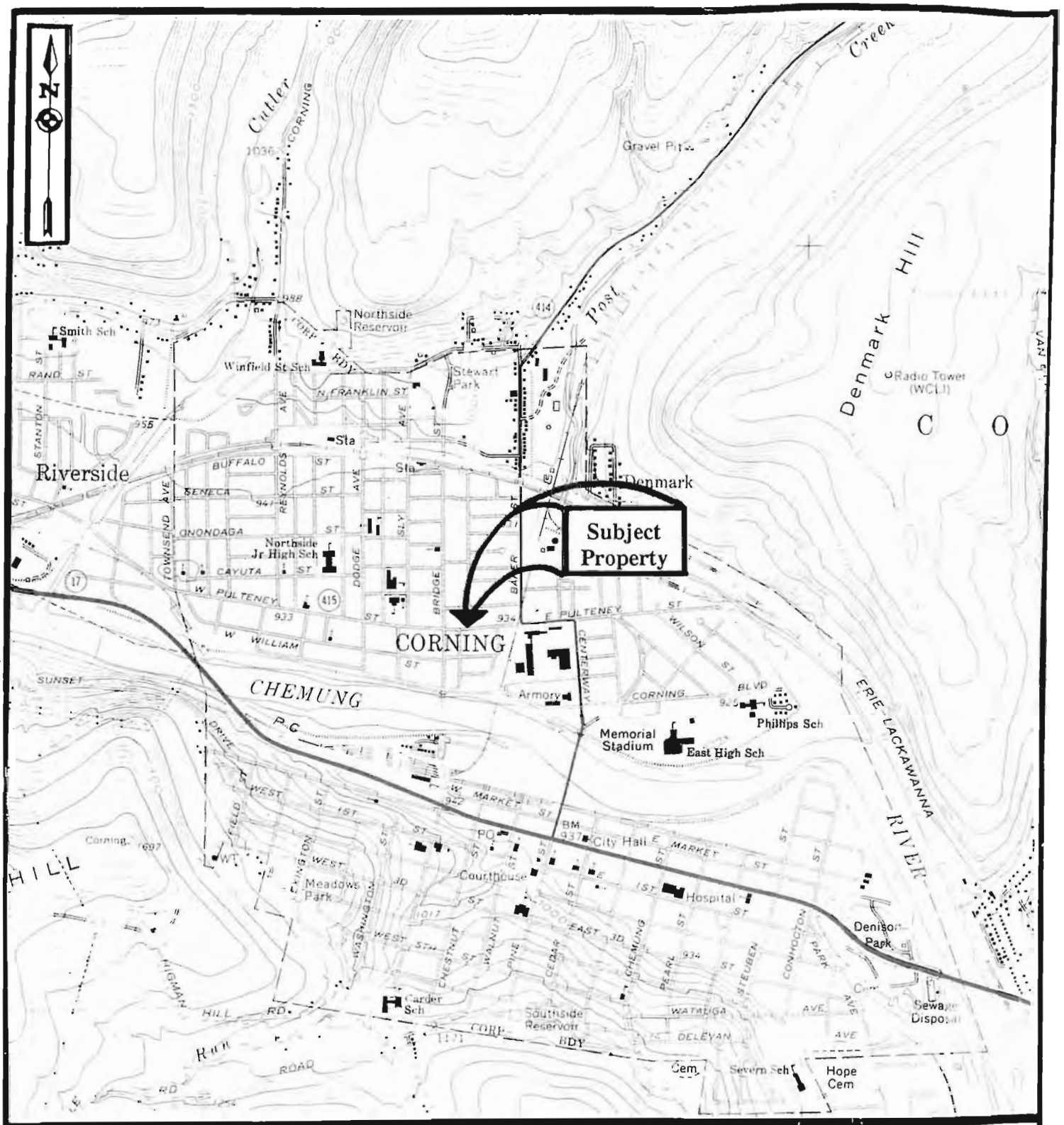

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Figure 1
Loohn's Convenient Plaza

City of Corning, Steuben County, NY

Site Location Map

Scale: 1" = 2000'
Source: USGS Topographic Map
Corning Quadrangle

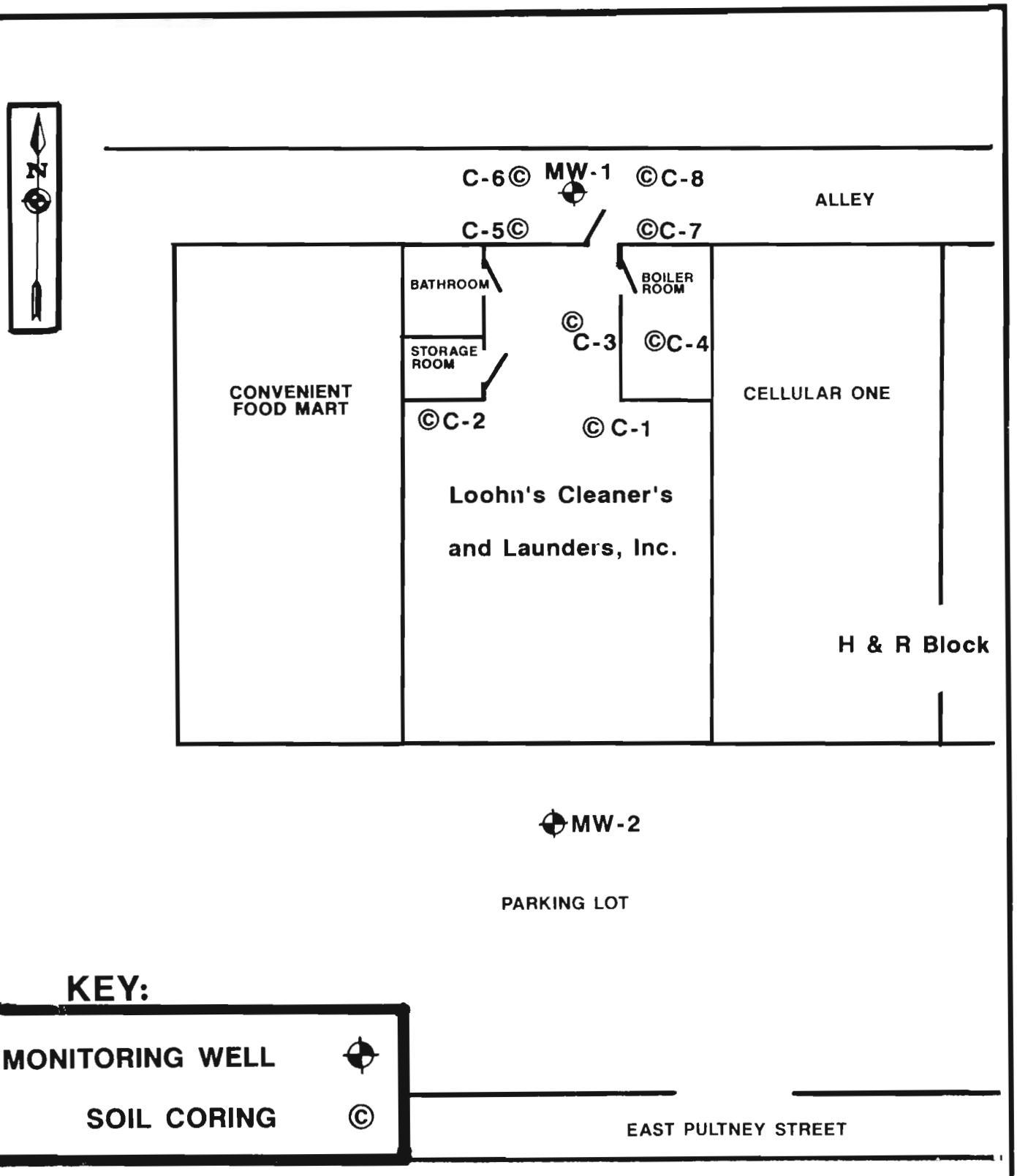

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Figure 2
Loohn's Convenient Plaza

City of Corning, Steuben County, NY

Soil Coring and Well Location Map

Not to Scale

TABLE 1
PID HEADSPACE SUMMARY

Borehole	Sample	Depth (ft BGS)	PID Readings		
			Peak	Sustained	Background
B-1	S-1	4' - 6'	1.4	0.6	0.2
	S-2	6' - 6.4'	4	3.5	0.2
	S-3	8' - 8.9'	2.4	2	0.2
	S-4	10' - 11'	1.4	1	0.2
	S-5	12' - 12.0'	NR - no recovery		
	S-6	18' - 19.3'	1	0.6	0.2
B-2	S-1	1' - 3'	0.5	0.5	0.3
	S-2	3.5' - 5.5'	0.4	0.4	0.3
	S-3	10' - 10.8'	0.7	0.4	0.3
	S-4	15' - 17'	1.2	0.6	0.2
	S-5	18' - 20'	0.3	0.2	0.2
C-1	S-1	0' - 3'	0.4	0.3	0.2
	S-2	3' - 6'	0.4	0.3	0.2
C-2	S-1	0' - 3'	0.5	0.4	0.2
	S-2	3' - 6'	0.3	0.2	0.2
C-3	S-1	0' - 3'	0.6	0.5	0.2
	S-2	3' - 4'	0.5	0.4	0.2
C-4	S-1	0' - 3'	0.5	0.5	0.2
	S-2	3' - 6'	0.4	0.4	0.2

TABLE 1
PID HEADSPACE SUMMARY

Borehole	Sample	Depth (ft BGS)	PID Readings		
			Peak	Sustained	Background
C-5	S-1	0' - 3'	0.2	0.2	0.2
	S-2	3' - 5'	0.4	0.4	0.2
C-6	S-1	0' - 3'	0.9	0.6	0.2
	S-2	3' - 5'	0.3	0.3	0.2
C-7	S-1	0' - 3'	32	30	0.2
	S-2	3' - 6'	4.8	3.2	0.2
C-8	S-1	0' - 3'	280	200	0.2
	S-2	3' - 6'	4.8	3	0.2

TABLE 2
ANALYTICAL SAMPLE SUMMARY

SAMPLE ID	LOCATION	DATE	MATRIX	METHOD	PARAMETERS
B-1, S-2, 6' -6.4'	B-1	3/4/97	soil	grab	8260 Volatiles
B-2, S-4, 15' -17'	B-2	3/5/97	soil	grab	8260 Volatiles
C-3, 0' - 3'	C-3	3/4/97	soil	grab	8260 Volatiles
C-4, 3' - 6'	C-4	3/4/97	soil	grab	8260 Volatiles
C-7, 0' - 3'	C-7	3/4/97	soil	grab	8260 Volatiles
C-8, 0' - 3'	C-8	3/4/97	soil	grab	8260 Volatiles
MW-1	MW-1	3/7/97	groundwater	peristaltic pump	8260 Volatiles
MW-2	MW-2	3/7/97	groundwater	peristaltic pump	8260 Volatiles

TABLE 3
MONITORING WELL CONSTRUCTION DETAIL

WELL DESIGNATION	COMPLETION DATE	TOTAL DEPTH (ft)	SANDPACK INTERVAL (ft BGS)	SCREENED INTERVAL (ft BGS)	BENTONITE INTERVAL (ft BGS)	GROUT INTERVAL (ft BGS)
MW-1	3/4/97	20.0	20.0 - 8.0	20.0 - 10.0	8.0 - 5.0	5.0 - 0.0
MW-2	3/5/97	20.0	20.0 - 9.0	20.0 - 9.0	9.0 - 6.0	6.0 - 0.0

NOTES:
1. ft BGS = feet Below Ground Surface.

TABLE 4
FIELD PARAMETERS

WELL	DATE	TIME	WATER LEVEL (ft BGS)	PURGE VOLUME	pH (su)	CONDUCTIVITY (umhos/cm)	TEMPERATURE (C^o)
MW-1	3/7/97	9:42	14.9				
		10:12		1	8.59	240	7.0
		10:21		2	7.97	265	7.3
		10:31		3	8.04	240	6.1
		10:40		4	8.12	260	7.8
MW-2	3/7/97	10:55	15.0				
		11:15		1	7.77	1350	9.6
		11:25		2	8.14	1450	7.1
		11:35		3	8.02	1450	8.8
		11:44		4	8.03	1500	9.2

NOTES:

1. su = standard units.
2. umhos/cm = micromhos per centimeter.
3. (C^o) = degrees Celcius.
4. ft BGS = feet Below Ground Surface.

TABLE 5
SUMMARY OF DETECTED
EPA METHOD 8260 VOLATILE ORGANIC COMPOUNDS IN SOIL(ug/kg)

Parameter	Units	Guidance Value	C-3 0' - 3'	C-4 3' - 6'	C-7 0' - 3'	C-8 0' - 3'	B-1 S-2, 6'- 8'	B-2 S-4, 15'- 17'
EPA Method 8260								
Volatile Halocarbons								
Tetrachloroethene	ug/kg	1,400	223.1	154.2	***69,684***	***311,058***	***79,364***	28.7
Volatile Aromatics								
Toluene	ug/kg	100						2.6
m,p-Xylene	ug/kg	100						3.9

Notes:

1. Reference for guidance values: NYSDEC, January 24, 1994, Determination of Soil Cleanup Objectives and Cleanup Levels, Division of Hazardous Waste Remediation, Technical and Administrative Guidance Memorandum HWR 94-4046 (Revised).
2. ug/kg = micrograms per kilogram (equivalent to parts per billion).
3. Blank space = below detection limits.
4. M and p -xylene co-elute. Therefore, the reported value may represent either of these compounds or a combination thereof.
5. Sample results which exceed guidance values are presented in ***Bold.***

TABLE 6
SUMMARY OF DETECTED
VOLATILE ORGANIC GROUNDWATER SAMPLING RESULTS (ug/l)

COMPOUNDS	Groundwater Samples		NYSDEC Groundwater Standards and Guidance Values(*)
	MW-1	MW-2	
TCL 8260			
Tetrachloroethene	***84.5***	***18.7***	5
Toluene		2.9	5
Acetone	***25.0***		5

Notes:

1. (*) = NYSDEC. October 22, 1993. Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (1.1.1).
2. ug/l = all values expressed in micrograms per liter (equivalent to parts per billion).
3. blank space = below detection limits.
4. Sample results which exceed guidance values are presented in ***Bold.***

NOTHNAGLE DRILLING
1821 Scottsville-Mumford Road
SCOTTSVILLE, NEW YORK 14546
Phone (716) 538-2328
Fax (716) 538-2357

Test Boring No. MW-1
Page 1 of 1
ND Job # 0888

Project Loohn's Cleaners, East Pulteney Street, Corning, New York
Client The Sear Brown Group, 333 Metro Park, Rochester, New York 14623-2674
Elevation _____ Start 3/4/97 Completed 3/4/97 Driller N. Short
Water Level - During Drilling _____ Inspector P. Smith
Water Level - At Completion 15'6"
Seasonal and climatic changes may alter observed water levels.

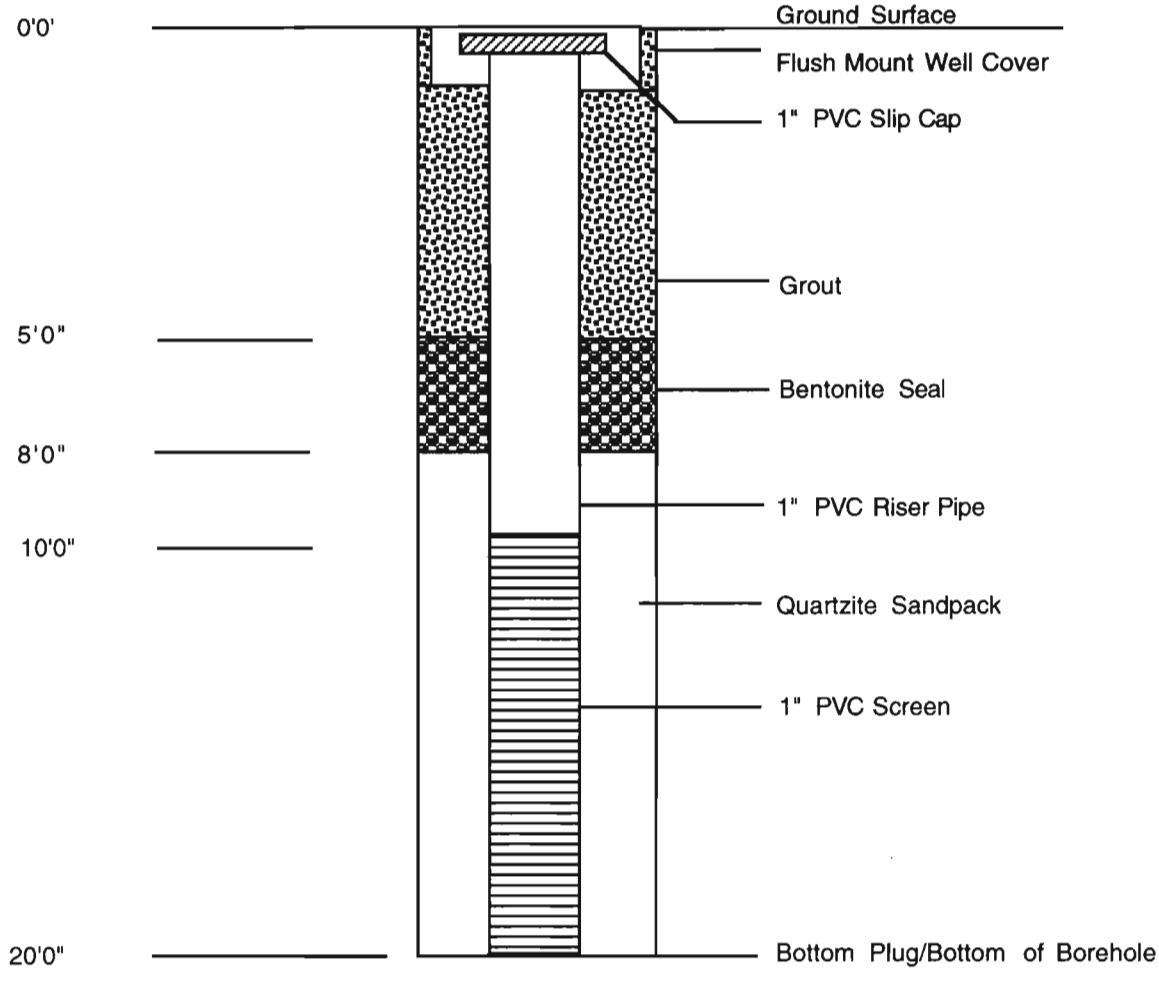
	C	Blows on Sampler 0"/6"	6"/12"	12"/18"	18"/24"	Sample N	Rec.	No	Depth	Soil and Rock Information Remarks
0										
5		18	17							
				20	14	37	6"	1	4'0"-6'0"	Compact brown moist coarse to fine gravel, some sand and silt
		100/4				100/4	2"	2	6'0"-6'4"	Very dense brown moist
		35	50/5			50/5	6"	3	8'0"-8'11"	Very dense brown moist (little sand and silt)
10										
		38	50			50/6	4"	4	10'0"-11'0"	Very dense brown moist
										No recovery sample No. 5
		50/0				50/0	0"	5	12'0"-12'0"	(Encountered cobbles/ difficult drilling 6'0" -12'0")
15										
										16'0"
										Very dense gray wet coarse to fine sand, some silt, little coarse to fine gravel
		21	34							
20				100/3		134/9	12"	6	18'0"-19'3"	Advanced borings to 20'0" 20'0"
25										
30										
										Boring terminated at 20'0"
										Advanced test boring with hollow stem auger casing.
										Well installed in completed borehole.
35										See attached well diagram.
40										

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. wt. 30" Ea. Blow
C=No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

The Sear-Brown Group
Loohn's Cleaners
ND Job #0888

Well Detail Summary

MW-1



Note: Drawing Not to Scale.

NOTHNAGLE DRILLING
1821 Scottsville-Mumford Road
SCOTTSVILLE, NEW YORK 14546
Phone (716) 538-2328
Fax (716) 538-2357

Test Boring No. MW-2
Page 1 of 1
ND Job # 0888

Project Loohn's Cleaners, East Pulteney Street, Corning, New York
Client The Sear Brown Group, 333 Metro Park, Rochester, New York 14623-2674
Elevation _____ Start 3/5/97 Completed 3/5/97 Driller N. Short
Water Level - During Drilling _____ Inspector P. Smith
Water Level - At Completion _____
Seasonal and climatic changes may alter observed water levels.

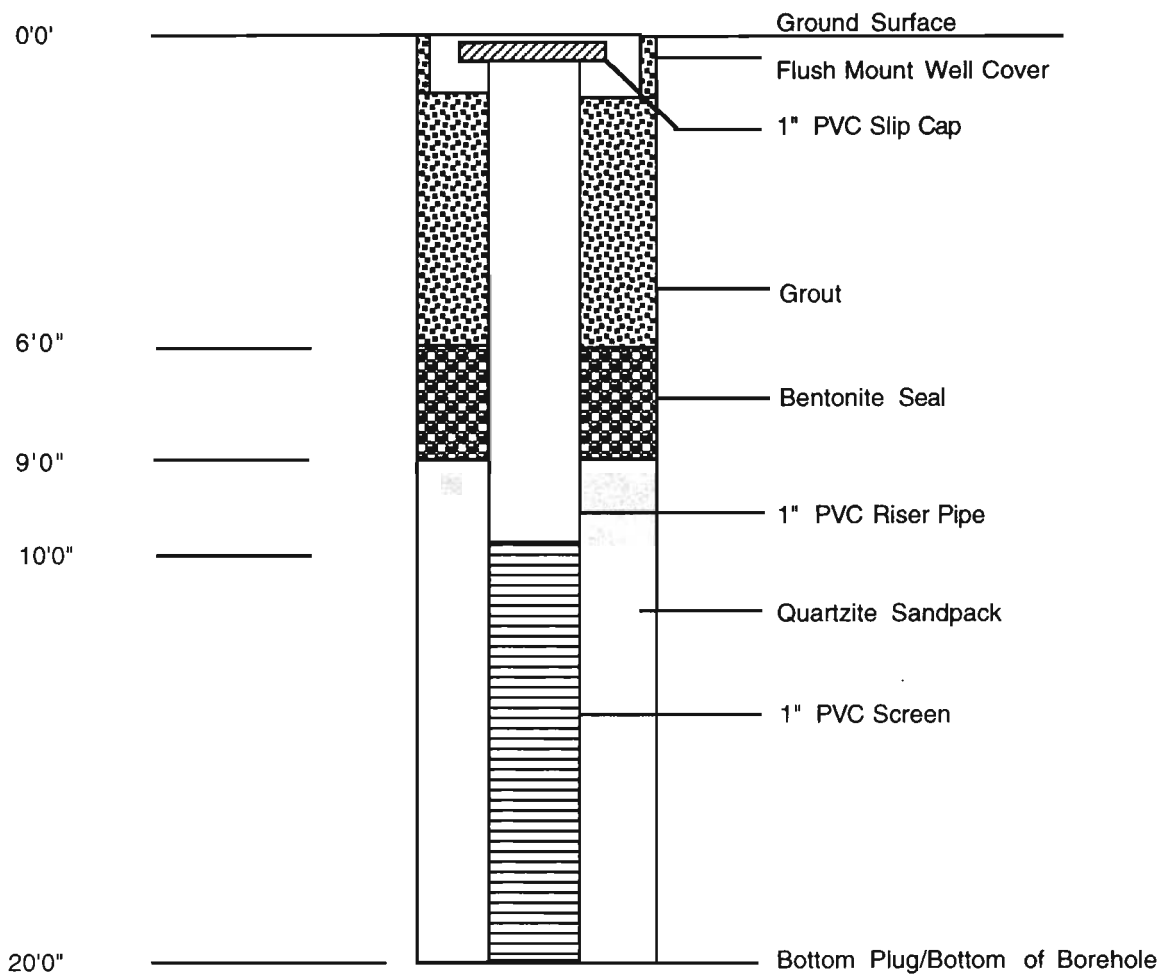
	C	Blows on Sampler 0"/6"	6"/12"	12"/18"	18"/24"	Sample N	Rec.	No	Depth	Soil and Rock Information Remarks
0										Asphalt 1'0"
		28	23							
				9	6	32	6"	1	1'0"-3'0"	Compact gray moist silt, some coarse to fine sand and gravel
		8								
5			8	13						
					10	21	6"	2	3'6"-5'6"	Firm gray moist
10		26	50/3			50/3	6"	3	10'0"-10'9"	Very dense gray moist
15		9	20							
				23	18	43	16"	4	15'0"-17'0"	Dense gray moist
		22	8							
20				10	10	18	20"	5	18'0"-20'0"	Firm gray Moist 20'0"
25										
30										Boring terminated at 20'0" Advanced test boring with hollow stem auger casing. Well installed in completed borehole. See attached well diagram.
35										
40										

N=No. of Blows to Drive 2" Spoon 12" with 140 lb. wt. 30" Ea. Blow
C=No. of Blows to Drive _____ Casing _____ with _____ lb. wt. _____ Ea. Blow

The Sear-Brown Group
Loohn's Cleaners
ND Job #0888

Well Detail Summary

MW-2



Note: Drawing Not to Scale.

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179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Aromatic Analysis Report For Soil/Sludge

(Additional 8260 Compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6383
		Lab Sample No.:	16949
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No.:	14301.02		
		Date Sampled:	03/04/97
Field Location:	C-3, 0'-3'	**Date Received:**	03/05/97
Field ID No.:	N/A	**Date Analyzed:**	03/12/97

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-Butyl Ether	ND < 8.0
Isopropylbenzene	ND < 8.0
n-Propylbenzene	ND < 8.0
1,3,5-Trimethylbenzene	ND < 8.0
tert-Butylbenzene	ND < 8.0
1,2,4-Trimethylbenzene	ND < 8.0
sec-Butylbenzene	ND < 8.0
p-Isopropyltoluene	ND < 8.0
n-Butylbenzene	ND < 8.0
Naphthalene	ND < 8.0

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes not detected

Approved By: _____
Laboratory Director

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Volatile Organic Compound Laboratory Analysis Report For Soil/Sludge

Client:	The Sear-Brown Group	**Lab Project No:**	GE6383
		Lab Sample No:	16950
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No:	14301.02		
		Date Sampled:	3/4/97
Field Location:	C-4, 3'-6'	**Date Received:**	3/5/97
Field ID No:	N/A	**Date Analyzed:**	3/6/97

VOLATILE HALOCARBONS	RESULTS (ug/Kg)	VOLATILE AROMATICS	RESULTS (ug/Kg)
Bromodichloromethane	ND < 2.8	Benzene	ND < 2.8
Bromomethane	ND < 2.8	Chlorobenzene	ND < 2.8
Bromoform	ND < 2.8	Ethylbenzene	ND < 2.8
Carbon tetrachloride	ND < 2.8	Toluene	ND < 2.8
Chloroethane	ND < 2.8	m,p - Xylene	ND < 2.8
Chloromethane	ND < 2.8	o - Xylene	ND < 2.8
2-Chloroethyl vinyl ether	ND < 2.8	Styrene	ND < 2.8
Chloroform	ND < 2.8	1,3-Dichlorobenzene	ND < 2.8
Dibromochloromethane	ND < 2.8	1,4-Dichlorobenzene	ND < 2.8
1,1-Dichloroethane	ND < 2.8	1,2-Dichlorobenzene	ND < 2.8
1,2-Dichloroethane	ND < 2.8		
1,1-Dichloroethene	ND < 2.8		
trans-1,2-Dichloroethene	ND < 2.8	**Ketones & Misc.**	
1,2-Dichloropropane	ND < 2.8	Acetone	ND < 13.8
cis-1,3-Dichloropropene	ND < 2.8	Vinyl acetate	ND < 6.9
trans-1,3-Dichloropropene	ND < 2.8	2-Butanone	ND < 6.9
Methylene chloride	ND < 2.8	4-Methyl-2-pentanone	ND < 6.9
1,1,2,2-Tetrachloroethane	ND < 2.8	2-Hexanone	ND < 6.9
Tetrachloroethene	154.2	Carbon disulfide	ND < 6.9
1,1,1-Trichloroethane	ND < 2.8		
1,1,2-Trichloroethane	ND < 2.8		
Trichloroethene	ND < 2.8		
Vinyl Chloride	ND < 2.8		

Analytical Method: EPA 8260

ELAP ID No: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6383V2.XLS

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Volatile Aromatic Analysis Report For Soil/Sludge

(Additional 8260 Compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6383
		Lab Sample No.:	16950
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No.:	14301.02		
		Date Sampled:	03/04/97
Field Location:	C-4, 3'-6'	**Date Received:**	03/05/97
Field ID No.:	N/A	**Date Analyzed:**	03/06/97

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-Butyl Ether	ND < 2.8
Isopropylbenzene	ND < 2.8
n-Propylbenzene	ND < 2.8
1,3,5-Trimethylbenzene	ND < 2.8
tert-Butylbenzene	ND < 2.8
1,2,4-Trimethylbenzene	ND < 2.8
sec-Butylbenzene	ND < 2.8
p-Isopropyltoluene	ND < 2.8
n-Butylbenzene	ND < 2.8
Naphthalene	ND < 2.8

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes not detected

Approved By: _____
Laboratory Director

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Volatile Organic Compound Laboratory Analysis Report For Soil/Sludge

Client:	The Sear-Brown Group	**Lab Project No:**	GE6383
		Lab Sample No:	16951
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No:	14301.02		
		Date Sampled:	3/4/97
Field Location:	C-7, 0'-3'	**Date Received:**	03/05/97
Field ID No:	N/A	**Date Analyzed:**	03/11/97

VOLATILE HALOCARBONS	RESULTS (ug/Kg)	VOLATILE AROMATICS	RESULTS (ug/Kg)
Bromodichloromethane	ND< 1796	Benzene	ND< 1796
Bromomethane	ND< 1796	Chlorobenzene	ND< 1796
Bromoform	ND< 1796	Ethylbenzene	ND< 1796
Carbon tetrachloride	ND< 1796	Toluene	ND< 1796
Chloroethane	ND< 1796	m,p - Xylene	ND< 1796
Chloromethane	ND< 1796	o - Xylene	ND< 1796
2-Chloroethyl vinyl ether	ND< 1796	Styrene	ND< 1796
Chloroform	ND< 1796		
Dibromochloromethane	ND< 1796		
1,1-Dichloroethane	ND< 1796		
1,2-Dichloroethane	ND< 1796		
1,1-Dichloroethene	ND< 1796		
trans-1,2-Dichloroethene	ND< 1796	**Ketones & Misc.**	
1,2-Dichloropropane	ND< 1796	Acetone	ND< 7184
cis-1,3-Dichloropropene	ND< 1796	Vinyl acetate	ND< 3592
trans-1,3-Dichloropropene	ND< 1796	2-Butanone	ND< 3592
Methylene chloride	ND< 1796	4-Methyl-2-pentanone	ND< 3592
1,1,2,2-Tetrachloroethane	ND< 1796	2-Hexanone	ND< 3592
Tetrachloroethene	69684	Carbon disulfide	ND< 3592
1,1,1-Trichloroethane	ND< 1796		
1,1,2-Trichloroethane	ND< 1796		
Trichloroethene	ND< 1796		
Vinyl Chloride	ND< 1796		

Analytical Method: EPA 8260

ELAP ID No: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6383V7.XLS

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Volatile Aromatic Analysis Report For Soil/Sludge

(Additional 8260 compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6383
		Lab Sample No.:	16951
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No.:	14301.02		
		Date Sampled:	03/04/97
Field Location:	C-7, 0'-3'	**Date Received:**	03/05/97
Field ID No.:	N/A	**Date Analyzed:**	03/11/97

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-Butyl Ether	ND < 1796
Isopropylbenzene	ND < 1796
n-Propylbenzene	ND < 1796
1,3,5-Trimethylbenzene	ND < 1796
tert-Butylbenzene	ND < 1796
1,2,4-Trimethylbenzene	ND < 1796
sec-Butylbenzene	ND < 1796
p-Isopropyltoluene	ND < 1796
n-Butylbenzene	ND < 1796
Naphthalene	ND < 1796

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By: _____
Laboratory Director

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Volatile Organic Compound Laboratory Analysis Report For Soil/Sludge

Client:	The Sear-Brown Group	**Lab Project No:**	GE6383
		Lab Sample No:	16952
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No:	14301.02		
		Date Sampled:	3/4/97
Field Location:	C-8, 0'-3'	**Date Received:**	03/05/97
Field ID No:	N/A	**Date Analyzed:**	03/11/97

VOLATILE HALOCARBONS	RESULTS (ug/Kg)	VOLATILE AROMATICS	RESULTS (ug/Kg)
Bromodichloromethane	ND < 6496	Benzene	ND < 6496
Bromomethane	ND < 6496	Chlorobenzene	ND < 6496
Bromoform	ND < 6496	Ethylbenzene	ND < 6496
Carbon tetrachloride	ND < 6496	Toluene	ND < 6496
Chloroethane	ND < 6496	m,p - Xylene	ND < 6496
Chloromethane	ND < 6496	o - Xylene	ND < 6496
2-Chloroethyl vinyl ether	ND < 6496	Styrene	ND < 6496
Chloroform	ND < 6496		
Dibromochloromethane	ND < 6496		
1,1-Dichloroethane	ND < 6496		
1,2-Dichloroethane	ND < 6496		
1,1-Dichloroethene	ND < 6496		
trans-1,2-Dichloroethene	ND < 6496	**Ketones & Misc.**	
1,2-Dichloropropane	ND < 6496	Acetone	ND < 25984
cis-1,3-Dichloropropene	ND < 6496	Vinyl acetate	ND < 12992
trans-1,3-Dichloropropene	ND < 6496	2-Butanone	ND < 12992
Methylene chloride	ND < 6496	4-Methyl-2-pentanone	ND < 12992
1,1,2,2-Tetrachloroethane	ND < 6496	2-Hexanone	ND < 12992
Tetrachloroethene	311058	Carbon disulfide	ND < 12992
1,1,1-Trichloroethane	ND < 6496		
1,1,2-Trichloroethane	ND < 6496		
Trichloroethene	ND < 6496		
Vinyl Chloride	ND < 6496		

Analytical Method: EPA 8260

ELAP ID No: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6383V8.XLS

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179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Aromatic Analysis Report For Soil/Sludge

(Additional 8260 compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6383
		Lab Sample No.:	16952
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No.:	14301.02		
		Date Sampled:	03/04/97
Field Location:	C-8, 0'-3'	**Date Received:**	03/05/97
Field ID No.:	N/A	**Date Analyzed:**	03/11/97

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-Butyl Ether	ND < 6496
Isopropylbenzene	ND < 6496
n-Propylbenzene	ND < 6496
1,3,5-Trimethylbenzene	ND < 6496
tert-Butylbenzene	ND < 6496
1,2,4-Trimethylbenzene	ND < 6496
sec-Butylbenzene	ND < 6496
p-Isopropyltoluene	ND < 6496
n-Butylbenzene	ND < 6496
Naphthalene	ND < 6496

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By: _____
Laboratory Director

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Volatile Organic Compound Laboratory Analysis Report For Soil/Sludge

Client:	The Sear-Brown Group	**Lab Project No:**	GE6383
		Lab Sample No:	16953
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No:	14301.02		
		Date Sampled:	3/4/97
Field Location:	B-1, S-2, 6'-8'	**Date Received:**	03/05/97
Field ID No:	N/A	**Date Analyzed:**	03/11/97

VOLATILE HALOCARBONS	RESULTS (ug/Kg)	VOLATILE AROMATICS	RESULTS (ug/Kg)
Bromodichloromethane	ND < 3673	Benzene	ND < 3673
Bromomethane	ND < 3673	Chlorobenzene	ND < 3673
Bromoform	ND < 3673	Ethylbenzene	ND < 3673
Carbon tetrachloride	ND < 3673	Toluene	ND < 3673
Chloroethane	ND < 3673	m,p - Xylene	ND < 3673
Chloromethane	ND < 3673	o - Xylene	ND < 3673
2-Chloroethyl vinyl ether	ND < 3673	Styrene	ND < 3673
Chloroform	ND < 3673		
Dibromochloromethane	ND < 3673		
1,1-Dichloroethane	ND < 3673		
1,2-Dichloroethane	ND < 3673		
1,1-Dichloroethene	ND < 3673		
trans-1,2-Dichloroethene	ND < 3673	**Ketones & Misc.**	
1,2-Dichloropropane	ND < 3673	Acetone	ND < 14693
cis-1,3-Dichloropropene	ND < 3673	Vinyl acetate	ND < 7346
trans-1,3-Dichloropropene	ND < 3673	2-Butanone	ND < 7346
Methylene chloride	ND < 3673	4-Methyl-2-pentanone	ND < 7346
1,1,2,2-Tetrachloroethane	ND < 3673	2-Hexanone	ND < 7346
Tetrachloroethene	79364	Carbon disulfide	ND < 7346
1,1,1-Trichloroethane	ND < 3673		
1,1,2-Trichloroethane	ND < 3673		
Trichloroethene	ND < 3673		
Vinyl Chloride	ND < 3673		

Analytical Method: EPA 8260

ELAP ID No: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6383V9.XLS

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Aromatic Analysis Report For Soil/Sludge

(Additional 8260 compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6383
		Lab Sample No.:	16953
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No.:	14301.02		
		Date Sampled:	03/04/97
Field Location:	B-1, S-2, 6'-8'	**Date Received:**	03/05/97
Field ID No.:	N/A	**Date Analyzed:**	03/11/97

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-Butyl Ether	ND < 3673
Isopropylbenzene	ND < 3673
n-Propylbenzene	ND < 3673
1,3,5-Trimethylbenzene	ND < 3673
tert-Butylbenzene	ND < 3673
1,2,4-Trimethylbenzene	ND < 3673
sec-Butylbenzene	ND < 3673
p-Isopropyltoluene	ND < 3673
n-Butylbenzene	ND < 3673
Naphthalene	ND < 3673

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By: _____
Laboratory Director

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Organic Compound Laboratory Analysis Report For Soil/Sludge

Client:	The Sear-Brown Group	**Lab Project No:**	GE6383
		Lab Sample No:	16954
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No:	14301.02		
		Date Sampled:	3/5/97
Field Location:	B-2, S-4, 15'-17'	**Date Received:**	3/5/97
Field ID No:	N/A	**Date Analyzed:**	3/6/97

VOLATILE HALOCARBONS	RESULTS (ug/Kg)	VOLATILE AROMATICS	RESULTS (ug/Kg)
Bromodichloromethane	ND< 2.2	Benzene	ND< 2.2
Bromomethane	ND< 2.2	Chlorobenzene	ND< 2.2
Bromoform	ND< 2.2	Ethylbenzene	ND< 2.2
Carbon tetrachloride	ND< 2.2	Toluene	2.6
Chloroethane	ND< 2.2	m,p - Xylene	3.9
Chloromethane	ND< 2.2	o - Xylene	ND< 2.2
2-Chloroethyl vinyl ether	ND< 2.2	Styrene	ND< 2.2
Chloroform	ND< 2.2	1,3-Dichlorobenzene	ND< 2.2
Dibromochloromethane	ND< 2.2	1,4-Dichlorobenzene	ND< 2.2
1,1-Dichloroethane	ND< 2.2	1,2-Dichlorobenzene	ND< 2.2
1,2-Dichloroethane	ND< 2.2		
1,1-Dichloroethene	ND< 2.2		
trans-1,2-Dichloroethene	ND< 2.2	**Ketones & Misc.**	
1,2-Dichloropropane	ND< 2.2	Acetone	ND< 11.2
cis-1,3-Dichloropropene	ND< 2.2	Vinyl acetate	ND< 5.6
trans-1,3-Dichloropropene	ND< 2.2	2-Butanone	ND< 5.6
Methylene chloride	ND< 2.2	4-Methyl-2-pentanone	ND< 5.6
1,1,2,2-Tetrachloroethane	ND< 2.2	2-Hexanone	ND< 5.6
Tetrachloroethene	28.7	Carbon disulfide	ND< 5.6
1,1,1-Trichloroethane	ND< 2.2		
1,1,2-Trichloroethane	ND< 2.2		
Trichloroethene	ND< 2.2		
Vinyl Chloride	ND< 2.2		

Analytical Method: EPA 8260

ELAP ID No: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6383V3.XLS

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Aromatic Analysis Report For Soil/Sludge

(Additional 8260 Compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6383
		Lab Sample No.:	16954
Client Job Site:	Loohn's Cleaners Corning, NY	**Sample Type:**	Soil
Client Job No.:	14301.02		
		Date Sampled:	03/04/97
Field Location:	B-2, S-4, 15'-17'	**Date Received:**	03/05/97
Field ID No.:	N/A	**Date Analyzed:**	03/06/97

VOLATILE AROMATICS	RESULTS (ug/Kg)
Methyl tert-Butyl Ether	ND< 2.2
Isopropylbenzene	ND< 2.2
n-Propylbenzene	ND< 2.2
1,3,5-Trimethylbenzene	ND< 2.2
tert-Butylbenzene	ND< 2.2
1,2,4-Trimethylbenzene	ND< 2.2
sec-Butylbenzene	ND< 2.2
p-Isopropyltoluene	ND< 2.2
n-Butylbenzene	ND< 2.2
Naphthalene	ND< 2.2

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes not detected

Approved By: _____
Laboratory Director

PARADIGM ENVIRONMENTAL SERVICES, INC.

Chain-of Custody

Client: The Sear-Brown Group
Address: 85 Metro Park
Rochester, NY
Phone No: 475-1440
FAX No: 424-4552

Lab Project No: 62683
Client Job No: 14301.02
Client Job Site: Looka's Cleaners
Corning, NY.
Sampled By: Pete Smith

Lab Sample Number	Field ID Number	Field Location	Date Sampled	Time Sampled	Sample Type	Preservation	Analyses Requested
16949		C-3, 0'-3'	3/4/97	1330	SOIL	NONE	8260
16950		C-4, 3-6'	"	1340	"	"	"
16951		C-7, 0'-3'	"	1515	"	"	"
16952		C-8, 0'-3'	"	1500	"	"	"
16953		B-1, S-2, 6'-8'	"	1530	"	"	"
16954		B-2, S-4, 15'17'	3/5/97	1300	"	"	"

Relinquished By: X Pete Smith
Relinquished By:

Received By:
Received By:
Date/Time: 3/5/97 1602

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Laboratory Analysis Report For Non-Potable Water

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6390
Client Job Site:	Loohn's	**Lab Sample No.:**	16967
Client Job No.:	14301.02	**Sample Type:**	Water
Field Location:	MW-1	**Date Sampled:**	03/07/97
		Date Received:	03/07/97
Field ID No.:	N/A	**Date Analyzed:**	03/10/97

VOLATILE HALOCARBONS	RESULTS (ug/L)
Bromodichloromethane	ND < 2.0
Bromomethane	ND < 2.0
Bromoform	ND < 2.0
Carbon tetrachloride	ND < 2.0
Chloroethane	ND < 2.0
Chloromethane	ND < 2.0
2-Chloroethyl vinyl ether	ND < 2.0
Chloroform	ND < 2.0
Dibromochloromethane	ND < 2.0
1,1-Dichloroethane	ND < 2.0
1,2-Dichloroethane	ND < 2.0
1,1-Dichloroethene	ND < 2.0
trans-1,2-Dichloroethene	ND < 2.0
1,2-Dichloropropane	ND < 2.0
cis-1,3-Dichloropropene	ND < 2.0
trans-1,3-Dichloropropene	ND < 2.0
Methylene chloride	ND < 2.0
1,1,2,2-Tetrachloroethane	ND < 2.0
Tetrachloroethene	84.5
1,1,1-Trichloroethane	ND < 2.0
1,1,2-Trichloroethane	ND < 2.0
Trichloroethene	ND < 2.0
Vinyl Chloride	ND < 2.0

VOLATILE AROMATICS	RESULTS (ug/L)
Benzene	ND < 2.0
Chlorobenzene	ND < 2.0
Ethylbenzene	ND < 2.0
Toluene	ND < 2.0
m,p - Xylene	ND < 2.0
o - Xylene	ND < 2.0
Styrene	ND < 2.0
1,3-Dichlorobenzene	ND < 2.0
1,4-Dichlorobenzene	ND < 2.0
1,2-Dichlorobenzene	ND < 2.0
Ketones	
Acetone	25.0
Vinyl acetate	ND < 5.0
2-Butanone	ND < 5.0
4-Methyl-2-pentanone	ND < 5.0
2-Hexanone	ND < 5.0
Carbon disulfide	ND < 2.0

Analytical Method: EPA 8260

ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6390V1.XLS

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Aromatic Analysis Report For Non-Potable Water (STARS List)
(Additional EPA 8260 Compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6390
		Lab Sample No.:	16967
Client Job Site:	Loohn's		
		Sample Type:	Water
Client Job No.:	14301.02		
		Date Sampled:	03/07/97
Field Location:	MW-1	**Date Received:**	03/07/97
Field ID No.:	N/A	**Date Analyzed:**	03/10/97

VOLATILE AROMATICS	RESULTS (ug/L)
Methyl tert-Butyl Ether	ND < 2.0
Isopropylbenzene	ND < 2.0
n-Propylbenzene	ND < 2.0
1,3,5-Trimethylbenzene	ND < 2.0
tert-Butylbenzene	ND < 2.0
1,2,4-Trimethylbenzene	ND < 2.0
sec-Butylbenzene	ND < 2.0
p-Isopropyltoluene	ND < 2.0
n-Butylbenzene	ND < 2.0
Naphthalene	ND < 2.0

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes not detected

Approved By: _____
Laboratory Director

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Laboratory Analysis Report For Non-Potable Water

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6390
Client Job Site:	Loohn's	**Lab Sample No.:**	16968
Client Job No.:	14301.02	**Sample Type:**	Water
Field Location:	MW-2	**Date Sampled:**	03/07/97
		Date Received:	03/07/97
Field ID No.:	N/A	**Date Analyzed:**	03/10/97

VOLATILE HALOCARBONS	RESULTS (ug/L)	VOLATILE AROMATICS	RESULTS (ug/L)
Bromodichloromethane	ND < 2.0	Benzene	ND < 2.0
Bromomethane	ND < 2.0	Chlorobenzene	ND < 2.0
Bromoform	ND < 2.0	Ethylbenzene	ND < 2.0
Carbon tetrachloride	ND < 2.0	Toluene	2.9
Chloroethane	ND < 2.0	m,p - Xylene	ND < 2.0
Chloromethane	ND < 2.0	o - Xylene	ND < 2.0
2-Chloroethyl vinyl ether	ND < 2.0	Styrene	ND < 2.0
Chloroform	ND < 2.0	1,3-Dichlorobenzene	ND < 2.0
Dibromochloromethane	ND < 2.0	1,4-Dichlorobenzene	ND < 2.0
1,1-Dichloroethane	ND < 2.0	1,2-Dichlorobenzene	ND < 2.0
1,2-Dichloroethane	ND < 2.0		
1,1-Dichloroethene	ND < 2.0		
trans-1,2-Dichloroethene	ND < 2.0		
1,2-Dichloropropane	ND < 2.0		
cis-1,3-Dichloropropene	ND < 2.0	**Ketones**	
trans-1,3-Dichloropropene	ND < 2.0	Acetone	ND < 10.0
Methylene chloride	ND < 2.0	Vinyl acetate	ND < 5.0
1,1,2,2-Tetrachloroethane	ND < 2.0	2-Butanone	ND < 5.0
Tetrachloroethene	18.7	4-Methyl-2-pentanone	ND < 5.0
1,1,1-Trichloroethane	ND < 2.0	2-Hexanone	ND < 5.0
1,1,2-Trichloroethane	ND < 2.0		
Trichloroethene	ND < 2.0	Carbon disulfide	ND < 2.0
Vinyl Chloride	ND < 2.0		

Analytical Method: EPA 8260

ELAP ID No.: 10958

Comments: ND denotes Not Detected

Approved By _____
Laboratory Director

GE6390V2.XLS

PARADIGM
ENVIRONMENTAL
SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 716-647-2530 FAX 716-647-3311

Volatile Aromatic Analysis Report For Non-Potable Water (STARS List)
(Additional EPA 8260 Compounds)

Client:	The Sear-Brown Group	**Lab Project No.:**	GE6390
		Lab Sample No.:	16968
Client Job Site:	Loohn's		
		Sample Type:	Water
Client Job No.:	14301.02		
		Date Sampled:	03/07/97
Field Location:	MW-2	**Date Received:**	03/07/97
Field ID No.:	N/A	**Date Analyzed:**	03/10/97

VOLATILE AROMATICS	RESULTS (ug/L)
Methyl tert-Butyl Ether	ND < 2.0
Isopropylbenzene	ND < 2.0
n-Propylbenzene	ND < 2.0
1,3,5-Trimethylbenzene	ND < 2.0
tert-Butylbenzene	ND < 2.0
1,2,4-Trimethylbenzene	ND < 2.0
sec-Butylbenzene	ND < 2.0
p-Isopropyltoluene	ND < 2.0
n-Butylbenzene	ND < 2.0
Naphthalene	ND < 2.0

Analytical Method: EPA 8260 NYS ELAP ID No.: 10958

Comments: ND denotes not detected

Approved By: _____
Laboratory Director

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue
Rochester, NY 14608
(716) 647-2530 • (800) 724-1997
FAX (716) 647-3311

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT #
COMPANY	The Sear-Brown Group	COMPANY	Same	GE6390
ADDRESS	85 Metro Park	ADDRESS		
CITY	Rochester STATE NY ZIP 14623	CITY STATE ZIP		P.O. #
ATT.	Peter Smith PHONE# 475-1440	ATT. PHONE#		
PROJECT NAME/SITE NAME:	FAX#	FAX#		☐ ADDENDUM
Coolin's	COMMENTS:			
PROJECT #: 14130.02		TURN AROUND TIME (WORKING DAYS)	☐ ONE ☐ THREE ☒ FIVE(STD) ☐ OTHER	
		REPRESENTATIVE:		

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	REQUESTED ANALYSIS: 8260	REMARKS	PARADIGM LAB SAMPLE NUMBER	ANALYTICAL COSTS
1	3/7/97	10:44		X	MW-1	W	2	X		16967	
2	3/7/97	11:48		X	MW-2	W	2	X		16968	
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

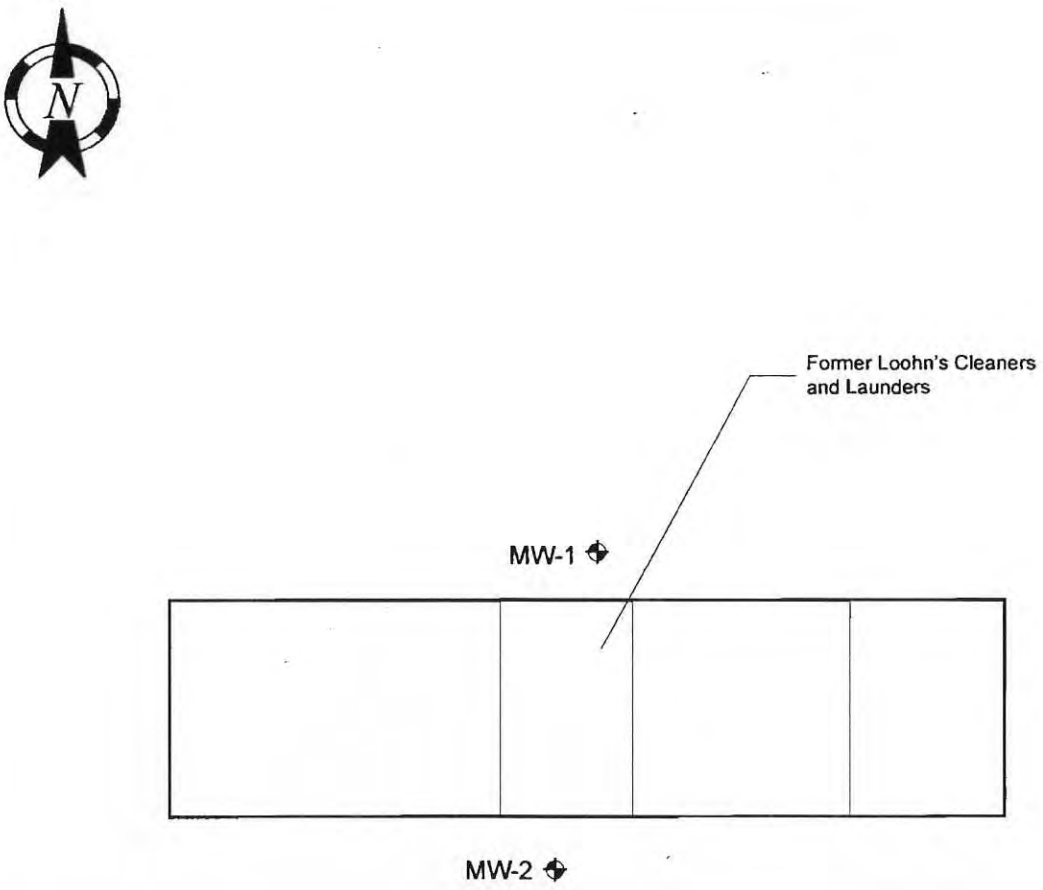
RELINQUISHED BY: Peter Smith	DATE/TIME 3/7/97 16:10	RECEIVED BY:	DATE/TIME	SAMPLE CONDITION	CHECK #
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	CARRIER COMPANY	AIR BILL NO.
RELINQUISHED BY:	DATE/TIME	RECEIVED @ LAB BY:	DATE/TIME 3/7/97	CARRIER PHONE #	DATE RESULTS REPORTED BY: DATE/TIME

TOTAL COST: P.I.F

WHITE COPY-SAMPLE YELLOW COPY-FILE PINK COPY-RELINQUISHER

APPENDIX A-2

STANTEC 2005 (EXCERPTED FIGURE)



Stantec

Figure 1

Well Location Map

Loohn's Commercial Plaza
33-35 East Pultney Street
City of Corning, New York

Source: Stantec Field Notes

TABLE 2
SUMMARY OF DETECTED
VOLATILE ORGANIC COMPOUNDS in GROUNDWATER (ug/l)

33-35 E. Pultney Street
Corning, NY

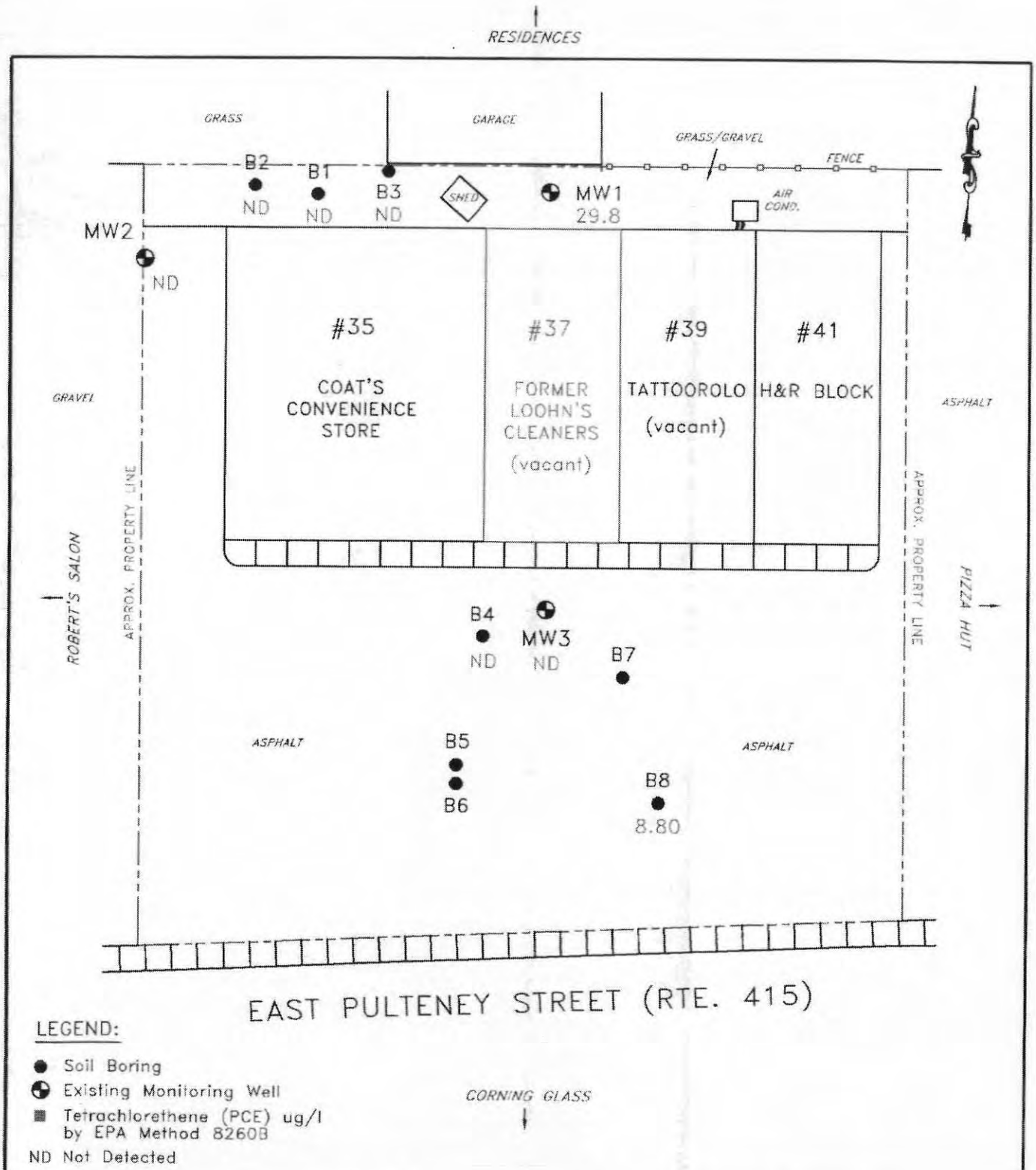
DETECTED COMPOUNDS	Mar-97		Oct-05		NYSDEC Class GA Groundwater and Guidance Values Standards[1]
	MW-1	MW-2	MW-1	MW-2	
TCL 8260					
Tetrachloroethene	***84.5***	***18.7***	**41.3**		5
Toluene		2.9			5
Acetone	***25.0***				5

Notes:

1. NYSDEC. October 22, 1993. Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Reissued June 1998. April 2000 Addendum.
2. ug/l = all values expressed in micrograms per liter (equivalent to parts per billion).
3. blank space = below detection limits.
4. Sample results which exceed groundwater standard are presented in ***Bold.***

APPENDIX A-3

TEETER 2006 (EXCERPTED FIGURE)



LEGEND:

- ● Soil Boring
- ⊕ Existing Monitoring Well
- ■ Tetrachlorethene (PCE) ug/l by EPA Method 8260B

ND Not Detected

SCALE 1" = 25'	0 — 25	
DRAWN BY	C. Treese	5/8/06
CHECKED BY	D. Teeter	5/8/06
REVISED BY	C. Treese	5/8/06
APPROVED BY	D. Teeter	5/8/06

Teeter Environmental Services

FORMER LOOHN'S CLEANERS
formerly 33-35 E. PULTENEY STREET
CORNING, NY 14830
prepared for:
MS. ANGELA HICKEY
104 FRONT STREET
ADDISON, NY 14801

Figure 1
SITE MAP
May 10, 2006

APPENDIX A-4

MACTEC 2006 (EXCERPTED FIGURES)

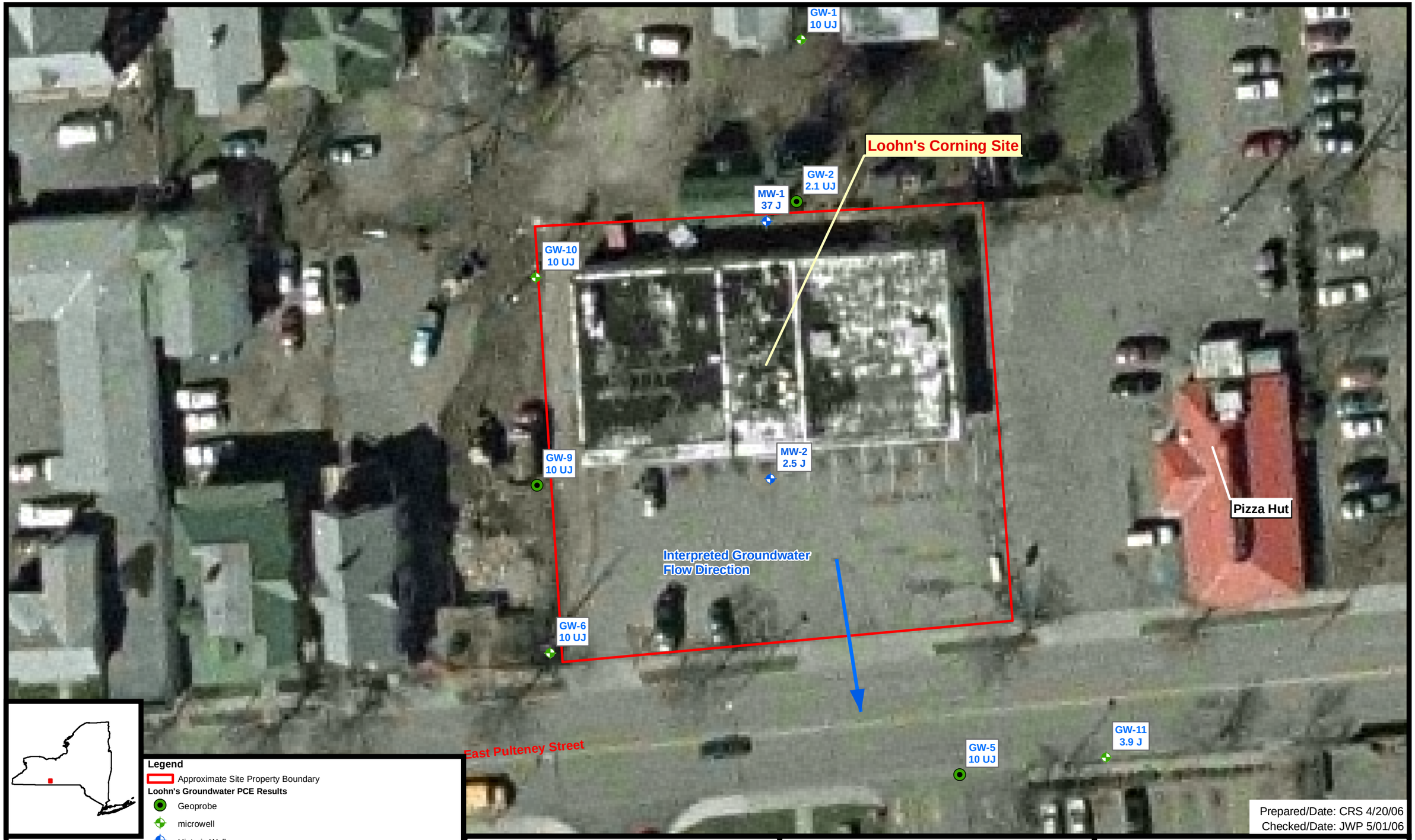
NYSDEC
Loohn's Corning Site
Corning, New York

MACTEC

Site Map and Sampling Locations

Project 3612052036 Figure 3.1

Document: P:\Projects\nysdec1\projects\Region 8 Dry Cleaning Sites\4.0 Project Deliverables\4.5 Databases\GIS\Map documents\Loohns.mxd PDF: P:\Projects\nysdec1\projects\Region 8 Dry Cleaning Sites\4.0 Project Deliverables\4.1 Reports\Loohns\Loohns_Fig_3.1.pdf 07/21/2006 1:53 PM CRSTAPLES



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GW-1
(914.2)

Loohn's Corning Site

GW-2

MW-1
(914.2)

GW-10
(914.18)

MW-2
(914.18)

GW-9

Pizza Hut

Interpreted Groundwater
Flow Direction

GW-6
(914.13)

GW-11
(913.88)

East Pulteney Street

GW-5

Legend

- Approximate Site Property Boundary
- Geoprobe
- microwell (water level)
- Historic Well (water levels)

N

0 15 30
Feet

Notes:
2002 Aerial Photo from NYS GIS Clearinghouse
Water levels collected on 2/16/06 (ft above msl)

Prepared/Date: CRS 4/20/06
Checked/Date: JWP 5/01/06

NYSDEC
Loohn's Corning Site
Corning, New York

MACTEC

Groundwater Elevations and Flow Direction

Project 3612052036 Figure 4.2

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APPENDIX B

SITE PHOTOGRAPHS

	Photo Number: DSCF2276.JPG Photo Date: 6/9/10 View Facing Direction: Description: View of utility connection at roof above Frills (Loohn's)
	Photo Number: DSCF2281.JPG Photo Date: 6/9/10 View Facing Direction: SW Description: View of surface soil sample BKSS-1. Grass area is between East Pulteney Street shown and building
	Photo Number: DSCF2282.JPG Photo Date: 6/9/10 View Facing Direction: View facing ENE Description: View of back of building, with surface soil sample location BKSS-2, to photo left under tree (orange pin flag).

Pre-IRM Site Investigation Activities (Site Mobilization #1) Photographic Log
Loohn's Corning Site, Site #851028
June 9, 2010
Town of Corning, New York
MACTEC Project Number: 3612102148

	Photo Number: DSCF2283.JPG Photo Date: 6/9/10 View Facing Direction: North Description: View of BKSS-3 in grassy area between vacant parking lot and Ontario Street.
	Photo Number: DSCF2284.JPG Photo Date: 6/9/10 View Facing Direction: Facing south Description: View of back of building, with surface soil sample location BKSS-2, to photo left under tree (orange pin flag)
	Photo Number: DSCF2285.JPG Photo Date: 6/9/10 View Facing Direction: East Description: View of "discarded material" behind building.

Pre-IRM Site Investigation Activities (Site Mobilization #1) Photographic Log
Loohn's Corning Site, Site #851028
June 9, 2010
Town of Corning, New York
MACTEC Project Number: 3612102148

	Photo Number: DSCF2286.JPG Photo Date: 6/9/10 View Facing Direction: View facing ENE. Description: View of exploration locations behind building. MW-1 at photo center.
	Photo Number: DSCF2288.JPG Photo Date: 6/9/10 View Facing Direction: View facing WSW. Description: View of exploration locations behind building. MW-1 at photo right.

Pre-IRM Site Investigation Activities (Site Mobilization #1) Photographic Log
Loohn's Corning Site, Site #851028
June 9, 2010
Town of Corning, New York
MACTEC Project Number: 3612102148

APPENDIX B: PHOTOGRAPHS

Front of Site Structure December 2010 (Frills Deli occupied former dry cleaner space)

View of Site from Pulteney Street (2006)

APPENDIX B: PHOTOGRAPHS

IRM Soil Excavation 2010

Stone installation

Stone compaction

APPENDIX B: PHOTOGRAPHS

Sand installation (sand layer placed on geotextile)

Liner installation (1)

APPENDIX B: PHOTOGRAPHS

Liner installation (2)

Liner installation (3)

APPENDIX B: PHOTOGRAPHS

Welding seam around vapor well

Top sand layer placed on liner

APPENDIX B: PHOTOGRAPHS

Final grade stone (before trash removal)

MW-1 (foreground) and SV-1 (forms still present)

APPENDIX B: PHOTOGRAPHS

Final grade

MW-2 road box in parking asphalt (photo from 2006)

APPENDIX B: PHOTOGRAPHS

RI Sub-slab Soil Vapor Sample (2011)

APPENDIX B: PHOTOGRAPHS

SV-1 Sub-slab and indoor air sample (2006) showing interior detail

View of Site from north showing wood barn located behind cleaners

APPENDIX C

FIELD DATA RECORDS

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PD1-1
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: Sunny, Calm, 50s	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: RJM 6/22/10	Hammer Wt/Fall: 130/30" NA
Reference Elevation: Grade	Water Level: >16'	Time: 1155 GB 6/22/10	Hammer Type: 130/30" NA

Sample Information					Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0' / 2.0' 50%	—	—	0		—	—	0.0 - 0.4 TSOM (SM) TOPSOIL AND ORGANIC MATERIAL (GB)	SM	
2									0.4 - 1.0 SANDY SILT w/ CLAY (ML-CL), BROWN, MOIST, SILT, SOME SAND, FINE TO COARSE, LITTLE TO SOME GRAVEL, NP, ANGULAR TO ROUNDED (FILL) TRACE TO LITTLE CLAY.	ML-CL (GA)	
3											
4									1.0 - 2.0 GRAVELLY SAND w/ SILT (SM) BROWN, MOIST, SAND, FINE TO COARSE,	SM	
5	S-2	4.0' / 2.5' 63%	—	—	0				SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO ROUNDED WET AT 1.5' (ISOLATED)		
6									4.0 - 6.5 SAME AS ABOVE. COLOR (B) ~~VARIA~~ VARIATIONS BROWN | GRAYISH BROWN; ISOLATED WET INTERVAL AT 5.0'	SM	
7											
8											
9	S-3	4.0' / 3.5' 88%	—	—	0				8.0 - 11.5 SAME AS ABOVE PID SCREEN @ 11.0' (1.9 PPM) REDDISH BROWN @ 9.0', 10.5'	SM	
10					6						
11					0						(A) LCPD1001011 10XX VOCs LCPD1001011 10XD VOCs (DUP)
12					1.4 / 1.9	1.4	YES	(A)			
13	S-4	4.0' / 3.0' 75%	—	—	0.0 / 0.0				12-15 SAME AS ABOVE	SM	
14					0						
15											
16									BOE @ 16.0', NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI-2
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: Sunny, Calm, 50s	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: RLM 6/22/10	Hammer Wt/Fall: 130/30" NA
Reference Elevation: Grade	Water Level: 18.48' (MW-1)	Time: 1300	Hammer Type: Auto NA

Sample Information					Monitoring					
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0' / 2.0' 50%	-	-	0		-	-	0.0-0.4 TSOM	TSOM	
2									0.4-2.0 SILTY SAND w/ GRAVEL (SM). MOIST, BROWN TO ORANGEISH BROWN, SAND, FINE TO COARSE, LITTLE TO SOME SILT AND GRAVEL, NP, ANGULAR TO ROUNDED, TRACE ORGANICS (ROOTS)	SM	
3											
4					↓						
5	S-2	4.0' / 2.5' 63%	-	-	0		-	-	4.0 -6.5 GRAVELLY SAND (SM-GM) MOIST, BROWN TO GRAY BROWN SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, FEW SILT, NP, ANGULAR TO SUBROUNDED	SM-GM	
6											
7											
8					↓						
9	S-3	4.0' / 4.0' 100%	-	-	4.6	0.9	⊗	⊗	8-12 SAME AS ABOVE	SM-GM	⊗ LCPDI0020080XXC 1330 BASED ON PID HIT
10					10						
11											
12					↓						
13	S-4	4.0 / 3.0 75%	-	-	0		-	-	12-15 SAME AS ABOVE	SM-GM	
14											
15											
16					↓				BOE @ 16'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI-3
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: ~~Sunny, Calm, 50s~~ RAIN	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/9/10	Date Completed: 6/9/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: RLM 6/22/10	Hammer Wt/Fall: 130/30" NA
Reference Elevation: Grade	Water Level: 18.48' (mw-1) Time: 1300 6/8/10 6/9/10		Hammer Type: Auto NA

Sample Information					Monitoring				Sample Description and Classification	USCS Group Symbol	Remarks
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID			
1	S-1	4.0' — 1.5' 38%	—	—	0		—	—	0.0 - 0.3 TOPSOIL AND ORGANIC MATERIAL (TS&OM) (SM)	SM	
2									0.3 - 1.5 SILTY SAND w/ GRAVEL (SM) BROWN, MOIST, SAND, FINE TO COARSE, SOME SILT, LITTLE TO SOME FINE TO COARSE GRAVEL, NP, ANGULAR TO SUBROUNDED (FILL)	SM	
3											
4					↓					SP-GP	
5	S-2	4.0' — 2.5' 63%	—	—	0		—	—	4.0 - 6.5 GRAVELLY SAND w/ SILT (SP-GP) BROWN TO GRAYISH BROWN, MOIST, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO SUBROUNDED; (ALLUVIAL DEPOSITS). OCCASIONAL COBBLES > 2"		
6											
7											
8					↓						
9	S-3	4.0' — 3.0' 75%	—	—	0		—	—	8 - 11 SAME AS ABOVE	SP-GP	
10											
11											
12					↓						
13	S-4	4.0' — 3.0' 75%	—	—	0		—	—	12 - 15 SAME AS ABOVE PID SCREEN AT ~~15~~ (6) 13'. SAMPLE TAKEN	SP-GP	(6) LCPDI0030131 0xx VOCs 0830
14					5.8	0.2	(6)	(X)			
15					1.7						
16					0						
					0						
									BOE @ 16'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PD1-4
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 2
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 22'	Bore Hole ID/OD: 2.75"/6"
Weather: RAIN	Soil Drilled: 20'	Method: HSA	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: SPLIT BARREL (24")
Driller: Jeff, Larry (assistant)	Date Started: 6/9/10	Date Completed: 6/9/10	Sampler ID/OD: 1.63"/2"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS 6/21/10	Hammer Wt/Fall: 130#/30" ~~NA~~
Reference Elevation: Grade	Water Level: 18.48' (MW-1)	Time: 1300 (6/8/10)	Hammer Type: AUTO ~~NA~~

Sample Information					Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	2.0	1	3	(E)		—	—	0.0 - 0.2 TSOM	SM	(E) NO PID USED FOR S-1 (TOO WET) - NO ODOR, VISUAL EVIDENCE OF IMPACT.
2		0.7	1						0.2 - 0.7 SILTY SAND W/ GRAVEL (SM); LOOSE, MOIST, BROWN SAND, FINE TO COARSE, SOME SILT, LITTLE GRAVEL, NP-LP. -(FILL)	SM	
		35%	2								
3			3						CUTTINGS CONSISTENT W/ OTHER BORINGS. EASILY ADVANCED TO 5' BGS		
4											
5											
6	S-2	2.0	1	12	0	0	(AC)	(AC)	5.0 - 5.7 GRAVELLY SAND W/ SILT (SM) COMPACT, WET, BROWN SAND, FINE TO COARSE, SOME GRAVEL, LITTLE SILT, NP, ANGULAR TO ROUNDED (ALLUVIAL DEPOSITS)	SM	(AC) LCPD100400510XX VOCs
7		0.7	4		▼						
		35%	8								
8			9								
9									• HARD DRILLING FROM 5-10' (NOTICABLE AT 8' BGS). FREQUENT COBBLES (ROUNDED) IN EXCESS OF 4"		
10											
11	S-3	2.0	20	25	(AC)				10-11 SAME AS ABOVE; MOIST, COMPACT	SM	(AC) PID NOT USED (DRAWING TOO HARD) NO EVIDENCE OF IMPACT. (AC) LCPD100401010XX VOCs
12		1.0	16								
		50%	9								
13			4						• CUTTINGS TRANSITION TO MORE SANDY GRAVEL, LESSER SANDS AND SILTS	---	
14									• DIFFICULT DRILLING	SP-SM	
15									• PID SCREEN OF BOREHOLE/CUTTINGS PILE 0.0-1.9; AMBIENT 0.0-1.9 BASED ON RAIN. WILL NOT CONTAINERIZE		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: MD1-4
Project Location: Corning, New York			Page No. 2
Project No.: 3612102148	Client: NYSDEC		of: 2
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 22'	Bore Hole ID/OD: 2.75" / 6"
Weather: RAIN	Soil Drilled: 20'	Method: HSA	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: SPLIT BARREL (24")
Driller: Jeff, Larry (assistant)	Date Started: 6/9/10	Date Completed: 6/9/10	Sampler ID/OD: 1.63" / 2"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS (06/21/10)	Hammer Wt/Fall: 130# / 36" ~~NA~~
Reference Elevation: Grade	Water Level: 18.48 (MW-1)	Time: 1300 (06/08/10)	Hammer Type: AUTO ~~NA~~

Sample Information					Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
16	S-4	2.0 / 1.25 / 1.25 / 0.4 / 32%	18 18 50/3"	>68	(A)				~~SAND~~ (B) 15-15.4 SAND w/ SILT AND GRAVEL (SP-SM) VERY DENSE, WET, SAND, FINE TO COARSE, LITTLE SILT AND GRAVEL, NP, SUBROUNDED TO ROUNDED	SP-SM	(A) PID NOT USED
17											
18									HARD DRILLING		
19										SM-GM (C)	
20											
21	S-5	2.0 / 1.0 / 50%	33 36 30 32	66	(D)				~~20-22~~ (B) 20-21 (B) GRAVELLY SAND w/ SILT (SM-~~GM~~) VERY DENSE, WET, GRAY BROWN SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO ROUNDED		PID NOT USED (TOO MUCH RAIN)
22											
									* HOLE OPEN AFTER REMOVAL OF AUGERS, COLLAPSED TO 9' BGS. BACKFILLED w/ CUTTINGS		
									BOE @ 22'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PD1-5
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: SUNNY, CALM, 50s	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: RCM 6/22/10	Hammer Wt/Fall: 130/30 ~~NA~~
Reference Elevation: Grade	Water Level: 8.48 (MW-1)	Time: 1300	Hammer Type: Auto ~~NA~~

Sample Information					Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0 / 2.0 50%	—	—	0		—	—	0.0-0.4 TSOM, MOIST, DK BROWN, FINE TO MEDIUM SAND, LITTLE COARSE SAND, SOME SILT, TRACE GRAVEL, FREQUENT ORGANICS, ROOTS		
2											
3									0.4-2.0 GRAVELLY SAND w/ SILT (SM-GM) MOIST, BROWN, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, TRACE TO LITTLE SILT, NP, POORLY SORTED, ANGULAR TO SUBROUNDED		
4											
5	S-2	4.0 / 2.0 50%	—	—	0		④	⑤	2.0-4.0 SAME AS ABOVE. COLOR VARIATIONS (GRAY BROWN TO BROWN) PID HITS AT 5' AND 6' (LOW LEVEL)		⑤ 12CPD1005005105MC VOCs ~~1045~~ 1115
6					0.9	0.0					
7					0						
8					0.9						
9	S-3	4.0 / 3.5 80%	—	—	0		—	—	8-11.5 SAME AS ABOVE		
10											
11											
12											
13	S-4	4.0 / 3.0 75%	—	—	0		—	—	12-15 SAME AS ABOVE		
14											
15											
16									BOE @ 16'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI-6
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: SUNNY, CALM, 80s	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/9/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS 10/21/10	Hammer Wt/Fall: 300/30" NA
Reference Elevation: Grade	Water Level: 18.58' (MW-1)	Time: 1300	Hammer Type: Auto NA

Sample Information					Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0' / 2.0' 50%	—	—	0		⊗	⊗	0.0-0.4 TSOM 0.4-2.0 SILTY SAND W/ CLAY AND GRAVEL (SM) MOIST, BROWN, SAND, FINE TO COARSE, LITTLE TO SOME SILT, LITTLE FINE TO COARSE GRAVEL, FEW CLAY, NP-LP, ANGULAR TO SUBROUNDED, POORLY SORTED (POTENTIAL FILL MATERIAL)	SM SM	⊗ LCPD10060010XX SVOC, PCB, PEST, METALS
2											
3											
4											
5	S-2	4.0' / 2.0' 50%	—	—	0		⊗	⊗	4.8-6.0 SANDY GRAVEL W/ SILT (GP-GM) MOIST TO WET IN PLACES, BROWN, GRAVEL, FINE TO COARSE, LITTLE SAND, FINE TO COARSE, FEW TO LITTLE SILT, NP, ANGULAR TO SUBROUNDED, POORLY SORTED (ALLUVIAL DEPOSITS)	GP-GM	⊗ LCPD10060410XX GRADATION
6					0		⊗	⊗			⊗ LCPD10060051OXX VOCs
7											
8									* GRADATION SAMPLE COLLECTED FROM REMAINING MATERIAL FOLLOWING SAMPLING AT 5' FOR VOCs	SP-SM	
9	S-3	4.0' / 3.0' 75%	—	—	0				8.0-8.4 GRAVELLY SAND W/ SILT (SP-SM) MOIST, BRAIN TO GRAY BROWN, SAND, FINE TO COARSE, LITTLE GRAVEL, TRACE SILT, NP, POORLY SORTED		
10					0		⊗	⊗	8.4-11 GRAVELLY SAND (SP) MOIST, BROWN, SAND, COARSE TO FINE, LITTLE TO SOME FINE TO COARSE GRAVEL, TRACE SILT, NP, ANGULAR TO SUBROUNDED, POORLY SORTED	SP	⊗ LCPD10060101OXX VOCs
11											
12											
13	S-4	4.0 / 2.5 63%	—	—	0				12-14.5 SAME AS ABOVE	SP	
14											
15											
16									BOE @ 16'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI-7
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: SUNNY, CRUM, 50s	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: RLM 6/22/10	Hammer Wt/Fall: 130/30 ~~NA~~
Reference Elevation: Grade	Water Level: 18.58 (MW-1)	Time: 1300	Hammer Type: Auto ~~NA~~

Sample Information					Monitoring					
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0 / 2.5 63%	—	—	0		—	—	0.0 – 0.5 TOPSOIL 0.5 – 2.5 GRAVELLY SAND w/ SILT (SM) MOIST, BROWN TO GRAYISH BROWN, SAND COARSE TO FINE, LITTLE TO SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, POORLY SORTED, ANGULAR TO SUBROUNDED	SM	
2											
3											
4											
5	S-2	4.0 / 3.0 75%	—	—	0	0	⊗	⊗	~~2.5~~ 4.0 – 7.0 SAME AS ABOVE; DRY IN PLACES		⊗ LCPD1007005101XX - VOCs
6											
7											
8											
9	S-3	4.0 / 2.5 63%	—	—	0	0	⊗	⊗	8.0 – 10.5 SAME AS ABOVE		⊗ LCPD1007010101XX - VOCs
10											
11											
12											
13	S-4	4.0 / 2.5 63%	—	—	0		—	—	12.0 – 14.5 SAME AS ABOVE		
14											
15											
16									BOE @ 16'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PD1-8
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16'	Bore Hole ID/OD: 4" OD
Weather: SUNNY, CALM, 50s	Soil Drilled: 16'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS 10/21/10	Hammer Wt/Fall: 130/30 ~~NA~~
Reference Elevation: Grade	Water Level: 18.48 (MW-1)	Time: 1300	Hammer Type: AUTO ~~NA~~

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0 / 3.0 75%	-	-	0				0.0 - 0.4 TSOM		
2					0						
3					4.2				0.4 - 3.0 SILTY SAND W/ GRAVEL AND CLAY (SM-ML) MOIST, BROWN, SAND, FINE TO COARSE, SOME SILT, TRACE TO LITTLE FINE GRAVEL, TRACE CLAY, NP - LP, POORLY SORTED, ANGULAR TO ROUNDED (FILL)		
4					1.9						
5	S-2	4.0 / 3.0 75%	-	-	11.7	9.8	⊛	⊛			⊛ LCPD100800310-XX VOCs
6					0.4						
7					0.9						
8					0.4		-	-	4.0 - 7.0 GRAVELLY SAND W/ SILT (SM) MOIST, BROWN TO ORANGEISH RED BROWN SAND, FINE TO COARSE, LITTLE FINE TO COARSE GRAVEL, LITTLE SILT, NP, POORLY SORTED, ANGULAR TO ROUNDED (ALLUVIAL DEPOSITS)		
9	S-3	4.0 / 2.0 50%	-	-	0				7.0 - 10.0 SAME AS ABOVE		
10											
11											
12											
13	S-4	4.0 / 3.5 75% (CR) 88%	-	-	0				12.0 - 15.5 SAME AS ABOVE		
14					0.7						
15					2.4	1.4	⊛	⊛			⊛ LCPD100801510XX VOCs
16					0				BOREHOLE; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI-9
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 1
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 16	Bore Hole ID/OD: 4" OD
Weather: RAIN	Soil Drilled: 16	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/9/10	Date Completed: 6/9/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: RLM 6/22/10	Hammer Wt/Fall: 130/30" NA
Reference Elevation: Grade	Water Level: 18.48 (MW-1)	Time: 1300 6/8/10 6/9/10 6/14/10 (AM) (PM)	Hammer Type: AUTO NA

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0 / 2.0	—	—	0				0.0 - 0.3 TSOM	SM	
2					6.2	3.0	⑧	⑨	0.3 - 2.0 SILTY SAND W/ GRAVEL (SM)	SM	⑧ LCP01009001101XX VOCs (FROM 0.5' TO 1.0')
3		50%			1.9				BROWN, MOIST, SAND, FINE TO COARSE, SOME SILT, LITTLE TO SOME FINE TO COARSE GRAVEL, NP, ANGULAR TO ROUNDED (FILL)		
4					0.4						
5	S-2	4.0 / 2.5	—	—	0		—	—	4.0 - 6.5 GRAVELLY SAND W/ SILT (SP-GP) BROWN TO GRAYISH BROWN, MOIST, SAND, FINE TO COARSE, SOME FINE TO COARSE GRAVEL, LITTLE SILT, NP, ANGULAR TO SUBROUNDED, OCCASIONAL COBBLES > 2" (ALLUVIAL DEPOSITS)		
6											
7		63%									
8											
9	S-3	4.0 / 2.5	—	—	0				8.0 - 10.5 SAME AS ABOVE		
10					0						
11		63%			2.4	0.9	⑥	⑦			⑥ LCP01009010101XX VOCs
12					0.8						
13	S-4	4.0 / 3.0	—	—	0.2						
14					0		—	—	12 - 15 SAME AS ABOVE		
15		75%									
16									BOE @ 16'; NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI – 12
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 2
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 20'	Bore Hole ID/OD: 4" OD
Weather: SUNNY, CALM, 50s	Soil Drilled: 20'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/9/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS (06/21/10)	Hammer Wt/Fall: 130 lb/30" ~~NA~~
Reference Elevation: Grade	Water Level: 18.48' (MW-1)	Time: 1300	Hammer Type: Auto ~~NA~~

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0 / 2.5 63%	–	–	0				0.0 – 0.4 TSOM	TSOM	
2									0.4 – 2.5 SILTY SAND W GRAVEL AND CLAY (SM – ML) MOIST, BROWN TO ORANGEISH BROWN, FINE TO COARSE SAND, LITTLE TO SOME ~~SOFT~~ SILT, LITTLE GRAVEL, TRACE CLAY, NP – LP, POORLY SORTED, ANGULAR TO ROUNDED (FILL)	SM-ML	
3											
4											
5	S-2	4.0 / 3.0 75%	–	–	0		⑧ ⑫	⑧	4.0 – 7.0 GRAVELLY SAND W/ SILT (SP-SM) MOIST, BROWN TO ORANGEISH BROWN / GRAYISH BROWN, SAND, FINE TO COARSE, LITTLE TO SOME FINE TO COARSE GRAVEL, FEW TO LITTLE SILT, NP, POORLY SORTED, ANGULAR TO ROUNDED (ALLUVIAL DEPOSITS)	SP-SM	⑧ LCPD10120051 0xx VOCs
6						0					
7											
8											
9	S-3	4.0 / 4.0 100%	–	–	0				8.0 – 12.0 SAME AS ABOVE	SP-SM	
10											
11						0	⑧	⑧			⑧ LCPD10120101 0xx VOCs
12											
13	S-4	4.0 / 3.5 88%	–	–	0				12.0 – 15.5 SAME AS ABOVE	SP-SM	
14											
15											
16											

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name:	Loohn's Corning			Boring ID:	PDI-12
Project Location:	Corning, New York			Page No.	2
Project No.:	3612102148	Client:	NYSDEC	of:	2
Boring Location: See Site Plan					
Refusal Depth:	—	Total Depth:	20'	Bore Hole ID/OD:	4" OD
Weather: Sunny, Calm, 50s					
Soil Drilled:	20'	Method:	Direct Push	Casing Size:	NA
Subcontractor: Nothnagle Drilling					
P.I.D (eV):	10.6	Protection Level:	Level D	Sampler:	Macrocore
Driller: Jeff, Larry (assistant)					
Date Started:	6/8/10	Date Completed:	6/8/10.	Sampler ID/OD:	1.85"/4"
Rig Type/Model: Geoprobe 6610DT					
Logged By:	LJB	Checked By:	BAS (6/29/10)	Hammer Wt/Fall:	130/30" ~~NA~~
Reference Elevation: Grade					
Water Level:	18.48' (MW-1)	Time:	1300	Hammer Type:	Auto ~~NA~~

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
17		4.0 / 4.0			0				16-20 SAME AS ABOVE	SP-SM	
18	S		—	—							
19	5	100%				0	⊙	⊛			⊛LCPDI01201910XX VOCs
20					↓				BOE @ 20'; NOT REFUSAL		(1/2 OF INTERVAL BELOW WATER SURFACE (18'-20'))

NOTES: WATER ESTIMATED AT ~18.0 FT BELOW GROUND SURFACE, CONSISTENT W DTW IN MW-1.

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PD1-13
Project Location: Corning, New York			Page No. 1
Project No.: 3612102148	Client: NYSDEC		of: 2
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 20'	Bore Hole ID/OD: 4" OD
Weather: Sunny, Calm, 50s	Soil Drilled: 20.0'	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS	Hammer Wt/Fall: 130/30" ~~NA~~
Reference Elevation: Grade	Water Level: 18.70 (MW-1)	Time: 1300	Hammer Type: Auto ~~NA~~

Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
1	S-1	4.0 / 2.0 / 50%	—	—	0		—	—	0.0 - 0.4 TSOIL 0.4 - 1.7 SILTY SAND W/GRAVEL (SM) MOIST, BROWN, FINE TO COARSE SAND, SOME SILT, LITTLE FINE TO COARSE GRAVEL, NP, ANGULAR TO SUBROUNDED, POORLY SORTED (FILL) 1.7 - 2.0 GRAVELLY SAND W/SILT (SP-SM) GRADES COARSER THAN ABOVE, LESSER FINES (SILT), INCREASED SAND FRACTION, NP, POORLY SORTED, (ALLUVIAL DEPOSITS)		
2											
3											
4											
5	S-2	4.0 / 3.0 / 75%	—	—	0	0	⊛	⊛	4.0 - 7.0 SAME AS ABOVE; WET IN PLACES (ISOLATED)		⊛ LCPD1013005ICXX VOCs
6											
7											
8											
9	S-3	4.0 / 2.5 / 63%	—	—	0				8.0 - 10.5 SAME AS ABOVE		
10											
11					1.9 / 0	1.4	⊛	⊛			⊛ LCPD1013010IOXX VOCs
12											
13	S-4	4.0 / 2.0 / 50%	—	—	0		—	—	12.0 - 14.0 SAME AS ABOVE		
14											
15											
16											

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL BORING LOG

MACTEC
511 Congress Street, Portland Maine 04101

Project Name: Loohn's Corning			Boring ID: PDI-13
Project Location: Corning, New York			Page No. 2
Project No.: 3612102148	Client: NYSDEC		of: 2
Boring Location: See Site Plan	Refusal Depth: —	Total Depth: 20'	Bore Hole ID/OD: 4" OD
Weather: SUNNY, CALM, 50s	Soil Drilled: 20.0	Method: Direct Push	Casing Size: NA
Subcontractor: Nothnagle Drilling	P.I.D (eV): 10.6	Protection Level: Level D	Sampler: Macrocore
Driller: Jeff, Larry (assistant)	Date Started: 6/8/10	Date Completed: 6/8/10	Sampler ID/OD: 1.85"/4"
Rig Type/Model: Geoprobe 6610DT	Logged By: LJB	Checked By: BAS 06/21/10	Hammer Wt/Fall: 340/30 ~~NA~~
Reference Elevation: Grade	Water Level: 18.48 (MW-1)	Time: 1300	Hammer Type: Auto ~~NA~~

Sample Information					Monitoring						
Depth (feet bgs)	Sample Number	Penetration/ Recovery (feet)	SPT Blows/6"	N Value	PID Field Scan	PID Headspace	Lab Tests Performed	Lab Sample ID	Sample Description and Classification	USCS Group Symbol	Remarks
17					0				16-18.5 SAME AS ABOVE		ATTEMPT DTW ~18.0'
18	5	4.0'/2.5									
19											
20		63%			V				BOB @20.0') NOT REFUSAL		

NOTES:

FIGURE 4-4
SOIL BORING LOG
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING
Project Number: 361210 2148 / 02.01
Sample Location ID: LCBKSS0010011 0xx
Site: CORNING, NY
Date: 6/9/10
Time: Start: ~~1620~~ 1550 End: ~~1625~~ 1555
Signature of Sampler: [signature]

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5-1.0'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[ ] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[ ] NA

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ] NA

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO_3 SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[ ] SAND
[X] ORGANIC
[ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading 0.0 ppm

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[ ] VOC	[ ]	[ ]	[ ]	SAMPLE LCBKSS0010011 0xx COLLECTED
[X] SVOC	[X]	[X]	[X]	ONE (1) 8OZ JAR FILLED FOR THE LISTED
[X] PEST	[X]	[X]	4°C [X]	ANALYSES
[X] PCB	[X]	[X]	[X]	
[ ] INORGANICS	[ ]	[ ]	[ ]	
[X] METALS	[X]	[X]	[X]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH

SAMPLE COLLECTED FROM 0.5-1.0'. SAMPLE DESCRIPTION:

0.0-0.5 TOPSOIL AND ORGANIC MATERIAL (TSOM), LITTLE TO SOME CLAY, MOIST, DARK BROWN, SILT, SOME FINE SAND, NP-LP, ABUNDANT ORGANIC FOUND (ROOTS). ~~(SM~~ ML)

0.5-1.0 SAME AS ABOVE. NO ORGANICS AT THIS DEPTH. TRACE FINE GRAVEL.

CHECKED BY: ACM 6/22/10

SAMPLED BY: CJB

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING
Project Number: 3612102148 / 02.01
Sample Location ID: L C B K S S 0 0 7 0 0 1 1 0 xx
Site: CORNING, NY
Date: 6/9/10
Time: Start: 1620 End: 1825
Signature of Sampler:

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5FT-1.0FT
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[X] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[ ] NA

TYPE OF SAMPLE COLLECTED:
[ ] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ] NA

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO_3 SOLUTION
[ ] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading 0.0 PPM

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[ ] VOC	[ ]	[ ]	[ ]	SAMPLE LCBKSS00700110xx COLLECTED
[X] SVOC	[X]	[X]	[X]	ONE (1) 8 OZ JAR FILLED
[X] PEST	[X]	[X]	YES [X]	
[X] PCB	[X]	[X]	[X]	
[ ] INORGANICS	[ ]	[ ]	[ ]	
[X] METALS	[X]	[X]	[X]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH

SOIL DESCRIPTION
0.0 - 0.1 TOPSOIL AND ORGANIC MATERIAL (TSOM)
0.1 - 1.0 SILTY SAND W/ GRAVEL (SM-GM)
MOIST, BROWN TO GRAYISH BROWN SAND, FINE TO COARSE, AND GRAVEL, FINE TO COARSE, LITTLE SILT, NP, ANGULAR TO ROUNDED. (NO PID 0.0ppm)

SAMPLED BY: LJA

CHECKED BY: ACT 6/22/10

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOCHN'S CORNING
Project Number: 361210214.8
Site: CORNING, NM
Date: 6/9/10
Time: Start: 1630 End: 1635
Sample Location ID: LCBLC55003001 10 XX
LCBLC55003001 10 XD
Signature of Sampler:

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5' - 1.0'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
- [ ] HAND AUGER
- [ ] S.S. SPLIT SPOON
- [X] SHOVEL
- [X] HAND SPOON
- [ ] ALUMINUM PANS
- [ ] SS BUCKET
- [ ] N/A (RM)

TYPE OF SAMPLE COLLECTED:
- [ ] DISCRETE
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [X] ODOR NONE
- [X] COLOR NONE
- [ ] N/A (RM)

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [X] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [ ] CLAY
- [ ] SAND
- [X] ORGANIC
- [ ] GRAVEL

FIELD GC DATA: [X] FIELD DUPLICATE COLLECTED
DUPLICATE ID: LCBLC55003001 10XD

SAMPLE LOCATION SKETCH:
- [ ] YES
- [X] NO SEE SITE PLAN

PID Reading 0.0 PPM.

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[ ] VOC	[ ]	[ ]	[ ]	SAMPLE LCBLC55003001 10XX AND
[X] SVOC	[X]	[X]	[X]	LCBLC55003001 10XD COLLECTED
[X] PEST	[X]	[X]	4°C [X]	TWO (2) 8 OZ JARS FILLED.
[X] PCB	[X]	[X]	[ ]	
[ ] INORGANICS	[ ]	[ ]	[X]	
[X] METALS	[X]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH

SOIL DESCRIPTION: SOILS DESCRIBED AS SIMILAR TO BLSS-1
SANDY SILT w/ CLAY (ML) BROWN TO DARK BROWN, MOIST, SILT, LITTLE TO SOME FINE SAND, LITTLE CLAY, NP TO LP, TRACE FINE GRAVEL

SAMPLED BY: LSB

CHECKED BY RCM 6/22/10

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOOHN'S CORNING
Project Number: 361210214 (02.01) (RI)
Sample Location ID: LCSS001001100XX

Site: Corning, NY SS-1
Date: 6/8/10
Time: Start: 1030 End: 1030
Signature of Sampler:

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5-1.2
(Feet below ground surface) reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
- [ ] HAND AUGER
- [ ] S.S. SPLIT SPOON
- [X] SHOVEL
- [X] HAND SPOON
- [ ] ALUMINUM PANS
- [ ] SS BUCKET
- [ ] NA (RM)

TYPE OF SAMPLE COLLECTED:
- [ ] DISCRETE
- [X] COMPOSITE

SAMPLE OBSERVATIONS:
- [X] ODOR NONE
- [X] COLOR NONE
- [ ] NA (RM)

DECONTAMINATION FLUIDS USED:
- ✓ ALL USED
- [ ] ETHYL ALCOHOL
- [ ] 25% METHANOL/ 75% ASTM TYPE II WATER
- [X] DEIONIZED WATER
- [X] LIQUINOX SOLUTION
- [ ] HEXANE
- [ ] HNO_3 SOLUTION
- [X] POTABLE WATER
- [ ] NONE

SOIL TYPE:
- [ ] CLAY
- [X] SAND
- [ ] ORGANIC
- [X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA (RM)

SAMPLE LOCATION SKETCH:
- [ ] YES
- [X] NO SEE SITE PLAN

PID Reading 0.0 PIB

SAMPLES COLLECTED

MATRIX

✓ IF REQUIRED AT THIS LOCATION	SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED
[ ] VOC	[ ]	[ ]	[ ]
[X] SVOC	[ ]	[X]	[ ]
[X] PEST	[ ]	[X]	[ ]
[X] PCB	[ ]	[X] 6/24/10	[ ]
[ ] INORGANICS	[ ]	[ ]	[ ]
[X] METALS	[ ]	[X]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]
[ ]	[ ]	[ ]	[ ]

VOLUME COLLECTED/NOTES

SAMPLE COLLECTED FOR SVOC PEST/PCB METALS FROM GAS LINE EXCAVATION. SAMPLE COLLECTED FROM 0.5' - 14" (1.2')

SAMPLE COLLECTED @ 1030 LPB 6/24/10

NOTES/SKETCH

RCM 6/22/10

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOUHN'S CORNING
Project Number: 3612102148 / 02.01 (25)
Sample Location ID: LCPD1010002110XX

Site: CORNING, NY [PDI-10]
Date: 6/9/10
Time: Start: 1620 End: 1650
Signature of Sampler: [signature]

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2.0'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
~~[X] HAND SPOON~~ (LB)
[ ] ALUMINUM PANS
[ ] SS BUCKET
[X] TERRA CORE

TYPE OF SAMPLE COLLECTED:
[X] DISCRETE
[ ] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ]

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO_3 SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[ ] SAND
[ ] ORGANIC
[ ] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED NA
DUPLICATE ID:

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading NOT USED (TOO WET)

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[X] VOC	[ ]	[X]	[X]	VOC / % SOLIDS SAMPLE COLLECTED
[ ] SVOC	[ ]	[ ]	[ ]	FROM 2' BGS AT THIS LOCATION
[ ] PEST	[ ]	[ ]	[ ]	
[ ] PCB	[ ]	[ ]	[ ]	
[ ] INORGANICS	[ ]	[ ]	[ ]	
[X] % SOLIDS	[ ]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH

SEE SAMPLE DESCRIPTION / NOTES FOR PDI-11. NO ORGANICS, FABRIC ENCOUNTERED DURING ADVANCEMENT.

✓ BAS 11/21/2010

SURFACE SOIL SAMPLE FIELD DATA RECORD

PDI-11

Project: LOOHNIS CORNING
Project Number: 8612102148 / 02.01 (RI)
Sample Location ID: L C P D 1 0 1 1 0 0 1 1 0 X X

Site: CORNING, NY
Date: 6/9/10
Time: Start: 1300 End: 1405
Signature of Sampler:

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 0.5 | 2.0
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[X] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[X] TERRACORE

TYPE OF SAMPLE COLLECTED:
[X] DISCRETE
[X] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ]

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO_3 SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [X] FIELD DUPLICATE COLLECTED
DUPLICATE ID: LCPD101100210MS
LCPD101100210MSD

PID Reading NOT SCREENED (TOO WET)

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[X] VOC	[ ]	[X]	[X]	FOUR (4) SAMPLES COLLECTED AT THIS LOCATION.
[X] SVOC	[X]	[X]	[ ]	LCPD101100110XX (SVOC, PEST/PCBs, METALS)
[X] PEST	[X]	[X]	[ ]	
[X] PCB	[X]	[X]	[ ]	LCPD101100210XX (VOCs, % SOLIDS)
[ ] INORGANICS	[ ]	[ ]	[ ]	LCPD101100210MS
[X] METALS	[X]	[X]	[ ]	LCPD101100210MSD
[X] % SOLIDS	[ ]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH

* DUE TO ACCESS RESTRICTIONS (OVERHEAD UTILITIES) DISCOVERED AT THE SITE, BORING PDI-11 WAS ADVANCED BY HAND USING A STAINLESS STEEL SHOVEL. 4 SAMPLES COLLECTED (SEE ABOVE NOTATION)

SOIL DESCRIPTION IS AS FOLLOWS:

0.0 - 0.4 TSOM

0.4 - 1.5 SILTY SAND W/ GRAVEL AND CLAY (SM-ML) SILTY SAND W/ GRAVEL AND CLAY (SM - ML) WET, BROWN TO ORANGEISH BROWN SAND, FINE TO COARSE, SOME SILT, LITTLE TO SOME GRAVEL, FEW CLAY, NP-LP. (FILL) ORGANICS (ROOTS [TREE]) FOUND AT 18" BGS. ALSO, DEBRIS (FABRIC) ENCOUNTERED. (FORMER GROUND SURFACE?)

1.5 - 2.0 GRAVELLY SAND W/ SILT (SM-GM) TRANSITIONS TO MORE GRANULAR, LESS FINES / GRAVEL, ANGULAR TO ROUNDED

√ BAS 06/30/2010

SURFACE SOIL SAMPLE FIELD DATA RECORD

Project: LOWHN'S CORNING
Project Number: 3612102148 / 02.01 (RI)
Sample Location ID: LCP0100400210XX

Site: CORNING, NY (PDI-14)
Date: 6/9/10
Time: Start: 1620 End: 1655
Signature of Sampler: [signature]

SOIL SAMPLE

DEPTH OF SAMPLE INTERVAL: 2'
(Feet below ground surface)
reported to 1/10 foot

EQUIPMENT USED FOR COLLECTION:
[ ] HAND AUGER
[ ] S.S. SPLIT SPOON
[X] SHOVEL
[ ] HAND SPOON
[ ] ALUMINUM PANS
[ ] SS BUCKET
[X] TERRACORE

TYPE OF SAMPLE COLLECTED:
[✓] DISCRETE
[ ] COMPOSITE

SAMPLE OBSERVATIONS:
[X] ODOR NONE
[X] COLOR NONE
[ ]

DECONTAMINATION FLUIDS USED:
✓ ALL USED
[ ] ETHYL ALCOHOL
[ ] 25% METHANOL/ 75% ASTM TYPE II WATER
[X] DEIONIZED WATER
[X] LIQUINOX SOLUTION
[ ] HEXANE
[ ] HNO_3 SOLUTION
[X] POTABLE WATER
[ ] NONE

SOIL TYPE:
[ ] CLAY
[X] SAND
[ ] ORGANIC
[X] GRAVEL

FIELD GC DATA: [ ] FIELD DUPLICATE COLLECTED
DUPLICATE ID: NA

SAMPLE LOCATION SKETCH:
[ ] YES
[X] NO SEE SITE PLAN

PID Reading: NOT USED (TOO WET)

SAMPLES COLLECTED

✓ IF REQUIRED AT THIS LOCATION	MATRIX: SURFACE SOIL	✓ IF SAMPLE COLLECTED	✓ IF PRESERVED	VOLUME COLLECTED/NOTES
[X] VOC	[ ]	[X]	[X]	VOC SAMPLE COLLECTED AT 2' BAS
[ ] SVOC	[ ]	[ ]	[ ]	% SOLIDS AS PART OF VOC ANALYSIS
[ ] PEST	[ ]	[ ]	[ ]	
[ ] PCB	[ ]	[ ]	[ ]	
[ ] INORGANICS	[ ]	[ ]	[ ]	
[X] % SOLIDS	[ ]	[X]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	
[ ]	[ ]	[ ]	[ ]	

NOTES/SKETCH: SOIL DESCRIPTION SIMILAR TO LOCATION PDI-11 WITHOUT ORGANIC INTERVAL / DEBRIS ENCOUNTERED

✓ BAS 06/21/2010

GROUNDWATER SAMPLING RECORD

MACTEC
511 Congress Street, Portland Maine 04101

PROJECT NAME: Loohn's Corning Site	LOCATION ID: GW-13, Corning, NY
PROJECT NUMBER/TASK: 3612102148/02.01	DATE: 6/9/10
SAMPLE ID: LCGW013020100XX	SAMPLE TIME: 1530
START TIME: 1525	END TIME: 1530
SITE NAME/NUMBER: 851028	FILE TYPE: N45DEC

SAMPLE TYPE: [ ] LOW FLOW [X] GRAB [ ] MICROWELL [ ] MONITORING WELL [X] GEOPROBE [ ] PORE WATER

WELL DIAMETER: [ ] 1-IN. [ ] 2-IN. [ ] 4-IN. [ ] 6-IN. [ ] 8-IN. [ ] OTHER

MEASUREMENT POINT: [ ] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [X] OTHER Ground Surface

WELL INTEGRITY	YES	NO	N/A
CAP	NA	NA	NA
CASING	NA	NA	NA
LOCKED	NA	NA	NA
COLLAR	NA	NA	NA

INITIAL DTW (TOR)	— FT	FINAL DTW (TOR)	— FT	PROT. CASING STICKUP (AGS)	NA FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (TOR)	— FT	SCREEN LENGTH	4 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN (TOR)	— FT	DRAWDOWN VOLUME (initial - final x 0.16 {2 in.} or x 0.65 {4 in.})	— GAL	PID WELL MOUTH	0.0 PPM	DISCH. TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column x well rad. squared {2 in.^{2}} x 0.041)	—	TOTAL VOL. PURGED (mL per minute x total minutes x 0.00026 gal/mL)	<0.1 GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH STABILIZATION CRITERIA

TIME	DEPTH TO WATER (FT)	PURGE RATE (mL/min)	TEMP. (°C) (+/- 10 degrees)	SP. CONDUCTANCE (ms/cm) (+/- 3%)	pH (units) (+/- 3%)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1525	—	—	16.0	1.17	8.27	5.19	—	—	20	
1530	SAMPLE COLLECTED			LCGW013020100XX						
				FINAL VALUES						
—	—	—	16	1.2	8.3	5.2	—	—	—	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] PERISTALTIC PUMP
- [ ] SUBMERSIBLE PUMP
- [ ] BLADDER PUMP
- [ ] WATTERA PUMP
- [X] OTHER CHECK VALVE

DECON FLUIDS USED
- [ ] LIQUINOX
- [ ] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL Rm
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [X] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER

ADDITIONAL EQUIPMENT USED
- [ ] ELECTRIC WATER LEVEL METER
- [ ] FLOAT ACTIVATED WL METER
- [ ] INTERFACE PROBE
- [X] PID N45DEC #2
- [ ] TURB. METER
- [ ] FILTERS

NUMBER ____ TYPE ____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[X] VOCs	VOC-TAL VOA-10 SW~~846 8260B~~	N	HCl / 4° C	3 X 40 ML	Y	LCGW013020100XX
[ ] SVOCs	SW846 8270C		4° C	2 X 1 L AG		
[ ] PESTICIDES/PCBs	SW846 8081/8082		4° C	2 X 1 L AG		
[ ] METALS	SW846 6010		HNO_3 to pH <2	1 X 500 ML P		
[ ] OTHER						
[ ] OTHER						
[ ] OTHER						
[ ] OTHER						

PURGE OBSERVATIONS
PURGE WATER CONTAINERIZED: YES (NO) NUMBER OF GALLONS GENERATED: <0.1

NOTES: CHECK VALVE / TUBING PROVIDED BY RECHARGE. HORIBA U-10 (N014-10) USED.

Sampler Signature: [signature] Print Name: LUCAS BENEDICT

Sampled By: LB Checked By: RM 6/22/10

LOCATION SKETCH

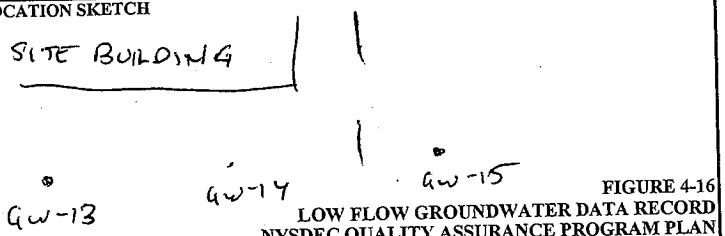


FIGURE 4-16
LOW FLOW GROUNDWATER DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLING RECORD

MACTEC
511 Congress Street, Portland Maine 04101

PROJECT NAME: Loohn's Corning Site	LOCATION ID: GW-14 (Corning, NY) / DATE: 6/9/10
PROJECT NUMBER/TASK: 3612102148/02.01	START TIME: 1510 / END TIME: 1515
SAMPLE ID: LCGW01402010EXX / SAMPLE TIME: 1515	SITE NAME/NUMBER: 851028 / FILE TYPE: NYSDEC

SAMPLE TYPE: [ ] LOW FLOW [X] GRAB [ ] MICROWELL [ ] MONITORING WELL [X] GEOPROBE [ ] PORE WATER

WELL DIAMETER: [X] 1-IN. [ ] 2-IN. [ ] 4-IN. [ ] 6-IN. [ ] 8-IN. [ ] OTHER

MEASUREMENT POINT: [ ] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [X] OTHER Ground Surface

WELL INTEGRITY

	YES	NO	N/A
CAP	NA	NA	NA
CASING	NA	NA	NA
LOCKED	NA	NA	NA
COLLAR	NA	NA	NA

INITIAL DTW (TOR)	— FT	FINAL DTW (TOR)	— FT	PROT. CASING STICKUP (AGS)	NA FT	TOC/TOR DIFFERENCE	FT
WELL DEPTH (TOR)	— FT	SCREEN LENGTH	4 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN (TOR)	— FT	DRAWDOWN VOLUME (initial - final x 0.16 {2 in.} or x 0.65 {4 in.})	— GAL	PID WELL MOUTH	0.0 PPM	DISCH. TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column x well rad. squared {2 in.^{2}} x 0.041)	—	TOTAL VOL. PURGED (mL per minute x total minutes x 0.00026 gal/mL)	0.1 GAL	DRAWDOWN/ TOTAL PURGED	0.01	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH STABILIZATION CRITERIA

TIME	DEPTH TO WATER (FT)	PURGE RATE (mL/min)	TEMP. (°C) (+/- 10 degrees)	SP. CONDUCTANCE (ms/cm) (+/- 3%)	pH (units) (+/- 3%)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1510	—	—	15.0	1.19	8.17	6.24	—	—	20'	
1515	SAMPLE COLLECTED			LCGW01402010EXX						
			FINAL VALUES							
—	—	—	15	1.2	8.2	6.2	—	—	—	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] PERISTALTIC PUMP
- [ ] SUBMERSIBLE PUMP
- [ ] BLADDER PUMP
- [ ] WATTERA PUMP
- [X] OTHER CHECK VALVE

DECON FLUIDS USED
- [ ] LIQUINOX
- [ ] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL AM
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [X] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER

ADDITIONAL EQUIPMENT USED
- [ ] ELECTRIC WATER LEVEL METER
- [ ] FLOAT ACTIVATED WL METER
- [ ] INTERFACE PROBE
- [X] PID NYSDEC 2
- [ ] TURB. METER
- [ ] FILTERS

NUMBER ____ TYPE ____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[X] VOCs	VOC-TMLU04-10 ~~SW846 8260B~~	N	HCl / 4° C	3 X 40 ML	Y	LCGW01302010EXX
[ ] SVOCs	SW846 8270C		4° C	2 X 1 L AG		
[ ] PESTICIDES/PCBs	SW846 8081/8082		4° C	2 X 1 L AG		
[ ] METALS	SW846 6010		HNO_3 to pH <2	1 X 500 ML P		
[ ] OTHER						
[ ] OTHER						
[ ] OTHER						
[ ] OTHER						

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)

NUMBER OF GALLONS GENERATED: 0.1

NOTES: TUBING / CHECK VALVE PROVIDED BY NUTRIVALVE. HORIBA U-10 (MODEL-10) USED

Sampler Signature: [signature]

Print Name: LUCAS BENEDICT

Sampled By: LJB

Checked By: ALM 6/22/10

LOCATION SKETCH

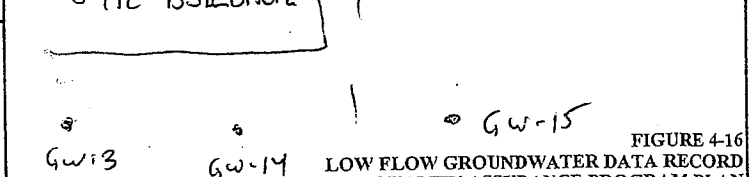


FIGURE 4-16
LOW FLOW GROUNDWATER DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

GROUNDWATER SAMPLING RECORD

MACTEC
511 Congress Street, Portland Maine 04101

PROJECT NAME: Loohn's Corning Site	LOCATION ID: GW-15, Corning, NY
PROJECT NUMBER/TASK: 3612102148/02.01	DATE: 6/9/10
SAMPLE ID: LCGW0150210XX	SAMPLE TIME: 1420
START TIME: 1415	END TIME: 1420
SITE NAME/NUMBER: 851028	FILE TYPE: NYSDEC

SAMPLE TYPE: [ ] LOW FLOW [X] GRAB [ ] MICROWELL [ ] MONITORING WELL [X] GEOPROBE [ ] PORE WATER

WELL DIAMETER: [X] 1-IN. [ ] 2-IN. [ ] 4-IN. [ ] 6-IN. [ ] 8-IN. [ ] OTHER

MEASUREMENT POINT: [ ] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [X] OTHER Ground Surface

WELL INTEGRITY

	YES	NO	N/A
CAP	NA	NA	NA
CASING	NA	NA	NA
LOCKED	NA	NA	NA
COLLAR	NA	NA	NA

INITIAL DTW (TOR)	— FT	FINAL DTW (TOR)	— FT	PROT. CASING STICKUP (AGS)	NA FT	TOC/TOR DIFFERENCE	— FT
WELL DEPTH (TOR)	— FT	SCREEN LENGTH	4 FT	PID AMBIENT AIR	0.0 PPM	REFILL TIMER SETTING	NA SEC
WATER COLUMN (TOR)	— FT	DRAWDOWN VOLUME (initial - final x 0.16 {2 in.} or x 0.65 {4 in.})	— GAL	PID WELL MOUTH	0.0 PPM	DISCH. TIMER SETTING	NA SEC
CALCULATED GAL/VOL (column x well rad. squared {2 in.^{2}} x 0.041)	—	TOTAL VOL. PURGED (mL per minute x total minutes x 0.00026 gal/mL)	20.1 GAL	DRAWDOWN/ TOTAL PURGED	—	PRESSURE TO PUMP	NA PSI

FIELD PARAMETERS WITH STABILIZATION CRITERIA

TIME	DEPTH TO WATER (FT)	PURGE RATE (mL/min)	TEMP. (°C) (+/- 10 degrees)	SP. CONDUCTANCE (ms/cm) (+/- 3%)	pH (units) (+/- 3%)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
1415	—	—	16.2	1.32	7.19	5.79	—	—	20	
1420	SAMPLE COLLECTED			LCGW0150210XX						
			FINAL VALUES							
—	—	—	16	1.3	7.2	5.8	—	—	—	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [ ] PERISTALTIC PUMP
- [ ] SUBMERSIBLE PUMP
- [ ] BLADDER PUMP
- [ ] WATTERA PUMP
- [X] OTHER CHECK VALVE

DECON FLUIDS USED
- [ ] LIQUINOX
- [ ] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [ ] OTHER

TUBING/PUMP/BLADDER MATERIALS
- [ ] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [X] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [ ] OTHER

ADDITIONAL EQUIPMENT USED
- [ ] ELECTRIC WATER LEVEL METER
- [ ] FLOAT ACTIVATED WL METER
- [ ] INTERFACE PROBE
- [X] PID NYSDEC #2
- [ ] TURB. METER
- [ ] FILTERS

NUMBER ____ TYPE ____

ANALYTICAL PARAMETERS

PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
[X] VOCs	VOC-TAL VOA-10 ~~SW846 8260B~~	N	HCl / 4° C	3 X 40 ML	4	LCGW0150210XX
[ ] SVOCs	SW846 8270C		4° C	2 X 1 L AG		
[ ] PESTICIDES/PCBs	SW846 8081/8082		4° C	2 X 1 L AG		
[ ] METALS	SW846 6010		HNO_3 to pH <2	1 X 500 ML P		
[ ] OTHER						
[ ] OTHER						
[ ] OTHER						
[ ] OTHER						

PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED: YES (NO)

NUMBER OF GALLONS GENERATED: 20.1

NOTES: TUBING & CHECK VALVE USED TO SAMPLE. PROVIDED BY NOTHNAGLE. HORIBA U-10 (MD14-10)

Sampler Signature:

Print Name: LUCAS BENEDICT

Sampled By:

Checked By: RJM 6/22/10

LOCATION SKETCH

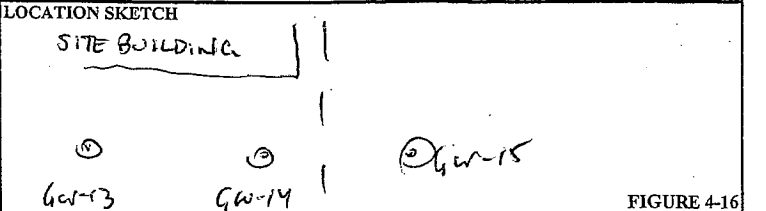


FIGURE 4-16
LOW FLOW GROUNDWATER DATA RECORD
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

SOIL VAPOR SAMPLING RECORD

PROJECT NAME: Loohns Corning | LOCATION ID: EW-001 | DATE: June 1, 2011

PROJECT NO./TASK NO.: 3612102148-02.01 | CLIENT: NYSDEC

PROJECT LOCATION: Corning, New York | SAMPLER NAME: Brandon Shaw

WEATHER CONDITIONS (AM): 80 F, sunny | SAMPLER SIGNATURE:

WEATHER CONDITIONS (PM): 89 F, sunny | CHECKED BY: RCM | DATE: 7/12/11

SUMMA Canister Record Information

SUB-SLAB SOIL VAPOR SAMPLE		BASEMENT INDOOR AIR SAMPLE		FIRST FLOOR AIR SAMPLE		AMBIENT AIR SAMPLE	
Flow Regulator Number:	4970	Flow Regulator Number:	NA	Flow Regulator Number:	NA	Flow Regulator Number:	NA
Flow Rate (mL/min):	~50	Flow Rate (mL/min):	NA	Flow Rate (mL/min):	NA	Flow Rate (mL/min):	NA
Canister Serial Number:	245	Canister Serial Number:	NA	Canister Serial Number:	NA	Canister Serial Number:	NA
Start Date/Time	6-1-11 @ 850	Start Date/Time		Start Date/Time		Start Date/Time	
Start Pressure ("Hg):	-28	Start Pressure ("Hg):	NA	Start Pressure ("Hg):	NA	Start Pressure ("Hg):	NA
Stop Date/Time	6-1-11 @ 920	Stop Date/Time		Stop Date/Time		Stop Date/Time	
Stop Pressure ("Hg):	-5	Stop Pressure ("Hg):	NA	Stop Pressure ("Hg):	NA	Stop Pressure ("Hg):	NA
Sample ID:	LCSVEW1005	Sample ID: NA		Sample ID: NA		Sample ID: NA	

Other Sampling Information:

Finished Basement, Unfinished Basement	4" PVC.	Story/Level:	NA	Story/Level:	NA	Direction from Building	NA
Floor Slab Thickness:	NA	Room:	NA	Room:	NA	Distance from Building:	NA
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	NA	Potential Vapor Entry Points:	NA	Distance from Roadway:	NA
~~Floor~~ ground Surface:	grass	Floor Surface:	NA	Floor Surface:	NA	Ground Surface:	NA
Noticable Odor:	none	Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:	NA
PID Reading (~~ppb~~ ppm):	7.4	PID Reading (ppb):	NA	PID Reading (ppb):	NA	PID Reading (ppb):	NA
Intake Depth/Height:	~5'	Intake Height:	NA	Intake Height:	NA	Intake Height above Ground Surface:	NA
Helium Test Conducted? Breakthrough %:	No.	Indoor Air Temp	NA	Indoor Air Temp	NA	Intake tubing?	NA

Comments/Location Sketch:

Sampled a 4" pvc extraction well adjacent to site building & MW-1;
- purged well (EW-1) via Thermo Fisher ORM 580B PID, attached to LDPE tubing, through a 4" pvc cap;
- Began purging @ 0817; stopped @ 0845;

MACTEC

511 Congress Street, Portland, ME 04101

FIGURE 4-19
INDOOR AIR SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

SOIL VAPOR SAMPLING RECORD

PROJECT NAME: Loohns Corning | LOCATION ID: SV-002 | DATE: June 1, 2011

PROJECT NO./TASK NO.: 3612102148-02.01 | CLIENT: NYSDEC

PROJECT LOCATION: Corning, New York | SAMPLER NAME: Brandon Shaw

WEATHER CONDITIONS (AM): 80 F, sunny | SAMPLER SIGNATURE:

WEATHER CONDITIONS (PM): 89 F, sunny | CHECKED BY: RCM | DATE: 7/12/11

SUMMA Canister Record Information

SUB-SLAB SOIL VAPOR SAMPLE		BASEMENT INDOOR AIR SAMPLE		FIRST FLOOR AIR SAMPLE		AMBIENT AIR SAMPLE	
Flow Regulator Number:	4969	Flow Regulator Number:	NA	Flow Regulator Number:	NA	Flow Regulator Number:	NA
Flow Rate (mL/min):	~~285.50~~	Flow Rate (mL/min):	NA	Flow Rate (mL/min):	NA	Flow Rate (mL/min):	NA
Canister Serial Number:	283	Canister Serial Number:	NA	Canister Serial Number:	NA	Canister Serial Number:	NA
Start Date/Time	6-1-11 @ 1051	Start Date/Time	–	Start Date/Time	–	Start Date/Time	–
Start Pressure ("Hg):	-28	Start Pressure ("Hg):	NA	Start Pressure ("Hg):	NA	Start Pressure ("Hg):	NA
Stop Date/Time	6-1-11 @ 1120	Stop Date/Time	–	Stop Date/Time	–	Stop Date/Time	–
Stop Pressure ("Hg):	-6	Stop Pressure ("Hg):	NA	Stop Pressure ("Hg):	NA	Stop Pressure ("Hg):	NA
Sample ID:	LGSV002 007	Sample ID: NA		Sample ID: NA		Sample ID: NA	

Other Sampling Information:

Finished Basement, Unfinished Basement	On Grade	Story/Level:	NA	Story/Level:	NA	Direction from Building	NA
Floor Slab Thickness:	~5"	Room:	NA	Room:	NA	Distance from Building:	NA
Potential Vapor Entry Points:	none	Potential Vapor Entry Points:	NA	Potential Vapor Entry Points:	NA	Distance from Roadway:	NA
Floor Surface:	Concrete	Floor Surface:	NA	Floor Surface:	NA	Ground Surface:	NA
Noticable Odor:	None	Noticable Odor:	NA	Noticable Odor:	NA	Noticable Odor:	NA
PID Reading (ppb):	–	PID Reading (ppb):	NA	PID Reading (ppb):	NA	PID Reading (ppb):	NA
Intake Depth/Height:	~7"	Intake Height:	NA	Intake Height:	NA	Intake Height above Ground Surface:	NA
Helium Test Conducted? Breakthrough %:	NO.	Indoor Air Temp	NA	Indoor Air Temp	NA	Intake tubing?	NA

Comments/Location Sketch: Located SV-001, and moved over ~3' to the east and drilled another sampling point.

MACTEC

511 Congress Street, Portland, ME 04101

FIGURE 4-19
INDOOR AIR SAMPLING RECORD
NYSDEC QUALITY ASSURANCE PROJECT PLAN

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC
511 Congress Street, Portland Maine 04101

PROJECT NAME: Loohns Corning		LOCATION ID: MW-2	DATE: 06-1-2011
PROJECT NUMBER: 3612102148-02.01		START TIME: 0900	END TIME: 1025
SAMPLE ID: 26MW002019	SAMPLE TIME: 1000	SITE NAME/NUMBER: 851028.	PAGE: 1 OF 1

WELL DIAMETER (INCHES): [X] 1 [X] ~~BAS~~ [ ] 4 [ ] 6 [ ] 8 [ ] OTHER
TUBING ID (INCHES): [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER
MEASUREMENT POINT (MP): [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

INITIAL DTW (BMP)	13.91 FT	FINAL DTW (BMP)	13.94 FT	PROT. CASING STICKUP (AGS)	~ FT	TOC/TOR DIFFERENCE	– FT
WELL DEPTH (BMP)	19.62 FT	SCREEN LENGTH	unknown FT	PID AMBIENT AIR	~ PPM	REFILL TIMER SETTING	– SEC
WATER COLUMN	5.7 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	~0.1 GAL	PID WELL MOUTH	7767 PPM	DISCHARGE TIMER SETTING	– SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	0.2 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~1.8 GAL	DRAWDOWN/ TOTAL PURGED	~0.1	PRESSURE TO PUMP	– PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0920.	BEGIN PURGING									
0925	13.94	175	14.73	1.178	7.27	9.42	180	84.3	~19'	
0930	13.94	175	15.07	1.175	7.26	8.62	1.91	63.1		
0935	13.94	175	14.93	1.178	7.25	8.61	2.31	60.7		
0940	13.94	175	14.98	1.176	7.25	8.90	2.02	60.2		
0945	13.94	175	15.05	1.174	7.25	8.37	1.62	59.6		
0950	13.94	175	14.96	1.175	7.25	8.49	2.17	58.9		
0955	13.94	175	14.91	1.173	7.24	8.95	8.70	58.7		
1000	Collected grab sample @ MW-2									

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

	15	1.173 1.17	7.2	9.0	0.7	60 59

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] _____
- [ ] WATTERA
- [ ] OTHER _____
- [ ] OTHER _____

DECON FLUIDS USED
- [ ] LIQUINOX
- [ ] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER none

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER _____
- [ ] OTHER _____

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [X] OTHER none
- [ ] OTHER _____
- [ ] OTHER _____

EQUIPMENT USED
- [X] WL METER solinst
- [X] PID Thermo OVM 580B
- [X] WQ METER YSI MPS 556
- [X] TURB. METER Hach 2100P
- [ ] PUMP _____
- [ ] OTHER _____
- [ ] FILTERS NO. ____ TYPE _____

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
[X]	VOC	8260	N	HCL	2 x 40 mL	✓		See Above
[X]	SVOC	8270	N	4 C	2 x 1 L	✓		" "
[X]	PCBs	8082	N	4 C	1 L	✓		" "
[X]	Inorganics	6010	N	HNO3	500 mL	✓		" "
[X]	Pesticide	8081	N	4 C	1 L	✓		" "
[ ]								
[ ]	~~BAS~~							

PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	[ ]	[X]
NO-PURGE METHOD UTILIZED	[ ]	[X]

NUMBER OF GALLONS GENERATED: ~1.8
If yes, purged approximately 1 standing volume prior to sampling or NA mL for this sample location.

SKETCH/NOTES

Transcribed from log; JK sampled MW-2,
- BAS 06/06/2011.

Sampler Signature: for Jeri Kiberz Print Name: Jeri Kiberz
Checked By: Brandon Shaw Date: July 11, 2011

LOW FLOW GROUNDWATER SAMPLING RECORD

MACTEC
511 Congress Street, Portland Maine 04101

PROJECT NAME: Loohns Corning		LOCATION ID: MW-1	DATE: 06-01-11
PROJECT NUMBER: 3612102148-02.01		START TIME: 0740.	END TIME: 0850.
SAMPLE ID: LCMW001016	SAMPLE TIME: 0835	SITE NAME/NUMBER: 851028	PAGE: 1 OF 1

WELL DIAMETER (INCHES): [X] 1 [X] 2 [ ] 4 [ ] 6 [ ] 8 [ ] OTHER
TUBING ID (INCHES): [ ] 1/8 [X] 1/4 [ ] 3/8 [ ] 1/2 [ ] 5/8 [ ] OTHER
MEASUREMENT POINT (MP): [X] TOP OF RISER (TOR) [ ] TOP OF CASING (TOC) [ ] OTHER

WELL INTEGRITY

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

INITIAL DTW (BMP)	13.78 FT	FINAL DTW (BMP)	13.85 FT	PROT. CASING STICKUP (AGS)	0 FT	TOC/TOR DIFFERENCE	0.25 FT
WELL DEPTH (BMP)	19.7 FT	SCREEN LENGTH	unknown FT	PID AMBIENT AIR	<0.1 PPM	REFILL TIMER SETTING	— SEC
WATER COLUMN	~5.9 FT	DRAWDOWN VOLUME (initial DTW- final DTW X well diam. squared X 0.041)	<0.1 GAL	PID WELL MOUTH	22.8 PPM	DISCHARGE TIMER SETTING	— SEC
CALCULATED GAL/VOL (column X well diameter squared X 0.041)	~0.2 GAL	TOTAL VOL. PURGED (mL per minute X total minutes X 0.00026 gal/mL)	~3.6 GAL	DRAWDOWN/ TOTAL PURGED	<0.1	PRESSURE TO PUMP	— PSI

FIELD PARAMETERS WITH PROGRAM STABILIZATION CRITERIA (AS LISTED IN THE QAPP)

TIME 3-5 Minutes	DTW (FT) 0.0-0.33 ft Drawdown	PURGE RATE (mL/min)	TEMP. (°C) (+/- 3 degrees)	SP. CONDUCTANCE (mS/cm) (+/- 3%)	pH (units) (+/- 0.1 units)	DISS. O_2 (mg/L) (+/- 10%)	TURBIDITY (ntu) (+/- 10% <10 ntu)	REDOX (mv) (+/- 10 mv)	PUMP INTAKE DEPTH (ft)	COMMENTS
0749	BEGIN PURGING									
0755	13.85	300	12.58	1.137	7.39	6.74	171	-56.0	~16'	
0800	13.85	300	12.40	0.978	7.42	6.36	27.8	-57.3		
0805	13.85	300	12.31	0.950	7.43	6.30	17.3	-58.0		
0810	13.85	300	12.17	0.917	7.44	6.45	13.7	-58.7		
0815	13.85	300	12.19	0.877	7.45	6.51	10.1	-59.0		
0820	13.85	300	12.14	0.851	7.46	6.55	6.33	-59.6		
0825	13.85	300	12.06	0.832	7.47	6.61	5.27	-60.2		
0830	13.85	300	12.10	0.814	7.47	6.69	3.29	-60.6		
0835	Collected gw sample @ MW-1				-	-	-	-		
BPS			12	0						

FINAL STABILIZED FIELD PARAMETERS (to appropriate significant figures[SF])

RCM	12	0.814	7.5	6.7	3.3	-61	

TEMP.: nearest degree (ex. 10.1 = 10)
COND.: 3 SF max (ex. 3333 = 3330, 0.696 = 0.696)
pH: nearest tenth (ex. 5.53 = 5.5)
DO: nearest tenth (ex. 3.51 = 3.5)
TURB: 3 SF max, nearest tenth (6.19 = 6.2, 101 = 101)
ORP: 2 SF (44.1 = 44, 191 = 190)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] BLADDER
- [ ] WATTERA
- [ ] OTHER
- [ ] OTHER

DECON FLUIDS USED
- [ ] LIQUINOX
- [ ] DEIONIZED WATER
- [ ] POTABLE WATER
- [ ] NITRIC ACID
- [ ] HEXANE
- [ ] METHANOL
- [X] OTHER none

TUBING/PUMP/BLADDER MATERIALS
- [X] SILICON TUBING
- [ ] TEFLON TUBING
- [ ] TEFLON LINED TUBING
- [ ] HDPE TUBING
- [X] LDPE TUBING
- [ ] OTHER
- [ ] OTHER

- [ ] S. STEEL PUMP MATERIAL
- [ ] PVC PUMP MATERIAL
- [ ] GEOPROBE SCREEN
- [ ] TEFLON BLADDER
- [X] OTHER none
- [ ] OTHER
- [ ] OTHER

EQUIPMENT USED
- [X] WL METER solinst
- [X] PID Thermo OVM 580B
- [X] WQ METER YSI MPS 556
- [X] TURB. METER Hach 2100P
- [ ] PUMP
- [ ] OTHER
- [ ] FILTERS NO. ____ TYPE

ANALYTICAL PARAMETERS

	PARAMETER	METHOD NUMBER	FIELD FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	QC COLLECTED	SAMPLE BOTTLE ID NUMBERS
X	VOC	8260	N	HCL	2 x 40 mL	✓		See Above
X	SVOC	8270	N	4 C	2 x 1 L	✓		
X	PCBs	8082	N	4 C	1 L	✓		
X	Inorganics	6010	N	HNO3	500 mL	✓		
X	Pesticide	8081	N.	4 C	1 L	✓		
	BPS							

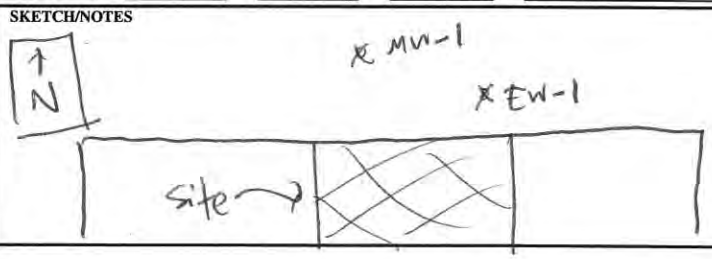
PURGE OBSERVATIONS

	YES	NO
PURGE WATER CONTAINERIZED	[ ]	[X]
NO-PURGE METHOD UTILIZED	[ ]	[X]

NUMBER OF GALLONS GENERATED: ~3.6
If yes, purged approximately 1 standing volume prior to sampling or NA mL for this sample location.

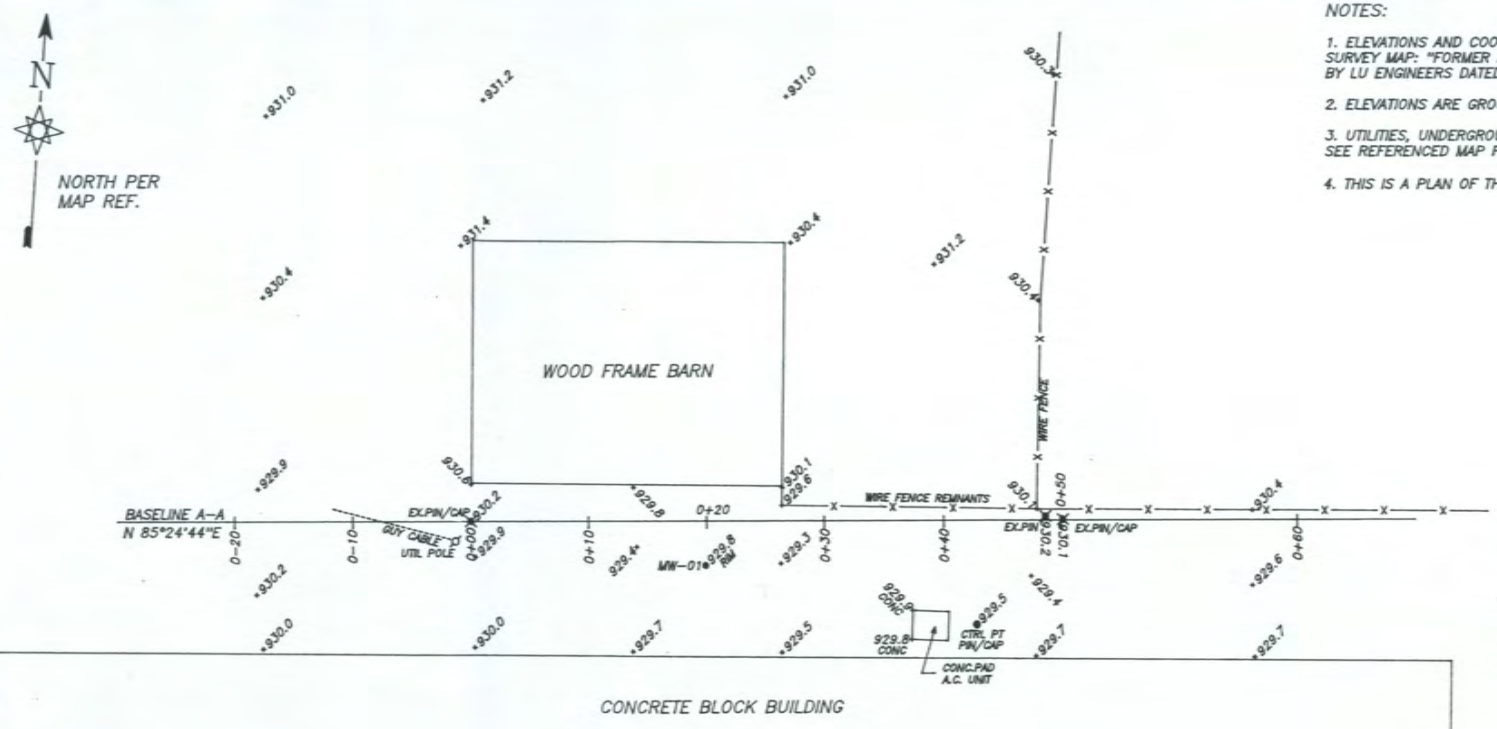
Sampler Signature:
Print Name: Brandon Shaw
Checked By: RCM
Date: 7/12/11

SKETCH/NOTES



APPENDIX D

SITE SURVEY



NOTES:

1. ELEVATIONS AND COORDINATE LOCATIONS ARE BASED ON SURVEY MAP: "FORMER LOOHN'S CLEANERS BOUNDARY SURVEY" BY LU ENGINEERS DATED JUNE 2, 2010.
2. ELEVATIONS ARE GROUND, UNLESS NOTED.
3. UTILITIES, UNDERGROUND AND OVERHEAD, ARE NOT SHOWN. SEE REFERENCED MAP FOR UTILITY INFORMATION.
4. THIS IS A PLAN OF THE AREA TO BE EXCAVATED.

10 0 10 20 30

GRAPHIC SCALE – FEET

CERTIFICATION :

THIS IS TO CERTIFY TO THE FOLLOWING THAT I AM A LICENSED LAND SURVEYOR AND THAT THIS PLAN WAS COMPLETED ON NOV. 30, 2010 USING FIELD NOTES FROM AN INSTRUMENT SURVEY COMPLETED ON NOV. 29, 2010.

SIGNED : James D Evans

JAMES D. EVANS, L.S. #49133

LICENSED LAND SURVEYOR
JAMES D. EVANS
49133
STATE OF NEW YORK

ELEVATION SURVEY ON LAND OF

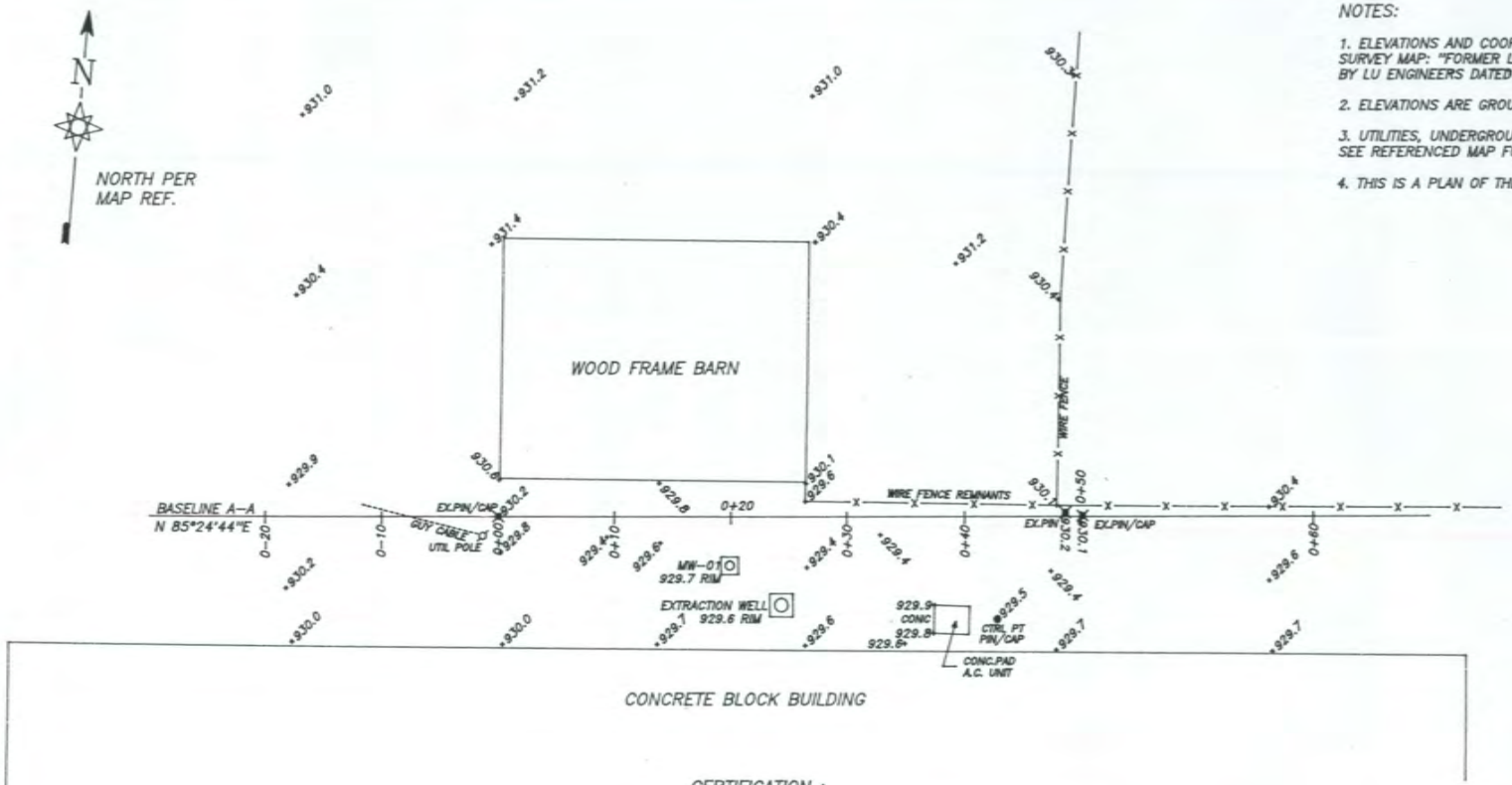
35–55 EAST PULTENEY STREET, LLC

CITY OF CORNING
STEUBEN COUNTY, NEW YORK STATE.

JAMES D. EVANS

Licensed Land Surveyor
168 dodge ave., corning, n.y.

SCALE : 1" = 10' JOB NO. 4262



NOTES:

1. ELEVATIONS AND COORDINATE LOCATIONS ARE BASED ON SURVEY MAP: "FORMER LOOHN'S CLEANERS BOUNDARY SURVEY" BY LU ENGINEERS DATED JUNE 2, 2010.
2. ELEVATIONS ARE GROUND, UNLESS NOTED.
3. UTILITIES, UNDERGROUND AND OVERHEAD, ARE NOT SHOWN. SEE REFERENCED MAP FOR UTILITY INFORMATION.
4. THIS IS A PLAN OF THE PROJECT AREA AFTER COMPLETION.

LICENSED LAND SURVEYOR
JAMES D. EVANS
49133
STATE OF NEW YORK

10 0 10 20 30
GRAPHIC SCALE – FEET

CERTIFICATION :

THIS IS TO CERTIFY TO THE FOLLOWING THAT I AM A LICENSED LAND SURVEYOR AND THAT THIS PLAN WAS COMPLETED ON DEC. 17, 2010 USING FIELD NOTES FROM AN INSTRUMENT SURVEY COMPLETED ON DEC. 15, 2010.

SIGNED : James D Evans
JAMES D. EVANS, L.S. #49133

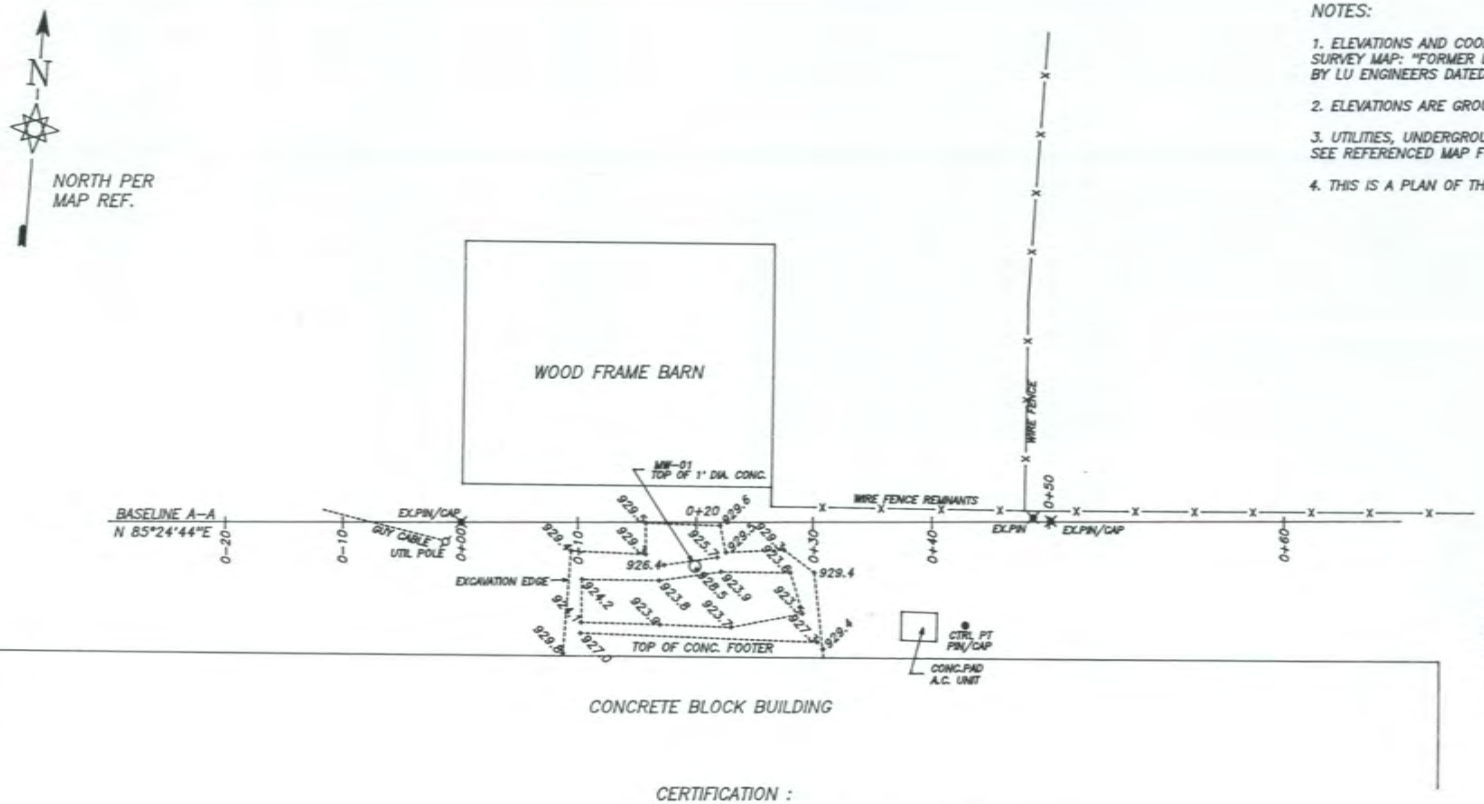
ELEVATION SURVEY ON LAND OF

35–55 EAST PULTENEY STREET, LLC

CITY OF CORNING
STEUBEN COUNTY, NEW YORK STATE.

JAMES D. EVANS
Licensed Land Surveyor
168 dodge ave., corning, n.y.

SCALE : 1" = 10' JOB NO. 4262



NOTES:

1. ELEVATIONS AND COORDINATE LOCATIONS ARE BASED ON SURVEY MAP: "FORMER LOOHIN'S CLEANERS BOUNDARY SURVEY" BY LU ENGINEERS DATED JUNE 2, 2010.

2. ELEVATIONS ARE GROUND, UNLESS NOTED.

3. UTILITIES, UNDERGROUND AND OVERHEAD, ARE NOT SHOWN. SEE REFERENCED MAP FOR UTILITY INFORMATION.

4. THIS IS A PLAN OF THE EXCAVATED PIT.

CERTIFICATION :

THIS IS TO CERTIFY TO THE FOLLOWING THAT I AM A LICENSED LAND SURVEYOR AND THAT THIS PLAN WAS COMPLETED ON DEC. 9, 2010 USING FIELD NOTES FROM AN INSTRUMENT SURVEY COMPLETED ON DEC. 8, 2010.

SIGNED : James D. Evans

JAMES D. EVANS, L.S. #49133

LICENSED LAND SURVEYOR
JAMES D. EVANS
49133
STATE OF NEW YORK

ELEVATION SURVEY ON LAND OF

35-55 EAST PULTENEY STREET, LLC

CITY OF CORNING
STEUBEN COUNTY, NEW YORK STATE.

JAMES D. EVANS

Licensed Land Surveyor
168 dodge ave., corning, n.y.

SCALE : 1" = 10' JOB NO. 4262

APPENDIX E

DATA USABILITY SUMMARY REPORTS (DUSR)

DATA USABILITY SUMMARY REPORT
2010 REMEDIAL INVESTIGATION SAMPLING PROGRAM
LOOHNS CORNING SITE
CORNING, NEW YORK

1.0 INTRODUCTION

Thirty-three soil samples were collected from June 8th, 2010 to June 9th, 2010 at the Loohns Corning Site (Site) in Corning, New York. Sample analyses were completed by Chemtech laboratory located in Mountainside, New Jersey. Results were reported in sample delivery groups (SDGs) B2618 and B2643. A listing of samples included in this Data Usability Summary Report is presented in Table 1. A summary of the analytical results is presented in Table 2. Samples were analyzed for:

- Volatile organic compounds (VOCs) by USEPA Method 8260B,
- Semi volatile organic compounds (SVOCs) by USEPA Method 8270C,
- Pesticides by USEPA Method 8081,
- Aroclors (PCBs) by USEPA Method 8082,
- Metals by USEPA Method 6010B/7471,

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

A project chemist review was completed based on the NYSDEC "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010. Quality control (QC) limits from USEPA Region II data validation guidelines and laboratory QC limits were used during the data evaluation. The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and spike recovery), internal standard response, data transcription, electronic data reporting, calculations, and data qualification.

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

2.0 VOCs

Blanks

SDG B2618: Acetone (13 µg/kg) and methylene chloride (8.5 µg/kg) were reported in the trip blank. Action levels were established at ten times the reported blank concentrations. Reported detections for acetone and methylene chloride were less than the action level and were qualified non-detect (U) if greater than the reporting limit, or if less than the reporting limit, were qualified non-detect (U) at the reporting limit.

Initial Calibration

SDG B2618: For a subset of samples, the percent relative standard deviation (RSD) for dichlorodifluoromethane (25) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the RSD for dichlorodifluoromethane (24) and acetone (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were non-detect, and the reporting limits were qualified estimated (UJ).

SDG B2643: For a subset of samples, the RSD for dichlorodifluoromethane (29) and acetone (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the RSD for chloroethane (24) exceeded the QC limit of 20. Associated sample results for chloroethane were non-detect, and the reporting limits were qualified estimated (UJ).

Continuing Calibration

SDG B2618: For a subset of samples, the percent difference for chloroethane (24) exceeded the QC limit of 20. Associated sample results for chloroethane were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for dichlorodifluoromethane (50), chloromethane (27), vinyl chloride (28), chloroethane (31), trichlorofluoromethane (23), carbon disulfide (21), and 1,1,2-trichloro-1,2,2-trifluoroethane (24) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane were non-detect and were qualified previously under the initial calibration criteria. Associated sample results for chloromethane, vinyl chloride, chloroethane, trichlorofluoromethane, carbon disulfide, and 1,1,2-trichloro-1,2,2-trifluoroethane were non-detect, and the reporting limits were qualified estimated (UJ).

SDG B2643: For a subset of samples, the percent difference for dichlorodifluoromethane (34), trichlorofluoromethane (24), acetone (27), 1,2-dichloropropane (22), bromodichloromethane (21), 4-methyl-2-pentanone (26), toluene (21), trans-1,3-dichloropropene (24), cis-1,3-dichloropropene (21), 1,1,2-trichloroethane (27), 2-hexanone (38), 1,2-dibromoethane (25), and styrene (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were qualified previously under the initial calibration criteria. Associated sample results for trichlorofluoromethane, 1,2-dichloropropane, bromodichloromethane, 4-methyl-2-pentanone, toluene, trans-1,3-dichloropropene, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 2-hexanone, 1,2-dibromoethane, and styrene were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for dichlorodifluoromethane (50), chloromethane (27), vinyl chloride (28), chloroethane (31), trichlorofluoromethane (23), carbon disulfide (21), and 1,1,2-trichloro-1,2,2-trifluoroethane (24) exceeded the QC limit of 20. The associated sample result for chloroethane was non-detect and was qualified previously under the initial calibration criteria. Associated sample results for dichlorodifluoromethane , chloromethane, vinyl chloride, chloroethane, trichlorofluoromethane, carbon disulfide, and 1,1,2-trichloro-1,2,2-trifluoroethane were non-detect, and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for chloroethane (47) exceeded the QC limit of 20. The associated sample results for chloroethane were non-detect and were qualified previously under the initial calibration criteria.

Laboratory Control Sample

SDG B2618: For a subset of samples, the LCS percent recovery of chloroethane (145) exceeded the QC limit of 130. Sample results for chloroethane were non-detect and no qualification action was required.

SDG B2643: For a subset of samples, the LCS percent recovery of chloroethane (145) exceeded the QC limit of 130. Sample results for chloroethane were non-detect and no qualification action was required.

Tentatively Identified Compounds (TICs)

TICs were reported by the laboratory if detected in samples. TICs reported in associated blanks were rejected in the final data set. A summary of TICs detected in samples is presented on Table 3.

3.0 SVOCs

Blanks

SDG B2618 and SDG B2643: Dimethylphthalate (200 and 210 µg/kg) was reported in the method blanks. An action level was established at ten times the reported concentration in the blanks. Reported detections of dimethylphthalate in the samples were less than the action level and were qualified non-detect (U).

Initial Calibration

SDG B2618 and SDG B2643: In the initial calibration the RSD for 2,4-dinitrophenol (56), 4,6-dinitro-2-methylphenol (41), and pentachlorophenol (19) exceeded the QC limit of 15. 2,4-Dinitrophenol, 4,6-dinitro-2-methylphenol, and pentachlorophenol were not detected in samples, and the reporting limits for these compounds were qualified estimated (UJ).

Continuing Calibration

SDG B2618: In the continuing calibration the percent difference for 2,4-dinitrophenol (-22) exceeded the QC limit of 20. Sample results for 2,4-dinitrophenol were qualified previously under the initial calibration criteria.

SDG B2618: In the continuing calibration the percent difference for 2,4-dinitrophenol (-140), 4,6-dinitro-2-methylphenol (-61), and pentachlorophenol (-27) exceeded the QC limit of 20. Sample results for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and pentachlorophenol were qualified previously under the initial calibration criteria.

Laboratory Control Sample

SDG B2618: The LCS percent recovery of benzaldehyde (11), 4-chloroaniline (44), and 3,3-dichlorobenzidine (22) were less than the lower QC limit of 50. Benzaldehyde, 4-chloroaniline, and 3,3-dichlorobenzidine were not detected in samples, and the reporting limits were qualified estimated (UJ).

Matrix Spike/Matrix Spike Duplicate

SDG B2618: Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD percent recoveries of benzaldehyde (13 and 13) and 4-chloroaniline (31 and 44) were less than the lower QC limit of 50. Results for benzaldehyde and 4-chloroaniline were qualified previously under the LCS criteria.

SDG B2643: Sample LCPDI01100110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD percent recoveries of benzaldehyde (11 and 10) and 4-chloroaniline (47) were less than the lower QC limit of 50. The result for benzaldehyde was qualified previously under the LCS criteria. The result for 4-chloroaniline was non-detect and the reporting limit was qualified estimated (UJ).

Tentatively Identified Compounds (TICs)

TICs were reported by the laboratory if detected in samples. TICs reported in associated blanks were rejected in the final data set. A summary of TICs detected in samples is presented on Table 3.

4.0 Pesticides

Quantitation

SDG B2643: The percent difference between the primary and confirmatory column results for 4,4-DDE in samples LCBKSS00300110XD (35) and LCBKSS00300110XX (43), and dieldrin in sample LCPD101100110XX (46) exceeded the QC limit of 25. The results for 4,4-DDE in samples LCBKSS00300110XD and LCBKSS00300110XX, and dieldrin in sample LCPD101100110XX were qualified estimated (J).

Matrix Spike/Matrix Spike Duplicate

SDG B2618: Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD relative percent difference (RPD) for methoxychlor (24) exceeded the laboratory limit of 20. The unspiked sample result for methoxychlor was qualified estimated (J).

5.0 PCBs

Matrix Spike/Matrix Spike Duplicate

SDG B2618: Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MSD percent recovery of Aroclor 1260 (144) exceeded the upper QC limit of 129. Aroclor 1260 was not detected in the unspiked sample, and no further action was required.

6.0 Metals

Blanks

SDG B2643: Aluminum, calcium, and iron were reported in the continuing calibration blanks. Action levels were established at five times the highest reported blank concentration for aluminum, calcium, and iron. Sample results for aluminum, calcium, and iron were greater than the action levels, and no further action was required.

Serial Dilution

SDG B2643: The serial dilution percent difference for calcium (13), iron (14), magnesium (12), manganese (14), potassium (12), and zinc (13) exceeded the QC limit of 10. Sample results for calcium, iron, magnesium, manganese, potassium, and zinc were qualified estimated (J).

Laboratory Control Sample

SDG B2643: The LCS percent recovery of aluminum (76), calcium (78), iron (78), mercury (73), potassium (67), selenium (74), and sodium (70), were less than the lower QC limit of 80. Sample results for aluminum, calcium, iron, mercury, potassium, selenium, and sodium were qualified estimated (J).

Matrix Spike/Matrix Spike Duplicate

SDG B2618: The MS/MSD percent recoveries of aluminum (348 and 323), calcium (246 and 237), iron (402 and 371), magnesium (157 and 154), and manganese (207 and 195) exceeded the upper QC limit of 125. The unspiked sample concentrations of aluminum, calcium, iron, magnesium, and manganese were greater than four times the spike concentration, and no further action was required.

SDG B2643: The MS percent recovery of barium (147) exceeded the upper QC limit of 125. Sample results for barium were qualified estimated (J) and were potentially biased high.

Field Duplicate

SDG B2643: The field duplicate RPD for magnesium (39) and calcium (144) exceeded the QC limit of 35. Sample results for magnesium and calcium were qualified estimated (J).

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

Data Validator: Wolfgang D. Calicchio

Date: August 6, 2010

Reviewed by Chris Ricardi, NRCC-EAC

Date: August 16, 2010

TABLE 1 - DUSR – LOOHNS CORNING SITE
DATA USABILITY SUMMARY REPORT
2010 REMEDIAL INVESTIGATION SAMPLING PROGRAM
LOOHNS CORNING SITE
CORNING, NEW YORK

SDG	Sample ID	Lab ID	Sample Date	Class / Method / Fraction / QC Code	VOCs 8260B N	SVOCs 8270 N	PEST 8081 N	PCB 8082 N	Metals 6010B/7470A N
B2618	LCPDI00500510XX	B2618-01	6/8/2010	FS	X				
B2618	LCPDI00101110XX	B2618-02	6/8/2010	FS	X				
B2618	LCPDI00101110XD	B2618-03	6/8/2010	FD	X				
B2618	LCSS00100110XX	B2618-04	6/8/2010	FS		X	X	X	X
B2618	LCPDI00600510XX	B2618-05	6/8/2010	FS	X				
B2618	LCPDI00601010XX	B2618-06	6/8/2010	FS	X				
B2618	LCPDI00200810XX	B2618-07	6/8/2010	FS	X				
B2618	LCPDI00700510XX	B2618-08	6/8/2010	FS	X				
B2618	LCPDI00701010XX	B2618-09	6/8/2010	FS	X				
B2618	LCPDI01200510XX	B2618-10	6/8/2010	FS	X				
B2618	LCPDI01201010XX	B2618-11	6/8/2010	FS	X				
B2618	LCPDI01201910XX	B2618-12	6/8/2010	FS	X				
B2618	LCPDI01300510XX	B2618-13	6/8/2010	FS	X				
B2618	LCPDI01301010XX	B2618-14	6/8/2010	FS	X				
B2618	LCPDI00800310XX	B2618-15	6/8/2010	FS	X				
B2618	LCPDI00801510XX	B2618-16	6/8/2010	FS	X				
B2618	LCPDI00600110XX	B2618-17	6/8/2010	FS		X	X	X	X
B2618	TRIPBLANK-1	B2618-18	6/8/2010	TB	X				
B2643	LCPDI00301310XX	B2643-01	6/9/2010	FS	X				
B2643	LCPDI00900110XX	B2643-02	6/9/2010	FS	X				
B2643	LCPDI00901010XX	B2643-03	6/9/2010	FS	X				
B2643	LCPDI00400510XX	B2643-04	6/9/2010	FS	X				
B2643	LCPDI00401010XX	B2643-05	6/9/2010	FS	X				
B2643	LCPDI01100110XX	B2643-06	6/9/2010	FS		X	X	X	X
B2643	LCPDI01100210XX	B2643-07	6/9/2010	FS	X				
B2643	LCGW01502010XX	B2643-10	6/9/2010	FS	X				
B2643	LCGW01402010XX	B2643-11	6/9/2010	FS	X				
B2643	LCGW01302010XX	B2643-12	6/9/2010	FS	X				
B2643	LCBKSS00100110XX	B2643-13	6/9/2010	FS		X	X	X	X
B2643	LCBKSS00200110XX	B2643-14	6/9/2010	FS		X	X	X	X
B2643	LCBKSS00300110XX	B2643-15	6/9/2010	FS		X	X	X	X
B2643	LCBKSS00300110XD	B2643-16	6/9/2010	FD		X	X	X	X
B2643	LCPDI01000210XX	B2643-17	6/9/2010	FS	X				
B2643	LCPDI01400210XX	B2643-18	6/9/2010	FS	X				
B2643	TRIPBLANK	B2643-20	6/2/2010	TB	X				

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618		B2618		B2618		B2618	
		Location	PDI-005		PDI-001		PDI-001		PDI-006		PDI-006	
		Sample Date	6/8/2010 11:15		6/8/2010 11:45		6/8/2010 11:45		6/8/2010 12:45		6/8/2010 12:55	
		Sample ID	LCPDI00500510XX		LCPDI00101110XX		LCPDI00101110XD		LCPDI00600510XX		LCPDI00601010XX	
		Qc Code	FS		FS		FD		FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,1,2-Trichloroethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,1-Dichloroethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,1-Dichloroethene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,2,4-Trichlorobenzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,2-Dibromoethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,2-Dichlorobenzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,2-Dichloroethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,2-Dichloropropane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,3-Dichlorobenzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	1,4-Dichlorobenzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	2-Butanone	ug/Kg	23	U	21	U	24	U	24	U	25	U
SW8260B	2-Hexanone	ug/Kg	23	U	21	U	24	U	24	U	25	U
SW8260B	4-Methyl-2-pentanone	ug/Kg	23	U	21	U	24	U	24	U	25	U
SW8260B	Acetic acid, methyl ester	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Acetone	ug/Kg	23	U	21	U	24	U	24	U	25	U
SW8260B	Benzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Bromodichloromethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Bromoform	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Bromomethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Carbon disulfide	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Carbon tetrachloride	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Chlorobenzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Chlorodibromomethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Chloroethane	ug/Kg	4.7	UJ	4.1	UJ	4.8	UJ	4.7	UJ	4.9	UJ
SW8260B	Chloroform	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Chloromethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Cis-1,2-Dichloroethene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	cis-1,3-Dichloropropene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Cyclohexane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Dichlorodifluoromethane	ug/Kg	4.7	UJ	4.1	UJ	4.8	UJ	4.7	UJ	4.9	UJ
SW8260B	Ethyl benzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618		B2618		B2618		B2618	
		Location	PDI-005		PDI-001		PDI-001		PDI-006		PDI-006	
		Sample Date	6/8/2010 11:15		6/8/2010 11:45		6/8/2010 11:45		6/8/2010 12:45		6/8/2010 12:55	
		Sample ID	LCPDI00500510XX		LCPDI00101110XX		LCPDI00101110XD		LCPDI00600510XX		LCPDI00601010XX	
		Qc Code	FS		FS		FD		FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	Isopropylbenzene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Methyl cyclohexane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Methyl Tertbutyl Ether	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Methylene chloride	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Styrene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Tetrachloroethene	ug/Kg	7		7.3		6.2		26		24	
SW8260B	Toluene	ug/Kg	4.7	U	1.2	J	4.8	U	4.7	U	4.9	U
SW8260B	trans-1,2-Dichloroethene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	trans-1,3-Dichloropropene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Trichloroethene	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Trichlorofluoromethane	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Vinyl chloride	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U
SW8260B	Xylene, m/p	ug/Kg	9.3	U	8.2	U	9.5	U	9.4	U	9.8	U
SW8260B	Xylene, o	ug/Kg	4.7	U	4.1	U	4.8	U	4.7	U	4.9	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618		B2618		B2618		B2618	
		Location	PDI-002		PDI-007		PDI-007		PDI-012		PDI-012	
		Sample Date	6/8/2010 13:30		6/8/2010 13:45		6/8/2010 13:55		6/8/2010 14:55		6/8/2010 14:55	
		Sample ID	LCPDI00200810XX		LCPDI00700510XX		LCPDI00701010XX		LCPDI01200510XX		LCPDI01201010XX	
		Qc Code	FS		FS		FS		FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	5.3	UJ	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,1,2-Trichloroethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,1-Dichloroethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,1-Dichloroethene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,2,4-Trichlorobenzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,2-Dibromoethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,2-Dichlorobenzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,2-Dichloroethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,2-Dichloropropane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,3-Dichlorobenzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	1,4-Dichlorobenzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	2-Butanone	ug/Kg	26	U	25	U	22	U	22	U	22	U
SW8260B	2-Hexanone	ug/Kg	26	U	25	U	22	U	22	U	22	U
SW8260B	4-Methyl-2-pentanone	ug/Kg	26	U	25	U	22	U	22	U	22	U
SW8260B	Acetic acid, methyl ester	ug/Kg	5.3	U	2.8	J	8.7		1.9	J	4.4	U
SW8260B	Acetone	ug/Kg	26	UJ	25	U	26	U	22	U	22	U
SW8260B	Benzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Bromodichloromethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Bromoform	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Bromomethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Carbon disulfide	ug/Kg	5.3	UJ	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Carbon tetrachloride	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Chlorobenzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Chlorodibromomethane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Chloroethane	ug/Kg	5.3	UJ	4.9	UJ	4.3	UJ	4.5	UJ	4.4	UJ
SW8260B	Chloroform	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Chloromethane	ug/Kg	5.3	UJ	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Cis-1,2-Dichloroethene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	cis-1,3-Dichloropropene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Cyclohexane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Dichlorodifluoromethane	ug/Kg	5.3	UJ	4.9	UJ	4.3	UJ	4.5	UJ	4.4	UJ
SW8260B	Ethyl benzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618		B2618		B2618		B2618	
		Location	PDI-002		PDI-007		PDI-007		PDI-012		PDI-012	
		Sample Date	6/8/2010 13:30		6/8/2010 13:45		6/8/2010 13:55		6/8/2010 14:55		6/8/2010 14:55	
		Sample ID	LCPDI00200810XX		LCPDI00700510XX		LCPDI00701010XX		LCPDI01200510XX		LCPDI01201010XX	
		Qc Code	FS		FS		FS		FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	Isopropylbenzene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Methyl cyclohexane	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Methyl Tertbutyl Ether	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Methylene chloride	ug/Kg	5.6	U	4.9	U	4.4	U	4.5	U	5.5	U
SW8260B	Styrene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Tetrachloroethene	ug/Kg	39		15		17		14		27	
SW8260B	Toluene	ug/Kg	5.3	U	4.9	U	1	J	4.5	U	4.4	U
SW8260B	trans-1,2-Dichloroethene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	trans-1,3-Dichloropropene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Trichloroethene	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Trichlorofluoromethane	ug/Kg	5.3	UJ	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Vinyl chloride	ug/Kg	5.3	UJ	4.9	U	4.3	U	4.5	U	4.4	U
SW8260B	Xylene, m/p	ug/Kg	11	U	9.8	U	8.7	U	9	U	8.8	U
SW8260B	Xylene, o	ug/Kg	5.3	U	4.9	U	4.3	U	4.5	U	4.4	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618		B2618		B2618		B2618	
		Location	PDI-012		PDI-013		PDI-013		PDI-008		PDI-008	
		Sample Date	6/8/2010 14:55		6/8/2010 15:30		6/8/2010 15:30		6/8/2010 16:00		6/8/2010 16:00	
		Sample ID	LCPDI01201910XX		LCPDI01300510XX		LCPDI01301010XX		LCPDI00800310XX		LCPDI00801510XX	
		Qc Code	FS		FS		FS		FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	4.1	U	4.5	UJ	4.4	U	5.1	U	4.6	UJ
SW8260B	1,1,2-Trichloroethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,1-Dichloroethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,1-Dichloroethene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,2,4-Trichlorobenzene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,2-Dibromoethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,2-Dichlorobenzene	ug/Kg	4.1	U	1.2	J	4.4	U	27		4.6	U
SW8260B	1,2-Dichloroethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,2-Dichloropropane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,3-Dichlorobenzene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	1,4-Dichlorobenzene	ug/Kg	4.1	U	4.5	U	4.4	U	12		4.6	U
SW8260B	2-Butanone	ug/Kg	20	U	22	U	22	U	25	U	23	U
SW8260B	2-Hexanone	ug/Kg	20	U	22	U	22	U	25	U	23	U
SW8260B	4-Methyl-2-pentanone	ug/Kg	20	U	22	U	22	U	25	U	23	U
SW8260B	Acetic acid, methyl ester	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.2	J
SW8260B	Acetone	ug/Kg	25	U	22	UJ	22	U	25	U	23	UJ
SW8260B	Benzene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Bromodichloromethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Bromoform	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Bromomethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Carbon disulfide	ug/Kg	4.1	U	4.5	UJ	4.4	U	5.1	U	4.6	UJ
SW8260B	Carbon tetrachloride	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Chlorobenzene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Chlorodibromomethane	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Chloroethane	ug/Kg	4.1	UJ	4.5	UJ	4.4	UJ	5.1	UJ	4.6	UJ
SW8260B	Chloroform	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Chloromethane	ug/Kg	4.1	U	4.5	UJ	4.4	U	5.1	U	4.6	UJ
SW8260B	Cis-1,2-Dichloroethene	ug/Kg	4.1	U	1.6	J	4.4	U	190		4.6	U
SW8260B	cis-1,3-Dichloropropene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Cyclohexane	ug/Kg	2.5	J	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Dichlorodifluoromethane	ug/Kg	4.1	UJ	4.5	UJ	4.4	UJ	5.1	UJ	4.6	UJ
SW8260B	Ethyl benzene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618		B2618		B2618		B2618	
		Location	PDI-012		PDI-013		PDI-013		PDI-008		PDI-008	
		Sample Date	6/8/2010 14:55		6/8/2010 15:30		6/8/2010 15:30		6/8/2010 16:00		6/8/2010 16:00	
		Sample ID	LCPDI01201910XX		LCPDI01300510XX		LCPDI01301010XX		LCPDI00800310XX		LCPDI00801510XX	
		Qc Code	FS		FS		FS		FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	Isopropylbenzene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Methyl cyclohexane	ug/Kg	2.8	J	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Methyl Tertbutyl Ether	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Methylene chloride	ug/Kg	5.3	U	4.5	U	4.4	U	7.7	U	5.1	U
SW8260B	Styrene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Tetrachloroethene	ug/Kg	3.1	J	1200	D	35		49000	D	4.9	
SW8260B	Toluene	ug/Kg	2.2	J	0.91	J	4.4	U	5.1	U	1.4	J
SW8260B	trans-1,2-Dichloroethene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	trans-1,3-Dichloropropene	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U
SW8260B	Trichloroethene	ug/Kg	4.1	U	4.5	U	4.4	U	180		4.6	U
SW8260B	Trichlorofluoromethane	ug/Kg	4.1	U	4.5	UJ	4.4	U	5.1	U	4.6	UJ
SW8260B	Vinyl chloride	ug/Kg	4.1	U	4.5	UJ	4.4	U	5.1	U	4.6	UJ
SW8260B	Xylene, m/p	ug/Kg	1.5	J	8.9	U	8.8	U	10	U	9.1	U
SW8260B	Xylene, o	ug/Kg	4.1	U	4.5	U	4.4	U	5.1	U	4.6	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618	
		Location	QC	
		Sample Date	6/8/2010 17:45	
		Sample ID	TRIPBLANK-1	
		Qc Code	TB	
Analysis	Param Name	Units	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	ug/Kg	5	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/Kg	5	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	5	U
SW8260B	1,1,2-Trichloroethane	ug/Kg	5	U
SW8260B	1,1-Dichloroethane	ug/Kg	5	U
SW8260B	1,1-Dichloroethene	ug/Kg	5	U
SW8260B	1,2,4-Trichlorobenzene	ug/Kg	5	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/Kg	5	U
SW8260B	1,2-Dibromoethane	ug/Kg	5	U
SW8260B	1,2-Dichlorobenzene	ug/Kg	5	U
SW8260B	1,2-Dichloroethane	ug/Kg	5	U
SW8260B	1,2-Dichloropropane	ug/Kg	5	U
SW8260B	1,3-Dichlorobenzene	ug/Kg	5	U
SW8260B	1,4-Dichlorobenzene	ug/Kg	5	U
SW8260B	2-Butanone	ug/Kg	25	U
SW8260B	2-Hexanone	ug/Kg	25	U
SW8260B	4-Methyl-2-pentanone	ug/Kg	25	U
SW8260B	Acetic acid, methyl ester	ug/Kg	5	U
SW8260B	Acetone	ug/Kg	13	J
SW8260B	Benzene	ug/Kg	5	U
SW8260B	Bromodichloromethane	ug/Kg	5	U
SW8260B	Bromoform	ug/Kg	5	U
SW8260B	Bromomethane	ug/Kg	5	U
SW8260B	Carbon disulfide	ug/Kg	5	U
SW8260B	Carbon tetrachloride	ug/Kg	5	U
SW8260B	Chlorobenzene	ug/Kg	5	U
SW8260B	Chlorodibromomethane	ug/Kg	5	U
SW8260B	Chloroethane	ug/Kg	5	U
SW8260B	Chloroform	ug/Kg	5	U
SW8260B	Chloromethane	ug/Kg	5	U
SW8260B	Cis-1,2-Dichloroethene	ug/Kg	5	U
SW8260B	cis-1,3-Dichloropropene	ug/Kg	5	U
SW8260B	Cyclohexane	ug/Kg	5	U
SW8260B	Dichlorodifluoromethane	ug/Kg	5	U
SW8260B	Ethyl benzene	ug/Kg	5	U

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Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618	
		Location	QC	
		Sample Date	6/8/2010 17:45	
		Sample ID	TRIPBLANK-1	
		Qc Code	TB	
Analysis	Param Name	Units	Result	Qualifier
SW8260B	Isopropylbenzene	ug/Kg	5	U
SW8260B	Methyl cyclohexane	ug/Kg	5	U
SW8260B	Methyl Tertbutyl Ether	ug/Kg	5	U
SW8260B	Methylene chloride	ug/Kg	8.5	
SW8260B	Styrene	ug/Kg	5	U
SW8260B	Tetrachloroethene	ug/Kg	5	U
SW8260B	Toluene	ug/Kg	5	U
SW8260B	trans-1,2-Dichloroethene	ug/Kg	5	U
SW8260B	trans-1,3-Dichloropropene	ug/Kg	5	U
SW8260B	Trichloroethene	ug/Kg	5	U
SW8260B	Trichlorofluoromethane	ug/Kg	5	U
SW8260B	Vinyl chloride	ug/Kg	5	U
SW8260B	Xylene, m/p	ug/Kg	10	U
SW8260B	Xylene, o	ug/Kg	5	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

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Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643		B2643		B2643		B2643	
	Location	PDI-003		PDI-009		PDI-009		PDI-004		PDI-004	
	Sample Date	6/9/2010 8:30		6/9/2010 9:20		6/9/2010 9:20		6/9/2010 10:55		6/9/2010 11:05	
	Sample ID	LCPDI00301310XX		LCPDI00900110XX		LCPDI00901010XX		LCPDI00400510XX		LCPDI00401010XX	
	Qc Code	FS		FS		FS		FS		FS	
	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Analysis	Param Name	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,1,2,2-Tetrachloroethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,1,2-Trichloroethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,1-Dichloroethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,1-Dichloroethene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,2,4-Trichlorobenzene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,2-Dibromo-3-chloropropane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,2-Dibromoethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,2-Dichlorobenzene	5.7	U	5.2	J	4.5	U	4.5	U	7.4	U
SW8260B	1,2-Dichloroethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,2-Dichloropropane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,3-Dichlorobenzene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	1,4-Dichlorobenzene	5.7	U	2.3	J	4.5	U	4.5	U	7.4	U
SW8260B	2-Butanone	28	U	34	U	23	U	23	U	37	U
SW8260B	2-Hexanone	28	U	34	U	23	U	23	U	37	U
SW8260B	4-Methyl-2-pentanone	28	U	34	U	23	U	23	U	37	U
SW8260B	Acetic acid, methyl ester	3.2	J	6.8	U	2.3	J	4.5	U	7.6	
SW8260B	Acetone	28	U	12	J	12	J	16	J	23	J
SW8260B	Benzene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Bromodichloromethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Bromoform	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Bromomethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Carbon disulfide	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Carbon tetrachloride	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Chlorobenzene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Chlorodibromomethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Chloroethane	5.7	UJ	6.8	UJ	4.5	UJ	4.5	UJ	7.4	UJ
SW8260B	Chloroform	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Chloromethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Cis-1,2-Dichloroethene	5.7	U	2.8	J	4.5	U	4.5	U	7.4	U
SW8260B	cis-1,3-Dichloropropene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Cyclohexane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Dichlorodifluoromethane	5.7	UJ	6.8	UJ	4.5	UJ	4.5	UJ	7.4	UJ

Created by: BJS
Date: 8/05/10
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TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643		B2643		B2643		B2643	
	Location	PDI-003		PDI-009		PDI-009		PDI-004		PDI-004	
	Sample Date	6/9/2010 8:30		6/9/2010 9:20		6/9/2010 9:20		6/9/2010 10:55		6/9/2010 11:05	
	Sample ID	LCPDI00301310XX		LCPDI00900110XX		LCPDI00901010XX		LCPDI00400510XX		LCPDI00401010XX	
	Qc Code	FS		FS		FS		FS		FS	
	Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Analysis	**Param Name**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	Ethyl benzene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Isopropylbenzene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Methyl cyclohexane	5.7	U	6.8	U	4.5	U	2.7	J	7.4	U
SW8260B	Methyl Tertbutyl Ether	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Methylene chloride	6.7		4.2	J	4.6		3.1	J	7.8	
SW8260B	Styrene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Tetrachloroethene	2.6	J	63000	D	16		18		14	
SW8260B	Toluene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	trans-1,2-Dichloroethene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	trans-1,3-Dichloropropene	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Trichloroethene	5.7	U	9.3		4.5	U	4.5	U	7.4	U
SW8260B	Trichlorofluoromethane	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Vinyl chloride	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U
SW8260B	Xylene, m/p	11	U	14	U	9.1	U	9.1	U	15	U
SW8260B	Xylene, o	5.7	U	6.8	U	4.5	U	4.5	U	7.4	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2643		B2643		B2643		B2643		B2643	
		Location	PDI-011		GW-015		GW-014		GW-013		PDI-010	
		Sample Date	6/9/2010 14:05		6/9/2010 14:20		6/9/2010 15:15		6/9/2010 15:30		6/9/2010 16:50	
		Sample ID	LCPDI01100210XX		LCGW01502010XX		LCGW01402010XX		LCGW01302010XX		LCPDI01000210XX	
		Qc Code	FS		FS		FS		FS		FS	
		Units	ug/kg		ug/l		ug/l		ug/l		ug/kg	
Analysis	Param Name		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,1,2,2-Tetrachloroethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane		4.1	UJ	1	U	1	U	1	U	4.8	U
SW8260B	1,1,2-Trichloroethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,1-Dichloroethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,1-Dichloroethene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,2,4-Trichlorobenzene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,2-Dibromo-3-chloropropane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,2-Dibromoethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,2-Dichlorobenzene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,2-Dichloroethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,2-Dichloropropane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,3-Dichlorobenzene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	1,4-Dichlorobenzene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	2-Butanone		20	U	5	U	5	U	5	U	24	U
SW8260B	2-Hexanone		20	U	5	U	5	U	5	U	24	U
SW8260B	4-Methyl-2-pentanone		20	U	5	U	5	U	5	U	24	U
SW8260B	Acetic acid, methyl ester		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Acetone		20	U	5	U	5	U	5	U	24	U
SW8260B	Benzene		4.1	U	2		1	U	1	U	4.8	U
SW8260B	Bromodichloromethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Bromoform		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Bromomethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Carbon disulfide		4.1	UJ	1	U	1	U	1	U	4.8	U
SW8260B	Carbon tetrachloride		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Chlorobenzene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Chlorodibromomethane		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Chloroethane		4.1	UJ	1	U	1	U	1	U	4.8	UJ
SW8260B	Chloroform		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Chloromethane		4.1	UJ	1	U	1	U	1	U	4.8	U
SW8260B	Cis-1,2-Dichloroethene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	cis-1,3-Dichloropropene		4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Cyclohexane		4.1	U	1.8		1	U	1	U	4.8	U
SW8260B	Dichlorodifluoromethane		4.1	UJ	1	UJ	1	UJ	1	UJ	4.8	UJ

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643		B2643		B2643		B2643	
	Location	PDI-011		GW-015		GW-014		GW-013		PDI-010	
	Sample Date	6/9/2010 14:05		6/9/2010 14:20		6/9/2010 15:15		6/9/2010 15:30		6/9/2010 16:50	
	Sample ID	LCPDI01100210XX		LCGW01502010XX		LCGW01402010XX		LCGW01302010XX		LCPDI01000210XX	
	Qc Code	FS		FS		FS		FS		FS	
	Units	ug/kg		ug/l		ug/l		ug/l		ug/kg	
Analysis	Param Name	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	Ethyl benzene	4.1	U	0.57	J	1	U	1	U	4.8	U
SW8260B	Isopropylbenzene	4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Methyl cyclohexane	4.1	U	1.2		0.76	J	1	U	4.8	U
SW8260B	Methyl Tertbutyl Ether	4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Methylene chloride	3	J	1	U	1	U	1	U	4	J
SW8260B	Styrene	4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Tetrachloroethene	96		1.8		1.2		1	U	63	
SW8260B	Toluene	4.1	U	3.8		0.88	J	0.91	J	4.8	U
SW8260B	trans-1,2-Dichloroethene	4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	trans-1,3-Dichloropropene	4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Trichloroethene	4.1	U	1	U	1	U	1	U	4.8	U
SW8260B	Trichlorofluoromethane	4.1	UJ	1	U	1	U	1	U	4.8	U
SW8260B	Vinyl chloride	4.1	UJ	1	U	1	U	1	U	4.8	U
SW8260B	Xylene, m/p	8.1	U	2.9		2	U	1.2	J	9.6	U
SW8260B	Xylene, o	4.1	U	1.2		1	U	0.51	J	4.8	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643		B2643	
	Location	PDI-014		QC		QC	
	Sample Date	6/9/2010 16:05		6/2/2010 10:30		6/2/2010 10:30	
	Sample ID	LCPDI01400210XX		TRIPBLANK		TRIPBLANK	
	Qc Code	FS		TB		TB	
	Units	ug/kg		ug/l		ug/l	
Analysis	Param Name	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	4.2	U	1	U	1	U
SW8260B	1,1,2,2-Tetrachloroethane	4.2	U	1	U	1	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	4.2	U	1	U	1	U
SW8260B	1,1,2-Trichloroethane	4.2	U	1	U	1	U
SW8260B	1,1-Dichloroethane	4.2	U	1	U	1	U
SW8260B	1,1-Dichloroethene	4.2	U	1	U	1	U
SW8260B	1,2,4-Trichlorobenzene	4.2	U	1	U	1	U
SW8260B	1,2-Dibromo-3-chloropropane	4.2	U	1	U	1	U
SW8260B	1,2-Dibromoethane	4.2	U	1	U	1	U
SW8260B	1,2-Dichlorobenzene	0.79	J	1	U	1	U
SW8260B	1,2-Dichloroethane	4.2	U	1	U	1	U
SW8260B	1,2-Dichloropropane	4.2	U	1	U	1	U
SW8260B	1,3-Dichlorobenzene	4.2	U	1	U	1	U
SW8260B	1,4-Dichlorobenzene	4.2	U	1	U	1	U
SW8260B	2-Butanone	21	U	5	U	5	U
SW8260B	2-Hexanone	21	U	5	U	5	U
SW8260B	4-Methyl-2-pentanone	21	U	5	U	5	U
SW8260B	Acetic acid, methyl ester	4.2	U	1	U	1	U
SW8260B	Acetone	21	U	5	U	5	U
SW8260B	Benzene	4.2	U	1	U	1	U
SW8260B	Bromodichloromethane	4.2	U	1	U	1	U
SW8260B	Bromoform	4.2	U	1	U	1	U
SW8260B	Bromomethane	4.2	U	1	U	1	U
SW8260B	Carbon disulfide	4.2	U	1	U	1	U
SW8260B	Carbon tetrachloride	4.2	U	1	U	1	U
SW8260B	Chlorobenzene	4.2	U	1	U	1	U
SW8260B	Chlorodibromomethane	4.2	U	1	U	1	U
SW8260B	Chloroethane	4.2	UJ	1	U	1	U
SW8260B	Chloroform	4.2	U	1	U	1	U
SW8260B	Chloromethane	4.2	U	1	U	1	U
SW8260B	Cis-1,2-Dichloroethene	4.2	U	1	U	1	U
SW8260B	cis-1,3-Dichloropropene	4.2	U	1	U	1	U
SW8260B	Cyclohexane	4.2	U	1	U	1	U
SW8260B	Dichlorodifluoromethane	4.2	UJ	1	U	1	U

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Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643		B2643	
	Location	PDI-014		QC		QC	
	Sample Date	6/9/2010 16:05		6/2/2010 10:30		6/2/2010 10:30	
	Sample ID	LCPDI01400210XX		TRIPBLANK		TRIPBLANK	
	Qc Code	FS		TB		TB	
	Units	ug/kg		ug/l		ug/l	
Analysis	Param Name	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	Ethyl benzene	4.2	U	1	U	1	U
SW8260B	Isopropylbenzene	4.2	U	1	U	1	U
SW8260B	Methyl cyclohexane	4.2	U	1	U	1	U
SW8260B	Methyl Tertbutyl Ether	4.2	U	1	U	1	U
SW8260B	Methylene chloride	4.5		1	U	1	U
SW8260B	Styrene	4.2	U	1	U	1	U
SW8260B	Tetrachloroethene	8000	D	1	U	1	U
SW8260B	Toluene	4.2	U	1	U	1	U
SW8260B	trans-1,2-Dichloroethene	4.2	U	1	U	1	U
SW8260B	trans-1,3-Dichloropropene	4.2	U	1	U	1	U
SW8260B	Trichloroethene	5.1		1	U	1	U
SW8260B	Trichlorofluoromethane	4.2	U	1	U	1	U
SW8260B	Vinyl chloride	4.2	U	1	U	1	U
SW8260B	Xylene, m/p	8.4	U	2	U	2	U
SW8260B	Xylene, o	4.2	U	1	U	1	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618	
		Location	SS-001		PDI-006	
		Sample Date	6/8/2010 10:30		6/8/2010 12:45	
		Sample ID	LCSS00100110XX		LCPDI00600110XX	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8270	2,4,5-Trichlorophenol	ug/Kg	380	U	380	U
SW8270	2,4,6-Trichlorophenol	ug/Kg	380	U	380	U
SW8270	2,4-Dichlorophenol	ug/Kg	380	U	380	U
SW8270	2,4-Dimethylphenol	ug/Kg	380	U	380	U
SW8270	2,4-Dinitrophenol	ug/Kg	380	UJ	380	UJ
SW8270	2,4-Dinitrotoluene	ug/Kg	380	U	380	U
SW8270	2,6-Dinitrotoluene	ug/Kg	380	U	380	U
SW8270	2-Chloronaphthalene	ug/Kg	380	U	380	U
SW8270	2-Chlorophenol	ug/Kg	380	U	380	U
SW8270	2-Methylnaphthalene	ug/Kg	380	U	380	U
SW8270	2-Methylphenol	ug/Kg	380	U	380	U
SW8270	2-Nitroaniline	ug/Kg	380	U	380	U
SW8270	2-Nitrophenol	ug/Kg	380	U	380	U
SW8270	3,3`-Dichlorobenzidine	ug/Kg	380	UJ	380	UJ
SW8270	3-Nitroaniline	ug/Kg	380	U	380	U
SW8270	4,6-Dinitro-2-methylphenol	ug/Kg	380	UJ	380	UJ
SW8270	4-Bromophenyl phenyl ether	ug/Kg	380	U	380	U
SW8270	4-Chloro-3-methylphenol	ug/Kg	380	U	380	U
SW8270	4-Chloroaniline	ug/Kg	380	UJ	380	UJ
SW8270	4-Chlorophenyl phenyl ether	ug/Kg	380	U	380	U
SW8270	4-Nitroaniline	ug/Kg	380	U	380	U
SW8270	4-Nitrophenol	ug/Kg	380	U	380	U
SW8270	Acenaphthene	ug/Kg	380	U	380	U
SW8270	Acenaphthylene	ug/Kg	380	U	380	U
SW8270	Acetophenone	ug/Kg	380	U	380	U
SW8270	Anthracene	ug/Kg	380	U	380	U
SW8270	Atrazine	ug/Kg	380	U	380	U
SW8270	Benzaldehyde	ug/Kg	380	UJ	380	UJ
SW8270	Benzo(a)anthracene	ug/Kg	54	J	380	U
SW8270	Benzo(a)pyrene	ug/Kg	55	J	380	U
SW8270	Benzo(b)fluoranthene	ug/Kg	87	J	380	U
SW8270	Benzo(ghi)perylene	ug/Kg	93	J	380	U
SW8270	Benzo(k)fluoranthene	ug/Kg	380	U	380	U
SW8270	Biphenyl	ug/Kg	380	U	380	U
SW8270	Bis(2-Chloroethoxy)methane	ug/Kg	380	U	380	U
SW8270	Bis(2-Chloroethyl)ether	ug/Kg	380	U	380	U
SW8270	Bis(2-Chloroisopropyl)ether	ug/Kg	380	U	380	U
SW8270	Bis(2-Ethylhexyl)phthalate	ug/Kg	1800		130	J
SW8270	Butylbenzylphthalate	ug/Kg	130	J	380	U
SW8270	Caprolactum	ug/Kg	380	U	380	U
SW8270	Carbazole	ug/Kg	380	U	380	U
SW8270	Chrysene	ug/Kg	80	J	380	U
SW8270	Di-n-butylphthalate	ug/Kg	63	J	380	U
SW8270	Di-n-octylphthalate	ug/Kg	55	J	380	U
SW8270	Dibenz(a,h)anthracene	ug/Kg	380	U	380	U
SW8270	Dibenzofuran	ug/Kg	380	U	380	U
SW8270	Diethylphthalate	ug/Kg	380	U	380	U
SW8270	Dimethylphthalate	ug/Kg	450	U	460	U
SW8270	Fluoranthene	ug/Kg	160	J	380	U
SW8270	Fluorene	ug/Kg	380	U	380	U

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618	
		Location	SS-001		PDI-006	
		Sample Date	6/8/2010 10:30		6/8/2010 12:45	
		Sample ID	LCSS00100110XX		LCPDI00600110XX	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8270	Hexachlorobenzene	ug/Kg	380	U	380	U
SW8270	Hexachlorobutadiene	ug/Kg	380	U	380	U
SW8270	Hexachlorocyclopentadiene	ug/Kg	380	U	380	U
SW8270	Hexachloroethane	ug/Kg	380	U	380	U
SW8270	Indeno(1,2,3-cd)pyrene	ug/Kg	49	J	380	U
SW8270	Isophorone	ug/Kg	380	U	380	U
SW8270	m+p-Methylphenol	ug/Kg	380	U	380	U
SW8270	N-Nitrosodi-n-propylamine	ug/Kg	380	U	380	U
SW8270	N-Nitrosodiphenylamine	ug/Kg	380	U	380	U
SW8270	Naphthalene	ug/Kg	380	U	380	U
SW8270	Nitrobenzene	ug/Kg	380	U	380	U
SW8270	Pentachlorophenol	ug/Kg	380	UJ	380	UJ
SW8270	Phenanthrene	ug/Kg	61	J	380	U
SW8270	Phenol	ug/Kg	380	U	380	U
SW8270	Pyrene	ug/Kg	130	J	380	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2643		B2643		B2643	
		Location	PDI-011		BKSS-001		BKSS-002	
		Sample Date	6/9/2010 13:10		6/9/2010 15:55		6/9/2010 16:25	
		Sample ID	LCPDI01100110XX		LCBKSS00100110XX		LCBKSS00200110XX	
		Qc Code	FS		FS		FS	
		Units	ug/kg		ug/kg		ug/kg	
Analysis	Param Name		Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8270	2,4,5-Trichlorophenol		390	U	410	U	360	U
SW8270	2,4,6-Trichlorophenol		390	U	410	U	360	U
SW8270	2,4-Dichlorophenol		390	U	410	U	360	U
SW8270	2,4-Dimethylphenol		390	U	410	U	360	U
SW8270	2,4-Dinitrophenol		390	UJ	410	UJ	360	UJ
SW8270	2,4-Dinitrotoluene		390	U	410	U	360	U
SW8270	2,6-Dinitrotoluene		390	U	410	U	360	U
SW8270	2-Chloronaphthalene		390	U	410	U	360	U
SW8270	2-Chlorophenol		390	U	410	U	360	U
SW8270	2-Methylnaphthalene		390	U	410	U	360	U
SW8270	2-Methylphenol		390	U	410	U	360	U
SW8270	2-Nitroaniline		390	U	410	U	360	U
SW8270	2-Nitrophenol		390	U	410	U	360	U
SW8270	3,3`-Dichlorobenzidine		390	U	410	U	360	U
SW8270	3-Nitroaniline		390	U	410	U	360	U
SW8270	4,6-Dinitro-2-methylphenol		390	UJ	410	UJ	360	UJ
SW8270	4-Bromophenyl phenyl ether		390	U	410	U	360	U
SW8270	4-Chloro-3-methylphenol		390	U	410	U	360	U
SW8270	4-Chloroaniline		390	UJ	410	U	360	U
SW8270	4-Chlorophenyl phenyl ether		390	U	410	U	360	U
SW8270	4-Nitroaniline		390	U	410	U	360	U
SW8270	4-Nitrophenol		390	U	410	U	360	U
SW8270	Acenaphthene		390	U	410	U	360	U
SW8270	Acenaphthylene		390	U	410	U	360	U
SW8270	Acetophenone		390	U	410	U	360	U
SW8270	Anthracene		390	U	410	U	360	U
SW8270	Atrazine		390	U	410	U	360	U
SW8270	Benzaldehyde		390	UJ	410	UJ	360	UJ
SW8270	Benzo(a)anthracene		390	U	210	J	360	U
SW8270	Benzo(a)pyrene		390	U	220	J	360	U
SW8270	Benzo(b)fluoranthene		390	U	290	J	360	U
SW8270	Benzo(ghi)perylene		390	U	160	J	360	U
SW8270	Benzo(k)fluoranthene		390	U	130	J	360	U
SW8270	Biphenyl		390	U	410	U	360	U
SW8270	Bis(2-Chloroethoxy)methane		390	U	410	U	360	U
SW8270	Bis(2-Chloroethyl)ether		390	U	410	U	360	U
SW8270	Bis(2-Chloroisopropyl)ether		390	U	410	U	360	U
SW8270	Bis(2-Ethylhexyl)phthalate		340	J	410	U	360	U
SW8270	Butylbenzylphthalate		390	U	410	U	360	U
SW8270	Caprolactum		390	U	410	U	360	U
SW8270	Carbazole		390	U	410	U	360	U
SW8270	Chrysene		390	U	240	J	360	U
SW8270	Di-n-butylphthalate		390	U	410	U	360	U
SW8270	Di-n-octylphthalate		390	U	410	U	360	U
SW8270	Dibenz(a,h)anthracene		390	U	410	U	360	U
SW8270	Dibenzofuran		390	U	410	U	360	U
SW8270	Diethylphthalate		390	U	410	U	360	U
SW8270	Dimethylphthalate		460	U	410	U	400	U
SW8270	Fluoranthene		56	J	480		360	U

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643		B2643	
	Location	PDI-011		BKSS-001		BKSS-002	
	Sample Date	6/9/2010 13:10		6/9/2010 15:55		6/9/2010 16:25	
	Sample ID	LCPDI01100110XX		LCBKSS00100110XX		LCBKSS00200110XX	
	Qc Code	FS		FS		FS	
	Units	ug/kg		ug/kg		ug/kg	
Analysis	**Param Name**	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8270	Fluorene	390	U	410	U	360	U
SW8270	Hexachlorobenzene	390	U	410	U	360	U
SW8270	Hexachlorobutadiene	390	U	410	U	360	U
SW8270	Hexachlorocyclopentadiene	390	U	410	U	360	U
SW8270	Hexachloroethane	390	U	410	U	360	U
SW8270	Indeno(1,2,3-cd)pyrene	390	U	140	J	360	U
SW8270	Isophorone	390	U	410	U	360	U
SW8270	m+p-Methylphenol	390	U	410	U	360	U
SW8270	N-Nitrosodi-n-propylamine	390	U	410	U	360	U
SW8270	N-Nitrosodiphenylamine	390	U	410	U	360	U
SW8270	Naphthalene	390	U	410	U	360	U
SW8270	Nitrobenzene	390	U	410	U	360	U
SW8270	Pentachlorophenol	390	UJ	410	UJ	360	UJ
SW8270	Phenanthrene	390	U	160	J	360	U
SW8270	Phenol	390	U	410	U	360	U
SW8270	Pyrene	390	U	350	J	360	U

Notes:
µg/Kg = micorgrams per kilogram
mg/Kg = milligrams per kilogram
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2643		B2643	
		Location	BKSS-003		BKSS-003	
		Sample Date	6/9/2010 16:35		6/9/2010 16:35	
		Sample ID	LCBKSS00300110XX		LCBKSS00300110XD	
		Qc Code	FS		FD	
		Units	ug/kg		ug/kg	
Analysis	Param Name		Result	Qualifier	Result	Qualifier
SW8270	2,4,5-Trichlorophenol		410	U	410	U
SW8270	2,4,6-Trichlorophenol		410	U	410	U
SW8270	2,4-Dichlorophenol		410	U	410	U
SW8270	2,4-Dimethylphenol		410	U	410	U
SW8270	2,4-Dinitrophenol		410	UJ	410	UJ
SW8270	2,4-Dinitrotoluene		410	U	410	U
SW8270	2,6-Dinitrotoluene		410	U	410	U
SW8270	2-Chloronaphthalene		410	U	410	U
SW8270	2-Chlorophenol		410	U	410	U
SW8270	2-Methylnaphthalene		410	U	410	U
SW8270	2-Methylphenol		410	U	410	U
SW8270	2-Nitroaniline		410	U	410	U
SW8270	2-Nitrophenol		410	U	410	U
SW8270	3,3`-Dichlorobenzidine		410	U	410	U
SW8270	3-Nitroaniline		410	U	410	U
SW8270	4,6-Dinitro-2-methylphenol		410	UJ	410	UJ
SW8270	4-Bromophenyl phenyl ether		410	U	410	U
SW8270	4-Chloro-3-methylphenol		410	U	410	U
SW8270	4-Chloroaniline		410	U	410	U
SW8270	4-Chlorophenyl phenyl ether		410	U	410	U
SW8270	4-Nitroaniline		410	U	410	U
SW8270	4-Nitrophenol		410	U	410	U
SW8270	Acenaphthene		410	U	410	U
SW8270	Acenaphthylene		410	U	410	U
SW8270	Acetophenone		410	U	410	U
SW8270	Anthracene		410	U	410	U
SW8270	Atrazine		410	U	410	U
SW8270	Benzaldehyde		410	UJ	410	UJ
SW8270	Benzo(a)anthracene		110	J	100	J
SW8270	Benzo(a)pyrene		100	J	110	J
SW8270	Benzo(b)fluoranthene		150	J	160	J
SW8270	Benzo(ghi)perylene		78	J	83	J
SW8270	Benzo(k)fluoranthene		410	U	54	J
SW8270	Biphenyl		410	U	410	U
SW8270	Bis(2-Chloroethoxy)methane		410	U	410	U
SW8270	Bis(2-Chloroethyl)ether		410	U	410	U
SW8270	Bis(2-Chloroisopropyl)ether		410	U	410	U
SW8270	Bis(2-Ethylhexyl)phthalate		410	U	410	U
SW8270	Butylbenzylphthalate		410	U	410	U
SW8270	Caprolactum		410	U	410	U
SW8270	Carbazole		410	U	410	U
SW8270	Chrysene		130	J	130	J
SW8270	Di-n-butylphthalate		410	U	410	U
SW8270	Di-n-octylphthalate		410	U	410	U
SW8270	Dibenz(a,h)anthracene		410	U	410	U
SW8270	Dibenzofuran		410	U	410	U
SW8270	Diethylphthalate		410	U	410	U
SW8270	Dimethylphthalate		440	U	450	U
SW8270	Fluoranthene		260	J	240	J

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

	Sample Delivery Group	B2643		B2643	
	Location	BKSS-003		BKSS-003	
	Sample Date	6/9/2010 16:35		6/9/2010 16:35	
	Sample ID	LCBKSS00300110XX		LCBKSS00300110XD	
	Qc Code	FS		FD	
	Units	ug/kg		ug/kg	
Analysis	Param Name	Result	Qualifier	Result	Qualifier
SW8270	Fluorene	410	U	410	U
SW8270	Hexachlorobenzene	410	U	410	U
SW8270	Hexachlorobutadiene	410	U	410	U
SW8270	Hexachlorocyclopentadiene	410	U	410	U
SW8270	Hexachloroethane	410	U	410	U
SW8270	Indeno(1,2,3-cd)pyrene	68	J	72	J
SW8270	Isophorone	410	U	410	U
SW8270	m+p-Methylphenol	410	U	410	U
SW8270	N-Nitrosodi-n-propylamine	410	U	410	U
SW8270	N-Nitrosodiphenylamine	410	U	410	U
SW8270	Naphthalene	410	U	410	U
SW8270	Nitrobenzene	410	U	410	U
SW8270	Pentachlorophenol	410	UJ	410	UJ
SW8270	Phenanthrene	140	J	110	J
SW8270	Phenol	410	U	410	U
SW8270	Pyrene	200	J	190	J

Notes:
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Qualifiers
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QC Code
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FD = Field Duplicate
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TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618	
		Location	SS-001		PDI-006	
		Sample Date	6/8/2010 10:30		6/8/2010 12:45	
		Sample ID	LCSS00100110XX		LCPDI00600110XX	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW8081	4,4`-DDD	ug/Kg	16		1.9	U
SW8081	4,4`-DDE	ug/Kg	10		1.9	U
SW8081	4,4`-DDT	ug/Kg	36		17	
SW8081	Aldrin	ug/Kg	3.9	U	1.9	U
SW8081	Alpha-BHC	ug/Kg	3.9	U	1.9	U
SW8081	Alpha-Chlordane	ug/Kg	3.9	U	1.9	U
SW8081	Beta-BHC	ug/Kg	3.9	U	1.9	U
SW8081	Delta-BHC	ug/Kg	3.9	U	1.9	U
SW8081	Dieldrin	ug/Kg	3.9	U	1.9	U
SW8081	Endosulfan I	ug/Kg	3.9	U	1.9	U
SW8081	Endosulfan II	ug/Kg	3.9	U	1.9	U
SW8081	Endosulfan sulfate	ug/Kg	3.9	U	1.9	U
SW8081	Endrin	ug/Kg	3.9	U	1.9	U
SW8081	Endrin aldehyde	ug/Kg	3.9	U	1.9	U
SW8081	Endrin ketone	ug/Kg	3.9	U	1.9	U
SW8081	Gamma-BHC/Lindane	ug/Kg	3.9	U	1.9	U
SW8081	Gamma-Chlordane	ug/Kg	3.9	U	1.9	U
SW8081	Heptachlor	ug/Kg	3.9	U	1.9	U
SW8081	Heptachlor epoxide	ug/Kg	3.9	U	1.9	U
SW8081	Methoxychlor	ug/Kg	38	J	1.9	U
SW8081	Toxaphene	ug/Kg	39	U	19	U
SW8082	Aroclor-1016	ug/Kg	20	U	19	U
SW8082	Aroclor-1221	ug/Kg	20	U	19	U
SW8082	Aroclor-1232	ug/Kg	20	U	19	U
SW8082	Aroclor-1242	ug/Kg	20	U	19	U
SW8082	Aroclor-1248	ug/Kg	20	U	19	U
SW8082	Aroclor-1254	ug/Kg	20	U	19	U
SW8082	Aroclor-1260	ug/Kg	20	U	19	U

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Qualifiers
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QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

Sample Delivery Group		B2643		B2643		B2643		B2643		B2643	
Location		PDI-011		BKSS-001		BKSS-002		BKSS-003		BKSS-003	
Sample Date		6/9/2010 13:10		6/9/2010 15:55		6/9/2010 16:25		6/9/2010 16:35		6/9/2010 16:35	
Sample ID		LCPDI01100110XX		LCBKSS00100110XX		LCBKSS00200110XX		LCBKSS00300110XX		LCBKSS00300110XD	
Qc Code		FS		FS		FS		FS		FD	
Units		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Analysis	**Param Name**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8081	4,4`-DDD	1.3	J	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	4,4`-DDE	4.7		2.1	U	1.9	U	3	JP	2.7	JP
SW8081	4,4`-DDT	5.7		2.1	U	1.9	U	3.1		2.9	
SW8081	Aldrin	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Alpha-BHC	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Alpha-Chlordane	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Beta-BHC	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Delta-BHC	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Dieldrin	3.2	JP	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Endosulfan I	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Endosulfan II	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Endosulfan sulfate	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Endrin	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Endrin aldehyde	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Endrin ketone	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Gamma-BHC/Lindane	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Gamma-Chlordane	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Heptachlor	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Heptachlor epoxide	2	U	2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Methoxychlor	12		2.1	U	1.9	U	2.1	U	2.1	U
SW8081	Toxaphene	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1016	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1221	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1232	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1242	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1248	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1254	20	U	21	U	19	U	21	U	21	U
SW8082	Aroclor-1260	20	U	21	U	19	U	21	U	21	U

Notes:
µg/Kg = micorgrams per kilogram
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Qualifiers
U = not detected at the reporting limit
J = estimated concentration

QC Code
FS = Field Sample
FD = Field Duplicate
TB = Trip Blank

Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

		Sample Delivery Group	B2618		B2618	
		Location	SS-001		PDI-006	
		Sample Date	6/8/2010 10:30		6/8/2010 12:45	
		Sample ID	LCSS00100110XX		LCPDI00600110XX	
		Qc Code	FS		FS	
Analysis	Param Name	Units	Result	Qualifier	Result	Qualifier
SW6010	Aluminum	mg/Kg	8240		5420	
SW6010	Antimony	mg/Kg	2.89	U	2.76	U
SW6010	Arsenic	mg/Kg	6		4.22	
SW6010	Barium	mg/Kg	97.3		49.1	
SW6010	Beryllium	mg/Kg	0.41		0.26	J
SW6010	Cadmium	mg/Kg	1.16		0.61	
SW6010	Calcium	mg/Kg	2570		1050	
SW6010	Chromium	mg/Kg	10.7		7.63	
SW6010	Cobalt	mg/Kg	7.13		4.68	
SW6010	Copper	mg/Kg	25.2		11.8	
SW6010	Iron	mg/Kg	17400		12000	
SW6010	Lead	mg/Kg	38.8		28.8	
SW6010	Magnesium	mg/Kg	2380		1450	
SW6010	Manganese	mg/Kg	413		405	
SW6010	Nickel	mg/Kg	16.3		9.78	
SW6010	Potassium	mg/Kg	671		407	
SW6010	Selenium	mg/Kg	2.45		1.88	
SW6010	Silver	mg/Kg	0.58	U	0.55	U
SW6010	Sodium	mg/Kg	119		225	
SW6010	Thallium	mg/Kg	2.31	U	2.21	U
SW6010	Vanadium	mg/Kg	13.9		10.4	
SW6010	Zinc	mg/Kg	105		59.2	
SW7471	Mercury	mg/Kg	0.081	J	0.106	J

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Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

TABLE 2 - RESULTS SUMMARY
DATA USABILITY SUMMARY REPORT
JUNE 2010 SOIL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

Sample Delivery Group		B2643		B2643		B2643		B2643		B2643	
Location		PDI-011		BKSS-001		BKSS-002		BKSS-003		BKSS-003	
Sample Date		6/9/2010 13:10		6/9/2010 15:55		6/9/2010 16:25		6/9/2010 16:35		6/9/2010 16:35	
Sample ID		LCPDI01100110XX		LCBKSS00100110XX		LCBKSS00200110XX		LCBKSS00300110XX		LCBKSS00300110XD	
Qc Code		FS		FS		FS		FS		FD	
Units		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Analysis	**Param Name**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW6010	Aluminum	6180	J	7050	J	5430	J	5470	J	6400	J
SW6010	Antimony	0.58	J	0.7	J	2.58	U	1.08	J	1.37	J
SW6010	Arsenic	4.34		5.67		3.94		7.69		9.37	
SW6010	Barium	66.6	J	83.2	J	36.7	J	93.6	J	106	J
SW6010	Beryllium	0.3		0.42		0.26	J	0.36	J	0.46	
SW6010	Cadmium	0.79		1.09		0.66		0.96		1.37	
SW6010	Calcium	6320	J	3400	J	13000	J	2060	J	12600	J
SW6010	Chromium	8.64		12.6		7.69		8.8		9.65	
SW6010	Cobalt	5.79		8.35		5.57		6.87		7.74	
SW6010	Copper	21		15.6		18.1		32.8		37.5	
SW6010	Iron	13900	J	16600	J	13500	J	13100	J	15700	J
SW6010	Lead	44.1		47.9		12.1		144		190	
SW6010	Magnesium	1790	J	2480	J	4840	J	1540	J	2290	J
SW6010	Manganese	343	J	488	J	317	J	415	J	467	J
SW6010	Nickel	12.8		17.8		13		12.3		14.9	
SW6010	Potassium	400	J	767	J	382	J	507	J	584	J
SW6010	Selenium	1.92	J	2.28	J	1.68	J	2.32	J	2.73	J
SW6010	Silver	0.4	U	0.42	U	0.52	U	0.63	U	0.5	U
SW6010	Sodium	120	J	605	J	96.8	J	188	J	211	J
SW6010	Thallium	1.6	U	1.7	U	2.06	U	2.51	U	2	U
SW6010	Vanadium	9.88		11.2		9.13		9.9		11.3	
SW6010	Zinc	76.4	J	77.1	J	58.1	J	113	J	137	J
SW7471	Mercury	0.134	J	0.088	J	0.017	J	0.193	J	0.164	J

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Created by: BJS
Date: 8/05/10
Reviewed by: WDC
Date: 8/13/10

Table 3 - Tentatively Identified Compounds
DATA USABILITY SUMMARY REPORT
JUNE 2010 S0IL SAMPLING
LOOHNS CORNING SITE
CORNING, NEW YORK

Sample ID	CAS #	Chemical Name	Result	Qual	Units
LCSS00100110XX	72-56-0	Benzene, 1,1-(2,2-dichloroethylid	1200	JN	ug/Kg
LCSS00100110XX	4294-95-5	4-Methoxyanthranilic acid	560	JN	ug/Kg
LCSS00100110XX	57-11-4	Octadecanoic acid	130	JN	ug/Kg
LCSS00100110XX	127-18-4	Tetrachloroethylene	1100	JN	ug/Kg
LCSS00100110XX	74579-34-3	3,4-Bis-(methylthio)-quinoline	6600	JN	ug/Kg
LCSS00100110XX	1140-08-5	2-Methyl-7-phenylindole	650	JN	ug/Kg
LCSS00100110XX	3910-35-8	1H-Indene, 2,3-dihydro-1,1,3-trime	660	JN	ug/Kg
LCSS00100110XX	30020-98-5	1-Methyl-3-phenylindole	170	JN	ug/Kg
LCSS00100110XX	1000147-85-5	(E)-2-Hydroxy-4-cyano-stilbene	6000	JN	ug/Kg
LCSS00100110XX	98-83-9	.alpha.-Methylstyrene	890	JN	ug/Kg
LCSS00100110XX	1000111-58-0	2,4-Diphenyl-4-methyl-1-pentene	210	JN	ug/Kg
LCPDI01201910XX	unknown1.95	unknown1.95	7.1	JN	ug/Kg
LCPDI01201910XX	000109-66-0	Pentane	5.1	JN	ug/Kg
LCPDI00600110XX	74579-34-3	3,4-Bis-(methylthio)-quinoline	740	JN	ug/Kg
LCPDI00600110XX	1000297-24-5	3-[(2-Methyl-5-nitro-phenylimino)-	110	JN	ug/Kg
LCPDI00600110XX	630-02-4	Octacosane	92	JN	ug/Kg
LCPDI00600110XX	127-18-4	Tetrachloroethylene	1000	JN	ug/Kg
LCPDI00600110XX	3910-35-8	1H-Indene, 2,3-dihydro-1,1,3-trime	280	JN	ug/Kg
TRIPBLANK-1	000110-54-3	Hexane	17	JN	ug/Kg
LCPDI01100110XX	72-56-0	Benzene, 1,1-(2,2-dichloroethylid	160	JN	ug/kg
LCPDI01100110XX	74579-34-3	3,4-Bis-(methylthio)-quinoline	510	JN	ug/kg
LCPDI01100110XX	1000297-24-5	3-[(2-Methyl-5-nitro-phenylimino)-	150	JN	ug/kg
LCPDI01100110XX	84-61-7	1,2-Benzenedicarboxylic acid, dicy	130	JN	ug/kg
LCPDI01100110XX	3910-35-8	1H-Indene, 2,3-dihydro-1,1,3-trime	130	JN	ug/kg
LCPDI01100110XX	98-83-9	.alpha.-Methylstyrene	230	JN	ug/kg
LCPDI01100110XX	127-18-4	Tetrachloroethylene	240	JN	ug/kg
LCPDI01100110XX	UNKNOWN17.8	unknown17.8	130	JN	ug/kg
LCPDI01100110XX	UNKNOWN19.75	unknown19.75	1200	JN	ug/kg
LCPDI01100110XX	UNKNOWN19.79	unknown19.79	130	JN	ug/kg
LCPDI01100110XX	UNKNOWN30.2	unknown30.2	740	JN	ug/kg
LCBKSS00100110XX	192-97-2	Benzo[e]pyrene	180	JN	ug/kg
LCBKSS00100110XX	646-31-1	Tetracosane	210	JN	ug/kg
LCBKSS00100110XX	UNKNOWN17.64	unknown17.64	90	JN	ug/kg
LCBKSS00200110XX	UNKNOWN17.63	unknown17.63	99	JN	ug/kg
LCBKSS00300110XX	UNKNOWN17.64	unknown17.64	99	JN	ug/kg
LCBKSS00300110XX	7390-81-0	Oxirane, hexadecyl-	210	JN	ug/kg
LCBKSS00300110XD	UNKNOWN17.64	unknown17.64	100	JN	ug/kg
LCBKSS00300110XD	57-10-3	n-Hexadecanoic acid	100	JN	ug/kg
LCBKSS00300110XD	638-66-4	Octadecanal	490	JN	ug/kg
TRIPBLANK	UNKNOWN1.22	unknown1.22	5.1	JN	ug/l
TRIPBLANK-1	141-78-6	Ethyl Acetate	24	JN	ug/Kg
TRIPBLANK-1	60-29-7	Diethyl Ether	5.5	JN	ug/Kg
LCGW01502010XX	95-63-6	1,2,4-Trimethylbenzene	1.4	JN	ug/l
LCGW01302010XX	95-63-6	1,2,4-Trimethylbenzene	0.72	JN	ug/l

Prepared by: BJS 8/5/10
Checked by: WDC 8/13/10

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Checked for completeness of parameters requested.
7/23/10

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : LOOHNS DRY CLEANERS- APO 201007181

MACTEC INC.
1105 Lakewood Parkway
Suite 300
Alpharetta , GA - 30009
Phone No: 7703600600

ORDER ID : **B2618**

ATTENTION : **Tige Cunningham**

ACCREDITED IN ACCORDANCE WITH NELAC

LABORATORY ACCREDITATION BUREAU
ACCREDITED ISO/IEC 17025

DoD ELAP

VOCs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Lehn's corp.
Method : SW-846 8260B
Laboratory and SDG(s): Chemtech **SDG# B2618**
Date: 7/20/10
Reviewer: [signature]
Review Level [X] NYSDEC DUSR ☐ USEPA Region II Guideline

1. X **Case Narrative Review and COC/Data Package Completeness** COMMENTS
   Were problems noted? No.
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. X **Holding time and Sample Collection**
   All samples were analyzed within the 14 day holding time. (YES) NO (circle one)

3. X **QC Blanks**
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Trip blanks free of contamination? YES (NO) (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

Acetone (13 µg/kg) and methylene chloride (8.5 µg/kg) were reported in the trip blank. Action levels were established at ten times the reported blank concentrations. Reported detections for acetone and methylene chloride were less than the action level and were qualified non detect (U) if greater than the reporting limit, or if less than the reporting limit, were qualified non detect (U) at the reporting limit.

X **Instrument Tuning**
Were all results were within method criteria. (YES) NO (circle one)

X **Instrument Calibration** Were all results within criteria? YES (NO) (circle one)
Initial Calibration %RSD = 20% **(30% for 1,1-DCE, chloroform, 1,2-DCP, toluene, ethylbenzene, VC)**
Initial Avg RRF and Continuing RRF should be ≥0.05 and 0.10 for Chloromethane, 1,1-Dichloroethane, Bromoform and 0.30 for Chlorobenzene and 1,1,2,2-Tetrachloroethane

For a subset of samples, the percent relative standard deviation (RSD) for dichlorodifluoromethane (25) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane were non detect and the reporting limits were qualified estimated (UJ).

For a subset of samples, the RSD for dichlorodifluoromethane (24) and acetone (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were non detect and the reporting limits were qualified estimated (UJ).

Continuing Calibration %D = 20%

For a subset of samples, the percent difference for chloroethane (24) exceeded the QC limit of 20. Associated sample results for chloroethane were non detect and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for dichlorodifluoromethane (50), chloromethane (27), vinyl chloride (28), chloroethane (31), trichlorofluoromethane (23), carbon disulfide (21), and 1,1,2-trichloro-1,2,2-trifluoroethane (24) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane were non detect and were qualified previously under the initial calibration criteria. Associated sample results for chloromethane, vinyl chloride, chloroethane, trichlorofluoromethane, carbon disulfide, and 1,1,2-trichloro-1,2,2-trifluoroethane were non detect and the reporting limits were qualified estimated (UJ).

X **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

Were all results were within Region II limits? (YES) NO (circle one)

X **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)

Were MS/MSDs submitted/analyzed? YES (NO)

Were all results were within the Region II limits? YES NO (NA) (circle one)

X **Duplicates/replicates** - Region II Limits (water RPD 50, soil RPD 100)

Were Field Duplicates submitted/analyzed? (YES) NO

Were all results were within Region II Limits? (YES) NO NA (circle one)

X **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

Were all results were within Region II control limits? YES (NO) (circle one)

For a subset of samples, the LCS percent recovery of chloroethane (145) exceeded the QC limit of 130. Sample results for chloroethane were non detect, no further action required.

4. X **Raw Data Review and Calculation Checks**

5. X **Electronic Data Review and Edits**
   Does the EDD match the Form I's? (YES) NO (circle one)

6. X **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? (YES) NO (circle one)

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100500510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-01

Sample wt/vol: 5.83 (g/mL) g Lab File ID: VK039511.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 8 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.7	U J
74-87-3	Chloromethane	4.7	U
75-01-4	Vinyl Chloride	4.7	U
74-83-9	Bromomethane	4.7	U
75-00-3	Chloroethane	4.7	U J
75-69-4	Trichlorofluoromethane	4.7	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.7	U
75-35-4	1,1-Dichloroethene	4.7	U
67-64-1	Acetone	23	U
75-15-0	Carbon Disulfide	4.7	U
1634-04-4	Methyl tert-butyl Ether	4.7	U
79-20-9	Methyl Acetate	4.7	U
75-09-2	Methylene Chloride	~~3.5~~ 4.7 U	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.7	U
75-34-3	1,1-Dichloroethane	4.7	U
110-82-7	Cyclohexane	4.7	U
78-93-3	2-Butanone	23	U
56-23-5	Carbon Tetrachloride	4.7	U
156-59-2	cis-1,2-Dichloroethene	4.7	U
67-66-3	Chloroform	4.7	U
71-55-6	1,1,1-Trichloroethane	4.7	U
108-87-2	Methylcyclohexane	4.7	U
71-43-2	Benzene	4.7	U
107-06-2	1,2-Dichloroethane	4.7	U
79-01-6	Trichloroethene	4.7	U
78-87-5	1,2-Dichloropropane	4.7	U
75-27-4	Bromodichloromethane	4.7	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100500510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-01

Sample wt/vol: 5.83 (g/mL) g Lab File ID: VK039511.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 8 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
108-10-1	4-Methyl-2-Pentanone	23	U
108-88-3	Toluene	4.7	U
10061-02-6	t-1,3-Dichloropropene	4.7	U
10061-01-5	cis-1,3-Dichloropropene	4.7	U
79-00-5	1,1,2-Trichloroethane	4.7	U
591-78-6	2-Hexanone	23	U
124-48-1	Dibromochloromethane	4.7	U
106-93-4	1,2-Dibromoethane	4.7	U
127-18-4	Tetrachloroethene	7	
108-90-7	Chlorobenzene	4.7	U
100-41-4	Ethyl Benzene	4.7	U
179601-23-1	m/p-Xylenes	9.3	U
95-47-6	o-Xylene	4.7	U
100-42-5	Styrene	4.7	U
75-25-2	Bromoform	4.7	U
98-82-8	Isopropylbenzene	4.7	U
79-34-5	1,1,2,2-Tetrachloroethane	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100500510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-01

Sample wt/vol: 5.83 (g/mL) g Lab File ID: VK039511.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 8 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	1.48	1.9	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100101110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-02

Sample wt/vol: 6.4 (g/mL) g Lab File ID: VK039512.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.1	U J
74-87-3	Chloromethane	4.1	U
75-01-4	Vinyl Chloride	4.1	U
74-83-9	Bromomethane	4.1	U
75-00-3	Chloroethane	4.1	U J
75-69-4	Trichlorofluoromethane	4.1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.1	U
75-35-4	1,1-Dichloroethene	4.1	U
67-64-1	Acetone	~~6.9~~ 21 U	~~J~~
75-15-0	Carbon Disulfide	4.1	U
1634-04-4	Methyl tert-butyl Ether	4.1	U
79-20-9	Methyl Acetate	4.1	U
75-09-2	Methylene Chloride	~~3.7~~ 4.1 U	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.1	U
75-34-3	1,1-Dichloroethane	4.1	U
110-82-7	Cyclohexane	4.1	U
78-93-3	2-Butanone	21	U
56-23-5	Carbon Tetrachloride	4.1	U
156-59-2	cis-1,2-Dichloroethene	4.1	U
67-66-3	Chloroform	4.1	U
71-55-6	1,1,1-Trichloroethane	4.1	U
108-87-2	Methylcyclohexane	4.1	U
71-43-2	Benzene	4.1	U
107-06-2	1,2-Dichloroethane	4.1	U
79-01-6	Trichloroethene	4.1	U
78-87-5	1,2-Dichloropropane	4.1	U
75-27-4	Bromodichloromethane	4.1	U
108-10-1	4-Methyl-2-Pentanone	21	U
108-88-3	Toluene	1.2	J

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100101110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-02

Sample wt/vol: 6.4 (g/mL) g Lab File ID: VK039512.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.1	U
10061-01-5	cis-1,3-Dichloropropene	4.1	U
79-00-5	1,1,2-Trichloroethane	4.1	U
591-78-6	2-Hexanone	21	U
124-48-1	Dibromochloromethane	4.1	U
106-93-4	1,2-Dibromoethane	4.1	U
127-18-4	Tetrachloroethene	7.3	
108-90-7	Chlorobenzene	4.1	U
100-41-4	Ethyl Benzene	4.1	U
179601-23-1	m/p-Xylenes	8.2	U
95-47-6	o-Xylene	4.1	U
100-42-5	Styrene	4.1	U
75-25-2	Bromoform	4.1	U
98-82-8	Isopropylbenzene	4.1	U
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U
541-73-1	1,3-Dichlorobenzene	4.1	U
106-46-7	1,4-Dichlorobenzene	4.1	U
95-50-1	1,2-Dichlorobenzene	4.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.1	U
120-82-1	1,2,4-Trichlorobenzene	4.1	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100101110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-02

Sample wt/vol: 6.4 (g/mL) g Lab File ID: VK039512.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	1.48	1.7	J

7/14/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100101110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-03

Sample wt/vol: 5.71 (g/mL) g Lab File ID: VK039513.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 8 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	4.8	U J
74-87-3	Chloromethane	4.8	U
75-01-4	Vinyl Chloride	4.8	U
74-83-9	Bromomethane	4.8	U
75-00-3	Chloroethane	4.8	U J
75-69-4	Trichlorofluoromethane	4.8	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.8	U
75-35-4	1,1-Dichloroethene	4.8	U
67-64-1	Acetone	~~19~~ 24 u	~~J~~
75-15-0	Carbon Disulfide	4.8	U
1634-04-4	Methyl tert-butyl Ether	4.8	U
79-20-9	Methyl Acetate	4.8	U
75-09-2	Methylene Chloride	~~3~~ 4.8 u	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.8	U
75-34-3	1,1-Dichloroethane	4.8	U
110-82-7	Cyclohexane	4.8	U
78-93-3	2-Butanone	24	U
56-23-5	Carbon Tetrachloride	4.8	U
156-59-2	cis-1,2-Dichloroethene	4.8	U
67-66-3	Chloroform	4.8	U
71-55-6	1,1,1-Trichloroethane	4.8	U
108-87-2	Methylcyclohexane	4.8	U
71-43-2	Benzene	4.8	U
107-06-2	1,2-Dichloroethane	4.8	U
79-01-6	Trichloroethene	4.8	U
78-87-5	1,2-Dichloropropane	4.8	U
75-27-4	Bromodichloromethane	4.8	U
108-10-1	4-Methyl-2-Pentanone	24	U
108-88-3	Toluene	4.8	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100101110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-03

Sample wt/vol: 5.71 (g/mL) g Lab File ID: VK039513.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 8 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.8	U
10061-01-5	cis-1,3-Dichloropropene	4.8	U
79-00-5	1,1,2-Trichloroethane	4.8	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	4.8	U
106-93-4	1,2-Dibromoethane	4.8	U
127-18-4	Tetrachloroethene	6.2	
108-90-7	Chlorobenzene	4.8	U
100-41-4	Ethyl Benzene	4.8	U
179601-23-1	m/p-Xylenes	9.5	U
95-47-6	o-Xylene	4.8	U
100-42-5	Styrene	4.8	U
75-25-2	Bromoform	4.8	U
98-82-8	Isopropylbenzene	4.8	U
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.8	U
120-82-1	1,2,4-Trichlorobenzene	4.8	U

7/14/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100101110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-03

Sample wt/vol: 5.71 (g/mL) g Lab File ID: VK039513.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 8 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.47	2.1	J

FORM I SV-TIC

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-05

Sample wt/vol: 6.17 (g/mL) g Lab File ID: VK039514.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 14 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.7	U J
74-87-3	Chloromethane	4.7	U
75-01-4	Vinyl Chloride	4.7	U
74-83-9	Bromomethane	4.7	U
75-00-3	Chloroethane	4.7	U J
75-69-4	Trichlorofluoromethane	4.7	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.7	U
75-35-4	1,1-Dichloroethene	4.7	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	4.7	U
1634-04-4	Methyl tert-butyl Ether	4.7	U
79-20-9	Methyl Acetate	4.7	U
75-09-2	Methylene Chloride	~~2.9~~ 4.7 u	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.7	U
75-34-3	1,1-Dichloroethane	4.7	U
110-82-7	Cyclohexane	4.7	U
78-93-3	2-Butanone	24	U
56-23-5	Carbon Tetrachloride	4.7	U
156-59-2	cis-1,2-Dichloroethene	4.7	U
67-66-3	Chloroform	4.7	U
71-55-6	1,1,1-Trichloroethane	4.7	U
108-87-2	Methylcyclohexane	4.7	U
71-43-2	Benzene	4.7	U
107-06-2	1,2-Dichloroethane	4.7	U
79-01-6	Trichloroethene	4.7	U
78-87-5	1,2-Dichloropropane	4.7	U
75-27-4	Bromodichloromethane	4.7	U
108-10-1	4-Methyl-2-Pentanone	24	U
108-88-3	Toluene	4.7	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-05

Sample wt/vol: 6.17 (g/mL) g Lab File ID: VK039514.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 14 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.7	U
10061-01-5	cis-1,3-Dichloropropene	4.7	U
79-00-5	1,1,2-Trichloroethane	4.7	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	4.7	U
106-93-4	1,2-Dibromoethane	4.7	U
127-18-4	Tetrachloroethene	26	
108-90-7	Chlorobenzene	4.7	U
100-41-4	Ethyl Benzene	4.7	U
179601-23-1	m/p-Xylenes	9.4	U
95-47-6	o-Xylene	4.7	U
100-42-5	Styrene	4.7	U
75-25-2	Bromoform	4.7	U
98-82-8	Isopropylbenzene	4.7	U
79-34-5	1,1,2,2-Tetrachloroethane	4.7	U
541-73-1	1,3-Dichlorobenzene	4.7	U
106-46-7	1,4-Dichlorobenzene	4.7	U
95-50-1	1,2-Dichlorobenzene	4.7	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.7	U
120-82-1	1,2,4-Trichlorobenzene	4.7	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100601010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-06

Sample wt/vol: 5.41 (g/mL) g Lab File ID: VK039515.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 6 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.9	U J
74-87-3	Chloromethane	4.9	U
75-01-4	Vinyl Chloride	4.9	U
74-83-9	Bromomethane	4.9	U
75-00-3	Chloroethane	4.9	U J
75-69-4	Trichlorofluoromethane	4.9	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.9	U
75-35-4	1,1-Dichloroethene	4.9	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	4.9	U
1634-04-4	Methyl tert-butyl Ether	4.9	U
79-20-9	Methyl Acetate	4.9	U
75-09-2	Methylene Chloride	~~4.4~~ 4.9 U	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.9	U
75-34-3	1,1-Dichloroethane	4.9	U
110-82-7	Cyclohexane	4.9	U
78-93-3	2-Butanone	25	U
56-23-5	Carbon Tetrachloride	4.9	U
156-59-2	cis-1,2-Dichloroethene	4.9	U
67-66-3	Chloroform	4.9	U
71-55-6	1,1,1-Trichloroethane	4.9	U
108-87-2	Methylcyclohexane	4.9	U
71-43-2	Benzene	4.9	U
107-06-2	1,2-Dichloroethane	4.9	U
79-01-6	Trichloroethene	4.9	U
78-87-5	1,2-Dichloropropane	4.9	U
75-27-4	Bromodichloromethane	4.9	U
108-10-1	4-Methyl-2-Pentanone	25	U
108-88-3	Toluene	4.9	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100601010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-06

Sample wt/vol: 5.41 (g/mL) g Lab File ID: VK039515.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 6 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.9	U
10061-01-5	cis-1,3-Dichloropropene	4.9	U
79-00-5	1,1,2-Trichloroethane	4.9	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	4.9	U
106-93-4	1,2-Dibromoethane	4.9	U
127-18-4	Tetrachloroethene	24	
108-90-7	Chlorobenzene	4.9	U
100-41-4	Ethyl Benzene	4.9	U
179601-23-1	m/p-Xylenes	9.8	U
95-47-6	o-Xylene	4.9	U
100-42-5	Styrene	4.9	U
75-25-2	Bromoform	4.9	U
98-82-8	Isopropylbenzene	4.9	U
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U
541-73-1	1,3-Dichlorobenzene	4.9	U
106-46-7	1,4-Dichlorobenzene	4.9	U
95-50-1	1,2-Dichlorobenzene	4.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.9	U
120-82-1	1,2,4-Trichlorobenzene	4.9	U

7/19/10

CHEMTECH

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100601010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-06

Sample wt/vol: 5.41 (g/mL) g Lab File ID: VK039515.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 6 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	Diethyl Ether	~~1.48~~	~~2.7~~	~~J~~

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100200810XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-07

Sample wt/vol: 6.08 (g/mL) g Lab File ID: VK039570.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 22 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.3	U J
74-87-3	Chloromethane	5.3	U J
75-01-4	Vinyl Chloride	5.3	U J
74-83-9	Bromomethane	5.3	U
75-00-3	Chloroethane	5.3	U J
75-69-4	Trichlorofluoromethane	5.3	U J
76-13-1	1,1,2-Trichlorotrifluoroethane	5.3	U J
75-35-4	1,1-Dichloroethene	5.3	U
67-64-1	Acetone	~~5.3~~ 26 U J	~~J~~
75-15-0	Carbon Disulfide	5.3	U J
1634-04-4	Methyl tert-butyl Ether	5.3	U
79-20-9	Methyl Acetate	5.3	U
75-09-2	Methylene Chloride	5.6	U ~~J~~
156-60-5	trans-1,2-Dichloroethene	5.3	U
75-34-3	1,1-Dichloroethane	5.3	U
110-82-7	Cyclohexane	5.3	U
78-93-3	2-Butanone	26	U
56-23-5	Carbon Tetrachloride	5.3	U
156-59-2	cis-1,2-Dichloroethene	5.3	U
67-66-3	Chloroform	5.3	U
71-55-6	1,1,1-Trichloroethane	5.3	U
108-87-2	Methylcyclohexane	5.3	U
71-43-2	Benzene	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
79-01-6	Trichloroethene	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
75-27-4	Bromodichloromethane	5.3	U
108-10-1	4-Methyl-2-Pentanone	26	U
108-88-3	Toluene	5.3	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100200810XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-07

Sample wt/vol: 6.08 (g/mL) g Lab File ID: VK039570.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 22 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	5.3	U
10061-01-5	cis-1,3-Dichloropropene	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
591-78-6	2-Hexanone	26	U
124-48-1	Dibromochloromethane	5.3	U
106-93-4	1,2-Dibromoethane	5.3	U
127-18-4	Tetrachloroethene	39	
108-90-7	Chlorobenzene	5.3	U
100-41-4	Ethyl Benzene	5.3	U
179601-23-1	m/p-Xylenes	11	U
95-47-6	o-Xylene	5.3	U
100-42-5	Styrene	5.3	U
75-25-2	Bromoform	5.3	U
98-82-8	Isopropylbenzene	5.3	U
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U
541-73-1	1,3-Dichlorobenzene	5.3	U
106-46-7	1,4-Dichlorobenzene	5.3	U
95-50-1	1,2-Dichlorobenzene	5.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	5.3	U
120-82-1	1,2,4-Trichlorobenzene	5.3	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100200810XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-07

Sample wt/vol: 6.08 (g/mL) g Lab File ID: VK039570.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 22 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 2 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.47	5.3	J
000110-54-3	Hexane	1.96	5.9	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100700510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-08

Sample wt/vol: 6.14 (g/mL) g Lab File ID: VK039517.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 17 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.9	U J
74-87-3	Chloromethane	4.9	U
75-01-4	Vinyl Chloride	4.9	U
74-83-9	Bromomethane	4.9	U
75-00-3	Chloroethane	4.9	U J
75-69-4	Trichlorofluoromethane	4.9	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.9	U
75-35-4	1,1-Dichloroethene	4.9	U
67-64-1	Acetone	~~15~~ 25 u	~~J~~
75-15-0	Carbon Disulfide	4.9	U
1634-04-4	Methyl tert-butyl Ether	4.9	U
79-20-9	Methyl Acetate	2.8	J
75-09-2	Methylene Chloride	~~4.5~~ 4.9 u	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.9	U
75-34-3	1,1-Dichloroethane	4.9	U
110-82-7	Cyclohexane	4.9	U
78-93-3	2-Butanone	25	U
56-23-5	Carbon Tetrachloride	4.9	U
156-59-2	cis-1,2-Dichloroethene	4.9	U
67-66-3	Chloroform	4.9	U
71-55-6	1,1,1-Trichloroethane	4.9	U
108-87-2	Methylcyclohexane	4.9	U
71-43-2	Benzene	4.9	U
107-06-2	1,2-Dichloroethane	4.9	U
79-01-6	Trichloroethene	4.9	U
78-87-5	1,2-Dichloropropane	4.9	U
75-27-4	Bromodichloromethane	4.9	U
108-10-1	4-Methyl-2-Pentanone	25	U
108-88-3	Toluene	4.9	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100700510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-08

Sample wt/vol: 6.14 (g/mL) g Lab File ID: VK039517.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 17 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.9	U
10061-01-5	cis-1,3-Dichloropropene	4.9	U
79-00-5	1,1,2-Trichloroethane	4.9	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	4.9	U
106-93-4	1,2-Dibromoethane	4.9	U
127-18-4	Tetrachloroethene	15	
108-90-7	Chlorobenzene	4.9	U
100-41-4	Ethyl Benzene	4.9	U
179601-23-1	m/p-Xylenes	9.8	U
95-47-6	o-Xylene	4.9	U
100-42-5	Styrene	4.9	U
75-25-2	Bromoform	4.9	U
98-82-8	Isopropylbenzene	4.9	U
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U
541-73-1	1,3-Dichlorobenzene	4.9	U
106-46-7	1,4-Dichlorobenzene	4.9	U
95-50-1	1,2-Dichlorobenzene	4.9	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.9	U
120-82-1	1,2,4-Trichlorobenzene	4.9	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD100700510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-08

Sample wt/vol: 6.14 (g/mL) g Lab File ID: VK039517.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 17 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	~~1.47~~	3.8	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100701010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-09

Sample wt/vol: 6.01 (g/mL) g Lab File ID: VK039518.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 4 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.3	U J
74-87-3	Chloromethane	4.3	U
75-01-4	Vinyl Chloride	4.3	U
74-83-9	Bromomethane	4.3	U
75-00-3	Chloroethane	4.3	U J
75-69-4	Trichlorofluoromethane	4.3	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.3	U
75-35-4	1,1-Dichloroethene	4.3	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	4.3	U
1634-04-4	Methyl tert-butyl Ether	4.3	U
79-20-9	Methyl Acetate	8.7	
75-09-2	Methylene Chloride	4.4	U
156-60-5	trans-1,2-Dichloroethene	4.3	U
75-34-3	1,1-Dichloroethane	4.3	U
110-82-7	Cyclohexane	4.3	U
78-93-3	2-Butanone	22	U
56-23-5	Carbon Tetrachloride	4.3	U
156-59-2	cis-1,2-Dichloroethene	4.3	U
67-66-3	Chloroform	4.3	U
71-55-6	1,1,1-Trichloroethane	4.3	U
108-87-2	Methylcyclohexane	4.3	U
71-43-2	Benzene	4.3	U
107-06-2	1,2-Dichloroethane	4.3	U
79-01-6	Trichloroethene	4.3	U
78-87-5	1,2-Dichloropropane	4.3	U
75-27-4	Bromodichloromethane	4.3	U
108-10-1	4-Methyl-2-Pentanone	22	U
108-88-3	Toluene	1	J

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100701010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-09

Sample wt/vol: 6.01 (g/mL) g Lab File ID: VK039518.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 4 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.3	U
10061-01-5	cis-1,3-Dichloropropene	4.3	U
79-00-5	1,1,2-Trichloroethane	4.3	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	4.3	U
106-93-4	1,2-Dibromoethane	4.3	U
127-18-4	Tetrachloroethene	17	
108-90-7	Chlorobenzene	4.3	U
100-41-4	Ethyl Benzene	4.3	U
179601-23-1	m/p-Xylenes	8.7	U
95-47-6	o-Xylene	4.3	U
100-42-5	Styrene	4.3	U
75-25-2	Bromoform	4.3	U
98-82-8	Isopropylbenzene	4.3	U
79-34-5	1,1,2,2-Tetrachloroethane	4.3	U
541-73-1	1,3-Dichlorobenzene	4.3	U
106-46-7	1,4-Dichlorobenzene	4.3	U
95-50-1	1,2-Dichlorobenzene	4.3	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.3	U
120-82-1	1,2,4-Trichlorobenzene	4.3	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100701010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-09

Sample wt/vol: 6.01 (g/mL) g Lab File ID: VK039518.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 4 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 2 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.47	6.1	J
141-78-6	Ethyl Acetate	2.82	4.0	J

9/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101200510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-10

Sample wt/vol: 5.68 (g/mL) g Lab File ID: VK039519.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.5	U J
74-87-3	Chloromethane	4.5	U
75-01-4	Vinyl Chloride	4.5	U
74-83-9	Bromomethane	4.5	U
75-00-3	Chloroethane	4.5	U J
75-69-4	Trichlorofluoromethane	4.5	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.5	U
75-35-4	1,1-Dichloroethene	4.5	U
67-64-1	Acetone	~~16~~ 22 U	~~J~~
75-15-0	Carbon Disulfide	4.5	U
1634-04-4	Methyl tert-butyl Ether	4.5	U
79-20-9	Methyl Acetate	1.9	J
75-09-2	Methylene Chloride	~~3.2~~ 4.5 U	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.5	U
75-34-3	1,1-Dichloroethane	4.5	U
110-82-7	Cyclohexane	4.5	U
78-93-3	2-Butanone	22	U
56-23-5	Carbon Tetrachloride	4.5	U
156-59-2	cis-1,2-Dichloroethene	4.5	U
67-66-3	Chloroform	4.5	U
71-55-6	1,1,1-Trichloroethane	4.5	U
108-87-2	Methylcyclohexane	4.5	U
71-43-2	Benzene	4.5	U
107-06-2	1,2-Dichloroethane	4.5	U
79-01-6	Trichloroethene	4.5	U
78-87-5	1,2-Dichloropropane	4.5	U
75-27-4	Bromodichloromethane	4.5	U
108-10-1	4-Methyl-2-Pentanone	22	U
108-88-3	Toluene	4.5	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101200510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-10

Sample wt/vol: 5.68 (g/mL) g Lab File ID: VK039519.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.5	U
10061-01-5	cis-1,3-Dichloropropene	4.5	U
79-00-5	1,1,2-Trichloroethane	4.5	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	4.5	U
106-93-4	1,2-Dibromoethane	4.5	U
127-18-4	Tetrachloroethene	14	
108-90-7	Chlorobenzene	4.5	U
100-41-4	Ethyl Benzene	4.5	U
179601-23-1	m/p-Xylenes	9	U
95-47-6	o-Xylene	4.5	U
100-42-5	Styrene	4.5	U
75-25-2	Bromoform	4.5	U
98-82-8	Isopropylbenzene	4.5	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U
541-73-1	1,3-Dichlorobenzene	4.5	U
106-46-7	1,4-Dichlorobenzene	4.5	U
95-50-1	1,2-Dichlorobenzene	4.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.5	U
120-82-1	1,2,4-Trichlorobenzene	4.5	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD101200510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-10

Sample wt/vol: 5.68 (g/mL) g Lab File ID: VK039519.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.48	1.9	J

FORM I SV-TIC

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101201010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-11

Sample wt/vol: 5.8 (g/mL) g Lab File ID: VK039520.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.4	U J
74-87-3	Chloromethane	4.4	U
75-01-4	Vinyl Chloride	4.4	U
74-83-9	Bromomethane	4.4	U
75-00-3	Chloroethane	4.4	U J
75-69-4	Trichlorofluoromethane	4.4	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.4	U
75-35-4	1,1-Dichloroethene	4.4	U
67-64-1	Acetone	22	U
75-15-0	Carbon Disulfide	4.4	U
1634-04-4	Methyl tert-butyl Ether	4.4	U
79-20-9	Methyl Acetate	4.4	U
75-09-2	Methylene Chloride	5.5	U
156-60-5	trans-1,2-Dichloroethene	4.4	U
75-34-3	1,1-Dichloroethane	4.4	U
110-82-7	Cyclohexane	4.4	U
78-93-3	2-Butanone	22	U
56-23-5	Carbon Tetrachloride	4.4	U
156-59-2	cis-1,2-Dichloroethene	4.4	U
67-66-3	Chloroform	4.4	U
71-55-6	1,1,1-Trichloroethane	4.4	U
108-87-2	Methylcyclohexane	4.4	U
71-43-2	Benzene	4.4	U
107-06-2	1,2-Dichloroethane	4.4	U
79-01-6	Trichloroethene	4.4	U
78-87-5	1,2-Dichloropropane	4.4	U
75-27-4	Bromodichloromethane	4.4	U
108-10-1	4-Methyl-2-Pentanone	22	U
108-88-3	Toluene	4.4	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101201010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-11

Sample wt/vol: 5.8 (g/mL) g Lab File ID: VK039520.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		Q
10061-02-6	t-1,3-Dichloropropene	4.4	U
10061-01-5	cis-1,3-Dichloropropene	4.4	U
79-00-5	1,1,2-Trichloroethane	4.4	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	4.4	U
106-93-4	1,2-Dibromoethane	4.4	U
127-18-4	Tetrachloroethene	27	
108-90-7	Chlorobenzene	4.4	U
100-41-4	Ethyl Benzene	4.4	U
179601-23-1	m/p-Xylenes	8.8	U
95-47-6	o-Xylene	4.4	U
100-42-5	Styrene	4.4	U
75-25-2	Bromoform	4.4	U
98-82-8	Isopropylbenzene	4.4	U
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U
541-73-1	1,3-Dichlorobenzene	4.4	U
106-46-7	1,4-Dichlorobenzene	4.4	U
95-50-1	1,2-Dichlorobenzene	4.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.4	U
120-82-1	1,2,4-Trichlorobenzene	4.4	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD101201010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-11

Sample wt/vol: 5.8 (g/mL) g Lab File ID: VK039520.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 3 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.47	4.0	J
000110-54-3	Hexane	1.96	8.7	J
141-78-6	Ethyl Acetate	2.83	7.5	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101201910XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-12

Sample wt/vol: 6.43 (g/mL) g Lab File ID: VK039521.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.1	U J
74-87-3	Chloromethane	4.1	U
75-01-4	Vinyl Chloride	4.1	U
74-83-9	Bromomethane	4.1	U
75-00-3	Chloroethane	4.1	U J
75-69-4	Trichlorofluoromethane	4.1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.1	U
75-35-4	1,1-Dichloroethene	4.1	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	4.1	U
1634-04-4	Methyl tert-butyl Ether	4.1	U
79-20-9	Methyl Acetate	4.1	U
75-09-2	Methylene Chloride	5.3	U
156-60-5	trans-1,2-Dichloroethene	4.1	U
75-34-3	1,1-Dichloroethane	4.1	U
110-82-7	Cyclohexane	2.5	J
78-93-3	2-Butanone	20	U
56-23-5	Carbon Tetrachloride	4.1	U
156-59-2	cis-1,2-Dichloroethene	4.1	U
67-66-3	Chloroform	4.1	U
71-55-6	1,1,1-Trichloroethane	4.1	U
108-87-2	Methylcyclohexane	2.8	J
71-43-2	Benzene	4.1	U
107-06-2	1,2-Dichloroethane	4.1	U
79-01-6	Trichloroethene	4.1	U
78-87-5	1,2-Dichloropropane	4.1	U
75-27-4	Bromodichloromethane	4.1	U
108-10-1	4-Methyl-2-Pentanone	20	U
108-88-3	Toluene	2.2	J

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101201910XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-12

Sample wt/vol: 6.43 (g/mL) g Lab File ID: VK039521.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.1	U
10061-01-5	cis-1,3-Dichloropropene	4.1	U
79-00-5	1,1,2-Trichloroethane	4.1	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	4.1	U
106-93-4	1,2-Dibromoethane	4.1	U
127-18-4	Tetrachloroethene	3.1	J
108-90-7	Chlorobenzene	4.1	U
100-41-4	Ethyl Benzene	4.1	U
179601-23-1	m/p-Xylenes	1.5	J
95-47-6	o-Xylene	4.1	U
100-42-5	Styrene	4.1	U
75-25-2	Bromoform	4.1	U
98-82-8	Isopropylbenzene	4.1	U
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U
541-73-1	1,3-Dichlorobenzene	4.1	U
106-46-7	1,4-Dichlorobenzene	4.1	U
95-50-1	1,2-Dichlorobenzene	4.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.1	U
120-82-1	1,2,4-Trichlorobenzene	4.1	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD101201910XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-12

Sample wt/vol: 6.43 (g/mL) g Lab File ID: VK039521.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 4 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000109-66-0	Pentane	1.33	5.1	NJ
~~60-29-7~~	~~Diethyl Ether~~	~~1.48~~	~~4.4~~	~~J~~
	unknown1.95	1.95	7.1	NJ
~~141-78-6~~	~~Ethyl Acetate~~	~~2.83~~	~~12~~	~~J~~

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101300510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-13

Sample wt/vol: 6.3 (g/mL) g Lab File ID: VK039571.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 11 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.5	U J
74-87-3	Chloromethane	4.5	U J
75-01-4	Vinyl Chloride	4.5	U J
74-83-9	Bromomethane	4.5	U
75-00-3	Chloroethane	4.5	U J
75-69-4	Trichlorofluoromethane	4.5	U J
76-13-1	1,1,2-Trichlorotrifluoroethane	4.5	U J
75-35-4	1,1-Dichloroethene	4.5	U
67-64-1	Acetone	22	U J
75-15-0	Carbon Disulfide	4.5	U J
1634-04-4	Methyl tert-butyl Ether	4.5	U
79-20-9	Methyl Acetate	4.5	U
75-09-2	Methylene Chloride	~~2.5~~ 4.5 U	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.5	U
75-34-3	1,1-Dichloroethane	4.5	U
110-82-7	Cyclohexane	4.5	U
78-93-3	2-Butanone	22	U
56-23-5	Carbon Tetrachloride	4.5	U
156-59-2	cis-1,2-Dichloroethene	1.6	J
67-66-3	Chloroform	4.5	U
71-55-6	1,1,1-Trichloroethane	4.5	U
108-87-2	Methylcyclohexane	4.5	U
71-43-2	Benzene	4.5	U
107-06-2	1,2-Dichloroethane	4.5	U
79-01-6	Trichloroethene	4.5	U
78-87-5	1,2-Dichloropropane	4.5	U
75-27-4	Bromodichloromethane	4.5	U
108-10-1	4-Methyl-2-Pentanone	22	U
108-88-3	Toluene	0.91	J

4/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101300510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-13

Sample wt/vol: 6.3 (g/mL) g Lab File ID: VK039571.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 11 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.5	U
10061-01-5	cis-1,3-Dichloropropene	4.5	U
79-00-5	1,1,2-Trichloroethane	4.5	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	4.5	U
106-93-4	1,2-Dibromoethane	4.5	U
* ~~127-18-4~~	~~Tetrachloroethene~~	~~180~~	~~E~~ e
108-90-7	Chlorobenzene	4.5	U
100-41-4	Ethyl Benzene	4.5	U
179601-23-1	m/p-Xylenes	8.9	U
95-47-6	o-Xylene	4.5	U
100-42-5	Styrene	4.5	U
75-25-2	Bromoform	4.5	U
98-82-8	Isopropylbenzene	4.5	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U
541-73-1	1,3-Dichlorobenzene	4.5	U
106-46-7	1,4-Dichlorobenzene	4.5	U
95-50-1	1,2-Dichlorobenzene	1.2	J
96-12-8	1,2-Dibromo-3-Chloropropane	4.5	U
120-82-1	1,2,4-Trichlorobenzene	4.5	U

* Combine with dilution analysis

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD101300510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-13

Sample wt/vol: 6.3 (g/mL) g Lab File ID: VK039571.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 11 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume: _____

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~000110-54-3~~	~~Hexane~~	1.96	~~5.1~~	~~J~~

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101300510XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-13DL

Sample wt/vol: 4.24 (g/mL) g Lab File ID: VF022595.D

Level: (low/med) MED Date Received: 06/09/10

% Moisture: not dec. 11 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	660	U
74-87-3	Chloromethane	660	U
75-01-4	Vinyl Chloride	660	U
74-83-9	Bromomethane	660	U
75-00-3	Chloroethane	660	U
75-69-4	Trichlorofluoromethane	660	U
76-13-1	1,1,2-Trichlorotrifluoroethane	660	U
75-35-4	1,1-Dichloroethene	660	U
67-64-1	Acetone	3300	U
75-15-0	Carbon Disulfide	660	U
1634-04-4	Methyl tert-butyl Ether	660	U
79-20-9	Methyl Acetate	660	U
75-09-2	Methylene Chloride	660	U
156-60-5	trans-1,2-Dichloroethene	660	U
75-34-3	1,1-Dichloroethane	660	U
110-82-7	Cyclohexane	660	U
78-93-3	2-Butanone	3300	U
56-23-5	Carbon Tetrachloride	660	U
156-59-2	cis-1,2-Dichloroethene	660	U
67-66-3	Chloroform	660	U
71-55-6	1,1,1-Trichloroethane	660	U
108-87-2	Methylcyclohexane	660	U
71-43-2	Benzene	660	U
107-06-2	1,2-Dichloroethane	660	U
79-01-6	Trichloroethene	660	U
78-87-5	1,2-Dichloropropane	660	U
75-27-4	Bromodichloromethane	660	U
108-10-1	4-Methyl-2-Pentanone	3300	U
108-88-3	Toluene	660	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101300510XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-13DL

Sample wt/vol: 4.24 (g/mL) g Lab File ID: VF022595.D

Level: (low/med) MED Date Received: 06/09/10

% Moisture: not dec. 11 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		Q
10061-02-6	t-1,3-Dichloropropene	660	U
10061-01-5	cis-1,3-Dichloropropene	660	U
79-00-5	1,1,2-Trichloroethane	660	U
591-78-6	2-Hexanone	3300	U
124-48-1	Dibromochloromethane	660	U
106-93-4	1,2-Dibromoethane	660	U
127-18-4	Tetrachloroethene	1200	D
108-90-7	Chlorobenzene	660	U
100-41-4	Ethyl Benzene	660	U
179601-23-1	m/p-Xylenes	1300	U
95-47-6	o-Xylene	660	U
100-42-5	Styrene	660	U
75-25-2	Bromoform	660	U
98-82-8	Isopropylbenzene	660	U
79-34-5	1,1,2,2-Tetrachloroethane	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
95-50-1	1,2-Dichlorobenzene	660	U
96-12-8	1,2-Dibromo-3-Chloropropane	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U

* Combine with original analysis.

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101301010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-14

Sample wt/vol: 5.82 (g/mL) g Lab File ID: VK039523.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

(ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	4.4	U J
74-87-3	Chloromethane	4.4	U
75-01-4	Vinyl Chloride	4.4	U
74-83-9	Bromomethane	4.4	U
75-00-3	Chloroethane	4.4	U J
75-69-4	Trichlorofluoromethane	4.4	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.4	U
75-35-4	1,1-Dichloroethene	4.4	U
67-64-1	Acetone	~~16~~ 22 u	~~J~~
75-15-0	Carbon Disulfide	4.4	U
1634-04-4	Methyl tert-butyl Ether	4.4	U
79-20-9	Methyl Acetate	4.4	U
75-09-2	Methylene Chloride	~~3.5~~ 4.4 u	~~J~~
156-60-5	trans-1,2-Dichloroethene	4.4	U
75-34-3	1,1-Dichloroethane	4.4	U
110-82-7	Cyclohexane	4.4	U
78-93-3	2-Butanone	22	U
56-23-5	Carbon Tetrachloride	4.4	U
156-59-2	cis-1,2-Dichloroethene	4.4	U
67-66-3	Chloroform	4.4	U
71-55-6	1,1,1-Trichloroethane	4.4	U
108-87-2	Methylcyclohexane	4.4	U
71-43-2	Benzene	4.4	U
107-06-2	1,2-Dichloroethane	4.4	U
79-01-6	Trichloroethene	4.4	U
78-87-5	1,2-Dichloropropane	4.4	U
75-27-4	Bromodichloromethane	4.4	U
108-10-1	4-Methyl-2-Pentanone	22	U
108-88-3	Toluene	4.4	U

7/14/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101301010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-14

Sample wt/vol: 5.82 (g/mL) g Lab File ID: VK039523.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.4	U
10061-01-5	cis-1,3-Dichloropropene	4.4	U
79-00-5	1,1,2-Trichloroethane	4.4	U
591-78-6	2-Hexanone	22	U
124-48-1	Dibromochloromethane	4.4	U
106-93-4	1,2-Dibromoethane	4.4	U
127-18-4	Tetrachloroethene	35	
108-90-7	Chlorobenzene	4.4	U
100-41-4	Ethyl Benzene	4.4	U
179601-23-1	m/p-Xylenes	8.8	U
95-47-6	o-Xylene	4.4	U
100-42-5	Styrene	4.4	U
75-25-2	Bromoform	4.4	U
98-82-8	Isopropylbenzene	4.4	U
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U
541-73-1	1,3-Dichlorobenzene	4.4	U
106-46-7	1,4-Dichlorobenzene	4.4	U
95-50-1	1,2-Dichlorobenzene	4.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.4	U
120-82-1	1,2,4-Trichlorobenzene	4.4	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD101301010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-14

Sample wt/vol: 5.82 (g/mL) g Lab File ID: VK039523.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 2 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 3 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.47	2.7	J
000110-54-3	Hexane	1.96	5.5	J
141-78-6	Ethyl Acetate	2.83	9.9	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100800310XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15

Sample wt/vol: 5.5 (g/mL) g Lab File ID: VK039524.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.1	U J
74-87-3	Chloromethane	5.1	U
75-01-4	Vinyl Chloride	5.1	U
74-83-9	Bromomethane	5.1	U
75-00-3	Chloroethane	5.1	U J
75-69-4	Trichlorofluoromethane	5.1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	5.1	U
75-35-4	1,1-Dichloroethene	5.1	U
67-64-1	Acetone	25	U
75-15-0	Carbon Disulfide	5.1	U
1634-04-4	Methyl tert-butyl Ether	5.1	U
79-20-9	Methyl Acetate	5.1	U
75-09-2	Methylene Chloride	7.7	u
156-60-5	trans-1,2-Dichloroethene	5.1	U
75-34-3	1,1-Dichloroethane	5.1	U
110-82-7	Cyclohexane	5.1	U
78-93-3	2-Butanone	25	U
56-23-5	Carbon Tetrachloride	5.1	U
156-59-2	cis-1,2-Dichloroethene	190	
67-66-3	Chloroform	5.1	U
71-55-6	1,1,1-Trichloroethane	5.1	U
108-87-2	Methylcyclohexane	5.1	U
71-43-2	Benzene	5.1	U
107-06-2	1,2-Dichloroethane	5.1	U
79-01-6	Trichloroethene	180	
78-87-5	1,2-Dichloropropane	5.1	U
75-27-4	Bromodichloromethane	5.1	U
108-10-1	4-Methyl-2-Pentanone	25	U
108-88-3	Toluene	5.1	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100800310XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15

Sample wt/vol: 5.5 (g/mL) g Lab File ID: VK039524.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	5.1	U
10061-01-5	cis-1,3-Dichloropropene	5.1	U
79-00-5	1,1,2-Trichloroethane	5.1	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	5.1	U
106-93-4	1,2-Dibromoethane	5.1	U
* 127-18-4	Tetrachloroethene	9300	E
108-90-7	Chlorobenzene	5.1	U
100-41-4	Ethyl Benzene	5.1	U
179601-23-1	m/p-Xylenes	10	U
95-47-6	o-Xylene	5.1	U
100-42-5	Styrene	5.1	U
75-25-2	Bromoform	5.1	U
98-82-8	Isopropylbenzene	5.1	U
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U
541-73-1	1,3-Dichlorobenzene	5.1	U
106-46-7	1,4-Dichlorobenzene	12	
95-50-1	1,2-Dichlorobenzene	27	
96-12-8	1,2-Dibromo-3-Chloropropane	5.1	U
120-82-1	1,2,4-Trichlorobenzene	5.1	U

* Combine with DL 2 analysis.

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD100800310XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15

Sample wt/vol: 5.5 (g/mL) g Lab File ID: VK039524.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/10/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.46	5.7	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100800310XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15DL

Sample wt/vol: 5.14 (g/mL) g Lab File ID: VE018739.D

Level: (low/med) MED Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/15/10

GC Column: ZB-624 ID: 0.25 (mm) Dilution Factor: 1

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	540	U
74-87-3	Chloromethane	540	U
75-01-4	Vinyl Chloride	540	U
74-83-9	Bromomethane	540	U
75-00-3	Chloroethane	540	U
75-69-4	Trichlorofluoromethane	540	U
76-13-1	1,1,2-Trichlorotrifluoroethane	540	U
75-35-4	1,1-Dichloroethene	540	U
67-64-1	Acetone	2700	U
75-15-0	Carbon Disulfide	540	U
1634-04-4	Methyl tert-butyl Ether	540	U
79-20-9	Methyl Acetate	540	U
75-09-2	Methylene Chloride	540	U
156-60-5	trans-1,2-Dichloroethene	540	U
75-34-3	1,1-Dichloroethane	540	U
110-82-7	Cyclohexane	540	U
78-93-3	2-Butanone	2700	U
56-23-5	Carbon Tetrachloride	540	U
156-59-2	cis-1,2-Dichloroethene	400	JD
67-66-3	Chloroform	540	U
71-55-6	1,1,1-Trichloroethane	540	U
108-87-2	Methylcyclohexane	540	U
71-43-2	Benzene	540	U
107-06-2	1,2-Dichloroethane	540	U
79-01-6	Trichloroethene	640	D
78-87-5	1,2-Dichloropropane	540	U
75-27-4	Bromodichloromethane	540	U
108-10-1	4-Methyl-2-Pentanone	2700	U
108-88-3	Toluene	540	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100800310XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15DL

Sample wt/vol: 5.14 (g/mL) g Lab File ID: VE018739.D

Level: (low/med) MED Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/15/10

GC Column: ZB-624 ID: 0.25 (mm) Dilution Factor: 1

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	540	U
10061-01-5	cis-1,3-Dichloropropene	540	U
79-00-5	1,1,2-Trichloroethane	540	U
591-78-6	2-Hexanone	2700	U
124-48-1	Dibromochloromethane	540	U
106-93-4	1,2-Dibromoethane	540	U
127-18-4	Tetrachloroethene	37000	ED
108-90-7	Chlorobenzene	540	U
100-41-4	Ethyl Benzene	540	U
179601-23-1	m/p-Xylenes	1100	U
95-47-6	o-Xylene	540	U
100-42-5	Styrene	540	U
75-25-2	Bromoform	540	U
98-82-8	Isopropylbenzene	540	U
79-34-5	1,1,2,2-Tetrachloroethane	540	U
541-73-1	1,3-Dichlorobenzene	540	U
106-46-7	1,4-Dichlorobenzene	370	JD
95-50-1	1,2-Dichlorobenzene	600	D
96-12-8	1,2-Dibromo-3-Chloropropane	540	U
120-82-1	1,2,4-Trichlorobenzene	540	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100800310XXDL2

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15DL2

Sample wt/vol: 5.14 (g/mL) g Lab File ID: VF022592.D

Level: (low/med) MED Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 20

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	11000	
74-87-3	Chloromethane	11000	
75-01-4	Vinyl Chloride	11000	
74-83-9	Bromomethane	11000	
75-00-3	Chloroethane	11000	
75-69-4	Trichlorofluoromethane	11000	
76-13-1	1,1,2-Trichlorotrifluoroethane	11000	
75-35-4	1,1-Dichloroethene	11000	
67-64-1	Acetone	54000	
75-15-0	Carbon Disulfide	11000	
1634-04-4	Methyl tert-butyl Ether	11000	
79-20-9	Methyl Acetate	11000	
75-09-2	Methylene Chloride	11000	
156-60-5	trans-1,2-Dichloroethene	11000	
75-34-3	1,1-Dichloroethane	11000	
110-82-7	Cyclohexane	11000	
78-93-3	2-Butanone	54000	
56-23-5	Carbon Tetrachloride	11000	
156-59-2	cis-1,2-Dichloroethene	11000	
67-66-3	Chloroform	11000	
71-55-6	1,1,1-Trichloroethane	11000	
108-87-2	Methylcyclohexane	11000	
71-43-2	Benzene	11000	
107-06-2	1,2-Dichloroethane	11000	
79-01-6	Trichloroethene	11000	
78-87-5	1,2-Dichloropropane	11000	
75-27-4	Bromodichloromethane	11000	
108-10-1	4-Methyl-2-Pentanone	54000	
108-88-3	Toluene	11000	

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100800310XXDL2

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-15DL2

Sample wt/vol: 5.14 (g/mL) g Lab File ID: VF022592.D

Level: (low/med) MED Date Received: 06/09/10

% Moisture: not dec. 10 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 20

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	11000	
10061-01-5	cis-1,3-Dichloropropene	11000	
79-00-5	1,1,2-Trichloroethane	11000	
591-78-6	2-Hexanone	54000	
124-48-1	Dibromochloromethane	11000	
106-93-4	1,2-Dibromoethane	11000	
127-18-4	Tetrachloroethene	49000	D
108-90-7	Chlorobenzene	11000	
100-41-4	Ethyl Benzene	11000	
179601-23-1	m/p-Xylenes	22000	
95-47-6	o-Xylene	11000	
100-42-5	Styrene	11000	
75-25-2	Bromoform	11000	
98-82-8	Isopropylbenzene	11000	
79-34-5	1,1,2,2-Tetrachloroethane	11000	
541-73-1	1,3-Dichlorobenzene	11000	
106-46-7	1,4-Dichlorobenzene	11000	
95-50-1	1,2-Dichlorobenzene	11000	
96-12-8	1,2-Dibromo-3-Chloropropane	11000	
120-82-1	1,2,4-Trichlorobenzene	11000	

* Combine with original analysis.

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100801510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-16

Sample wt/vol: 5.78 (g/mL) g Lab File ID: VK039572.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.6	U J
74-87-3	Chloromethane	4.6	U J
75-01-4	Vinyl Chloride	4.6	U J
74-83-9	Bromomethane	4.6	U
75-00-3	Chloroethane	4.6	U J
75-69-4	Trichlorofluoromethane	4.6	U J
76-13-1	1,1,2-Trichlorotrifluoroethane	4.6	U J
75-35-4	1,1-Dichloroethene	4.6	U
67-64-1	Acetone	~~22~~ 23 J	J
75-15-0	Carbon Disulfide	4.6	U J
1634-04-4	Methyl tert-butyl Ether	4.6	U
79-20-9	Methyl Acetate	4.2	J
75-09-2	Methylene Chloride	5.1	U
156-60-5	trans-1,2-Dichloroethene	4.6	U
75-34-3	1,1-Dichloroethane	4.6	U
110-82-7	Cyclohexane	4.6	U
78-93-3	2-Butanone	23	U
56-23-5	Carbon Tetrachloride	4.6	U
156-59-2	cis-1,2-Dichloroethene	4.6	U
67-66-3	Chloroform	4.6	U
71-55-6	1,1,1-Trichloroethane	4.6	U
108-87-2	Methylcyclohexane	4.6	U
71-43-2	Benzene	4.6	U
107-06-2	1,2-Dichloroethane	4.6	U
79-01-6	Trichloroethene	4.6	U
78-87-5	1,2-Dichloropropane	4.6	U
75-27-4	Bromodichloromethane	4.6	U
108-10-1	4-Methyl-2-Pentanone	23	U
108-88-3	Toluene	1.4	J

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100801510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-16

Sample wt/vol: 5.78 (g/mL) g Lab File ID: VK039572.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.6	U
10061-01-5	cis-1,3-Dichloropropene	4.6	U
79-00-5	1,1,2-Trichloroethane	4.6	U
591-78-6	2-Hexanone	23	U
124-48-1	Dibromochloromethane	4.6	U
106-93-4	1,2-Dibromoethane	4.6	U
127-18-4	Tetrachloroethene	4.9	
108-90-7	Chlorobenzene	4.6	U
100-41-4	Ethyl Benzene	4.6	U
179601-23-1	m/p-Xylenes	9.1	U
95-47-6	o-Xylene	4.6	U
100-42-5	Styrene	4.6	U
75-25-2	Bromoform	4.6	U
98-82-8	Isopropylbenzene	4.6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U
541-73-1	1,3-Dichlorobenzene	4.6	U
106-46-7	1,4-Dichlorobenzene	4.6	U
95-50-1	1,2-Dichlorobenzene	4.6	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.6	U
120-82-1	1,2,4-Trichlorobenzene	4.6	U

7/19/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD100801510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-16

Sample wt/vol: 5.78 (g/mL) g Lab File ID: VK039572.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 5 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.46	4.9	J

7/19/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK-1

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-18

Sample wt/vol: 5 (g/mL) g Lab File ID: VK039569.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 0 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
76-13-1	1,1,2-Trichlorotrifluoroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	13	J
75-15-0	Carbon Disulfide	5	U
1634-04-4	Methyl tert-butyl Ether	5	U
79-20-9	Methyl Acetate	5	U
75-09-2	Methylene Chloride	8.5	
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
110-82-7	Cyclohexane	5	U
78-93-3	2-Butanone	25	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
108-87-2	Methylcyclohexane	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	25	U
108-88-3	Toluene	5	U

7/19/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK-1

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-18

Sample wt/vol: 5 (g/mL) g Lab File ID: VK039569.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 0 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethyl Benzene	5	U
179601-23-1	m/p-Xylenes	10	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

7/19/10

CHEMTECH

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIPBLANK-1

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-18

Sample wt/vol: 5 (g/mL) g Lab File ID: VK039569.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: not dec. 0 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

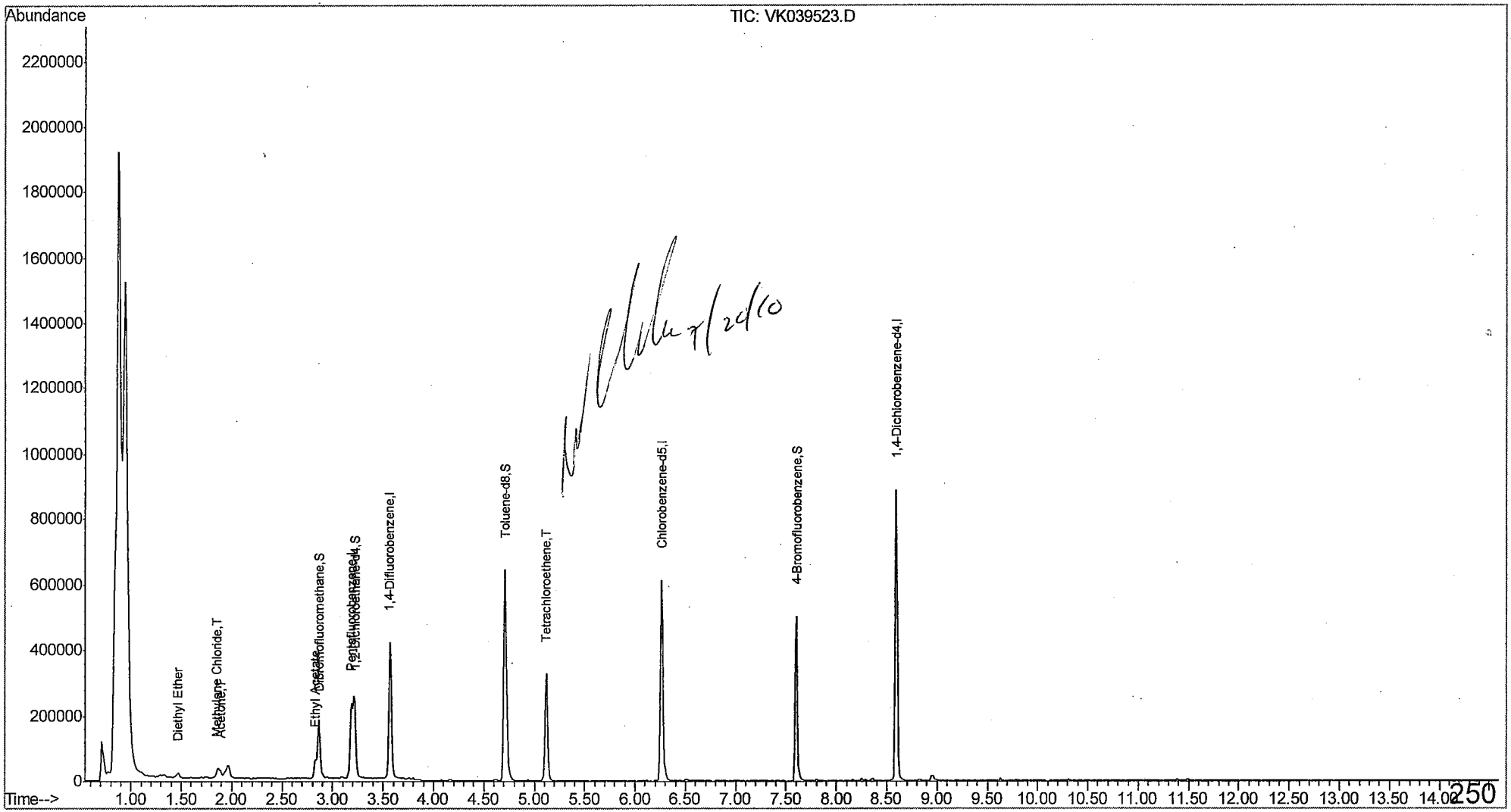
Number TICS found: 3 Concentration Units: ug/Kg

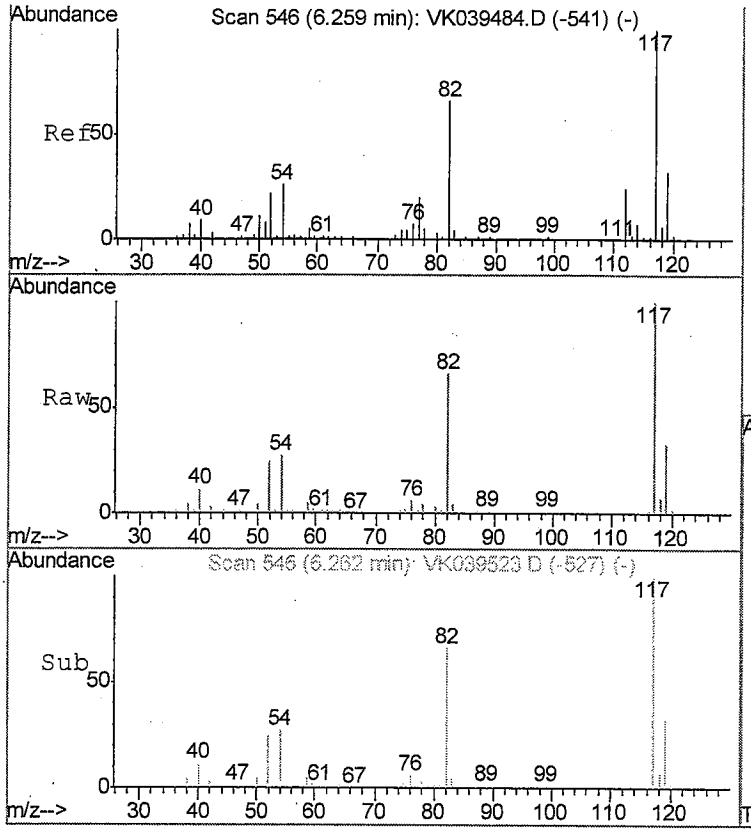
(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl Ether	1.46	5.5	J
000110-54-3	Hexane	1.96	17	J
141-78-6	Ethyl Acetate	2.82	24	J

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061010\
Data File : VK039523.D
Acq On : 10 Jun 2010 19:44
Operator : MS
Sample : B2618-14
Misc : 5.82g/5mL,MSVOAK
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 11 07:46:19 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 14:12:54 2010
Response via : Initial Calibration

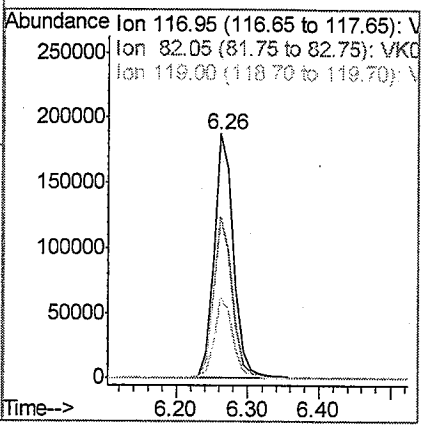


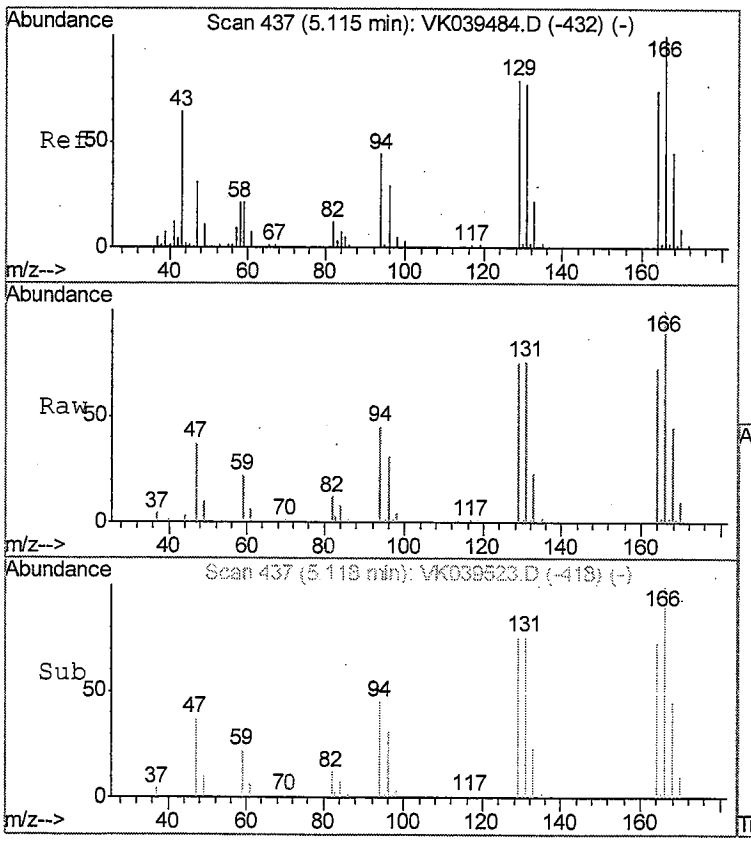


#62
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 6.26 min Scan# 546
Delta R.T. 0.00 min
Lab File: VK039523.D
Acq: 10 Jun 2010 19:44

Tgt Ion:117 Resp: 358864

Ion	Ratio	Lower	Upper
117	100		
82	64.5	33.1	99.2
119	31.8	16.1	48.2

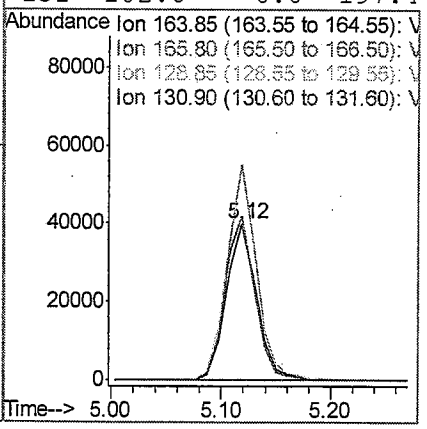




#63
Tetrachloroethene
Concen: 39.54 ug/l
RT: 5.12 min Scan# 437
Delta R.T. 0.00 min
Lab File: VK039523.D
Acq: 10 Jun 2010 19:44

Tgt Ion:164 Resp: 75626

Ion	Ratio	Lower	Upper
164	100		
166	132.9	0.0	262.8
129	106.0	0.0	212.2
131	102.8	0.0	197.4



7/20/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061010\
Data File : VK039523.D
Acq On : 10 Jun 2010 19:44
Operator : MS
Sample : B2618-14
Misc : 5.82g/5mL,MSVOAK
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 11 07:46:19 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 14:12:54 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	3.19	168	143829	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	3.57	114	319955	50.00	ug/l	0.00
62) Chlorobenzene-d5	6.26	117	358864	50.00	ug/l	0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	173151	50.00	ug/l	0.00
System Monitoring Compounds						
34) 1,2-Dichloroethane-d4	3.22	65	165477	51.18	ug/l	0.00
Spiked Amount 50.000			Recovery	=	102.36%	
36) Dibromofluoromethane	2.86	113	107242	43.93	ug/l	0.00
Spiked Amount 50.000			Recovery	=	87.86%	
48) Toluene-d8	4.71	98	434929	48.39	ug/l	0.00
Spiked Amount 50.000			Recovery	=	96.78%	
61) 4-Bromofluorobenzene	7.61	95	184241	48.81	ug/l	0.00
Spiked Amount 50.000			Recovery	=	97.62%	
Target Compounds						Qvalue
11) Diethyl Ether	1.47	74	5551	3.13	ug/l	55
17) Acetone	1.89	58	10410	18.23	ug/l #	74
20) Methylene Chloride	1.86	84	11280	3.99	ug/l	88
30) Ethyl Acetate	2.83	43	75699	11.24	ug/l	98
63) Tetrachloroethene	5.12	164	75626	39.54	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

$$\frac{(75626)(50\,ug/L)}{(358864)(0.2600141)} = ~~5.218~~ \; 40.524\,ug/L$$

$$\frac{(40.524\,ug/L)(0.005\,L)(1000\,g/kg)}{(5.82\,g)(0.98)} = 35.28\,ug/kg$$

[signature] 7/20/10

CHEMTECH **Instrument: 5972 - In**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VK061010

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	apatel	Review On	6/11/2010 12:00:00 AM
Tune/Reschk	VP1499	Initial Calibration Stds	N/A
CCC	VP1500,VP1501	SubDirectory	VK061010
Internal Standard/PEM	VP1181	HP Acquire Method	MSVOA_K
ICV/I.BLK	N/A	HP Processing Method	82K060910S.M

Sr#	SampleId	Data File Name	Comment	Status
1	BFB TUNE CHECK	VK039504.D	tune fail	Not Ok
2	BFB TUNE CHECK	VK039505.D		Ok
3	50 PPB CCC	VK039506.D	CCC fail	Not Ok
4	20 PPB CCC	VK039507.D	#6(-23.7%)-over 20%Dev on high side	Ok,M
5	VBK0610S1	VK039508.D		Ok
6	BSK0610S1	VK039509.D		Ok,M
7	B2620-06	VK039510.D	use this run	Ok
8	B2618-01	VK039511.D		Ok
9	B2618-02	VK039512.D		Ok
10	B2618-03	VK039513.D		Ok
11	B2618-05	VK039514.D		Ok
12	B2618-06	VK039515.D		Ok
13	B2618-07	VK039516.D	Internal Std fail(1,4-DCB-d4)	ReRun
14	B2618-08	VK039517.D		Ok
15	B2618-09	VK039518.D		Ok
16	B2618-10	VK039519.D		Ok
17	B2618-11	VK039520.D		Ok
18	B2618-12	VK039521.D		Ok
19	B2618-13	VK039522.D	Internal Std fail,not used	Not Ok
20	B2618-14	VK039523.D		Ok
21	B2618-15	VK039524.D	Need Meoh	Dilution

Method Path : W:\HPCHEM1\MSVOA_K\METHOD\
Method File : 82K060910S.M
Title : SW846 8260
Last Update : Wed Jun 09 14:12:54 2010
Response Via : Initial Calibration

Calibration Files
5 =VK039483.D 10 =VK039482.D 20 =VK039481.D
50 =VK039484.D 100 =VK039485.D 200 =VK039486.D

		Compound	5	10	20	50	100	200	Avg	%RSD
3)	T	cis-1,3-Dichlorop	0.882	0.813	0.778	0.816	0.835	0.800	0.821	4.37
4)	T	1,1,2-Trichloroet	0.424	0.432	0.410	0.425	0.453	0.424	0.428	3.34
5)		Ethyl methacrylat	0.822	0.858	0.809	0.853	0.933	0.855	0.855	5.02
6)	T	1,3-Dichloropropa	0.912	0.897	0.804	0.847	0.900	0.830	0.865	5.08
7)	T	2-Chloroethyl vin	0.379	0.364	0.331	0.348	0.377	0.344	0.357	5.36
8)	T	2-Hexanone	0.768	0.741	0.684	0.763	0.835	0.701	0.749	7.21
9)	T	Dibromochlorometh	0.418	0.430	0.412	0.442	0.478	0.461	0.440	5.78
0)	T	1,2-Dibromoethane	0.475	0.486	0.440	0.468	0.505	0.474	0.475	4.54
1)	S	4-Bromofluorobenz	0.622	0.591	0.587	0.581	0.599	0.559	0.590	3.53
2)	I	Chlorobenzene-d5	----------	----------	----------	ISTD	----------	----------		
3)	T	Tetrachloroethene	0.241	0.257	0.248	0.271	0.293	0.288	0.266	7.99
4)	PM	Chlorobenzene	0.869	0.930	0.834	0.872	0.849	0.851	0.868	3.89
5)	T	1,1,1,2-Tetrachlo	0.272	0.303	0.290	0.313	0.317	0.324	0.303	6.36
6)		Hexachloroethane	0.221	0.246	0.243	0.259	0.274	0.276	0.253	8.25
7)	C	Ethyl Benzene	1.403	1.623	1.468	1.472	1.466	1.474	1.484	4.93#
8)	T	m/p-Xylenes	0.485	0.544	0.514	0.511	0.511	0.504	0.512	3.72
9)	T	o-Xylene	0.463	0.541	0.504	0.524	0.526	0.528	0.514	5.37
0)	T	Styrene	0.848	1.002	0.930	0.968	0.959	0.948	0.943	5.55
1)	P	Bromoform	0.206	0.251	0.235	0.275	0.295	0.302	0.261	14.24
2)		n-Amyl Acetate	1.108	1.240	1.138	1.231	1.302	1.267	1.214	6.21
3)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------		
4)	T	Isopropylbenzene	2.464	2.736	2.662	2.475	2.475	2.421	2.539	5.04
5)	P	1,1,2,2-Tetrachlo	1.274	1.354	1.261	1.298	1.374	1.310	1.312	3.38
6)	T	1,2,3-Trichloropr	1.006	1.066	0.961	0.997	1.066	1.010	1.018	4.06
7)	T	Bromobenzene	0.659	0.699	0.669	0.681	0.698	0.708	0.686	2.79
8)	T	n-propylbenzene	3.151	3.566	3.435	3.163	3.177	3.095	3.264	5.81
9)		p-ethyltoluene	2.668	2.803	2.813	2.675	2.557	2.530	2.674	4.44
0)	T	2-Chlorotoluene	2.420	2.501	2.410	2.326	2.312	2.303	2.378	3.29
1)	T	1,3,5-Trimethylbe	2.016	2.243	2.103	1.993	2.006	2.007	2.061	4.72
2)		trans-1,4-Dichlor	0.533	0.610	0.600	0.638	0.696	0.679	0.626	9.43
3)	T	4-Chlorotoluene	2.137	2.385	2.213	2.152	2.123	2.132	2.190	4.60
4)	T	tert-Butylbenzene	1.907	2.042	2.085	1.798	1.840	1.820	1.915	6.33
5)	T	1,2,4-Trimethylbe	2.077	2.316	2.170	2.090	2.054	2.079	2.131	4.64
6)	T	sec-Butylbenzene	2.742	3.115	2.995	2.614	2.718	2.643	2.804	7.25
7)	T	p-Isopropyltoluen	2.009	2.359	2.284	2.123	2.159	2.122	2.176	5.78
8)	T	1,3-Dichlorobenze	1.244	1.431	1.272	1.263	1.250	1.280	1.290	5.44
9)	T	1,4-Dichlorobenze	1.357	1.426	1.341	1.309	1.318	1.322	1.346	3.20
0)		p-diethylbenzene	1.266	1.338	1.364	1.298	1.255	1.295	1.303	3.21
1)	T	n-Butylbenzene	2.375	2.679	2.678	2.364	2.391	2.353	2.473	6.44
2)	T	1,2-Dichlorobenze	1.251	1.409	1.250	1.276	1.302	1.332	1.303	4.66
3)		1,2,4,5-tetrameth	2.355	2.372	2.413	2.412	2.358	2.440	2.392	1.45
4)	T	1,2-Dibromo-3-Chl	0.175	0.208	0.199	0.217	0.252	0.251	0.217	13.91
5)	T	1,2,4-Trichlorobe	0.805	0.863	0.807	0.832	0.878	0.846	0.839	3.54
6)	T	Hexachlorobutadie	0.284	0.366	0.357	0.339	0.364	0.365	0.346	9.27
7)	T	Naphthalene	2.966	3.016	2.649	2.856	3.053	2.933	2.912	5.01
8)	T	1,2,3-Trichlorobe	0.791	0.847	0.774	0.819	0.860	0.835	0.821	4.04

#) = Out of Range

$\bar{x} = 0.260014119$

RSD = 8.89%

7/20/10

Method Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\
Method File : 82F061510W.M
Title : SW846 8260
Last Update : Tue Jun 15 17:13:26 2010
Response Via : Initial Calibration

Calibration Files
5 =VF022576.D 10 =VF022575.D 20 =VF022574.D
50 =VF022572.D 100 =VF022573.D 1 =VF022577.D

		Compound	5	10	20	50	100	1	Avg	%RSD	
1)	I	Pentafluorobenzene	----------	----------	ISTD	----------	----------	----------			
2)	T	Dichlorodifluorom	0.352	0.638	0.572	0.777	0.683	0.390	0.569	29.45	T
3)	P	Chloromethane	0.454	0.607	0.557	0.670	0.631	0.538	0.576	13.37	
4)	CM	Vinyl Chloride	0.512	0.549	0.540	0.617	0.589	0.535	0.557	6.94#	
5)	T	Bromomethane	0.263	0.297	0.270	0.313	0.228	0.390	0.294	18.87	
6)	T	Chloroethane	0.154	0.184	0.201	0.209	0.153	0.254	0.193	19.77	
7)	T	Trichlorofluorome	0.597	0.707	0.653	0.872	0.703	0.736	0.711	13.04	
8)	T	Tert butyl alcoho	0.061	0.062	0.060	0.061	0.054	0.098	0.066	24.15	
9)	T	Diethyl Ether	0.227	0.251	0.206	0.229	0.207	0.292	0.236	13.68	
0)	CM	1,1-Dichloroethen	0.410	0.436	0.372	0.432	0.413	0.541	0.434	13.19#	
1)	T	Methyl Iodide	0.577	0.516	0.582	0.647	0.613	0.602	0.589	7.47	
2)	T	Acrolein	0.061	0.049	0.048	0.045	0.047	0.075	0.054	21.56	M
3)	T	1,1,2-Trichlorotr	0.449	0.468	0.415	0.507	0.475	0.574	0.481	11.38	
4)	T	Acrylonitrile	0.169	0.163	0.151	0.169	0.151	0.199	0.167	10.66	
5)	T	Allyl Chloride	0.750	0.754	0.684	0.752	0.705	0.825	0.745	6.54	
6)	T	Acetone	0.216	0.189	0.192	0.225	0.205	0.323	0.225	22.22	T
7)	T	Carbon Disulfide	1.126	1.308	1.108	1.256	1.175	1.383	1.226	8.83	
8)	T	Methyl Acetate	1.338	1.256	1.099	1.203	1.073	1.450	1.236	11.61	
9)	T	Methyl tert-butyl	1.417	1.373	1.282	1.465	1.349	1.505	1.399	5.80	
0)	T	Methylene Chlorid	0.474	0.484	0.439	0.476	0.435	0.657	0.494	16.66	
1)	T	trans-1,2-Dichlor	0.450	0.434	0.404	0.450	0.405	0.490	0.439	7.35	
2)	T	Acetonitrile	0.750	0.754	0.684	0.752	0.705	0.825	0.745	6.54	
3)	T	Vinyl Acetate	0.633	0.633	0.626	0.706	0.658	0.720	0.663	6.17	
4)	P	1,1-Dichloroethan	0.931	0.890	0.812	0.921	0.840	1.013	0.901	7.95	
5)	TM	2-Butanone	0.544	0.435	0.424	0.491	0.405	0.519	0.470	11.98	
6)	T	2,2-Dichloropropa	0.622	0.586	0.547	0.637	0.584	0.713	0.615	9.33	
7)	T	cis-1,2-Dichloroe	0.646	0.600	0.551	0.625	0.580	0.735	0.623	10.32	
8)	T	Bromochloromethan	0.325	0.270	0.276	0.267	0.265	0.398	0.300	17.71	
9)	CM	Chloroform	1.124	0.990	0.895	1.109	1.029	1.169	1.053	9.62#	
0)	T	Ethyl Acetate	1.634	1.433	1.427	1.641	1.598	1.667	1.567	6.91	
1)	T	Cyclohexane	0.708	0.683	0.619	0.678	0.605	0.746	0.673	7.93	
2)	T	1,1,1-Trichloroet	0.962	0.898	0.759	0.937	0.800	1.046	0.900	11.83	
3)	S	1,2-Dichloroethan	0.809	0.803	0.834	0.812	0.734	0.822	0.802	4.37	
4)	I	1,4-Difluorobenzene	----------	----------	ISTD	----------	----------	----------			
5)	S	Dibromofluorometh	0.363	0.366	0.334	0.347	0.332	0.345	0.348	4.15	
6)	T	1,1-Dichloroprope	0.590	0.541	0.480	0.562	0.488	0.597	0.543	9.22	
7)	TM	Carbon Tetrachlor	0.582	0.540	0.476	0.565	0.546	0.533	0.540	6.65	
8)	TM	Benzene	1.467	1.355	1.214	1.400	1.321	1.561	1.386	8.67	
9)	T	Methacrylonitrile	0.325	0.292	0.270	0.297	0.270	0.320	0.296	7.95	
0)	TM	1,2-Dichloroethan	0.662	0.616	0.551	0.630	0.610	0.711	0.630	8.51	
1)	T	Isobutyl Alcohol	0.973	0.846	0.822	0.961	0.963	0.997	0.927	7.94	
2)	T	Isopropyl Acetate	0.745	0.623	0.646	0.763	0.779	0.810	0.728	10.38	
3)	TM	Trichloroethene	0.418	0.380	0.346	0.418	0.407	0.446	0.403	8.66	
4)	T	Methylcyclohexane	0.734	0.588	0.507	0.570	0.528	0.514	0.573	14.78	
5)	C	1,2-Dichloropropa	0.412	0.376	0.357	0.418	0.413	0.516	0.415	13.23#	
6)	T	Dibromomethane	0.323	0.298	0.276	0.331	0.329	0.354	0.318	8.61	
7)	T	Bromodichlorometh	0.619	0.567	0.535	0.648	0.646	0.666	0.614	8.44	
8)	S	Toluene-d8	1.062	1.057	1.077	1.080	1.115	1.052	1.074	2.13	
9)	T	4-Methyl-2-Pentan	0.555	0.496	0.477	0.545	0.497	0.548	0.520	6.41	
0)	CM	Toluene	0.909	0.794	0.749	0.892	0.880	0.904	0.855	7.83#	
1)	T	t-1,3-Dichloropro	0.640	0.593	0.574	0.673	0.627	0.635	0.624	5.67	
2)	T	Methyl Methacryla	0.285	0.266	0.261	0.312	0.316	0.295	0.289	7.95	

7/19/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061510\
Data File : VK039558.D
Acq On : 15 Jun 2010 11:00
Operator : MS
Sample : 50 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 11:26:33 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K061410S.M
Quant Title : SW846 8260
QLast Update : Mon Jun 14 17:09:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	90	0.00
2	T	Dichlorodifluoromethane	0.455	0.681	-49.7#	119	0.00
3	P	Chloromethane	1.057	1.346	-27.3#	111	0.00
4	C	Vinyl Chloride	0.826	1.058	-28.1#	116	0.00
5	T	Bromomethane	0.614	0.692	-12.7	99	0.00
6	T	Chloroethane	0.413	0.542	-31.2#	113	0.00
7	T	Trichlorofluoromethane	0.792	0.972	-22.7	117	0.00
8	T	Diethyl Ether	0.566	0.661	-16.8	102	0.00
9	CM	1,1-Dichloroethene	0.523	0.610	-16.6#	111	0.00
0	T	Carbon Disulfide	2.403	2.898	-20.6	114	0.00
1	TM	1,1,2-Trichlorotrifluoroeth	0.551	0.684	-24.1	118	0.00
2	T	Methyl Iodide	1.088	1.209	-11.1	102	0.00
3	T	Acrolein	0.234	0.267	-14.1	137	0.00
4	T	Allyl chloride	1.620	1.908	-17.8	116	0.00
5	T	Methylene Chloride	0.904	0.960	-6.2	98	0.00
6	T	Acetone	0.202	0.219	-8.4	88	0.00
7	T	trans-1,2-Dichloroethene	0.548	0.622	-13.5	109	0.00
8	T	Methyl Acetate	0.656	0.739	-12.7	96	0.00
9	T	Methyl tert-butyl Ether	2.655	2.860	-7.7	96	0.00
0	T	Tert butyl alcohol	0.133	0.147	-10.5	96	0.00
1	T	Diisoprpyl ether	3.765	3.980	-5.7	99	0.00
2	P	1,1-Dichloroethane	1.452	1.593	-9.7	105	0.00
3	T	Acrylonitrile	0.551	0.593	-7.6	99	0.00
4	T	Vinyl Acetate	1.871	2.108	-12.7	109	0.00
5	T	cis-1,2-Dichloroethene	0.794	0.907	-14.2	103	0.00
6	T	2,2-Dichloropropane	0.929	1.057	-13.8	111	0.00
7	T	Bromochloromethane	0.360	0.409	-13.6	101	0.00
8	T	Cyclohexane	1.227	1.454	-18.5	118	0.00
9	C	Chloroform	1.337	1.430	-7.0#	102	0.00
0	T	Ethyl Acetate	2.179	2.366	-8.6	100	-0.02
1	T	Carbon Tetrachloride	0.707	0.809	-14.4	112	0.00
2	T	1,1,1-Trichloroethane	0.723	0.824	-14.0	105	0.00
3	T	2-Butanone	1.117	1.204	-7.8	94	0.00
4	S	1,2-Dichloroethane-d4	1.088	1.143	-5.1	101	0.00
5	I	1,4-Difluorobenzene	1.000	1.000	0.0	87	-0.02
6	S	Dibromofluoromethane	0.374	0.393	-5.1	96	0.00
7	T	1,1-Dichloropropene	0.463	0.552	-19.2	114	0.00
8	TM	Benzene	1.404	1.613	-14.9	107	0.00
9	T	Methacrylonitrile	0.500	0.546	-9.2	101	0.00
0	TM	1,2-Dichloroethane	0.543	0.599	-10.3	97	0.00
1	T	Isopropyl Acetate	1.466	1.580	-7.8	98	0.00
2	T	Isobutyl alcohol	0.000	1.580	0.0	0#	0.00
3	T	Methylcyclohexane	0.507	0.567	-11.8	111	0.00
4	TM	Trichloroethene	0.267	0.302	-13.1	102	0.00
5	T	Dibromomethane	0.304	0.347	-14.1	100	0.00

7/20/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061010\
Data File : VK039507.D
Acq On : 10 Jun 2010 12:17
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 12:50:20 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 14:12:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	50.000	50.000	0.0	93	0.00	
2	T	Dichlorodifluoromethane	20.000	16.204	19.0	94	-0.01	
3	P	Chloromethane	20.000	19.592	2.0	97	-0.01	
4	C	Vinyl Chloride	20.000	20.726	-3.6#	97	-0.01	
5	T	Bromomethane	20.000	21.959	-9.8	100	-0.01	
6	T	Chloroethane	20.000	24.715	-23.6	98	0.00	
7	T	Trichlorofluoromethane	20.000	21.706	-8.5	96	0.00	
8	TM	1,1,2-Trichlorotrifluoroeth	20.000	22.023	-10.1	95	-0.01	
9		Methyl Iodide	20.000	20.338	-1.7	92	0.00	
0	T	Tert butyl alcohol	100.000	101.079	-1.1	101	0.01	
1		Diethyl Ether	20.000	21.121	-5.6	99	0.01	
2	CM	1,1-Dichloroethene	20.000	22.791	-14.0#	98	0.00	
3	T	Methyl Acetate	20.000	21.361	-6.8	110	0.01	
4	T	Acrolein	100.000	111.084	-11.1	105	0.00	
5		Allyl chloride	20.000	22.669	-13.3	98	0.00	
6	T	Acrylonitrile	100.000	105.161	-5.2	99	0.01	
7	T	Acetone	100.000	99.612	0.4	116	0.00	
8	T	Carbon Disulfide	20.000	22.017	-10.1	96	0.01	
9	T	Methyl tert-butyl Ether	20.000	19.881	0.6	93	0.00	
0	T	Methylene Chloride	20.000	21.268	-6.3	95	0.01	
1	T	trans-1,2-Dichloroethene	20.000	21.609	-8.0	94	0.00	
2		Acetonitrile	20.000	0.000	100.0#	0	0.00	KT
3	T	Vinyl Acetate	100.000	108.880	-8.9	96	0.00	
4	P	1,1-Dichloroethane	20.000	21.762	-8.8	94	0.00	
5	T	2-Butanone	100.000	97.796	2.2	98	0.00	
6	T	2,2-Dichloropropane	20.000	21.452	-7.3	93	0.02	
7	T	cis-1,2-Dichloroethene	20.000	20.498	-2.5	91	0.01	
8	T	Bromochloromethane	20.000	18.650	6.8	91	0.00	
9	C	Chloroform	20.000	20.814	-4.1#	93	0.01	
0		Ethyl Acetate	20.000	20.608	-3.0	98	0.00	
1	T	1,1,1-Trichloroethane	20.000	22.111	-10.6	99	0.00	
2	T	Cyclohexane	20.000	21.844	-9.2	95	0.00	
3		Isopropyl Acetate	20.000	20.790	-3.9	98	0.01	
4	S	1,2-Dichloroethane-d4	50.000	47.352	5.3	88	0.00	
5	I	1,4-Difluorobenzene	50.000	50.000	0.0	89	0.01	
6	S	Dibromofluoromethane	50.000	48.278	3.4	87	0.01	
7	T	1,1-Dichloropropene	20.000	21.852	-9.3	93	0.00	
8	T	Carbon Tetrachloride	20.000	20.379	-1.9	90	0.00	
9	TM	Benzene	20.000	21.246	-6.2	100	0.01	
0		Methacrylonitrile	20.000	19.589	2.1	98	0.00	
1	TM	1,2-Dichloroethane	20.000	20.606	-3.0	97	0.01	
2		Isobutyl alcohol	20.000	0.000	100.0#	0	0.01	KT
3	TM	Trichloroethene	20.000	22.783	-13.9	96	0.00	
4	T	Methylcyclohexane	20.000	22.248	-11.2	94	0.00	
5	C	1,2-Dichloropropane	20.000	21.213	-6.1#	97	0.00	

Method Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_E\METHOD\
Method File : 82E061010W.M
Title : SW846 8260
Last Update : Fri Jun 11 10:36:06 2010
Response Via : Initial Calibration

Calibration Files
5 =VE018633.D 10 =VE018632.D 20 =VE018631.D
50 =VE018630.D 150 =VE018628.D 100 =VE018629.D

		Compound	5	10	20	50	150	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------			ISTD			----------	
2)	T	Dichlorodifluorom	0.260	0.507	0.381	0.413	0.522	0.520	0.434	23.95
3)	P	Chloromethane	0.254	0.328	0.254	0.290	0.237	0.328	0.282	14.08
4)	C	Vinyl Chloride	0.289	0.356	0.259	0.290	0.271	0.341	0.301	12.97#
5)	T	Bromomethane	0.177	0.225	0.168	0.168	0.188	0.196	0.187	11.62
6)	T	Chloroethane	0.136	0.169	0.118	0.140	0.154	0.164	0.147	13.13
7)	T	Trichlorofluorome	0.394	0.460	0.346	0.384	0.568	0.499	0.442	18.76
8)	T	1,1,2-Trichlorotr	0.297	0.330	0.237	0.260	0.328	0.330	0.297	13.54
9)	T	Tert butyl alcoho	0.033	0.034	0.027	0.031	0.032	0.038	0.032	11.36
0)	T	Diethyl Ether	0.143	0.160	0.115	0.127	0.137	0.157	0.140	12.59
1)	CM	1,1-Dichloroethen	0.260	0.302	0.222	0.243	0.293	0.294	0.269	12.07#
2)	T	Methyl Iodide	0.633	0.676	0.503	0.543	0.670	0.674	0.617	12.19
3)	T	Acrolein	0.027	0.030	0.023	0.028	0.029	0.032	0.028	10.40
4)	T	Acrylonitrile	0.106	0.120	0.096	0.096	0.101	0.117	0.106	10.05
5)	T	Allyl Chloride	0.510	0.564	0.426	0.469	0.517	0.569	0.509	10.80
6)	T	Acetone	0.166	0.162	0.121	0.127	0.144	0.155	0.146	12.74
7)	T	Carbon Disulfide	0.830	1.003	0.749	0.828	0.929	1.018	0.893	12.05
8)	T	Methyl Acetate	0.136	0.148	0.114	0.133	0.134	0.158	0.137	10.71
9)	T	Methyl tert-butyl	1.035	1.173	0.856	0.941	1.089	1.185	1.047	12.43
0)	T	Methylene Chlorid	0.357	0.392	0.303	0.315	0.347	0.370	0.347	9.63
1)	T	trans-1,2-Dichlor	0.328	0.366	0.273	0.298	0.336	0.353	0.326	10.73
2)	T	Acetonitrile	0.102	0.113	0.085	0.094	0.103	0.114	0.102	10.80
3)	T	Vinyl Acetate	0.481	0.587	0.472	0.558	0.645	0.705	0.575	15.89
4)	P	1,1-Dichloroethan	0.753	0.795	0.592	0.649	0.733	0.779	0.717	11.15
5)	T	2-Butanone	0.293	0.315	0.248	0.264	0.255	0.308	0.281	10.22
6)	T	2,2-Dichloropropa	0.345	0.393	0.294	0.320	0.371	0.397	0.353	11.71
7)	T	cis-1,2-Dichloroe	0.463	0.512	0.398	0.422	0.459	0.485	0.456	9.03
8)	T	Bromochloromethan	0.435	0.464	0.356	0.355	0.455	0.456	0.420	12.12
9)	C	Chloroform	0.996	0.993	0.732	0.778	0.962	0.952	0.902	12.86#
0)	T	Ethyl Acetate	1.467	1.575	1.241	1.319	1.273	1.540	1.403	10.22
1)	T	Cyclohexane	1.306	1.389	1.081	1.158	1.319	1.399	1.275	10.06
2)	T	1,1,1-Trichloroet	0.679	0.704	0.508	0.558	0.719	0.703	0.645	13.82
3)	S	1,2-Dichloroethan	0.729	0.698	0.669	0.665	0.714	0.688	0.694	3.62
4)	I	1,4-Difluorobenzene	----------			ISTD			----------	
5)	S	Dibromofluorometh	0.415	0.411	0.401	0.403	0.434	0.406	0.411	2.98
6)	T	1,1-Dichloroprope	0.446	0.491	0.366	0.397	0.485	0.502	0.448	12.43
7)	T	Carbon Tetrachlor	0.461	0.498	0.362	0.402	0.582	0.556	0.477	17.96
8)	T	Methylcyclohexane	0.285	0.334	0.252	0.269	0.306	0.342	0.298	12.02
9)	TM	Benzene	1.038	1.109	0.839	0.907	1.023	1.104	1.003	10.87
0)	T	Methacrylonitrile	0.176	0.184	0.147	0.170	0.182	0.208	0.178	11.10
1)	TM	1,2-Dichloroethan	0.640	0.647	0.468	0.526	0.699	0.691	0.612	15.32
2)	T	Isobutyl Alcohol	0.488	0.546	0.429	0.447	0.488	0.568	0.494	10.98
3)	T	Isopropyl Acetate	0.592	0.614	0.472	0.550	0.613	0.697	0.590	12.67
4)	TM	Trichloroethene	0.379	0.418	0.312	0.344	0.406	0.425	0.381	11.76
5)	C	1,2-Dichloropropa	0.288	0.316	0.244	0.262	0.276	0.302	0.281	9.36#
6)	T	Dibromomethane	0.288	0.289	0.223	0.246	0.303	0.305	0.276	12.14
7)	T	Bromodichlorometh	0.510	0.535	0.412	0.448	0.612	0.606	0.520	15.58
8)	S	Toluene-d8	1.041	1.052	1.062	1.059	1.078	1.094	1.064	1.78
9)	T	4-Methyl-2-Pentan	0.344	0.390	0.297	0.327	0.327	0.388	0.345	10.75
0)	CM	Toluene	0.714	0.758	0.571	0.623	0.719	0.767	0.692	11.30#
1)	T	t-1,3-Dichloropro	0.497	0.540	0.424	0.476	0.608	0.624	0.528	14.72
2)	T	Methyl Methacryla	0.203	0.223	0.172	0.191	0.203	0.234	0.204	10.94

7/19/10

CHEMTECH

3A

SOIL VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Cas No: B2618 SAS No : B2618 SDG No: B2618

Matrix Spike - EPA Sample No : BSK0610S1

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		16	80	(47-148)
Chloromethane	20		20	100	(56-145)
Vinyl Chloride	20		22	110	(60-138)
Bromomethane	20		24	120	(45-158)
Chloroethane	20		29	145	(42-161)
Trichlorofluoromethane	20		22	110	(55-146)
1,1,2-Trichlorotrifluoroethane	20		23	115	(65-134)
1,1-Dichloroethene	20		22	110	(65-136)
Acetone	100		110	110	(57-148)
Carbon Disulfide	20		23	115	(60-138)
Methyl tert-butyl Ether	20		23	115	(70-131)
Methyl Acetate	20		25	125	(44-187)
Methylene Chloride	20		24	120	(63-141)
trans-1,2-Dichloroethene	20		23	115	(73-130)
1,1-Dichloroethane	20		23	115	(74-133)
Cyclohexane	20		22	110	(66-132)
2-Butanone	100		110	110	(52-153)
Carbon Tetrachloride	20		21	105	(74-122)
cis-1,2-Dichloroethene	20		22	110	(75-129)
Chloroform	20		22	110	(75-135)
1,1,1-Trichloroethane	20		22	110	(75-128)
Methylcyclohexane	20		22	110	(71-124)
Benzene	20		22	110	(79-122)
1,2-Dichloroethane	20		22	110	(75-132)
Trichloroethene	20		22	110	(77-120)
1,2-Dichloropropane	20		22	110	(76-127)
Bromodichloromethane	20		22	110	(77-124)
4-Methyl-2-Pentanone	100		120	120	(70-141)
Toluene	20		22	110	(78-121)
t-1,3-Dichloropropene	20		22	110	(76-127)
cis-1,3-Dichloropropene	20		21	105	(79-122)
1,1,2-Trichloroethane	20		22	110	(76-127)
2-Hexanone	100		110	110	(55-154)
Dibromochloromethane	20		21	105	(73-126)

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 0 Out of 88 outside limits

7/16/10

Comments:

Method Path : W:\HPCHEM1\MSVOA_K\METHOD\
Method File : 82K060910S.M
Title : SW846 8260
Last Update : Wed Jun 09 14:12:54 2010
Response Via : Initial Calibration

Calibration Files
5 =VK039483.D 10 =VK039482.D 20 =VK039481.D
50 =VK039484.D 100 =VK039485.D 200 =VK039486.D

		Compound	5	10	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	ISTD	----------	----------	----------		
2)	T	Dichlorodifluorom	0.374	0.350	0.379	0.586	0.600	0.549	0.473	24.72
3)	P	Chloromethane	1.023	1.014	1.033	1.203	1.217	1.100	1.098	8.35
4)	C	Vinyl Chloride	0.746	0.805	0.836	0.906	0.924	0.852	0.845	7.77#
5)	T	Bromomethane	0.721	0.610	0.620	0.632	0.586	0.490	0.610	12.28
6)	T	Chloroethane	0.472	0.490	0.508	0.485	0.370	0.285	0.435	20.28
7)	T	Trichlorofluorome	0.762	0.829	0.876	0.811	0.877	0.837	0.832	5.18
8)	TM	1,1,2-Trichlorotr	0.541	0.636	0.638	0.599	0.575	0.550	0.590	7.13
9)		Methyl Iodide	1.116	1.232	1.207	1.189	1.188	1.127	1.176	3.89
0)	T	Tert butyl alcoho	0.144	0.159	0.141	0.149	0.172	0.147	0.152	7.72
1)		Diethyl Ether	0.607	0.681	0.612	0.642	0.601	0.562	0.617	6.51
2)	CM	1,1-Dichloroethen	0.520	0.596	0.598	0.558	0.540	0.507	0.553	6.88#
3)	T	Methyl Acetate	0.717	0.659	0.631	0.710	0.790	0.699	0.701	7.78
4)	T	Acrolein	0.274	0.282	0.243	0.231	0.244	0.214	0.248	10.45
5)		Allyl chloride	2.030	1.677	1.791	1.514	1.529	1.508	1.675	12.38
6)	T	Acrylonitrile	0.593	0.612	0.569	0.563	0.612	0.509	0.576	6.77
7)	T	Acetone	0.188	0.201	0.159	0.221	0.233	0.189	0.198	13.32
8)	T	Carbon Disulfide	2.357	2.684	2.660	2.562	2.457	2.217	2.489	7.29
9)	T	Methyl tert-butyl	3.046	3.180	3.009	2.953	3.105	2.861	3.026	3.72
0)	T	Methylene Chlorid	1.053	1.090	1.019	0.951	0.942	0.847	0.984	8.96
1)	T	trans-1,2-Dichlor	0.562	0.684	0.642	0.584	0.606	0.538	0.603	8.89
2)		Acetonitrile							0.000	-1.00
3)	T	Vinyl Acetate	2.210	2.321	2.184	1.960	2.017	1.683	2.062	11.06
4)	P	1,1-Dichloroethan	1.526	1.689	1.677	1.518	1.539	1.434	1.564	6.36
5)	T	2-Butanone	1.135	1.186	1.082	1.186	1.295	1.096	1.163	6.68
6)	T	2,2-Dichloropropa	1.044	1.139	1.109	0.964	0.979	0.972	1.035	7.31
7)	T	cis-1,2-Dichloroe	0.842	0.934	0.917	0.865	0.874	0.854	0.881	4.17
8)	T	Bromochloromethan	0.388	0.417	0.383	0.388	0.420	0.417	0.402	4.35
9)	C	Chloroform	1.416	1.588	1.516	1.404	1.426	1.431	1.463	4.98#
0)		Ethyl Acetate	2.439	2.502	2.283	2.204	2.462	2.153	2.340	6.26
1)	T	1,1,1-Trichloroet	0.763	0.836	0.829	0.759	0.802	0.799	0.798	4.03
2)	T	Cyclohexane	1.250	1.439	1.393	1.250	1.291	1.193	1.303	7.23
3)		Isopropyl Acetate	3.390	3.410	3.170	3.059	3.281	3.042	3.226	4.96
4)	S	1,2-Dichloroethan	1.047	1.072	1.119	1.064	1.184	1.258	1.124	7.31
5)	I	1,4-Difluorobenzene	----------	----------	ISTD	----------	----------	----------		
6)	S	Dibromofluorometh	0.389	0.378	0.379	0.375	0.388	0.380	0.382	1.48
7)	T	1,1-Dichloroprope	0.472	0.499	0.505	0.466	0.491	0.479	0.485	3.20
8)	T	Carbon Tetrachlor	0.345	0.381	0.376	0.354	0.382	0.387	0.371	4.58
9)	TM	Benzene	1.629	1.585	1.425	1.463	1.485	1.465	1.509	5.31
0)		Methacrylonitrile	0.544	0.527	0.456	0.494	0.559	0.492	0.512	7.47
1)	TM	1,2-Dichloroethan	0.565	0.586	0.538	0.558	0.590	0.582	0.570	3.48
2)		Isobutyl alcohol							0.000	-1.00
3)	TM	Trichloroethene	0.245	0.262	0.292	0.276	0.284	0.291	0.275	6.68
4)	T	Methylcyclohexane	0.573	0.568	0.568	0.506	0.506	0.502	0.537	6.62
5)	C	1,2-Dichloropropa	0.509	0.542	0.497	0.498	0.514	0.492	0.509	3.56#
6)	T	Dibromomethane	0.320	0.320	0.303	0.313	0.337	0.325	0.320	3.49
7)	T	Bromodichlorometh	0.583	0.562	0.536	0.589	0.606	0.594	0.579	4.39
8)	S	Toluene-d8	1.523	1.413	1.412	1.365	1.410	1.305	1.405	5.09
9)	T	4-Methyl-2-Pentan	1.017	0.952	0.878	0.901	0.995	0.830	0.929	7.74
0)	CM	Toluene	0.914	0.913	0.896	0.852	0.869	0.816	0.877	4.38#
1)	T	t-1,3-Dichloropro	0.758	0.759	0.708	0.754	0.808	0.754	0.757	4.19
2)		Methyl Methacryla	0.751	0.749	0.647	0.688	0.765	0.686	0.714	6.65

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OR

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7/19/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039483.D
Acq On : 9 Jun 2010 12:34
Operator : MS
Sample : 5 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 09 13:37:04 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:31:16 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.19	168	172840	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.56	114	345997	50.00	ug/l		0.00
62) Chlorobenzene-d5	6.26	117	426595	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	213293	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.22	65	181034	44.48	ug/l		0.00
Spiked Amount 50.000			Recovery = 88.96%				
36) Dibromofluoromethane	2.86	113	134635	50.80	ug/l		0.00
Spiked Amount 50.000			Recovery = 101.60%				
48) Toluene-d8	4.71	98	526788	55.33	ug/l		0.00
Spiked Amount 50.000			Recovery = 110.66%				
61) 4-Bromofluorobenzene	7.59	95	215263	54.77	ug/l		0.00
Spiked Amount 50.000			Recovery = 109.54%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	6465	2.68	ug/l		81
3) Chloromethane	1.01	50	17680	3.63	ug/l		91
4) Vinyl Chloride	1.07	62	12893	3.59	ug/l		95
5) Bromomethane	1.21	94	12466	4.79	ug/l		81
6) Chloroethane	1.28	64	8161	4.20	ug/l	#	82
7) Trichlorofluoromethane	1.39	101	13179m	4.08	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.62	101	9349	4.08	ug/l		97
9) Methyl Iodide	1.65	142	19289	4.30	ug/l		96
10) Tert butyl alcohol	2.06	59	12436	21.11	ug/l	#	100
11) Diethyl Ether	1.46	74	10484	4.30	ug/l		96
12) 1,1-Dichloroethene	1.58	96	8989	4.10	ug/l		94
13) Methyl Acetate	1.93	74	12392	5.08	ug/l		96
14) Acrolein	1.74	56	23661	22.57	ug/l		91
15) Allyl chloride	1.80	41	35086	5.09	ug/l	#	89
16) Acrylonitrile	2.29	53	51248	22.62	ug/l		99
17) Acetone	1.88	58	16268	22.02	ug/l	#	87
18) Carbon Disulfide	1.59	76	40738	3.95	ug/l	#	77
19) Methyl tert-butyl Ether	2.00	73	52643	4.68	ug/l		95
20) Methylene Chloride	1.85	84	18202	5.09	ug/l		92
21) trans-1,2-Dichloroethene	1.94	96	9707	4.28	ug/l		91
23) Vinyl Acetate	2.40	43	190951	22.62	ug/l		96
24) 1,1-Dichloroethane	2.26	63	26376	4.36	ug/l	#	96
25) 2-Butanone	2.94	43	98105	21.90	ug/l		96
26) 2,2-Dichloropropane	2.65	77	18044	4.66	ug/l		98
27) cis-1,2-Dichloroethene	2.58	96	14547	4.47	ug/l		96
28) Bromochloromethane	2.69	128	6699	4.81	ug/l		89
29) Chloroform	2.74	83	24469	4.40	ug/l		98
30) Ethyl Acetate	2.83	43	42153	4.75	ug/l	#	83
31) 1,1,1-Trichloroethane	2.87	97	13186	4.42	ug/l		81
32) Cyclohexane	2.70	56	21598	4.30	ug/l		98
33) Isopropyl Acetate	3.46	43	58598	4.81	ug/l		95
37) 1,1-Dichloropropene	2.95	75	16335	4.52	ug/l		89
38) Carbon Tetrachloride	2.84	117	11947	4.53	ug/l		93
39) Benzene	3.11	78	56378	5.17	ug/l	#	47

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039483.D
Acq On : 9 Jun 2010 12:34
Operator : MS
Sample : 5 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 09 13:37:04 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:31:16 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Methacrylonitrile	3.15	41	18809	4.88 ug/l #	64
41) 1,2-Dichloroethane	3.26	62	19564	4.49 ug/l	97
43) Trichloroethene	3.54	130	8489	4.04 ug/l	17
44) Methylcyclohexane	3.53	83	19825	4.88 ug/l	91
45) 1,2-Dichloropropane	3.94	63	17622	5.16 ug/l	99
46) Dibromomethane	3.86	93	11062	5.73 ug/l	96
47) Bromodichloromethane	4.00	83	20168	5.11 ug/l #	96
49) 4-Methyl-2-Pentanone	5.15	43	175972	27.22 ug/l	95
50) Toluene	4.75	92	31624	5.02 ug/l	97
51) t-1,3-Dichloropropene	5.17	75	26229	4.92 ug/l	92
52) Methyl Methacrylate	4.15	41	25998	5.28 ug/l	94
53) cis-1,3-Dichloropropene	4.54	75	30534	5.27 ug/l	96
54) 1,1,2-Trichloroethane	5.32	97	14660	4.76 ug/l	96
55) Ethyl methacrylate	5.37	69	28457	4.67 ug/l	91
56) 1,3-Dichloropropane	5.58	76	31554	5.05 ug/l	99
57) 2-Chloroethyl vinyl ether	4.51	63	65574	25.36 ug/l	97
58) 2-Hexanone	6.02	43	132882	25.80 ug/l	98
59) Dibromochloromethane	5.48	129	14446	4.53 ug/l	100
60) 1,2-Dibromoethane	5.70	107	16437	4.93 ug/l	98
63) Tetrachloroethene	5.12	164	10294	3.87 ug/l	99
64) Chlorobenzene	6.28	112	37078	4.74 ug/l	95
65) 1,1,1,2-Tetrachloroethane	6.36	131	11601	4.14 ug/l	96
66) Hexachloroethane	8.90	117	9424	4.14 ug/l	96
67) Ethyl Benzene	6.33	91	59838	4.36 ug/l	95
68) m/p-Xylenes	6.51	106	41385	9.06 ug/l	97
69) o-Xylene	6.99	106	19768	4.19 ug/l	87
70) Styrene	7.06	104	36166	4.24 ug/l	97
71) Bromoform	7.05	173	8767	3.64 ug/l	100
72) n-Amyl Acetate	7.55	43	47269	4.36 ug/l	93
74) Isopropylbenzene	7.34	105	52566	4.54 ug/l	94
75) 1,1,2,2-Tetrachloroethane	7.83	83	27179	4.53 ug/l	98
76) 1,2,3-Trichloropropane	7.93	75	21462	4.62 ug/l #	100
77) Bromobenzene	7.68	156	14066	4.51 ug/l	92
78) n-propylbenzene	7.75	91	67210	4.40 ug/l	97
79) p-ethyltoluene	7.85	105	56896	4.99 ug/l	97
80) 2-Chlorotoluene	7.86	91	51619	4.80 ug/l	95
81) 1,3,5-Trimethylbenzene	7.95	105	43009	4.57 ug/l	93
82) trans-1,4-Dichloro-2-buten	7.99	75	11362	4.01 ug/l	89
83) 4-Chlorotoluene	8.02	91	45584	4.49 ug/l	98
84) tert-Butylbenzene	8.21	119	40670	4.66 ug/l	96
85) 1,2,4-Trimethylbenzene	8.28	105	44297	4.55 ug/l	97
86) sec-Butylbenzene	8.37	105	58475	4.61 ug/l	96
87) p-Isopropyltoluene	8.50	119	42854	4.35 ug/l	97
88) 1,3-Dichlorobenzene	8.53	146	26541	4.47 ug/l	97
89) 1,4-Dichlorobenzene	8.60	146	28936	4.72 ug/l	97
90) p-diethylbenzene	8.80	119	27002	4.91 ug/l	96
91) n-Butylbenzene	8.84	91	50664	4.28 ug/l	95
92) 1,2-Dichlorobenzene	8.94	146	26678	4.42 ug/l	97
93) 1,2,4,5-tetramethylbenzene	9.43	119	50227	4.99 ug/l	94
94) 1,2-Dibromo-3-Chloropropan	9.54	75	3732	3.70 ug/l	93

(10294)(50) / (~~344987~~)(5) =
426595
= 0.241306156

7/20/10

433

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039482.D
Acq On : 9 Jun 2010 12:07
Operator : MS
Sample : 10 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 09 13:38:39 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:31:16 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.18	168	179008	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.56	114	382409	50.00	ug/l		0.00
62) Chlorobenzene-d5	6.26	117	426908	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	217872	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.22	65	191814	45.50	ug/l		0.00
Spiked Amount 50.000			Recovery = 91.00%				
36) Dibromofluoromethane	2.86	113	144524	49.34	ug/l		0.00
Spiked Amount 50.000			Recovery = 98.68%				
48) Toluene-d8	4.71	98	540320	51.35	ug/l		0.00
Spiked Amount 50.000			Recovery = 102.70%				
61) 4-Bromofluorobenzene	7.59	95	226153	52.06	ug/l		-0.01
Spiked Amount 50.000			Recovery = 104.12%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	12531	5.01	ug/l		94
3) Chloromethane	1.01	50	36297	7.19	ug/l		97
4) Vinyl Chloride	1.06	62	28812	7.74	ug/l		96
5) Bromomethane	1.21	94	21838	8.10	ug/l		96
6) Chloroethane	1.27	64	17552	8.72	ug/l		100
7) Trichlorofluoromethane	1.39	101	29663m	8.87	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.61	101	22787	9.60	ug/l	#	25
9) Methyl Iodide	1.65	142	44114	9.49	ug/l		98
10) Tert butyl alcohol	2.05	59	28495	46.71	ug/l	#	100
11) Diethyl Ether	1.46	74	24372	9.65	ug/l		95
12) 1,1-Dichloroethene	1.58	96	21351	9.39	ug/l		100
13) Methyl Acetate	1.94	74	23588	9.34	ug/l		64
14) Acrolein	1.74	56	50563	46.56	ug/l		92
15) Allyl chloride	1.80	41	60023	8.40	ug/l		94
16) Acrylonitrile	2.29	53	109565	46.70	ug/l		100
17) Acetone	1.88	58	36050	47.10	ug/l	#	99
18) Carbon Disulfide	1.59	76	96090	9.01	ug/l	#	93
19) Methyl tert-butyl Ether	2.00	73	113866	9.78	ug/l		97
20) Methylene Chloride	1.85	84	39022	10.53	ug/l		95
21) trans-1,2-Dichloroethene	1.94	96	24477	10.42	ug/l		94
23) Vinyl Acetate	2.40	43	415562	47.53	ug/l		99
24) 1,1-Dichloroethane	2.26	63	60453	9.64	ug/l	#	91
25) 2-Butanone	2.94	43	212316	45.77	ug/l		99
26) 2,2-Dichloropropane	2.64	77	40775	10.18	ug/l	#	63
27) cis-1,2-Dichloroethene	2.58	96	33455	9.93	ug/l		93
28) Bromochloromethane	2.70	128	14913	10.34	ug/l		83
29) Chloroform	2.74	83	56862	9.86	ug/l		97
30) Ethyl Acetate	2.82	43	89561	9.74	ug/l	#	84
31) 1,1,1-Trichloroethane	2.87	97	29943	9.68	ug/l		81
32) Cyclohexane	2.70	56	51506	9.90	ug/l		98
33) Isopropyl Acetate	3.46	43	122067	9.67	ug/l		96
37) 1,1-Dichloropropene	2.95	75	38161	9.55	ug/l		98
38) Carbon Tetrachloride	2.84	117	29111	10.00	ug/l		98
39) Benzene	3.11	78	121237	10.05	ug/l		99

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039482.D
Acq On : 9 Jun 2010 12:07
Operator : MS
Sample : 10 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 09 13:38:39 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:31:16 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Methacrylonitrile	3.15	41	40285	9.45 ug/l #	95
41) 1,2-Dichloroethane	3.26	62	44792	9.31 ug/l	99
43) Trichloroethene	3.53	130	20025	8.62 ug/l	59
44) Methylcyclohexane	3.53	83	43433	9.67 ug/l	95
45) 1,2-Dichloropropane	3.94	63	41431	10.98 ug/l	92
46) Dibromomethane	3.86	93	24457	11.46 ug/l	97
47) Bromodichloromethane	4.00	83	42994	9.85 ug/l	97
49) 4-Methyl-2-Pentanone	5.15	43	364087	50.95 ug/l	100
50) Toluene	4.75	92	69805	10.03 ug/l	96
51) t-1,3-Dichloropropene	5.17	75	58053	9.86 ug/l	97
52) Methyl Methacrylate	4.15	41	57304	10.53 ug/l	93
53) cis-1,3-Dichloropropene	4.54	75	62152	9.70 ug/l	96
54) 1,1,2-Trichloroethane	5.31	97	33061	9.70 ug/l	98
55) Ethyl methacrylate	5.37	69	65646	9.74 ug/l	97
56) 1,3-Dichloropropane	5.58	76	68574	9.93 ug/l	99
57) 2-Chloroethyl vinyl ether	4.51	63	139278	48.74 ug/l	99
58) 2-Hexanone	6.02	43	283223	49.75 ug/l	98
59) Dibromochloromethane	5.48	129	32908	9.33 ug/l	99
60) 1,2-Dibromoethane	5.70	107	37159	10.09 ug/l	95
63) Tetrachloroethene	5.11	164	21940	8.25 ug/l	96
64) Chlorobenzene	6.28	112	79402	10.15 ug/l	97
65) 1,1,1,2-Tetrachloroethane	6.36	131	25828	9.21 ug/l	94
66) Hexachloroethane	8.90	117	20985	9.21 ug/l	97
67) Ethyl Benzene	6.33	91	138600	10.09 ug/l	97
68) m/p-Xylenes	6.51	106	92880	20.33 ug/l	97
69) o-Xylene	6.98	106	46204	9.79 ug/l	88
70) Styrene	7.06	104	85586	10.02 ug/l	99
71) Bromoform	7.05	173	21458	8.89 ug/l	99
72) n-Amyl Acetate	7.55	43	105836	9.76 ug/l	97
74) Isopropylbenzene	7.34	105	119209	10.08 ug/l	98
75) 1,1,2,2-Tetrachloroethane	7.83	83	59014	9.63 ug/l	98
76) 1,2,3-Trichloropropane	7.93	75	46463	9.79 ug/l #	100
77) Bromobenzene	7.67	156	30453	9.56 ug/l	96
78) n-propylbenzene	7.75	91	155404	9.95 ug/l	97
79) p-ethyltoluene	7.86	105	122160	10.50 ug/l	98
80) 2-Chlorotoluene	7.86	91	108963	9.92 ug/l	100
81) 1,3,5-Trimethylbenzene	7.95	105	97728	10.17 ug/l	99
82) trans-1,4-Dichloro-2-buten	7.99	75	26587	9.18 ug/l #	47
83) 4-Chlorotoluene	8.02	91	103941	10.02 ug/l	96
84) tert-Butylbenzene	8.22	119	88991	9.98 ug/l	97
85) 1,2,4-Trimethylbenzene	8.28	105	100901	10.14 ug/l	97
86) sec-Butylbenzene	8.37	105	135750	10.49 ug/l	98
87) p-Isopropyltoluene	8.50	119	102786	10.20 ug/l	98
88) 1,3-Dichlorobenzene	8.52	146	62342	10.29 ug/l	97
89) 1,4-Dichlorobenzene	8.60	146	62137	9.92 ug/l	97
90) p-diethylbenzene	8.80	119	58295	10.38 ug/l	100
91) n-Butylbenzene	8.84	91	116717	9.64 ug/l	98
92) 1,2-Dichlorobenzene	8.93	146	61406	9.97 ug/l	96
93) 1,2,4,5-tetramethylbenzene	9.43	119	103364	10.05 ug/l	100
94) 1,2-Dibromo-3-Chloropropan	9.54	75	9054	8.78 ug/l	95

$\frac{(21940)(50)}{(426808)(10)} =$

0.256564029

7/20/10

437

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039481.D
Acq On : 9 Jun 2010 11:40
Operator : MS
Sample : 20 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 09 13:39:45 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:31:16 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.19	168	189030	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.56	114	412519	50.00	ug/l		0.00
62) Chlorobenzene-d5	6.26	117	472991	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	235954	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.21	65	211554	47.53	ug/l		0.00
Spiked Amount 50.000			Recovery = 95.06%				
36) Dibromofluoromethane	2.86	113	156427	49.51	ug/l		0.00
Spiked Amount 50.000			Recovery = 99.02%				
48) Toluene-d8	4.71	98	582335	51.30	ug/l		0.00
Spiked Amount 50.000			Recovery = 102.60%				
61) 4-Bromofluorobenzene	7.59	95	242111	51.67	ug/l		0.00
Spiked Amount 50.000			Recovery = 103.34%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.99	85	28692	10.86	ug/l		100
3) Chloromethane	1.01	50	78073	14.64	ug/l		100
4) Vinyl Chloride	1.08	62	63236	16.08	ug/l		97
5) Bromomethane	1.21	94	46857	16.47	ug/l		95
6) Chloroethane	1.28	64	38406	18.06	ug/l		95
7) Trichlorofluoromethane	1.39	101	66242m	18.76	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.62	101	48263	19.25	ug/l		98
9) Methyl Iodide	1.65	142	91253	18.60	ug/l		99
10) Tert butyl alcohol	2.05	59	53181	82.55	ug/l	#	100
11) Diethyl Ether	1.46	74	46251	17.34	ug/l		100
12) 1,1-Dichloroethene	1.57	96	45179	18.82	ug/l		99
13) Methyl Acetate	1.94	74	47702	17.88	ug/l		73
14) Acrolein	1.74	56	91969	80.20	ug/l		94
15) Allyl chloride	1.79	41	135458	17.96	ug/l		95
16) Acrylonitrile	2.29	53	215209	86.87	ug/l		100
17) Acetone	1.87	58	59996	74.24	ug/l	#	68
18) Carbon Disulfide	1.59	76	201091	17.85	ug/l	#	84
19) Methyl tert-butyl Ether	1.99	73	227527	18.51	ug/l		97
20) Methylene Chloride	1.85	84	77011	19.68	ug/l		95
21) trans-1,2-Dichloroethene	1.94	96	48571	19.59	ug/l		93
23) Vinyl Acetate	2.40	43	825674	89.42	ug/l		98
24) 1,1-Dichloroethane	2.26	63	126813	19.15	ug/l		99
25) 2-Butanone	2.94	43	409204	83.53	ug/l		98
26) 2,2-Dichloropropane	2.64	77	83888	19.83	ug/l		99
27) cis-1,2-Dichloroethene	2.58	96	69349	19.49	ug/l		86
28) Bromochloromethane	2.69	128	28962	19.02	ug/l		95
29) Chloroform	2.74	83	114596	18.83	ug/l		98
30) Ethyl Acetate	2.83	43	172647	17.77	ug/l		97
31) 1,1,1-Trichloroethane	2.87	97	62694	19.20	ug/l		97
32) Cyclohexane	2.70	56	105308	19.17	ug/l		97
33) Isopropyl Acetate	3.46	43	239725	17.98	ug/l		99
37) 1,1-Dichloropropene	2.94	75	83369	19.34	ug/l		97
38) Carbon Tetrachloride	2.83	117	61993	19.73	ug/l		98
39) Benzene	3.11	78	235068	18.06	ug/l		99

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039481.D
Acq On : 9 Jun 2010 11:40
Operator : MS
Sample : 20 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 09 13:39:45 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:31:16 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
40) Methacrylonitrile	3.15	41	75211	16.36 ug/l	#	91
41) 1,2-Dichloroethane	3.26	62	88805	17.11 ug/l		97
43) Trichloroethene	3.53	130	48186	19.22 ug/l		90
44) Methylcyclohexane	3.52	83	93742	19.35 ug/l		98
45) 1,2-Dichloropropane	3.93	63	82011	20.14 ug/l		99
46) Dibromomethane	3.86	93	50041	21.73 ug/l		98
47) Bromodichloromethane	3.99	83	88477	18.80 ug/l		97
49) 4-Methyl-2-Pentanone	5.15	43	724754	94.02 ug/l		99
50) Toluene	4.75	92	147861	19.69 ug/l		99
51) t-1,3-Dichloropropene	5.17	75	116803	18.39 ug/l		99
52) Methyl Methacrylate	4.15	41	106713	18.18 ug/l		99
53) cis-1,3-Dichloropropene	4.54	75	128305	18.57 ug/l		99
54) 1,1,2-Trichloroethane	5.32	97	67698	18.42 ug/l		97
55) Ethyl methacrylate	5.37	69	133557	18.37 ug/l		98
56) 1,3-Dichloropropane	5.58	76	132632	17.80 ug/l		100
57) 2-Chloroethyl vinyl ether	4.51	63	273477	88.72 ug/l		100
58) 2-Hexanone	6.02	43	564568	91.93 ug/l		100
59) Dibromochloromethane	5.48	129	68050	17.89 ug/l		99
60) 1,2-Dibromoethane	5.69	107	72607	18.28 ug/l		99
63) Tetrachloroethene	5.12	164	47001	15.95 ug/l		97
64) Chlorobenzene	6.28	112	157708	18.19 ug/l		99
65) 1,1,1,2-Tetrachloroethane	6.36	131	54791	17.64 ug/l		98
66) Hexachloroethane	8.90	117	45972	18.21 ug/l		95
67) Ethyl Benzene	6.33	91	277817	18.25 ug/l		100
68) m/p-Xylenes	6.51	106	194529	38.43 ug/l		98
69) o-Xylene	6.98	106	95374	18.24 ug/l		94
70) Styrene	7.06	104	175914	18.58 ug/l		99
71) Bromoform	7.05	173	44554	16.67 ug/l		98
72) n-Amyl Acetate	7.55	43	215381	17.93 ug/l		99
74) Isopropylbenzene	7.34	105	251269	19.62 ug/l		99
75) 1,1,2,2-Tetrachloroethane	7.83	83	119040	17.94 ug/l		99
76) 1,2,3-Trichloropropane	7.93	75	90656	17.63 ug/l	#	100
77) Bromobenzene	7.68	156	63113	18.29 ug/l		97
78) n-propylbenzene	7.75	91	324158	19.17 ug/l		98
79) p-ethyltoluene	7.86	105	265485	21.06 ug/l		100
80) 2-Chlorotoluene	7.86	91	227431	19.12 ug/l		100
81) 1,3,5-Trimethylbenzene	7.95	105	198485	19.07 ug/l		98
82) trans-1,4-Dichloro-2-buten	7.99	75	56644	18.05 ug/l	#	76
83) 4-Chlorotoluene	8.02	91	208888	18.60 ug/l		99
84) tert-Butylbenzene	8.21	119	196777	20.37 ug/l		98
85) 1,2,4-Trimethylbenzene	8.28	105	204763	18.99 ug/l		99
86) sec-Butylbenzene	8.37	105	282649	20.16 ug/l		100
87) p-Isopropyltoluene	8.50	119	215563	19.76 ug/l		99
88) 1,3-Dichlorobenzene	8.53	146	120059	18.30 ug/l		97
89) 1,4-Dichlorobenzene	8.60	146	126606	18.65 ug/l		100
90) p-diethylbenzene	8.80	119	128764	21.17 ug/l		98
91) n-Butylbenzene	8.84	91	252772	19.28 ug/l		96
92) 1,2-Dichlorobenzene	8.93	146	117962	17.68 ug/l		97
93) 1,2,4,5-tetramethylbenzene	9.43	119	227784	20.44 ug/l		100
94) 1,2-Dibromo-3-Chloropropan	9.54	75	18757	16.80 ug/l		99

(47001)(50) / (472991)(20) = 0.248428388

7/20/10

441

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039484.D
Acq On : 9 Jun 2010 13:01
Operator : MS
Sample : 50 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 09 13:29:35 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:26:46 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.18	168	189940	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.56	114	389241	50.00	ug/l		0.00
62) Chlorobenzene-d5	6.26	117	426475	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	222446	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.22	65	202114	44.66	ug/l		0.00
Spiked Amount 50.000			Recovery = 89.32%				
36) Dibromofluoromethane	2.86	113	145940	48.33	ug/l		0.00
Spiked Amount 50.000			Recovery = 96.66%				
48) Toluene-d8	4.71	98	531290	49.33	ug/l		0.00
Spiked Amount 50.000			Recovery = 98.66%				
61) 4-Bromofluorobenzene	7.60	95	226245	51.21	ug/l		0.00
Spiked Amount 50.000			Recovery = 102.42%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	111394	38.63	ug/l		97
3) Chloromethane	1.02	50	228423	41.21	ug/l		98
4) Vinyl Chloride	1.09	62	172034	41.64	ug/l		99
5) Bromomethane	1.22	94	120073	40.28	ug/l		99
6) Chloroethane	1.27	64	92057	40.11	ug/l		93
7) Trichlorofluoromethane	1.39	101	154090m	41.37	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.63	101	113853	42.66	ug/l		98
9) Methyl Iodide	1.65	142	225776	44.07	ug/l		98
10) Tert butyl alcohol	2.05	59	141579	215.53	ug/l	#	100
11) Diethyl Ether	1.46	74	121884	44.13	ug/l		95
12) 1,1-Dichloroethene	1.58	96	106035	41.51	ug/l		97
13) Methyl Acetate	1.94	74	134934	49.29	ug/l		86
14) Acrolein	1.74	56	219194	181.84	ug/l		100
15) Allyl chloride	1.80	41	287539	35.72	ug/l		94
16) Acrylonitrile	2.29	53	534257	209.84	ug/l		99
17) Acetone	1.88	58	209747	255.91	ug/l	#	93
18) Carbon Disulfide	1.59	76	486540	40.87	ug/l	#	98
19) Methyl tert-butyl Ether	2.00	73	560922	44.47	ug/l		99
20) Methylene Chloride	1.85	84	180628	44.78	ug/l		89
21) trans-1,2-Dichloroethene	1.94	96	110892	42.63	ug/l		98
23) Vinyl Acetate	2.40	43	1861209	192.33	ug/l		100
24) 1,1-Dichloroethane	2.26	63	288370	41.80	ug/l		100
25) 2-Butanone	2.94	43	1126457	224.95	ug/l		99
26) 2,2-Dichloropropane	2.64	77	183090	40.94	ug/l		99
27) cis-1,2-Dichloroethene	2.58	96	164225	44.32	ug/l		97
28) Bromochloromethane	2.70	128	73651	47.11	ug/l		95
29) Chloroform	2.74	83	266763	42.01	ug/l		99
30) Ethyl Acetate	2.83	43	418639	41.94	ug/l		99
31) 1,1,1-Trichloroethane	2.88	97	144238	41.62	ug/l		97
32) Cyclohexane	2.70	56	237445	40.84	ug/l		98
33) Isopropyl Acetate	3.46	43	581102	42.41	ug/l		100
37) 1,1-Dichloropropene	2.95	75	181340	42.50	ug/l		96
38) Carbon Tetrachloride	2.84	117	137772	44.07	ug/l		98
39) Benzene	3.11	78	569489	44.74	ug/l		99

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039484.D
Acq On : 9 Jun 2010 13:01
Operator : MS
Sample : 50 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 09 13:29:35 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:26:46 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
40) Methacrylonitrile	3.15	41	192160	43.26 ug/l	#	94
41) 1,2-Dichloroethane	3.26	62	217288	43.14 ug/l		98
43) Trichloroethene	3.54	130	107266	43.33 ug/l		99
44) Methylcyclohexane	3.53	83	197081	41.06 ug/l		98
45) 1,2-Dichloropropane	3.94	63	193751	49.36 ug/l		96
46) Dibromomethane	3.86	93	121935	56.57 ug/l		96
47) Bromodichloromethane	4.00	83	229409	50.15 ug/l		100
49) 4-Methyl-2-Pentanone	5.15	43	1753699	238.78 ug/l		100
50) Toluene	4.75	92	331495	45.31 ug/l		99
51) t-1,3-Dichloropropene	5.17	75	293447	47.99 ug/l		98
52) Methyl Methacrylate	4.15	41	267630	47.58 ug/l		99
53) cis-1,3-Dichloropropene	4.55	75	317615	47.94 ug/l		98
54) 1,1,2-Trichloroethane	5.31	97	165496	46.84 ug/l		98
55) Ethyl methacrylate	5.37	69	331944	47.75 ug/l		98
56) 1,3-Dichloropropane	5.58	76	329792	45.85 ug/l		100
57) 2-Chloroethyl vinyl ether	4.51	63	676588	228.59 ug/l		98
58) 2-Hexanone	6.02	43	1484495	254.48 ug/l		100
59) Dibromochloromethane	5.48	129	172138	46.81 ug/l		99
60) 1,2-Dibromoethane	5.70	107	182180	47.60 ug/l		99
63) Tetrachloroethene	5.12	164	115421	41.80 ug/l		98
64) Chlorobenzene	6.28	112	372072	46.46 ug/l		99
65) 1,1,1,2-Tetrachloroethane	6.36	131	133340	46.61 ug/l		95
66) Hexachloroethane	8.90	117	110638	47.31 ug/l		95
67) Ethyl Benzene	6.33	91	627764	44.27 ug/l		99
68) m/p-Xylenes	6.51	106	436060	93.25 ug/l		98
69) o-Xylene	6.98	106	223446	46.20 ug/l		94
70) Styrene	7.06	104	412989	47.42 ug/l		99
71) Bromoform	7.05	173	117307	47.91 ug/l		97
72) n-Amyl Acetate	7.55	43	525075	47.97 ug/l		97
74) Isopropylbenzene	7.34	105	550444	43.98 ug/l		99
75) 1,1,2,2-Tetrachloroethane	7.83	83	288645	45.25 ug/l		99
76) 1,2,3-Trichloropropane	7.93	75	221871	45.09 ug/l	#	100
77) Bromobenzene	7.68	156	151510	45.11 ug/l		99
78) n-propylbenzene	7.75	91	703501	42.47 ug/l		99
79) p-ethyltoluene	7.86	105	595098	49.73 ug/l		99
80) 2-Chlorotoluene	7.86	91	517349	45.08 ug/l		98
81) 1,3,5-Trimethylbenzene	7.95	105	443419	43.64 ug/l		99
82) trans-1,4-Dichloro-2-buten	7.99	75	141992	46.76 ug/l	#	83
83) 4-Chlorotoluene	8.02	91	478593	43.76 ug/l		99
84) tert-Butylbenzene	8.22	119	399852	42.12 ug/l		96
85) 1,2,4-Trimethylbenzene	8.28	105	464836	44.11 ug/l		100
86) sec-Butylbenzene	8.37	105	581474	41.95 ug/l		99
87) p-Isopropyltoluene	8.50	119	472228	44.14 ug/l		97
88) 1,3-Dichlorobenzene	8.53	146	281046	43.91 ug/l		98
89) 1,4-Dichlorobenzene	8.60	146	291210	43.97 ug/l		98
90) p-diethylbenzene	8.80	119	288669	49.37 ug/l		100
91) n-Butylbenzene	8.84	91	525862	39.68 ug/l		89
92) 1,2-Dichlorobenzene	8.93	146	283753	43.66 ug/l		97
93) 1,2,4,5-tetramethylbenzene	9.43	119	536521	50.55 ug/l		99
94) 1,2-Dibromo-3-Chloropropan	9.54	75	48351	44.61 ug/l		96

(115421)(50) / (426475)(50) = 0.270639541

7/20/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039485.D
Acq On : 9 Jun 2010 13:27
Operator : MS
Sample : 100 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 09 14:03:03 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:38:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.18	168	186973	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.56	114	377676	50.00	ug/l		0.00
62) Chlorobenzene-d5	6.26	117	428406	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	223338	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.21	65	221458	50.30	ug/l		0.00
Spiked Amount 50.000			Recovery = 100.60%				
36) Dibromofluoromethane	2.86	113	146415	50.62	ug/l		0.00
Spiked Amount 50.000			Recovery = 101.24%				
48) Toluene-d8	4.71	98	532650	51.25	ug/l		0.00
Spiked Amount 50.000			Recovery = 102.50%				
61) 4-Bromofluorobenzene	7.59	95	226196	52.72	ug/l		0.00
Spiked Amount 50.000			Recovery = 105.44%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.99	85	224264	85.82	ug/l		96
3) Chloromethane	1.03	50	455033	86.29	ug/l		100
4) Vinyl Chloride	1.10	62	345651	88.85	ug/l		99
5) Bromomethane	1.21	94	219292	77.91	ug/l		100
6) Chloroethane	1.28	64	138306	65.75	ug/l		99
7) Trichlorofluoromethane	1.39	101	328127m	93.93	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.62	101	214897	86.68	ug/l		94
9) Methyl Iodide	1.66	142	444165	91.53	ug/l		98
10) Tert butyl alcohol	2.05	59	321948	505.22	ug/l	#	100
11) Diethyl Ether	1.47	74	224860	85.22	ug/l		97
12) 1,1-Dichloroethene	1.57	96	201980	85.06	ug/l		98
13) Methyl Acetate	1.94	74	295242	111.91	ug/l		88
14) Acrolein	1.73	56	455830	401.87	ug/l		99
15) Allyl chloride	1.79	41	571849	76.65	ug/l		97
16) Acrylonitrile	2.30	53	1144099	466.88	ug/l		98
17) Acetone	1.88	58	435820	545.21	ug/l	#	90
18) Carbon Disulfide	1.59	76	918777m	82.44	ug/l		
19) Methyl tert-butyl Ether	1.99	73	1160979	95.50	ug/l		97
20) Methylene Chloride	1.85	84	352419	91.04	ug/l		99
21) trans-1,2-Dichloroethene	1.94	96	226753	92.45	ug/l		99
23) Vinyl Acetate	2.40	43	3770433	412.83	ug/l		99
24) 1,1-Dichloroethane	2.26	63	575509	87.87	ug/l		99
25) 2-Butanone	2.95	43	2421090	499.67	ug/l		100
26) 2,2-Dichloropropane	2.64	77	366183	87.51	ug/l		97
27) cis-1,2-Dichloroethene	2.58	96	326662	92.83	ug/l		100
28) Bromochloromethane	2.69	128	157026	104.24	ug/l		97
29) Chloroform	2.75	83	533136	88.55	ug/l		99
30) Ethyl Acetate	2.83	43	920477	95.80	ug/l		98
31) 1,1,1-Trichloroethane	2.88	97	300010	92.87	ug/l		98
32) Cyclohexane	2.69	56	482857	88.88	ug/l		97
33) Isopropyl Acetate	3.46	43	1226955	93.06	ug/l		99
37) 1,1-Dichloropropene	2.95	75	370557	93.91	ug/l		98
38) Carbon Tetrachloride	2.83	117	288713	100.37	ug/l		99
39) Benzene	3.11	78	1121878	94.17	ug/l		97

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039485.D
Acq On : 9 Jun 2010 13:27
Operator : MS
Sample : 100 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 09 14:03:03 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:38:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
40) Methacrylonitrile	3.16	41	422242	100.33 ug/l	#	99
41) 1,2-Dichloroethane	3.26	62	445899	93.81 ug/l		99
43) Trichloroethene	3.53	130	214376	93.39 ug/l		92
44) Methylcyclohexane	3.52	83	382174	86.16 ug/l		98
45) 1,2-Dichloropropane	3.93	63	388185	104.13 ug/l		100
46) Dibromomethane	3.86	93	254261	120.60 ug/l		99
47) Bromodichloromethane	4.01	83	458095	106.30 ug/l		98
49) 4-Methyl-2-Pentanone	5.15	43	3756729	532.32 ug/l		99
50) Toluene	4.75	92	656778	95.55 ug/l		99
51) t-1,3-Dichloropropene	5.17	75	610177	104.91 ug/l		99
52) Methyl Methacrylate	4.15	41	577822	107.54 ug/l		99
53) cis-1,3-Dichloropropene	4.54	75	630961	99.73 ug/l		100
54) 1,1,2-Trichloroethane	5.32	97	342502	101.79 ug/l		99
55) Ethyl methacrylate	5.37	69	704689	105.88 ug/l		99
56) 1,3-Dichloropropane	5.58	76	679584	99.61 ug/l		99
57) 2-Chloroethyl vinyl ether	4.51	63	1423278	504.34 ug/l		99
58) 2-Hexanone	6.02	43	3154719	561.08 ug/l		99
59) Dibromochloromethane	5.48	129	361127	103.70 ug/l		100
60) 1,2-Dibromoethane	5.69	107	381828	104.98 ug/l		97
63) Tetrachloroethene	5.12	164	251356	94.17 ug/l		99
64) Chlorobenzene	6.28	112	727295	92.63 ug/l		99
65) 1,1,1,2-Tetrachloroethane	6.37	131	271423	96.47 ug/l		98
66) Hexachloroethane	8.91	117	234683	102.61 ug/l		99
67) Ethyl Benzene	6.33	91	1256319	91.14 ug/l		100
68) m/p-Xylenes	6.51	106	875753	191.01 ug/l		99
69) o-Xylene	6.99	106	450452	95.12 ug/l		100
70) Styrene	7.05	104	821920	95.86 ug/l		99
71) Bromoform	7.05	173	252830	104.42 ug/l		96
72) n-Amyl Acetate	7.54	43	1115836	102.57 ug/l		99
74) Isopropylbenzene	7.34	105	1105335	91.19 ug/l		100
75) 1,1,2,2-Tetrachloroethane	7.84	83	613656	97.71 ug/l		98
76) 1,2,3-Trichloropropane	7.93	75	476069	97.84 ug/l	#	100
77) Bromobenzene	7.68	156	311766	95.46 ug/l		100
78) n-propylbenzene	7.75	91	1419203	88.68 ug/l		99
79) p-ethyltoluene	7.86	105	1142356	95.74 ug/l		100
80) 2-Chlorotoluene	7.87	91	1032787	91.74 ug/l		98
81) 1,3,5-Trimethylbenzene	7.95	105	896153	90.97 ug/l		98
82) trans-1,4-Dichloro-2-buten	7.99	75	310771	104.64 ug/l		98
83) 4-Chlorotoluene	8.02	91	948300	89.21 ug/l		100
84) tert-Butylbenzene	8.21	119	822065	89.90 ug/l		98
85) 1,2,4-Trimethylbenzene	8.29	105	917442	89.91 ug/l		99
86) sec-Butylbenzene	8.37	105	1213884	91.47 ug/l		99
87) p-Isopropyltoluene	8.51	119	964255	93.37 ug/l		99
88) 1,3-Dichlorobenzene	8.53	146	558371	89.90 ug/l		97
89) 1,4-Dichlorobenzene	8.60	146	588893	91.67 ug/l		99
90) p-diethylbenzene	8.80	119	560535	97.38 ug/l		99
91) n-Butylbenzene	8.84	91	1067931	86.07 ug/l		100
92) 1,2-Dichlorobenzene	8.93	146	581459	92.07 ug/l		98
93) 1,2,4,5-tetramethylbenzene	9.42	119	1053261	99.88 ug/l		100
94) 1,2-Dibromo-3-Chloropropan	9.55	75	112622	106.57 ug/l		98

(251356)(50) / (428406)(100) = 0.293361904

7/20/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039486.D
Acq On : 9 Jun 2010 13:54
Operator : MS
Sample : 200 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 09 14:11:13 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:38:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.19	168	208916	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.56	114	418813	50.00	ug/l		0.00
62) Chlorobenzene-d5	6.26	117	441579	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	8.59	152	229212	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.21	65	262761	53.41	ug/l		0.00
Spiked Amount 50.000			Recovery = 106.82%				
36) Dibromofluoromethane	2.86	113	159219	49.64	ug/l		0.00
Spiked Amount 50.000			Recovery = 99.28%				
48) Toluene-d8	4.71	98	546596	47.43	ug/l		0.00
Spiked Amount 50.000			Recovery = 94.86%				
61) 4-Bromofluorobenzene	7.59	95	234110	49.21	ug/l		0.00
Spiked Amount 50.000			Recovery = 98.42%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.99	85	459049	157.21	ug/l		95
3) Chloromethane	1.04	50	918911	155.95	ug/l		99
4) Vinyl Chloride	1.11	62	711938	163.79	ug/l		98
5) Bromomethane	1.22	94	409080	130.07	ug/l		100
6) Chloroethane	1.28	64	238346	101.41	ug/l		99
7) Trichlorofluoromethane	1.39	101	699043m	179.09	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.62	101	459365	165.82	ug/l		95
9) Methyl Iodide	1.65	142	941416	173.62	ug/l		96
10) Tert butyl alcohol	2.05	59	613380	861.46	ug/l	#	100
11) Diethyl Ether	1.47	74	469732	159.32	ug/l		94
12) 1,1-Dichloroethene	1.57	96	423697	159.70	ug/l		99
13) Methyl Acetate	1.94	74	583724	198.02	ug/l		83
14) Acrolein	1.73	56	893345	704.87	ug/l		98
15) Allyl chloride	1.79	41	1259836	151.13	ug/l		97
16) Acrylonitrile	2.29	53	2126234	776.54	ug/l		97
17) Acetone	1.89	58	788017	882.26	ug/l	#	90
18) Carbon Disulfide	1.63	76	1852543m	148.76	ug/l		
19) Methyl tert-butyl Ether	1.99	73	2390712	176.00	ug/l		95
20) Methylene Chloride	1.85	84	707623	163.59	ug/l		100
21) trans-1,2-Dichloroethene	1.93	96	449799	164.13	ug/l		98
23) Vinyl Acetate	2.40	43	7031243	689.00	ug/l		98
24) 1,1-Dichloroethane	2.26	63	1198004	163.71	ug/l		99
25) 2-Butanone	2.95	43	4579789	845.90	ug/l		97
26) 2,2-Dichloropropane	2.64	77	811955	173.65	ug/l		97
27) cis-1,2-Dichloroethene	2.58	96	713982	181.58	ug/l		99
28) Bromochloromethane	2.69	128	348480	207.03	ug/l		93
29) Chloroform	2.75	83	1195629	177.73	ug/l		98
30) Ethyl Acetate	2.83	43	1798885	167.55	ug/l	#	84
31) 1,1,1-Trichloroethane	2.87	97	667956	185.05	ug/l		84
32) Cyclohexane	2.69	56	996928	164.22	ug/l		95
33) Isopropyl Acetate	3.46	43	2542497	172.58	ug/l		99
37) 1,1-Dichloropropene	2.95	75	801974	183.27	ug/l		98
38) Carbon Tetrachloride	2.83	117	648042	203.16	ug/l		98
39) Benzene	3.11	78	2453892	185.74	ug/l		99

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK060910\
Data File : VK039486.D
Acq On : 9 Jun 2010 13:54
Operator : MS
Sample : 200 PPB ICC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 09 14:11:13 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 13:38:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
40) Methacrylonitrile	3.16	41	824465	176.66 ug/l	#	98
41) 1,2-Dichloroethane	3.26	62	974491	184.88 ug/l		99
43) Trichloroethene	3.53	130	488121	191.76 ug/l		92
44) Methylcyclohexane	3.52	83	841673	171.12 ug/l		98
45) 1,2-Dichloropropane	3.93	63	824987	199.56 ug/l		100
46) Dibromomethane	3.86	93	543874	232.62 ug/l		98
47) Bromodichloromethane	4.00	83	995645	208.35 ug/l		99
49) 4-Methyl-2-Pentanone	5.15	43	6948873	887.92 ug/l		98
50) Toluene	4.75	92	1367842	179.45 ug/l		99
51) t-1,3-Dichloropropene	5.17	75	1263117	195.84 ug/l		99
52) Methyl Methacrylate	4.15	41	1148453	192.74 ug/l		99
53) cis-1,3-Dichloropropene	4.55	75	1339846	190.97 ug/l		99
54) 1,1,2-Trichloroethane	5.32	97	710323	190.38 ug/l		99
55) Ethyl methacrylate	5.37	69	1432290	194.06 ug/l		100
56) 1,3-Dichloropropane	5.58	76	1391127	183.87 ug/l		99
57) 2-Chloroethyl vinyl ether	4.51	63	2883180	921.30 ug/l		97
58) 2-Hexanone	6.02	43	5871321	941.68 ug/l		97
59) Dibromochloromethane	5.48	129	771471	199.78 ug/l		100
60) 1,2-Dibromoethane	5.69	107	793583	196.76 ug/l		100
63) Tetrachloroethene	5.12	164	509174	185.08 ug/l		99
64) Chlorobenzene	6.28	112	1503612	185.79 ug/l		99
65) 1,1,1,2-Tetrachloroethane	6.37	131	571822	197.18 ug/l		98
66) Hexachloroethane	8.90	117	487161	206.64 ug/l		95
67) Ethyl Benzene	6.33	91	2602934	183.19 ug/l		100
68) m/p-Xylenes	6.51	106	1780932	376.86 ug/l		100
69) o-Xylene	6.98	106	931928	190.92 ug/l		99
70) Styrene	7.06	104	1674235	189.44 ug/l		99
71) Bromoform	7.05	173	534144	214.02 ug/l		97
72) n-Amyl Acetate	7.54	43	2237656	199.56 ug/l		98
74) Isopropylbenzene	7.34	105	2219352	178.40 ug/l		99
75) 1,1,2,2-Tetrachloroethane	7.83	83	1201174	186.36 ug/l		99
76) 1,2,3-Trichloropropane	7.93	75	925907	185.40 ug/l	#	100
77) Bromobenzene	7.68	156	649236	193.69 ug/l		100
78) n-propylbenzene	7.75	91	2837519	172.77 ug/l		100
79) p-ethyltoluene	7.87	105	2319706	189.44 ug/l		100
80) 2-Chlorotoluene	7.87	91	2111177	182.73 ug/l		99
81) 1,3,5-Trimethylbenzene	7.95	105	1839790	181.97 ug/l		98
82) trans-1,4-Dichloro-2-buten	7.99	75	622139	204.12 ug/l		99
83) 4-Chlorotoluene	8.02	91	1954520	179.16 ug/l		99
84) tert-Butylbenzene	8.21	119	1668803	177.83 ug/l		96
85) 1,2,4-Trimethylbenzene	8.29	105	1905813	181.99 ug/l		99
86) sec-Butylbenzene	8.37	105	2423143	177.91 ug/l		98
87) p-Isopropyltoluene	8.51	119	1945546	183.56 ug/l		98
88) 1,3-Dichlorobenzene	8.53	146	1173946	184.17 ug/l		98
89) 1,4-Dichlorobenzene	8.60	146	1211694	183.79 ug/l		99
90) p-diethylbenzene	8.80	119	1187542	201.02 ug/l		98
91) n-Butylbenzene	8.84	91	2157432	169.41 ug/l		99
92) 1,2-Dichlorobenzene	8.94	146	1221075	188.38 ug/l		99
93) 1,2,4,5-tetramethylbenzene	9.42	119	2236704	206.66 ug/l		98
94) 1,2-Dibromo-3-Chloropropan	9.54	75	229868	211.94 ug/l		98

$\frac{(509174)(50)}{(441579)(200)} =$

0.288268 9/6

7/20/16

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061010\
Data File : VK039507.D
Acq On : 10 Jun 2010 12:17
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 12:50:20 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 14:12:54 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	3.18	168	175663	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	3.57	114	367372	50.00	ug/l		0.01
62) Chlorobenzene-d5	6.27	117	401003	50.00	ug/l		0.01
73) 1,4-Dichlorobenzene-d4	8.60	152	202822	50.00	ug/l		0.01
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	3.22	65	186998	47.35	ug/l		0.00
Spiked Amount 50.000			Recovery = 94.70%				
36) Dibromofluoromethane	2.87	113	135326	48.28	ug/l		0.01
Spiked Amount 50.000			Recovery = 96.56%				
48) Toluene-d8	4.72	98	503740	48.81	ug/l		0.01
Spiked Amount 50.000			Recovery = 97.62%				
61) 4-Bromofluorobenzene	7.60	95	211433	48.78	ug/l		0.00
Spiked Amount 50.000			Recovery = 97.56%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.99	85	26938	16.20	ug/l		99
3) Chloromethane	1.01	50	75582	19.59	ug/l		98
4) Vinyl Chloride	1.08	62	61517	20.73	ug/l		100
5) Bromomethane	1.21	94	47048	21.96	ug/l		95
6) Chloroethane	1.27	64	37772	24.71	ug/l		96
7) Trichlorofluoromethane	1.39	101	63451m	21.71	ug/l		
8) 1,1,2-Trichlorotrifluoroet	1.62	101	45642	22.02	ug/l		99
9) Methyl Iodide	1.65	142	84054	20.34	ug/l		99
10) Tert butyl alcohol	2.06	59	53967	101.08	ug/l	#	100
11) Diethyl Ether	1.47	74	45811	21.12	ug/l		99
12) 1,1-Dichloroethene	1.58	96	44297	22.79	ug/l		97
13) Methyl Acetate	1.95	74	52598	21.36	ug/l		93
14) Acrolein	1.74	56	96781	111.08	ug/l		96
15) Allyl chloride	1.80	41	133384	22.67	ug/l		94
16) Acrylonitrile	2.30	53	212910	105.16	ug/l		99
17) Acetone	1.88	58	69460	99.61	ug/l	#	89
18) Carbon Disulfide	1.60	76	192548	22.02	ug/l	#	83
19) Methyl tert-butyl Ether	2.00	73	211334	19.88	ug/l		92
20) Methylene Chloride	1.86	84	73495	21.27	ug/l		92
21) trans-1,2-Dichloroethene	1.94	96	45754	21.61	ug/l		96
23) Vinyl Acetate	2.40	43	788899	108.88	ug/l		99
24) 1,1-Dichloroethane	2.26	63	119557	21.76	ug/l		99
25) 2-Butanone	2.94	43	399743	97.80	ug/l		98
26) 2,2-Dichloropropane	2.66	77	77968	21.45	ug/l		99
27) cis-1,2-Dichloroethene	2.59	96	63444	20.50	ug/l		95
28) Bromochloromethane	2.70	128	26339	18.65	ug/l		79
29) Chloroform	2.75	83	107010	20.81	ug/l		100
30) Ethyl Acetate	2.83	43	169443	20.61	ug/l		98
31) 1,1,1-Trichloroethane	2.88	97	62007	22.11	ug/l		96
32) Cyclohexane	2.70	56	99962	21.84	ug/l		99
33) Isopropyl Acetate	3.47	43	235598	20.79	ug/l		97
37) 1,1-Dichloropropene	2.95	75	77909	21.85	ug/l		96
38) Carbon Tetrachloride	2.84	117	55518	20.38	ug/l		97
39) Benzene	3.12	78	235517	21.25	ug/l		98

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061010\
Data File : VK039507.D
Acq On : 10 Jun 2010 12:17
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 12:50:20 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 14:12:54 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
40) Methacrylonitrile	3.15	41	73668	19.59 ug/l	#	97
41) 1,2-Dichloroethane	3.27	62	86287	20.61 ug/l		98
43) Trichloroethene	3.54	130	46032	22.78 ug/l		92
44) Methylcyclohexane	3.53	83	87826	22.25 ug/l		97
45) 1,2-Dichloropropane	3.94	63	79285	21.21 ug/l		96
46) Dibromomethane	3.87	93	49238	20.97 ug/l		95
47) Bromodichloromethane	4.00	83	86726	20.40 ug/l		97
49) 4-Methyl-2-Pentanone	5.15	43	714117	104.64 ug/l		99
50) Toluene	4.76	92	137821	21.39 ug/l		99
51) t-1,3-Dichloropropene	5.18	75	113218	20.36 ug/l		98
52) Methyl Methacrylate	4.16	41	104338	19.88 ug/l		100
53) cis-1,3-Dichloropropene	4.55	75	124237	20.60 ug/l		99
54) 1,1,2-Trichloroethane	5.32	97	62106	19.74 ug/l		98
55) Ethyl methacrylate	5.38	69	125870	20.03 ug/l		98
56) 1,3-Dichloropropane	5.59	76	134292	21.13 ug/l		97
57) 2-Chloroethyl vinyl ether	4.52	63	263921	100.55 ug/l		100
58) 2-Hexanone	6.02	43	554931	100.88 ug/l		98
59) Dibromochloromethane	5.49	129	64063	19.81 ug/l		100
60) 1,2-Dibromoethane	5.70	107	69633	19.96 ug/l		99
63) Tetrachloroethene	5.11	164	43278	20.25 ug/l		98
64) Chlorobenzene	6.28	112	146547	21.06 ug/l		98
65) 1,1,1,2-Tetrachloroethane	6.37	131	51260	21.10 ug/l		95
66) Hexachloroethane	8.91	117	44689	22.01 ug/l		98
67) Ethyl Benzene	6.34	91	270555	22.73 ug/l		97
68) m/p-Xylenes	6.51	106	182090	44.38 ug/l		97
69) o-Xylene	6.99	106	90631	21.97 ug/l		94
70) Styrene	7.06	104	162855	21.54 ug/l		99
71) Bromoform	7.06	173	40955	19.58 ug/l		100
72) n-Amyl Acetate	7.55	43	211730	21.74 ug/l		98
74) Isopropylbenzene	7.35	105	235285	22.85 ug/l		100
75) 1,1,2,2-Tetrachloroethane	7.84	83	117172	22.02 ug/l		98
76) 1,2,3-Trichloropropane	7.94	75	86735	21.01 ug/l	#	100
77) Bromobenzene	7.69	156	58380	20.99 ug/l		94
78) n-propylbenzene	7.76	91	309554	23.38 ug/l		98
79) p-ethyltoluene	7.86	105	243312	22.43 ug/l		99
80) 2-Chlorotoluene	7.87	91	217072	22.50 ug/l		100
81) 1,3,5-Trimethylbenzene	7.96	105	191761	22.93 ug/l		95
82) trans-1,4-Dichloro-2-buten	8.00	75	51804	20.40 ug/l		96
83) 4-Chlorotoluene	8.02	91	192364	21.65 ug/l		99
84) tert-Butylbenzene	8.22	119	179398	23.09 ug/l		99
85) 1,2,4-Trimethylbenzene	8.29	105	194727	22.53 ug/l		99
86) sec-Butylbenzene	8.38	105	260563	22.91 ug/l		100
87) p-Isopropyltoluene	8.51	119	199969	22.66 ug/l		97
88) 1,3-Dichlorobenzene	8.52	146	113343	21.66 ug/l		99
89) 1,4-Dichlorobenzene	8.61	146	117466	21.52 ug/l		99
90) p-diethylbenzene	8.81	119	122112	23.11 ug/l		100
91) n-Butylbenzene	8.85	91	235911	23.51 ug/l		99
92) 1,2-Dichlorobenzene	8.93	146	116797	22.09 ug/l		97
93) 1,2,4,5-tetramethylbenzene	9.43	119	212116	21.86 ug/l		99
94) 1,2-Dibromo-3-Chloropropan	9.55	75	19047	21.64 ug/l		96

$\frac{(43278)(50)}{(401003)(0.260004)} =$

2075 ug/L.

7/20/10

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061010\
Data File : VK039507.D
Acq On : 10 Jun 2010 12:17
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 12:50:20 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K060910S.M
Quant Title : SW846 8260
QLast Update : Wed Jun 09 14:12:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
6	T	Dibromomethane	20.000	20.972	-4.9	98	0.01
7	T	Bromodichloromethane	20.000	20.401	-2.0	98	0.00
8	S	Toluene-d8	50.000	48.812	2.4	87	0.01
9	T	4-Methyl-2-Pentanone	100.000	104.638	-4.6	99	0.00
0	CM	Toluene	20.000	21.395	-7.0#	93	0.01
1	T	t-1,3-Dichloropropene	20.000	20.362	-1.8	97	0.01
2		Methyl Methacrylate	20.000	19.882	0.6	98	0.01
3	T	cis-1,3-Dichloropropene	20.000	20.605	-3.0	97	0.00
4	T	1,1,2-Trichloroethane	20.000	19.743	1.3	92	0.01
5		Ethyl methacrylate	20.000	20.033	-0.2	94	0.01
6	T	1,3-Dichloropropane	20.000	21.131	-5.7	101	0.01
7	T	2-Chloroethyl vinyl ether	100.000	100.549	-0.5	97	0.01
8	T	2-Hexanone	100.000	100.881	-0.9	98	0.00
9	T	Dibromochloromethane	20.000	19.808	1.0	94	0.01
0	T	1,2-Dibromoethane	20.000	19.965	0.2	96	0.00
1	S	4-Bromofluorobenzene	50.000	48.779	2.4	87	0.00
2	I	Chlorobenzene-d5	50.000	50.000	0.0	85	0.01
3	T	Tetrachloroethene	20.000	20.249	-1.2	92	0.00
4	PM	Chlorobenzene	20.000	21.062	-5.3	93	0.00
5	T	1,1,1,2-Tetrachloroethane	20.000	21.103	-5.5	94	0.01
6		Hexachloroethane	20.000	22.013	-10.1	97	0.01
7	C	Ethyl Benzene	20.000	22.726	-13.6#	97	0.01
8	T	m/p-Xylenes	40.000	44.381	-11.0	94	0.00
9	T	o-Xylene	20.000	21.972	-9.9	95	0.01
0	T	Styrene	20.000	21.543	-7.7	93	0.00
1	P	Bromoform	20.000	19.580	2.1	92	0.01
2		n-Amyl Acetate	20.000	21.739	-8.7	98	0.00
3	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	86	0.01
4	T	Isopropylbenzene	20.000	22.847	-14.2	94	0.01
5	P	1,1,2,2-Tetrachloroethane	20.000	22.018	-10.1	98	0.01
6	T	1,2,3-Trichloropropane	20.000	21.010	-5.1	96	0.01
7	T	Bromobenzene	20.000	20.988	-4.9	93	0.01
8	T	n-propylbenzene	20.000	23.377	-16.9	95	0.01
9		p-ethyltoluene	20.000	22.428	-12.1	92	0.00
0	T	2-Chlorotoluene	20.000	22.499	-12.5	95	0.01
1	T	1,3,5-Trimethylbenzene	20.000	22.932	-14.7	97	0.01
2		trans-1,4-Dichloro-2-butene	20.000	20.403	-2.0	91	0.01
3	T	4-Chlorotoluene	20.000	21.650	-8.2	92	0.00
4	T	tert-Butylbenzene	20.000	23.090	-15.4	91	0.00
5	T	1,2,4-Trimethylbenzene	20.000	22.530	-12.7	95	0.01
6	T	sec-Butylbenzene	20.000	22.905	-14.5	92	0.01
7	T	p-Isopropyltoluene	20.000	22.655	-13.3	93	0.01
8	T	1,3-Dichlorobenzene	20.000	21.657	-8.3	94	0.00
9	T	1,4-Dichlorobenzene	20.000	21.522	-7.6	93	0.01

20.75 3.752 1)

7/20/10

SVOC

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Corning
Method : SW-846 8270C
Laboratory and SDG(s): Chemtech **SDG# B2618**
Date: 3/21/10
Reviewer:
Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. X Case Narrative Review and Data Package Completeness COMMENTS
   Were problems noted?
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. X Holding time and Sample Collection
   All water samples were extracted within the 7 day holding time, soil is 14 day?

3. X QC Blanks
   Are method blanks free of contamination? YES (NO) (circle one)
Dimethylphthalate (210 µg/kg) was reported in the method blank. An action level was established at ten times the reported detection. Reported detections of dimethylphthalate in the samples were less than the action level and were qualified non-detect (U). TICs reported in method blank. Results compared to samples and refused.
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   X Instrument Tuning
   Were all results were within method criteria. (YES) NO (circle one)

   X Instrument Calibration

   Control Limits (Region II HW-22): Initial Calibration %RSD = 15% Continuing Calibration %D = 20% Average RRF should be ≥0.05 (or reject NDs, J detects or use professional judgment to J/UJ)

   Were all results were within criteria. YES (NO) (circle one)
   In the initial calibration, the RSD for 2,4-dinitrophenol (56), 4,6-dinitro-2-methylphenol (41), and pentachlorophenol (19) exceeded the QC limit of 15. The sample results for 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and pentachlorophenol were non detect and the reporting limits were qualified estimated (UJ).

   In the continuing calibration, the percent difference for 2,4-dinitrophenol (-22) exceeded the QC limit of 20. Sample results for 2,4-dinitrophenol were qualified previously under the initial calibration criteria.

   X Surrogate Recovery (water and soil limits: Base/Neutral 50-140%, Acid 30-140%)
   Were all results were within limits? (YES) NO (circle one)
   Were any recoveries < 10%? (Reject fraction compounds if recoveries are < 10%)

   X Matrix Spike (water & soil limits: Base/Neutral 50-140%, Acid 30-140%) (RPD soil=35,water=20)

   Were MS/MSDs submitted/analyzed? (YES) NO

   Were all results were within limits? YES (NO) NA (circle one)
   Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD percent recoveries of benzaldehyde (13 and 13) and 4-chloroaniline (31 and 44) were less than the lower QC limit of 50. Results for benzaldehyde and 4-chloroaniline were qualified previously under the LCS criteria.

   X Duplicates/replicates (RPD limits = water: 50, soil: 100)

Were Field Duplicates submitted/analyzed? YES (NO)

Were RPDs within criteria. YES NO (NA) (circle one)

X Laboratory Control Sample Results (water and soil limits: Base/Neutral 50-140%, Acid 30-140%)

Were all results were within limits? YES (NO) (circle one)

The LCS percent recovery of benzaldehyde (11), 4-chloroaniline (44), and 3,3-dichlorobenzidine (22) were less than the lower QC limit of 50. Sample results for benzaldehyde , 4-chloroaniline, and 3,3-dichlorobenzidine were non detect and the reporting limits were qualified estimated (UJ).

4. X Raw Data Review and Calculation Checks

5. X Electronic Data Review and Edits: Does the EDD match the Form I's? (YES) NO (circle one)

6. ☐ **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? (YES) NO (circle one)

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	380	U J
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2-oxybis(1-Chloropropane)	380	U
98-86-2	Acetophenone	380	U
65794-96-9	3+4-Methylphenols	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U J
87-68-3	Hexachlorobutadiene	380	U
105-60-2	Caprolactam	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
92-52-4	1,1-Biphenyl	380	U
91-58-7	2-Chloronaphthalene	380	U

Comments:

7/21/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethylphthalate	450	~~B~~ U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	380	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	380	U J
100-02-7	4-Nitrophenol	380	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-methylphenol	380	U J
86-30-6	N-Nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
1912-24-9	Atrazine	380	U
87-86-5	Pentachlorophenol	380	U J
85-01-8	Phenanthrene	61	J
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	63	J
206-44-0	Fluoranthene	160	J
129-00-0	Pyrene	130	J
85-68-7	Butylbenzylphthalate	130	J
91-94-1	3,3-Dichlorobenzidine	380	U J
56-55-3	Benzo(a)anthracene	54	J

Comments:

7/21/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
218-01-9	Chrysene	80	J
117-81-7	bis(2-Ethylhexyl)phthalate	1800	
117-84-0	Di-n-octyl phthalate	55	J
205-99-2	Benzo(b)fluoranthene	87	J
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	55	J
193-39-5	Indeno(1,2,3-cd)pyrene	49	J
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	93	J

Comments:

7/21/10

CHEMTECH

-1F-

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 16

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
127-18-4	Tetrachloroethylene	4.94	1100	NJ
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~5.35~~	~~580~~	~~AB~~
98-83-9	.alpha.-Methylstyrene	7.41	890	NJ
3910-35-8	1H-Indene, 2,3-dihydro-1,1,3-trime	15.45	660	J
57-11-4	Octadecanoic acid	17.65	130	J
	unknown17.67	17.67	130	J
72-56-0	Benzene, 1,1-(2,2-dichloroethylid	18.11	1200	J
	unknown18.91	18.91	84	J
	unknown19.22	19.22	220	J
4294-95-5	4-Methoxyanthranilic acid	19.4	560	J
1000111-58-0	2,4-Diphenyl-4-methyl-1-pentene	19.64	210	J
	unknown19.73	19.73	260	J
74579-34-3	3,4-Bis-(methylthio)-quinoline	19.82	6600	J
1140-08-5	2-Methyl-7-phenylindole	19.86	650	J
30020-98-5	1-Methyl-3-phenylindole	20.5	170	J
1000147-85-5	(E)-2-Hydroxy-4-cyano-stilbene	30.4	6000	J

7/21/10

FORM I SV-TIC

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064836.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	380	U J
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2-oxybis(1-Chloropropane)	380	U
98-86-2	Acetophenone	380	U
65794-96-9	3+4-Methylphenols	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U J
87-68-3	Hexachlorobutadiene	380	U
105-60-2	Caprolactam	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
92-52-4	1,1-Biphenyl	380	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethylphthalate	460	~~B~~ U

Comments:

7/21/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064836.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	380	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	380	U J
100-02-7	4-Nitrophenol	380	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-methylphenol	380	U J
86-30-6	N-Nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
1912-24-9	Atrazine	380	U
87-86-5	Pentachlorophenol	380	U J
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3-Dichlorobenzidine	380	U J
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	130	J

Comments:

7/21/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064836.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
117-84-0	Di-n-octyl phthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

7/21/10

Comments:

CHEMTECH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064836.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 7

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
127-18-4	Tetrachloroethylene	4.94	1000	J
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~5.35~~	~~570~~	~~AB~~
1000297-24-5	3-[(2-Methyl-5-nitro-phenylimino)-	17.68	110	J
	unknown17.80	17.8	270	J
630-02-4	Octacosane	18.63	92	J
74579-34-3	3,4-Bis-(methylthio)-quinoline	19.82	740	J
3910-35-8	1H-Indene, 2,3-dihydro-1,1,3-trime	20.13	280	J

7/21/10

Response Factor Report GC/MS Ins

Method : Z:\HPCHEM1\BNA_E...\8270-BE061410.M (RTE Integrator)
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Jun 15 12:17:17 2010
Response via : Initial Calibration

Calibration Files
40 =BE064782.D 10 =BE064780.D 25 =BE064781.D
50 =BE064783.D 60 =BE064784.D 80 =BE064785.D

		Compound	40	10	25	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)		1,4-Dioxane	0.518	0.534	0.525	0.503	0.497	0.474	0.509	4.30
3)		Pyridine	1.320	1.230	1.272	1.273	1.258	1.213	1.261	2.98
4)		n-Nitrosodimethylam	0.571	0.589	0.572	0.542	0.527	0.514	0.552	5.34
5)	S	2-Fluorophenol	1.358	1.360	1.326	1.284	1.278	1.212	1.303	4.34
6)		Aniline	2.221	2.249	2.235	2.165	2.115	2.054	2.173	3.54
7)	S	Phenol-d5	1.685	1.737	1.703	1.634	1.612	1.517	1.648	4.79
8)		2-Chlorophenol	1.466	1.453	1.461	1.426	1.395	1.368	1.428	2.76
9)		Benzaldehyde	0.957	1.011	0.992	0.822	0.780	0.689	0.875	14.94
10)	C	Phenol	1.808	1.808	1.761	1.707	1.686	1.606	1.729	4.55
11)		bis(2-Chloroethyl)e	1.451	1.474	1.446	1.409	1.385	1.326	1.415	3.81
12)	S	2-Chlorophenol-d4	1.316	1.329	1.300	1.273	1.257	1.200	1.279	3.67
13)		1,3-Dichlorobenzene	1.544	1.552	1.529	1.494	1.466	1.417	1.500	3.47
14)	C	1,4-Dichlorobenzene	1.623	1.628	1.584	1.537	1.523	1.499	1.566	3.46
15)	s	1,2-Dichlorobenzene	0.935	0.951	0.916	0.893	0.888	0.849	0.905	4.02
16)		1,2-Dichlorobenzene	1.500	1.497	1.470	1.428	1.424	1.366	1.447	3.57
17)		Benzyl Alcohol	1.126	0.952	1.049	1.110	1.113	1.081	1.072	6.07
18)		2,2'-oxybis(1-Chlor	1.678	1.713	1.665	1.632	1.607	1.555	1.642	3.40
19)		2-Methylphenol	1.149	1.162	1.130	1.126	1.112	1.099	1.129	2.05
20)		Hexachloroethane	0.620	0.612	0.613	0.608	0.602	0.589	0.607	1.75
21)	P	n-Nitroso-di-n-prop	1.038	1.049	1.037	0.995	0.984	0.938	1.007	4.23
22)		3+4-Methylphenols	1.526	1.536	1.486	1.484	1.463	1.413	1.485	3.00
23)	I	Naphthalene-d8	ISTD							
24)		Acetophenone	0.510	0.530	0.521	0.489	0.496	0.466	0.502	4.64
25)	S	Nitrobenzene-d5	0.388	0.399	0.398	0.376	0.380	0.359	0.383	3.87
26)		Nitrobenzene	0.391	0.393	0.394	0.380	0.388	0.366	0.385	2.81
27)		Isophorone	0.700	0.711	0.710	0.680	0.684	0.644	0.688	3.66
28)	C	2-Nitrophenol	0.198	0.188	0.197	0.191	0.195	0.189	0.193	2.19
29)		2,4-Dimethylphenol	0.312	0.327	0.356	0.318	0.318	0.309	0.323	5.39
30)		bis(2-Chloroethoxy)	0.431	0.445	0.443	0.412	0.417	0.396	0.424	4.48
31)	C	2,4-Dichlorophenol	0.288	0.282	0.286	0.283	0.288	0.274	0.283	1.90
32)		1,2,4-Trichlorobenz	0.326	0.323	0.331	0.317	0.322	0.304	0.321	2.94
33)		Naphthalene	1.073	1.101	1.095	1.026	1.027	0.968	1.048	4.87
34)		Benzoic acid	0.063	0.022	0.054	0.062	0.083	0.108	0.065	43.80
35)		4-Chloroaniline	0.453	0.455	0.465	0.444	0.450	0.426	0.449	2.93
36)	C	Hexachlorobutadiene	0.183	0.190	0.187	0.178	0.179	0.171	0.181	3.74
37)		Caprolactam	0.118	0.116	0.114	0.117	0.118	0.112	0.116	2.11
38)	C	4-Chloro-3-methylph	0.330	0.327	0.335	0.323	0.326	0.312	0.325	2.44
39)		2-Methylnaphthalene	0.672	0.684	0.681	0.647	0.654	0.614	0.659	4.03
40)	I	Acenaphthene-d10	ISTD							
41)		1,2,4,5-Tetrachloro	0.548	0.550	0.542	0.524	0.536	0.512	0.535	2.71
42)	P	Hexachlorocyclopent	0.319	0.286	0.321	0.337	0.348	0.342	0.326	6.87
43)	S	2,4,6-Tribromopheno	0.165	0.148	0.157	0.164	0.167	0.157	0.160	4.42
44)	C	2,4,6-Trichlorophen	0.381	0.366	0.368	0.373	0.379	0.361	0.371	2.09
45)		2,4,5-Trichlorophen	0.394	0.358	0.383	0.387	0.396	0.389	0.384	3.62
46)	S	2-Fluorobiphenyl	1.363	1.399	1.355	1.276	1.283	1.189	1.311	5.82
47)		1,1'-Biphenyl	1.488	1.525	1.484	1.428	1.452	1.353	1.455	4.13
48)		2-Chloronaphthalene	1.219	1.234	1.208	1.167	1.177	1.112	1.186	3.71
49)		2-Nitroaniline	0.361	0.347	0.355	0.352	0.354	0.339	0.351	2.12

#) = Out of Range

87

Method : Z:\HPCHEM1\BNA_E...\8270-BE061410.M (RTE Integrator)
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Jun 15 12:17:17 2010
Response via : Initial Calibration

Calibration Files
40 =BE064782.D 10 =BE064780.D 25 =BE064781.D
50 =BE064783.D 60 =BE064784.D 80 =BE064785.D

		Compound	40	10	25	50	60	80	Avg	%RSD
50)		Acenaphthylene	1.866	1.914	1.877	1.805	1.807	1.695	1.827	4.23
51)		Dimethylphthalate	1.399	1.415	1.378	1.353	1.368	1.276	1.365	3.57
52)		2,6-Dinitrotoluene	0.332	0.314	0.330	0.324	0.329	0.308	0.323	2.94
53)	C	Acenaphthene	1.133	1.111	1.104	1.102	1.116	1.066	1.105	2.02
54)		3-Nitroaniline	0.359	0.342	0.345	0.348	0.354	0.331	0.347	2.82
55)	P	2,4-Dinitrophenol	0.056	0.013	0.038	0.077	0.091	0.110	0.064	55.51 T
56)		Dibenzofuran	1.710	1.733	1.686	1.627	1.634	1.525	1.653	4.55
57)	P	4-Nitrophenol	0.273	0.238	0.255	0.272	0.279	0.268	0.264	5.70
58)		2,4-Dinitrotoluene	0.432	0.400	0.411	0.420	0.422	0.402	0.414	2.92
59)		Fluorene	1.391	1.430	1.390	1.328	1.347	1.258	1.357	4.46
60)		2,3,4,6-Tetrachloro	0.317	0.285	0.300	0.311	0.315	0.303	0.305	3.97
61)		Diethylphthalate	1.369	1.345	1.354	1.326	1.328	1.252	1.329	3.08
62)		4-Chlorophenyl-phen	0.673	0.692	0.661	0.646	0.654	0.617	0.657	3.86
63)		4-Nitroaniline	0.369	0.351	0.358	0.363	0.372	0.348	0.360	2.67
64)		Azobenzene	1.400	1.396	1.370	1.331	1.346	1.245	1.348	4.24
65)	I	Phenanthrene-d10	----------ISTD----------							
66)		4,6-Dinitro-2-methy	0.086	0.026	0.060	0.099	0.107	0.118	0.083	41.25 T
67)	c	n-Nitrosodiphenylam	0.690	0.694	0.707	0.670	0.672	0.651	0.681	2.98
68)		4-Bromophenyl-pheny	0.221	0.222	0.224	0.213	0.216	0.215	0.219	2.07
69)		Hexachlorobenzene	0.217	0.224	0.218	0.213	0.213	0.209	0.216	2.44
70)		Atrazine	0.209	0.225	0.226	0.220	0.219	0.213	0.219	3.04
71)	C	Pentachlorophenol	0.104	0.069	0.092	0.113	0.118	0.122	0.103	19.37 T
72)		Phenanthrene	1.117	1.160	1.135	1.076	1.069	1.029	1.098	4.40
73)		Anthracene	1.133	1.174	1.151	1.105	1.102	1.051	1.119	3.84
74)		Carbazole	1.094	1.122	1.096	1.048	1.042	0.997	1.066	4.29
75)		Di-n-butylphthalate	1.288	1.303	1.288	1.229	1.224	1.154	1.248	4.54
76)	C	Fluoranthene	1.197	1.226	1.186	1.143	1.138	1.072	1.160	4.68
77)	I	Chrysene-d12	----------ISTD----------							
78)		Benzidine	0.548	0.526	0.577	0.557	0.551	0.506	0.544	4.56
79)		Pyrene	1.289	1.301	1.310	1.226	1.220	1.169	1.253	4.48
80)	S	Terphenyl-d14	0.877	0.909	0.890	0.834	0.827	0.782	0.853	5.53
81)		Butylbenzylphthalat	0.571	0.552	0.573	0.555	0.564	0.542	0.559	2.16
82)		Benzo(a)anthracene	1.159	1.132	1.148	1.113	1.128	1.081	1.127	2.46
83)		3,3'-Dichlorobenzid	0.419	0.409	0.424	0.410	0.400	0.384	0.408	3.49
84)		Chrysene	1.107	1.103	1.101	1.076	1.073	1.032	1.082	2.65
85)		Bis(2-ethylhexyl)ph	0.762	0.753	0.763	0.747	0.749	0.725	0.750	1.86
86)	c	Di-n-octyl phthalat	1.248	1.156	1.208	1.231	1.237	1.209	1.215	2.70
87)		Indeno(1,2,3-cd)pyr	1.121	1.086	1.092	1.110	1.121	1.099	1.105	1.33
88)	I	Perylene-d12	----------ISTD----------							
89)		Benzo(b)fluoranthen	1.244	1.164	1.201	1.196	1.180	1.177	1.194	2.35
90)		Benzo(k)fluoranthen	1.223	1.185	1.236	1.192	1.206	1.157	1.200	2.36
91)	C	Benzo(a)pyrene	1.181	1.095	1.147	1.132	1.139	1.123	1.136	2.50
92)		Dibenzo(a,h)anthrac	1.054	0.964	1.023	1.017	1.008	1.011	1.013	2.89
93)		Benzo(g,h,i)perylen	1.028	0.958	0.992	1.006	1.007	0.999	0.998	2.33

$\bar{x} = 0.750710145$

%RSD = 2.07 %

7/21/10

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#) = Out of Range

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064780.D
Acq On : 14 Jun 2010 13:00
Operator : QM
Sample : 10 ng BNA ICC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 04:05:12 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.91	152	131044	20.00	ng		0.00
23) Naphthalene-d8	10.15	136	513237	20.00	ng		0.00
40) Acenaphthene-d10	13.44	164	289537	20.00	ng		0.00
65) Phenanthrene-d10	16.08	188	498244	20.00	ng		0.00
77) Chrysene-d12	19.52	240	495819	20.00	ng		0.00
88) Perylene-d12	22.89	264	452947	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.84	112	178199	17.92	ng		0.00
7) Phenol-d5	7.24	99	227648	19.40	ng		0.00
12) 2-Chlorophenol-d4	7.53	132	174188	19.31	ng		0.00
15) 1,2-Dichlorobenzene-d4	8.17	152	124582	20.65	ng		0.00
25) Nitrobenzene-d5	8.85	82	204672	25.47	ng		0.00
43) 2,4,6-Tribromophenol	14.94	330	42885	20.38	ng		0.00
46) 2-Fluorobiphenyl	12.15	172	404928	20.82	ng		0.00
80) Terphenyl-d14	18.01	244	450585	22.36	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.60	88	35015	8.04	ng	#	69
3) Pyridine	4.06	79	80574	7.32	ng		96
4) n-Nitrosodimethylamine	3.98	42	38568	9.29	ng		91
6) Aniline	7.34	93	147363	9.83	ng		98
8) 2-Chlorophenol	7.55	128	95184	9.39	ng		97
9) Benzaldehyde	7.18	77	66248	17.10	ng		95
10) Phenol	7.27	94	118453	9.65	ng		99
11) bis(2-Chloroethyl)ether	7.42	93	96597	9.37	ng		99
13) 1,3-Dichlorobenzene	7.81	146	101670	9.88	ng		98
14) 1,4-Dichlorobenzene	7.94	146	106701	10.17	ng		99
16) 1,2-Dichlorobenzene	8.19	146	98057	10.08	ng		99
17) Benzyl Alcohol	8.10	79	62367	10.35	ng		92
18) 2,2'-oxybis(1-Chloropropan	8.33	45	112207	7.53	ng		98
19) 2-Methylphenol	8.28	107	76131	10.55	ng		93
20) Hexachloroethane	8.79	117	40130	10.80	ng		90
21) n-Nitroso-di-n-propylamine	8.55	70	68714	12.52	ng		97
22) 3+4-Methylphenols	8.54	107	100637	10.79	ng		98
24) Acetophenone	8.57	105	136061	11.29	ng	#	98
26) Nitrobenzene	8.88	77	100842	12.46	ng		99
27) Isophorone	9.29	82	182436	11.66	ng		99
28) 2-Nitrophenol	9.45	139	48300	9.33	ng		96
29) 2,4-Dimethylphenol	9.49	122	83908	9.20	ng		98
30) bis(2-Chloroethoxy)methane	9.66	93	114072	9.95	ng		99
31) 2,4-Dichlorophenol	9.89	162	72342	10.35	ng		98
32) 1,2,4-Trichlorobenzene	10.04	180	82923	11.45	ng		98
33) Naphthalene	10.19	128	282563	10.24	ng		99
35) 4-Chloroaniline	10.27	127	116669	10.11	ng		98
36) Hexachlorobutadiene	10.41	225	48680	16.42	ng		91
37) Caprolactam	10.85	113	29774	10.33	ng		96
38) 4-Chloro-3-methylphenol	11.16	107	83799	13.08	ng		97
39) 2-Methylnaphthalene	11.47	142	175520	10.86	ng		98
41) 1,2,4,5-Tetrachlorobenzene	11.78	216	79572	11.20	ng		99

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064780.D
Acq On : 14 Jun 2010 13:00
Operator : QM
Sample : 10 ng BNA ICC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 04:05:12 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) Hexachlorocyclopentadiene	11.77	237	41455	9.90	ng		97
44) 2,4,6-Trichlorophenol	12.00	196	52984	10.10	ng		95
45) 2,4,5-Trichlorophenol	12.07	196	51776	9.40	ng		95
47) 1,1'-Biphenyl	12.34	154	220837	8.96	ng		99
48) 2-Chloronaphthalene	12.39	162	178652	9.58	ng		100
49) 2-Nitroaniline	12.57	65	50227	9.41	ng		95
50) Acenaphthylene	13.18	152	277118	9.19	ng		99
51) Dimethylphthalate	12.90	163	204908	11.07	ng		99
52) 2,6-Dinitrotoluene	13.02	165	45476	10.14	ng		95
53) Acenaphthene	13.51	154	160780	8.73	ng		100
54) 3-Nitroaniline	13.34	138	49517	8.70	ng		100
56) Dibenzofuran	13.83	168	250879	10.30	ng		98
57) 4-Nitrophenol	13.68	139	34514	7.37	ng		99
58) 2,4-Dinitrotoluene	13.78	165	57963	10.55	ng		96
59) Fluorene	14.48	166	207039	10.76	ng		99
60) 2,3,4,6-Tetrachlorophenol	14.06	232	41204	10.82	ng		98
61) Diethylphthalate	14.23	149	194705	10.88	ng		99
62) 4-Chlorophenyl-phenylether	14.47	204	100128	13.16	ng		96
63) 4-Nitroaniline	14.49	138	50804	8.77	ng		97
64) Azobenzene	14.77	77	202129	11.18	ng		98
66) 4,6-Dinitro-2-methylphenol	14.56	198	6499	1.98	ng		91
67) n-Nitrosodiphenylamine	14.69	169	172900	9.46	ng		97
68) 4-Bromophenyl-phenylether	15.37	248	55246	10.99	ng		94
69) Hexachlorobenzene	15.49	284	55864	10.51	ng		96
70) Atrazine	15.61	200	55995	12.77	ng		98
71) Pentachlorophenol	15.79	266	17134	5.27	ng		95
72) Phenanthrene	16.11	178	289072	9.93	ng		99
73) Anthracene	16.18	178	292399	9.95	ng		98
74) Carbazole	16.40	167	279465	9.72	ng		99
75) Di-n-butylphthalate	16.83	149	324640	9.50	ng		99
76) Fluoranthene	17.61	202	305316	11.91	ng		100
78) Benzidine	17.73	184	130431	9.09	ng		98
79) Pyrene	17.87	202	322574	9.04	ng		99
81) Butylbenzylphthalate	18.58	149	136780	7.97	ng		99
82) Benzo(a)anthracene	19.50	228	280655	9.98	ng		100
83) 3,3'-Dichlorobenzidine	19.41	252	101386	10.15	ng		96
84) Chrysene	19.57	228	273511	9.92	ng		99
85) Bis(2-ethylhexyl)phthalate	19.37	149	186798	7.68	ng		96
86) Di-n-octyl phthalate	20.61	149	286644	7.70	ng		99
87) Indeno(1,2,3-cd)pyrene	28.26	276	216932	7.76	ng	#	100
89) Benzo(b)fluoranthene	21.78	252	263591	9.96	ng		99
90) Benzo(k)fluoranthene	21.85	252	268367	9.14	ng		98
91) Benzo(a)pyrene	22.72	252	248045	9.53	ng		96
92) Dibenzo(a,h)anthracene	27.07	278	218260	9.12	ng		99
93) Benzo(g,h,i)perylene	28.26	276	216932	8.63	ng		97

$\frac{(186798)(20)}{(495919)(10)} = 0.753492706$

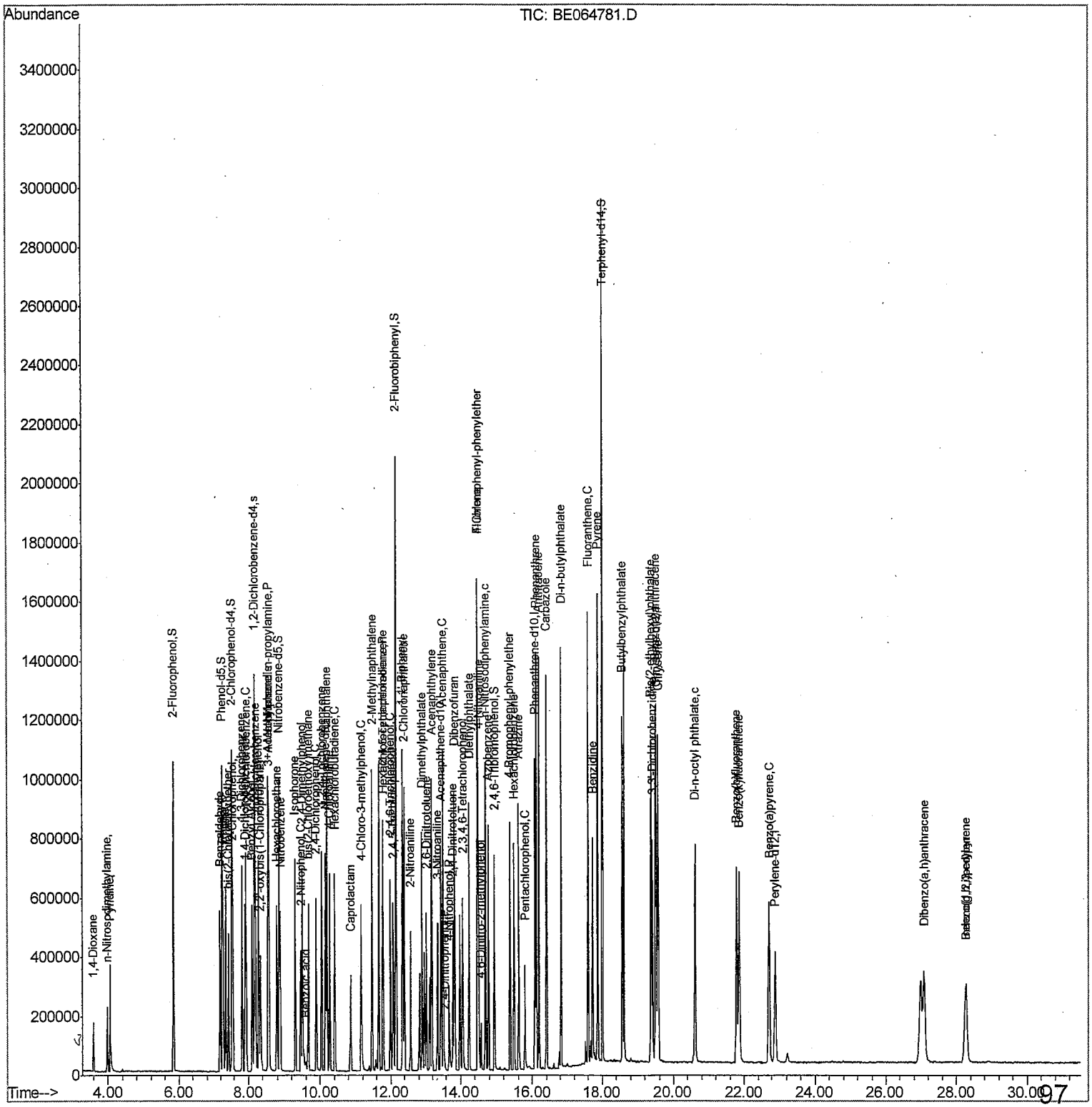
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/21/10

96

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064781.D
Acq On : 14 Jun 2010 13:44
Operator : QM
Sample : 25 ng BNA ICC
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 04:07:47 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration



Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064781.D
Acq On : 14 Jun 2010 13:44
Operator : QM
Sample : 25 ng BNA ICC
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 04:07:47 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.91	152	126765	20.00	ng		0.00
23) Naphthalene-d8	10.15	136	490706	20.00	ng		0.00
40) Acenaphthene-d10	13.44	164	280890	20.00	ng		0.00
65) Phenanthrene-d10	16.08	188	477657	20.00	ng		0.00
77) Chrysene-d12	19.52	240	462866	20.00	ng		0.00
88) Perylene-d12	22.90	264	417769	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.85	112	420380	43.70	ng		0.00
7) Phenol-d5	7.24	99	539656	47.53	ng		0.00
12) 2-Chlorophenol-d4	7.53	132	412074	47.22	ng		0.00
15) 1,2-Dichlorobenzene-d4	8.17	152	290157	49.71	ng		0.00
25) Nitrobenzene-d5	8.85	82	488117	63.53	ng		0.00
43) 2,4,6-Tribromophenol	14.94	330	109952	53.86	ng		0.00
46) 2-Fluorobiphenyl	12.16	172	951755	50.45	ng		0.00
80) Terphenyl-d14	18.01	244	1029757	54.73	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.60	88	83216	19.75	ng	#	70
3) Pyridine	4.06	79	201613	18.94	ng		97
4) n-Nitrosodimethylamine	3.98	42	90709	22.59	ng		98
6) Aniline	7.34	93	354152	24.43	ng		98
8) 2-Chlorophenol	7.56	128	231500	23.62	ng		98
9) Benzaldehyde	7.19	77	157141	41.92	ng		98
10) Phenol	7.27	94	279113	23.51	ng		98
11) bis(2-Chloroethyl)ether	7.43	93	229156	22.99	ng		98
13) 1,3-Dichlorobenzene	7.81	146	242247	24.33	ng		98
14) 1,4-Dichlorobenzene	7.94	146	250995	24.73	ng		99
16) 1,2-Dichlorobenzene	8.20	146	232887	24.74	ng		98
17) Benzyl Alcohol	8.10	79	166197	28.52	ng		99
18) 2,2'-oxybis(1-Chloropropan	8.34	45	263796	18.31	ng		99
19) 2-Methylphenol	8.28	107	179007	25.65	ng		97
20) Hexachloroethane	8.79	117	97133	27.03	ng		99
21) n-Nitroso-di-n-propylamine	8.55	70	164354	30.96	ng		98
22) 3+4-Methylphenols	8.54	107	235434	26.08	ng		98
24) Acetophenone	8.57	105	319552	27.74	ng	#	96
26) Nitrobenzene	8.88	77	241709	31.25	ng		98
27) Isophorone	9.29	82	435539	29.11	ng		98
28) 2-Nitrophenol	9.45	139	120850	24.41	ng		97
29) 2,4-Dimethylphenol	9.49	122	218584	25.07	ng		95
30) bis(2-Chloroethoxy)methane	9.67	93	271529	24.76	ng		99
31) 2,4-Dichlorophenol	9.89	162	175168	26.22	ng		98
32) 1,2,4-Trichlorobenzene	10.05	180	203281	29.35	ng		96
33) Naphthalene	10.19	128	671810	25.48	ng		99
34) Benzoic acid	9.59	122	19630m	3.39	ng		
35) 4-Chloroaniline	10.27	127	285098	25.85	ng		98
36) Hexachlorobutadiene	10.42	225	114713	40.47	ng		97
37) Caprolactam	10.86	113	70195	25.47	ng		92
38) 4-Chloro-3-methylphenol	11.16	107	205601	33.57	ng		96
39) 2-Methylnaphthalene	11.47	142	417838	27.05	ng		99

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064781.D
Acq On : 14 Jun 2010 13:44
Operator : QM
Sample : 25 ng BNA ICC
Misc :
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 04:07:47 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	11.79	216	190189	27.60	ng		99
42) Hexachlorocyclopentadiene	11.77	237	112570	27.72	ng		100
44) 2,4,6-Trichlorophenol	12.00	196	129101	25.37	ng		96
45) 2,4,5-Trichlorophenol	12.08	196	134394	25.15	ng		99
47) 1,1'-Biphenyl	12.34	154	521007	21.80	ng		99
48) 2-Chloronaphthalene	12.39	162	424025	23.44	ng		100
49) 2-Nitroaniline	12.57	65	124719	24.08	ng		98
50) Acenaphthylene	13.18	152	659040	22.53	ng		99
51) Dimethylphthalate	12.90	163	483889	26.95	ng		99
52) 2,6-Dinitrotoluene	13.03	165	115712	26.59	ng		98
53) Acenaphthene	13.51	154	387525	21.68	ng		97
54) 3-Nitroaniline	13.34	138	121235	21.97	ng		98
55) 2,4-Dinitrophenol	13.54	184	13432	6.36	ng		89
56) Dibenzofuran	13.83	168	591966	25.04	ng		99
57) 4-Nitrophenol	13.68	139	89414	19.68	ng		98
58) 2,4-Dinitrotoluene	13.79	165	144372	27.08	ng		98
59) Fluorene	14.48	166	488036	26.15	ng		96
60) 2,3,4,6-Tetrachlorophenol	14.06	232	105181	28.47	ng		97
61) Diethylphthalate	14.24	149	475280	27.37	ng		100
62) 4-Chlorophenyl-phenylether	14.47	204	232255	31.46	ng		98
63) 4-Nitroaniline	14.50	138	125577	22.35	ng		97
64) Azobenzene	14.78	77	480899	27.41	ng		99
66) 4,6-Dinitro-2-methylphenol	14.56	198	36061	11.49	ng		98
67) n-Nitrosodiphenylamine	14.69	169	422378	24.12	ng		99
68) 4-Bromophenyl-phenylether	15.37	248	134007	27.81	ng		97
69) Hexachlorobenzene	15.49	284	130323	25.58	ng		98
70) Atrazine	15.62	200	135213	32.16	ng		98
71) Pentachlorophenol	15.79	266	55199	17.70	ng		98
72) Phenanthrene	16.12	178	677748	24.27	ng		99
73) Anthracene	16.19	178	687093	24.40	ng		98
74) Carbazole	16.40	167	654333	23.73	ng		99
75) Di-n-butylphthalate	16.83	149	769237	23.48	ng		99
76) Fluoranthene	17.61	202	707997	28.82	ng		100
78) Benzidine	17.73	184	333784	24.92	ng		99
79) Pyrene	17.87	202	757750	22.74	ng		100
81) Butylbenzylphthalate	18.58	149	331560	20.70	ng		99
82) Benzo(a)anthracene	19.51	228	664452	25.32	ng		99
83) 3,3'-Dichlorobenzidine	19.41	252	245345	26.32	ng		99
84) Chrysene	19.57	228	636866	24.74	ng		98
85) Bis(2-ethylhexyl)phthalate	19.37	149	441693	19.45	ng		99
86) Di-n-octyl phthalate	20.61	149	699110	20.11	ng		99
87) Indeno(1,2,3-cd)pyrene	28.27	276	517902	19.84	ng	#	100
89) Benzo(b)fluoranthene	21.79	252	627217	25.71	ng		99
90) Benzo(k)fluoranthene	21.86	252	645385	23.82	ng		99
91) Benzo(a)pyrene	22.73	252	599097	24.96	ng		99
92) Dibenzo(a,h)anthracene	27.07	278	534050	24.18	ng		97
93) Benzo(g,h,i)perylene	28.27	276	517902	22.35	ng		98

$\frac{(441693)(20)}{(462864)(25)} = 0.763405391$

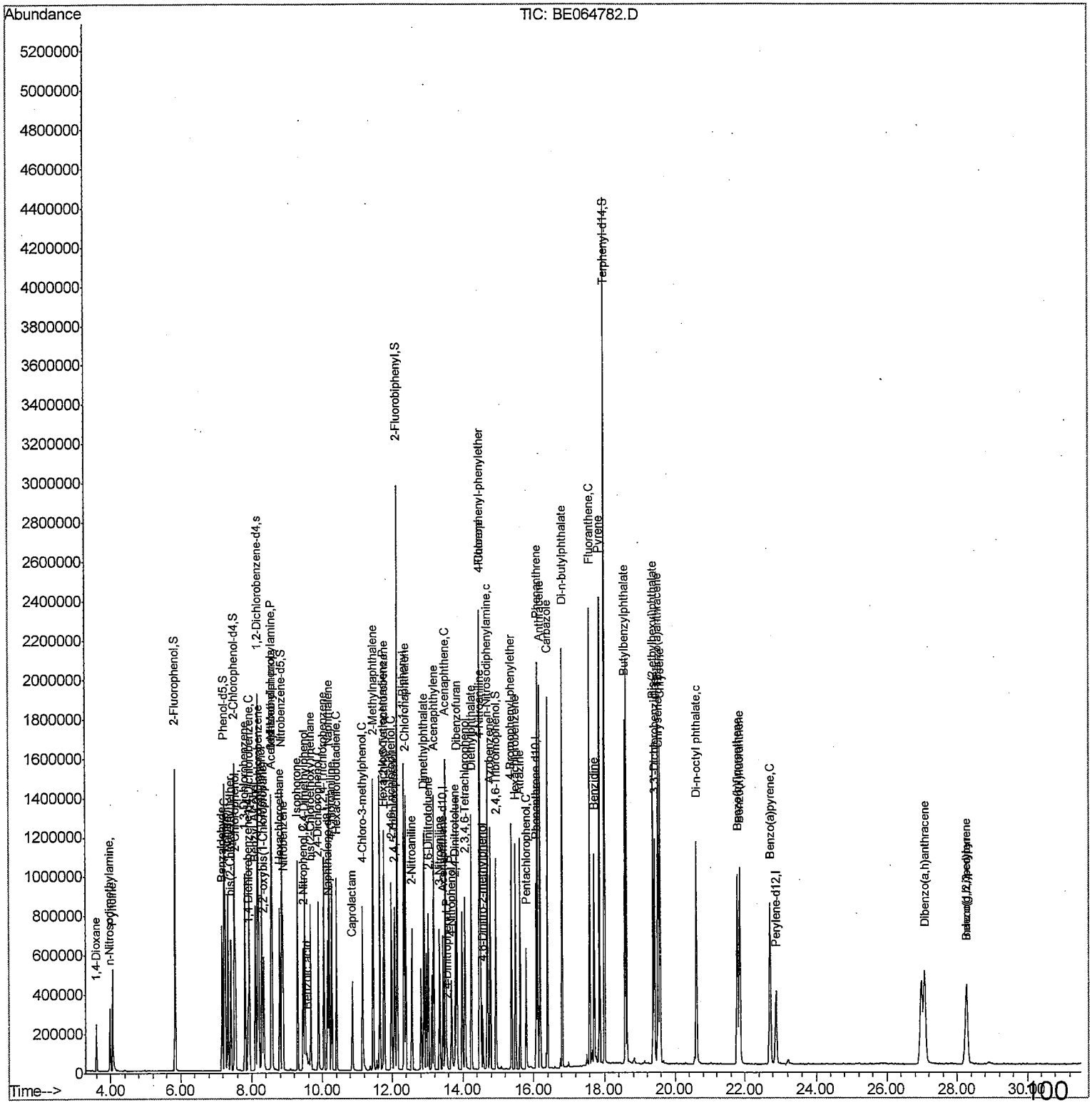
7/21/10

(#) = qualifier out of range (m) = manual integration (+) = signals summed

99

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064782.D
Acq On : 14 Jun 2010 14:23
Operator : QM
Sample : 40 ng BNA ICC
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 04:02:41 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration



Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064782.D
Acq On : 14 Jun 2010 14:23
Operator : QM
Sample : 40 ng BNA ICC
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 04:02:41 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.91	152	114286	20.00	ng	0.00
23) Naphthalene-d8	10.15	136	456672	20.00	ng	0.00
40) Acenaphthene-d10	13.45	164	254022	20.00	ng	0.00
65) Phenanthrene-d10	16.08	188	441117	20.00	ng	0.00
77) Chrysene-d12	19.52	240	435015	20.00	ng	0.00
88) Perylene-d12	22.89	264	390531	20.00	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.84	112	620814	71.58	ng	0.00
7) Phenol-d5	7.24	99	770335	75.26	ng	0.00
12) 2-Chlorophenol-d4	7.53	132	601395	76.44	ng	0.00
15) 1,2-Dichlorobenzene-d4	8.17	152	427534	81.25	ng	0.00
25) Nitrobenzene-d5	8.85	82	707868	98.99	ng	0.00
43) 2,4,6-Tribromophenol	14.94	330	167524	90.74	ng	0.00
46) 2-Fluorobiphenyl	12.15	172	1384859	81.17	ng	0.00
80) Terphenyl-d14	18.01	244	1526499	86.33	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.60	88	118474	31.19	ng	# 70
3) Pyridine	4.06	79	301714	31.45	ng	100
4) n-Nitrosodimethylamine	3.98	42	130604	36.08	ng	100
6) Aniline	7.35	93	507711	38.84	ng	100
8) 2-Chlorophenol	7.56	128	335044	37.92	ng	100
9) Benzaldehyde	7.18	77	218732	64.72	ng	100
10) Phenol	7.27	94	413179	38.61	ng	100
11) bis(2-Chloroethyl)ether	7.43	93	331615	36.90	ng	100
13) 1,3-Dichlorobenzene	7.81	146	352961	39.32	ng	100
14) 1,4-Dichlorobenzene	7.94	146	370973	40.54	ng	100
16) 1,2-Dichlorobenzene	8.20	146	342957	40.42	ng	100
17) Benzyl Alcohol	8.11	79	257457	49.01	ng	100
18) 2,2'-oxybis(1-Chloropropan	8.33	45	383464	29.52	ng	100
19) 2-Methylphenol	8.28	107	262598	41.74	ng	100
20) Hexachloroethane	8.79	117	141688	43.74	ng	100
21) n-Nitroso-di-n-propylamine	8.56	70	237372	49.59	ng	100
22) 3+4-Methylphenols	8.55	107	348744	42.86	ng	100
24) Acetophenone	8.58	105	465749	43.45	ng	100
26) Nitrobenzene	8.88	77	357516	49.66	ng	100
27) Isophorone	9.29	82	639565	45.93	ng	100
28) 2-Nitrophenol	9.45	139	180488	39.17	ng	100
29) 2,4-Dimethylphenol	9.49	122	284669m	35.09	ng	
30) bis(2-Chloroethoxy)methane	9.67	93	393599	38.57	ng	100
31) 2,4-Dichlorophenol	9.89	162	263129	42.32	ng	100
32) 1,2,4-Trichlorobenzene	10.04	180	297874	46.21	ng	100
33) Naphthalene	10.19	128	979993	39.93	ng	100
34) Benzoic acid	9.56	122	57691m	10.72	ng	
35) 4-Chloroaniline	10.27	127	413785	40.31	ng	100
36) Hexachlorobutadiene	10.41	225	167124	63.35	ng	100
37) Caprolactam	10.87	113	108019	42.12	ng	100
38) 4-Chloro-3-methylphenol	11.16	107	301430	52.88	ng	100
39) 2-Methylnaphthalene	11.47	142	613668	42.69	ng	100

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064782.D
Acq On : 14 Jun 2010 14:23
Operator : QM
Sample : 40 ng BNA ICC
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 04:02:41 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	11.79	216	278424	44.68	ng		100
42) Hexachlorocyclopentadiene	11.77	237	162151	44.16	ng		100
44) 2,4,6-Trichlorophenol	12.00	196	193417	42.02	ng		100
45) 2,4,5-Trichlorophenol	12.08	196	200240	41.43	ng		100
47) 1,1'-Biphenyl	12.34	154	756218	34.98	ng		100
48) 2-Chloronaphthalene	12.39	162	619120	37.84	ng		100
49) 2-Nitroaniline	12.57	65	183204	39.11	ng		100
50) Acenaphthylene	13.18	152	947930	35.83	ng		100
51) Dimethylphthalate	12.91	163	710511	43.76	ng		100
52) 2,6-Dinitrotoluene	13.02	165	168658	42.86	ng		100
53) Acenaphthene	13.51	154	575862	35.62	ng		100
54) 3-Nitroaniline	13.35	138	182415	36.55	ng		100
55) 2,4-Dinitrophenol	13.54	184	28628	14.98	ng		100
56) Dibenzofuran	13.83	168	868987	40.65	ng		100
57) 4-Nitrophenol	13.68	139	138898	33.81	ng		100
58) 2,4-Dinitrotoluene	13.79	165	219236	45.47	ng		100
59) Fluorene	14.48	166	706761	41.87	ng		100
60) 2,3,4,6-Tetrachlorophenol	14.06	232	161108	48.22	ng		100
61) Diethylphthalate	14.24	149	695422	44.28	ng		100
62) 4-Chlorophenyl-phenylether	14.47	204	341947	51.22	ng		100
63) 4-Nitroaniline	14.50	138	187398	36.89	ng		100
64) Azobenzene	14.77	77	711131	44.82	ng		100
66) 4,6-Dinitro-2-methylphenol	14.56	198	75516	26.05	ng		100
67) n-Nitrosodiphenylamine	14.69	169	608981	37.65	ng		100
68) 4-Bromophenyl-phenylether	15.37	248	195369	43.90	ng		100
69) Hexachlorobenzene	15.49	284	191664	40.73	ng		100
70) Atrazine	15.62	200	184583	47.54	ng		100
71) Pentachlorophenol	15.79	266	91384	31.74	ng		100
72) Phenanthrene	16.11	178	985136	38.21	ng		100
73) Anthracene	16.19	178	999453	38.43	ng		100
74) Carbazole	16.40	167	964724	37.89	ng		100
75) Di-n-butylphthalate	16.82	149	1135983	37.54	ng		100
76) Fluoranthene	17.61	202	1055676	46.53	ng		100
78) Benzidine	17.73	184	477165	37.91	ng		100
79) Pyrene	17.87	202	1121863	35.82	ng		100
81) Butylbenzylphthalate	18.58	149	497045	33.03	ng		100
82) Benzo(a)anthracene	19.50	228	1008486	40.88	ng		100
83) 3,3'-Dichlorobenzidine	19.41	252	364711	41.63	ng		100
84) Chrysene	19.57	228	963353	39.81	ng		100
85) Bis(2-ethylhexyl)phthalate	19.37	149	662738	31.05	ng		100
86) Di-n-octyl phthalate	20.61	149	1086020	33.23	ng		100
87) Indeno(1,2,3-cd)pyrene	28.27	276	802965	32.72	ng	#	100
89) Benzo(b)fluoranthene	21.79	252	971582	42.60	ng		100
90) Benzo(k)fluoranthene	21.86	252	955571	37.73	ng		100
91) Benzo(a)pyrene	22.72	252	922610	41.11	ng		100
92) Dibenzo(a,h)anthracene	27.07	278	823567	39.89	ng		100
93) Benzo(g,h,i)perylene	28.27	276	802965	37.07	ng		100

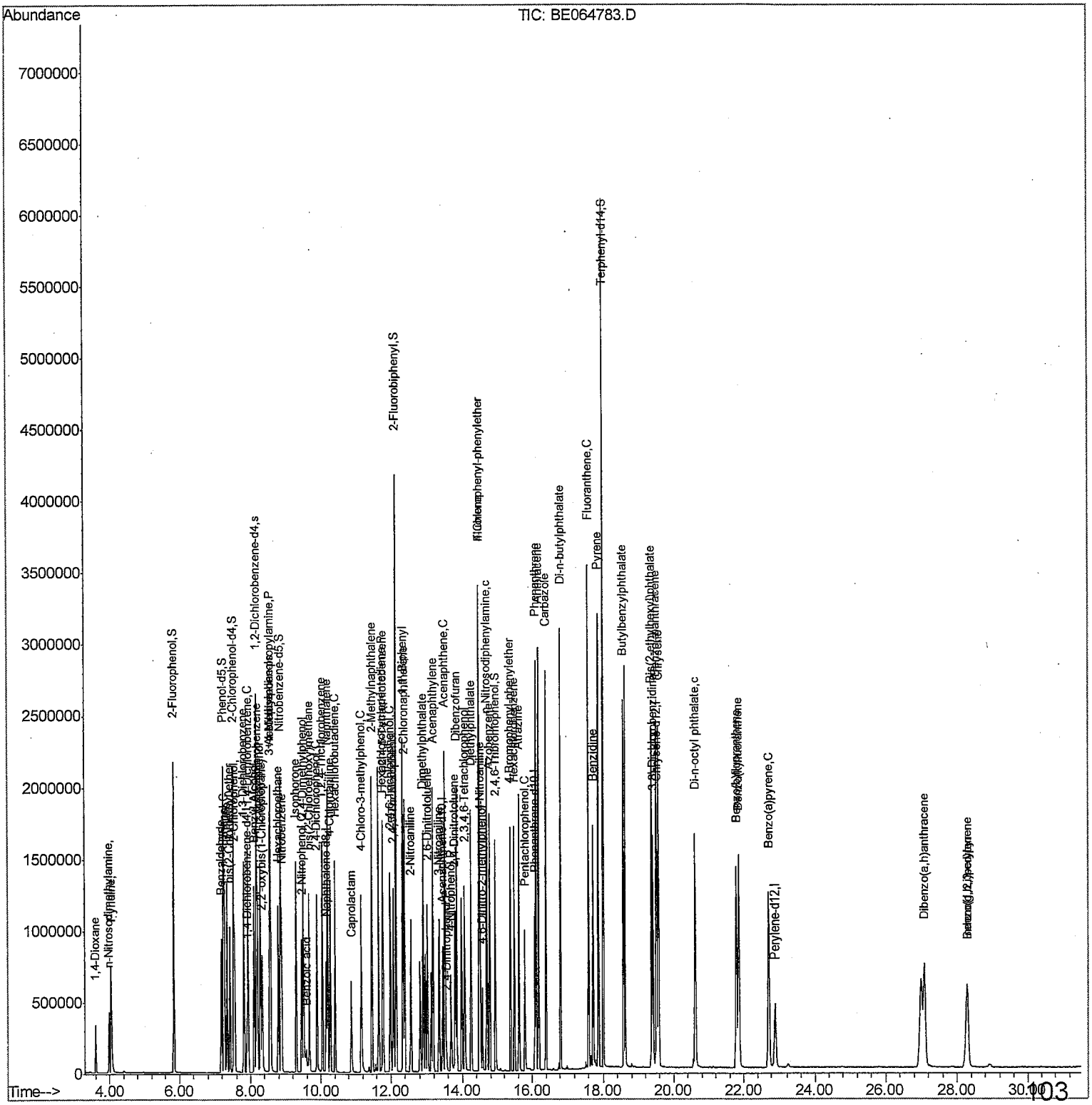
(662738)(20) / (435015)(40) = 0.761741549

(#) = qualifier out of range (m) = manual integration (+) = signals summed

102

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064783.D
Acq On : 14 Jun 2010 15:05
Operator : QM
Sample : 50 ng BNA ICC
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 04:10:12 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration



Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064783.D
Acq On : 14 Jun 2010 15:05
Operator : QM
Sample : 50 ng BNA ICC
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 04:10:12 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.91	152	136627	20.00	ng		0.00
23) Naphthalene-d8	10.16	136	546970	20.00	ng		0.00
40) Acenaphthene-d10	13.45	164	308531	20.00	ng		0.00
65) Phenanthrene-d10	16.08	188	532262	20.00	ng		0.00
77) Chrysene-d12	19.53	240	523982	20.00	ng		0.00
88) Perylene-d12	22.89	264	476389	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.84	112	876895	84.57	ng		0.00
7) Phenol-d5	7.25	99	1116423	91.23	ng		0.00
12) 2-Chlorophenol-d4	7.53	132	869381	92.43	ng		0.00
15) 1,2-Dichlorobenzene-d4	8.18	152	610103	96.98	ng		0.00
25) Nitrobenzene-d5	8.85	82	1028928	120.14	ng		0.00
43) 2,4,6-Tribromophenol	14.94	330	252444	112.58	ng		0.00
46) 2-Fluorobiphenyl	12.15	172	1968578	95.00	ng		0.00
80) Terphenyl-d14	18.01	244	2186053	102.64	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.60	88	171849	37.85	ng	#	71
3) Pyridine	4.05	79	434730	37.90	ng		97
4) n-Nitrosodimethylamine	3.98	42	185018	42.76	ng		98
6) Aniline	7.35	93	739564	47.33	ng		98
8) 2-Chlorophenol	7.56	128	487088	46.11	ng		98
9) Benzaldehyde	7.18	77	280850	69.51	ng		97
10) Phenol	7.27	94	582910	45.56	ng		99
11) bis(2-Chloroethyl)ether	7.43	93	481213	44.79	ng		100
13) 1,3-Dichlorobenzene	7.82	146	510158	47.54	ng		99
14) 1,4-Dichlorobenzene	7.93	146	524838	47.97	ng		98
16) 1,2-Dichlorobenzene	8.20	146	487754	48.08	ng		98
17) Benzyl Alcohol	8.11	79	379246	60.38	ng		99
18) 2,2'-oxybis(1-Chloropropan	8.33	45	557335	35.89	ng		99
19) 2-Methylphenol	8.29	107	384517	51.13	ng		96
20) Hexachloroethane	8.79	117	207731	53.64	ng		99
21) n-Nitroso-di-n-propylamine	8.56	70	339742	59.37	ng		99
22) 3+4-Methylphenols	8.55	107	506854	52.10	ng		99
24) Acetophenone	8.58	105	668984	52.11	ng	#	98
26) Nitrobenzene	8.89	77	519550	60.26	ng		96
27) Isophorone	9.29	82	929507	55.74	ng		99
28) 2-Nitrophenol	9.45	139	260524	47.21	ng		99
29) 2,4-Dimethylphenol	9.50	122	434840	44.75	ng		97
30) bis(2-Chloroethoxy)methane	9.67	93	563667	46.12	ng		98
31) 2,4-Dichlorophenol	9.89	162	387238	52.00	ng		98
32) 1,2,4-Trichlorobenzene	10.04	180	433701	56.17	ng		98
33) Naphthalene	10.19	128	1403094	47.74	ng		99
34) Benzoic acid	9.58	122	84967m	13.18	ng		
35) 4-Chloroaniline	10.27	127	606853	49.36	ng		99
36) Hexachlorobutadiene	10.41	225	243946	77.20	ng		97
37) Caprolactam	10.88	113	160646	52.29	ng		97
38) 4-Chloro-3-methylphenol	11.17	107	442220	64.77	ng		100
39) 2-Methylnaphthalene	11.47	142	885038	51.41	ng		99

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064783.D
Acq On : 14 Jun 2010 15:05
Operator : QM
Sample : 50 ng BNA ICC
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 04:10:12 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	11.79	216	404512	53.45	ng		99
42) Hexachlorocyclopentadiene	11.77	237	259980	58.29	ng		99
44) 2,4,6-Trichlorophenol	11.99	196	287741	51.47	ng		97
45) 2,4,5-Trichlorophenol	12.08	196	298169	50.79	ng		98
47) 1,1'-Biphenyl	12.35	154	1101745	41.96	ng		98
48) 2-Chloronaphthalene	12.39	162	900069	45.29	ng		99
49) 2-Nitroaniline	12.57	65	271583	47.74	ng		98
50) Acenaphthylene	13.18	152	1392130	43.32	ng		99
51) Dimethylphthalate	12.91	163	1043904	52.94	ng		99
52) 2,6-Dinitrotoluene	13.02	165	249834	52.27	ng		96
53) Acenaphthene	13.50	154	849812	43.28	ng		99
54) 3-Nitroaniline	13.35	138	268534	44.30	ng		95
55) 2,4-Dinitrophenol	13.55	184	59135	25.48	ng		94
56) Dibenzofuran	13.83	168	1255293	48.34	ng		99
57) 4-Nitrophenol	13.68	139	209775	42.04	ng		95
58) 2,4-Dinitrotoluene	13.79	165	323872	55.31	ng		98
59) Fluorene	14.49	166	1024420	49.97	ng		97
60) 2,3,4,6-Tetrachlorophenol	14.06	232	240056	59.15	ng		99
61) Diethylphthalate	14.24	149	1022946	53.63	ng		99
62) 4-Chlorophenyl-phenylether	14.47	204	498405	61.47	ng		94
63) 4-Nitroaniline	14.50	138	280029	45.38	ng		97
64) Azobenzene	14.77	77	1026635	53.27	ng		98
66) 4,6-Dinitro-2-methylphenol	14.56	198	131749	37.66	ng		99
67) n-Nitrosodiphenylamine	14.69	169	892086	45.71	ng		99
68) 4-Bromophenyl-phenylether	15.37	248	283624	52.82	ng		95
69) Hexachlorobenzene	15.48	284	283469	49.93	ng		97
70) Atrazine	15.62	200	292962	62.53	ng		98
71) Pentachlorophenol	15.79	266	150423	43.29	ng		98
72) Phenanthrene	16.12	178	1431407	46.01	ng		99
73) Anthracene	16.19	178	1470628	46.86	ng		100
74) Carbazole	16.41	167	1394435	45.39	ng		99
75) Di-n-butylphthalate	16.82	149	1635261	44.79	ng		100
76) Fluoranthene	17.61	202	1521045	55.56	ng		99
78) Benzidine	17.73	184	729744	48.13	ng		100
79) Pyrene	17.87	202	1606353	42.58	ng		99
81) Butylbenzylphthalate	18.58	149	727240	40.12	ng		98
82) Benzo(a)anthracene	19.51	228	1458380	49.08	ng		99
83) 3,3'-Dichlorobenzidine	19.42	252	536680	50.85	ng		98
84) Chrysene	19.57	228	1409758	48.37	ng		99
85) Bis(2-ethylhexyl)phthalate	19.37	149	979063	38.08	ng		98
86) Di-n-octyl phthalate	20.61	149	1612269	40.96	ng		99
87) Indeno(1,2,3-cd)pyrene	28.29	276	1198023	40.53	ng	#	100
89) Benzo(b)fluoranthene	21.79	252	1424880	51.21	ng		99
90) Benzo(k)fluoranthene	21.87	252	1420157	45.97	ng		100
91) Benzo(a)pyrene	22.73	252	1347626	49.23	ng		98
92) Dibenzo(a,h)anthracene	27.09	278	1211678	48.12	ng		99
93) Benzo(g,h,i)perylene	28.29	276	1198023	45.34	ng		99

$\frac{(979063)(20)}{(523982)(50)} = 0.74740201$

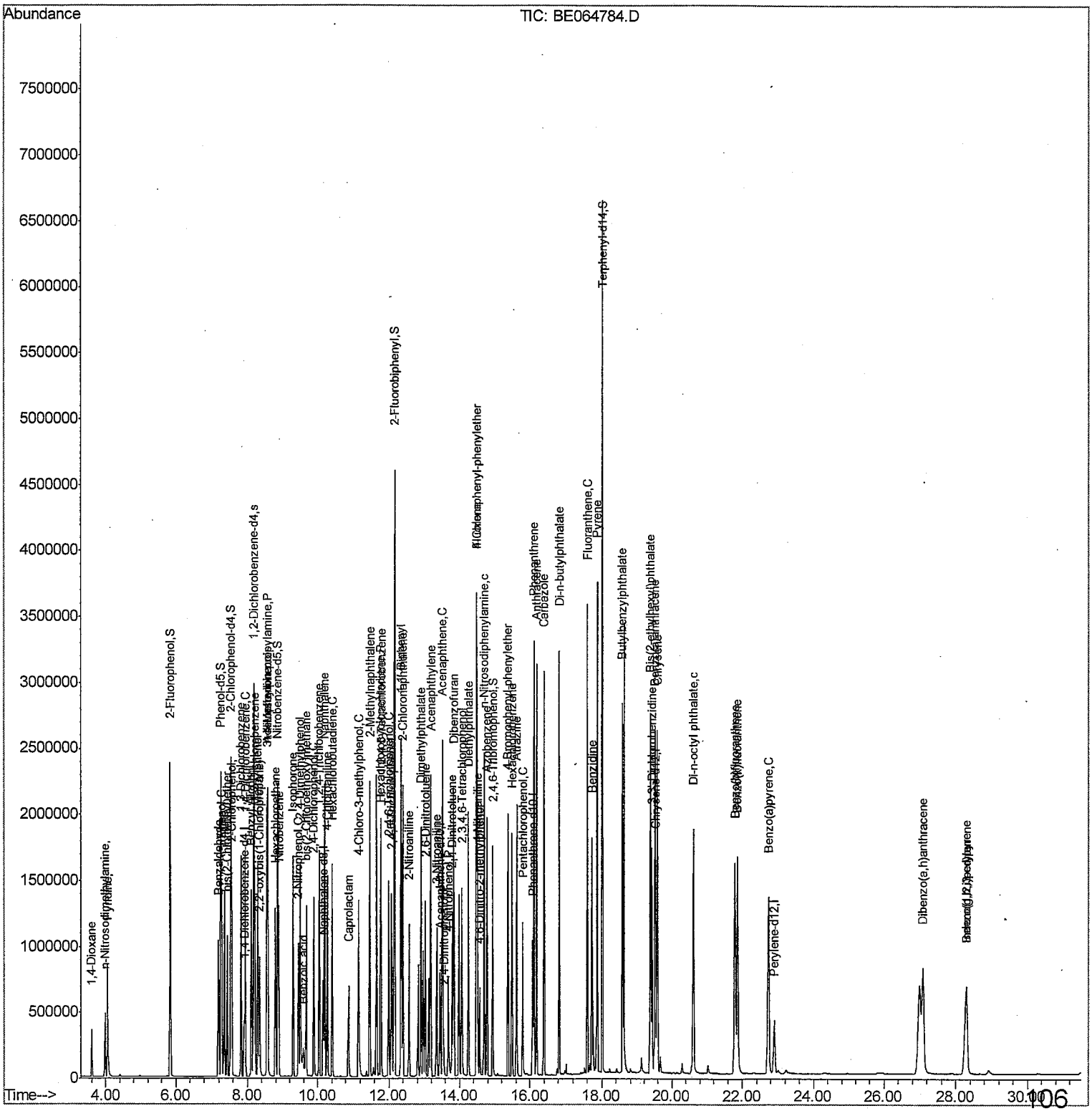
7/21/16

(#) = qualifier out of range (m) = manual integration (+) = signals summed

105

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064784.D
Acq On : 14 Jun 2010 15:44
Operator : QM
Sample : 60 ng BNA ICC
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 04:12:45 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration



Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064784.D
Acq On : 14 Jun 2010 15:44
Operator : QM
Sample : 60 ng BNA ICC
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 04:12:45 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.91	152	127774	20.00	ng		0.00
23) Naphthalene-d8	10.15	136	497762	20.00	ng		0.00
40) Acenaphthene-d10	13.44	164	280313	20.00	ng		0.00
65) Phenanthrene-d10	16.08	188	491264	20.00	ng		0.00
77) Chrysene-d12	19.53	240	483612	20.00	ng		0.00
88) Perylene-d12	22.90	264	443890	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.84	112	980090	101.08	ng		0.00
7) Phenol-d5	7.24	99	1235713	107.98	ng		0.00
12) 2-Chlorophenol-d4	7.53	132	963938	109.59	ng		0.00
15) 1,2-Dichlorobenzene-d4	8.17	152	680762	115.71	ng		0.00
25) Nitrobenzene-d5	8.85	82	1135288	145.66	ng		0.00
43) 2,4,6-Tribromophenol	14.94	330	280955	137.90	ng		0.00
46) 2-Fluorobiphenyl	12.16	172	2157812	114.61	ng		0.00
80) Terphenyl-d14	18.01	244	2400531	122.12	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.60	88	190701	44.91	ng	#	70
3) Pyridine	4.05	79	482394	44.97	ng		99
4) n-Nitrosodimethylamine	3.98	42	201900	49.89	ng		99
6) Aniline	7.35	93	810716	55.48	ng		99
8) 2-Chlorophenol	7.56	128	534906	54.14	ng		97
9) Benzaldehyde	7.19	77	298834	79.09	ng		97
10) Phenol	7.27	94	646242	54.01	ng		98
11) bis(2-Chloroethyl)ether	7.43	93	531005	52.84	ng		99
13) 1,3-Dichlorobenzene	7.81	146	561808	55.98	ng		98
14) 1,4-Dichlorobenzene	7.93	146	583898	57.07	ng		98
16) 1,2-Dichlorobenzene	8.20	146	545957	57.55	ng		98
17) Benzyl Alcohol	8.10	79	426588	72.63	ng		99
18) 2,2'-oxybis(1-Chloropropan	8.33	45	616139	42.42	ng		99
19) 2-Methylphenol	8.28	107	426292	60.61	ng		97
20) Hexachloroethane	8.79	117	230664	63.69	ng		96
21) n-Nitroso-di-n-propylamine	8.56	70	377304	70.51	ng		100
22) 3+4-Methylphenols	8.55	107	560792	61.64	ng		98
24) Acetophenone	8.57	105	740627	63.39	ng	#	98
26) Nitrobenzene	8.88	77	579778	73.89	ng		99
27) Isophorone	9.30	82	1021088	67.28	ng		100
28) 2-Nitrophenol	9.45	139	290748	57.89	ng		98
29) 2,4-Dimethylphenol	9.49	122	474462	53.66	ng		97
30) bis(2-Chloroethoxy)methane	9.67	93	622908	56.00	ng		99
31) 2,4-Dichlorophenol	9.89	162	429756	63.41	ng		98
32) 1,2,4-Trichlorobenzene	10.05	180	480194	68.34	ng		99
33) Naphthalene	10.19	128	1534020	57.35	ng		100
34) Benzoic acid	9.59	122	123694m	21.09	ng		
35) 4-Chloroaniline	10.27	127	672473	60.11	ng		98
36) Hexachlorobutadiene	10.41	225	267339	92.97	ng		97
37) Caprolactam	10.89	113	175748	62.87	ng		98
38) 4-Chloro-3-methylphenol	11.16	107	486385	78.28	ng		99
39) 2-Methylnaphthalene	11.47	142	976142	62.30	ng		99

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064784.D
Acq On : 14 Jun 2010 15:44
Operator : QM
Sample : 60 ng BNA ICC
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 04:12:45 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	11.79	216	450516	65.52	ng		100
42) Hexachlorocyclopentadiene	11.77	237	292584	72.21	ng		99
44) 2,4,6-Trichlorophenol	12.00	196	318399	62.69	ng		99
45) 2,4,5-Trichlorophenol	12.07	196	332601	62.36	ng		98
47) 1,1'-Biphenyl	12.34	154	1220952	51.19	ng		99
48) 2-Chloronaphthalene	12.39	162	990172	54.84	ng		99
49) 2-Nitroaniline	12.57	65	297526	57.56	ng		99
50) Acenaphthylene	13.18	152	1519265	52.04	ng		99
51) Dimethylphthalate	12.91	163	1150303	64.20	ng		100
52) 2,6-Dinitrotoluene	13.03	165	276774	63.73	ng		98
53) Acenaphthene	13.51	154	938168	52.60	ng		97
54) 3-Nitroaniline	13.35	138	297759	54.07	ng		96
55) 2,4-Dinitrophenol	13.54	184	76274	36.17	ng		96
56) Dibenzofuran	13.83	168	1374301	58.26	ng		99
57) 4-Nitrophenol	13.68	139	234656	51.75	ng		97
58) 2,4-Dinitrotoluene	13.79	165	354475	66.63	ng		99
59) Fluorene	14.48	166	1132572	60.81	ng		97
60) 2,3,4,6-Tetrachlorophenol	14.06	232	264790	71.81	ng		99
61) Diethylphthalate	14.24	149	1116387	64.41	ng		100
62) 4-Chlorophenyl-phenylether	14.47	204	549923	74.65	ng		95
63) 4-Nitroaniline	14.51	138	312866	55.81	ng		97
64) Azobenzene	14.78	77	1132047	64.65	ng		99
66) 4,6-Dinitro-2-methylphenol	14.57	198	158197	48.99	ng		98
67) n-Nitrosodiphenylamine	14.69	169	990638	54.99	ng		99
68) 4-Bromophenyl-phenylether	15.37	248	318710	64.31	ng		99
69) Hexachlorobenzene	15.49	284	313711	59.87	ng		98
70) Atrazine	15.62	200	322917	74.68	ng		99
71) Pentachlorophenol	15.79	266	174584	54.44	ng		99
72) Phenanthrene	16.12	178	1575354	54.86	ng		99
73) Anthracene	16.19	178	1624184	56.07	ng		98
74) Carbazole	16.40	167	1535778	54.16	ng		99
75) Di-n-butylphthalate	16.83	149	1804408	53.55	ng		100
76) Fluoranthene	17.61	202	1677534	66.39	ng		99
78) Benzidine	17.73	184	798812	57.09	ng		99
79) Pyrene	17.87	202	1770384	50.84	ng		99
81) Butylbenzylphthalate	18.58	149	817550	48.86	ng		99
82) Benzo(a)anthracene	19.51	228	1636975	59.69	ng		100
83) 3,3'-Dichlorobenzidine	19.42	252	579895	59.53	ng		100
84) Chrysene	19.57	228	1556765	57.87	ng		98
85) Bis(2-ethylhexyl)phthalate	19.37	149	1086979	45.81	ng		100
86) Di-n-octyl phthalate	20.61	149	1794579	49.40	ng		100
87) Indeno(1,2,3-cd)pyrene	28.29	276	1341529	49.18	ng	#	100
89) Benzo(b)fluoranthene	21.79	252	1571175	60.60	ng		98
90) Benzo(k)fluoranthene	21.86	252	1606149	55.80	ng		99
91) Benzo(a)pyrene	22.73	252	1517045	59.48	ng		99
92) Dibenzo(a,h)anthracene	27.09	278	1342581	57.22	ng		99
93) Benzo(g,h,i)perylene	28.29	276	1341529	54.49	ng		97

$\frac{(1086979)(20)}{(4836612)(60)} =$

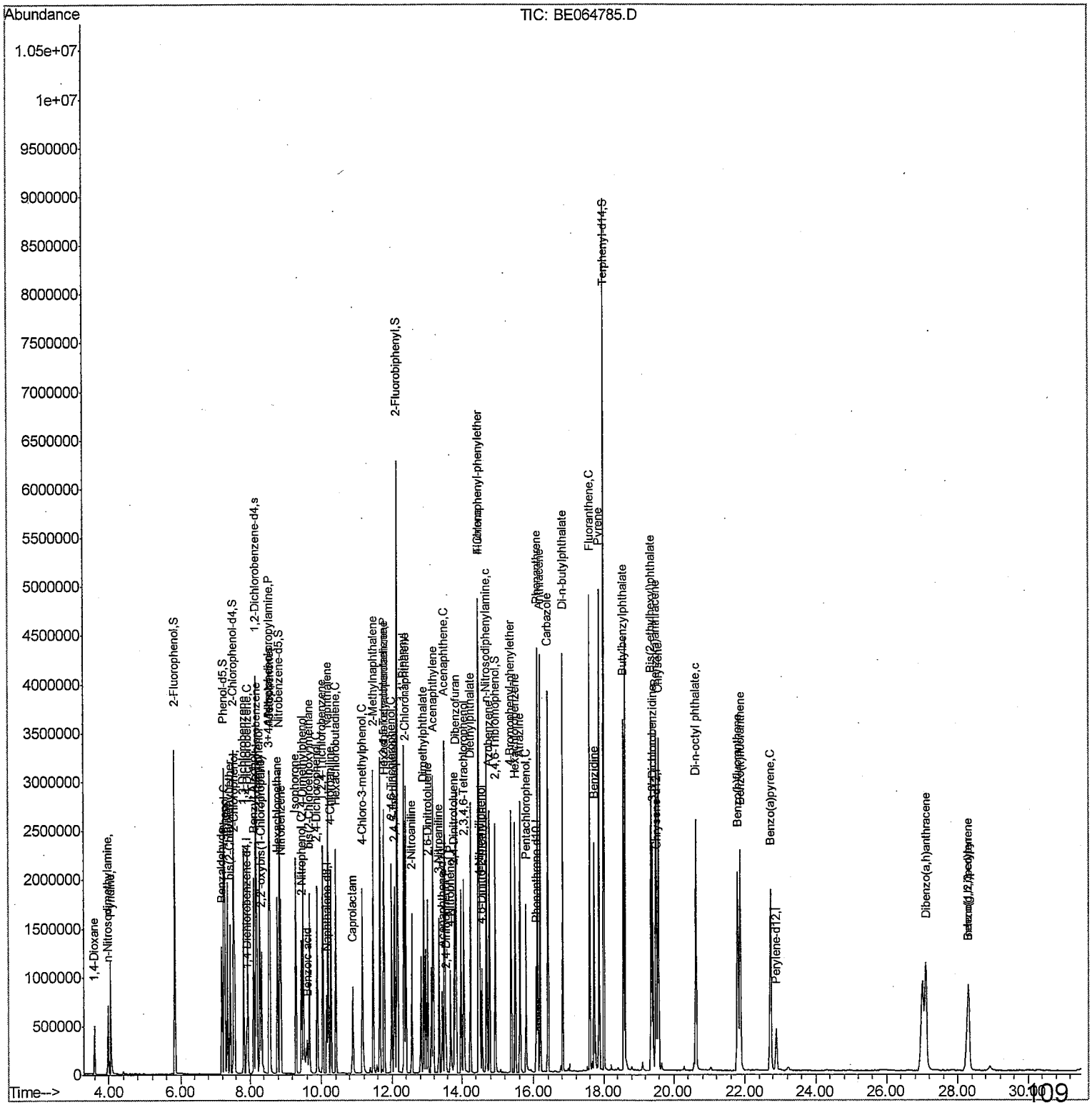
0.749208732

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/21/10

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064785.D
Acq On : 14 Jun 2010 16:23
Operator : QM
Sample : 80 ng BNA ICC
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 04:01:21 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration



Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064785.D
Acq On : 14 Jun 2010 16:23
Operator : QM
Sample : 80 ng BNA ICC
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 04:01:21 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.91	152	139333	20.00	ng		0.00
23) Naphthalene-d8	10.15	136	553029	20.00	ng		0.00
40) Acenaphthene-d10	13.44	164	311807	20.00	ng		0.00
65) Phenanthrene-d10	16.08	188	521335	20.00	ng		0.00
77) Chrysene-d12	19.53	240	509237	20.00	ng		0.00
88) Perylene-d12	22.90	264	463641	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.84	112	1351356	127.80	ng		0.00
7) Phenol-d5	7.25	99	1690415	135.46	ng		0.00
12) 2-Chlorophenol-d4	7.53	132	1337800	139.47	ng		0.00
15) 1,2-Dichlorobenzene-d4	8.17	152	946875	147.59	ng		0.00
25) Nitrobenzene-d5	8.85	82	1590250	183.64	ng		0.00
43) 2,4,6-Tribromophenol	14.94	330	391146	172.60	ng		0.00
46) 2-Fluorobiphenyl	12.16	172	2966550	141.65	ng		0.00
80) Terphenyl-d14	18.01	244	3184652	153.85	ng		0.00
Target Compounds							Qvalue
2) 1,4-Dioxane	3.60	88	264133	57.04	ng	#	71
3) Pyridine	4.05	79	675864	57.78	ng		99
4) n-Nitrosodimethylamine	3.98	42	286266	64.87	ng		99
6) Aniline	7.35	93	1144534	71.83	ng		99
8) 2-Chlorophenol	7.56	128	762416	70.77	ng		99
9) Benzaldehyde	7.19	77	383864	93.17	ng		98
10) Phenol	7.27	94	895083	68.60	ng		99
11) bis(2-Chloroethyl)ether	7.43	93	739278	67.47	ng		100
13) 1,3-Dichlorobenzene	7.81	146	789892	72.18	ng		98
14) 1,4-Dichlorobenzene	7.94	146	835313	74.87	ng		99
16) 1,2-Dichlorobenzene	8.20	146	761042	73.57	ng		98
17) Benzyl Alcohol	8.11	79	602411	94.05	ng		99
18) 2,2'-oxybis(1-Chloropropan	8.34	45	866917	54.74	ng		99
19) 2-Methylphenol	8.28	107	612333	79.84	ng		96
20) Hexachloroethane	8.79	117	328539	83.19	ng		99
21) n-Nitroso-di-n-propylamine	8.56	70	522778	89.59	ng		99
22) 3+4-Methylphenols	8.55	107	787507	79.38	ng		97
24) Acetophenone	8.58	105	1030917	79.42	ng	#	99
26) Nitrobenzene	8.89	77	809367	92.84	ng		96
27) Isophorone	9.30	82	1424739	84.50	ng		100
28) 2-Nitrophenol	9.45	139	417002	74.73	ng		99
29) 2,4-Dimethylphenol	9.50	122	682591	69.48	ng		99
30) bis(2-Chloroethoxy)methane	9.67	93	875483	70.84	ng		98
31) 2,4-Dichlorophenol	9.89	162	605224	80.38	ng		100
32) 1,2,4-Trichlorobenzene	10.05	180	672382	86.13	ng		98
33) Naphthalene	10.19	128	2140608	72.03	ng		100
34) Benzoic acid	9.61	122	239001	36.67	ng		96
35) 4-Chloroaniline	10.27	127	941976	75.78	ng		98
36) Hexachlorobutadiene	10.41	225	377862	118.28	ng		96
37) Caprolactam	10.90	113	247401	79.65	ng		96
38) 4-Chloro-3-methylphenol	11.17	107	689182	99.84	ng		98
39) 2-Methylnaphthalene	11.48	142	1357148	77.96	ng		100

Data Path : \\TERASTORAGE\SVOASRV\HPCHEM1\BNA_E\DATA\BE061410\
Data File : BE064785.D
Acq On : 14 Jun 2010 16:23
Operator : QM
Sample : 80 ng BNA ICC
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 04:01:21 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 03:54:15 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	11.79	216	639016	83.55 ng		100
42) Hexachlorocyclopentadiene	11.77	237	426442	94.61 ng		100
44) 2,4,6-Trichlorophenol	12.00	196	449761	79.61 ng		98
45) 2,4,5-Trichlorophenol	12.08	196	485793	81.88 ng		99
47) 1,1'-Biphenyl	12.35	154	1687429	63.60 ng		99
48) 2-Chloronaphthalene	12.39	162	1387540	69.09 ng		99
49) 2-Nitroaniline	12.57	65	422933	73.56 ng		99
50) Acenaphthylene	13.18	152	2114266	65.10 ng		99
51) Dimethylphthalate	12.91	163	1591803	79.87 ng		99
52) 2,6-Dinitrotoluene	13.03	165	384745	79.65 ng		95
53) Acenaphthene	13.51	154	1329420	67.00 ng		99
54) 3-Nitroaniline	13.35	138	412945	67.41 ng		94
55) 2,4-Dinitrophenol	13.54	184	136664	58.27 ng		91
56) Dibenzofuran	13.84	168	1901530	72.46 ng		99
57) 4-Nitrophenol	13.68	139	333958	66.22 ng		98
58) 2,4-Dinitrotoluene	13.79	165	501607	84.76 ng		99
59) Fluorene	14.48	166	1569170	75.74 ng		96
60) 2,3,4,6-Tetrachlorophenol	14.07	232	377659	92.08 ng		99
61) Diethylphthalate	14.25	149	1561649	81.01 ng		100
62) 4-Chlorophenyl-phenylether	14.47	204	769434	93.90 ng		95
63) 4-Nitroaniline	14.51	138	434200	69.63 ng		97
64) Azobenzene	14.78	77	1552896	79.73 ng		98
66) 4,6-Dinitro-2-methylphenol	14.57	198	245830	71.74 ng		99
67) n-Nitrosodiphenylamine	14.69	169	1357191	71.00 ng		98
68) 4-Bromophenyl-phenylether	15.37	248	447760	85.14 ng		98
69) Hexachlorobenzene	15.49	284	436430	78.48 ng		98
70) Atrazine	15.62	200	444382	96.84 ng		98
71) Pentachlorophenol	15.79	266	254978	74.93 ng		99
72) Phenanthrene	16.12	178	2146738	70.44 ng		99
73) Anthracene	16.19	178	2192709	71.33 ng		99
74) Carbazole	16.41	167	2078303	69.07 ng		99
75) Di-n-butylphthalate	16.83	149	2405612	67.27 ng		99
76) Fluoranthene	17.61	202	2236470	83.40 ng		98
78) Benzidine	17.73	184	1030818	69.96 ng		99
79) Pyrene	17.87	202	2380551	64.92 ng		97
81) Butylbenzylphthalate	18.58	149	1103758	62.65 ng		97
82) Benzo(a)anthracene	19.51	228	2201302	76.23 ng		99
83) 3,3'-Dichlorobenzidine	19.42	252	782870	76.33 ng		99
84) Chrysene	19.58	228	2101147	74.18 ng		99
85) Bis(2-ethylhexyl)phthalate	19.37	149	1476181	59.08 ng		100
86) Di-n-octyl phthalate	20.61	149	2461681	64.35 ng		99
87) Indeno(1,2,3-cd)pyrene	28.31	276	1852453	64.49 ng	#	100
89) Benzo(b)fluoranthene	21.80	252	2182440	80.60 ng		98
90) Benzo(k)fluoranthene	21.87	252	2145848	71.37 ng		100
91) Benzo(a)pyrene	22.73	252	2082718	78.18 ng		99
92) Dibenzo(a,h)anthracene	27.10	278	1875194	76.51 ng		98
93) Benzo(g,h,i)perylene	28.31	276	1852453	72.03 ng		98

(1476181)(20) / (509237)(80) = 0.724702368

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/21/10

111

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.88	152	135041	20.00	ng	0.00
23) Naphthalene-d8	10.13	136	541194	20.00	ng	0.00
40) Acenaphthene-d10	13.42	164	300317	20.00	ng	0.00
65) Phenanthrene-d10	16.06	188	515679	20.00	ng	0.00
77) Chrysene-d12	19.49	240	525627	20.00	ng	0.00
88) Perylene-d12	22.84	264	470608	20.00	ng	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	5.82	112	749220	85.15	ng	0.00
7) Phenol-d5	7.22	99	943392	84.78	ng	0.00
12) 2-Chlorophenol-d4	7.51	132	725251	83.97	ng	0.00
15) 1,2-Dichlorobenzene-d4	8.15	152	503288	82.33	ng	0.00
25) Nitrobenzene-d5	8.82	82	841017	81.08	ng	0.00
43) 2,4,6-Tribromophenol	14.91	330	186512	77.87	ng	0.00
46) 2-Fluorobiphenyl	12.13	172	1602566	81.42	ng	0.00
80) Terphenyl-d14	17.99	244	1762575	78.60	ng	0.00
Target Compounds						Qvalue
2) 1,4-Dioxane	3.58	88	171609	49.96	ng	100
3) Pyridine	4.03	79	445315	52.30	ng	100
4) n-Nitrosodimethylamine	3.96	42	168812	45.26	ng	100
6) Aniline	7.32	93	636045	43.35	ng	100
8) 2-Chlorophenol	7.53	128	405952	42.10	ng	100
9) Benzaldehyde	7.16	77	228041	38.60	ng	100
10) Phenol	7.24	94	502057	43.00	ng	100
11) bis(2-Chloroethyl)ether	7.41	93	411178	43.03	ng	100
13) 1,3-Dichlorobenzene	7.79	146	424161	41.87	ng	100
14) 1,4-Dichlorobenzene	7.91	146	431869	40.85	ng	100
16) 1,2-Dichlorobenzene	8.17	146	400294	40.96	ng	100
17) Benzyl Alcohol	8.08	79	300469	41.52	ng	100
18) 2,2'-oxybis(1-Chloropropan	8.31	45	482012	43.49	ng	100
19) 2-Methylphenol	8.26	107	323431	42.41	ng	100
20) Hexachloroethane	8.76	117	168118	40.99	ng	100
21) n-Nitroso-di-n-propylamine	8.53	70	285606	42.01	ng	100
22) 3+4-Methylphenols	8.52	107	417440	41.64	ng	100
24) Acetophenone	8.55	105	563306	41.46	ng	100
26) Nitrobenzene	8.86	77	423724	40.63	ng	100
27) Isophorone	9.27	82	760607	40.85	ng	100
28) 2-Nitrophenol	9.43	139	209467	40.16	ng	100
29) 2,4-Dimethylphenol	9.47	122	343333	39.26	ng	100
30) bis(2-Chloroethoxy)methane	9.64	93	485769	42.35	ng	100
31) 2,4-Dichlorophenol	9.86	162	309589	40.38	ng	100
32) 1,2,4-Trichlorobenzene	10.02	180	343700	39.62	ng	100
33) Naphthalene	10.17	128	1168357	41.18	ng	100
34) Benzoic acid	9.53	122	85644	48.36	ng	100
35) 4-Chloroaniline	10.24	127	507923	41.83	ng	100
36) Hexachlorobutadiene	10.39	225	186848	38.08	ng	100
37) Caprolactam	10.84	113	129164	41.16	ng	100
38) 4-Chloro-3-methylphenol	11.14	107	351897	39.96	ng	100
39) 2-Methylnaphthalene	11.45	142	721022	40.46	ng	100

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	11.76	216	318380	39.61 ng	100
42) Hexachlorocyclopentadiene	11.74	237	193786	39.65 ng	100
44) 2,4,6-Trichlorophenol	11.97	196	223453	40.10 ng	100
45) 2,4,5-Trichlorophenol	12.05	196	230691	39.97 ng	100
47) 1,1'-Biphenyl	12.32	154	897359	41.07 ng	100
48) 2-Chloronaphthalene	12.37	162	725203	40.71 ng	100
49) 2-Nitroaniline	12.54	65	218157	41.36 ng	100
50) Acenaphthylene	13.15	152	1126633	41.06 ng	100
51) Dimethylphthalate	12.88	163	819905	40.00 ng	100
52) 2,6-Dinitrotoluene	12.99	165	195415	40.31 ng	100
53) Acenaphthene	13.48	154	691739	41.68 ng	100
54) 3-Nitroaniline	13.32	138	215171	41.34 ng	100
55) 2,4-Dinitrophenol	13.52	184	46585	45.13 ng	100
56) Dibenzofuran	13.80	168	1008721	40.65 ng	100
57) 4-Nitrophenol	13.65	139	168630	42.51 ng	100
58) 2,4-Dinitrotoluene	13.76	165	250669	40.28 ng	100
59) Fluorene	14.46	166	835233	40.98 ng	100
60) 2,3,4,6-Tetrachlorophenol	14.03	232	181761	39.68 ng	100
61) Diethylphthalate	14.22	149	803238	40.25 ng	100
62) 4-Chlorophenyl-phenylether	14.45	204	390595	39.58 ng	100
63) 4-Nitroaniline	14.47	138	229202	42.39 ng	100
64) Azobenzene	14.74	77	847960	41.89 ng	100
66) 4,6-Dinitro-2-methylphenol	14.53	198	99219	40.51 ng	100
67) n-Nitrosodiphenylamine	14.66	169	722676	41.17 ng	100
68) 4-Bromophenyl-phenylether	15.34	248	219881	39.01 ng	100
69) Hexachlorobenzene	15.46	284	220273	39.58 ng	100
70) Atrazine	15.60	200	229516	40.68 ng	100
71) Pentachlorophenol	15.77	266	116980	41.05 ng	100
72) Phenanthrene	16.09	178	1156286	40.85 ng	100
73) Anthracene	16.17	178	1189710	41.22 ng	100
74) Carbazole	16.38	167	1161241	42.24 ng	100
75) Di-n-butylphthalate	16.81	149	1327597	41.27 ng	100
76) Fluoranthene	17.59	202	1238116	41.39 ng	100
78) Benzidine	17.71	184	607407	42.47 ng	100
79) Pyrene	17.85	202	1334905	40.55 ng	100
81) Butylbenzylphthalate	18.55	149	594791	40.45 ng	100
82) Benzo(a)anthracene	19.47	228	1207447	40.77 ng	100
83) 3,3'-Dichlorobenzidine	19.38	252	434312	40.54 ng	100
84) Chrysene	19.54	228	1162975	40.90 ng	100
85) Bis(2-ethylhexyl)phthalate	19.35	149	805047	40.84 ng	100
86) Di-n-octyl phthalate	20.57	149	1311608	41.08 ng	100
87) Indeno(1,2,3-cd)pyrene	26.88	276	1162326m	40.03 ng	
89) Benzo(b)fluoranthene	21.74	252	1138788	40.54 ng	100
90) Benzo(k)fluoranthene	21.81	252	1202566m	42.59 ng	
91) Benzo(a)pyrene	22.67	252	1099056	41.11 ng	100
92) Dibenzo(a,h)anthracene	26.98	278	987259	41.42 ng	100
93) Benzo(g,h,i)perylene	28.17	276	972001	41.38 ng	100

$\frac{(805047)(20)}{(525627)(0.790)} = 40.8147$

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7/4/10

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	20.000	20.000	0.0	118	0.00
2		1,4-Dioxane	40.000	49.959	-24.9	145	0.00
3		Pyridine	40.000	52.302	-30.8#	148	0.00
4		n-Nitrosodimethylamine	40.000	45.259	-13.1	129	0.00
5	S	2-Fluorophenol	80.000	85.151	-6.4	121	0.00
6		Aniline	40.000	43.347	-8.4	125	0.00
7	S	Phenol-d5	80.000	84.783	-6.0	122	0.00
8		2-Chlorophenol	40.000	42.098	-5.2	121	0.00
9		Benzaldehyde	40.000	38.596	3.5	104	0.00
0	C	Phenol	40.000	42.999	-7.5	122	0.00
1		bis(2-Chloroethyl)ether	40.000	43.027	-7.6	124	0.00
2	S	2-Chlorophenol-d4	80.000	83.968	-5.0	121	0.00
3		1,3-Dichlorobenzene	40.000	41.874	-4.7	120	0.00
4	C	1,4-Dichlorobenzene	40.000	40.852	-2.1	116	0.00
5	s	1,2-Dichlorobenzene-d4	80.000	82.332	-2.9	118	0.00
6		1,2-Dichlorobenzene	40.000	40.959	-2.4	117	0.00
7		Benzyl Alcohol	40.000	41.517	-3.8	117	0.00
8		2,2'-oxybis(1-Chloropropane	40.000	43.487	-8.7	126	0.00
9		2-Methylphenol	40.000	42.409	-6.0	123	0.00
0		Hexachloroethane	40.000	40.989	-2.5	119	0.00
1	P	n-Nitroso-di-n-propylamine	40.000	42.009	-5.0	120	0.00
2		3+4-Methylphenols	40.000	41.645	-4.1	120	0.00
3	I	Naphthalene-d8	20.000	20.000	0.0	119	0.00
4		Acetophenone	40.000	41.464	-3.7	121	0.00
5	S	Nitrobenzene-d5	80.000	81.079	-1.3	119	0.00
6		Nitrobenzene	40.000	40.628	-1.6	119	0.00
7		Isophorone	40.000	40.847	-2.1	119	0.00
8	C	2-Nitrophenol	40.000	40.157	-0.4	116	0.00
9		2,4-Dimethylphenol	40.000	39.255	1.9	121	0.00
0		bis(2-Chloroethoxy)methane	40.000	42.351	-5.9	123	0.00
1	C	2,4-Dichlorophenol	40.000	40.376	-0.9	118	0.00
2		1,2,4-Trichlorobenzene	40.000	39.623	0.9	115	0.00
3		Naphthalene	40.000	41.184	-3.0	119	0.00
4		Benzoic acid	40.000	48.356	-20.9	148	0.00
5		4-Chloroaniline	40.000	41.829	-4.6	123	0.00
6	C	Hexachlorobutadiene	40.000	38.081	4.8	112	0.00
7		Caprolactam	40.000	41.164	-2.9	120	0.00
8	C	4-Chloro-3-methylphenol	40.000	39.964	0.1	117	0.00
9		2-Methylnaphthalene	40.000	40.459	-1.1	117	0.00
0	I	Acenaphthene-d10	20.000	20.000	0.0	118	0.00
1		1,2,4,5-Tetrachlorobenzene	40.000	39.609	1.0	114	0.00
2	P	Hexachlorocyclopentadiene	40.000	39.648	0.9	120	0.00
3	S	2,4,6-Tribromophenol	80.000	77.870	2.7	111	0.00
4	C	2,4,6-Trichlorophenol	40.000	40.099	-0.2	116	0.00

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
5		2,4,5-Trichlorophenol	40.000	39.971	0.1	115	0.00
6	S	2-Fluorobiphenyl	80.000	81.416	-1.8	116	0.00
7		1,1'-Biphenyl	40.000	41.068	-2.7	119	0.00
8		2-Chloronaphthalene	40.000	40.715	-1.8	117	0.00
9		2-Nitroaniline	40.000	41.357	-3.4	119	0.00
0		Acenaphthylene	40.000	41.061	-2.7	119	0.00
1		Dimethylphthalate	40.000	40.004	-0.0	115	0.00
2		2,6-Dinitrotoluene	40.000	40.308	-0.8	116	0.00
3	C	Acenaphthene	40.000	41.683	-4.2	120	0.00
4		3-Nitroaniline	40.000	41.341	-3.4	118	0.00
5	P	2,4-Dinitrophenol	40.000	45.132	-12.8	163	0.00
6		Dibenzofuran	40.000	40.649	-1.6	116	0.00
7	P	4-Nitrophenol	40.000	42.505	-6.3	121	0.00
8		2,4-Dinitrotoluene	40.000	40.279	-0.7	114	0.00
9		Fluorene	40.000	40.978	-2.4	118	0.00
0		2,3,4,6-Tetrachlorophenol	40.000	39.683	0.8	113	0.00
1		Diethylphthalate	40.000	40.254	-0.6	116	0.00
2		4-Chlorophenyl-phenylether	40.000	39.580	1.1	114	0.00
3		4-Nitroaniline	40.000	42.387	-6.0	122	0.00
4		Azobenzene	40.000	41.893	-4.7	119	0.00
5	I	Phenanthrene-d10	20.000	20.000	0.0	117	0.00
6		4,6-Dinitro-2-methylphenol	40.000	40.512	-1.3	131	0.00
7	c	n-Nitrosodiphenylamine	40.000	41.166	-2.9	119	0.00
8		4-Bromophenyl-phenylether	40.000	39.006	2.5	113	0.00
9		Hexachlorobenzene	40.000	39.584	1.0	115	0.00
0		Atrazine	40.000	40.683	-1.7	124	0.00
1	C	Pentachlorophenol	40.000	41.050	-2.6	128	0.00
2		Phenanthrene	40.000	40.854	-2.1	117	0.00
3		Anthracene	40.000	41.222	-3.1	119	0.00
4		Carbazole	40.000	42.237	-5.6	120	0.00
5		Di-n-butylphthalate	40.000	41.269	-3.2	117	0.00
6	C	Fluoranthene	40.000	41.385	-3.5	117	0.00
7	I	Chrysene-d12	20.000	20.000	0.0	121	0.00
8		Benzidine	40.000	42.469	-6.2	127	0.00
9		Pyrene	40.000	40.550	-1.4	119	0.00
0	S	Terphenyl-d14	80.000	78.603	1.7	115	0.00
1		Butylbenzylphthalate	40.000	40.454	-1.1	120	0.00
2		Benzo(a)anthracene	40.000	40.766	-1.9	120	0.00
3		3,3'-Dichlorobenzidine	40.000	40.538	-1.3	119	0.00
4		Chrysene	40.000	40.897	-2.2	121	0.00
5		Bis(2-ethylhexyl)phthalate	40.000	40.843	-2.1	121	0.00
6	c	Di-n-octyl phthalate	40.000	41.081	-2.7	121	0.00
7		Indeno(1,2,3-cd)pyrene	40.000	40.030	-0.1	119	0.00

40.843
%D= 2.030 %

128

7/21/10

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
8 I	Perylene-d12	20.000	20.000	0.0	121	0.00
9	Benzo(b)fluoranthene	40.000	40.545	-1.4	117	0.00
0	Benzo(k)fluoranthene	40.000	42.590	-6.5	126	0.06
1 C	Benzo(a)pyrene	40.000	41.107	-2.8	119	0.00
2	Dibenzo(a,h)anthracene	40.000	41.422	-3.6	120	0.00
3	Benzo(g,h,i)perylene	40.000	41.378	-3.4	121	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
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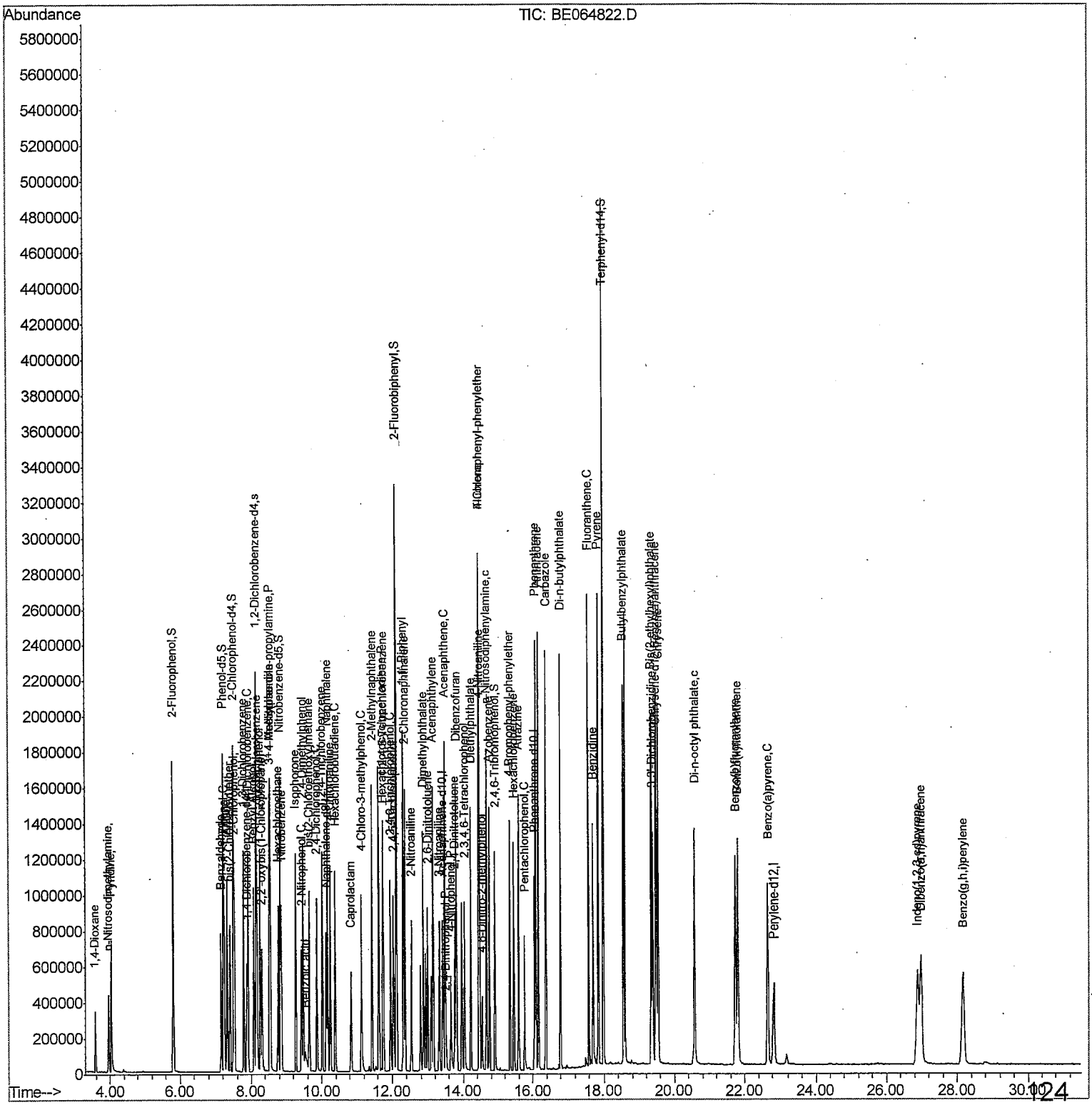
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration



Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
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Quant Time: Jun 16 03:34:33 2010
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Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	118	0.00
2		1,4-Dioxane	0.509	0.635	-24.8	145	0.00
3		Pyridine	1.261	1.649	-30.8#	148	0.00
4		n-Nitrosodimethylamine	0.552	0.625	-13.2	129	0.00
5	S	2-Fluorophenol	1.303	1.387	-6.4	121	0.00
6		Aniline	2.173	2.355	-8.4	125	0.00
7	S	Phenol-d5	1.648	1.746	-5.9	122	0.00
8		2-Chlorophenol	1.428	1.503	-5.3	121	0.00
9		Benzaldehyde	0.875	0.844	3.5	104	0.00
0	C	Phenol	1.729	1.859	-7.5	122	0.00
1		bis(2-Chloroethyl)ether	1.415	1.522	-7.6	124	0.00
2	S	2-Chlorophenol-d4	1.279	1.343	-5.0	121	0.00
3		1,3-Dichlorobenzene	1.500	1.570	-4.7	120	0.00
4	C	1,4-Dichlorobenzene	1.566	1.599	-2.1	116	0.00
5	s	1,2-Dichlorobenzene-d4	0.905	0.932	-3.0	118	0.00
6		1,2-Dichlorobenzene	1.447	1.482	-2.4	117	0.00
7		Benzyl Alcohol	1.072	1.113	-3.8	117	0.00
8		2,2'-oxybis(1-Chloropropane	1.642	1.785	-8.7	126	0.00
9		2-Methylphenol	1.129	1.198	-6.1	123	0.00
0		Hexachloroethane	0.607	0.622	-2.5	119	0.00
1	P	n-Nitroso-di-n-propylamine	1.007	1.057	-5.0	120	0.00
2		3+4-Methylphenols	1.485	1.546	-4.1	120	0.00
3	I	Naphthalene-d8	1.000	1.000	0.0	119	0.00
4		Acetophenone	0.502	0.520	-3.6	121	0.00
5	S	Nitrobenzene-d5	0.383	0.389	-1.6	119	0.00
6		Nitrobenzene	0.385	0.391	-1.6	119	0.00
7		Isophorone	0.688	0.703	-2.2	119	0.00
8	C	2-Nitrophenol	0.193	0.194	-0.5	116	0.00
9		2,4-Dimethylphenol	0.323	0.317	1.9	121	0.00
0		bis(2-Chloroethoxy)methane	0.424	0.449	-5.9	123	0.00
1	C	2,4-Dichlorophenol	0.283	0.286	-1.1	118	0.00
2		1,2,4-Trichlorobenzene	0.321	0.318	0.9	115	0.00
3		Naphthalene	1.048	1.079	-3.0	119	0.00
4		Benzoic acid	0.065	0.079	-21.5	148	0.00
5		4-Chloroaniline	0.449	0.469	-4.5	123	0.00
6	C	Hexachlorobutadiene	0.181	0.173	4.4	112	0.00
7		Caprolactam	0.116	0.119	-2.6	120	0.00
8	C	4-Chloro-3-methylphenol	0.325	0.325	0.0	117	0.00
9		2-Methylnaphthalene	0.659	0.666	-1.1	117	0.00
0	I	Acenaphthene-d10	1.000	1.000	0.0	118	0.00
1		1,2,4,5-Tetrachlorobenzene	0.535	0.530	0.9	114	0.00
2	P	Hexachlorocyclopentadiene	0.326	0.323	0.9	120	0.00
3	S	2,4,6-Tribromophenol	0.160	0.155	3.1	111	0.00
4	C	2,4,6-Trichlorophenol	0.371	0.372	-0.3	116	0.00

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
5		2,4,5-Trichlorophenol	0.384	0.384	0.0	115	0.00	
6	S	2-Fluorobiphenyl	1.311	1.334	-1.8	116	0.00	
7		1,1'-Biphenyl	1.455	1.494	-2.7	119	0.00	
8		2-Chloronaphthalene	1.186	1.207	-1.8	117	0.00	
9		2-Nitroaniline	0.351	0.363	-3.4	119	0.00	
0		Acenaphthylene	1.827	1.876	-2.7	119	0.00	
1		Dimethylphthalate	1.365	1.365	0.0	115	0.00	
2		2,6-Dinitrotoluene	0.323	0.325	-0.6	116	0.00	
3	C	Acenaphthene	1.105	1.152	-4.3	120	0.00	
4		3-Nitroaniline	0.347	0.358	-3.2	118	0.00	
5	P	2,4-Dinitrophenol	0.064	0.078	-21.9	163#	0.00	T
6		Dibenzofuran	1.653	1.679	-1.6	116	0.00	
7	P	4-Nitrophenol	0.264	0.281	-6.4	121	0.00	
8		2,4-Dinitrotoluene	0.414	0.417	-0.7	114	0.00	
9		Fluorene	1.357	1.391	-2.5	118	0.00	
0		2,3,4,6-Tetrachlorophenol	0.305	0.303	0.7	113	0.00	
1		Diethylphthalate	1.329	1.337	-0.6	116	0.00	
2		4-Chlorophenyl-phenylether	0.657	0.650	1.1	114	0.00	
3		4-Nitroaniline	0.360	0.382	-6.1	122	0.00	
4		Azobenzene	1.348	1.412	-4.7	119	0.00	
5	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.00	
6		4,6-Dinitro-2-methylphenol	0.083	0.096	-15.7	131	0.00	OK
7	c	n-Nitrosodiphenylamine	0.681	0.701	-2.9	119	0.00	
8		4-Bromophenyl-phenylether	0.219	0.213	2.7	113	0.00	
9		Hexachlorobenzene	0.216	0.214	0.9	115	0.00	
0		Atrazine	0.219	0.223	-1.8	124	0.00	
1	C	Pentachlorophenol	0.103	0.113	-9.7	128	0.00	
2		Phenanthrene	1.098	1.121	-2.1	117	0.00	
3		Anthracene	1.119	1.154	-3.1	119	0.00	
4		Carbazole	1.066	1.126	-5.6	120	0.00	
5		Di-n-butylphthalate	1.248	1.287	-3.1	117	0.00	
6	C	Fluoranthene	1.160	1.200	-3.4	117	0.00	
7	I	Chrysene-d12	1.000	1.000	0.0	121	0.00	
8		Benzidine	0.544	0.578	-6.2	127	0.00	
9		Pyrene	1.253	1.270	-1.4	119	0.00	
0	S	Terphenyl-d14	0.853	0.838	1.8	115	0.00	
1		Butylbenzylphthalate	0.559	0.566	-1.3	120	0.00	
2		Benzo(a)anthracene	1.127	1.149	-2.0	120	0.00	
3		3,3'-Dichlorobenzidine	0.408	0.413	-1.2	119	0.00	
4		Chrysene	1.082	1.106	-2.2	121	0.00	
5		Bis(2-ethylhexyl)phthalate	0.750	0.766	-2.1	121	0.00	
6	c	Di-n-octyl phthalate	1.215	1.248	-2.7	121	0.00	
7		Indeno(1,2,3-cd)pyrene	1.105	1.106	-0.1	119	0.00	

7/21/10

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061510\
Data File : BE064822.D
Acq On : 15 Jun 2010 18:45
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 16 03:34:33 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:33:00 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
8 I	Perylene-d12	1.000	1.000	0.0	121	0.00
9	Benzo(b)fluoranthene	1.194	1.210	-1.3	117	0.00
0	Benzo(k)fluoranthene	1.200	1.278	-6.5	126	0.06
1 C	Benzo(a)pyrene	1.136	1.168	-2.8	119	0.00
2	Dibenzo(a,h)anthracene	1.013	1.049	-3.6	120	0.00
3	Benzo(g,h,i)perylene	0.998	1.033	-3.5	121	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CHEMTECH

Manual Integration eport

equence	BE061510	Instrument	BNA e

ample ID	File ID	Parameter	evie By	evie On	upervised By	upervised On	eason
B2618-17M D	BE064838 D	Indeno (1,2,3-cd) pyrene	zankhana	6/16/2010 8 23 13 AM	I	6/16/2010 1 53 30 PM	Peak Integrated by oft are incorrectly

CHEMTECH **Instrument: GC/MS Ins**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #BE061510

STD. NAME	STD REF.#	STD. NAME	STD REF.#
evie By	I	evie On	6/16/2010 12 00 00 AM
Tune/ eschk	P1030	Initial Calibration tds	P1084-1091
CCC	P1088	ubDirectory	BE061510
Internal tandard/PEM	1325	HP Acquire Method	BNA E
IC /I B	NA	HP Processing Method	8270-BE061410 M

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	25 ng DFTPP	BE064817 D	15 un 2010 13 52	M	Ok
2	40 ng BNA CCC	BE064818 D	15 un 2010 14 32	M	Not Ok
3	C EAN P	BE064819 D	15 un 2010 16 46	M	Ok
4	P1116	BE064820 D	15 un 2010 17 25	M	Ok,M
5	25 ng DFTPP	BE064821 D	15 un 2010 18 04	M	Ok,M
6	40 ng BNA CCC	BE064822 D	15 un 2010 18 45	M	Ok,M
7	PB49736B	BE064823 D	15 un 2010 19 24	M	Ok,M
8	PB49664B	BE064824 D	15 un 2010 20 03	M	Ok,M
9	PB49664B D	BE064825 D	15 un 2010 20 45	M	Ok,M
10	PB49680B	BE064826 D	15 un 2010 21 23	M	Ok
11	C EAN P	BE064827 D	15 un 2010 22 05	M	Ok
12	PB49680B	BE064828 D	15 un 2010 22 44	M	Ok
13	PB49664B	BE064829 D	15 un 2010 23 23	M	Ok
14	PB49736B	BE064830 D	16 un 2010 00 05	M	Ok
15	B2619-02	BE064831 D	16 un 2010 00 46	M	Ok
16	B2616-01	BE064832 D	16 un 2010 1 25	M	Ok,M
17	B2593-02	BE064833 D	16 un 2010 2 07	M	Ok,M
18	B2593-01 20	BE064834 D	16 un 2010 2 46	M	Ok
19	B2618-04	BE064835 D	16 un 2010 3 28	M	Ok,M
20	B2618-17	BE064836 D	16 un 2010 4 06	M	Ok

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PB49736B

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: PB49736B

Sample wt/vol: 30.03 (g/mL) g Lab File ID: BE064830.D

Level: (low/med) LOW Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	330	U
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2-oxybis(1-Chloropropane)	330	U
98-86-2	Acetophenone	330	U
65794-96-9	3+4-Methylphenols	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
105-60-2	Caprolactam	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
92-52-4	1,1-Biphenyl	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	210	J

Comments:

7/21/10

CHEMTECH

-1F-

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PB49736B

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: PB49736B

Sample wt/vol: 30.03 (g/mL) g Lab File ID: BE064830.D

Level: (low/med) LOW Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Concentration Units: ug/Kg

Number TICS found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	5.35	540	A
	unknown2.28	17.67	76	J

in Samples.

7/21/10

CHEMTECH

3A

SOIL SEMIVOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Cas No: B2618 SAS No : B2618 SDG No: B2618

Matrix Spike - EPA Sample No : PB49736BS

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Benzaldehyde	1700		180	11	(10-161)
Phenol	1700		1400	82	(51-111)
bis(2-Chloroethyl)ether	1700		1400	82	(48-114)
2-Chlorophenol	1700		1400	82	(53-110)
2-Methylphenol	1700		1400	82	(52-111)
2,2-oxybis(1-Chloropropane)	1700		1400	82	(45-117)
Acetophenone	1700		1400	82	(51-114)
3+4-Methylphenols	1700		1400	82	(54-109)
n-Nitroso-di-n-propylamine	1700		1400	82	(51-114)
Hexachloroethane	1700		1300	76	(44-113)
Nitrobenzene	1700		1400	82	(49-114)
Isophorone	1700		1400	82	(52-113)
2-Nitrophenol	1700		1400	82	(51-116)
2,4-Dimethylphenol	1700		1400	82	(46-148)
bis(2-Chloroethoxy)methane	1700		1400	82	(52-115)
2,4-Dichlorophenol	1700		1400	82	(53-112)
Naphthalene	1700		1400	82	(51-114)
4-Chloroaniline	1700		750	44	(25-115)
Hexachlorobutadiene	1700		1300	76	(47-116)
Caprolactam	1700		1300	76	(34-117)
4-Chloro-3-methylphenol	1700		1400	82	(56-111)
2-Methylnaphthalene	1700		1400	82	(54-111)
Hexachlorocyclopentadiene	3300		2800	85	(43-112)
2,4,6-Trichlorophenol	1700		1400	82	(53-112)
2,4,5-Trichlorophenol	1700		1400	82	(53-113)
1,1-Biphenyl	1700		1500	88	(55-109)
2-Chloronaphthalene	1700		1500	88	(55-112)
2-Nitroaniline	1700		1400	82	(53-118)
Dimethylphthalate	1700		1600	94	(57-112)
Acenaphthylene	1700		1500	88	(54-113)
2,6-Dinitrotoluene	1700		1500	88	(55-114)
3-Nitroaniline	1700		1100	65	(10-157)
Acenaphthene	1700		1500	88	(54-113)
2,4-Dinitrophenol	3300		2600	79	(15-153)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 0 Out of 78 outside limits

7/20/10

Comments:

CHEMTECH

3A

SOIL SEMIVOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Cas No: B2618 SAS No : B2618 SDG No: B2618

Matrix Spike - EPA Sample No : PB49736BS

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
4-Nitrophenol	3300		3000	91	(44-115)
Dibenzofuran	1700		1500	88	(59-108)
2,4-Dinitrotoluene	1700		1400	82	(55-115)
Diethylphthalate	1700		1400	82	(56-111)
4-Chlorophenyl-phenylether	1700		1400	82	(56-111)
Fluorene	1700		1500	88	(56-113)
4-Nitroaniline	1700		1400	82	(46-113)
4,6-Dinitro-2-methylphenol	1700		1500	88	(39-126)
n-Nitrosodiphenylamine	1700		1400	82	(54-115)
4-Bromophenyl-phenylether	1700		1400	82	(51-120)
Hexachlorobenzene	1700		1400	82	(52-117)
Atrazine	1700		1200	71	(40-127)
Pentachlorophenol	3300		2700	82	(47-116)
Phenanthrene	1700		1500	88	(56-113)
Anthracene	1700		1400	82	(56-113)
Carbazole	1700		1400	82	(54-117)
Di-n-butylphthalate	1700		1400	82	(58-115)
Fluoranthene	1700		1400	82	(54-117)
Pyrene	1700		1500	88	(58-117)
Butylbenzylphthalate	1700		1500	88	(57-122)
3,3-Dichlorobenzidine	1700		380	22	(10-157)
Benzo(a)anthracene	1700		1400	82	(57-112)
Chrysene	1700		1500	88	(59-114)
Bis(2-ethylhexyl)phthalate	1700		1500	88	(60-119)
Di-n-octyl phthalate	1700		1500	88	(56-122)
Benzo(b)fluoranthene	1700		1500	88	(53-120)
Benzo(k)fluoranthene	1700		1500	88	(56-117)
Benzo(a)pyrene	1700		1500	88	(56-117)
Indeno(1,2,3-cd)pyrene	1700		1400	82	(49-120)
Dibenzo(a,h)anthracene	1700		1500	88	(52-119)
Benzo(g,h,i)perylene	1700		1500	88	(53-119)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 0 Out of 78 outside limits

7/20/10

Comments: _____

CHEMTECH

3A

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2618 **SAS No :** B2618 **SDG No:** B2618

Matrix Spike - EPA Sample No : B2618-17

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
Benzaldehyde	1900	0	240	13	(10-161)
Phenol	1900	0	1800	95	(43-127)
bis(2-Chloroethyl)ether	1900	0	1800	95	(43-134)
2-Chlorophenol	1900	0	1700	89	(41-131)
2-Methylphenol	1900	0	1700	89	(44-129)
2,2-oxybis(1-Chloropropane)	1900	0	1800	95	(36-137)
Acetophenone	1900	0	1700	89	(48-131)
3+4-Methylphenols	1900	0	1700	89	(44-131)
n-Nitroso-di-n-propylamine	1900	0	1700	89	(41-137)
Hexachloroethane	1900	0	1600	84	(25-142)
Nitrobenzene	1900	0	1700	89	(37-136)
Isophorone	1900	0	1800	95	(42-137)
2-Nitrophenol	1900	0	1700	89	(28-135)
2,4-Dimethylphenol	1900	0	1700	89	(35-136)
bis(2-Chloroethoxy)methane	1900	0	1800	95	(38-139)
2,4-Dichlorophenol	1900	0	1700	89	(34-137)
Naphthalene	1900	0	1700	89	(23-160)
4-Chloroaniline	1900	0	590	31	(10-160)
Hexachlorobutadiene	1900	0	1600	84	(37-132)
Caprolactam	1900	0	1700	89	(24-145)
4-Chloro-3-methylphenol	1900	0	1600	84	(40-131)
2-Methylnaphthalene	1900	0	1800	95	(37-139)
Hexachlorocyclopentadiene	3800	0	2900	76	(10-128)
2,4,6-Trichlorophenol	1900	0	1700	89	(32-131)
2,4,5-Trichlorophenol	1900	0	1700	89	(39-134)
1,1-Biphenyl	1900	0	1800	95	(47-131)
2-Chloronaphthalene	1900	0	1800	95	(43-133)
2-Nitroaniline	1900	0	1800	95	(41-138)
Dimethylphthalate	1900	460	2200	92	(51-132)
Acenaphthylene	1900	0	1700	89	(28-155)
2,6-Dinitrotoluene	1900	0	1700	89	(41-130)
3-Nitroaniline	1900	0	1300	68	(10-155)
Acenaphthene	1900	0	1900	100	(32-146)

 # Column to be used to flag recovery and RPD values with an asterisk
*** Values outside of QC limits**

9/20/12

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 78 outside limits

CHEMTECH

3A

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2618 **SAS No :** B2618 **SDG No:** B2618

Matrix Spike - EPA Sample No : B2618-17

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
2,4-Dinitrophenol	3800	0	2800	74	(10-177)
4-Nitrophenol	3800	0	3500	92	(10-155)
Dibenzofuran	1900	0	1700	89	(36-147)
2,4-Dinitrotoluene	1900	0	1700	89	(38-131)
Diethylphthalate	1900	0	1700	89	(47-132)
4-Chlorophenyl-phenylether	1900	0	1700	89	(43-133)
Fluorene	1900	0	1700	89	(17-166)
4-Nitroaniline	1900	0	1600	84	(23-137)
4,6-Dinitro-2-methylphenol	1900	0	1700	89	(10-153)
n-Nitrosodiphenylamine	1900	0	1800	95	(40-143)
4-Bromophenyl-phenylether	1900	0	1700	89	(40-135)
Hexachlorobenzene	1900	0	1700	89	(43-132)
Atrazine	1900	0	1600	84	(38-135)
Pentachlorophenol	3800	0	3300	87	(10-146)
Phenanthrene	1900	0	1800	95	(30-149)
Anthracene	1900	0	1800	95	(27-158)
Carbazole	1900	0	1800	95	(38-147)
Di-n-butylphthalate	1900	0	1800	95	(45-135)
Fluoranthene	1900	0	1700	89	(26-155)
Pyrene	1900	0	1800	95	(22-173)
Butylbenzylphthalate	1900	0	1800	95	(46-141)
3,3-Dichlorobenzidine	1900	0	1100	58	(10-126)
Benzo(a)anthracene	1900	0	1800	95	(27-159)
Chrysene	1900	0	1800	95	(23-166)
Bis(2-ethylhexyl)phthalate	1900	130	2000	98	(39-159)
Di-n-octyl phthalate	1900	0	1900	100	(36-151)
Benzo(b)fluoranthene	1900	0	1700	89	(21-171)
Benzo(k)fluoranthene	1900	0	1700	89	(26-165)
Benzo(a)pyrene	1900	0	1800	95	(26-157)
Indeno(1,2,3-cd)pyrene	1900	0	1900	100	(10-188)
Dibenzo(a,h)anthracene	1900	0	1800	95	(18-147)
Benzo(g,h,i)perylene	1900	0	1900	100	(10-177)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 78 outside limits

7/20/10

CHEMTECH

3A

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2618 **SAS No :** B2618 **SDG No:** B2618

Matrix Spike - EPA Sample No : B2618-17

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % (ug/Kg)	MSD %	QC LIMITS RPD	QC LIMITS REC
Benzaldehyde	1900	250	13	0	20	(10-161)
Phenol	1900	1800	95	0	20	(43-127)
bis(2-Chloroethyl)ether	1900	1800	95	0	20	(43-134)
2-Chlorophenol	1900	1700	89	0	20	(41-131)
2-Methylphenol	1900	1800	95	7	20	(44-129)
2,2-oxybis(1-Chloropropane)	1900	1900	100	5	20	(36-137)
Acetophenone	1900	1800	95	7	20	(48-131)
3+4-Methylphenols	1900	1800	95	7	20	(44-131)
n-Nitroso-di-n-propylamine	1900	1800	95	7	20	(41-137)
Hexachloroethane	1900	1700	89	6	20	(25-142)
Nitrobenzene	1900	1800	95	7	20	(37-136)
Isophorone	1900	1800	95	0	20	(42-137)
2-Nitrophenol	1900	1700	89	0	20	(28-135)
2,4-Dimethylphenol	1900	1700	89	0	20	(35-136)
bis(2-Chloroethoxy)methane	1900	1800	95	0	20	(38-139)
2,4-Dichlorophenol	1900	1700	89	0	20	(34-137)
Naphthalene	1900	1800	95	7	20	(23-160)
4-Chloroaniline	1900	840	44	35*	20	(10-160)
Hexachlorobutadiene	1900	1600	84	0	20	(37-132)
Caprolactam	1900	1700	89	0	20	(24-145)
4-Chloro-3-methylphenol	1900	1700	89	6	20	(40-131)
2-Methylnaphthalene	1900	1800	95	0	20	(37-139)
Hexachlorocyclopentadiene	3800	3000	79	4	20	(10-128)
2,4,6-Trichlorophenol	1900	1800	95	7	20	(32-131)
2,4,5-Trichlorophenol	1900	1800	95	7	20	(39-134)
1,1-Biphenyl	1900	1800	95	0	20	(47-131)
2-Chloronaphthalene	1900	1800	95	0	20	(43-133)
2-Nitroaniline	1900	1800	95	0	20	(41-138)
Dimethylphthalate	1900	2200	92	0	20	(51-132)
Acenaphthylene	1900	1800	95	7	20	(28-155)
2,6-Dinitrotoluene	1900	1800	95	7	20	(41-130)
3-Nitroaniline	1900	1500	79	15	20	(10-155)
Acenaphthene	1900	1800	95	5	20	(32-146)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

RPD : 1 Out of 78 outside limits

Spike Recovery : 2 Out of 156 outside limits

7/20/10

CHEMTECH

3A

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2618 **SAS No :** B2618 **SDG No:** B2618

Matrix Spike - EPA Sample No : B2618-17

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % (ug/Kg)	MSD %	QC LIMITS RPD	QC LIMITS REC
2,4-Dinitrophenol	3800	3100	82	10	20	(10-177)
4-Nitrophenol	3800	3700	97	5	20	(10-155)
Dibenzofuran	1900	1800	95	7	20	(36-147)
2,4-Dinitrotoluene	1900	1800	95	7	20	(38-131)
Diethylphthalate	1900	1800	95	7	20	(47-132)
4-Chlorophenyl-phenylether	1900	1700	89	0	20	(43-133)
Fluorene	1900	1800	95	7	20	(17-166)
4-Nitroaniline	1900	1700	89	6	20	(23-137)
4,6-Dinitro-2-methylphenol	1900	1800	95	7	20	(10-153)
n-Nitrosodiphenylamine	1900	1800	95	0	20	(40-143)
4-Bromophenyl-phenylether	1900	1700	89	0	20	(40-135)
Hexachlorobenzene	1900	1700	89	0	20	(43-132)
Atrazine	1900	1600	84	0	20	(38-135)
Pentachlorophenol	3800	3500	92	6	20	(10-146)
Phenanthrene	1900	1800	95	0	20	(30-149)
Anthracene	1900	1800	95	0	20	(27-158)
Carbazole	1900	1800	95	0	20	(38-147)
Di-n-butylphthalate	1900	1800	95	0	20	(45-135)
Fluoranthene	1900	1800	95	7	20	(26-155)
Pyrene	1900	1800	95	0	20	(22-173)
Butylbenzylphthalate	1900	1800	95	0	20	(46-141)
3,3-Dichlorobenzidine	1900	1300	68	16	20	(10-126)
Benzo(a)anthracene	1900	1800	95	0	20	(27-159)
Chrysene	1900	1800	95	0	20	(23-166)
Bis(2-ethylhexyl)phthalate	1900	2100	104	6	20	(39-159)
Di-n-octyl phthalate	1900	1900	100	0	20	(36-151)
Benzo(b)fluoranthene	1900	1800	95	7	20	(21-171)
Benzo(k)fluoranthene	1900	1700	89	0	20	(26-165)
Benzo(a)pyrene	1900	1800	95	0	20	(26-157)
Indeno(1,2,3-cd)pyrene	1900	1900	100	0	20	(10-188)
Dibenzo(a,h)anthracene	1900	1800	95	0	20	(18-147)
Benzo(g,h,i)perylene	1900	1900	100	0	20	(10-177)

 # Column to be used to flag recovery and RPD values with an asterisk
*** Values outside of QC limits**

RPD : 1 Out of 78 outside limits

Spike Recovery : 2 Out of 156 outside limits

7/20/16

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	380	U
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2-oxybis(1-Chloropropane)	380	U
98-86-2	Acetophenone	380	U
65794-96-9	3+4-Methylphenols	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
105-60-2	Caprolactam	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
92-52-4	1,1-Biphenyl	380	U
91-58-7	2-Chloronaphthalene	380	U

Comments:

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethylphthalate	450	B
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	380	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	380	U
100-02-7	4-Nitrophenol	380	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-methylphenol	380	U
86-30-6	N-Nitrosodiphenylamine	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
1912-24-9	Atrazine	380	U
87-86-5	Pentachlorophenol	380	U
85-01-8	Phenanthrene	61	J
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	63	J
206-44-0	Fluoranthene	160	J
129-00-0	Pyrene	130	J
85-68-7	Butylbenzylphthalate	130	J
91-94-1	3,3-Dichlorobenzidine	380	U
56-55-3	Benzo(a)anthracene	54	J

Comments:

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064835.D

Level: (low/med) LOW Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
218-01-9	Chrysene	80	J
117-81-7	bis(2-Ethylhexyl)phthalate	1800	
117-84-0	Di-n-octyl phthalate	55	J
205-99-2	Benzo(b)fluoranthene	87	J
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	55	J
193-39-5	Indeno(1,2,3-cd)pyrene	49	J
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	93	J

6/16/10

Comments:

Data Path : Z:\HPCHEM1\BNA_E\DATA\BE061510\
Data File : BE064835.D
Acq On : 16 Jun 2010 3:28
Operator : QM
Sample : B2618-04
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 16 04:40:36 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 16 03:49:07 2010
Response via : Initial Calibration

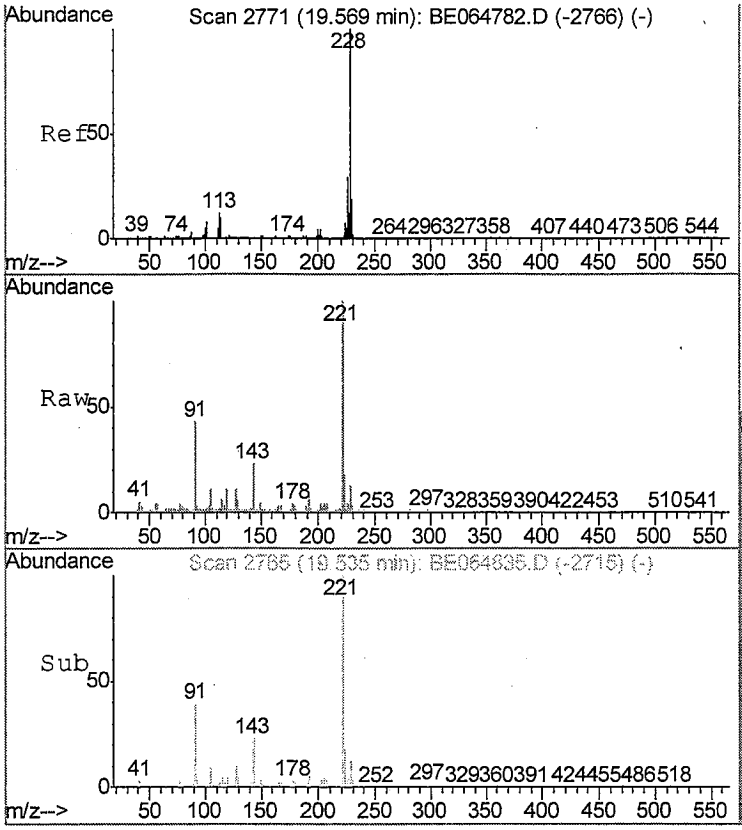
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.88	152	133829	20.00	ng		0.00
23) Naphthalene-d8	10.13	136	534780	20.00	ng		0.00
40) Acenaphthene-d10	13.41	164	288654	20.00	ng		0.00
65) Phenanthrene-d10	16.06	188	489299	20.00	ng		0.00
77) Chrysene-d12	19.49	240	476253	20.00	ng		0.00
88) Perylene-d12	22.83	264	453305	20.00	ng		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	5.82	112	1112324	127.56	ng		0.00
7) Phenol-d5	7.22	99	1459497	132.35	ng		0.00
12) 2-Chlorophenol-d4	7.51	132	1081407	126.34	ng		0.00
15) 1,2-Dichlorobenzene-d4	8.15	152	523302	86.38	ng		0.00
25) Nitrobenzene-d5	8.82	82	875406	85.41	ng		0.00
43) 2,4,6-Tribromophenol	14.91	330	275493	119.67	ng		0.00
46) 2-Fluorobiphenyl	12.13	172	1607051	84.94	ng		0.00
80) Terphenyl-d14	17.99	244	1524491	75.03	ng		0.00
Target Compounds							Qvalue
51) Dimethylphthalate	12.87	163	229360	11.64	ng		99
72) Phenanthrene	16.09	178	42706m	1.59	ng		
75) Di-n-butylphthalate	16.80	149	50109	1.64	ng	#	97
76) Fluoranthene	17.58	202	121489	4.28	ng		98
79) Pyrene	17.85	202	101772	3.41	ng		95
81) Butylbenzylphthalate	18.55	149	45733	3.43	ng		87
82) Benzo(a)anthracene	19.47	228	37453	1.40	ng		98
84) Chrysene	19.53	228	54226m	2.10	ng		
85) Bis(2-ethylhexyl)phthalate	19.34	149	854225	47.83	ng	#	98
86) Di-n-octyl phthalate	20.57	149	41238	1.43	ng	#	95
87) Indeno(1,2,3-cd)pyrene	26.87	276	33687	1.28	ng	#	94
89) Benzo(b)fluoranthene	21.74	252	61633	2.28	ng		94
91) Benzo(a)pyrene	22.67	252	37072	1.44	ng	#	83
93) Benzo(g,h,i)perylene	28.16	276	55079	2.43	ng		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

$$\frac{(854225)(20\ ng)}{(476253)(0.750)} = \frac{47.797808\ ng \times 1\ mL \times 1 \times 1000 \times 1}{30.05\ g \times 0.87 \times 1\ uL} = 1828.28\ ug/kg$$

7/21/08

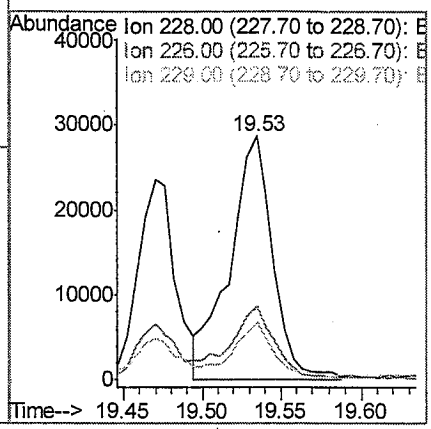
41

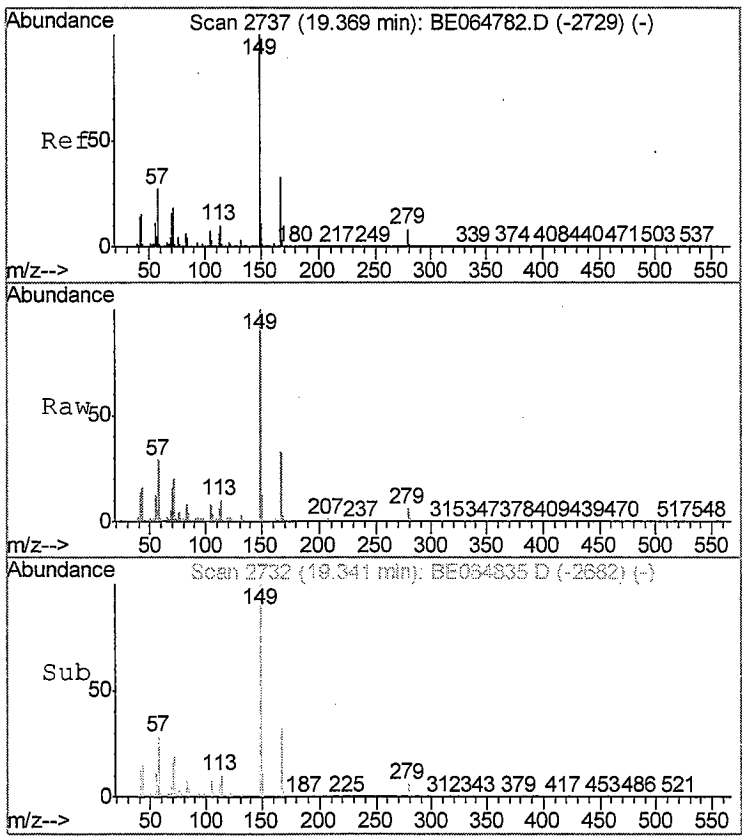


#84
Chrysene
Concen: 2.10 ng m
RT: 19.53 min Scan# 2765
Delta R.T. -0.00 min
Lab File: BE064835.D
Acq: 16 Jun 2010 3:28

Tgt Ion:228 Resp: 54226

Ion	Ratio	Lower	Upper
228	100		
226	30.0	23.6	35.4
229	23.8	15.7	23.5#

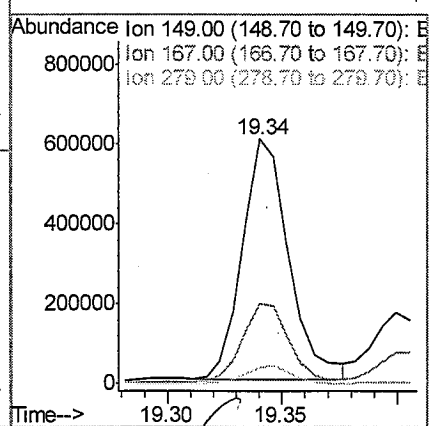




#85
Bis(2-ethylhexyl)phthalate
Concen: 47.83 ng
RT: 19.34 min Scan# 2732
Delta R.T. -0.00 min
Lab File: BE064835.D
Acq: 16 Jun 2010 3:28

Tgt Ion:149 Resp: 854225

Ion	Ratio	Lower	Upper
149	100		
167	32.5	26.5	39.7
279	6.4	6.5	9.7#



7/21/10

PCBs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: __Loohn's Corning_____
Method :___8082 PCB_____
Laboratory and SDG(s): __Chemtech B2618_____
Date: 7/21/10
Reviewer:
Review Level [X] NYSDEC DUSR ☐ USEPA Region II Guideline

1. X Case Narrative Review and Data Package Completeness COMMENTS

   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. X Holding time and Sample Collection
   Aqueous hold time is 7days to extraction, solid is 14 days.
   Hold time met for all samples? (YES) NO (circle one)

3. X QC Blanks
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   X Percent difference between columns (Region II criteria is 25% for PCBs)
   Is the percent difference between columns ≤25 for PCBs% YES NO (NA) (circle one)

   X Instrument Calibration
   For aroclors was the I-cal criteria of 20% (%RSD) met? (YES) NO NA (circle one)

   For aroclors, was the continuing calibration criteria of 15% (%D) met? (YES) NO NA (circle one)

   X Surrogate Recovery (soil and water limits: 30-150%)

   Were all results were within limits? (YES) NO (circle one)

   X Matrix Spike (soil and water limits: 29-135% and RPD of 20, RPD is 15 for Aroclor 1016)

   Were MS/MSDs submitted/analyzed? (YES) NO (circle one)

   Were all results were within limits? YES (NO) NA (circle one)
   Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MSD percent recovery of Aroclor 1260 (144) exceeded the upper QC limit of 129. The unspiked sample results for Aroclor 1260 was non detect, no further action required.

   X Field Duplicates (RPD limits for soil=100, water = 50)

   Were Field Duplicates submitted/analyzed? YES (NO)

   Were RPDs within the limits? YES NO (NA) (circle one)

   X Laboratory Control Sample Results (soil and water percent recovery limits: 50-150%)

   Were all results were within limits? (YES) NO (circle one)

4. X Raw Data Review and Calculation Checks

5. X Electronic Data Review and Edits

   Does the EDD match the Form I's? (YES) NO (circle one)

6. DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).
Were all tables produced? YES NO (circle one)

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: P4021692.D

Level: (low/med) Low Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/10/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	20	U
11104-28-2	Aroclor-1221	20	U
11141-16-5	Aroclor-1232	20	U
53469-21-9	Aroclor-1242	20	U
12672-29-6	Aroclor-1248	20	U
11097-69-1	Aroclor-1254	20	U
11096-82-5	Aroclor-1260	20	U

7/21/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Sample wt/vol: 30.08 (g/mL) g Lab File ID: P4021693.D

Level: (low/med) Low Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/10/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	19	U
11104-28-2	Aroclor-1221	19	U
11141-16-5	Aroclor-1232	19	U
53469-21-9	Aroclor-1242	19	U
12672-29-6	Aroclor-1248	19	U
11097-69-1	Aroclor-1254	19	U
11096-82-5	Aroclor-1260	19	U

7/21/10

Comments:

Method Path : P:\HPCHEM1\Ecd_4\Method\
Method File : P4051310.M
Title : GC EXTRACTABLES
Last Update : Fri May 14 14:23:10 2010
Response Via : Initial Calibration

Calibration Files
500 =P4021342.D 1000 =P4021340.D 750 =P4021341.D
250 =P4021343.D 50 =P4021344.D

	Compound	500	1000	750	250	50	Avg		%RSD
1) SA	Tetrachloro-m-xylene	1.389	1.515	1.439	1.278	1.001	1.325	E4	15.11
2) SA	Decachlorobiphenyl	1.486	1.509	1.504	1.454	1.297	1.450	E4	6.09
3) L1	Aroclor-1016-1	3.837	3.988	3.825	3.917	3.638	3.841	E2	3.41
4) L1	Aroclor-1016-2	1.203	1.280	1.195	1.172	1.041	1.178	E3	7.36
5) L1	Aroclor-1016-3	5.142	5.521	4.908	5.277	5.499	5.270	E2	4.87
6) L1	Aroclor-1016-4	3.292	3.553	2.783	3.356	3.809	3.358	E2	11.30
7) L1	Aroclor-1016-5	2.685	2.803	2.684	2.732	2.372	2.655	E2	6.23
8) L2	Aroclor-1221-1	1.296					1.296	E2	0.00
9) L2	Aroclor-1221-2	1.084					1.084	E2	0.00
0) L2	Aroclor-1221-3	3.834					3.834	E2	0.00
1) L3	Aroclor-1232-1	4.481					4.481	E2	0.00
2) L3	Aroclor-1232-2	2.272					2.272	E2	0.00
3) L3	Aroclor-1232-3	5.889					5.889	E2	0.00
4) L3	Aroclor-1232-4	2.697					2.697	E2	0.00
5) L3	Aroclor-1232-5	1.242					1.242	E2	0.00
6) L4	Aroclor-1242-1	3.496					3.496	E2	0.00
7) L4	Aroclor-1242-2	1.016					1.016	E3	0.00
8) L4	Aroclor-1242-3	4.414					4.414	E2	0.00
9) L4	Aroclor-1242-4	2.242					2.242	E2	0.00
0) L4	Aroclor-1242-5	3.437					3.437	E2	0.00
1) L5	Aroclor-1248-1	5.050					5.050	E2	0.00
2) L5	Aroclor-1248-2	3.458					3.458	E2	0.00
3) L5	Aroclor-1248-3	5.934					5.934	E2	0.00
4) L5	Aroclor-1248-4	7.205					7.205	E2	0.00
5) L5	Aroclor-1248-5	6.039					6.039	E2	0.00
6) L6	Aroclor-1254-1	7.235					7.235	E2	0.00
7) L6	Aroclor-1254-2	9.572					9.572	E2	0.00
8) L6	Aroclor-1254-3	5.964					5.964	E2	0.00
9) L6	Aroclor-1254-4	4.197					4.197	E2	0.00
0) L6	Aroclor-1254-5	8.247					8.247	E2	0.00
1) L7	Aroclor-1260-1	8.294	8.285	8.174	8.603	7.989	8.269	E2	2.71
2) L7	Aroclor-1260-2	1.187	1.192	1.157	1.200	1.079	1.163	E3	4.30
3) L7	Aroclor-1260-3	1.136	1.184	1.164	1.127	1.036	1.129	E3	5.03
4) L7	Aroclor-1260-4	1.726	1.787	1.716	1.663	1.407	1.660	E3	8.93
5) L7	Aroclor-1260-5	0.957	1.011	0.973	0.920	1.002	0.972	E3	3.78

gnal #2 Calibration Files
500 =P4021342.D 1000 =P4021340.D 750 =P4021341.D
250 =P4021343.D 50 =P4021344.D

	Compound	500	1000	750	250	50	Avg		%RSD
1) SA	Tetrachloro-m-xylene	1.714	1.723	1.682	1.754	1.479	1.671	E4	6.58
2) SA	Decachlorobiphenyl	2.091	2.081	1.997	2.222	1.982	2.075	E4	4.62
3) L1	Aroclor-1016-1	9.337	8.566	8.719	9.031	9.281	8.987	E2	3.77
4) L1	Aroclor-1016-2	6.377	5.977	6.067	6.041	5.529	5.998	E2	5.07
5) L1	Aroclor-1016-3	1.579	1.439	1.472	1.741	1.715	1.589	E3	8.65
6) L1	Aroclor-1016-4	8.741	8.043	8.232	9.476	8.842	8.667	E2	6.50
7) L1	Aroclor-1016-5	5.029	4.711	4.776	5.333	4.629	4.895	E2	5.85
8) L2	Aroclor-1221-1	2.081					2.081	E2	0.00
9) L2	Aroclor-1221-2	1.657					1.657	E2	0.00
0) L2	Aroclor-1221-3	5.572					5.572	E2	0.00
1) L3	Aroclor-1232-1	6.047					6.047	E2	0.00
2) L3	Aroclor-1232-2	8.602					8.602	E2	0.00
3) L3	Aroclor-1232-3	4.784					4.784	E2	0.00

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6)	L4	Aroclor-1242-1	7.974					7.974	E2	0.00
7)	L4	Aroclor-1242-2	1.358					1.358	E3	0.00
8)	L4	Aroclor-1242-3	7.560					7.560	E2	0.00
9)	L4	Aroclor-1242-4	5.652					5.652	E2	0.00
0)	L4	Aroclor-1242-5	7.082					7.082	E2	0.00
1)	L5	Aroclor-1248-1	7.422					7.422	E2	0.00
2)	L5	Aroclor-1248-2	4.544					4.544	E2	0.00
3)	L5	Aroclor-1248-3	8.668					8.668	E2	0.00
4)	L5	Aroclor-1248-4	8.661					8.661	E2	0.00
5)	L5	Aroclor-1248-5	9.784					9.784	E2	0.00
6)	L6	Aroclor-1254-1	1.129					1.129	E3	0.00
7)	L6	Aroclor-1254-2	1.557					1.557	E3	0.00
8)	L6	Aroclor-1254-3	1.144					1.144	E3	0.00
9)	L6	Aroclor-1254-4	7.646					7.646	E2	0.00
0)	L6	Aroclor-1254-5	1.475					1.475	E3	0.00
1)	L7	Aroclor-1260-1	1.167	1.080	1.075	1.324	1.303	1.190	E3	10.00
2)	L7	Aroclor-1260-2	1.541	1.453	1.431	1.740	1.726	1.578	E3	9.33
3)	L7	Aroclor-1260-3	1.232	1.189	1.137	1.365	1.070	1.199	E3	9.27
4)	L7	Aroclor-1260-4	1.146	1.194	1.077	1.234	1.085	1.147	E3	5.92
5)	L7	Aroclor-1260-5	2.646	2.807	2.532	2.816	2.426	2.646	E3	6.44

#) = Out of Range

051310.M Sat May 15 04:08:10 2010 GC/MS

Data Path : P:\HPCHEM1\Ecd_4\Data\P4051310\
Data File : P4021340.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 May 2010 18:33
Operator : BI
Sample : 1660 1000 PPB
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 12:47:30 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 12:45:34 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
System Monitoring Compounds						
) SA Tetrachlo...	3.710	2.832	1515284	1723222	104.658	100.977
) SA Decachlor...	8.608	7.251	1509297	2081423	100.632	101.224
Target Compounds						
) L1 Aroclor-1...	4.592	3.539	398758	856579	1026.812	965.290
) L1 Aroclor-1...	4.858	3.714	1279752	597698	1043.888	973.385
) L1 Aroclor-1...	4.917	3.944	552123	1438502	1063.719	961.264
) L1 Aroclor-1...	5.005	4.000	355282	804330	1107.073	964.586
) L1 Aroclor-1...	5.397	4.113	280350	471103	1029.152	973.640
) L7 Aroclor-1...	6.252	5.278	828461	1079845	1004.088	975.184
) L7 Aroclor-1...	6.471	5.444	1192023	1452958	1011.334	985.192
) L7 Aroclor-1...	6.703	5.568	1184325	1189475	1019.732	1002.828
) L7 Aroclor-1...	7.209	5.964	1787202	1194364	1025.263	1048.414
) L7 Aroclor-1...	7.455	6.168	1011195	2807011	1031.492	1054.545

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

CCV
7/6/10

Data Path : P:\HPCHEM1\Ecd_4\Data\P4051310\
Data File : P4021341.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On   : 13 May 2010 18:47
Operator : BI
Sample   : 1660 750 PPB
Misc   :
ALS Vial : 5   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 12:42:47 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 12:41:05 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   : 2 µl
Signal #1 Phase : ZB-MR1   Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.710	2.832	1079136	1261743	76.311	74.298
) SA	Decachlor...	8.605	7.251	1128321	1497435	75.468	73.271
	Target Compounds						
) L1	Aroclor-1...	4.592	3.539	286900	653932	748.811	724.354
) L1	Aroclor-1...	4.859	3.715	896467	455062	747.651	731.360
) L1	Aroclor-1...	4.918	3.944	368082	1104026	732.483	723.737
) L1	Aroclor-1...	5.006	4.001	208710	617380	687.137	727.506
) L1	Aroclor-1...	5.398	4.114	201314	358171	749.946	730.610
) L7	Aroclor-1...	6.251	5.279	613065	805997	744.552	718.957
) L7	Aroclor-1...	6.472	5.444	867397	1073172	740.109	722.327
) L7	Aroclor-1...	6.703	5.568	872934	852721	759.107	719.934
) L7	Aroclor-1...	7.209	5.964	1287211	808086	747.879	726.936
) L7	Aroclor-1...	7.454	6.168	729536	1899318	756.086	733.546

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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Data Path : P:\HPCHEM1\Ecd_4\Data\P4051310\
Data File : P4021342.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 May 2010 19:01
Operator : BI
Sample : 1660 500 PPB
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 12:48:55 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 12:36:54 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.711	2.833	694708	857052	50.000	50.000
) SA	Decachlor...	8.610	7.252	742875	1045394	50.000	50.000
	Target Compounds						
) L1	Aroclor-1...	4.593	3.539	191874	466825	500.000	500.000
) L1	Aroclor-1...	4.860	3.716	601400	318838	500.000	500.000
) L1	Aroclor-1...	4.919	3.945	257125	789435	500.000	500.000
) L1	Aroclor-1...	5.007	4.002	164599	437039	500.000	500.000
) L1	Aroclor-1...	5.399	4.114	134229	251454	500.000	500.000
) L7	Aroclor-1...	6.252	5.280	414691	583733	500.000	500.000
) L7	Aroclor-1...	6.473	5.445	593720	770267	500.000	500.000
) L7	Aroclor-1...	6.703	5.569	567993	615963	500.000	500.000
) L7	Aroclor-1...	7.210	5.965	863007	572909	500.000	500.000
) L7	Aroclor-1...	7.456	6.169	478528	1323017	500.000	500.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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Data Path : P:\HPCHEM1\Ecd_4\Data\P4051310\
Data File : P4021343.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On   : 13 May 2010 19:16
Operator : BI
Sample   : 1660 250 PPB
Misc   :
ALS Vial : 7   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 12:53:31 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 12:52:13 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   : 2 µl
Signal #1 Phase : ZB-MR1   Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.710	2.833	319471	438481	22.732	25.517
) SA	Decachlor...	8.609	7.252	363555	555587	24.426	26.484
	Target Compounds						
) L1	Aroclor-1...	4.593	3.539	97926	225779	251.617	253.310
) L1	Aroclor-1...	4.860	3.715	292880	151032	241.582	246.961
) L1	Aroclor-1...	4.919	3.944	131936	435360	253.128	279.487
) L1	Aroclor-1...	5.006	4.002	83893	236888	258.463	274.722
) L1	Aroclor-1...	5.399	4.114	68307	133315	250.563	268.668
) L7	Aroclor-1...	6.253	5.279	215084	331062	257.926	285.016
) L7	Aroclor-1...	6.473	5.445	300009	434887	253.384	282.214
) L7	Aroclor-1...	6.704	5.569	281654	341296	244.341	277.276
) L7	Aroclor-1...	7.210	5.965	415841	308380	241.317	265.207
) L7	Aroclor-1...	7.457	6.169	229875	704071	238.184	260.725

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

7/11/10

Data Path : P:\HPCHEM1\Ecd_4\Data\P4051310\
Data File : P4021344.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On   : 13 May 2010 19:29
Operator : BI
Sample   : 1660 50 PPB
Misc   :
ALS Vial : 8   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 13:03:36 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 12:58:46 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   : 2 µl
Signal #1 Phase : ZB-MR1   Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.711	2.833	50074	73958	3.763m	4.416m
) SA	Decachlor...	8.608	7.253	64845	99096	4.468m	4.745m
	Target Compounds						
) L1	Aroclor-1...	4.594	3.542	18192	46406	47.360	51.639
) L1	Aroclor-1...	4.860	3.717	52053	27646	44.099m	46.089
) L1	Aroclor-1...	4.919	3.947	27497	85739	52.860m	53.954
) L1	Aroclor-1...	5.006	4.003	19045	44211	57.106m	51.012
) L1	Aroclor-1...	5.401	4.116	11862	23144	44.672	47.278
) L7	Aroclor-1...	6.255	5.280	39944	65132	48.306	55.184m
) L7	Aroclor-1...	6.476	5.445	53925	86306	46.371	54.869m
) L7	Aroclor-1...	6.706	5.568	51817	53489	45.879	44.834m
) L7	Aroclor-1...	7.211	5.966	70339	54238	42.014m	47.280
) L7	Aroclor-1...	7.456	6.171	50085	121298	51.963m	45.850

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

7/21/10

Data Path : P:\HPCHEM1\Ecd_4\Data\P4051310\
Data File : P4021350.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 13 May 2010 20:54
Operator : BI
Sample : 1660 500 ICV
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: May 14 14:27:21 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 14:23:10 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.712	2.833	676201	853360	51.050	51.083
) SA	Decachlor...	8.606	7.252	722602	1023187	49.831	49.319
	Target Compounds						
) L1	Aroclor-1...	4.593	3.540	186697	453255	486.043	504.358
) L1	Aroclor-1...	4.860	3.716	593259	312427	503.580	520.856
) L1	Aroclor-1...	4.919	3.945	252180	769130	478.549	483.995
) L1	Aroclor-1...	5.006	4.002	160948	424958	479.233	490.334
) L1	Aroclor-1...	5.398	4.115	131919	244441	496.796	499.323
) L7	Aroclor-1...	6.252	5.279	401620	574755	485.696	483.080
) L7	Aroclor-1...	6.473	5.444	564023	776744	485.012	492.229
) L7	Aroclor-1...	6.704	5.568	551898	560987	488.649	468.009
) L7	Aroclor-1...	7.209	5.965	829163	604864	499.518	527.260
) L7	Aroclor-1...	7.455	6.169	472904	1434627	486.309	542.281

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

7/21/10

Data Path : P:\HPCHEM1\Ecd_4\Data\P4061010\
Data File : P4021689.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Jun 2010 22:22
Operator : BI
Sample : 1660 500
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 11 01:56:22 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 14:23:10 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.719	2.849	731609	903411	55.233	54.079
) SA	Decachlor...	8.602	7.248	718769	839179	49.566	40.450
	Target Compounds						
) L1	Aroclor-1...	4.596	3.544	211760	426734	551.292	474.847
) L1	Aroclor-1...	4.862	3.720	661054	334149	561.126	557.068
) L1	Aroclor-1...	4.921	3.948	272112	868641	516.372	546.615
) L1	Aroclor-1...	5.008	4.005	174876	446242	520.704	514.893
) L1	Aroclor-1...	5.399	4.117	133506	275544	502.772m	562.857
) L7	Aroclor-1...	6.252	5.279	413526	600461	500.093	504.685
) L7	Aroclor-1...	6.472	5.444	579802	789474	498.580	500.296
) L7	Aroclor-1...	6.703	5.568	556590	625759	492.804	522.046
) L7	Aroclor-1...	7.207	5.963	839685	581499	505.857	506.893
) L7	Aroclor-1...	7.454	6.167	449268	1349552	462.003	510.123

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

7/21/10

Data Path : P:\HPCHEM1\Ecd_4\Data\P4061010\
Data File : P4021704.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On   : 11 Jun 2010   1:53
Operator : BI
Sample   : 1660 500
Misc   :
ALS Vial : 43   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 11 03:34:36 2010
Quant Method : P:\HPCHEM1\Ecd_4\Method\P4051310.M
Quant Title : GC EXTRACTABLES
QLast Update : Fri May 14 14:23:10 2010
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.   : 2 µl
Signal #1 Phase : ZB-MR1   Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x 0. Signal #2 Info : 30M x 0.32mm x0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	3.718	2.848	761981	928447	57.526	55.577
) SA	Decachlor...	8.599	7.246	786034	922161	54.205	44.450
	Target Compounds						
) L1	Aroclor-1...	4.594	3.542	214182	428244	557.599	476.528
) L1	Aroclor-1...	4.860	3.718	676219	334702	573.999	557.991
) L1	Aroclor-1...	4.920	3.946	271222	869792	514.684	547.339
) L1	Aroclor-1...	5.006	4.003	174276	446063	518.917	514.685
) L1	Aroclor-1...	5.397	4.115	144923	273379	545.769m	558.436
) L7	Aroclor-1...	6.250	5.277	415415	599740	502.378	504.079
) L7	Aroclor-1...	6.469	5.442	619983	805346	533.133	510.355
) L7	Aroclor-1...	6.700	5.566	601277	648077	532.370	540.665
) L7	Aroclor-1...	7.206	5.961	885602	626734	533.519	546.324
) L7	Aroclor-1...	7.451	6.165	492317	1462371	506.272	552.768

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

7/21/10
[signature]

CHEMTECH

3F

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

MS/MSD - Client Sample No.: B2618-04MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
AROCLOR 1260	76.2	110	144*	19	20	(60-130)
AROCLOR 1016	76.2	81	106	2	20	(40-140)

7/21/10

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 2 outside limits

Spike Recovery: 0 out of 2 outside limits

PESTICIDES

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: ____Loohn's Corning_____
Method :___8081 Pesticides_____
Laboratory and SDG(s): ____Chemtech B2618_____
Date:_____7/21/10_____
Reviewer:_____[signature]_____

Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. X Case Narrative Review and Data Package Completeness COMMENTS

   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. X Holding time (HT) and Sample Collection
   Aqueous is 7days to extraction, solid is 14 days. HT met for all samples? (YES) NO (circle one)

3. X QC Blanks
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   X Percent difference between columns (Region II criteria is 25% for Pest's)
   Is the percent difference between columns ≤25? (YES) NO (circle one)

   X Instrument Calibration

   I-cal criteria of 20% (%RSD) (alpha-BHC, delta-BHC = 25%, Toxaphene = 30%) met? YES NO (circle one)

   Continuing calibration criteria of (%D) 20% met? (YES) NO NA (circle one)

   X Surrogate Recovery (soil and water limits: 30-150%)

   Were all results were within laboratory limits? (YES) NO (circle one)

   X Matrix Spike (Use lab limits) (refer to limits listed in SOP HW-44 Oct 2006 if no lab limits are listed)

   Were MS/MSDs submitted/analyzed? (YES) NO

   Were all results were within laboratory limits? YES (NO) NA (circle one)
   Sample LCPDI00600110XX was analyzed as an MS/MSD by the laboratory. The MS/MSD relative percent difference (RPD) for methoxychlor (24) exceeded the laboratory limit of 20. The unspiked sample result for methoxychlor was qualified estimated (J).

   X Field Duplicates (RPD limits for soil=100, water = 50)

   Were Field Duplicates submitted/analyzed? YES (NO)
   Were RPDs within the limits? YES NO (NA) (circle one)

   X Laboratory Control Samples (Use lab limits) (refer to limits in SOP HW-44 Oct 2006 if no lab limits are listed)

   Were all results were within laboratory limits? (YES) NO (circle one)
   Limits used were: Lab Limits Region II SOP HW-44 Oct 2006 (circle one)

4. X Raw Data Review and Calculation Checks

5. X Electronic Data Review and Edits: Does the EDD match the Form I's? (YES) NO (circle one)

6. X DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).

Were all tables produced? (YES) NO (circle one)

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Sample wt/vol: 30.05 (g/mL) g Lab File ID: P7049416.D

Level: (low/med) Low Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 2

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	3.9	U
319-85-7	beta-BHC	3.9	U
319-86-8	delta-BHC	3.9	U
58-89-9	gamma-BHC	3.9	U
76-44-8	Heptachlor	3.9	U
309-00-2	Aldrin	3.9	U
1024-57-3	Heptachlor epoxide	3.9	U
959-98-8	Endosulfan I	3.9	U
60-57-1	Dieldrin	3.9	U
72-55-9	4,4-DDE	10	
72-20-8	Endrin	3.9	U
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4-DDD	16	
1031-07-8	Endosulfan Sulfate	3.9	U
50-29-3	4,4-DDT	36	
72-43-5	Methoxychlor	38	J
53494-70-5	Endrin ketone	3.9	U
7421-93-4	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	3.9	U
5103-74-2	gamma-Chlordane	3.9	U
8001-35-2	Toxaphene	39	U

7/21/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Sample wt/vol: 30.08 (g/mL) g Lab File ID: P7049417.D

Level: (low/med) Low Date Received: 06/09/10

% Moisture: 13 Decanted: (Y/N) N Date Extracted: 06/10/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/16/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	1.9	U
72-55-9	4,4-DDE	1.9	U
72-20-8	Endrin	1.9	U
33213-65-9	Endosulfan II	1.9	U
72-54-8	4,4-DDD	1.9	U
1031-07-8	Endosulfan Sulfate	1.9	U
50-29-3	4,4-DDT	17	
72-43-5	Methoxychlor	1.9	U
53494-70-5	Endrin ketone	1.9	U
7421-93-4	Endrin aldehyde	1.9	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	19	U

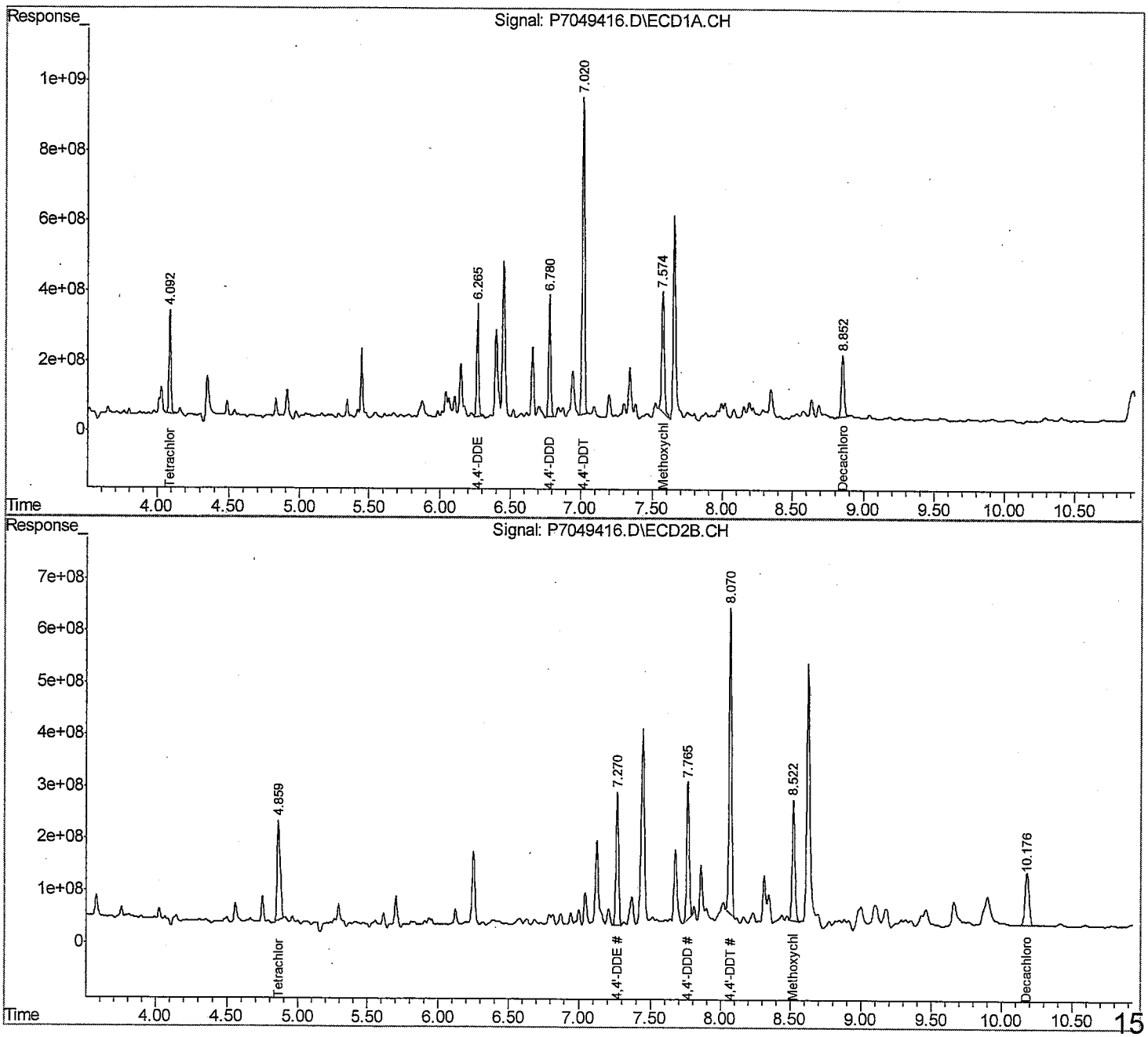
7/21/10

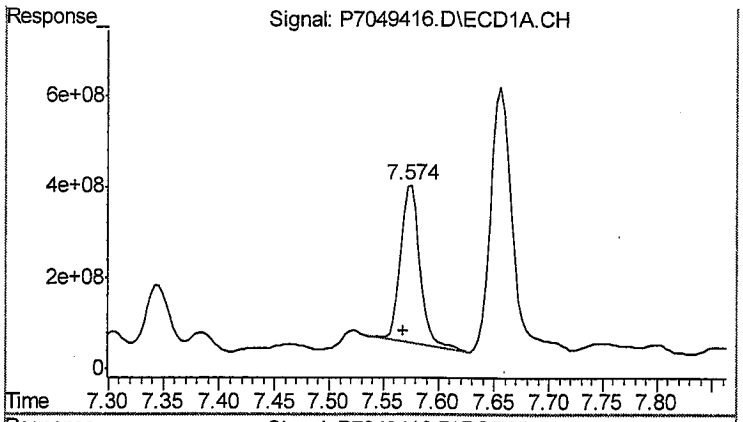
Comments:

Data Path : P:\HPCHEM1\Ecd_7\Data\P7061610\
Data File : P7049416.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On   : 16 Jun 2010 17:02
Operator : JJ
Sample   : B2618-04 2X
Misc   :
ALS Vial : 23   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 01:14:37 2010
Quant Method : P:\HPCHEM1\Ecd_7\Method\P7061610.M
Quant Title : GC Extractables
QLast Update : Wed Jun 16 12:51:44 2010
Response via : Initial Calibration
Integrator: ChemStation   6890 Scale Mode: Large solvent peaks clipped

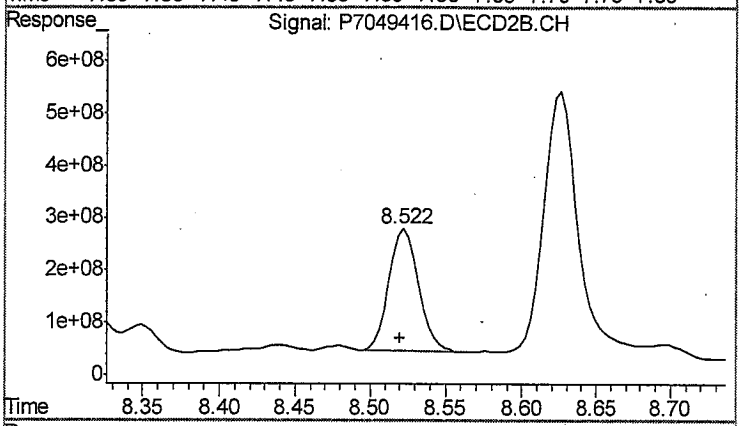
Volume Inj.   : 2 µl
Signal #1 Phase : ZB-MR2   Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm





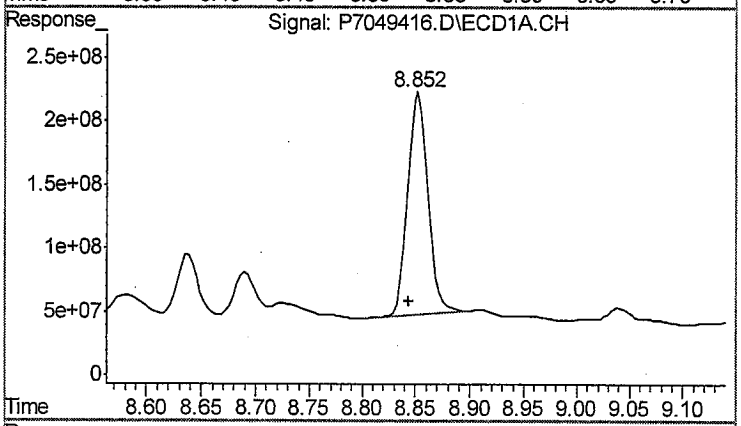
#20 Methoxychlor

R.T.: 7.576 min
Delta R.T.: 0.008 min
Response: 4210436031
Conc: 49.71 ng/ml



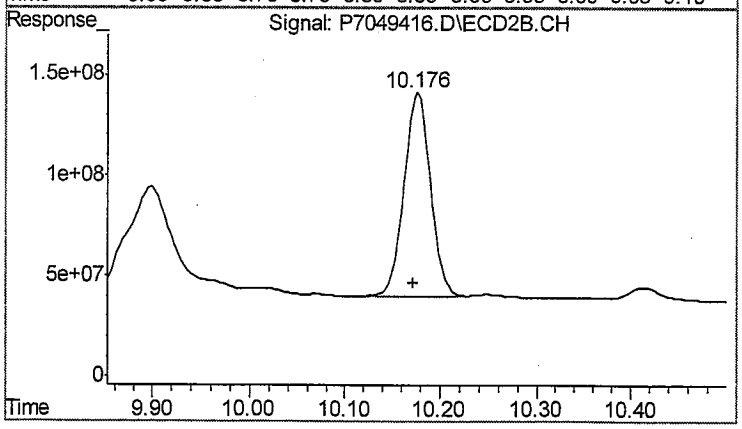
#20 Methoxychlor

R.T.: 8.524 min
Delta R.T.: 0.003 min
Response: 3195873325
Conc: 47.83 ng/ml



#22 Decachlorobiphenyl

R.T.: 8.853 min
Delta R.T.: 0.009 min
Response: 2267804360
Conc: 10.95 ng/ml



#22 Decachlorobiphenyl

R.T.: 10.177 min
Delta R.T.: 0.005 min
Response: 1955875166
Conc: 12.23 ng/ml

Data Path : P:\HPCHEM1\Ecd_7\Data\P7061610\
Data File : P7049416.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 16 Jun 2010 17:02
Operator : JJ
Sample : B2618-04 2X
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 17 01:14:37 2010
Quant Method : P:\HPCHEM1\Ecd_7\Method\P7061610.M
Quant Title : GC Extractables
QLast Update : Wed Jun 16 12:51:44 2010
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
) SA	Tetrachlo...	4.092	4.861	2621.9E6	2804.1E6	9.865m	14.111 #
) SA	Decachlor...	8.853	10.177	2267.8E6	1955.9E6	10.954	12.225
	Target Compounds						
) B	4,4'-DDE	6.267	7.272	3555.5E6	3133.0E6	12.358	13.426
) A	4,4'-DDD	6.781	7.766	3922.1E6	3487.8E6	17.428	20.482
) MA	4,4'-DDT	7.021	8.072	10496.9E6	7718.1E6	47.447	45.685
) A	Methoxychlor	7.576	8.524	4210.4E6	3195.9E6	49.707	47.833

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$$\frac{\left(4210.4\times10^{6}/8.47\times10^{6}\right)(10\,mL)\,(2)\,\cancel{\times 1000}\ \cancel{40}}{(30.05\,g)\,(0.87)\,(1\,mL)} = 38.02\ ug/kg$$

WCH
7/21/10

CHEMTECH

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MACT03

Lab Code: CHEM **Case No.:** B2618 **SAS No.:** B2618 **SDG NO.:** B2618

Instrument ID: ECD7 **Calibration Date(s):** 06/16/2010 06/16/2010

Calibration Times: 11:19 12:15

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 005 = P7049403.D CF 025 = P7049402.D

CF 050 = P7049401.D CF 075 = P7049400.D CF 100 = P7049399.D

COMPOUND	CF 005	CF 025	CF 050	CF 075	CF 100	CF	% RSD
Decachlorobiphenyl	206440919000	201266562240	210103807060	205052718147	212282270860	207029255461	2
Tetrachloro-m-xylene	284134579800	268924299040	274306856220	265028894053	236454944310	265769914685	7
alpha-BHC	414937442400	413292663520	418729839900	335817332867	283450498470	373245555431	16
beta-BHC	150016647600	138548310000	141568570240	138526619120	142805838180	142293197028	3
delta-BHC	343379316000	346201087720	363381331540	324378138760	280569493690	331581873542	10
gamma-BHC (Lindane)	383438137200	377396178800	391522495680	328607250360	278823657080	351957543824	14
Heptachlor	325433947600	314162829600	310553443720	295025839227	267152273690	302465666767	7
Aldrin	341402638400	324117276760	320771666760	309732600653	274054120780	314015660671	8
Heptachlor epoxide	301822473400	273727285440	265024669580	248170763480	243933876400	266535813660	9
Endosulfan I	290838433800	265466035440	256823087600	237982771933	233211179200	256864301595	9
Dieldrin	319642698400	302030450360	295252614900	277987837893	263424045360	291667529383	7
4,4-DDE	290745364000	290799928720	297880496180	285242797973	273854977920	287704712959	3
Endrin	260502313000	246069795760	240648902240	223806693853	222201309990	238645802969	7
Endosulfan II	274848372600	253128340520	245727427900	229465853867	226879693890	246009937755	8
4,4-DDD	232283393600	225516254560	228570166860	213777533773	225072793530	225044028465	3
Endosulfan sulfate	222771200800	212695979800	213632879720	201760295133	202760686910	210724208473	4
4,4-DDT	201138654600	217185834840	230617473140	225503879773	231714437670	221232056005	6
Methoxychlor	85297818200	86916712760	87860770180	81207904480	82242087540	84705058632	3
Endrin ketone	290477270600	266499006360	255989146200	235226116560	226055512700	254849410484	10
Endrin aldehyde	218808661800	199357302400	191238597100	178963756413	174486628100	192570989163	9
alpha-Chlordane	306233414200	295628709200	305647990440	298181385093	273140208380	295766341463	5
gamma-Chlordane	316034181600	307292684520	319475619980	310190788413	282288109680	307056276839	5

√3.4

7/21/10

CHEMTECH

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MACT03

Lab Code: CHEM **Case No.:** B2618 **SAS No.:** B2618 **SDG NO.:** B2618

Instrument ID: ECD7 **Calibration Date(s):** 06/16/2010 06/16/2010

Calibration Times: 11:19 12:15

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 005 = P7049403.D CF 025 = P7049402.D

CF 050 = P7049401.D CF 075 = P7049400.D CF 100 = P7049399.D

COMPOUND	CF 005	CF 025	CF 050	CF 075	CF 100	CF	% RSD
Decachlorobiphenyl	164906165600	156191695000	160727719720	156192532360	161922176910	159988057918	2
Tetrachloro-m-xylene	210739070400	196964270120	198452574900	191993064653	195447176400	198719231295	4
alpha-BHC	312565280400	306399334880	316420411540	305299206360	275987394140	303334325464	5
beta-BHC	119704711400	109372520800	111339627100	108104996213	110085869920	111721545087	4
delta-BHC	272726020600	266993721400	277682827520	271018484893	264207781740	270525767231	2
gamma-BHC (Lindane)	293246950000	284670008320	293737649860	287800754067	267670395910	285425151631	4
Heptachlor	257903053200	247258904440	249616243260	237311920373	237157483290	245849520913	4
Aldrin	275762865200	262238174560	263597170480	251454408133	250826698270	260775863329	4
Heptachlor epoxide	242522258600	221962618960	217157263920	204142345720	201261075280	217409112496	8
Endosulfan I	231242893800	214969935480	211645965200	198021363307	195339002180	210243831993	7
Dieldrin	252936217600	239416778000	239421698380	225913299147	223378325440	236213263713	5
4,4-DDE	233239147600	231767914200	238631878160	229071205320	234109222180	233363873492	2
Endrin	187382248800	181180584240	183306975240	173249906187	174273606630	179878664219	3
Endosulfan II	206631481800	192845152080	193349042920	179924326653	181250151990	190800031089	6
4,4-DDD	171768690000	167685288120	174069655120	167572828840	170342029560	170287698328	2
Endosulfan sulfate	173373635600	167221589400	171555077540	163823575707	164317944690	168058364587	3
4,4-DDT	152723309400	163852579360	177068905700	172592955293	178465630600	168940676071	6
Methoxychlor	65066546400	67124432240	69333269280	65524043160	67014659050	66812590026	3
Endrin ketone	194958732200	183969399160	184399620480	174133162680	172881646240	182068512152	5
Endrin aldehyde	165316531800	153847287360	152472431360	144427291533	142777327220	151768173855	6
alpha-Chlordane	242940381400	233922452520	240757369340	233870697560	237127612060	237723702576	2
gamma-Chlordane	251149449000	243058527240	250620033660	243412527173	247924325160	247232972447	2

7/21/10

CHEMTECH

3F

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

MS/MSD - Client Sample No.: B2618-04MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
Heptachlor epoxide	38.1	0	17	45	(22-147)
Endosulfan sulfate	38.1	0	14	37	(10-152)
Aldrin	38.1	0	18	47	(11-152)
alpha-BHC	38.1	0	21	55	(16-147)
beta-BHC	38.1	0	18	47	(25-146)
delta-BHC	38.1	0	12	31	(11-146)
Endosulfan II	38.1	0	20	52	(11-146)
4,4-DDT	38.1	36	51	39	(10-192)
alpha-Chlordane	38.1	0	19	50	(10-157)
gamma-Chlordane	38.1	0	20	52	(10-161)
Endrin ketone	38.1	0	14	37	(12-145)
gamma-BHC (Lindane)	38.1	0	19	50	(21-147)
Dieldrin	38.1	0	29	76	(10-162)
Endrin	38.1	0	24	63	(10-171)
Methoxychlor	38.1	38	52	37	(10-200)
4,4-DDD	38.1	16	29	34	(10-150)
4,4-DDE	38.1	10	25	39	(10-174)
Endrin aldehyde	38.1	0	13	34	(10-146)
Heptachlor	38.1	0	19	50	(23-143)
Endosulfan I	38.1	0	18	47	(10-164)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 20 outside limits

7/21/10

CHEMTECH

3F

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Case No.: B2618 SAS No.: B2618 SDG No.: B2618

MS/MSD - Client Sample No.: B2618-04MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
Heptachlor epoxide	38.2	17	45		0		20	(22-147)
Endosulfan sulfate	38.2	13	34		8		20	(10-152)
Aldrin	38.2	18	47		0		20	(11-152)
alpha-BHC	38.2	20	52		6		20	(16-147)
beta-BHC	38.2	18	47		0		20	(25-146)
delta-BHC	38.2	12	31		0		20	(11-146)
Endosulfan II	38.2	19	50		4		20	(11-146)
4,4-DDT	38.2	49	34		14		20	(10-192)
alpha-Chlordane	38.2	19	50		0		20	(10-157)
gamma-Chlordane	38.2	19	50		4		20	(10-161)
Endrin ketone	38.2	14	37		0		20	(12-145)
gamma-BHC (Lindane)	38.2	19	50		0		20	(21-147)
Dieldrin	38.2	29	76		0		20	(10-162)
Endrin	38.2	23	60		5		20	(10-171)
Methoxychlor	38.2	49	29		24*		20	(10-200)
4,4-DDD	38.2	29	34		0		20	(10-150)
4,4-DDE	38.2	25	39		0		20	(10-174)
Endrin aldehyde	38.2	12	31		9		20	(10-146)
Heptachlor	38.2	19	50		0		20	(23-143)
Endosulfan I	38.2	18	47		0		20	(10-164)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

7/21/00

RPD: 1 out of 20 outside limits

Spike Recovery: 0 out of 20 outside limits

METALS

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: ___Loohn's Corning_____
Method :___SW6010 metals, SW7471 mercury_____
Laboratory and SDG(s): __Chemtech B2618_____
Date:____ 7/23/10
Reviewer:_____

Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. X Case Narrative Review and Data Package Completeness COMMENTS
2. Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

3. X Holding time and Sample Collection
Were all samples were all prepped and analyzed with the holding time (6 month).(YES) NO (circle one)

4. X QC Blanks
Are method blanks clean? YES (NO) (circle one) ED 8/16/10
Are Initial and continuing calibration blanks clean? YES (NO) (circle one)
The mercury continuing calibration blanks (-0.135 and -0.149) were greater than the negative mercury MDL, indicating a low bias to sample results. Sample results for mercury were qualified estimated (J) and are potentially biased low. 8/16/10

X Interference Check Standard

X Instrument Calibration
Initial calibration criteria met for the method? (YES) NO (circle one)
90-110% (80-120% Hg) recovery on continuing calibration standards met? YES NO (circle one)

X Serial Dilutions
Were all results were within the control limit of 10% (for values > 50X MDL)? (YES)

X Laboratory Control Sample Results
Were all results were within 80-120% limits? (YES) NO (circle one)

X Matrix Spike
Were MS/MSDs submitted/analyzed? (YES) NO

Were all results were within 75-125% limits? YES (NO) NA (circle one)

The MS/MSD percent recoveries of aluminum (348 and 323), calcium (246 and 237), iron (402 and 371), magnesium (157 and 154), and manganese (207 and 195) exceeded the upper QC limit of 125. The unspiked sample concentration of aluminum, calcium, iron, magnesium, and manganese were greater than four times the spike concentration, no further action required.

X Duplicates/replicates
Were Field Duplicates submitted/analyzed? YES (NO)
Aqueous RPD within limit? (20%) YES NO (NA) (circle one)
Soil RPD within limit? (35%) YES NO (NA) (circle one)

Was the lab dup RPD <20% for values > 5X the CRQL (or ± CRQL) (YES)

X Were both Total and Dissolved metals reported? YES (NO) NA (circle one)
If the dissolved concentration is > 20% of the total concentration then estimate (J) both results

X Percent solids < 50% for any soil/sediment sample? YES (NO) NA (circle one)
If yes, estimate all results.

5. X Raw Data Review and Calculation Checks

6. X Electronic Data Review and Edits. Does the EDD match the Form I's? (YES) NO (circle one)

7. ☐ DUSR Tables: **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes). Were all tables produced? YES NO (circle one)

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSS00100110XX

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-04

Level (low/med): LOW Date Received: 6/9/2010

% Solids: 86.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8240			P
7440-36-0	Antimony	2.890	U		P
7440-38-2	Arsenic	6.000			P
7440-39-3	Barium	97.3			P
7440-41-7	Beryllium	0.41			P
7440-43-9	Cadmium	1.160			P
7440-70-2	Calcium	2570			P
7440-47-3	Chromium	10.7			P
7440-48-4	Cobalt	7.130			P
7440-50-8	Copper	25.2			P
7439-89-6	Iron	17400			P
7439-92-1	Lead	38.8			P
7439-95-4	Magnesium	2380			P
7439-96-5	Manganese	413			P
7439-97-6	Mercury	0.081	J	6/16/10	CV
7440-02-0	Nickel	16.3			P
7440-09-7	Potassium	671			P
7782-49-2	Selenium	2.450			P
7440-22-4	Silver	0.58	U		P
7440-23-5	Sodium	119			P
7440-28-0	Thallium	2.310	U		P
7440-62-2	Vanadium	13.9			P
7440-66-6	Zinc	105			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: 7/23/10

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100600110XX

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): SOIL Lab Sample ID: B2618-17

Level (low/med): LOW Date Received: 6/9/2010

% Solids: 87.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5420			P
7440-36-0	Antimony	2.760	U		P
7440-38-2	Arsenic	4.220			P
7440-39-3	Barium	49.1			P
7440-41-7	Beryllium	0.26	J		P
7440-43-9	Cadmium	0.61			P
7440-70-2	Calcium	1050			P
7440-47-3	Chromium	7.630			P
7440-48-4	Cobalt	4.680			P
7440-50-8	Copper	11.8			P
7439-89-6	Iron	12000			P
7439-92-1	Lead	28.8			P
7439-95-4	Magnesium	1450			P
7439-96-5	Manganese	405			P
7439-97-6	Mercury	0.106	B	(W) 7/16/10	CV
7440-02-0	Nickel	9.780			P
7440-09-7	Potassium	407			P
7782-49-2	Selenium	1.880			P
7440-22-4	Silver	0.55	U		P
7440-23-5	Sodium	225			P
7440-28-0	Thallium	2.210	U		P
7440-62-2	Vanadium	10.4			P
7440-66-6	Zinc	59.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: 7/23/10

USEPA - CLP

3-IN

BLANKS

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Preparation Blank Matrix (soil/water): WATER Hg analysis.

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) CCB Hg 1	C	CCB 2	C	CCB Hg 3	C	Preparation Blank	C	M
Aluminum			50.0	U	-10.3	J	50.0	U			P
~~Antimony~~			25.0	U	~~25.0~~	~~U~~	25.0	U			P
Arsenic			10.0	U	10.0	U	10.0	U			P
Barium			50.0	U	50.0	U	50.0	U			P
Beryllium			3.0	U	3.0	U	3.0	U			P
Cadmium			3.0	U	3.0	U	3.0	U			P
Calcium			1000.0	U	1000.0	U	1000.0	U			P
Chromium			5.0	U	5.0	U	5.0	U			P
Cobalt			15.0	U	15.0	U	15.0	U			P
Copper			10.0	U	10.0	U	10.0	U			P
Iron			50.0	U	50.0	U	50.0	U			P
Lead			6.0	U	6.0	U	6.0	U			P
Magnesium			1000.0	U	1000.0	U	1000.0	U			P
Manganese			10.0	U	10.0	U	10.0	U			P
Mercury			-0.142	J	-0.135	J	-0.149	J			CV
~~Nickel~~			~~20.0~~	~~U~~	~~20.0~~	~~U~~	20.0	U			P
Potassium			1000.0	U	1000.0	U	1000.0	U			P
Selenium			10.0	U	10.0	U	10.0	U			P
Silver			5.0	U	5.0	U	5.0	U			P
Sodium			1000.0	U	1000.0	U	1000.0	U			P
Thallium			20.0	U	20.0	U	20.0	U			P
Vanadium			20.0	U	20.0	U	20.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P

MDL Hg 0.055 H_2O

CRQL Hg 0.2

MDL Hg 0.002 Soil

CRQL Hg 0.010

7/23/10

Metals

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LCSS00100110XXS

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M	
Aluminum		9039.7240		8235.5660		230.95	348.2		P	>4x
Antimony	47 - 131	86.5762		2.8868	U	92.38	93.7		P	
Arsenic	73 - 114	90.9226		6.0023		92.38	91.9		P	
Barium		125.0347		97.3395		23.09	119.9		P	
Beryllium	79 - 112	20.2310		0.4053		23.09	85.9		P	
Cadmium	73 - 114	23.3834		1.1559		23.09	96.3		P	
Calcium		2852.1940		2568.0140		115.47	246.1		P	>4x
Chromium	68 - 122	51.9457		10.6940		46.19	89.3		P	
Cobalt	68 - 119	30.1755		7.1305		23.09	99.8		P	
Copper	59 - 132	56.4434		25.2171		34.64	90.1		P	
Iron		18799.0800		17407.6200		346.42	401.7		P	>4x
Lead	66 - 125	149.2841		38.8153		115.47	95.7		P	
Magnesium		2742.3790		2379.6770		230.95	157.0		P	>4x
Manganese		460.6698		412.9792		23.09	206.5		P	>4x
Nickel	64 - 129	73.4631		16.2656		57.74	99.1		P	
Potassium	37 - 158	1748.6140		670.9469		1154.73	93.3		P	
Selenium	69 - 105	190.3695		2.4550		230.95	81.4		P	
Silver	54 - 131	7.2968		0.5774	U	8.66	84.3		P	
Sodium	10 - 139	440.8546		118.6490		346.42	93.0		P	
Thallium	74 - 116	209.1686		2.3095	U	230.95	90.6		P	
Vanadium	67 - 127	44.9376		13.9261		34.64	89.5		P	
Zinc		129.3303		104.6848		23.09	106.7		P	

Comments:

7/23/10

Metals

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LCSS00100110XXSD

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M	
Aluminum		8982.4480		8235.5660		230.95	323.4		P	74x
Antimony	47 - 131	86.4261		2.8868	U	92.38	93.6		P	
Arsenic	73 - 114	90.6709		6.0023		92.38	91.7		P	
Barium		126.0508		97.3395		23.09	124.3		P	
Beryllium	79 - 112	20.3199		0.4053		23.09	86.2		P	
Cadmium	73 - 114	23.4134		1.1559		23.09	96.4		P	
Calcium		2841.8020		2568.0140		115.47	237.1		P	>4x
Chromium	68 - 122	51.3661		10.6940		46.19	88.1		P	
Cobalt	68 - 119	30.2413		7.1305		23.09	100.1		P	
Copper	59 - 132	56.3568		25.2171		34.64	89.9		P	
Iron		18694.0000		17407.6200		346.42	371.3		P	>4x
Lead	66 - 125	149.0300		38.8153		115.47	95.4		P	
Magnesium		2735.3350		2379.6770		230.95	154.0		P	>4x
Manganese		458.0832		412.9792		23.09	195.3		P	>4x
Nickel	64 - 129	73.2229		16.2656		57.74	98.6		P	
Potassium	37 - 158	1751.9630		670.9469		1154.73	93.6		P	
Selenium	69 - 105	189.5035		2.4550		230.95	81.0		P	
Silver	54 - 131	7.2310		0.5774	U	8.66	83.5		P	
Sodium	10 - 139	444.6536		118.6490		346.42	94.1		P	
Thallium	74 - 116	208.5335		2.3095	U	230.95	90.3		P	
Vanadium	67 - 127	44.7564		13.9261		34.64	89.0		P	
Zinc		127.8753		104.6848		23.09	100.4		P	

Comments:

7/23/10

USEPA - CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

LCSS00100110XXD

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.6 % Solids for Duplicate: 86.6

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		8235.5660		8705.1960		5.5		P
Antimony		2.8868	U	0.6536	J	200.0		P
Arsenic		6.0023		6.2806		4.5		P
Barium		97.3395		101.7540		4.4		P
Beryllium	0.3464	0.4053		0.4376		7.7		P
Cadmium	0.3464	1.1559		1.2829		10.4		P
Calcium		2568.0140		2691.9170		4.7		P
Chromium		10.6940		11.2991		5.5		P
Cobalt	1.7321	7.1305		7.6813		7.4		P
Copper		25.2171		26.3949		4.6		P
Iron		17407.6200		18256.3500		4.8		P
Lead		38.8153		41.1409		5.8		P
Magnesium		2379.6770		2511.0860		5.4		P
Manganese		412.9792		433.6836		4.9		P
Nickel		16.2656		17.1132		5.1		P
Potassium		670.9469		699.3418		4.1		P
Selenium	1.1547	2.4550		2.6778		8.7		P
Silver		0.5774	U	0.5774	U			P
Sodium	115.4734	118.6490		122.2517		3.0		P
Thallium		2.3095	U	2.3095	U			P
Vanadium		13.9261		14.6028		4.7		P
Zinc		104.6848		108.9527		4.0		P

OK

7/23/10

USEPA - CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

B93D2(60-67)D

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 77.6 % Solids for Duplicate: 77.6

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury		0.0129	U	0.0031	J	200.0		CV

OK

7/23/10

Metals

8-IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

LCSS00100110XXL

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2618 NRAS No.: B2618 SDG NO.: B2618

Matrix (soil/water): ~~WATER~~ SOIL Level (low/med): LOW

Concentration Units: ~~ug/L~~ mg/kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M	
Aluminum	71320.00		71965.00		0.9		P	
Antimony	25.00	U	125.00	U			P	
Arsenic	51.98		61.45		18.2		P	OK
Barium	842.96		865.75		2.7		P	
Beryllium	3.51		4.05	J	15.4		P	OK
Cadmium	10.01		6.95	J	30.6		P	OK
Calcium	22239.00		23295.00		4.7		P	
Chromium	92.61		100.35		8.4		P	
Cobalt	61.75		67.05	J	8.6		P	
Copper	218.38		234.60		7.4		P	
Iron	150750.00		162225.00		7.6		P	
Lead	336.14		341.85		1.7		P	
Magnesium	20608.00		21821.50		5.9		P	
Manganese	3576.40		3834.25		7.2		P	
Nickel	140.86		142.80		1.4		P	
Potassium	5810.40		6016.00		3.5		P	
Selenium	21.26		50.00	U	100.0		P	OK
Silver	5.00	U	25.00	U			P	
Sodium	1027.50		1041.85	J	1.4		P	
Thallium	20.00	U	100.00	U			P	
Vanadium	120.60		124.25		3.0		P	
Zinc	906.57		980.20		8.1		P	

7/23/10

ample Name: B2618-04 Acquired: 6/10/2010 16:08:15 Type: Unk
ethod: P4 (v122) Mode: CONC Corr. Factor: 1.000000
ser: admin Custom ID1: Custom ID2: Custom ID3:
omment:

em	As1937	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934	Be2348
nits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
g	.05198	-.00419	.33614	.02126	.00512	71.320	.84296	.00351
ddev	.00428	.00249	.00101	.00280	.00043	.499	.00464	.00025
RSD	8.2345	59.394	.30139	13.187	8.3565	.70012	.55078	7.1119
	.05500	-.00243	.33543	.02324	.00542	70.967	.83968	.00333
	.04895	-.00594	.33686	.01928	.00481	71.673	.84624	.00368

em	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2598	Mn2576	Mg2790
nits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
g	.01001	22.239	.09261	.06175	.21838	150.75	3.5764	20.608
ddev	.00030	.061	.00103	.00004	.00153	.72	.0123	.017
RSD	3.0417	.27307	1.1068	.06065	.70232	.47859	.34337	.08067
	.00979	22.196	.09189	.06178	.21730	150.24	3.5677	20.597
	.01022	22.281	.09334	.06172	.21946	151.26	3.5851	20.620

em	Ni2316	Ag3280	Na5895	V_2924	Zn2062	K_7664	Mo2020	B_2496
nits	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
g	.14086	.00065	1.0275	.12060	.90657	5.8104	.00215	-.00013
ddev	.00026	.00087	.0080	.00131	.01576	.0459	.00027	.00300
RSD	.18404	134.04	.77771	1.0873	1.7385	.78927	12.432	2232.6
	.14104	.00126	1.0219	.11967	.89542	5.7780	.00233	.00199
	.14068	.00003	1.0332	.12152	.91771	5.8428	.00196	-.00225

em	S_1820	Si2881	Sn1899	Ti3361	Li6707
nits	ppm	ppm	ppm	ppm	ppm
g	.63680	4.7250	.02209	.43480	.16170
ddev	.00305	.0406	.00055	.00192	.00080
RSD	.47938	.85851	2.5071	.44164	.49251
	.63464	4.6963	.02248	.43345	.16113
	.63896	4.7537	.02170	.43616	.16226

$\bar{x} = 0.336145$

$\%\ RSD = 0.3008$

$$\frac{0.336145\ \frac{mg}{L} \times 0.1\ L \times \frac{1000g}{Kg}}{(1g)(0.86Ce)} = 39.1858\ mg/kg$$

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CHEMTECH Soil/Sludge Sample Preparation Worksheet PrepBatch ID : **PB49732**

Lab Sample ID	Client Sample ID	Weight	Color Before	Color After	Texture	Artifact	Comments
B2616-01	CPPPTRENCH-3	1.20	BR	Y	M		
B2618-04	LCSS00100110XX	1.00	BR	Y	M		
B2618-04DUP	LCSS00100110XXDUP	1.00	BR	Y	M		6/10/10 Y
B2618-04MS	LCSS00100110XXMS	1.00	BR	Y	M		SDK.301.2, SDK.30.2 Y
B2618-04MSD	LCSS00100110XXMSD	1.00	BR	Y	M		Y Y
B2618-17	LCPD100600110XX	1.04	BR	Y	M		
B2619-02	LIBORTYBPLE-1	1.75	BR	Y	M		
B2620-01	GS-10-LOCATIONTR-1	1.04	BR	Y	M		
B2620-02	GS-11-LOCATIONW-1	1.25	BR	Y	M		
B2620-03	GS-12-LOCATIONW-2	1.03	BR	Y	M		
B2620-04	GS-13-LOCATIONW-3	1.30	BR	Y	M		
B2620-05	GS-14-LOCATIONW-4	1.20	BR	Y	M		
B2620-06	GS-15-LOCATIONW-5	1.09	BR	Y	M		
B2620-07	CS-10-TR-1LOCATION	1.22	BR	Y	M		
B2620-08	CS-11-LOCATIONW-1	1.06	BR	Y	M		
B2620-09	CS-12-LOCATIONW-2	1.15	BR	Y	M		
B2620-10	CS-13-LOCATIONW-3	1.01	BR	Y	M		
B2620-11	CS-14-LOCATIONW-4	1.14	BR	Y	M		
B2620-12	CS-15-LOCATIONW-5	1.18	BR	Y	M		
pb49732BL	~~RB49732BL~~ RBS	1.00	C	C	F		6/10/10 Y
pb49732BS	~~RB49732BS~~ LCSS	1.00	C	C	F		SDK.301.2 SDK.301.2

6/10/10 Y

7/29/10

* BL=Blank BS=Blank Spike TB=TCLP Blank
* COLOR: R=Red BU=Blue Y=Yellow GR=Green O=Orange V=Violet W=White C=Colorless BR=Brown GY=Grey BL=Black
* CLARITY: CL=Clear CD=Cloudy O=Opaque
* TEXTURE: F=Fine M=Medium C=Coarse
* ARTIFACT: Y=Yes N=No

ample Name: S0 Acquired: 6/10/2010 11:35:21 Type: Cal
ethod: P4 (v122) Mode: IR Corr. Factor: 1.000000
ser: admin Custom ID1: Custom ID2: Custom ID3:
omment:

em	As1937	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934	Be2348
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
g	-.00117	-.00210	.00038	.00145	.00044	.01792	.22575	-.00020
dev	.00013	.00005	.00010	.00025	.00012	.00075	.00166	.00001
RSD	10.755	2.1658	27.849	17.290	26.434	4.2074	.73661	4.0724
	-.00108	-.00207	.00045	.00163	.00036	.01845	.22458	-.00021
	-.00126	-.00213	.00030	.00127	.00052	.01739	.22693	-.00020

em	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2598	Mn2576	Mg2790
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
g	-.00047	.00061	.00050	.00039	-.00018	.00018	-.00001	-.00009
dev	.00008	.00020	.00013	.00031	.00004	.00012	.00006	.00020
RSD	16.558	33.435	26.950	79.628	22.304	62.538	1056.6	227.01
	-.00052	.00075	.00040	.00061	-.00015	.00027	.00004	.00005
	-.00041	.00046	.00059	.00017	-.00020	.00010	-.00005	-.00023

em	Ni2316	Ag3280	Na5895	V_2924	Zn2062	K_7664	Mo2020	B_2496
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
g	-.00137	-.00014	.00639	.00040	-.00034	-.00295	.00059	.00031
dev	.00001	.00068	.00075	.00014	.00119	.00028	.00026	.00034
RSD	.38451	502.37	11.679	35.164	348.15	9.5574	44.903	111.55
	-.00137	.00035	.00586	.00050	.00050	-.00315	.00077	.00006
	-.00137	-.00062	.00692	.00030	-.00118	-.00275	.00040	.00055

em	S_1820	Si2881	Sn1899	Ti3361	Li6707
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
g	.00039	.00065	.00023	.00075	-.00019
dev	.00025	.00052	.00031	.00005	.00138
RSD	63.244	79.538	132.57	6.6229	724.29
	.00022	.00102	.00001	.00072	.00079
	.00057	.00029	.00045	.00079	-.00117

7/23/10

ample Name: S1 Acquired: 6/10/2010 11:38:05 Type: Cal
ethod: P4 (v122) Mode: IR Corr. Factor: 1.000000
ser: admin Custom ID1: Custom ID2: Custom ID3:
omment:

em	As1937	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934	Be2348	Cd22
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	.00081	.00087	.00083	.00326	.00729	.02274	.60801	.00776	.0062
ddev	.00077	.00024	.00018	.00000	.00003	.00003	.00203	.00012	.000
RSD	94.927	27.154	21.377	.04400	.47968	.14128	.33409	1.5621	2.99
	.00027	.00104	.00070	.00326	.00726	.02276	.60657	.00784	.006
	.00136	.00070	.00095	.00326	.00731	.02272	.60945	.00767	.006

em	Cr2677	Co2286	Cu2247	Fe2598	Mn2576	Ni2316	Ag3280	V_2924	Zn20
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	.00322	.01313	.00123	.00245	.00649	.00682	.00661	.01262	.1417
ddev	.00050	.00014	.00007	.00005	.00005	.00010	.00113	.00011	.000
RSD	15.514	1.0419	5.5639	2.0946	.76856	1.5239	17.070	.85936	.199
	.00357	.01303	.00118	.00242	.00645	.00674	.00581	.01269	.141
	.00286	.01322	.00127	.00249	.00652	.00689	.00740	.01254	.141

em	Mo2020	B_2496	S_1820	Si2881	Sn1899	Ti3361	Li6707
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
g	.12162	.01574	.00150	.00289	.00471	.00891	.03042
ddev	.00012	.00003	.00038	.00019	.00027	.00030	.00105
RSD	.09881	.17461	25.589	6.7179	5.7782	3.3764	3.4423
	.12170	.01572	.00177	.00275	.00452	.00870	.03116
	.12153	.01576	.00123	.00303	.00490	.00912	.02968

. Std.	Y_2243	Y_2243	Y_3600	Y_3710	In2306
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
g	156.16	1022.1	4015.6	6289.4	1381.1
ddev	.48	.3	12.9	2.0	1.8
RSD	.30564	.02675	.32136	.03176	.12817
	155.83	1021.9	4006.5	6290.8	1379.9
	156.50	1022.3	4024.7	6288.0	1382.4

7/23/10

ımple Name: S3 Acquired: 6/10/2010 11:43:33 Type: Cal
ethod: P4 (v122) Mode: IR Corr. Factor: 1.000000
ser: admin Custom ID1: Custom ID2: Custom ID3:
omment:

em	As1937	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934	Be2348	Cd22
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	.51507	.43183	.44166	.48424	.68627	.61823	37.655	.33032	2.795
ddev	.00140	.00095	.00065	.00058	.00076	.00168	.074	.00220	.00
RSD	.27139	.22021	.14787	.12012	.11078	.27232	.19614	.66511	.079
	.51408	.43251	.44212	.48465	.68681	.61942	37.707	.33187	2.79
	.51606	.43116	.44120	.48383	.68574	.61704	37.603	.32876	2.79

em	Ca3736	Cr2677	Co2286	Cu2247	Fe2598	Mn2576	Mg2790	Ni2316	Ag32
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	.59530	.30672	.97462	.08776	.10650	.79264	.15185	.49384	.8691
ddev	.00231	.00236	.00057	.00048	.00032	.00030	.00053	.00033	.010
RSD	.38720	.77056	.05874	.54466	.29755	.03795	.35216	.06620	1.22
	.59693	.30839	.97422	.08810	.10673	.79243	.15223	.49407	.876
	.59367	.30505	.97503	.08743	.10628	.79285	.15147	.49361	.861

em	Na5895	V_2924	Zn2062	K_7664	Mo2020	B_2496	S_1820	Si2881	Sn18
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	4.8941	.79787	8.5701	1.5876	3.0424	.67103	.26771	.02979	.5517
ddev	.0089	.00459	.1583	.0045	.0032	.00264	.00105	.00043	.000
RSD	.18274	.57530	1.8472	.28304	.10629	.39385	.39380	1.4501	.059
	4.8878	.80111	8.6820	1.5845	3.0447	.67290	.26697	.03009	.551
	4.9005	.79462	8.4582	1.5908	3.0401	.66916	.26846	.02948	.552

em	Ti3361	Li6707
nits	Cts/S	Cts/S
g	1.0169	7.2146
ddev	.0005	.0048
RSD	.05038	.06690
	1.0165	7.2112
	1.0173	7.2180

7/23/10

ample Name: S4 Acquired: 6/10/2010 11:46:05 Type: Cal
ethod: P4 (v122) Mode: IR Corr. Factor: 1.000000
ser: admin Custom ID1: Custom ID2: Custom ID3:
omment:

em	As1937	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934	Be2348	Cd22
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
/g	1.0127	.85142	.86630	.94178	1.3352	1.1955	70.709	.62737	5.375
ddev	.0025	.00120	.00180	.00034	.0000	.0028	.116	.00128	.01
RSD	.24579	.14105	.20784	.03621	.00251	.23143	.16347	.20334	.237
	1.0109	.85227	.86758	.94202	1.3352	1.1975	70.791	.62828	5.38
!	1.0145	.85057	.86503	.94154	1.3351	1.1936	70.628	.62647	5.36

em	Ca3736	Cr2677	Co2286	Cu2247	Fe2598	Mn2576	Mg2790	Ni2316	Ag32
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
/g	1.1374	.59396	1.8922	.16859	.20234	1.5136	.29284	.96649	1.697
ddev	.0040	.00592	.0014	.00071	.00060	.0022	.00122	.00055	.01
RSD	.35364	.99699	.07267	.42035	.29590	.14544	.41522	.05732	.722
	1.1345	.59815	1.8932	.16809	.20191	1.5121	.29370	.96688	1.70
!	1.1402	.58978	1.8912	.16909	.20276	1.5152	.29198	.96610	1.68

em	Na5895	V_2924	Zn2062	K_7664	Mo2020	B_2496	S_1820	Si2881	Sn18
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
/g	9.4163	1.5217	16.427	3.0607	5.8570	1.2918	.52566	.05563	1.079
ddev	.0007	.0021	.234	.0018	.0074	.0007	.00248	.00017	.00
RSD	.00747	.13518	1.4226	.05982	.12638	.05541	.47142	.30749	.047
	9.4168	1.5202	16.262	3.0594	5.8622	1.2923	.52391	.05550	1.07
!	9.4158	1.5231	16.592	3.0620	5.8517	1.2913	.52741	.05575	1.07

em	Ti3361	Li6707
nits	Cts/S	Cts/S
/g	1.9501	13.858
ddev	.0051	.013
RSD	.26058	.09144
	1.9537	13.867
!	1.9465	13.849

W Chang 6/23/10

ample Name: S5 Acquired: 6/10/2010 11:48:40 Type: Cal
ethod: P4 (v122) Mode: IR Corr. Factor: 1.000000
ser: admin Custom ID1: Custom ID2: Custom ID3:
omment:

em	As1937	Tl1908	Pb2203	Se1960	Sb2068	Al3082	Ba4934	Be2348	Cd22
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	2.0508	1.7678	1.7792	1.9207	2.7190	2.4501	139.76	1.2593	10.76
ddev	.0040	.0029	.0003	.0076	.0063	.0022	1.37	.0039	.0
RSD	.19499	.16321	.01899	.39462	.23099	.08929	.98344	.31247	.025
	2.0536	1.7698	1.7790	1.9261	2.7234	2.4516	140.73	1.2565	10.7
	2.0480	1.7657	1.7794	1.9153	2.7145	2.4485	138.78	1.2621	10.7

em	Ca3736	Cr2677	Co2286	Cu2247	Fe2598	Mn2576	Mg2790	Ni2316	Ag32
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	2.2789	1.1782	3.8292	.33891	.40182	3.0055	.59250	1.9547	3.453
ddev	.0036	.0025	.0045	.00116	.00003	.0099	.00042	.0009	.00
RSD	.15869	.21182	.11667	.34265	.00635	.32949	.07077	.04545	.160
	2.2814	1.1764	3.8323	.33809	.40180	2.9985	.59221	1.9541	3.44
	2.2763	1.1800	3.8260	.33973	.40184	3.0125	.59280	1.9553	3.45

em	Na5895	V_2924	Zn2062	K_7664	Mo2020	B_2496	S_1820	Si2881	Sn18
nits	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts
g	19.001	3.0227	32.095	6.1660	11.764	2.6346	1.0811	.11188	2.196
ddev	.010	.0026	.052	.0026	.051	.0015	.0006	.00031	.00
RSD	.05465	.08491	.16070	.04239	.43362	.05819	.05570	.28082	.093
	18.994	3.0245	32.058	6.1642	11.800	2.6357	1.0816	.11166	2.19
	19.008	3.0209	32.131	6.1679	11.728	2.6335	1.0807	.11210	2.19

em	Ti3361	Li6707
nits	Cts/S	Cts/S
g	3.8952	27.848
ddev	.0138	.047
RSD	.35456	.16701
	3.8855	27.815
	3.9050	27.881

6/23/10

Line	Conc.	Units	SD/RSD	1	2	3	4	5	
*** Sample ID: B2680-14				Seq: 31	17:47:53 16 Jun 10				HG
				B93EI-60-67					
Hg	-.128	ppb	.000	-.128					
*** Sample ID: PB49851BL				Seq: 32	17:49:50 16 Jun 10				HG
				PBS					
Hg	-.144	ppb	.000	-.144					
*** Sample ID: PB49851BS				Seq: 33	17:51:47 16 Jun 10				HG
				LCSS					
Hg	3.44	ppb	.000	3.44					
*** Sample ID: B2616-01				Seq: 34	17:53:51 16 Jun 10				HG
				CPPPTRENCH-3					
Hg	.138	ppb	.000	.138					
*** Sample ID: B2618-04				Seq: 35	17:55:48 16 Jun 10				HG
				LCSS00100110XX					
Hg	1.43	ppb	.000	1.43					
*** Sample ID: B2618-17				Seq: 36	17:57:42 16 Jun 10				HG
				LCPD100600110XX					
Hg	2.03	ppb	.000	2.03					
*** Sample ID: B2643-06				Seq: 37	17:59:42 16 Jun 10				HG
				LCPD101100110XX					
Hg	2.36	ppb	.000	2.36					
*** Sample ID: B2643-13				Seq: 38	18:01:46 16 Jun 10				HG
				LCBKSS00100110XX					
Hg	1.45	ppb	.000	1.45					

*** Check Standard: 2 Ck2				Seq: 39	18:03:39 16 Jun 10	HG
Line	Flag	%Rcv.	Found	True	Units	SD/RSD
Hg		103.	5.14	5.00	ppb	.000

*** Check Standard: 1 Ck1				Seq: 40	18:05:34 16 Jun 10	HG
Line	Flag	Found	Range(+/-)	Units	SD/RSD	
Hg		-.142	.200	ppb	.000	

*** Sample ID: B2643-14				Seq: 41	18:07:27 16 Jun 10	HG
				LCBKSS00200110XX		
Hg	.321	ppb	.000	.321		
*** Sample ID: B2643-15				Seq: 42	18:09:22 16 Jun 10	HG
				LCBKSS00300110XX		
Hg	3.29	ppb	.000	3.29		

06/16/10 A.P.

$$\frac{1.43\ \frac{ug}{L} \times 0.03\ L}{(0.01\ g)(0.86\ L)} = 0.0812\ \frac{ug}{g} / \frac{mg}{kg}$$

7/23/10

CHEMTECH

MERCURY PREPARATION WORKSHEET

PB49851

LAB SAMPLE ID	CLIENT SAMPLE ID	TEST	MATRIX	Wt(g)/Vol(ml)	PH	COMMENTS
B2616-01	CPPPTRENCH-3	Mercury	Solid	0 62		
B2618-04	LCSS00100110XX	Mercury	Solid	0.61		
B2618-17	LCPD100600110XX	Mercury	Solid	0.66		
B2643-06	LCPD101100110XX	Mercury	Solid	0.62		
B2643-13	LCBKSS00100110XX	Mercury	Solid	0.61		
B2643-14	LCBKSS00200110XX	Mercury	Solid	0 63		
B2643-15	LCBKSS00300110XX	Mercury	Solid	0.64		
B2643-16	LCBKSS00300110XD	Mercury	Solid	0.61		
B2648-02	B93D2(5-7)	Mercury	Solid	0.64		
B2648-04	B93D2(10-17)	Mercury	Solid	0.62		
B2648-06	B93D2(20-27)	Mercury	Solid	0.65		
B2648-08	B93D2(30-37)	Mercury	Solid	0.64		
B2648-10	B93D2(40-47)	Mercury	Solid	0 67		
B2648-12	B93D2(50-57)	Mercury	Solid	0.67		
B2648-14	B93D2(60-67)	Mercury	Solid	0.60		
B2648-14DUP	B93D2(60-67)DUP	Mercury	solid	0.60		
B2648-14MS	B93D2(60-67)MS	Mercury	Solid	0.60		mp1892
B2648-14MSD	B93D2(60-67)MSD	Mercury	solid	0.60		mp1892
B2648-16	B93D2(70-72)	Mercury	Solid	0.64		
B2659-01	1005267682	Mercury	Solid	0.62		
PB49851BL	PBS	Mercury	solid	0.60		A-P.
PB49851BS	LCSS	Mercury	solid	0 60		mp1892 06/15/10

7/23/10

* BL=Blank * BS=Blank Spike * TB=TCLP Blank

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Checked for completeness
✓ parameters requested.
8/4/10

ANALYTICAL RESULTS SUMMARY

PROJECT NAME : LOOHNS DRY CLEANERS- APO 201007181

MACTEC INC.
1105 Lakewood Parkway
Suite 300
Alpharetta , GA - 30009
Phone No: 7703600600

ORDER ID : **B2643**

ATTENTION : **Tige Cunningham**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-I

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

NYSDEC Sample ID/Code	Laboratory Sample ID/Code	VOA GC/MS (Method #)	BNA GC/MS (Method #)	VOA GC (Method #)	Pest PCBs (Method #)	Metals (Method #)	Other (Method #)
LCPD100301310XX	B2643-01	8260B					Chemtech -SOP
LCPD100900110XX	B2643-02	8260B					Chemtech -SOP
LCPD100901010XX	B2643-03	8260B					Chemtech -SOP
LCPD100400510XX	B2643-04	8260B					Chemtech -SOP
LCPD100401010XX	B2643-05	8260B					Chemtech -SOP
LCPD101100110XX	B2643-06		8270C		8081A, 8082	6010B, 7471A	Chemtech -SOP
LCPD101100210XX	B2643-07	8260B					Chemtech -SOP
LCGW01502010XX	B2643-10	8260B					
LCGW01402010XX	B2643-11	8260B					
LCGW01302010XX	B2643-12	8260B					
LCBKSS00100110XX	B2643-13		8270C		8081A, 8082	6010, 7471A	Chemtech -SOP
LCBKSS00200110XX	B2643-14		8270C		8081A, 8082	6010, 7471A	Chemtech -SOP
LCBKSS00300110XX	B2643-15		8270C		8081A, 8082	6010, 7471A	Chemtech -SOP
LCBKSS00300110XD	B2643-16		8270C		8081A, 8082	6010, 7471A	Chemtech -SOP
LCPD101000210XX	B2643-17	8260B					Chemtech -SOP
LCPD101400210XX	B2643-18	8260B					Chemtech -SOP
LCPD100600410XX	B2643-19						
TRIPBLANK	B2643-20	8260B					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIa

SAMPLE PREPARATION AND ANALYSIS SUMMARY SEMIVOLATILE (BNA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
B2643-06	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-13	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-14	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-15	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-16	SOIL	06/09/10	06/10/10	06/14/10	06/18/10

* Details For Test :SVOC-TCL BNA -20

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIb

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA) ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
B2643-01	SOIL	06/09/10	06/10/10		06/17/10
B2643-02	SOIL	06/09/10	06/10/10		06/17/10
B2643-03	SOIL	06/09/10	06/10/10		06/17/10
B2643-04	SOIL	06/09/10	06/10/10		06/17/10
B2643-05	SOIL	06/09/10	06/10/10		06/17/10
B2643-07	SOIL	06/09/10	06/10/10		06/15/10
B2643-17	SOIL	06/09/10	06/10/10		06/17/10
B2643-18	SOIL	06/09/10	06/10/10		06/17/10
B2643-10	WATER	06/09/10	06/10/10		06/16/10
B2643-11	WATER	06/09/10	06/10/10		06/16/10
B2643-12	WATER	06/09/10	06/10/10		06/16/10
B2643-20	WATER	06/02/10	06/10/10		06/16/10

* Details For Test :VOC-TCLVOA-10

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
B2643-06	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-13	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-14	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-15	SOIL	06/09/10	06/10/10	06/14/10	06/18/10
B2643-16	SOIL	06/09/10	06/10/10	06/14/10	06/18/10

* Details For Test :Pesticide-TCL

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
B2643-01	Solid	8260B	5035		
B2643-02	Solid	8260B	5035		
B2643-03	Solid	8260B	5035		
B2643-04	Solid	8260B	5035		
B2643-05	Solid	8260B	5035		
B2643-07	Solid	8260B	5035		
B2643-08	Solid	8260B	5035		
B2643-09	Solid	8260B	5035		
B2643-10	Water	8260B	5030		
B2643-11	Water	8260B	5030		
B2643-12	Water	8260B	5030		
B2643-17	Solid	8260B	5035		
B2643-18	Solid	8260B	5035		
B2643-20	Water	8260B	5030		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Digested	Date Analyzed
B2643-06	SOIL	Metals ICP-TAL	06/10/10	06/14/10	06/14/10
B2643-13	SOIL	Metals ICP-TAL	06/10/10	06/14/10	06/14/10
B2643-14	SOIL	Metals ICP-TAL	06/10/10	06/14/10	06/14/10
B2643-15	SOIL	Metals ICP-TAL	06/10/10	06/14/10	06/14/10
B2643-16	SOIL	Metals ICP-TAL	06/10/10	06/14/10	06/14/10

* Details For Test :Metals ICP-TAL

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
B2643-06	Solid	8081A,8082			
B2643-13	Solid	8081A,8082			
B2643-14	Solid	8081A,8082			
B2643-15	Solid	8081A,8082			
B2643-16	Solid	8081A,8082			

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IIc

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
B2643-06	SOIL	06/09/10	06/10/10	06/14/10	06/14/10
B2643-13	SOIL	06/09/10	06/10/10	06/14/10	06/14/10
B2643-14	SOIL	06/09/10	06/10/10	06/14/10	06/14/10
B2643-15	SOIL	06/09/10	06/10/10	06/14/10	06/14/10
B2643-16	SOIL	06/09/10	06/10/10	06/14/10	06/14/10

* Details For Test :PCB

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-III

SAMPLE PREPARATION AND ANALYSIS SUMMARY
MISCELLANEOUS ORGANIC ANALYSES

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
B2643-06	Solid	8270C	3541		
B2643-13	Solid	8270C	3541		
B2643-14	Solid	8270C	3541		
B2643-15	Solid	8270C	3541		
B2643-16	Solid	8270C	3541		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FORM S-IV

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Digested	Date Analyzed
B2643-06	SOIL	Mercury	06/10/10	06/15/10	06/16/10
B2643-13	SOIL	Mercury	06/10/10	06/15/10	06/16/10
B2643-14	SOIL	Mercury	06/10/10	06/15/10	06/16/10
B2643-15	SOIL	Mercury	06/10/10	06/15/10	06/16/10
B2643-16	SOIL	Mercury	06/10/10	06/15/10	06/16/10

* Details For Test :Mercury

CHEMTECH
284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Cover Page

Order ID : B2643

Project ID : Loohns Dry Cleaners- APO 201007181

Client : MACTEC Inc.

Lab Sample Number	Client Sample Number
B2643-01	LCPD100301310XX
B2643-02	LCPD100900110XX
B2643-03	LCPD100901010XX
B2643-04	LCPD100400510XX
B2643-05	LCPD100401010XX
B2643-06	LCPD101100110XX
B2643-07	LCPD101100210XX
B2643-08	B2643-07MS
B2643-09	B2643-07MSD
B2643-10	LCGW01502010XX
B2643-11	LCGW01402010XX
B2643-12	LCGW01302010XX
B2643-13	LCBKSS00100110XX
B2643-14	LCBKSS00200110XX
B2643-15	LCBKSS00300110XX
B2643-16	LCBKSS00300110XD
B2643-17	LCPD101000210XX
B2643-18	LCPD101400210XX
B2643-19	LCPD100600410XX
B2643-20	TRIPBLANK

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

Signature : Mildred V Reyes

Mildred V. Reyes
I am approving this document
2010.06.23 16:28:28 -04'00'

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH

CASE NARRATIVE

MACTEC Inc.
Project Name: Loohns Dry Cleaners- APO 201007181
Project # N/A
Chemtech Project # B2643

A. Number of Samples and Date of Receipt:
16 Solid samples were received on 06/10/2010.
4 Water samples were received on 06/10/2010.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Grain Size Distribution (sub), Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, Pesticides/PCB-TCL, SVOC-TCL BNA -20, VOC-TCLVOA-10 and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:
The analysis performed on instrument MSVOA F were done using GC column RTX624, which is 75 meters, 0.53 ID, 3.0 df, Restek Cat. #10974. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator.The analysis performed on instrument MSVOA H were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied BY OI Analytical, OI #10 Trap , OI Eclipse 4660 Concentrator.The analysis performed on instrument MSVOA K were done using GC column RTX-VMS which is 20 meters, 0.18 ID, 1.0 df, Restek Cat. #49914. The Trap was supplied by OI Analytical, OI #10 Trap , OI 4560 Concentrator.The analysis of VOC-TCLVOA-10 was based on method 8260B. The method of analysis was 8260.

D. QA/ QC Samples:
The Holding Times were met for all analysis except for TRIPBLANK. This sample was re-analyzed one day outside hold time.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements except TRIPBLANK.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds except for 1,1-Dichloroethene and Tetrachloroethene.
The MSD recoveries met the acceptable requirements except for 1,1-Dichloroethene, 1,2-Dichloropropane, Bromodichloromethane, Chloroethane, cis-1,3-Dichloropropene and Toluene.
The RPD for sample B2643-09MSD did not meet requirements..
The RPD for sample B2697-01 met criteria except for Bromomethane, Chloroethane and Methylene Chloride.
The Blank Spike met requirements for all samples except for 1,1-Dichloroethene.

The %RSD is greater than 15% in the Initial Calibration (Method 82F061510W.M) for Bromomethane,Chloroethane,Methylene Chloride and Tetrachloroethene . These compounds are passing on Linear/ Quadratic regression but they are kept on Average response factor
The %RSD is greater than 15% in the Initial Calibration (Method 82H061610W.M) for Chloroethane,Chloromethane,Cyclohexane and Vinyl chloride . These compounds are passing on Linear/ Quadratic regression but they are kept on Average response factor
The %RSD is greater than 15% in the Initial Calibration (Method 82K061410S.M) for 1,2-Dibromo-3-Chloropropane,Chloroethane,Dichlorodifluoromethane and Methyl Acetate . These compounds are passing on Linear/ Quadratic regression but they are kept on Average response factor
The Calibration File ID ICV (VK039549.D met the requirements except for Dichlorodifluoromethane and Chloromethane.
The Calibration File ID VF022630.D met the requirements except for Trichlorofluoromethane,Acetone,1,2-Dichloropropane,4-Methyl-2-Pentanone,Toluene,t-1,3-Dichloropropene,cis-1,3-Dichloropropene,1,1,2-Trichlorotrifluoroethane,2-Hexanone,Dibromochloromethane,1,2-Dibromoethane,Styrene and 1,1,2,2-Tetrachloroethane . Sample associated with this calibration was analyzed for dilution and compound of interest was Tetrachlorothene.
The Calibration File ID VK039558.D met the requirements except for Dichlorodifluoromethane, Chloromethane, Vinyl Chloride, Chloroethane , Trichlorofluoromethane, Carbon disulfide and 1,1,2-Trichlorotrifluoroethane. Sample did not have hit for these compounds.
The Calibration File ID VK039617.D met the requirements except for Chloroethane and Toluene.
The Tuning criteria met requirements.

E. Additional Comments:
Samples LCPD100900110XX and LCPD101400210XX were diluted due to high concentrations.

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

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

Signature M Mildred V Reyes

Mildred V. Reyes
I am approving this document
2010.06.23 16:28:16 -04'00'

CHEMTECH

CASE NARRATIVE

MACTEC Inc.
Project Name: Loohns Dry Cleaners- APO 201007181
Project # N/A
Chemtech Project # B2643

A. Number of Samples and Date of Receipt:
16 Solid samples were received on 06/10/2010.
4 Water samples were received on 06/10/2010.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Grain Size Distribution (sub), Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, Pesticides/PCB-TCL, SVOC-TCL BNA -20, VOC-TCLVOA-10 and VOC-TCLVOA-10. This data package contains results for SVOC-TCL BNA -20.

C. Analytical Techniques:
The samples were analyzed on instrument BNA E using GC Column RTX-5 SILMS which is 20 meters, 0.18 mm ID, 0.36 um df, Catalog # 42704.The analysis of SVOC-TCL BNA -20 was based on method 8270C and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD for (B2643-06MSD) recoveries met criteria except for 2,4,5-Trichlorophenol,2,4-Dinitrotoluene,2-Nitrophenol,3,3-Dichlorobenzidine,3-Nitroaniline,4-Bromophenyl-phenylether,4-Chloroaniline,4-Chlorophenyl-phenylether,4-Nitroaniline,4-Nitrophenol,Atrazine,Benzo(b)fluoranthene,Benzo(k)fluoranthene,bis(2-Ethylhexyl)phthalate,Dimethylphthalate,Di-n-butylphthalate,Di-n-octyl phthalate and Pentachlorophenol.
The Blank Spike met requirements for all samples except for Benzaldehyde.
The Blank analysis indicated presence of Dimethylphthalate (200 ug/kg) due to possible lab contamination.
The Initial Calibration did not meet the requirements.
The Calibration File ID BE064915.D met the requirements except for 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol .They are biased high and samples do not have hit for these compounds.
The Tuning criteria met requirements.

E. Additional Comments:

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

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

Signature Mildred V Reyes

Mildred V. Reyes
I am approving this document
2010.06.23 16:28:05 -04'00'

CHEMTECH

CASE NARRATIVE

MACTEC Inc.
Project Name: Loohns Dry Cleaners- APO 201007181
Project # N/A
Chemtech Project # B2643

A. Number of Samples and Date of Receipt:
16 Solid samples were received on 6/10/10.
4 Water samples were received on 6/10/10.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Grain Size Distribution (sub), Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, Pesticides/PCB-TCL, SVOC-TCL BNA -20, VOC-TCLVOA-10, and VOC-TCLVOA-10. This data package contains results for Pesticide-TCL.

C. Analytical Techniques:
The analyses were performed on instrument GCECD 7. The front column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog # 111391. The rear column is ZBMR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 11324. The method of analysis was 8081 and the extraction method was 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD recoveries met criteria.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration and Continuing Calibration met requirements.

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

Signature Mildred V Reyes

Mildred V. Reyes
I am approving this document
2010.06.23 16:27:50 -04'00'

CHEMTECH

CASE NARRATIVE

MACTEC Inc.
Project Name: Loohns Dry Cleaners- APO 201007181
Project # N/A
Chemtech Project # B2643

A. Number of Samples and Date of Receipt:
16 Solid samples were received on 6/10/10.
4 Water samples were received on 6/10/10.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Grain Size Distribution (sub), Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, Pesticides/PCB-TCL, SVOC-TCL BNA -20, VOC-TCLVOA-10, and VOC-TCLVOA-10. This data package contains results for PCB.

C. Analytical Techniques:
The analyses were performed on instrument GCECD 6. The front column is RTX-CLPest which is 30 meters, 0.32 mm ID, 0.5 um df,Catalog # 11139. The rear column is RTX-CLPestII which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog # 11324. The method of analysis was 8082 and the extraction method was 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD recoveries met criteria.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration File ID CCAL03 met the requirements except for Aroclor-1016(Peak4,5) for Column2. Column1 met requirements.
The Calibration File ID CCAL04 met the requirements except for Aroclor-1016(Peak5) and Aroclor-1260(Peak3, 4) for Column2. Column1 met requirements.

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

Signature___ Mildred V Reyes

Mildred V. Reyes
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CHEMTECH

CASE NARRATIVE

MACTEC Inc.
Project Name: Loohns Dry Cleaners- APO 201007181
Project # N/A
Chemtech Project # B2643

A. Number of Samples and Date of Receipt:
16 Solid samples were received on 6/10/10.
4 Water samples were received on 6/10/10.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Grain Size Distribution (sub), Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, Pesticides/PCB-TCL, SVOC-TCL BNA -20, VOC-TCLVOA-10, and VOC-TCLVOA-10. This data package contains results for Metals ICP-TAL and Mercury.

C. Analytical Techniques:
The analysis of Metals ICP-TAL was based on method 6010 and Mercury was based on method 7471A

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements except for Barium, Calcium, Copper, Iron, Magnesium, Manganese and Zinc.

E. Additional Comments:
Calcium and Magnesium failed in CCAL02. Samples are not associated with this calibration.

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

Signature Mildred V Reyes

Mildred V. Reyes
I am approving this document
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CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100301310XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-01

Sample wt/vol: 4.78 (g/mL) g Lab File ID: VK039623.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 8 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	5.7	U
74-87-3	Chloromethane	5.7	U
75-01-4	Vinyl Chloride	5.7	U
74-83-9	Bromomethane	5.7	U
75-00-3	Chloroethane	5.7	U J
75-69-4	Trichlorofluoromethane	5.7	U
76-13-1	1,1,2-Trichlorotrifluoroethane	5.7	U
75-35-4	1,1-Dichloroethene	5.7	U
67-64-1	Acetone	28	U
75-15-0	Carbon Disulfide	5.7	U
1634-04-4	Methyl tert-butyl Ether	5.7	U
79-20-9	Methyl Acetate	3.2	J
75-09-2	Methylene Chloride	6.7	
156-60-5	trans-1,2-Dichloroethene	5.7	U
75-34-3	1,1-Dichloroethane	5.7	U
110-82-7	Cyclohexane	5.7	U
78-93-3	2-Butanone	28	U
56-23-5	Carbon Tetrachloride	5.7	U
156-59-2	cis-1,2-Dichloroethene	5.7	U
67-66-3	Chloroform	5.7	U
71-55-6	1,1,1-Trichloroethane	5.7	U
108-87-2	Methylcyclohexane	5.7	U
71-43-2	Benzene	5.7	U
107-06-2	1,2-Dichloroethane	5.7	U
79-01-6	Trichloroethene	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
75-27-4	Bromodichloromethane	5.7	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100301310XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-01

Sample wt/vol: 4.78 (g/mL) g Lab File ID: VK039623.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 8 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
108-10-1	4-Methyl-2-Pentanone	28	U
108-88-3	Toluene	5.7	U
10061-02-6	t-1,3-Dichloropropene	5.7	U
10061-01-5	cis-1,3-Dichloropropene	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
591-78-6	2-Hexanone	28	U
124-48-1	Dibromochloromethane	5.7	U
106-93-4	1,2-Dibromoethane	5.7	U
127-18-4	Tetrachloroethene	2.6	J
108-90-7	Chlorobenzene	5.7	U
100-41-4	Ethyl Benzene	5.7	U
179601-23-1	m/p-Xylenes	11	U
95-47-6	o-Xylene	5.7	U
100-42-5	Styrene	5.7	U
75-25-2	Bromoform	5.7	U
98-82-8	Isopropylbenzene	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
541-73-1	1,3-Dichlorobenzene	5.7	U
106-46-7	1,4-Dichlorobenzene	5.7	U
95-50-1	1,2-Dichlorobenzene	5.7	U
96-12-8	1,2-Dibromo-3-Chloropropane	5.7	U
120-82-1	1,2,4-Trichlorobenzene	5.7	U

8/4/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD100301310XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-01

Sample wt/vol: 4.78 (g/mL) g Lab File ID: VK039623.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 8 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume: _____

Number TICS found: 2 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	~~1.47~~	~~6.5~~	J
~~141-78-6~~	~~Ethyl Acetate~~	~~2.82~~	~~2.2~~	J

8/4/10

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CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100900110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-02

Sample wt/vol: 4.39 (g/mL) g Lab File ID: VK039624.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	6.8	U
74-87-3	Chloromethane	6.8	U
75-01-4	Vinyl Chloride	6.8	U
74-83-9	Bromomethane	6.8	U
75-00-3	Chloroethane	6.8	U J
75-69-4	Trichlorofluoromethane	6.8	U
76-13-1	1,1,2-Trichlorotrifluoroethane	6.8	U
75-35-4	1,1-Dichloroethene	6.8	U
67-64-1	Acetone	12	J
75-15-0	Carbon Disulfide	6.8	U
1634-04-4	Methyl tert-butyl Ether	6.8	U
79-20-9	Methyl Acetate	6.8	U
75-09-2	Methylene Chloride	4.2	J
156-60-5	trans-1,2-Dichloroethene	6.8	U
75-34-3	1,1-Dichloroethane	6.8	U
110-82-7	Cyclohexane	6.8	U
78-93-3	2-Butanone	34	U
56-23-5	Carbon Tetrachloride	6.8	U
156-59-2	cis-1,2-Dichloroethene	2.8	J
67-66-3	Chloroform	6.8	U
71-55-6	1,1,1-Trichloroethane	6.8	U
108-87-2	Methylcyclohexane	6.8	U
71-43-2	Benzene	6.8	U
107-06-2	1,2-Dichloroethane	6.8	U
79-01-6	Trichloroethene	9.3	
78-87-5	1,2-Dichloropropane	6.8	U
75-27-4	Bromodichloromethane	6.8	U
108-10-1	4-Methyl-2-Pentanone	34	U
108-88-3	Toluene	6.8	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100900110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-02

Sample wt/vol: 4.39 (g/mL) g Lab File ID: VK039624.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	6.8	U
10061-01-5	cis-1,3-Dichloropropene	6.8	U
79-00-5	1,1,2-Trichloroethane	6.8	U
591-78-6	2-Hexanone	34	U
124-48-1	Dibromochloromethane	6.8	U
106-93-4	1,2-Dibromoethane	6.8	U
* ~~127-18-4~~	Tetrachloroethene	6100	E
108-90-7	Chlorobenzene	6.8	U
100-41-4	Ethyl Benzene	6.8	U
179601-23-1	m/p-Xylenes	14	U
95-47-6	o-Xylene	6.8	U
100-42-5	Styrene	6.8	U
75-25-2	Bromoform	6.8	U
98-82-8	Isopropylbenzene	6.8	U
79-34-5	1,1,2,2-Tetrachloroethane	6.8	U
541-73-1	1,3-Dichlorobenzene	6.8	U
106-46-7	1,4-Dichlorobenzene	2.3	J
95-50-1	1,2-Dichlorobenzene	5.2	J
96-12-8	1,2-Dibromo-3-Chloropropane	6.8	U
120-82-1	1,2,4-Trichlorobenzene	6.8	U

* Combine with dilution analysis.

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100900110XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-02DL

Sample wt/vol: 4.35 (g/mL) g Lab File ID: VF022608.D

Level: (low/med) MED Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 10

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	6800	U
74-87-3	Chloromethane	6800	U
75-01-4	Vinyl Chloride	6800	U
74-83-9	Bromomethane	6800	U
75-00-3	Chloroethane	6800	U
75-69-4	Trichlorofluoromethane	6800	U
76-13-1	1,1,2-Trichlorotrifluoroethane	6800	U
75-35-4	1,1-Dichloroethene	6800	U
67-64-1	Acetone	34000	U
75-15-0	Carbon Disulfide	6800	U
1634-04-4	Methyl tert-butyl Ether	6800	U
79-20-9	Methyl Acetate	6800	U
75-09-2	Methylene Chloride	6800	U
156-60-5	trans-1,2-Dichloroethene	6800	U
75-34-3	1,1-Dichloroethane	6800	U
110-82-7	Cyclohexane	6800	U
78-93-3	2-Butanone	34000	U
56-23-5	Carbon Tetrachloride	6800	U
156-59-2	cis-1,2-Dichloroethene	6800	U
67-66-3	Chloroform	6800	U
71-55-6	1,1,1-Trichloroethane	6800	U
108-87-2	Methylcyclohexane	6800	U
71-43-2	Benzene	6800	U
107-06-2	1,2-Dichloroethane	6800	U
79-01-6	Trichloroethene	6800	U
78-87-5	1,2-Dichloropropane	6800	U
75-27-4	Bromodichloromethane	6800	U
108-10-1	4-Methyl-2-Pentanone	34000	U
108-88-3	Toluene	6800	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100900110XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-02DL

Sample wt/vol: 4.35 (g/mL) g Lab File ID: VF022608.D

Level: (low/med) MED Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 10

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND		Q
10061-02-6	t-1,3-Dichloropropene	6800	U
10061-01-5	cis-1,3-Dichloropropene	6800	U
79-00-5	1,1,2-Trichloroethane	6800	U
591-78-6	2-Hexanone	34000	U
124-48-1	Dibromochloromethane	6800	U
106-93-4	1,2-Dibromoethane	6800	U
127-18-4	Tetrachloroethene	63000	D
108-90-7	Chlorobenzene	6800	U
100-41-4	Ethyl Benzene	6800	U
179601-23-1	m/p-Xylenes	14000	U
95-47-6	o-Xylene	6800	U
100-42-5	Styrene	6800	U
75-25-2	Bromoform	6800	U
98-82-8	Isopropylbenzene	6800	U
79-34-5	1,1,2,2-Tetrachloroethane	6800	U
541-73-1	1,3-Dichlorobenzene	6800	U
106-46-7	1,4-Dichlorobenzene	6800	U
95-50-1	1,2-Dichlorobenzene	6800	U
96-12-8	1,2-Dibromo-3-Chloropropane	6800	U
120-82-1	1,2,4-Trichlorobenzene	6800	U

* Combine with original analysis.

7/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100901010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-03

Sample wt/vol: 5.79 (g/mL) g Lab File ID: VK039632.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 5 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.5	U
74-87-3	Chloromethane	4.5	U
75-01-4	Vinyl Chloride	4.5	U
74-83-9	Bromomethane	4.5	U
75-00-3	Chloroethane	4.5	U J
75-69-4	Trichlorofluoromethane	4.5	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.5	U
75-35-4	1,1-Dichloroethene	4.5	U
67-64-1	Acetone	12	J
75-15-0	Carbon Disulfide	4.5	U
1634-04-4	Methyl tert-butyl Ether	4.5	U
79-20-9	Methyl Acetate	2.3	J
75-09-2	Methylene Chloride	4.6	
156-60-5	trans-1,2-Dichloroethene	4.5	U
75-34-3	1,1-Dichloroethane	4.5	U
110-82-7	Cyclohexane	4.5	U
78-93-3	2-Butanone	23	U
56-23-5	Carbon Tetrachloride	4.5	U
156-59-2	cis-1,2-Dichloroethene	4.5	U
67-66-3	Chloroform	4.5	U
71-55-6	1,1,1-Trichloroethane	4.5	U
108-87-2	Methylcyclohexane	4.5	U
71-43-2	Benzene	4.5	U
107-06-2	1,2-Dichloroethane	4.5	U
79-01-6	Trichloroethene	4.5	U
78-87-5	1,2-Dichloropropane	4.5	U
75-27-4	Bromodichloromethane	4.5	U
108-10-1	4-Methyl-2-Pentanone	23	U
108-88-3	Toluene	4.5	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100901010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-03

Sample wt/vol: 5.79 (g/mL) g Lab File ID: VK039632.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 5 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.5	U
10061-01-5	cis-1,3-Dichloropropene	4.5	U
79-00-5	1,1,2-Trichloroethane	4.5	U
591-78-6	2-Hexanone	23	U
124-48-1	Dibromochloromethane	4.5	U
106-93-4	1,2-Dibromoethane	4.5	U
127-18-4	Tetrachloroethene	16	
108-90-7	Chlorobenzene	4.5	U
100-41-4	Ethyl Benzene	4.5	U
179601-23-1	m/p-Xylenes	9.1	U
95-47-6	o-Xylene	4.5	U
100-42-5	Styrene	4.5	U
75-25-2	Bromoform	4.5	U
98-82-8	Isopropylbenzene	4.5	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U
541-73-1	1,3-Dichlorobenzene	4.5	U
106-46-7	1,4-Dichlorobenzene	4.5	U
95-50-1	1,2-Dichlorobenzene	4.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.5	U
120-82-1	1,2,4-Trichlorobenzene	4.5	U

8/4/10

CHEMTECH

SOIL VOLATILE ANALYSIS
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD100901010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-03

Sample wt/vol: 5.79 (g/mL) g Lab File ID: VK039632.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 5 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume: _____

Number TICS found: 2 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	~~1.47~~	~~3.0~~	~~J~~
~~141-78-6~~	~~Ethyl Acetate~~	2.82	3.0	~~J~~

6/14/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100400510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-04

Sample wt/vol: 6.19 (g/mL) g Lab File ID: VK039626.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 11 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.5	U
74-87-3	Chloromethane	4.5	U
75-01-4	Vinyl Chloride	4.5	U
74-83-9	Bromomethane	4.5	U
75-00-3	Chloroethane	4.5	U J
75-69-4	Trichlorofluoromethane	4.5	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.5	U
75-35-4	1,1-Dichloroethene	4.5	U
67-64-1	Acetone	16	J
75-15-0	Carbon Disulfide	4.5	U
1634-04-4	Methyl tert-butyl Ether	4.5	U
79-20-9	Methyl Acetate	4.5	U
75-09-2	Methylene Chloride	3.1	J
156-60-5	trans-1,2-Dichloroethene	4.5	U
75-34-3	1,1-Dichloroethane	4.5	U
110-82-7	Cyclohexane	4.5	U
78-93-3	2-Butanone	23	U
56-23-5	Carbon Tetrachloride	4.5	U
156-59-2	cis-1,2-Dichloroethene	4.5	U
67-66-3	Chloroform	4.5	U
71-55-6	1,1,1-Trichloroethane	4.5	U
108-87-2	Methylcyclohexane	2.7	J
71-43-2	Benzene	4.5	U
107-06-2	1,2-Dichloroethane	4.5	U
79-01-6	Trichloroethene	4.5	U
78-87-5	1,2-Dichloropropane	4.5	U
75-27-4	Bromodichloromethane	4.5	U
108-10-1	4-Methyl-2-Pentanone	23	U
108-88-3	Toluene	4.5	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100400510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-04

Sample wt/vol: 6.19 (g/mL) g Lab File ID: VK039626.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 11 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.5	U
10061-01-5	cis-1,3-Dichloropropene	4.5	U
79-00-5	1,1,2-Trichloroethane	4.5	U
591-78-6	2-Hexanone	23	U
124-48-1	Dibromochloromethane	4.5	U
106-93-4	1,2-Dibromoethane	4.5	U
127-18-4	Tetrachloroethene	18	
108-90-7	Chlorobenzene	4.5	U
100-41-4	Ethyl Benzene	4.5	U
179601-23-1	m/p-Xylenes	9.1	U
95-47-6	o-Xylene	4.5	U
100-42-5	Styrene	4.5	U
75-25-2	Bromoform	4.5	U
98-82-8	Isopropylbenzene	4.5	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U
541-73-1	1,3-Dichlorobenzene	4.5	U
106-46-7	1,4-Dichlorobenzene	4.5	U
95-50-1	1,2-Dichlorobenzene	4.5	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.5	U
120-82-1	1,2,4-Trichlorobenzene	4.5	U

8/4/10

CHEMTECH

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD100400510XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-04

Sample wt/vol: 6.19 (g/mL) g Lab File ID: VK039626.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 11 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	1.47	1.9	~~J~~

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100401010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-05

Sample wt/vol: 3.74 (g/mL) g Lab File ID: VK039627.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 10 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	7.4	U
74-87-3	Chloromethane	7.4	U
75-01-4	Vinyl Chloride	7.4	U
74-83-9	Bromomethane	7.4	U
75-00-3	Chloroethane	7.4	U J
75-69-4	Trichlorofluoromethane	7.4	U
76-13-1	1,1,2-Trichlorotrifluoroethane	7.4	U
75-35-4	1,1-Dichloroethene	7.4	U
67-64-1	Acetone	23	J
75-15-0	Carbon Disulfide	7.4	U
1634-04-4	Methyl tert-butyl Ether	7.4	U
79-20-9	Methyl Acetate	7.6	
75-09-2	Methylene Chloride	7.8	
156-60-5	trans-1,2-Dichloroethene	7.4	U
75-34-3	1,1-Dichloroethane	7.4	U
110-82-7	Cyclohexane	7.4	U
78-93-3	2-Butanone	37	U
56-23-5	Carbon Tetrachloride	7.4	U
156-59-2	cis-1,2-Dichloroethene	7.4	U
67-66-3	Chloroform	7.4	U
71-55-6	1,1,1-Trichloroethane	7.4	U
108-87-2	Methylcyclohexane	7.4	U
71-43-2	Benzene	7.4	U
107-06-2	1,2-Dichloroethane	7.4	U
79-01-6	Trichloroethene	7.4	U
78-87-5	1,2-Dichloropropane	7.4	U
75-27-4	Bromodichloromethane	7.4	U
108-10-1	4-Methyl-2-Pentanone	37	U
108-88-3	Toluene	7.4	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD100401010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-05

Sample wt/vol: 3.74 (g/mL) g Lab File ID: VK039627.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 10 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	7.4	U
10061-01-5	cis-1,3-Dichloropropene	7.4	U
79-00-5	1,1,2-Trichloroethane	7.4	U
591-78-6	2-Hexanone	37	U
124-48-1	Dibromochloromethane	7.4	U
106-93-4	1,2-Dibromoethane	7.4	U
127-18-4	Tetrachloroethene	14	
108-90-7	Chlorobenzene	7.4	U
100-41-4	Ethyl Benzene	7.4	U
179601-23-1	m/p-Xylenes	15	U
95-47-6	o-Xylene	7.4	U
100-42-5	Styrene	7.4	U
75-25-2	Bromoform	7.4	U
98-82-8	Isopropylbenzene	7.4	U
79-34-5	1,1,2,2-Tetrachloroethane	7.4	U
541-73-1	1,3-Dichlorobenzene	7.4	U
106-46-7	1,4-Dichlorobenzene	7.4	U
95-50-1	1,2-Dichlorobenzene	7.4	U
96-12-8	1,2-Dibromo-3-Chloropropane	7.4	U
120-82-1	1,2,4-Trichlorobenzene	7.4	U

8/4/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD100401010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-05

Sample wt/vol: 3.74 (g/mL) g Lab File ID: VK039627.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 10 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 2 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	1.46	~~5.3~~	J
~~141-78-6~~	~~Ethyl Acetate~~	2.82	~~16~~	J

8/4/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-07

Sample wt/vol: 7.07 (g/mL) g Lab File ID: VK039573.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 13 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.1	U J
74-87-3	Chloromethane	4.1	U J
75-01-4	Vinyl Chloride	4.1	U J
74-83-9	Bromomethane	4.1	U
75-00-3	Chloroethane	4.1	U J
75-69-4	Trichlorofluoromethane	4.1	U J
76-13-1	1,1,2-Trichlorotrifluoroethane	4.1	U J
75-35-4	1,1-Dichloroethene	4.1	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	4.1	U J
1634-04-4	Methyl tert-butyl Ether	4.1	U
79-20-9	Methyl Acetate	4.1	U
75-09-2	Methylene Chloride	3	J
156-60-5	trans-1,2-Dichloroethene	4.1	U
75-34-3	1,1-Dichloroethane	4.1	U
110-82-7	Cyclohexane	4.1	U
78-93-3	2-Butanone	20	U
56-23-5	Carbon Tetrachloride	4.1	U
156-59-2	cis-1,2-Dichloroethene	4.1	U
67-66-3	Chloroform	4.1	U
71-55-6	1,1,1-Trichloroethane	4.1	U
108-87-2	Methylcyclohexane	4.1	U
71-43-2	Benzene	4.1	U
107-06-2	1,2-Dichloroethane	4.1	U
79-01-6	Trichloroethene	4.1	U
78-87-5	1,2-Dichloropropane	4.1	U
75-27-4	Bromodichloromethane	4.1	U
108-10-1	4-Methyl-2-Pentanone	20	U
108-88-3	Toluene	4.1	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-07

Sample wt/vol: 7.07 (g/mL) g Lab File ID: VK039573.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 13 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.1	U
10061-01-5	cis-1,3-Dichloropropene	4.1	U
79-00-5	1,1,2-Trichloroethane	4.1	U
591-78-6	2-Hexanone	20	U
124-48-1	Dibromochloromethane	4.1	U
106-93-4	1,2-Dibromoethane	4.1	U
127-18-4	Tetrachloroethene	96	
108-90-7	Chlorobenzene	4.1	U
100-41-4	Ethyl Benzene	4.1	U
179601-23-1	m/p-Xylenes	8.1	U
95-47-6	o-Xylene	4.1	U
100-42-5	Styrene	4.1	U
75-25-2	Bromoform	4.1	U
98-82-8	Isopropylbenzene	4.1	U
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U
541-73-1	1,3-Dichlorobenzene	4.1	U
106-46-7	1,4-Dichlorobenzene	4.1	U
95-50-1	1,2-Dichlorobenzene	4.1	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.1	U
120-82-1	1,2,4-Trichlorobenzene	4.1	U

8/4/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD101100210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-07

Sample wt/vol: 7.07 (g/mL) g Lab File ID: VK039573.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 13 Date Analyzed: 06/15/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	1.47	~~1.6~~	~~J~~

9/4/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW01502010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-10

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036890.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1.8	
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1.2	
71-43-2	Benzene	2	
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW01502010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-10

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036890.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	3.8	
10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1.8	
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	0.57	J
179601-23-1	m/p-Xylenes	2.9	
95-47-6	o-Xylene	1.2	
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

8/4/10

CHEMTECH

-1E-

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCGW01502010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-10

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036890.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/L

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
95-63-6	1,2,4-Trimethylbenzene	9.32	1.4	J

8/4/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW01402010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-11

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036891.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	0.76	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	0.88	J

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW01402010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-11

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036891.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1.2	
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW01302010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-12

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036892.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

(ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	0.91	J

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCGW01302010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-12

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036892.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	1.2	J
95-47-6	o-Xylene	0.51	J
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

6/14/10

CHEMTECH

-1E-

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCGW01302010XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-12

Sample wt/vol: 5 (g/mL) ml Lab File ID: VH036892.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/16/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: Soil Aliquot Volume:

Number TICS found: 1 Concentration Units: ug/L

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
95-63-6	1,2,4-Trimethylbenzene	9.32	0.72	J

8/4/10

FORM I SV-TIC

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101000210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-17

Sample wt/vol: 6.17 (g/mL) g Lab File ID: VK039633.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.8	U
74-87-3	Chloromethane	4.8	U
75-01-4	Vinyl Chloride	4.8	U
74-83-9	Bromomethane	4.8	U
75-00-3	Chloroethane	4.8	U J
75-69-4	Trichlorofluoromethane	4.8	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.8	U
75-35-4	1,1-Dichloroethene	4.8	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	4.8	U
1634-04-4	Methyl tert-butyl Ether	4.8	U
79-20-9	Methyl Acetate	4.8	U
75-09-2	Methylene Chloride	4	J
156-60-5	trans-1,2-Dichloroethene	4.8	U
75-34-3	1,1-Dichloroethane	4.8	U
110-82-7	Cyclohexane	4.8	U
78-93-3	2-Butanone	24	U
56-23-5	Carbon Tetrachloride	4.8	U
156-59-2	cis-1,2-Dichloroethene	4.8	U
67-66-3	Chloroform	4.8	U
71-55-6	1,1,1-Trichloroethane	4.8	U
108-87-2	Methylcyclohexane	4.8	U
71-43-2	Benzene	4.8	U
107-06-2	1,2-Dichloroethane	4.8	U
79-01-6	Trichloroethene	4.8	U
78-87-5	1,2-Dichloropropane	4.8	U
75-27-4	Bromodichloromethane	4.8	U
108-10-1	4-Methyl-2-Pentanone	24	U
108-88-3	Toluene	4.8	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101000210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-17

Sample wt/vol: 6.17 (g/mL) g Lab File ID: VK039633.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.8	U
10061-01-5	cis-1,3-Dichloropropene	4.8	U
79-00-5	1,1,2-Trichloroethane	4.8	U
591-78-6	2-Hexanone	24	U
124-48-1	Dibromochloromethane	4.8	U
106-93-4	1,2-Dibromoethane	4.8	U
127-18-4	Tetrachloroethene	63	
108-90-7	Chlorobenzene	4.8	U
100-41-4	Ethyl Benzene	4.8	U
179601-23-1	m/p-Xylenes	9.6	U
95-47-6	o-Xylene	4.8	U
100-42-5	Styrene	4.8	U
75-25-2	Bromoform	4.8	U
98-82-8	Isopropylbenzene	4.8	U
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U
541-73-1	1,3-Dichlorobenzene	4.8	U
106-46-7	1,4-Dichlorobenzene	4.8	U
95-50-1	1,2-Dichlorobenzene	4.8	U
96-12-8	1,2-Dibromo-3-Chloropropane	4.8	U
120-82-1	1,2,4-Trichlorobenzene	4.8	U

7/14/10

CHEMTECH

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD101000210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-17

Sample wt/vol: 6.17 (g/mL) g Lab File ID: VK039633.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 16 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume: _____

Number TICS found: 2 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	~~Diethyl Ether~~	~~1.46~~	~~2.8~~	~~J~~
~~000110-54-3~~	~~Hexane~~	1.96	6.6	J

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101400210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-18

Sample wt/vol: 6.57 (g/mL) g Lab File ID: VK039629.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 9 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	4.2	U
74-87-3	Chloromethane	4.2	U
75-01-4	Vinyl Chloride	4.2	U
74-83-9	Bromomethane	4.2	U
75-00-3	Chloroethane	4.2	U J
75-69-4	Trichlorofluoromethane	4.2	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.2	U
75-35-4	1,1-Dichloroethene	4.2	U
67-64-1	Acetone	21	U
75-15-0	Carbon Disulfide	4.2	U
1634-04-4	Methyl tert-butyl Ether	4.2	U
79-20-9	Methyl Acetate	4.2	U
75-09-2	Methylene Chloride	4.5	
156-60-5	trans-1,2-Dichloroethene	4.2	U
75-34-3	1,1-Dichloroethane	4.2	U
110-82-7	Cyclohexane	4.2	U
78-93-3	2-Butanone	21	U
56-23-5	Carbon Tetrachloride	4.2	U
156-59-2	cis-1,2-Dichloroethene	4.2	U
67-66-3	Chloroform	4.2	U
71-55-6	1,1,1-Trichloroethane	4.2	U
108-87-2	Methylcyclohexane	4.2	U
71-43-2	Benzene	4.2	U
107-06-2	1,2-Dichloroethane	4.2	U
79-01-6	Trichloroethene	5.1	
78-87-5	1,2-Dichloropropane	4.2	U
75-27-4	Bromodichloromethane	4.2	U
108-10-1	4-Methyl-2-Pentanone	21	U
108-88-3	Toluene	4.2	U

3/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101400210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-18

Sample wt/vol: 6.57 (g/mL) g Lab File ID: VK039629.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 9 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: _____ (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	4.2	U
10061-01-5	cis-1,3-Dichloropropene	4.2	U
79-00-5	1,1,2-Trichloroethane	4.2	U
591-78-6	2-Hexanone	21	U
124-48-1	Dibromochloromethane	4.2	U
106-93-4	1,2-Dibromoethane	4.2	U
* 127-18-4	Tetrachloroethene	1400	E
108-90-7	Chlorobenzene	4.2	U
100-41-4	Ethyl Benzene	4.2	U
179601-23-1	m/p-Xylenes	8.4	U
95-47-6	o-Xylene	4.2	U
100-42-5	Styrene	4.2	U
75-25-2	Bromoform	4.2	U
98-82-8	Isopropylbenzene	4.2	U
79-34-5	1,1,2,2-Tetrachloroethane	4.2	U
541-73-1	1,3-Dichlorobenzene	4.2	U
106-46-7	1,4-Dichlorobenzene	4.2	U
95-50-1	1,2-Dichlorobenzene	0.79	J
96-12-8	1,2-Dibromo-3-Chloropropane	4.2	U
120-82-1	1,2,4-Trichlorobenzene	4.2	U

* Combine with dilution analysis. 8/4/10

CHEMTECH

-1E-

SOIL VOLATILE ANALYSIS

TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
LCPD101400210XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-18

Sample wt/vol: 6.57 (g/mL) g Lab File ID: VK039629.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: not dec. 9 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.18 Dilution Factor: 1

Soil Extract Volume: 5000 Soil Aliquot Volume: _____

Number TICS found: 1 Concentration Units: ug/Kg

(ug/L or ug/Kg)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~60-29-7~~	Diethyl Ether	1.47	~~2.8~~	J

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101400210XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-18DL

Sample wt/vol: 6.04 (g/mL) g Lab File ID: VF022646.D

Level: (low/med) MED Date Received: 06/10/10

% Moisture: not dec. 9 Date Analyzed: 06/18/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
75-71-8	Dichlorodifluoromethane	450	U
74-87-3	Chloromethane	450	U
75-01-4	Vinyl Chloride	450	U
74-83-9	Bromomethane	450	U
75-00-3	Chloroethane	450	U
75-69-4	Trichlorofluoromethane	450	U
76-13-1	1,1,2-Trichlorotrifluoroethane	450	U
75-35-4	1,1-Dichloroethene	450	U
67-64-1	Acetone	2300	U
75-15-0	Carbon Disulfide	450	U
1634-04-4	Methyl tert-butyl Ether	450	U
79-20-9	Methyl Acetate	450	U
75-09-2	Methylene Chloride	450	U
156-60-5	trans-1,2-Dichloroethene	450	U
75-34-3	1,1-Dichloroethane	450	U
110-82-7	Cyclohexane	450	U
78-93-3	2-Butanone	2300	U
56-23-5	Carbon Tetrachloride	450	U
156-59-2	cis-1,2-Dichloroethene	450	U
67-66-3	Chloroform	450	U
71-55-6	1,1,1-Trichloroethane	450	U
108-87-2	Methylcyclohexane	450	U
71-43-2	Benzene	450	U
107-06-2	1,2-Dichloroethane	450	U
79-01-6	Trichloroethene	450	U
78-87-5	1,2-Dichloropropane	450	U
75-27-4	Bromodichloromethane	450	U
108-10-1	4-Methyl-2-Pentanone	2300	U
108-88-3	Toluene	450	U

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101400210XXDL

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-18DL

Sample wt/vol: 6.04 (g/mL) g Lab File ID: VF022646.D

Level: (low/med) MED Date Received: 06/10/10

% Moisture: not dec. 9 Date Analyzed: 06/18/10

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
10061-02-6	t-1,3-Dichloropropene	450	U
10061-01-5	cis-1,3-Dichloropropene	450	U
79-00-5	1,1,2-Trichloroethane	450	U
591-78-6	2-Hexanone	2300	U
124-48-1	Dibromochloromethane	450	U
106-93-4	1,2-Dibromoethane	450	U
127-18-4	Tetrachloroethene	8000	D
108-90-7	Chlorobenzene	450	U
100-41-4	Ethyl Benzene	450	U
179601-23-1	m/p-Xylenes	910	U
95-47-6	o-Xylene	450	U
100-42-5	Styrene	450	U
75-25-2	Bromoform	450	U
98-82-8	Isopropylbenzene	450	U
79-34-5	1,1,2,2-Tetrachloroethane	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
96-12-8	1,2-Dibromo-3-Chloropropane	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U

* Combine with original analysis.

8/4/10

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-20

Sample wt/vol: 5 (g/mL) ml Lab File ID: VF022607.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1	U
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-69-4	Trichlorofluoromethane	1	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
1634-04-4	Methyl tert-butyl Ether	1	U
79-20-9	Methyl Acetate	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
110-82-7	Cyclohexane	1	U
78-93-3	2-Butanone	5	U
56-23-5	Carbon Tetrachloride	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
108-87-2	Methylcyclohexane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
108-88-3	Toluene	1	U

CHEMTECH

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBLANK

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): WATER Lab Sample ID: B2643-20

Sample wt/vol: 5 (g/mL) ml Lab File ID: VF022607.D

Level: (low/med) Date Received: 06/10/10

% Moisture: not dec. 100 Date Analyzed: 06/17/10

GC Column: RTX-VMS ID: 0.53 (mm) Dilution Factor: 1

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
10061-02-6	t-1,3-Dichloropropene	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
127-18-4	Tetrachloroethene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethyl Benzene	1	U
179601-23-1	m/p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064931.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 15 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	390	U J
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2-oxybis(1-Chloropropane)	390	U
98-86-2	Acetophenone	390	U
65794-96-9	3+4-Methylphenols	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U J
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U J
87-68-3	Hexachlorobutadiene	390	U
105-60-2	Caprolactam	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	390	U
92-52-4	1,1-Biphenyl	390	U
91-58-7	2-Chloronaphthalene	390	U

Comments: 8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064931.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 15 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
88-74-4	2-Nitroaniline	390	U
131-11-3	Dimethylphthalate	460	~~B~~ U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	390	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	390	U
100-02-7	4-Nitrophenol	390	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	390	U
534-52-1	4,6-Dinitro-2-methylphenol	390	U J
86-30-6	N-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
1912-24-9	Atrazine	390	U
87-86-5	Pentachlorophenol	390	U J
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	56	J
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3-Dichlorobenzidine	390	U
56-55-3	Benzo(a)anthracene	390	U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064931.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 15 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	J
117-84-0	Di-n-octyl phthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

8/4/10

Comments:

CHEMTECH

-1F-

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Sample wt/vol: 30.08 (g/mL) g Lab File ID: BE064931.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 15 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 12

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
127-18-4	Tetrachloroethylene	4.89	240	J
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~5.3~~	~~540~~	AB
98-83-9	.alpha.-Methylstyrene	7.35	230	J
3910-35-8	1H-Indene, 2,3-dihydro-1,1,3-trime	15.4	130	J
1000297-24-5	3-[(2-Methyl-5-nitro-phenylimino)-	17.64	150	J
	unknown17.8	17.8	130	J
72-56-0	Benzene, 1,1-(2,2-dichloroethylid	18.06	160	J
84-61-7	1,2-Benzenedicarboxylic acid, dicy	19.34	130	J
	unknown19.75	19.75	1200	J
	unknown19.79	19.79	130	J
74579-34-3	3,4-Bis-(methylthio)-quinoline	20.06	510	J
	unknown30.2	30.2	740	J

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Sample wt/vol: 30.1 (g/mL) g Lab File ID: BE064927.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	410	U J
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2-oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	410	U
65794-96-9	3+4-Methylphenols	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
92-52-4	1,1-Biphenyl	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethylphthalate	~~370~~ 410	~~JB~~ U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Sample wt/vol: 30.1 (g/mL) g Lab File ID: BE064927.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	410	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	410	U J
100-02-7	4-Nitrophenol	410	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	410	U
534-52-1	4,6-Dinitro-2-methylphenol	410	U J
86-30-6	N-Nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	410	U
87-86-5	Pentachlorophenol	410	U J
85-01-8	Phenanthrene	160	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	480	
129-00-0	Pyrene	350	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	210	J
218-01-9	Chrysene	240	J
117-81-7	bis(2-Ethylhexyl)phthalate	410	U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Sample wt/vol: 30.1 (g/mL) g Lab File ID: BE064927.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	290	J
207-08-9	Benzo(k)fluoranthene	130	J
50-32-8	Benzo(a)pyrene	220	J
193-39-5	Indeno(1,2,3-cd)pyrene	140	J
53-70-3	Dibenz(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	160	J

8/4/10

Comments:

TLECH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Sample wt/vol: 30.1 (g/mL) g Lab File ID: BE064927.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~5.3~~	~~480~~	~~AB~~
	unknown17.64	17.64	90	J
646-31-1	Tetracosane	21.78	210	J
192-97-2	Benzo[e]pyrene	22.41	180	J

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Sample wt/vol: 30.07 (g/mL) g Lab File ID: BE064928.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 9 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	360	U J
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	2,2-oxybis(1-Chloropropane)	360	U
98-86-2	Acetophenone	360	U
65794-96-9	3+4-Methylphenols	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
105-60-2	Caprolactam	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	360	U
92-52-4	1,1-Biphenyl	360	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	360	U
131-11-3	Dimethylphthalate	400	~~B~~ U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Sample wt/vol: 30.07 (g/mL) g Lab File ID: BE064928.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 9 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
99-09-2	3-Nitroaniline	360	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	360	U J
100-02-7	4-Nitrophenol	360	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	360	U
534-52-1	4,6-Dinitro-2-methylphenol	360	U J
86-30-6	N-Nitrosodiphenylamine	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
1912-24-9	Atrazine	360	U
87-86-5	Pentachlorophenol	360	U J
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3-Dichlorobenzidine	360	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Sample wt/vol: 30.07 (g/mL) g Lab File ID: BE064928.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 9 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
117-84-0	Di-n-octyl phthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

7/4/10

Comments:

CHEMTECH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Sample wt/vol: 30.07 (g/mL) g Lab File ID: BE064928.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 9 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl~~	~~5.3~~	~~460~~	~~AB~~
	unknown17.63	17.63	99	J

8/14/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064926.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 20 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	410	U J
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2-oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	410	U
65794-96-9	3+4-Methylphenols	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
92-52-4	1,1-Biphenyl	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethylphthalate	440	~~B~~ U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064926.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 20 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	410	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	410	U J
100-02-7	4-Nitrophenol	410	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	410	U
534-52-1	4,6-Dinitro-2-methylphenol	410	U J
86-30-6	N-Nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	410	U
87-86-5	Pentachlorophenol	410	U J
85-01-8	Phenanthrene	140	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	260	J
129-00-0	Pyrene	200	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	110	J
218-01-9	Chrysene	130	J
117-81-7	bis(2-Ethylhexyl)phthalate	410	U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064926.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 20 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	150	J
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	100	J
193-39-5	Indeno(1,2,3-cd)pyrene	68	J
53-70-3	Dibenz(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	78	J

6/14/10

Comments:

CHEMTECH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Sample wt/vol: 30.05 (g/mL) g Lab File ID: BE064926.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 20 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 3

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~5.3~~	~~490~~	~~AB~~
	unknown17.64	17.64	99	J
7390-81-0	Oxirane, hexadecyl-	21.28	210	J

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Sample wt/vol: 30.11 (g/mL) g Lab File ID: BE064925.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	410	U J
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)ether	410	U
95-57-8	2-Chlorophenol	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2-oxybis(1-Chloropropane)	410	U
98-86-2	Acetophenone	410	U
65794-96-9	3+4-Methylphenols	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
105-60-2	Caprolactam	410	U
59-50-7	4-Chloro-3-methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
92-52-4	1,1-Biphenyl	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethylphthalate	450	~~B~~ U

Comments:

8/14/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Sample wt/vol: 30.11 (g/mL) g Lab File ID: BE064925.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	410	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	410	U J
100-02-7	4-Nitrophenol	410	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	410	U
534-52-1	4,6-Dinitro-2-methylphenol	410	U J
86-30-6	N-Nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
1912-24-9	Atrazine	410	U
87-86-5	Pentachlorophenol	410	U J
85-01-8	Phenanthrene	110	J
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	240	J
129-00-0	Pyrene	190	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	100	J
218-01-9	Chrysene	130	J
117-81-7	bis(2-Ethylhexyl)phthalate	410	U

Comments:

8/4/10

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Sample wt/vol: 30.11 (g/mL) g Lab File ID: BE064925.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
117-84-0	Di-n-octyl phthalate	410	U
205-99-2	Benzo(b)fluoranthene	160	J
207-08-9	Benzo(k)fluoranthene	54	J
50-32-8	Benzo(a)pyrene	110	J
193-39-5	Indeno(1,2,3-cd)pyrene	72	J
53-70-3	Dibenz(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	83	J

7/4/10

Comments:

CHEMTECH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Sample wt/vol: 30.11 (g/mL) g Lab File ID: BE064925.D

Level: (low/med) LOW Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Concentration Units: ug/Kg

Number TICS found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	5.3	560	AB
57-10-3	n-Hexadecanoic acid	16.71	100	J
	unknown17.64	17.64	100	J
638-66-4	Octadecanal	21.28	490	J

8/4/16

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Sample wt/vol: 30.05 (g/mL) g Lab File ID: P7049485.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 15 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	2	U
319-85-7	beta-BHC	2	U
319-86-8	delta-BHC	2	U
58-89-9	gamma-BHC	2	U
76-44-8	Heptachlor	2	U
309-00-2	Aldrin	2	U
1024-57-3	Heptachlor epoxide	2	U
959-98-8	Endosulfan I	2	U
60-57-1	Dieldrin	3.2	J P
72-55-9	4,4-DDE	4.7	
72-20-8	Endrin	2	U
33213-65-9	Endosulfan II	2	U
72-54-8	4,4-DDD	1.3	J
1031-07-8	Endosulfan Sulfate	2	U
50-29-3	4,4-DDT	5.7	
72-43-5	Methoxychlor	12	
53494-70-5	Endrin ketone	2	U
7421-93-4	Endrin aldehyde	2	U
5103-71-9	alpha-Chlordane	2	U
5103-74-2	gamma-Chlordane	2	U
8001-35-2	Toxaphene	20	U

8/5/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Sample wt/vol: 30.11 (g/mL) g Lab File ID: P7049486.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	2.1	U
72-55-9	4,4-DDE	2.1	U
72-20-8	Endrin	2.1	U
33213-65-9	Endosulfan II	2.1	U
72-54-8	4,4-DDD	2.1	U
1031-07-8	Endosulfan Sulfate	2.1	U
50-29-3	4,4-DDT	2.1	U
72-43-5	Methoxychlor	2.1	U
53494-70-5	Endrin ketone	2.1	U
7421-93-4	Endrin aldehyde	2.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	21	U

8/5/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Sample wt/vol: 30.08 (g/mL) g Lab File ID: P7049487.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 9 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	1.9	U
72-55-9	4,4-DDE	1.9	U
72-20-8	Endrin	1.9	U
33213-65-9	Endosulfan II	1.9	U
72-54-8	4,4-DDD	1.9	U
1031-07-8	Endosulfan Sulfate	1.9	U
50-29-3	4,4-DDT	1.9	U
72-43-5	Methoxychlor	1.9	U
53494-70-5	Endrin ketone	1.9	U
7421-93-4	Endrin aldehyde	1.9	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	19	U

6/11/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Sample wt/vol: 30.05 (g/mL) g Lab File ID: P7049488.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 20 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	2.1	U
72-55-9	4,4-DDE	3	J P
72-20-8	Endrin	2.1	U
33213-65-9	Endosulfan II	2.1	U
72-54-8	4,4-DDD	2.1	U
1031-07-8	Endosulfan Sulfate	2.1	U
50-29-3	4,4-DDT	3.1	
72-43-5	Methoxychlor	2.1	U
53494-70-5	Endrin ketone	2.1	U
7421-93-4	Endrin aldehyde	2.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	21	U

Comments: 8/5/10

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Sample wt/vol: 30.06 (g/mL) g Lab File ID: P7049489.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	2.1	U
72-55-9	4,4-DDE	2.7	JP
72-20-8	Endrin	2.1	U
33213-65-9	Endosulfan II	2.1	U
72-54-8	4,4-DDD	2.1	U
1031-07-8	Endosulfan Sulfate	2.1	U
50-29-3	4,4-DDT	2.9	
72-43-5	Methoxychlor	2.1	U
53494-70-5	Endrin ketone	2.1	U
7421-93-4	Endrin aldehyde	2.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	21	U

Comments:

8/5/10

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Sample wt/vol: 30.05 (g/mL) g Lab File ID: P6040141.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 15 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/14/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	20	U
11104-28-2	Aroclor-1221	20	U
11141-16-5	Aroclor-1232	20	U
53469-21-9	Aroclor-1242	20	U
12672-29-6	Aroclor-1248	20	U
11097-69-1	Aroclor-1254	20	U
11096-82-5	Aroclor-1260	20	U

6/14/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Sample wt/vol: 30.11 (g/mL) g Lab File ID: P6040142.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/14/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	21	U
11104-28-2	Aroclor-1221	21	U
11141-16-5	Aroclor-1232	21	U
53469-21-9	Aroclor-1242	21	U
12672-29-6	Aroclor-1248	21	U
11097-69-1	Aroclor-1254	21	U
11096-82-5	Aroclor-1260	21	U

8/4/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Sample wt/vol: 30.08 (g/mL) g Lab File ID: P6040143.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 9 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/14/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	19	U
11104-28-2	Aroclor-1221	19	U
11141-16-5	Aroclor-1232	19	U
53469-21-9	Aroclor-1242	19	U
12672-29-6	Aroclor-1248	19	U
11097-69-1	Aroclor-1254	19	U
11096-82-5	Aroclor-1260	19	U

8/4/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Sample wt/vol: 30.05 (g/mL) g Lab File ID: P6040144.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 20 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/14/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	21	U
11104-28-2	Aroclor-1221	21	U
11141-16-5	Aroclor-1232	21	U
53469-21-9	Aroclor-1242	21	U
12672-29-6	Aroclor-1248	21	U
11097-69-1	Aroclor-1254	21	U
11096-82-5	Aroclor-1260	21	U

2/4/10

Comments:

CHEMTECH

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Sample wt/vol: 30.06 (g/mL) g Lab File ID: P6040145.D

Level: (low/med) Low Date Received: 06/10/10

% Moisture: 19 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/14/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: N/A Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
12674-11-2	Aroclor-1016	21	U
11104-28-2	Aroclor-1221	21	U
11141-16-5	Aroclor-1232	21	U
53469-21-9	Aroclor-1242	21	U
12672-29-6	Aroclor-1248	21	U
11097-69-1	Aroclor-1254	21	U
11096-82-5	Aroclor-1260	21	U

8/4/10

Comments:

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCPD101100110XX

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-06

Level (low/med): LOW Date Received: 6/10/2010

% Solids: 85.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6180	J		P
7440-36-0	Antimony	0.58	J		P
7440-38-2	Arsenic	4.340			P
7440-39-3	Barium	66.6	J		P
7440-41-7	Beryllium	0.30			P
7440-43-9	Cadmium	0.79			P
7440-70-2	Calcium	6320	J		P
7440-47-3	Chromium	8.640			P
7440-48-4	Cobalt	5.790			P
7440-50-8	Copper	21.0			P
7439-89-6	Iron	13900	J		P
7439-92-1	Lead	44.1			P
7439-95-4	Magnesium	1790	J		P
7439-96-5	Manganese	343	J		P
7439-97-6	Mercury	0.134	J		CV
7440-02-0	Nickel	12.8			P
7440-09-7	Potassium	400	J		P
7782-49-2	Selenium	1.920	J		P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium	120	J		P
7440-28-0	Thallium	1.600	U		P
7440-62-2	Vanadium	9.880			P
7440-66-6	Zinc	76.4	J		P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

8/4/10

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00100110XX

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-13

Level (low/med): LOW Date Received: 6/10/2010

% Solids: 80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7050	J		P
7440-36-0	Antimony	0.70	J		P
7440-38-2	Arsenic	5.670			P
7440-39-3	Barium	83.2	J		P
7440-41-7	Beryllium	0.42			P
7440-43-9	Cadmium	1.090			P
7440-70-2	Calcium	3400	J		P
7440-47-3	Chromium	12.6			P
7440-48-4	Cobalt	8.350			P
7440-50-8	Copper	15.6			P
7439-89-6	Iron	16600	J		P
7439-92-1	Lead	47.9			P
7439-95-4	Magnesium	2480	J		P
7439-96-5	Manganese	488	J		P
7439-97-6	Mercury	0.088	J		CV
7440-02-0	Nickel	17.8			P
7440-09-7	Potassium	767	J		P
7782-49-2	Selenium	2.280	J		P
7440-22-4	Silver	0.42	U		P
7440-23-5	Sodium	605	J		P
7440-28-0	Thallium	1.700	U		P
7440-62-2	Vanadium	11.2			P
7440-66-6	Zinc	77.1	J		P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00200110XX

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-14

Level (low/med): LOW Date Received: 6/10/2010

% Solids: 90.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5430	J		P
7440-36-0	Antimony	2.580	U		P
7440-38-2	Arsenic	3.940			P
7440-39-3	Barium	36.7	J		P
7440-41-7	Beryllium	0.26	J		P
7440-43-9	Cadmium	0.66			P
7440-70-2	Calcium	13000	J		P
7440-47-3	Chromium	7.690			P
7440-48-4	Cobalt	5.570			P
7440-50-8	Copper	18.1			P
7439-89-6	Iron	13500	J		P
7439-92-1	Lead	12.1			P
7439-95-4	Magnesium	4840	J		P
7439-96-5	Manganese	317	J		P
7439-97-6	Mercury	0.017	J		CV
7440-02-0	Nickel	13.0			P
7440-09-7	Potassium	382	J		P
7782-49-2	Selenium	1.680	J		P
7440-22-4	Silver	0.52	U		P
7440-23-5	Sodium	96.8	J		P
7440-28-0	Thallium	2.060	U		P
7440-62-2	Vanadium	9.130			P
7440-66-6	Zinc	58.1	J		P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

8/14/10

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XX

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-15

Level (low/med): LOW Date Received: 6/10/2010

% Solids: 79.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5470	J		P
7440-36-0	Antimony	1.080	J		P
7440-38-2	Arsenic	7.690			P
7440-39-3	Barium	93.6	J		P
7440-41-7	Beryllium	0.36	J		P
7440-43-9	Cadmium	0.96			P
7440-70-2	Calcium	2060	J		P
7440-47-3	Chromium	8.800			P
7440-48-4	Cobalt	6.870			P
7440-50-8	Copper	32.8			P
7439-89-6	Iron	13100	J		P
7439-92-1	Lead	144			P
7439-95-4	Magnesium	1540	J		P
7439-96-5	Manganese	415	J		P
7439-97-6	Mercury	0.193	J		CV
7440-02-0	Nickel	12.3			P
7440-09-7	Potassium	507	J		P
7782-49-2	Selenium	2.320	J		P
7440-22-4	Silver	0.63	U		P
7440-23-5	Sodium	188	J		P
7440-28-0	Thallium	2.510	U		P
7440-62-2	Vanadium	9.900			P
7440-66-6	Zinc	113	J		P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

Metals

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCBKSS00300110XD

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Lab Sample ID: B2643-16

Level (low/med): LOW Date Received: 6/10/2010

% Solids: 81.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6400	J		P
7440-36-0	Antimony	1.370	J		P
7440-38-2	Arsenic	9.370			P
7440-39-3	Barium	106	J		P
7440-41-7	Beryllium	0.46			P
7440-43-9	Cadmium	1.370			P
7440-70-2	Calcium	12600	J		P
7440-47-3	Chromium	9.650			P
7440-48-4	Cobalt	7.740			P
7440-50-8	Copper	37.5			P
7439-89-6	Iron	15700	J		P
7439-92-1	Lead	190			P
7439-95-4	Magnesium	2290	J		P
7439-96-5	Manganese	467	J		P
7439-97-6	Mercury	0.164	J		CV
7440-02-0	Nickel	14.9			P
7440-09-7	Potassium	584	J		P
7782-49-2	Selenium	2.730	J		P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium	211	J		P
7440-28-0	Thallium	2.000	U		P
7440-62-2	Vanadium	11.3			P
7440-66-6	Zinc	137	J		P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments: _____

VOCs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Corning
Method : SW-846 8260B
Laboratory and SDG(s): Chemtech **SDG# B2643**
Date:
Reviewer:
Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. X **Case Narrative Review and COC/Data Package Completeness** COMMENTS
   Were problems noted? No.
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. X **Holding time and Sample Collection**
   All samples were analyzed within the 14 day holding time. (YES) NO (circle one)

3. X **QC Blanks**
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Trip blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   X **Instrument Tuning**
   Were all results were within method criteria. (YES) NO (circle one)

   X **Instrument Calibration** Were all results within criteria? YES (NO) (circle one)
   Initial Calibration %RSD = 20% **(30% for 1,1-DCE, chloroform, 1,2-DCP, toluene, ethylbenzene, VC)**
   Initial Avg RRF and Continuing RRF should be ≥ 0.05 and 0.10 for Chloromethane, 1,1-Dichloroethane, Bromoform and 0.30 for Chlorobenzene and 1,1,2,2-Tetrachloroethane

For a subset of samples, the percent relative standard deviation (RSD) for dichlorodifluoromethane (29) and acetone (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were non detect and the reporting limits were qualified estimated (UJ).

For a subset of samples, the RSD for chloroethane (24) exceeded the QC limit of 20. Associated sample results for chloroethane were non detect and the reporting limits were qualified estimated (UJ).

Continuing Calibration %D = 20%

For a subset of samples, the percent difference for dichlorodifluoromethane (34), trichlorofluoromethane (24), acetone (27), 1,2-dichloropropane (22), bromodichloromethane (21), 4-methyl-2-pentanone (26), toluene (21), trans-1,3-dichloropropene (24), cis-1,3-dichloropropene (21), 1,1,2-trichloroethane (27), 2-hexanone (38), 1,2-dibromoethane (25), and styrene (22) exceeded the QC limit of 20. Associated sample results for dichlorodifluoromethane and acetone were qualified previously under the initial calibration criteria. Associated sample results for trichlorofluoromethane, 1,2-dichloropropane, bromodichloromethane, 4-methyl-2-pentanone, toluene, trans-1,3-dichloropropene, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 2-hexanone, 1,2-dibromoethane, and styrene were non detect and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for dichlorodifluoromethane (50), chloromethane (27), vinyl chloride (28), chloroethane (31), trichlorofluoromethane (23), carbon disulfide (21), and 1,1,2-trichloro-1,2,2-trifluoroethane (24) exceeded the QC limit of 20. The associated sample result for chloroethane was non detect and was qualified previously under the initial calibration criteria. Associated sample results for dichlorodifluoromethane , chloromethane, vinyl chloride, chloroethane, trichlorofluoromethane, carbon disulfide, and 1,1,2-trichloro-1,2,2-trifluoroethane were non detect and the reporting limits were qualified estimated (UJ).

For a subset of samples, the percent difference for chloroethane (47) exceeded the QC limit of 20. The associated sample results for chloroethane were non detect and were qualified previously under the initial calibration criteria.

X **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

Were all results were within Region II limits? (YES) NO (circle one)

X **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)

Were MS/MSDs submitted/analyzed? (YES) NO

Were all results were within the Region II limits? YES (NO) NA (circle one)

X **Duplicates/replicates** - Region II Limits (water RPD 50, soil RPD 100)

Were Field Duplicates submitted/analyzed? (YES) NO

Were all results were within Region II Limits? (YES) NO NA (circle one)

X **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

Were all results were within Region II control limits? YES (NO) (circle one)

For a subset of samples, the LCS percent recovery of chloroethane (145) exceeded the QC limit of 130. Sample results for chloroethane were non detect, no further action required.

4. X **Raw Data Review and Calculation Checks**

5. X **Electronic Data Review and Edits**
   Does the EDD match the Form I's? (YES) NO (circle one)

6. X **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? (YES) NO (circle one)

CHEMTECH **Instrument: MSVOA_F**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VF061510

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	HSIN.CHEN	Review On	6/16/2010 12:00:00 AM
Tune/Reschk	VP1608	Initial Calibration Stds	VP1609 to VP1614
CCC	N/A	SubDirectory	VF061510
Internal Standard/PEM	VP1181	HP Acquire Method	MOON
ICV/I.BLK	VP1615	HP Processing Method	82f061510w.m

Sr#	SampleId	Data File Name	Comment	Status
1	BFB TUNE CHECK	VF022571.D		Ok
2	50 PPB ICC	VF022572.D		Ok,M
3	100 PPB ICC	VF022573.D		Ok,M
4	20 PPB ICC	VF022574.D		Ok,M
5	10 PPB ICC	VF022575.D		Ok,M
6	5 PPB ICC	VF022576.D		Ok,M
7	1 PPB ICC	VF022577.D		Ok,M
8	50 PPB ICV	VF022578.D		Not Ok
9	50 PPB ICV	VF022579.D		Ok,M
10	VBF0615M1	VF022580.D		Not Ok
11	VBF0615W1	VF022581.D		Not Ok
12	BSF0615W1	VF022582.D		Not Ok
13	BSF0615W2	VF022583.D	MS error,instrument stop	Not Ok

DC OF M
archive

Method Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\
Method File : 82F061510W.M
Title : SW846 8260
Last Update : Tue Jun 15 17:13:26 2010
Response Via : Initial Calibration

Calibration Files
5 =VF022576.D 10 =VF022575.D 20 =VF022574.D
50 =VF022572.D 100 =VF022573.D 1 =VF022577.D

		Compound	5	10	20	50	100	1	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)	T	Dichlorodifluorom	0.352	0.638	0.572	0.777	0.683	0.390	0.569	29.45
3)	P	Chloromethane	0.454	0.607	0.557	0.670	0.631	0.538	0.576	13.37
4)	CM	Vinyl Chloride	0.512	0.549	0.540	0.617	0.589	0.535	0.557	6.94#
5)	T	Bromomethane	0.263	0.297	0.270	0.313	0.228	0.390	0.294	18.87
6)	T	Chloroethane	0.154	0.184	0.201	0.209	0.153	0.254	0.193	19.77
7)	T	Trichlorofluorome	0.597	0.707	0.653	0.872	0.703	0.736	0.711	13.04
8)	T	Tert butyl alcoho	0.061	0.062	0.060	0.061	0.054	0.098	0.066	24.15
9)	T	Diethyl Ether	0.227	0.251	0.206	0.229	0.207	0.292	0.236	13.68
0)	CM	1,1-Dichloroethen	0.410	0.436	0.372	0.432	0.413	0.541	0.434	13.19#
1)	T	Methyl Iodide	0.577	0.516	0.582	0.647	0.613	0.602	0.589	7.47
2)	T	Acrolein	0.061	0.049	0.048	0.045	0.047	0.075	0.054	21.56
3)	T	1,1,2-Trichlorotr	0.449	0.468	0.415	0.507	0.475	0.574	0.481	11.38
4)	T	Acrylonitrile	0.169	0.163	0.151	0.169	0.151	0.199	0.167	10.66
5)	T	Allyl Chloride	0.750	0.754	0.684	0.752	0.705	0.825	0.745	6.54
6)	T	Acetone	0.216	0.189	0.192	0.225	0.205	0.323	0.225	22.22
7)	T	Carbon Disulfide	1.126	1.308	1.108	1.256	1.175	1.383	1.226	8.83
8)	T	Methyl Acetate	1.338	1.256	1.099	1.203	1.073	1.450	1.236	11.61
9)	T	Methyl tert-butyl	1.417	1.373	1.282	1.465	1.349	1.505	1.399	5.80
0)	T	Methylene Chlorid	0.474	0.484	0.439	0.476	0.435	0.657	0.494	16.66
1)	T	trans-1,2-Dichlor	0.450	0.434	0.404	0.450	0.405	0.490	0.439	7.35
2)	T	Acetonitrile	0.750	0.754	0.684	0.752	0.705	0.825	0.745	6.54
3)	T	Vinyl Acetate	0.633	0.633	0.626	0.706	0.658	0.720	0.663	6.17
4)	P	1,1-Dichloroethan	0.931	0.890	0.812	0.921	0.840	1.013	0.901	7.95
5)	TM	2-Butanone	0.544	0.435	0.424	0.491	0.405	0.519	0.470	11.98
6)	T	2,2-Dichloropropa	0.622	0.586	0.547	0.637	0.584	0.713	0.615	9.33
7)	T	cis-1,2-Dichloroe	0.646	0.600	0.551	0.625	0.580	0.735	0.623	10.32
8)	T	Bromochloromethan	0.325	0.270	0.276	0.267	0.265	0.398	0.300	17.71
9)	CM	Chloroform	1.124	0.990	0.895	1.109	1.029	1.169	1.053	9.62#
0)	T	Ethyl Acetate	1.634	1.433	1.427	1.641	1.598	1.667	1.567	6.91
1)	T	Cyclohexane	0.708	0.683	0.619	0.678	0.605	0.746	0.673	7.93
2)	T	1,1,1-Trichloroet	0.962	0.898	0.759	0.937	0.800	1.046	0.900	11.83
3)	S	1,2-Dichloroethan	0.809	0.803	0.834	0.812	0.734	0.822	0.802	4.37
4)	I	1,4-Difluorobenzene	----------	ISTD	----------					
5)	S	Dibromofluorometh	0.363	0.366	0.334	0.347	0.332	0.345	0.348	4.15
6)	T	1,1-Dichloroprope	0.590	0.541	0.480	0.562	0.488	0.597	0.543	9.22
7)	TM	Carbon Tetrachlor	0.582	0.540	0.476	0.565	0.546	0.533	0.540	6.65
8)	TM	Benzene	1.467	1.355	1.214	1.400	1.321	1.561	1.386	8.67
9)	T	Methacrylonitrile	0.325	0.292	0.270	0.297	0.270	0.320	0.296	7.95
0)	TM	1,2-Dichloroethan	0.662	0.616	0.551	0.630	0.610	0.711	0.630	8.51
1)	T	Isobutyl Alcohol	0.973	0.846	0.822	0.961	0.963	0.997	0.927	7.94
2)	T	Isopropyl Acetate	0.745	0.623	0.646	0.763	0.779	0.810	0.728	10.38
3)	TM	Trichloroethene	0.418	0.380	0.346	0.418	0.407	0.446	0.403	8.66
4)	T	Methylcyclohexane	0.734	0.588	0.507	0.570	0.528	0.514	0.573	14.78
5)	C	1,2-Dichloropropa	0.412	0.376	0.357	0.418	0.413	0.516	0.415	13.23#
6)	T	Dibromomethane	0.323	0.298	0.276	0.331	0.329	0.354	0.318	8.61
7)	T	Bromodichlorometh	0.619	0.567	0.535	0.648	0.646	0.666	0.614	8.44
8)	S	Toluene-d8	1.062	1.057	1.077	1.080	1.115	1.052	1.074	2.13
9)	T	4-Methyl-2-Pentan	0.555	0.496	0.477	0.545	0.497	0.548	0.520	6.41
0)	CM	Toluene	0.909	0.794	0.749	0.892	0.880	0.904	0.855	7.83#
1)	T	t-1,3-Dichloropro	0.640	0.593	0.574	0.673	0.627	0.635	0.624	5.67
2)	T	Methyl Methacryla	0.285	0.266	0.261	0.312	0.316	0.295	0.289	7.95

Method Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\
Method File : 82F061510W.M
Title : SW846 8260
Last Update : Tue Jun 15 17:13:26 2010
Response Via : Initial Calibration

Calibration Files
5 =VF022576.D 10 =VF022575.D 20 =VF022574.D
50 =VF022572.D 100 =VF022573.D 1 =VF022577.D

		Compound	5	10	20	50	100	1	Avg	%RSD
3)	T	cis-1,3-Dichlorop	0.713	0.651	0.626	0.739	0.714	0.730	0.695	6.63
4)	T	1,1,2-Trichloroet	0.361	0.332	0.309	0.370	0.365	0.359	0.350	6.84
5)	T	Ethyl Methacrylat	0.573	0.508	0.501	0.607	0.594	0.551	0.556	7.94
6)	T	1,3-Dichloropropa	0.678	0.592	0.578	0.682	0.682	0.657	0.645	7.37
7)	T	2-Chloroethyl Vin	0.197	0.127	0.128	0.148	0.146	0.196	0.157	20.28
8)	T	2-Hexanone	0.432	0.370	0.362	0.435	0.416	0.379	0.399	8.13
9)	T	Dibromochlorometh	0.446	0.409	0.390	0.495	0.494	0.454	0.448	9.55
0)	T	1,2-Dibromoethane	0.422	0.374	0.356	0.433	0.432	0.425	0.407	8.20
1)	S	4-Bromofluorobenz	0.488	0.485	0.498	0.486	0.491	0.489	0.490	0.95
2)	I	Chlorobenzene-d5	----------ISTD----------							
3)	TM	Tetrachloroethene	0.450	0.408	0.331	0.409	0.393	0.531	0.421	15.81
4)	PM	Chlorobenzene	1.149	1.032	0.946	1.157	1.103	1.158	1.091	7.87
5)	T	1,1,1,2-Tetrachlo	0.447	0.412	0.371	0.470	0.440	0.466	0.434	8.61
6)	C	Ethyl Benzene	0.556	0.495	0.468	0.567	0.527	0.559	0.529	7.58#
7)	T	m/p-Xylenes	0.713	0.633	0.588	0.711	0.655	0.714	0.669	7.87
8)	T	o-Xylene	0.697	0.627	0.584	0.719	0.670	0.678	0.663	7.45
9)	T	Styrene	1.119	1.056	0.988	1.236	1.155	1.046	1.100	8.06
0)	P	Bromoform	0.340	0.316	0.299	0.395	0.381	0.294	0.337	12.61
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)	T	Isopropylbenzene	3.441	3.189	2.948	3.458	3.488	3.342	3.311	6.30
3)	T	n-Amyl Acetate	2.036	1.925	1.804	2.108	2.142	2.015	2.005	6.20
4)	P	1,1,2,2-Tetrachlo	1.178	1.060	1.015	1.155	1.125	1.184	1.119	6.09
5)	T	1,2,3-Trichloropr	0.950	0.842	0.796	0.876	0.801	0.963	0.871	8.30
6)	T	Bromobenzene	0.888	0.806	0.747	0.888	0.907	0.920	0.860	7.89
7)	T	n-propylbenzene	4.332	3.921	3.637	4.203	4.080	4.425	4.100	7.05
8)	T	2-Chlorotoluene	3.116	2.774	2.626	2.830	2.636	3.153	2.856	8.05
9)	T	1,3,5-Trimethylbe	2.857	2.695	2.466	2.851	2.641	2.623	2.689	5.53
0)	T	trans-1,4-Dichlor	0.467	0.446	0.434	0.503	0.455	0.541	0.474	8.50
1)	T	p-ethyltoluene	3.388	2.956	3.111	2.433	3.112	2.973	2.995	10.55
2)	T	4-Chlorotoluene	2.821	2.540	2.340	2.650	2.384	2.624	2.560	6.99
3)	T	tert-Butylbenzene	2.704	2.466	2.370	2.805	2.732	2.563	2.607	6.47
4)	T	1,2,4-Trimethylbe	2.960	2.666	2.491	2.919	2.776	2.819	2.772	6.23
5)	T	sec-Butylbenzene	3.773	3.470	3.232	3.782	3.602	3.668	3.588	5.84
6)	T	p-Isopropyltoluen	2.937	2.739	2.513	2.994	2.922	2.856	2.827	6.25
7)	T	1,3-Dichlorobenze	1.679	1.507	1.406	1.668	1.613	1.796	1.612	8.56
8)	T	1,4-Dichlorobenze	1.728	1.614	1.468	1.728	1.680	1.916	1.689	8.75
9)	T	p-diethylbenzene	1.637	1.402	1.490	1.211	1.618	1.490	1.475	10.60
0)	T	n-Butylbenzene	3.135	2.864	2.612	3.127	2.900	3.063	2.950	6.83
1)	T	Hexachloroethane	0.755	0.691	0.635	0.778	0.757	0.722	0.723	7.28
2)	T	1,2-Dichlorobenze	1.637	1.475	1.362	1.625	1.562	1.594	1.542	6.87
3)	T	1,2,4,5-tetrameth	2.633	2.271	2.444	2.032	2.658	2.254	2.382	10.18
4)	T	1,2-Dibromo-3-Chl	0.242	0.231	0.211	0.253	0.248	0.253	0.240	6.77
5)	T	1,2,4-Trichlorobe	1.042	0.915	0.854	1.094	1.102	1.007	1.002	9.92
6)	T	Hexachlorobutadie	0.493	0.425	0.403	0.505	0.492	0.459	0.463	9.00
7)	T	Naphthalene	2.590	2.326	2.261	2.854	2.812	2.231	2.512	11.11
8)	T	1,2,3-Trichlorobe	0.968	0.810	0.794	1.010	1.005	0.921	0.918	10.40

#) = Out of Range

CHEMTECH

Manual Integration Report

Sequence	VF061710	Instrument	MSVOA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
B2697-01MS	VF022616.D	Trichlorofluoromethane	VISHAL	6/18/2010 10:24:49 AM	apatel	6/18/2010 10:44:05 AM	Peak Integrated by Software incorrectly
B2697-01MSD	VF022617.D	Carbon Disulfide	VISHAL	6/18/2010 10:24:51 AM	apatel	6/18/2010 10:44:10 AM	Peak Integrated by Software incorrectly
B2697-01MSD	VF022617.D	Trichlorofluoromethane	VISHAL	6/18/2010 10:24:51 AM	apatel	6/18/2010 10:44:10 AM	Peak Integrated by Software incorrectly

CHEMTECH **Instrument: MSVOA_F**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VF061710

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	HSIN.CHEN	Review On	6/17/2010 12:00:00 AM
Tune/Reschk	VP1685	Initial Calibration Stds	VP1609 to VP1614
CCC	VP1686	SubDirectory	VF061710
Internal Standard/PEM	VP1181	HP Acquire Method	MOON
ICV/I.BLK	N/A	HP Processing Method	82f061510w.m

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB TUNE CHECK	VF022599.D	17 Jun 2010 11:10	PS	Not Ok
2	BFB TUNE CHECK	VF022600.D	17 Jun 2010 11:48	HC	Ok
3	50 PPB CCC	VF022601.D	17 Jun 2010 12:32	HC	Ok,M
4	VBF0617M1	VF022602.D	17 Jun 2010 13:13	HC	Ok
5	VBF0617W1	VF022603.D	17 Jun 2010 13:41	HC	Ok
6	BSF0617W1	VF022604.D	17 Jun 2010 14:15	HC	Ok,M
7	BSF0617W2	VF022605.D	17 Jun 2010 14:42	HC	Ok,M
8	B2617-03	VF022606.D	17 Jun 2010 15:16	HC	Ok
9	B2643-20RE	VF022607.D	17 Jun 2010 15:43	HC	Ok
10	B2643-02DL	VF022608.D	17 Jun 2010 16:10	HC	Ok
11	BSF0617M1	VF022609.D	17 Jun 2010 16:38	HC	Ok,M
12	0.5 PPB LOD	VF022610.D	17 Jun 2010 17:05	HC	Not Ok
13	2 PPB LOQ	VF022611.D	17 Jun 2010 17:33	HC	Not Ok
14	B2700-02	VF022612.D	17 Jun 2010 18:00	HC	Ok

OK

Data Path : Z:\HPCHEM1\Msvoa F\Data\VF061710\
Data File : VF022601.D
Acq On : 17 Jun 2010 12:32
Operator : HC
Sample : 50 PPB CCC
Misc : 5.0mL,MSVOAF
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 17 12:49:26 2010
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\82F061510W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 15 17:13:26 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	117	0.01
2	T	Dichlorodifluoromethane	0.569	0.610	-7.2	92	0.00
3	P	Chloromethane	0.576	0.566	1.7	99	0.00
4	CM	Vinyl Chloride	0.557	0.544	2.3#	103	-0.01
5	T	Bromomethane	0.294	0.256	12.9	95	0.00
6	T	Chloroethane	0.193	0.196	-1.6	109	0.00
7	T	Trichlorofluoromethane	0.711	0.718	-1.0	96	0.00
8	T	Tert butyl alcohol	0.066	0.058	12.1	110	0.00
9	T	Diethyl Ether	0.236	0.243	-3.0	124	0.00
0	CM	1,1-Dichloroethene	0.434	0.407	6.2#	110	-0.03
1	T	Methyl Iodide	0.589	0.527	10.5	95	0.00
2	T	Acrolein	0.054	0.032	40.7#	83	0.00
3	T	1,1,2-Trichlorotrifluoroeth	0.481	0.459	4.6	106	0.00
4	T	Acrylonitrile	0.167	0.158	5.4	109	0.00
5	T	Allyl Chloride	0.745	0.703	5.6	109	0.00
6	T	Acetone	0.225	0.191	15.1	99	0.00
7	T	Carbon Disulfide	1.226	1.208	1.5	112	0.00
8	T	Methyl Acetate	1.236	1.085	12.2	105	0.00
9	T	Methyl tert-butyl Ether	1.399	1.336	4.5	106	0.00
0	T	Methylene Chloride	0.494	0.449	9.1	110	0.00
1	T	trans-1,2-Dichloroethene	0.439	0.400	8.9	104	0.00
2	T	Acetonitrile	0.745	0.703	5.6	109	0.00
3	T	Vinyl Acetate	0.663	0.652	1.7	108	0.01
4	P	1,1-Dichloroethane	0.901	0.833	7.5	106	0.00
5	TM	2-Butanone	0.470	0.406	13.6	96	0.00
6	T	2,2-Dichloropropane	0.615	0.579	5.9	106	0.00
7	T	cis-1,2-Dichloroethene	0.623	0.572	8.2	107	0.01
8	T	Bromochloromethane	0.300	0.264	12.0	116	0.00
9	CM	Chloroform	1.053	0.983	6.6#	104	0.01
0	T	Ethyl Acetate	1.567	1.473	6.0	105	0.00
1	T	Cyclohexane	0.673	0.621	7.7	107	0.00
2	T	1,1,1-Trichloroethane	0.900	0.803	10.8	100	0.00
3	S	1,2-Dichloroethane-d4	0.802	0.786	2.0	113	0.00
4	I	1,4-Difluorobenzene	1.000	1.000	0.0	114	0.00
5	S	Dibromofluoromethane	0.348	0.330	5.2	109	0.00
6	T	1,1-Dichloropropene	0.543	0.496	8.7	101	0.00
7	TM	Carbon Tetrachloride	0.540	0.509	5.7	103	0.00
8	TM	Benzene	1.386	1.280	7.6	104	0.00
9	T	Methacrylonitrile	0.296	0.279	5.7	107	0.01
0	TM	1,2-Dichloroethane	0.630	0.579	8.1	105	0.01
1	T	Isobutyl Alcohol	0.927	0.883	4.7	105	0.00
2	T	Isopropyl Acetate	0.728	0.687	5.6	103	0.01
3	TM	Trichloroethene	0.403	0.377	6.5	103	0.00
4	T	Methylcyclohexane	0.573	0.510	11.0	102	0.01
5	C	1,2-Dichloropropane	0.415	0.378	8.9#	103	0.01

Data Path : Z:\HPCHEM1\Msvoa F\Data\VF061710\
Data File : VF022601.D
Acq On : 17 Jun 2010 12:32
Operator : HC
Sample : 50 PPB CCC
Misc : 5.0mL,MSVOAF
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 17 12:49:26 2010
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\82F061510W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 15 17:13:26 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
6	T	Dibromomethane	0.318	0.297	6.6	103	0.01
7	T	Bromodichloromethane	0.614	0.577	6.0	102	0.01
8	S	Toluene-d8	1.074	1.069	0.5	113	0.01
9	T	4-Methyl-2-Pentanone	0.520	0.488	6.2	102	0.01
0	CM	Toluene	0.855	0.816	4.6#	104	0.01
1	T	t-1,3-Dichloropropene	0.624	0.609	2.4	103	0.01
2	T	Methyl Methacrylate	0.289	0.284	1.7	104	0.01
3	T	cis-1,3-Dichloropropene	0.695	0.658	5.3	102	0.01
4	T	1,1,2-Trichloroethane	0.350	0.335	4.3	103	0.01
5	T	Ethyl Methacrylate	0.556	0.548	1.4	103	0.01
6	T	1,3-Dichloropropane	0.645	0.614	4.8	103	0.01
7	T	2-Chloroethyl Vinyl ether	0.157	0.132	15.9	102	0.01
8	T	2-Hexanone	0.399	0.378	5.3	99	0.01
9	T	Dibromochloromethane	0.448	0.434	3.1	100	0.02
0	T	1,2-Dibromoethane	0.407	0.388	4.7	102	0.02
1	S	4-Bromofluorobenzene	0.490	0.476	2.9	112	0.01
2	I	Chlorobenzene-d5	1.000	1.000	0.0	113	0.01
3	TM	Tetrachloroethene	0.421	0.349	17.1	96	0.02
4	PM	Chlorobenzene	1.091	1.049	3.8	102	0.01
5	T	1,1,1,2-Tetrachloroethane	0.434	0.419	3.5	101	0.02
6	C	Ethyl Benzene	0.529	0.513	3.0#	102	0.01
7	T	m/p-Xylenes	0.669	0.639	4.5	101	0.01
8	T	o-Xylene	0.663	0.638	3.8	100	0.01
9	T	Styrene	1.100	1.088	1.1	99	0.01
0	P	Bromoform	0.337	0.340	-0.9	97	0.01
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	0.00
2	T	Isopropylbenzene	3.311	3.151	4.8	101	0.01
3	T	n-Amyl Acetate	2.005	1.899	5.3	100	0.01
4	P	1,1,2,2-Tetrachloroethane	1.119	1.054	5.8	101	0.01
5	T	1,2,3-Trichloropropane	0.871	0.799	8.3	101	0.01
6	T	Bromobenzene	0.860	0.818	4.9	102	0.01
7	T	n-propylbenzene	4.100	3.782	7.8	100	0.01
8	T	2-Chlorotoluene	2.856	2.552	10.6	100	0.01
9	T	1,3,5-Trimethylbenzene	2.689	2.593	3.6	101	0.00
0	T	trans-1,4-Dichloro-2-Butene	0.474	0.435	8.2	96	0.01
1	T	p-ethyltoluene	2.995	2.659	11.2	121	0.00
2	T	4-Chlorotoluene	2.560	2.378	7.1	100	0.01
3	T	tert-Butylbenzene	2.607	2.556	2.0	101	0.01
4	T	1,2,4-Trimethylbenzene	2.772	2.620	5.5	100	0.00
5	T	sec-Butylbenzene	3.588	3.349	6.7	98	0.00
6	T	p-Isopropyltoluene	2.827	2.670	5.6	99	0.01
7	T	1,3-Dichlorobenzene	1.612	1.487	7.8	99	0.01
8	T	1,4-Dichlorobenzene	1.689	1.567	7.2	101	0.01
9	T	p-diethylbenzene	1.475	1.262	14.4	116	0.01

Data Path : Z:\HPCHEM1\Msvoa_F\Data\VF061710\
Data File : VF022601.D
Acq On : 17 Jun 2010 12:32
Operator : HC
Sample : 50 PPB CCC
Misc : 5.0mL,MSVOAF
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 17 12:49:26 2010
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\82F061510W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 15 17:13:26 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
0 T	n-Butylbenzene	2.950	2.695	8.6	96	0.01
1 T	Hexachloroethane	0.723	0.655	9.4	94	0.01
2 T	1,2-Dichlorobenzene	1.542	1.449	6.0	99	0.01
3 T	1,2,4,5-tetramethylbenzene	2.382	1.985	16.7	109	0.00
4 T	1,2-Dibromo-3-Chloropropane	0.240	0.215	10.4	94	0.00
5 T	1,2,4-Trichlorobenzene	1.002	0.866	13.6	88	0.01
6 T	Hexachlorobutadiene	0.463	0.376	18.8	83	0.01
7 T	Naphthalene	2.512	2.224	11.5	87	0.01
8 T	1,2,3-Trichlorobenzene	0.918	0.786	14.4	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH **Instrument: MSVOA_F**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VF061810

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	HSIN.CHEN	Review On	6/18/2010 12:00:00 AM
Tune/Reschk	VP1709	Initial Calibration Stds	VP1609 to VP1614
CCC	VP1710	SubDirectory	VF061810
Internal Standard/PEM	VP1181	HP Acquire Method	MOON
ICV/I.BLK	N/A	HP Processing Method	82f061510w.m

Sr#	SampleId	Data File Name	Comment	Status
1	BFB TUNE CHECK	VF022629.D		Ok
2	50 PPB CCC	VF022630.D		Ok,M
3	VBF0618W1	VF022631.D	MS ERROR	Not Ok
4	VBF0618W2	VF022632.D		Ok
5	B2697-02 5X	VF022633.D	T.Blank for this projet is in VF061710	Ok
6	B2697-07 5X	VF022634.D	MS MSD for this projet is in VF061710	Ok
7	BSF0618W1	VF022635.D		Ok,M
8	B2646-05 5X	VF022636.D	Use this	Ok
9	B2697-03 5X	VF022637.D		Ok
10	B2697-04 5X	VF022638.D		Ok
11	B2697-05 5X	VF022639.D		Ok
12	B2697-06 5X	VF022640.D		Ok
13	B2697-08 5X	VF022641.D		Ok
14	B2698-01 5X	VF022642.D	MS -Error	Not Ok
15	T.BLANK 5X	VF022643.D		Ok
16	VBF0618M1	VF022644.D		Ok
17	BSF0618M1	VF022645.D		Ok,M
18	B2643-18DL	VF022646.D		Ok
19	B2667-02 5X	VF022647.D	MS -Error	Not Ok

bad scattuts

Data Path : Z:\HPCHEM1\Msvoa_F\Data\VF061810\
Data File : VF022630.D
Acq On : 18 Jun 2010 10:32
Operator : HC
Sample : 50 PPB CCC
Misc : 5.0mL,MSVOAF
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 18 13:15:52 2010
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\82F061510W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 15 17:13:26 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	1.000	1.000	0.0	79	0.00	
2	T	Dichlorodifluoromethane	0.569	0.765	-34.4#	78	0.00	T
3	P	Chloromethane	0.576	0.673	-16.8	79	0.00	
4	CM	Vinyl Chloride	0.557	0.639	-14.7#	82	-0.02	
5	T	Bromomethane	0.294	0.280	4.8	71	0.00	
6	T	Chloroethane	0.193	0.227	-17.6	86	0.00	
7	T	Trichlorofluoromethane	0.711	0.880	-23.8#	80	0.00	T
8	T	Tert butyl alcohol	0.066	0.068	-3.0	88	0.00	
9	T	Diethyl Ether	0.236	0.259	-9.7	89	0.00	
0	CM	1,1-Dichloroethene	0.434	0.463	-6.7#	85	-0.04	
1	T	Methyl Iodide	0.589	0.637	-8.1	78	0.00	
2	T	Acrolein	0.054	0.037	31.5#	65	0.00	NT
3	T	1,1,2-Trichlorotrifluoroeth	0.481	0.530	-10.2	83	0.00	
4	T	Acrylonitrile	0.167	0.175	-4.8	82	0.00	
5	T	Allyl Chloride	0.745	0.744	0.1	78	0.00	
6	T	Acetone	0.225	0.285	-26.7#	100	0.00	T
7	T	Carbon Disulfide	1.226	1.388	-13.2	87	0.00	
8	T	Methyl Acetate	1.236	1.231	0.4	81	0.00	
9	T	Methyl tert-butyl Ether	1.399	1.500	-7.2	81	0.00	
0	T	Methylene Chloride	0.494	0.510	-3.2	85	0.00	
1	T	trans-1,2-Dichloroethene	0.439	0.460	-4.8	81	0.00	
2	T	Acetonitrile	0.745	0.744	0.1	78	0.00	
3	T	Vinyl Acetate	0.663	0.775	-16.9	87	0.00	
4	P	1,1-Dichloroethane	0.901	0.990	-9.9	85	0.00	
5	TM	2-Butanone	0.470	0.542	-15.3	87	0.00	
6	T	2,2-Dichloropropane	0.615	0.693	-12.7	86	0.00	
7	T	cis-1,2-Dichloroethene	0.623	0.680	-9.1	86	0.00	
8	T	Bromochloromethane	0.300	0.295	1.7	87	0.00	
9	CM	Chloroform	1.053	1.179	-12.0#	84	0.00	
0	T	Ethyl Acetate	1.567	1.986	-26.7#	96	0.00	NT
1	T	Cyclohexane	0.673	0.694	-3.1	81	0.00	
2	T	1,1,1-Trichloroethane	0.900	0.999	-11.0	84	0.00	
3	S	1,2-Dichloroethane-d4	0.802	0.860	-7.2	84	0.00	
4	I	1,4-Difluorobenzene	1.000	1.000	0.0	81	0.00	
5	S	Dibromofluoromethane	0.348	0.315	9.5	74	0.00	
6	T	1,1-Dichloropropene	0.543	0.572	-5.3	83	0.00	
7	TM	Carbon Tetrachloride	0.540	0.602	-11.5	87	0.00	
8	TM	Benzene	1.386	1.596	-15.2	93	0.00	
9	T	Methacrylonitrile	0.296	0.332	-12.2	91	0.00	
0	TM	1,2-Dichloroethane	0.630	0.726	-15.2	94	0.00	
1	T	Isobutyl Alcohol	0.927	1.129	-21.8#	96	0.00	NT
2	T	Isopropyl Acetate	0.728	0.924	-26.9#	99	0.00	NT
3	TM	Trichloroethene	0.403	0.460	-14.1	90	0.00	
4	T	Methylcyclohexane	0.573	0.628	-9.6	90	0.00	
5	C	1,2-Dichloropropane	0.415	0.506	-21.9#	99	0.00	T

Data Path : Z:\HPCHEM1\Msvoa F\Data\VF061810\
Data File : VF022630.D
Acq On : 18 Jun 2010 10:32
Operator : HC
Sample : 50 PPB CCC
Misc : 5.0mL,MSVOAF
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 18 13:15:52 2010
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\82F061510W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 15 17:13:26 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
6	T	Dibromomethane	0.318	0.386	-21.4#	95	0.00
7	T	Bromodichloromethane	0.614	0.743	-21.0#	93	0.00
8	S	Toluene-d8	1.074	1.126	-4.8	85	0.00
9	T	4-Methyl-2-Pentanone	0.520	0.656	-26.2#	98	0.00
0	CM	Toluene	0.855	1.038	-21.4#	95	0.00
1	T	t-1,3-Dichloropropene	0.624	0.776	-24.4#	94	0.00
2	T	Methyl Methacrylate	0.289	0.353	-22.1#	92	0.00
3	T	cis-1,3-Dichloropropene	0.695	0.838	-20.6#	92	0.00
4	T	1,1,2-Trichloroethane	0.350	0.444	-26.9#	98	0.00
5	T	Ethyl Methacrylate	0.556	0.706	-27.0#	95	0.00
6	T	1,3-Dichloropropane	0.645	0.810	-25.6#	97	0.00
7	T	2-Chloroethyl Vinyl ether	0.157	0.165	-5.1	90	0.00
8	T	2-Hexanone	0.399	0.551	-38.1#	103	0.00
9	T	Dibromochloromethane	0.448	0.556	-24.1#	91	0.00
0	T	1,2-Dibromoethane	0.407	0.509	-25.1#	96	0.00
1	S	4-Bromofluorobenzene	0.490	0.530	-8.2	89	0.00
2	I	Chlorobenzene-d5	1.000	1.000	0.0	87	0.00
3	TM	Tetrachloroethene	0.421	0.398	5.5	85	0.00
4	PM	Chlorobenzene	1.091	1.269	-16.3	96	0.00
5	T	1,1,1,2-Tetrachloroethane	0.434	0.492	-13.4	92	0.00
6	C	Ethyl Benzene	0.529	0.607	-14.7#	94	0.00
7	T	m/p-Xylenes	0.669	0.762	-13.9	94	0.00
8	T	o-Xylene	0.663	0.771	-16.3	94	0.00
9	T	Styrene	1.100	1.338	-21.6#	95	0.00
0	P	Bromoform	0.337	0.404	-19.9	90	0.00
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	86	0.00
2	T	Isopropylbenzene	3.311	3.812	-15.1	95	0.00
3	T	n-Amyl Acetate	2.005	2.505	-24.9#	102	0.00
4	P	1,1,2,2-Tetrachloroethane	1.119	1.344	-20.1#	100	0.00
5	T	1,2,3-Trichloropropane	0.871	0.995	-14.2	98	0.00
6	T	Bromobenzene	0.860	0.962	-11.9	93	0.00
7	T	n-propylbenzene	4.100	4.640	-13.2	95	0.00
8	T	2-Chlorotoluene	2.856	3.076	-7.7	93	0.00
9	T	1,3,5-Trimethylbenzene	2.689	3.127	-16.3	94	0.00
0	T	trans-1,4-Dichloro-2-Butene	0.474	0.545	-15.0	93	0.00
1	T	p-ethyltoluene	2.995	2.877	3.9	102	0.00
2	T	4-Chlorotoluene	2.560	2.897	-13.2	94	0.00
3	T	tert-Butylbenzene	2.607	3.129	-20.0#	96	0.00
4	T	1,2,4-Trimethylbenzene	2.772	3.177	-14.6	93	0.00
5	T	sec-Butylbenzene	3.588	4.112	-14.6	93	0.00
6	T	p-Isopropyltoluene	2.827	3.205	-13.4	92	0.00
7	T	1,3-Dichlorobenzene	1.612	1.795	-11.4	92	0.00
8	T	1,4-Dichlorobenzene	1.689	1.876	-11.1	93	0.00
9	T	p-diethylbenzene	1.475	1.404	4.8	100	0.00

Data Path : Z:\HPCHEM1\Msvoa_F\Data\VF061810\
Data File : VF022630.D
Acq On : 18 Jun 2010 10:32
Operator : HC
Sample : 50 PPB CCC
Misc : 5.0mL,MSVOAF
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 18 13:15:52 2010
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_F\METHOD\82F061510W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 15 17:13:26 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
0 T	n-Butylbenzene	2.950	3.323	-12.6	91	0.00
1 T	Hexachloroethane	0.723	0.794	-9.8	88	0.00
2 T	1,2-Dichlorobenzene	1.542	1.752	-13.6	93	0.00
3 T	1,2,4,5-tetramethylbenzene	2.382	2.218	6.9	94	0.00
4 T	1,2-Dibromo-3-Chloropropane	0.240	0.269	-12.1	91	0.00
5 T	1,2,4-Trichlorobenzene	1.002	1.035	-3.3	81	0.00
6 T	Hexachlorobutadiene	0.463	0.428	7.6	73	0.00
7 T	Naphthalene	2.512	2.820	-12.3	85	0.00
8 T	1,2,3-Trichlorobenzene	0.918	0.952	-3.7	81	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Daily Analysis Runlog For Sequence/QCBatch ID #VH061610

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	HSIN.CHEN	Review On	6/16/2010 12:00:00 AM
Tune/Reschk	VP1645	Initial Calibration Stds	VP1646 to VP1651
CCC	N/A	SubDirectory	VH061610
Internal Standard/PEM	VP1049	HP Acquire Method	MSVOAX_H
ICV/I.BLK	VP1656	HP Processing Method	82h061610w.m

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB TUNE CHECK	VH036869.D	16 Jun 2010 10:03	HC	Not Ok
2	BFB TUNE CHECK	VH036870.D	16 Jun 2010 10:31	HC	Not Ok
3	BFB TUNE CHECK	VH036871.D	16 Jun 2010 11:07	HC	Ok
4	100 PPB ICC	VH036872.D	16 Jun 2010 11:48	HC	Ok
5	50 PPB ICC	VH036873.D	16 Jun 2010 12:14	HC	Not Ok
6	20 PPB ICC	VH036874.D	16 Jun 2010 12:40	HC	Ok
7	10 PPB ICC	VH036875.D	16 Jun 2010 13:07	HC	Ok,M
8	5 PPB ICC	VH036876.D	16 Jun 2010 13:35	HC	Ok,M
9	1 PPB ICC	VH036877.D	16 Jun 2010 14:01	HC	Ok,M
10	50 PPB ICC	VH036878.D	16 Jun 2010 14:39	HC	Ok
11	50 PPB ICV	VH036879.D	16 Jun 2010 16:00	HC	Ok
12	VBH0616M1	VH036880.D	16 Jun 2010 16:24	HC	Not Ok
13	VBH0616W1	VH036881.D	16 Jun 2010 16:50	HC	Ok
14	BSH0616W1	VH036882.D	16 Jun 2010 17:25	HC	Ok
15	BSH0616W2	VH036883.D	16 Jun 2010 17:51	HC	Ok,M
16	0.5 PPB LOD	VH036884.D	16 Jun 2010 18:17	HC	Not Ok
17	2 PPB LOQ	VH036885.D	16 Jun 2010 18:43	HC	Not Ok
18	B2617-03	VH036886.D	16 Jun 2010 19:09	HC	ReRun
19	B2643-20	VH036887.D	16 Jun 2010 19:35	HC	ReRun
20	B2617-01	VH036888.D	16 Jun 2010 20:01	HC	Ok
21	B2617-02	VH036889.D	16 Jun 2010 20:27	HC	Ok

see attached

Trip Blank 2/9

CHEMTECH **Instrument: MSVOAH**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VH061610

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	HSIN.CHEN	Review On	6/16/2010 12:00:00 AM
Tune/Reschk	VP1645	Initial Calibration Stds	VP1646 to VP1651
CCC	N/A	SubDirectory	VH061610
Internal Standard/PEM	VP1049	HP Acquire Method	MSVOAX_H
ICV/I.BLK	VP1656	HP Processing Method	82h061610w.m

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
22	B2643-10	VH036890.D	16 Jun 2010 20:53	HC	Ok
23	B2643-11	VH036891.D	16 Jun 2010 21:19	HC	Ok
24	B2643-12	VH036892.D	16 Jun 2010 21:45	HC	Ok
25	BLANK	VH036893.D	16 Jun 2010 22:10	HC	Ok
26	BLANK	VH036894.D	16 Jun 2010 22:36	HC	Ok

Method Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\
Method File : 82H061610W.M
Title : SW846 8260
Last Update : Wed Jun 16 16:37:50 2010
Response Via : Initial Calibration

Calibration Files
5 =VH036876.D 10 =VH036875.D 20 =VH036874.D
50 =VH036878.D 100 =VH036872.D 1 =VH036877.D

		Compound	5	10	20	50	100	1	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluorom	0.452	0.897	0.813	0.925	0.982	0.563	0.772	27.84
3)	P	Chloromethane	0.539	0.887	0.795	0.832	0.852	0.772	0.779	15.96
4)	CM	Vinyl Chloride	0.595	0.825	0.782	0.842	0.866	0.540	0.742	18.73#
5)	T	Bromomethane	0.404	0.443	0.464	0.453	0.411	0.486	0.443	7.05
6)	T	Chloroethane	0.309	0.373	0.349	0.349	0.295	0.461	0.356	16.56
7)	T	Trichlorofluorome	1.120	1.301	1.230	1.377	1.540	1.090	1.276	13.20
8)	T	Tert butyl alcoho	0.064	0.060	0.058	0.059	0.064	0.073	0.063	8.85
9)	T	Diethyl Ether	0.385	0.425	0.350	0.396	0.375	0.377	0.385	6.52
0)	CM	1,1-Dichloroethen	0.670	0.703	0.637	0.671	0.694	0.673	0.675	3.40#
1)	T	Methyl Iodide	1.203	1.305	1.121	1.271	1.293	1.106	1.216	7.20
2)	T	Acrolein	0.096	0.079	0.102	0.093	0.104	0.157	0.105	25.70
3)	T	1,1,2-Trichlorotr	0.654	0.709	0.731	0.722	0.780	0.728	0.721	5.63
4)	T	Acrylonitrile	0.215	0.223	0.208	0.212	0.224	0.291	0.229	13.54
5)	T	Allyl Chloride	1.061	1.255	1.116	1.149	1.215	1.101	1.149	6.36
6)	T	Acetone	0.217	0.193	0.183	0.203	0.214	0.531	0.257	52.56
7)	T	Carbon Disulfide	2.095	2.351	2.227	2.379	2.333	2.245	2.272	4.64
8)	T	Methyl Acetate	1.381	1.390	1.279	1.333	1.294	2.352	1.505	27.72
9)	T	Methyl tert-butyl	1.875	2.039	1.842	2.048	2.054	2.092	1.992	5.28
0)	T	Methylene Chlorid	0.730	0.785	0.656	0.731	0.742	1.144	0.798	21.85
1)	T	trans-1,2-Dichlor	0.541	0.678	0.585	0.659	0.704	0.784	0.658	13.13
2)	T	Acetonitrile							0.000	-1.00
3)	T	Vinyl Acetate	0.908	0.906	0.894	0.960	0.930	0.965	0.927	3.22
4)	P	1,1-Dichloroethan	1.246	1.314	1.161	1.294	1.342	1.563	1.320	10.22
5)	TM	2-Butanone	0.390	0.422	0.378	0.419	0.430	0.528	0.428	12.42
6)	T	2,2-Dichloropropa	1.052	1.083	0.996	1.038	1.063	1.273	1.084	8.93
7)	T	cis-1,2-Dichloroe	0.820	0.869	0.800	0.832	0.909	0.903	0.856	5.29
8)	T	Bromochloromethan	0.316	0.351	0.320	0.343	0.357	0.296	0.330	7.14
9)	CM	Chloroform	1.468	1.496	1.333	1.455	1.550	1.994	1.549	14.80#
0)	T	Ethyl Acetate	0.875	0.878	0.773	0.876	0.867	1.636	0.984	32.70
1)	T	Cyclohexane	0.995	1.075	0.893	0.948	0.946	1.408	1.044	18.05
2)	T	1,1,1-Trichloroet	1.121	1.192	1.123	1.146	1.270	1.352	1.200	7.74
3)	S	1,2-Dichloroethan	0.848	0.865	0.750	0.711	0.778	0.966	0.820	11.27
4)	I	1,4-Difluorobenzene	----------ISTD----------							
5)	S	Dibromofluorometh	0.443	0.388	0.381	0.376	0.385	0.366	0.390	6.97
6)	T	1,1-Dichloroprope	0.584	0.574	0.511	0.564	0.592	0.585	0.568	5.24
7)	TM	Carbon Tetrachlor	0.601	0.573	0.597	0.624	0.692	0.511	0.600	9.93
8)	TM	Benzene	1.358	1.355	1.240	1.365	1.413	1.143	1.312	7.69
9)	T	Methacrylonitrile	0.256	0.283	0.236	0.266	0.264	0.267	0.262	6.00
0)	TM	1,2-Dichloroethan	0.536	0.479	0.489	0.539	0.571	0.525	0.523	6.56
1)	T	Isobutyl Alcohol							0.000	-1.00
2)	T	Isopropyl Acetate	0.787	0.797	0.724	0.808	0.811	0.974	0.817	10.20
3)	TM	Trichloroethene	0.351	0.343	0.314	0.346	0.370	0.357	0.347	5.39
4)	T	Methylcyclohexane	0.502	0.453	0.422	0.457	0.482	0.506	0.470	6.91
5)	C	1,2-Dichloropropa	0.350	0.333	0.323	0.368	0.379	0.349	0.350	6.01#
6)	T	Dibromomethane	0.270	0.289	0.254	0.282	0.304	0.242	0.274	8.30
7)	T	Bromodichlorometh	0.551	0.527	0.522	0.585	0.619	0.554	0.560	6.60
8)	S	Toluene-d8	1.055	1.052	0.982	0.992	1.046	1.087	1.036	3.91
9)	T	4-Methyl-2-Pentan	0.389	0.377	0.328	0.395	0.395	0.381	0.378	6.69
0)	CM	Toluene	0.814	0.762	0.719	0.809	0.887	0.740	0.788	7.76#
1)	T	t-1,3-Dichloropro	0.550	0.548	0.505	0.571	0.623	0.475	0.545	9.44
2)	T	Methyl Methacryla	0.228	0.247	0.191	0.240	0.265	0.197	0.228	12.75

Method Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\
Method File : 82H061610W.M
Title : SW846 8260
Last Update : Wed Jun 16 16:37:50 2010
Response Via : Initial Calibration

Calibration Files
5 =VH036876.D 10 =VH036875.D 20 =VH036874.D
50 =VH036878.D 100 =VH036872.D 1 =VH036877.D

		Compound	5	10	20	50	100	1	Avg	%RSD
3)	T	cis-1,3-Dichlorop	0.600	0.596	0.518	0.649	0.685	0.467	0.586	13.86
4)	T	1,1,2-Trichloroet	0.283	0.259	0.272	0.313	0.336	0.315	0.296	9.95
5)	T	Ethyl Methacrylat	0.424	0.407	0.377	0.453	0.487	0.452	0.433	8.99
6)	T	1,3-Dichloropropa	0.531	0.533	0.480	0.572	0.591	0.462	0.528	9.50
7)	T	2-Chloroethyl Vin	0.192	0.176	0.164	0.184	0.215	0.185	0.186	9.21
8)	T	2-Hexanone	0.279	0.260	0.211	0.279	0.277	0.295	0.267	11.04
9)	T	Dibromochlorometh	0.291	0.358	0.328	0.380	0.433	0.215	0.334	22.62
0)	T	1,2-Dibromoethane	0.331	0.306	0.304	0.341	0.383	0.283	0.325	10.86
1)	S	4-Bromofluorobenz	0.518	0.485	0.446	0.427	0.446	0.537	0.477	9.26
2)	I	Chlorobenzene-d5	----------	----------	----------	ISTD	----------	----------	----------	
3)	TM	Tetrachloroethene	0.304	0.339	0.309	0.307	0.338	0.255	0.309	9.95
4)	PM	Chlorobenzene	0.981	1.035	0.927	1.045	1.116	0.997	1.017	6.35
5)	T	1,1,1,2-Tetrachlo	0.379	0.399	0.367	0.401	0.431	0.335	0.385	8.52
6)	C	Ethyl Benzene	0.515	0.517	0.485	0.525	0.578	0.438	0.510	9.09#
7)	T	m/p-Xylenes	0.679	0.689	0.597	0.697	0.726	0.572	0.660	9.24
8)	T	o-Xylene	0.630	0.693	0.629	0.692	0.711	0.678	0.672	5.19
9)	T	Styrene	1.169	1.155	1.034	1.114	1.210	1.075	1.126	5.77
0)	P	Bromoform	0.239	0.245	0.245	0.289	0.312	0.165	0.249	20.24
1)	I	1,4-Dichlorobenzene-d	----------	----------	----------	ISTD	----------	----------	----------	
2)	T	Isopropylbenzene	3.611	3.620	3.239	3.596	3.817	4.115	3.666	7.87
3)	T	n-Amyl Acetate	1.885	1.934	1.664	1.868	1.897	2.090	1.890	7.24
4)	P	1,1,2,2-Tetrachlo	1.016	0.995	0.969	1.097	1.047	1.286	1.068	10.82
5)	T	1,2,3-Trichloropr	0.814	0.791	0.724	0.827	0.826	0.745	0.788	5.58
6)	T	Bromobenzene	0.776	0.814	0.773	0.827	0.892	0.688	0.795	8.56
7)	T	n-propylbenzene	4.258	4.295	3.812	4.263	4.355	4.537	4.253	5.64
8)	T	2-Chlorotoluene	2.850	2.708	2.604	2.829	2.882	2.988	2.810	4.82
9)	T	1,3,5-Trimethylbe	2.846	2.902	2.559	2.844	2.972	2.607	2.788	5.98
0)	T	trans-1,4-Dichlor	0.367	0.364	0.304	0.388	0.414	0.389	0.371	10.06
1)	T	p-ethyltoluene							0.000	-1.00
2)	T	4-Chlorotoluene	2.777	2.890	2.471	2.850	2.946	2.784	2.786	6.00
3)	T	tert-Butylbenzene	2.497	2.647	2.413	2.560	2.722	2.571	2.568	4.22
4)	T	1,2,4-Trimethylbe	2.819	3.094	2.658	2.875	3.024	3.104	2.929	6.02
5)	T	sec-Butylbenzene	3.195	3.481	3.035	3.415	3.315	3.564	3.334	5.85
6)	T	p-Isopropyltoluen	2.578	2.633	2.464	2.679	2.726	2.849	2.655	4.94
7)	T	1,3-Dichlorobenze	1.521	1.535	1.353	1.545	1.578	1.636	1.528	6.22
8)	T	1,4-Dichlorobenze	1.502	1.551	1.428	1.570	1.588	1.600	1.540	4.19
9)	T	p-diethylbenzene							0.000	-1.00
0)	T	n-Butylbenzene	2.675	2.744	2.295	2.649	2.612	2.923	2.650	7.76
1)	T	Hexachloroethane	0.583	0.560	0.506	0.542	0.593	0.505	0.548	6.79
2)	T	1,2-Dichlorobenze	1.386	1.477	1.283	1.441	1.520	1.487	1.432	6.01
3)	T	1,2,4,5-tetrameth							0.000	-1.00
4)	T	1,2-Dibromo-3-Chl	0.159	0.211	0.179	0.201	0.209	0.182	0.190	10.77
5)	T	1,2,4-Trichlorobe	0.702	0.695	0.651	0.696	0.752	0.589	0.681	8.11
6)	T	Hexachlorobutadie	0.214	0.227	0.195	0.227	0.239	0.284	0.231	13.05
7)	T	Naphthalene	2.108	2.238	2.041	2.209	2.265	2.332	2.199	4.85
8)	T	1,2,3-Trichlorobe	0.565	0.601	0.563	0.608	0.644	0.703	0.614	8.67

#) = Out of Range

CHEMTECH **Instrument: 5972 - In**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VK061410

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	apatel	Review On	6/15/2010 12:00:00 AM
Tune/Reschk	VP1580	Initial Calibration Stds	VP1587 to VP1592,VP1594
CCC	VP1581,VP1582	SubDirectory	VK061410
Internal Standard/PEM	VP1181	HP Acquire Method	MSVOA_K
ICV/I.BLK	VP1595	HP Processing Method	82K061410S.M

Sr#	SampleId	Data File Name	Comment	Status
1	BFB TUNE CHECK	VK039539.D		Ok
2	50 PPB CCC	VK039540.D	CCC fail	Not Ok
3	20 PPB CCC	VK039541.D	CCC fail	Not Ok
4	20 PPB ICC	VK039542.D	#2,6,18,94-over 15%RSD,kept on AvgRF	Ok,M
5	10 PPB ICC	VK039543.D		Ok,M
6	5 PPB ICC	VK039544.D		Ok,M
7	50 PPB ICC	VK039545.D	bad purge,rerun	Not Ok
8	100 PPB ICC	VK039546.D		Ok,M
9	200 PPB ICC	VK039547.D		Ok,M
10	50 PPB ICC	VK039548.D		Ok,M
11	50 PPB ICV	VK039549.D	#2,6-over 30%Dev(failing)	Ok,M
12	VBK0614S1	VK039550.D		Ok
13	BSK0614S1	VK039551.D		Ok,M
14	B2654-01	VK039552.D		Ok
15	B2654-01MS	VK039553.D	MSD failed	Not Ok
16	B2654-01MSD	VK039554.D	MS error	Not Ok
17	B2654-02	VK039555.D	Instrument stopped after MS error,out of tune time	Not Ok

Method Path : W:\HPCHEM1\MSVOA_K\METHOD\
Method File : 82K061410S.M
Title : SW846 8260
Last Update : Mon Jun 14 16:03:06 2010
Response Via : Initial Calibration

Calibration Files
5 =VK039544.D 10 =VK039543.D 20 =VK039542.D
50 =VK039548.D 100 =VK039546.D 200 =VK039547.D

		Compound	5	10	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)	T	Dichlorodifluorom	0.351	0.386	0.441	0.514	0.525	0.516	0.455	16.39
3)	P	Chloromethane	1.012	1.018	1.105	1.098	1.054	1.054	1.057	3.70
4)	C	Vinyl Chloride	0.768	0.800	0.916	0.825	0.818	0.830	0.826	6.00#
5)	T	Bromomethane	0.702	0.663	0.678	0.632	0.536	0.470	0.614	14.80
6)	T	Chloroethane	0.427	0.441	0.567	0.433	0.337	0.271	0.413	24.45
7)	T	Trichlorofluorome	0.742	0.744	0.956	0.749	0.771	0.791	0.792	10.40
8)		Diethyl Ether	0.545	0.585	0.637	0.584	0.547	0.498	0.566	8.32
9)		1,1-Dichloroethen	0.483	0.518	0.628	0.496	0.499	0.512	0.523	10.17
0)		Carbon Disulfide	2.275	2.452	2.855	2.295	2.290	2.254	2.403	9.66
1)	TM	1,1,2-Trichlorotr	0.490	0.560	0.667	0.524	0.525	0.540	0.551	11.10
2)		Methyl Iodide	0.999	1.059	1.200	1.065	1.073	1.134	1.088	6.39
3)		Acrolein	0.246	0.244	0.274	0.175	0.236	0.231	0.234	13.86
4)		Allyl chloride	1.623	1.581	1.969	1.481	1.448	1.620	1.620	11.45
5)		Methylene Chlorid	0.887	0.915	1.001	0.882	0.853	0.883	0.904	5.75
6)		Acetone	0.187	0.159	0.188	0.225	0.218	0.232	0.202	13.82
7)		trans-1,2-Dichlor	0.505	0.563	0.624	0.514	0.522	0.558	0.548	8.05
8)		Methyl Acetate	0.521	0.510	0.728	0.695	0.715	0.768	0.656	17.03
9)		Methyl tert-butyl	2.447	2.557	2.839	2.684	2.603	2.798	2.655	5.60
0)	T	Tert butyl alcoho	0.142	0.108	0.138	0.138	0.137	0.138	0.133	9.50
1)		Diisoprpyl ether	3.934	3.782	4.198	3.627	3.429	3.623	3.765	7.21
2)		1,1-Dichloroethan	1.463	1.457	1.657	1.373	1.348	1.416	1.452	7.57
3)	T	Acrylonitrile	0.572	0.509	0.595	0.539	0.529	0.561	0.551	5.70
4)		Vinyl Acetate	1.953	1.919	2.178	1.751	1.742	1.682	1.871	9.87
5)		cis-1,2-Dichloroe	0.719	0.761	0.912	0.793	0.783	0.795	0.794	8.12
6)		2,2-Dichloropropa	0.886	0.953	1.138	0.858	0.858	0.880	0.929	11.65
7)		Bromochloromethan	0.322	0.344	0.371	0.365	0.372	0.386	0.360	6.45
8)		Cyclohexane	1.259	1.228	1.474	1.111	1.143	1.149	1.227	10.84
9)		Chloroform	1.303	1.358	1.494	1.264	1.259	1.346	1.337	6.50
0)		Ethyl Acetate	2.228	2.028	2.351	2.132	2.126	2.211	2.179	5.06
1)		Carbon Tetrachlor	0.695	0.680	0.821	0.652	0.672	0.720	0.707	8.54
2)		1,1,1-Trichloroet	0.695	0.714	0.803	0.708	0.687	0.729	0.723	5.80
3)		2-Butanone	1.085	0.972	1.157	1.152	1.162	1.176	1.117	6.97
4)		1,2-Dichloroethan	1.048	0.995	1.145	1.022	1.092	1.227	1.088	7.93
5)		1,4-Difluorobenzene	----------	ISTD	----------					
6)		Dibromofluorometh	0.387	0.383	0.369	0.357	0.371	0.374	0.374	2.93
7)		1,1-Dichloroprope	0.465	0.480	0.508	0.422	0.443	0.463	0.463	6.38
8)		Benzene	1.503	1.418	1.476	1.323	1.290	1.417	1.404	5.97
9)		Methacrylonitrile	0.554	0.482	0.500	0.471	0.480	0.516	0.500	6.14
0)	TM	1,2-Dichloroethan	0.572	0.526	0.529	0.538	0.526	0.565	0.543	3.76
1)		Isopropyl Acetate	1.593	1.407	1.461	1.413	1.423	1.501	1.466	4.85
2)		Isobutyl alcohol							0.000	-1.00
3)	T	Methylcyclohexane	0.579	0.527	0.565	0.446	0.454	0.468	0.507	11.48
4)		Trichloroethene	0.268	0.236	0.289	0.258	0.268	0.283	0.267	7.02
5)	T	Dibromomethane	0.315	0.299	0.293	0.303	0.300	0.313	0.304	2.74
6)		1,2-Dichloropropa	0.473	0.495	0.492	0.464	0.455	0.471	0.475	3.28
7)	T	Bromodichlorometh	0.527	0.528	0.565	0.536	0.541	0.574	0.545	3.66
8)		Methyl Methacryla	0.684	0.616	0.674	0.646	0.653	0.678	0.658	3.90
9)		2-Chloroethyl vin	0.313	0.294	0.303	0.314	0.301	0.319	0.307	3.13
0)	T	cis-1,3-Dichlorop	0.780	0.776	0.791	0.752	0.743	0.764	0.768	2.35
1)		Toluene-d8	1.457	1.494	1.402	1.364	1.386	1.293	1.399	5.06
2)		Toluene	0.841	0.834	0.903	0.775	0.775	0.777	0.818	6.33

Method Path : W:\HPCHEM1\MSVOA_K\METHOD\
Method File : 82K061410S.M
Title : SW846 8260
Last Update : Mon Jun 14 16:03:06 2010
Response Via : Initial Calibration

Calibration Files
5 =VK039544.D 10 =VK039543.D 20 =VK039542.D
50 =VK039548.D 100 =VK039546.D 200 =VK039547.D

		Compound	5	10	20	50	100	200	Avg	%RSD
3)		Tetrachloroethene	0.293	0.288	0.300	0.292	0.301	0.319	0.299	3.66
4)		4-Methyl-2-Pentan	0.992	0.860	0.908	0.857	0.839	0.851	0.885	6.53
5)		t-1,3-Dichloropro	0.682	0.713	0.732	0.708	0.685	0.736	0.709	3.18
6)	T	1,1,2-Trichloroet	0.402	0.373	0.409	0.401	0.394	0.413	0.399	3.52
7)		Ethyl methacrylat	0.751	0.751	0.805	0.800	0.790	0.824	0.787	3.79
8)		Dibromochlorometh	0.372	0.377	0.407	0.416	0.420	0.445	0.406	6.77
9)	T	1,3-Dichloropropa	0.857	0.806	0.803	0.786	0.775	0.793	0.803	3.56
0)		1,2-Dibromoethane	0.443	0.443	0.434	0.449	0.437	0.458	0.444	1.96
1)	S	4-Bromofluorobenz	0.624	0.605	0.586	0.566	0.584	0.559	0.587	4.09
2)	I	Chlorobenzene-d5	ISTD							
3)		2-Hexanone	0.625	0.537	0.623	0.643	0.658	0.667	0.625	7.44
4)	PM	Chlorobenzene	0.794	0.829	0.852	0.789	0.772	0.824	0.810	3.70
5)		Ethyl Benzene	1.407	1.427	1.529	1.299	1.301	1.377	1.390	6.21
6)	T	1,1,1,2-Tetrachlo	0.255	0.273	0.284	0.278	0.286	0.312	0.281	6.71
7)	T	m/p-Xylenes	0.465	0.483	0.521	0.465	0.460	0.484	0.480	4.70
8)	T	o-Xylene	0.486	0.469	0.509	0.449	0.476	0.502	0.482	4.57
9)	T	Styrene	0.832	0.831	0.916	0.850	0.831	0.935	0.866	5.43
0)	P	Bromoform	0.226	0.213	0.247	0.255	0.265	0.310	0.253	13.46
1)	I	1,4-Dichlorobenzene-d	ISTD							
2)	T	Isopropylbenzene	2.416	2.524	2.647	2.242	2.285	2.315	2.405	6.49
3)		n-Amyl Acetate	2.181	2.134	2.309	2.326	2.257	2.393	2.267	4.24
4)		Bromobenzene	0.625	0.680	0.662	0.671	0.645	0.677	0.660	3.21
5)		n-propylbenzene	3.191	3.163	3.441	3.005	2.911	2.925	3.106	6.50
6)	P	1,1,2,2-Tetrachlo	1.207	1.174	1.266	1.250	1.229	1.303	1.238	3.69
7)		p-ethyltoluene	2.279	2.640	2.986	2.346	2.419	2.408	2.513	10.41
8)	T	2-Chlorotoluene	2.298	2.237	2.491	2.164	2.103	2.182	2.246	6.10
9)		1,2,3-Trichloropr	0.939	0.901	0.965	0.989	0.948	1.029	0.962	4.56
0)	T	1,3,5-Trimethylbe	1.971	2.020	2.161	1.905	1.825	1.893	1.962	6.02
1)		trans-1,4-Dichlor	0.554	0.514	0.601	0.624	0.610	0.685	0.598	9.82
2)	T	4-Chlorotoluene	1.985	2.168	2.148	2.031	1.915	2.006	2.042	4.78
3)	T	tert-Butylbenzene	1.794	1.939	2.053	1.708	1.694	1.728	1.819	8.00
4)	T	1,2,4-Trimethylbe	1.915	2.052	2.175	1.947	1.898	1.988	1.996	5.19
5)	T	sec-Butylbenzene	2.756	2.842	3.033	2.502	2.488	2.507	2.688	8.40
6)	T	p-Isopropyltoluen	2.058	2.164	2.310	1.979	1.992	1.997	2.083	6.26
7)	T	1,3-Dichlorobenze	1.185	1.255	1.300	1.217	1.201	1.243	1.234	3.39
8)	T	1,4-Dichlorobenze	1.238	1.302	1.335	1.245	1.224	1.277	1.270	3.35
9)		p-diethylbenzene	1.147	1.311	1.501	1.152	1.249	1.213	1.262	10.49
0)	T	n-Butylbenzene	2.570	2.496	3.151	2.572	2.625	2.177	2.599	12.12
1)		Hexachloroethane	0.431	0.475	0.513	0.474	0.484	0.519	0.483	6.54
2)	T	1,2-Dichlorobenze	1.163	1.242	1.307	1.239	1.186	1.267	1.234	4.27
3)		1,2,4,5-tetrameth	2.077	2.321	2.616	2.179	2.215	2.278	2.281	8.08
4)	T	1,2-Dibromo-3-Chl	0.166	0.166	0.216	0.222	0.226	0.258	0.209	17.43
5)	T	1,2,4-Trichlorobe	0.682	0.783	0.827	0.772	0.762	0.841	0.778	7.25
6)	T	Hexachlorobutadie	0.302	0.322	0.360	0.310	0.328	0.345	0.328	6.60
7)	T	Naphthalene	2.656	2.639	2.868	2.843	2.714	2.996	2.786	5.02
8)	T	1,2,3-Trichlorobe	0.725	0.784	0.832	0.811	0.756	0.828	0.789	5.39

#) = Out of Range

CHEMTECH

Manual Integration Report

Sequence	VK061510	Instrument	MSVOA_k

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
50 PPB CCC	VK039558.D	Trichlorofluoromethane	margret	6/15/2010 11:30:02 AM	apatel	6/16/2010 5:48:07 PM	Peak Integrated by Software incorrectly
BSK0615S1	VK039560.D	Carbon Disulfide	margret	6/15/2010 1:16:43 PM	apatel	6/16/2010 5:48:12 PM	Peak Integrated by Software incorrectly
BSK0615S1	VK039560.D	Trichlorofluoromethane	margret	6/15/2010 1:16:43 PM	apatel	6/16/2010 5:48:12 PM	Peak Integrated by Software incorrectly
B2643-08MS	VK039574.D	Carbon Disulfide	dhairya	6/16/2010 3:03:58 AM	margret	6/16/2010 9:51:12 AM	Peak Integrated by Software incorrectly
B2643-08MS	VK039574.D	Trichlorofluoromethane	dhairya	6/16/2010 3:03:58 AM	margret	6/16/2010 9:51:12 AM	Peak Integrated by Software incorrectly
B2643-09MSD	VK039575.D	Carbon Disulfide	dhairya	6/16/2010 3:03:55 AM	margret	6/16/2010 9:51:17 AM	Peak Integrated by Software incorrectly
B2643-09MSD	VK039575.D	Trichlorofluoromethane	dhairya	6/16/2010 3:03:55 AM	margret	6/16/2010 9:51:17 AM	Peak Integrated by Software incorrectly
B2660-01	VK039583.D	1,2,4,5-tetramethylbenzene	margret	6/16/2010 9:49:26 AM	apatel	6/16/2010 5:48:20 PM	Peak Integrated by Software incorrectly
B2660-01	VK039583.D	1,2,4-Trimethylbenzene	margret	6/16/2010 9:49:26 AM	apatel	6/16/2010 5:48:20 PM	Peak Integrated by Software incorrectly

CHEMTECH **Instrument: 5972 - In**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VK061510

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	apatel	Review On	6/16/2010 12:00:00 AM
Tune/Reschk	VP1602	Initial Calibration Stds	N/A
CCC	VP1603	SubDirectory	VK061510
Internal Standard/PEM	VP1181	HP Acquire Method	MSVOA_K
ICV/I.BLK	N/A	HP Processing Method	82K061410S.M

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB TUNE CHECK	VK039556.D	15 Jun 2010 9:51	MS	Not Ok
2	BFB TUNE CHECK	VK039557.D	15 Jun 2010 10:23	MS	Ok
3	50 PPB CCC	VK039558.D	15 Jun 2010 11:00	MS	Ok,M
4	VBK0615S1	VK039559.D	15 Jun 2010 11:36	MS	Ok
5	BSK0615S1	VK039560.D	15 Jun 2010 12:09	MS	Ok,M

see attached

6	B2654-02	VK039561.D	15 Jun 2010 12:36	MS	Ok
7	B2654-03	VK039562.D	15 Jun 2010 13:03	MS	Ok
8	B2654-04	VK039563.D	15 Jun 2010 13:29	MS	Ok
9	B2654-05	VK039564.D	15 Jun 2010 13:56	MS	Ok
10	B2654-06	VK039565.D	15 Jun 2010 14:23	MS	Ok
11	B2654-07	VK039566.D	15 Jun 2010 14:50	MS	Ok
12	B2654-08	VK039567.D	15 Jun 2010 15:16	MS	Ok
13	B2654-09	VK039568.D	15 Jun 2010 15:43	MS	Ok
14	B2618-18	VK039569.D	15 Jun 2010 16:10	MS	Ok
15	B2618-07	VK039570.D	15 Jun 2010 16:36	MS	Ok
16	B2618-13	VK039571.D	15 Jun 2010 17:03	MS	Dilution
17	B2618-16	VK039572.D	15 Jun 2010 17:29	MS	Ok
18	B2643-07	VK039573.D	15 Jun 2010 17:56	MS	Ok
19	B2643-08MS	VK039574.D	15 Jun 2010 18:22	MS	Ok,M
20	B2643-09MSD	VK039575.D	15 Jun 2010 18:49	MS	Ok,M
21	B2648-01	VK039576.D	15 Jun 2010 19:16	MS	Ok

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061510\
Data File : VK039558.D
Acq On : 15 Jun 2010 11:00
Operator : MS
Sample : 50 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 11:26:33 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K061410S.M
Quant Title : SW846 8260
QLast Update : Mon Jun 14 17:09:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	90	0.00
2	T	Dichlorodifluoromethane	0.455	0.681	-49.7#	119	0.00
3	P	Chloromethane	1.057	1.346	-27.3#	111	0.00
4	C	Vinyl Chloride	0.826	1.058	-28.1#	116	0.00
5	T	Bromomethane	0.614	0.692	-12.7	99	0.00
6	T	Chloroethane	0.413	0.542	-31.2#	113	0.00
7	T	Trichlorofluoromethane	0.792	0.972	-22.7	117	0.00
8	T	Diethyl Ether	0.566	0.661	-16.8	102	0.00
9	CM	1,1-Dichloroethene	0.523	0.610	-16.6#	111	0.00
0	T	Carbon Disulfide	2.403	2.898	-20.6	114	0.00
1	TM	1,1,2-Trichlorotrifluoroeth	0.551	0.684	-24.1	118	0.00
2	T	Methyl Iodide	1.088	1.209	-11.1	102	0.00
3	T	Acrolein	0.234	0.267	-14.1	137	0.00
4	T	Allyl chloride	1.620	1.908	-17.8	116	0.00
5	T	Methylene Chloride	0.904	0.960	-6.2	98	0.00
6	T	Acetone	0.202	0.219	-8.4	88	0.00
7	T	trans-1,2-Dichloroethene	0.548	0.622	-13.5	109	0.00
8	T	Methyl Acetate	0.656	0.739	-12.7	96	0.00
9	T	Methyl tert-butyl Ether	2.655	2.860	-7.7	96	0.00
0	T	Tert butyl alcohol	0.133	0.147	-10.5	96	0.00
1	T	Diisoprpyl ether	3.765	3.980	-5.7	99	0.00
2	P	1,1-Dichloroethane	1.452	1.593	-9.7	105	0.00
3	T	Acrylonitrile	0.551	0.593	-7.6	99	0.00
4	T	Vinyl Acetate	1.871	2.108	-12.7	109	0.00
5	T	cis-1,2-Dichloroethene	0.794	0.907	-14.2	103	0.00
6	T	2,2-Dichloropropane	0.929	1.057	-13.8	111	0.00
7	T	Bromochloromethane	0.360	0.409	-13.6	101	0.00
8	T	Cyclohexane	1.227	1.454	-18.5	118	0.00
9	C	Chloroform	1.337	1.430	-7.0#	102	0.00
0	T	Ethyl Acetate	2.179	2.366	-8.6	100	-0.02
1	T	Carbon Tetrachloride	0.707	0.809	-14.4	112	0.00
2	T	1,1,1-Trichloroethane	0.723	0.824	-14.0	105	0.00
3	T	2-Butanone	1.117	1.204	-7.8	94	0.00
4	S	1,2-Dichloroethane-d4	1.088	1.143	-5.1	101	0.00
5	I	1,4-Difluorobenzene	1.000	1.000	0.0	87	-0.02
6	S	Dibromofluoromethane	0.374	0.393	-5.1	96	0.00
7	T	1,1-Dichloropropene	0.463	0.552	-19.2	114	0.00
8	TM	Benzene	1.404	1.613	-14.9	107	0.00
9	T	Methacrylonitrile	0.500	0.546	-9.2	101	0.00
0	TM	1,2-Dichloroethane	0.543	0.599	-10.3	97	0.00
1	T	Isopropyl Acetate	1.466	1.580	-7.8	98	0.00
2	T	Isobutyl alcohol	0.000	1.580	0.0	0#	0.00
3	T	Methylcyclohexane	0.507	0.567	-11.8	111	0.00
4	TM	Trichloroethene	0.267	0.302	-13.1	102	0.00
5	T	Dibromomethane	0.304	0.347	-14.1	100	0.00

CHEMTECH **Instrument: 5972 - In**

284 Sheffield Street, Mountainside NJ 07092 (908) 789-8900

Daily Analysis Runlog For Sequence/QCBatch ID #VK061710

STD. NAME	STD REF.#	STD. NAME	STD REF.#
Review By	apatel	Review On	6/21/2010 12:00:00 AM
Tune/Reschk	VP1670	Initial Calibration Stds	N/A
CCC	VP1671	SubDirectory	VK061710
Internal Standard/PEM	VP1181	HP Acquire Method	MSVOA_K
ICV/I.BLK	N/A	HP Processing Method	82K061410S.M

Sr#	SampleId	Data File Name	Comment	Status
1	BFB TUNE CHECK	VK039616.D		Ok
2	20 PPB CCC	VK039617.D	#6,14,26,27,52-over 20%Dev on high side	Ok,M
3	VBK0617S1	VK039618.D		Ok
4	BSK0617S1	VK039619.D	#48-failing on high side	Ok,M
5	B2686-05	VK039620.D		Ok
6	B2686-06	VK039621.D		Ok
7	B2686-07	VK039622.D		Ok
8	B2643-01	VK039623.D		Ok
9	B2643-02	VK039624.D	need MeOH	Dilution
10	B2643-03	VK039625.D	possible carry-over,rerun	Not Ok
11	B2643-04	VK039626.D		Ok
12	B2643-05	VK039627.D		Ok
13	B2643-17	VK039628.D	Internal Std out	ReRun
14	B2643-18	VK039629.D	need MeOH	Dilution
15	BLANK	VK039630.D	clean-up blank	Ok
16	BLANK	VK039631.D	clean-up blank	Ok
17	B2643-03	VK039632.D		Ok
18	B2643-17	VK039633.D	use this run	Ok
19	BLANK	VK039634.D	clean-up blank	Ok

→ see attached

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061710\
Data File : VK039617.D
Acq On : 17 Jun 2010 10:15
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 17 11:55:50 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K061410S.M
Quant Title : SW846 8260
QLast Update : Mon Jun 14 17:09:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	Pentafluorobenzene	1.000	1.000	0.0	91	0.00	
2	T	Dichlorodifluoromethane	0.455	0.366	19.6	76	0.00	
3	P	Chloromethane	1.057	1.082	-2.4	89	-0.01	
4	C	Vinyl Chloride	0.826	0.873	-5.7#	87	-0.01	
5	T	Bromomethane	0.614	0.691	-12.5	93	-0.01	
6	T	Chloroethane	0.413	0.607	-47.0#	98	0.00	T
7	T	Trichlorofluoromethane	0.792	0.826	-4.3	79	0.00	
8	T	Diethyl Ether	0.566	0.602	-6.4	86	-0.01	
9	CM	1,1-Dichloroethene	0.523	0.578	-10.5#	84	0.00	
0	T	Carbon Disulfide	2.403	2.575	-7.2	82	0.00	
1	TM	1,1,2-Trichlorotrifluoroeth	0.551	0.602	-9.3	82	-0.01	
2	T	Methyl Iodide	1.088	1.076	1.1	82	0.00	
3	T	Acrolein	0.234	0.264	-12.8	88	0.00	
4	T	Allyl chloride	1.620	1.965	-21.3	91	0.00	MT
5	T	Methylene Chloride	0.904	0.925	-2.3	84	0.00	
6	T	Acetone	0.202	0.175	13.4	85	0.00	
7	T	trans-1,2-Dichloroethene	0.548	0.601	-9.7	88	0.00	
8	T	Methyl Acetate	0.656	0.691	-5.3	87	-0.01	
9	T	Methyl tert-butyl Ether	2.655	2.850	-7.3	92	0.00	
0	T	Tert butyl alcohol	0.133	0.144	-8.3	95	0.00	
1	T	Diisoprpyl ether	3.765	4.153	-10.3	90	0.00	
2	P	1,1-Dichloroethane	1.452	1.619	-11.5	89	0.00	
3	T	Acrylonitrile	0.551	0.567	-2.9	87	0.00	
4	T	Vinyl Acetate	1.871	1.998	-6.8	84	0.00	
5	T	cis-1,2-Dichloroethene	0.794	0.929	-17.0	93	0.00	
6	T	2,2-Dichloropropane	0.929	1.117	-20.2	90	0.00	
7	T	Bromochloromethane	0.360	0.434	-20.6	107	0.00	MT
8	T	Cyclohexane	1.227	1.458	-18.8	90	0.01	
9	C	Chloroform	1.337	1.499	-12.1#	92	0.00	
0	T	Ethyl Acetate	2.179	2.334	-7.1	91	0.00	
1	T	Carbon Tetrachloride	0.707	0.809	-14.4	90	0.00	
2	T	1,1,1-Trichloroethane	0.723	0.848	-17.3	96	0.00	
3	T	2-Butanone	1.117	1.144	-2.4	90	0.00	
4	S	1,2-Dichloroethane-d4	1.088	1.045	4.0	83	0.00	
5	I	1,4-Difluorobenzene	1.000	1.000	0.0	85	0.00	
6	S	Dibromofluoromethane	0.374	0.376	-0.5	87	0.00	
7	T	1,1-Dichloropropene	0.463	0.536	-15.8	90	0.00	
8	TM	Benzene	1.404	1.570	-11.8	91	0.01	
9	T	Methacrylonitrile	0.500	0.495	1.0	85	0.00	
0	TM	1,2-Dichloroethane	0.543	0.571	-5.2	92	0.00	
1	T	Isopropyl Acetate	1.466	1.514	-3.3	88	0.00	
2	T	Isobutyl alcohol	0.000	1.514	0.0	0#	0.00	
3	T	Methylcyclohexane	0.507	0.587	-15.8	89	0.00	
4	TM	Trichloroethene	0.267	0.314	-17.6	93	0.00	
5	T	Dibromomethane	0.304	0.250	17.8	73	0.01	

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061710\
Data File : VK039617.D
Acq On : 17 Jun 2010 10:15
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 17 11:55:50 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K061410S.M
Quant Title : SW846 8260
QLast Update : Mon Jun 14 17:09:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
6	C	1,2-Dichloropropane	0.475	0.560	-17.9#	97	0.00
7	T	Bromodichloromethane	0.545	0.596	-9.4	90	0.00
8	T	Methyl Methacrylate	0.658	0.732	-11.2	93	0.01
9	T	2-Chloroethyl vinyl ether	0.307	0.333	-8.5	94	0.00
0	T	cis-1,3-Dichloropropene	0.768	0.858	-11.7	93	0.00
1	S	Toluene-d8	1.399	1.444	-3.2	88	0.00
2	CM	Toluene	0.818	0.984	-20.3#	93	0.00
3	T	Tetrachloroethene	0.299	0.353	-18.1	101	0.00
4	T	4-Methyl-2-Pentanone	0.885	0.947	-7.0	89	0.00
5	T	t-1,3-Dichloropropene	0.709	0.773	-9.0	90	0.00
6	T	1,1,2-Trichloroethane	0.399	0.451	-13.0	94	0.00
7	T	Ethyl methacrylate	0.787	0.876	-11.3	93	0.00
8	T	Dibromochloromethane	0.406	0.441	-8.6	92	0.00
9	T	1,3-Dichloropropane	0.803	0.889	-10.7	94	0.00
0	T	1,2-Dibromoethane	0.444	0.482	-8.6	95	0.00
1	S	4-Bromofluorobenzene	0.587	0.609	-3.7	89	0.00
2	I	Chlorobenzene-d5	1.000	1.000	0.0	89	0.00
3	T	2-Hexanone	0.625	0.612	2.1	88	0.00
4	PM	Chlorobenzene	0.810	0.883	-9.0	93	0.00
5	C	Ethyl Benzene	1.390	1.587	-14.2#	93	0.00
6	T	1,1,1,2-Tetrachloroethane	0.281	0.313	-11.4	98	0.00
7	T	m/p-Xylenes	0.480	0.549	-14.4	94	0.00
8	T	o-Xylene	0.482	0.560	-16.2	98	0.00
9	T	Styrene	0.866	0.957	-10.5	93	0.00
0	P	Bromoform	0.253	0.248	2.0	90	0.00
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	-0.01
2	T	Isopropylbenzene	2.405	2.748	-14.3	92	0.00
3	T	n-Amyl Acetate	2.267	2.307	-1.8	89	0.00
4	T	Bromobenzene	0.660	0.691	-4.7	93	0.00
5	T	n-propylbenzene	3.106	3.517	-13.2	91	0.00
6	P	1,1,2,2-Tetrachloroethane	1.238	1.300	-5.0	91	0.00
7	T	p-ethyltoluene	2.513	3.007	-19.7	90	0.00
8	T	2-Chlorotoluene	2.246	2.479	-10.4	88	0.00
9	T	1,2,3-Trichloropropane	0.962	1.016	-5.6	94	0.00
0	T	1,3,5-Trimethylbenzene	1.962	2.229	-13.6	92	0.00
1	T	trans-1,4-Dichloro-2-butene	0.598	0.617	-3.2	91	0.00
2	T	4-Chlorotoluene	2.042	2.256	-10.5	93	0.00
3	T	tert-Butylbenzene	1.819	2.037	-12.0	88	0.00
4	T	1,2,4-Trimethylbenzene	1.996	2.243	-12.4	92	0.00
5	T	sec-Butylbenzene	2.688	3.047	-13.4	89	0.00
6	T	p-Isopropyltoluene	2.083	2.374	-14.0	91	-0.01
7	T	1,3-Dichlorobenzene	1.234	1.360	-10.2	93	0.00
8	T	1,4-Dichlorobenzene	1.270	1.418	-11.7	94	0.00
9	T	p-diethylbenzene	1.262	1.491	-18.1	88	0.00

Data Path : W:\HPCHEM1\Msvoa_K\Data\VK061710\
Data File : VK039617.D
Acq On : 17 Jun 2010 10:15
Operator : MS
Sample : 20 PPB CCC
Misc : 5.00g/5mL,MSVOAK
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 17 11:55:50 2010
Quant Method : W:\HPCHEM1\MSVOA_K\METHOD\82K061410S.M
Quant Title : SW846 8260
QLast Update : Mon Jun 14 17:09:54 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
0 T	n-Butylbenzene	2.599	2.713	-4.4	77	0.00
1 T	Hexachloroethane	0.483	0.509	-5.4	88	0.00
2 T	1,2-Dichlorobenzene	1.234	1.361	-10.3	93	0.00
3 T	1,2,4,5-tetramethylbenzene	2.281	2.599	-13.9	88	0.00
4 T	1,2-Dibromo-3-Chloropropane	0.209	0.204	2.4	84	0.00
5 T	1,2,4-Trichlorobenzene	0.778	0.822	-5.7	88	-0.01
6 T	Hexachlorobutadiene	0.328	0.369	-12.5	91	0.00
7 T	Naphthalene	2.786	2.843	-2.0	88	0.00
8 T	1,2,3-Trichlorobenzene	0.789	0.834	-5.7	89	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

METALS

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD

Project: Lohn's Corner
Method : 6010 Metals 7471 Hg
Laboratory and SDG(s): Chemtech B26643
Date: 8/4/10
Reviewer:

Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. [✓] Case Narrative Review and Data Package Completeness — COMMENTS
2. Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

3. [✓] Holding time and Sample Collection
Were all samples were all prepped and analyzed with the holding time (6 month). YES NO (circle one)

4. [✓] QC Blanks
Are method blanks clean? YES (NO) (circle one)
Are Initial and continuing calibration blanks clean? YES (NO) (circle one) See attached.

[✓] Interference Check Standard

[✓] Instrument Calibration
Initial calibration criteria met for the method? (YES) NO (circle one)
90-110% (80-120% Hg) recovery on continuing calibration standards met? YES NO (circle one)

[X] Serial Dilutions
Were all results were within the control limit of 10% (for values > 50X MDL)? NO, see attached.

[X] Laboratory Control Sample Results
Were all results were within 80-120% limits? YES (NO) (circle one) See attached.

[X] Matrix Spike
Were MS/MSDs submitted/analyzed? (YES) NO

Were all results were within 75-125% limits? YES (NO) NA (circle one) see attached.

[X] Duplicates/replicates
Were Field Duplicates submitted/analyzed? (YES) NO
Aqueous RPD within limit? (20%) YES NO (NA) (circle one)
Soil RPD within limit? (35%) YES (NO) NA (circle one) see attached

Was the lab dup RPD <20% for values > 5X the CRQL (or ± CRQL) ✓

[X] Were both Total and Dissolved metals reported? YES (NO) NA (circle one)
If the dissolved concentration is > 20% of the total concentration then estimate (J) both results

[✓] Percent solids < 50% for any soil/sediment sample? YES (NO) NA (circle one)
If yes, estimate all results.

5. [✓] Raw Data Review and Calculation Checks

6. [✓] Electronic Data Review and Edits. Does the EDD match the Form I's? (YES) NO (circle one)

7. [ ] DUSR Tables: **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).
Were all tables produced? YES NO (circle one)

Metals

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG No.: B2643

Instrument ID: P4 Analysis Method: P

Start Date: 6/14/2010 End Date: 6/14/2010

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1414	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S1	1.00	1417	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X	
S2	1.00	1420							X						X				X			X				
S3	1.00	1422	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S4	1.00	1425	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S5	1.00	1428	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICV01	1.00	1430	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICB01	1.00	1433	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI01	1.00	1435	X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X	
ICS-A01	1.00	1441	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI02	1.00	1451							X						X				X			X				
ICS-AB01	1.00	1455	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV01	1.00	1458	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB01	1.00	1501	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1503																								
ZZZZZZ	1.00	1506																								
ZZZZZZ	1.00	1509																								
ZZZZZZ	1.00	1512																								
ZZZZZZ	1.00	1514																								
ZZZZZZ	5.00	1517																								
ZZZZZZ	1.00	1520																								
ZZZZZZ	1.00	1522																								
ZZZZZZ	1.00	1525																								
ZZZZZZ	1.00	1528																								
CCV02	1.00	1530	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB02	1.00	1533	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1536																								
ZZZZZZ	1.00	1538																								
ZZZZZZ	1.00	1541																								
ZZZZZZ	1.00	1544																								
ZZZZZZ	1.00	1547																								
ZZZZZZ	1.00	1549																								
ZZZZZZ	1.00	1552																								
CCV03	1.00	1555	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB03	1.00	1558	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

12,7 0.6

Metals

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG No.: B2643

Instrument ID: P4 Analysis Method: P

Start Date: 6/14/2010 End Date: 6/14/2010

1420 -0424

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
PB49784BL	1.00	1600	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
PB49784BS	1.00	1603	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCPD101100110XX	1.00	1606	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00100110XX	1.00	1608	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00200110XX	1.00	1611	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00300110XX	1.00	1614	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00300110XXD	1.00	1616	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00300110XXL	5.00	1619	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00300110XXS	1.00	1622	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00300110XXSD	1.00	1624	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV04	1.00	1627	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB04	1.00	1629	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCBKSS00300110XXA	1.00	1632	32.4		-4.2								40.9													
LCBKSS00300110XD	1.00	1635	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1637																								
ZZZZZZ	1.00	1640																								
ZZZZZZ	1.00	1643																								
ZZZZZZ	1.00	1645																								
ZZZZZZ	1.00	1648																								
ZZZZZZ	1.00	1651																								
ZZZZZZ	1.00	1653																								
ZZZZZZ	1.00	1656																								
CCV05	1.00	1659	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB05	1.00	1701	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1704	13.1			-5																				
ZZZZZZ	1.00	1707																								
ZZZZZZ	1.00	1709																								
ZZZZZZ	1.00	1712																								
ZZZZZZ	5.00	1715																								
ZZZZZZ	1.00	1718																								
ZZZZZZ	1.00	1720																								
ZZZZZZ	1.00	1723																								
ZZZZZZ	1.00	1726																								
ZZZZZZ	1.00	1729																								
CCV06	1.00	1731	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

Al = 32.4 AL = 162 all >

Ba = 0.6 AL = 3 all >

Fe = 42.9 AL = 214.5 all >

Metals

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG No.: B2643

Instrument ID: CV1 Analysis Method: CV

Start Date: 6/16/2010 End Date: 6/16/2010

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Std01Rep1	1.00	1646															X										
Std02Rep1	1.00	1649															X										
Std03Rep1	1.00	1651															X										
Std04Rep1	1.00	1653															X										
Std05Rep1	1.00	1655															X										
Std06Rep1	1.00	1657															X										
ICV01	1.00	1700															X										
ICB01	1.00	1702															X										
CCV01	1.00	1703															X										
CCB01 ✓	1.00	1706															X										
CRI01	1.00	1707															X										
HIGH STD	1.00	1710															X										
ZZZZZZ	1.00	1711																									
ZZZZZZ	1.00	1713																									
ZZZZZZ	1.00	1715																									
ZZZZZZ	1.00	1717																									
ZZZZZZ	1.00	1719																									
ZZZZZZ	1.00	1721																									
CCV02	1.00	1723															X										
CCB02 ✓	1.00	1725															X										
ZZZZZZ	1.00	1727																									
ZZZZZZ	1.00	1729																									
ZZZZZZ	1.00	1731																									
ZZZZZZ	5.00	1733																									
ZZZZZZ	1.00	1735																									
ZZZZZZ	1.00	1737																									
ZZZZZZ	1.00	1739																									
ZZZZZZ	1.00	1741																									
CCV03	1.00	1743															X										
CCB03 ✓	1.00	1745															X		-0.14								
ZZZZZZ	1.00	1747																									
PB49851BL	1.00	1749															X										
PB49851BS	1.00	1751															X										
ZZZZZZ	1.00	1753																									
ZZZZZZ	1.00	1755																									

Form XIII-IN

Hg = -0.142 AL = -0.71

all < Iqual.ify

Metals

8-IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

LCBKSS00300110XXL

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	43649.00		47514.50		8.9		P
Antimony	8.64	J	125.00	U	100.0		P
Arsenic	61.37		60.90		0.8		P
Barium	747.05		822.70		10.1		P
Beryllium	2.91	J	3.65	J	25.4		P
Cadmium	7.63		6.45	J	15.5		P
Calcium	16461.00		18650.00		13.3		P
Chromium	70.24		73.00		3.9		P
Cobalt	54.82		62.00	J	13.1		P
Copper	261.35		296.75		13.5		P
Iron	104320.00		119225.00		14.3		P
Lead	1150.20		1247.30		8.4		P
Magnesium	12267.00		13785.50		12.4		P
Manganese	3309.40		3765.80		13.8		P
Nickel	98.31		102.65		4.4		P
Potassium	4049.50		4523.30	J	11.7		P
Selenium	18.55		50.00	U	100.0		P
Silver	5.00	U	25.00	U			P
Sodium	1499.70		1622.10	J	8.2		P
Thallium	20.00	U	100.00	U			P
Vanadium	79.01		90.00	J	13.9		P
Zinc	899.36		1014.00		12.7		P

9-IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Instrument Type: P Instrument ID: P4 Date: 02/14/2009

Preparation Method: NP1

Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	308.22	50.0	6.50
Antimony	206.83	25.0	8.00
Arsenic	193.76	10.0	4.20
Barium	493.41	50.0	4.00
Beryllium	234.86	3.0	0.70
Cadmium	226.50	3.0	0.50
Calcium	373.69	1000.0	31.80
Chromium	267.72	5.0	1.10
Cobalt	228.62	15.0	5.80
Copper	224.70	10.0	6.60
Iron	259.83	50.0	20.40
Lead	220.35	6.0	2.60
Magnesium	279.08	1000.0	32.50
Manganese	257.61	10.0	1.70
Nickel	231.60	20.0	4.20
Potassium	766.49	1000.0	38.80
Selenium	196.02	10.0	4.80
Silver	328.07	5.0	1.50
Sodium	589.59	1000.0	13.90
Thallium	190.86	20.0	2.40
Vanadium	292.40	20.0	6.10
Zinc	206.20	20.0	6.50

Metals

13-IN

ANALYSIS RUN LOG

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG No.: B2643

Instrument ID: CV1 Analysis Method: CV

Start Date: 6/16/2010 End Date: 6/16/2010

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1757																										
LCPD101100110XX	1.00	1759															X											
LCBKSS00100110XX	1.00	1801															X											
CCV04	1.00	1803															X											
CCB04 ✓	1.00	1805															X			-0.142								
LCBKSS00200110XX	1.00	1807															X											
LCBKSS00300110XX	1.00	1809															X											
LCBKSS00300110XD	1.00	1811															X											
ZZZZZZ	1.00	1813																										
ZZZZZZ	1.00	1815																										
ZZZZZZ	1.00	1817																										
ZZZZZZ	1.00	1819																										
ZZZZZZ	1.00	1823																										
CCV05	1.00	1824															X											
CCB05 ✓	1.00	1826															X			-0.135								
ZZZZZZ	1.00	1828																										
ZZZZZZ	1.00	1831																										
B93D2(60-67)D	1.00	1833															X											
B93D2(60-67)L	5.00	1835															X											
B93D2(60-67)S	1.00	1837															X											
B93D2(60-67)SD	1.00	1839															X											
B93D2(60-67)A	1.00	1841																										
ZZZZZZ	1.00	1843																										
CCV06	1.00	1845															X											
CCB06	1.00	1847															X											
ZZZZZZ	1.00	1850																										
ZZZZZZ	10.00	1852																										
ZZZZZZ	100.00	1854																										
CCV07	1.00	1856															X											
CCB07	1.00	1858															X											

USEPA - CLP

3-IN

BLANKS

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	14.6	J	7.2	J	16.1	J	12.7	J	1.420	J	P
Antimony	25.0	U	25.0	U	25.0	U	25.0	U	2.500	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Barium	50.0	U	50.0	U	50.0	U	50.0	U	-0.424	J	P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U	0.300	U	P
Cadmium	3.0	U	3.0	U	3.0	U	0.6	J	0.300	U	P
Calcium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	100.000	U	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Cobalt	15.0	U	15.0	U	15.0	U	15.0	U	1.500	U	P
Copper	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Iron	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
Lead	6.0	U	6.0	U	6.0	U	6.0	U	0.600	U	P
Magnesium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	100.000	U	P
Manganese	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Mercury	-0.157	J	-0.156	J	-0.175	J	-0.140	J	OK -0.007	J	CV
Nickel	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	100.000	U	P
Selenium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Silver	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	100.000	U	P
Thallium	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Vanadium	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P

USEPA - CLP

3-IN

BLANKS

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank(ug/L)	C	Continuing Calibration Blank (ug/L) 1 4	C	2 5	C	3 6	C	Preparation Blank	C	M
Aluminum			32.4	U	13.4	J	50.0	U			P
Antimony			25.0	U	25.0	U	25.0	U			P
Arsenic			10.0	U	10.0	U	10.0	U			P
Barium			-4.2	J	-5.0	J	50.0	U			P
Beryllium			3.0	U	3.0	U	3.0	U			P
Cadmium			3.0	U	3.0	U	3.0	U			P
Calcium			1000.0	U	1000.0	U	1000.0	U			P
Chromium			5.0	U	5.0	U	5.0	U			P
Cobalt			15.0	U	15.0	U	15.0	U			P
Copper			10.0	U	10.0	U	10.0	U			P
Iron			42.9	J	50.0	U	50.0	U			P
Lead			6.0	U	6.0	U	6.0	U			P
Magnesium			1000.0	U	1000.0	U	1000.0	U			P
Manganese			10.0	U	10.0	U	10.0	U			P
Mercury			-0.142	J	-0.135	J	-0.149	J			CV
Nickel			20.0	U	20.0	U	20.0	U			P
Potassium			1000.0	U	1000.0	U	1000.0	U			P
Selenium			10.0	U	10.0	U	10.0	U			P
Silver			5.0	U	5.0	U	5.0	U			P
Sodium			1000.0	U	1000.0	U	16.6	J			P
Thallium			20.0	U	20.0	U	20.0	U			P
Vanadium			20.0	U	20.0	U	20.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P

Metals

12-IN

PREPARATION LOG

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Preparation Method:

EPA Sample No.	Preparation Date	Weight (gram)	Volume(mL)
PB49784BL	6/14/2010	1.00	100
PB49784BS	6/14/2010	1.00	100
LCPD101100110XX	6/14/2010	1.47	100
LCBKSS00100110XX	6/14/2010	1.46	100
LCBKSS00200110XX	6/14/2010	1.07	100
LCBKSS00300110XX	6/14/2010	1.00	100
LCBKSS00300110XXD	6/14/2010	1.00	100
LCBKSS00300110XXS	6/14/2010	1.00	100
LCBKSS00300110XXSD	6/14/2010	1.00	100
LCBKSS00300110XD	6/14/2010	1.23	100

Comments:

Metals

12-IN

PREPARATION LOG

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Preparation Method: _____

EPA Sample No.	Preparation Date	Weight (gram)	Volume(mL)
PB49851BL	6/15/2010	0.60	30
PB49851BS	6/15/2010	0.60	30
LCPD101100110XX	6/15/2010	0.62	30
LCBKSS00100110XX	6/15/2010	0.61	30
LCBKSS00200110XX	6/15/2010	0.63	30
LCBKSS00300110XX	6/15/2010	0.64	30
LCBKSS00300110XD	6/15/2010	0.61	30
B93D2(60-67)D	6/15/2010	0.60	30
B93D2(60-67)S	6/15/2010	0.60	30
B93D2(60-67)SD	6/15/2010	0.60	30

Comments: _____

Metals

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LCBKSS00300110XXS

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 79.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M	
Aluminum		6365.1630		5469.8000		250.63	357.2		P	OK 4x
Antimony	47 - 131	93.8822		1.0827	J	100.25	92.6		P	
Arsenic	73 - 114	106.2820		7.6905		100.25	98.3		P	
Barium	39 - 158	129.7368		93.6153		25.06	144.1		P	←
Beryllium	79 - 112	23.2481		0.3647	J	25.06	91.3		P	
Cadmium	73 - 114	27.1065		0.9561		25.06	104.4		P	
Calcium		2419.1730		2062.7820		125.31	284.4		P	OK 4x
Chromium	68 - 122	57.7306		8.8020		50.13	97.6		P	
Cobalt	68 - 119	33.7807		6.8697		25.06	107.4		P	
Copper	59 - 132	71.0414		32.7506		37.59	101.9		P	
Iron		14818.3000		13072.6800		375.94	464.3		P	OK 4x
Lead	66 - 125	284.9248		144.1353		125.31	112.4		P	
Magnesium		1930.3260		1537.2180		250.63	156.8		P	OK 4x
Manganese		483.7845		414.7118		25.06	275.6		P	OK 4x
Nickel	64 - 129	79.0038		12.3196		62.66	106.4		P	
Potassium	37 - 158	1705.2630		507.4561		1253.13	95.6		P	
Selenium	69 - 105	219.3484		2.3246		250.63	86.6		P	
Silver	54 - 131	8.6466		0.6266	U	9.40	92.0		P	
Sodium	10 - 139	552.1679		187.9323		375.94	96.9		P	
Thallium	74 - 116	242.1303		2.5063	U	250.63	96.6		P	
Vanadium	67 - 127	46.4436		9.9010		37.59	97.2		P	
Zinc		145.1003		112.7018		25.06	129.3		P	OK 4x

Comments:

Metals

7 - IN

LABORATORY CONTROL SAMPLE

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No: B2643 SDG NO.: B2643

Solid LCS Source: INOR-VEN

Aqueous LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum				200.0	183.2		76.0	118.0	91.6
Antimony				80.0	78.8		81.0	112.0	98.5
Arsenic				80.0	78.7		82.0	112.0	98.4
Barium				20.0	20.4		83.0	118.0	102.0
Beryllium				20.0	19.7		84.0	113.0	98.5
Cadmium				20.0	20.3		82.0	117.0	101.5
Calcium				100.0	93.3	J	78.0	138.0	93.3
Chromium				40.0	39.1		84.0	115.0	97.8
Cobalt				20.0	20.0		84.0	114.0	100.0
Copper				30.0	28.9		80.0	115.0	96.3
Iron				300.0	298.5		78.0	109.0	99.5
Lead				100.0	96.3		82.0	117.0	96.3
Magnesium				200.0	181.0		80.0	121.0	90.5
Manganese				20.0	19.9		84.0	114.0	99.5
Mercury				0.200	0.172		73.0	121.0	86.0
Nickel				50.0	50.0		85.0	118.0	100.0
Potassium				1000.0	930.0		67.0	116.0	93.0
Selenium				200.0	193.6		74.0	110.0	96.8
Silver				7.5	6.8		81.0	123.0	90.7
Sodium				300.0	285.6		70.0	135.0	95.2
Thallium				200.0	184.6		86.0	119.0	92.3
Vanadium				30.0	29.1		84.0	113.0	97.0
Zinc				20.0	19.5		88.0	127.0	97.5

Aluminum	6400	J	5470	J	16
Iron	15700	J	13100	J	18
Lead	190		144		28
Magnesium	2290		1540		39
Manganese	467		415		12
Nickel	14.9		12.3		19
Potassium	584	J	507	J	14
Silver	0.5	U	0.63	U	23
Sodium	211	J	188	J	12
Thallium	2	U	2.51	U	23
Antimony	1.37	J	1.08	J	24
Arsenic	9.37		7.69		20
Barium	106	J	93.6	J	12
Beryllium	0.46		0.36	J	24
Cadmium	1.37		0.96		35
Chromium	9.65		8.8		9
Cobalt	7.74		6.87		12
Copper	37.5		32.8		13
Vanadium	11.3		9.9		13
Zinc	137		113		19
Calcium	12600	J	2060	J	144
Selenium	2.73	J	2.32	J	16
Mercury	0.164	J	0.193	J	16

Metals

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LCBKSS00300110XXSD

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 79.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M	
Aluminum		6409.6490		5469.8000		250.63	375.0		P	OK 4x
Antimony	47 - 131	92.2983		1.0827	J	100.25	91.0		P	
Arsenic	73 - 114	104.9211		7.6905		100.25	97.0		P	
Barium		130.4010		93.6153		25.06	146.8		P	←
Beryllium	79 - 112	23.3208		0.3647	J	25.06	91.6		P	
Cadmium	73 - 114	26.6203		0.9561		25.06	102.4		P	
Calcium		2421.6790		2062.7820		125.31	286.4		P	OK 4x
Chromium	68 - 122	57.1353		8.8020		50.13	96.4		P	
Cobalt	68 - 119	33.1404		6.8697		25.06	104.8		P	
Copper	59 - 132	71.1880		32.7506		37.59	102.3		P	
Iron		14858.4000		13072.6800		375.94	475.0		P	OK 4x
Lead	66 - 125	279.4110		144.1353		125.31	108.0		P	
Magnesium		1942.3560		1537.2180		250.63	161.6		P	OK 4x
Manganese		483.3709		414.7118		25.06	274.0		P	OK 4x
Nickel	64 - 129	77.3910		12.3196		62.66	103.8		P	
Potassium	37 - 158	1698.1200		507.4561		1253.13	95.0		P	
Selenium	69 - 105	215.9273		2.3246		250.63	85.2		P	
Silver	54 - 131	8.4925		0.6266	U	9.40	90.3		P	
Sodium	10 - 139	553.5213		187.9323		375.94	97.2		P	
Thallium	74 - 116	238.0702		2.5063	U	250.63	95.0		P	
Vanadium	67 - 127	46.7243		9.9010		37.59	98.0		P	
Zinc		146.0526		112.7018		25.06	133.1		P	OK 4x

Comments:

USEPA - CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

LCBKSS00300110XXD

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 79.8 % Solids for Duplicate: 79.8

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		5469.8000		5720.4260		4.5		P
Antimony		1.0827	J	1.2494	J	14.3		P
Arsenic		7.6905		8.0213		4.2		P
Barium		93.6153		98.0276		4.6		P
Beryllium	0.3759	0.3647	J	0.4048		10.4		P
Cadmium	0.3759	0.9561		1.0276		7.2		P
Calcium		2062.7820		2179.6990		5.5		P
Chromium		8.8020		9.1729		4.1		P
Cobalt	1.8797	6.8697		7.2419		5.3		P
Copper		32.7506		34.1692		4.2		P
Iron		13072.6800		13634.0900		4.2		P
Lead		144.1353		151.1905		4.8		P
Magnesium		1537.2180		1606.6420		4.4		P
Manganese		414.7118		432.6817		4.2		P
Nickel	2.5063	12.3196		12.9198		4.8		P
Potassium	125.3133	507.4561		526.0903		3.6		P
Selenium	1.2531	2.3246		2.9549		23.9		P
Silver		0.6266	U	0.6266	U			P
Sodium	125.3133	187.9323		194.4737		3.4		P
Thallium		2.5063	U	2.5063	U			P
Vanadium	2.5063	9.9010		10.3484		4.4		P
Zinc		112.7018		116.6679		3.5		P

OK

USEPA - CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

B93D2(60-67)D

Lab Name: Chemtech Consulting Group Contract: MACTEC Inc.

Lab Code: CTECH Case No.: B2643 NRAS No.: B2643 SDG NO.: B2643

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 77.6 % Solids for Duplicate: 77.6

Concentration Units: (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury		0.0129	U	0.0031	J	200.0		CV

OK

PESTICIDES

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD

Project: Lucha's Corner
Method : 8081 PEST
Laboratory and SDG(s): Chemtech B2643
Date: 8/15/10
Reviewer: [signature]

Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. [✓] Case Narrative Review and Data Package Completeness COMMENTS (1) 8/15/10
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)
2. [✓] Holding time (HT) and Sample Collection
   Aqueous is 7days to extraction, solid is 14 days. HT met for all samples? YES NO (circle one)
3. [✓] QC Blanks
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   [X] Percent difference between columns (Region II criteria is 25% for Pest's) See attached
   Is the percent difference between columns ≤25? YES (NO) (circle one)

   [✓] Instrument Calibration

   I-cal criteria of 20% (%RSD) (alpha-BHC, delta-BHC = 25%, Toxaphene = 30%) met? (YES) NO (circle one)

   Continuing calibration criteria of (%D) 20% met? (YES) NO NA (circle one)

   [✓] Surrogate Recovery (soil and water limits: 30-150%)

   Were all results were within laboratory limits? (YES) NO (circle one)

   [✓] Matrix Spike (Use lab limits) (refer to limits listed in SOP HW-44 Oct 2006 if no lab limits are listed)

   Were MS/MSDs submitted/analyzed? (YES) NO

   Were all results were within laboratory limits? (YES) NO NA (circle one)

   [✓] Field Duplicates (RPD limits for soil=100, water = 50)

   Were Field Duplicates submitted/analyzed? (YES) NO
   Were RPDs within the limits? (YES) NO NA (circle one)

   [✓] Laboratory Control Samples (Use lab limits) (refer to limits in SOP HW-44 Oct 2006 if no lab limits are listed)

   Were all results were within laboratory limits? (YES) NO (circle one)
   Limits used were: (Lab Limits) Region II SOP HW-44 Oct 2006 (circle one)
4. [✓] Raw Data Review and Calculation Checks
5. [✓] Electronic Data Review and Edits: Does the EDD match the Form I's? (YES) NO (circle one)
6. [ ] DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).
   Were all tables produced? YES NO (circle one)

CHEMTECH

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

LCBKSS00300110XX

Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG NO.: B2643

Lab Sample ID: B2643-15 Date(s) Analyzed: 06/18/2010 06/18/2010

Instrument ID (1): ECD7 Instrument ID (2): ECD7

GC Column: (1): ZB-MR2 ID: 0.32 (mm) GC Column:(2): ZB-MR1 ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	6.26	6.19	6.33	3.0	42.9
	2	7.27	7.20	7.34	2.1	
4,4-DDT	1	7.01	6.94	7.08	2.9	6.9
	2	8.07	8.00	8.14	3.1	

CHEMTECH

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

LCBKSS00300110XD

Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG NO.: B2643

Lab Sample ID: B2643-16 Date(s) Analyzed: 06/18/2010 06/18/2010

Instrument ID (1): ECD7 Instrument ID (2): ECD7

GC Column: (1): ZB-MR2 ID: 0.32 (mm) GC Column:(2): ZB-MR1 ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4-DDE	1	6.26	6.19	6.33	2.7	35.0
	2	7.27	7.20	7.34	2.0	
4,4-DDT	1	7.01	6.94	7.08	2.6	11.5
	2	8.07	8.00	8.14	2.9	

CHEMTECH

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

LCPD101100110XX

Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG NO.: B2643

Lab Sample ID: B2643-06 Date(s) Analyzed: 06/18/2010 06/18/2010

Instrument ID (1): ECD7 Instrument ID (2): ECD7

GC Column: (1): ZB-MR2 ID: 0.32 (mm) GC Column:(2): ZB-MR1 ID: 0.32 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Dieldrin	1	6.40	6.32	6.46	2.2	45.5
	2	7.44	7.36	7.50	3.2	
4,4-DDE	1	6.26	6.19	6.33	4.7	4.4
	2	7.27	7.20	7.34	4.5	
4,4-DDD	1	6.78	6.70	6.84	1.2	8.3
	2	7.77	7.69	7.83	1.3	
4,4-DDT	1	7.02	6.94	7.08	5.7	0.0
	2	8.07	8.00	8.14	5.7	
Methoxychlor	1	7.57	7.50	7.64	12	0.0
	2	8.52	8.45	8.59	12	

SVOC

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project:
Method : SW-846 8270C
Laboratory and SDG(s): **SDG#**
Date:
Reviewer:
Review Level ☒ NYSDEC DUSR ☐ USEPA Region II Guideline

1. ☑ Case Narrative Review and Data Package Completeness COMMENTS
   Were problems noted?
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. ☑ Holding time and Sample Collection
   All water samples were extracted within the 7 day holding time, soil is 14 day?

3. ☑ QC Blanks
   Are method blanks free of contamination? YES (NO) (circle one)
   Are Rinse blanks free of contamination? YES NO NA (circle one)

   Dimethylphthalate 200 ug/kg
   Action Level = 1000 ug/kg

   ☑ Instrument Tuning
   Were all results were within method criteria. YES NO (circle one)

   ☑ Instrument Calibration

   Control Limits (Region II HW-22): Initial Calibration %RSD = 15% Continuing Calibration %D = 20% Average RRF should be ≥0.05 (or reject NDs, J detects or use professional judgment to J/UJ)

   Were all results were within criteria. YES (NO) (circle one) see attached.

   ☑ Surrogate Recovery (water and soil limits: Base/Neutral 50-140%, Acid 30-140%)
   Were all results were within limits? (YES) NO (circle one)
   Were any recoveries < 10%? (Reject fraction compounds if recoveries are < 10%)

   ☑ Matrix Spike (water & soil limits: Base/Neutral 50-140%, Acid 30-140%) (RPD soil=35,water=20)

   Were MS/MSDs submitted/analyzed? (YES) NO

   Were all results were within limits? YES (NO) NA (circle one)

   Benzaldehyde (11, 10)
   4-Chloroaniline (47) < 50 (UJ).

   ☑ Duplicates/replicates (RPD limits = water:50, soil:100)

   Were Field Duplicates submitted/analyzed? (YES) NO

   Were RPDs within criteria. (YES) NO NA (circle one)

   ☑ Laboratory Control Sample Results (water and soil limits: Base/Neutral 50-140%, Acid 30-140%)

   Were all results were within limits? YES (NO) (circle one)

   Benzaldehyde (9%) (UJ)

4. ☑ Raw Data Review and Calculation Checks

5. ☑ Electronic Data Review and Edits: Does the EDD match the Form I's? (YES) NO (circle one)

6. ☐ **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? YES NO (circle one)

Response Factor Report GC/MS Ins

Method : Z:\HPCHEM1\BNA_E...\8270-BE061410.M (RTE Integrator)
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Jun 15 12:17:17 2010
Response via : Initial Calibration

Calibration Files
40 =BE064782.D 10 =BE064780.D 25 =BE064781.D
50 =BE064783.D 60 =BE064784.D 80 =BE064785.D

		Compound	40	10	25	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)		1,4-Dioxane	0.518	0.534	0.525	0.503	0.497	0.474	0.509	4.30
3)		Pyridine	1.320	1.230	1.272	1.273	1.258	1.213	1.261	2.98
4)		n-Nitrosodimethylam	0.571	0.589	0.572	0.542	0.527	0.514	0.552	5.34
5)	S	2-Fluorophenol	1.358	1.360	1.326	1.284	1.278	1.212	1.303	4.34
6)		Aniline	2.221	2.249	2.235	2.165	2.115	2.054	2.173	3.54
7)	S	Phenol-d5	1.685	1.737	1.703	1.634	1.612	1.517	1.648	4.79
8)		2-Chlorophenol	1.466	1.453	1.461	1.426	1.395	1.368	1.428	2.76
9)		Benzaldehyde	0.957	1.011	0.992	0.822	0.780	0.689	0.875	14.94
10)	C	Phenol	1.808	1.808	1.761	1.707	1.686	1.606	1.729	4.55
11)		bis(2-Chloroethyl)e	1.451	1.474	1.446	1.409	1.385	1.326	1.415	3.81
12)	S	2-Chlorophenol-d4	1.316	1.329	1.300	1.273	1.257	1.200	1.279	3.67
13)		1,3-Dichlorobenzene	1.544	1.552	1.529	1.494	1.466	1.417	1.500	3.47
14)	C	1,4-Dichlorobenzene	1.623	1.628	1.584	1.537	1.523	1.499	1.566	3.46
15)	s	1,2-Dichlorobenzene	0.935	0.951	0.916	0.893	0.888	0.849	0.905	4.02
16)		1,2-Dichlorobenzene	1.500	1.497	1.470	1.428	1.424	1.366	1.447	3.57
17)		Benzyl Alcohol	1.126	0.952	1.049	1.110	1.113	1.081	1.072	6.07
18)		2,2'-oxybis(1-Chlor	1.678	1.713	1.665	1.632	1.607	1.555	1.642	3.40
19)		2-Methylphenol	1.149	1.162	1.130	1.126	1.112	1.099	1.129	2.05
20)		Hexachloroethane	0.620	0.612	0.613	0.608	0.602	0.589	0.607	1.75
21)	P	n-Nitroso-di-n-prop	1.038	1.049	1.037	0.995	0.984	0.938	1.007	4.23
22)		3+4-Methylphenols	1.526	1.536	1.486	1.484	1.463	1.413	1.485	3.00
23)	I	Naphthalene-d8	----------ISTD----------							
24)		Acetophenone	0.510	0.530	0.521	0.489	0.496	0.466	0.502	4.64
25)	S	Nitrobenzene-d5	0.388	0.399	0.398	0.376	0.380	0.359	0.383	3.87
26)		Nitrobenzene	0.391	0.393	0.394	0.380	0.388	0.366	0.385	2.81
27)		Isophorone	0.700	0.711	0.710	0.680	0.684	0.644	0.688	3.66
28)	C	2-Nitrophenol	0.198	0.188	0.197	0.191	0.195	0.189	0.193	2.19
29)		2,4-Dimethylphenol	0.312	0.327	0.356	0.318	0.318	0.309	0.323	5.39
30)		bis(2-Chloroethoxy)	0.431	0.445	0.443	0.412	0.417	0.396	0.424	4.48
31)	C	2,4-Dichlorophenol	0.288	0.282	0.286	0.283	0.288	0.274	0.283	1.90
32)		1,2,4-Trichlorobenz	0.326	0.323	0.331	0.317	0.322	0.304	0.321	2.94
33)		Naphthalene	1.073	1.101	1.095	1.026	1.027	0.968	1.048	4.87
34)		Benzoic acid	0.063	0.022	0.054	0.062	0.083	0.108	0.065	43.80
35)		4-Chloroaniline	0.453	0.455	0.465	0.444	0.450	0.426	0.449	2.93
36)	C	Hexachlorobutadiene	0.183	0.190	0.187	0.178	0.179	0.171	0.181	3.74
37)		Caprolactam	0.118	0.116	0.114	0.117	0.118	0.112	0.116	2.11
38)	C	4-Chloro-3-methylph	0.330	0.327	0.335	0.323	0.326	0.312	0.325	2.44
39)		2-Methylnaphthalene	0.672	0.684	0.681	0.647	0.654	0.614	0.659	4.03
40)	I	Acenaphthene-d10	----------ISTD----------							
41)		1,2,4,5-Tetrachloro	0.548	0.550	0.542	0.524	0.536	0.512	0.535	2.71
42)	P	Hexachlorocyclopent	0.319	0.286	0.321	0.337	0.348	0.342	0.326	6.87
43)	S	2,4,6-Tribromopheno	0.165	0.148	0.157	0.164	0.167	0.157	0.160	4.42
44)	C	2,4,6-Trichlorophen	0.381	0.366	0.368	0.373	0.379	0.361	0.371	2.09
45)		2,4,5-Trichlorophen	0.394	0.358	0.383	0.387	0.396	0.389	0.384	3.62
46)	S	2-Fluorobiphenyl	1.363	1.399	1.355	1.276	1.283	1.189	1.311	5.82
47)		1,1'-Biphenyl	1.488	1.525	1.484	1.428	1.452	1.353	1.455	4.13
48)		2-Chloronaphthalene	1.219	1.234	1.208	1.167	1.177	1.112	1.186	3.71
49)		2-Nitroaniline	0.361	0.347	0.355	0.352	0.354	0.339	0.351	2.12

#) = Out of Range

Method : Z:\HPCHEM1\BNA_E...\8270-BE061410.M (RTE Integrator)
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Jun 15 12:17:17 2010
Response via : Initial Calibration

Calibration Files
40 =BE064782.D 10 =BE064780.D 25 =BE064781.D
50 =BE064783.D 60 =BE064784.D 80 =BE064785.D

		Compound	40	10	25	50	60	80	Avg	%RSD
50)		Acenaphthylene	1.866	1.914	1.877	1.805	1.807	1.695	1.827	4.23
51)		Dimethylphthalate	1.399	1.415	1.378	1.353	1.368	1.276	1.365	3.57
52)		2,6-Dinitrotoluene	0.332	0.314	0.330	0.324	0.329	0.308	0.323	2.94
53)	C	Acenaphthene	1.133	1.111	1.104	1.102	1.116	1.066	1.105	2.02
54)		3-Nitroaniline	0.359	0.342	0.345	0.348	0.354	0.331	0.347	2.82
55)	P	2,4-Dinitrophenol	0.056	0.013	0.038	0.077	0.091	0.110	0.064	55.51
56)		Dibenzofuran	1.710	1.733	1.686	1.627	1.634	1.525	1.653	4.55
57)	P	4-Nitrophenol	0.273	0.238	0.255	0.272	0.279	0.268	0.264	5.70
58)		2,4-Dinitrotoluene	0.432	0.400	0.411	0.420	0.422	0.402	0.414	2.92
59)		Fluorene	1.391	1.430	1.390	1.328	1.347	1.258	1.357	4.46
60)		2,3,4,6-Tetrachloro	0.317	0.285	0.300	0.311	0.315	0.303	0.305	3.97
61)		Diethylphthalate	1.369	1.345	1.354	1.326	1.328	1.252	1.329	3.08
62)		4-Chlorophenyl-phen	0.673	0.692	0.661	0.646	0.654	0.617	0.657	3.86
63)		4-Nitroaniline	0.369	0.351	0.358	0.363	0.372	0.348	0.360	2.67
64)		Azobenzene	1.400	1.396	1.370	1.331	1.346	1.245	1.348	4.24
65)	I	Phenanthrene-d10	----------ISTD----------							
66)		4,6-Dinitro-2-methy	0.086	0.026	0.060	0.099	0.107	0.118	0.083	41.25
67)	c	n-Nitrosodiphenylam	0.690	0.694	0.707	0.670	0.672	0.651	0.681	2.98
68)		4-Bromophenyl-pheny	0.221	0.222	0.224	0.213	0.216	0.215	0.219	2.07
69)		Hexachlorobenzene	0.217	0.224	0.218	0.213	0.213	0.209	0.216	2.44
70)		Atrazine	0.209	0.225	0.226	0.220	0.219	0.213	0.219	3.04
71)	C	Pentachlorophenol	0.104	0.069	0.092	0.113	0.118	0.122	0.103	19.37
72)		Phenanthrene	1.117	1.160	1.135	1.076	1.069	1.029	1.098	4.40
73)		Anthracene	1.133	1.174	1.151	1.105	1.102	1.051	1.119	3.84
74)		Carbazole	1.094	1.122	1.096	1.048	1.042	0.997	1.066	4.29
75)		Di-n-butylphthalate	1.288	1.303	1.288	1.229	1.224	1.154	1.248	4.54
76)	C	Fluoranthene	1.197	1.226	1.186	1.143	1.138	1.072	1.160	4.68
77)	I	Chrysene-d12	----------ISTD----------							
78)		Benzidine	0.548	0.526	0.577	0.557	0.551	0.506	0.544	4.56
79)		Pyrene	1.289	1.301	1.310	1.226	1.220	1.169	1.253	4.48
80)	S	Terphenyl-d14	0.877	0.909	0.890	0.834	0.827	0.782	0.853	5.53
81)		Butylbenzylphthalat	0.571	0.552	0.573	0.555	0.564	0.542	0.559	2.16
82)		Benzo(a)anthracene	1.159	1.132	1.148	1.113	1.128	1.081	1.127	2.46
83)		3,3'-Dichlorobenzid	0.419	0.409	0.424	0.410	0.400	0.384	0.408	3.49
84)		Chrysene	1.107	1.103	1.101	1.076	1.073	1.032	1.082	2.65
85)		Bis(2-ethylhexyl)ph	0.762	0.753	0.763	0.747	0.749	0.725	0.750	1.86
86)	c	Di-n-octyl phthalat	1.248	1.156	1.208	1.231	1.237	1.209	1.215	2.70
87)		Indeno(1,2,3-cd)pyr	1.121	1.086	1.092	1.110	1.121	1.099	1.105	1.33
88)	I	Perylene-d12	----------ISTD----------							
89)		Benzo(b)fluoranthen	1.244	1.164	1.201	1.196	1.180	1.177	1.194	2.35
90)		Benzo(k)fluoranthen	1.223	1.185	1.236	1.192	1.206	1.157	1.200	2.36
91)	C	Benzo(a)pyrene	1.181	1.095	1.147	1.132	1.139	1.123	1.136	2.50
92)		Dibenzo(a,h)anthrac	1.054	0.964	1.023	1.017	1.008	1.011	1.013	2.89
93)		Benzo(g,h,i)perylen	1.028	0.958	0.992	1.006	1.007	0.999	0.998	2.33

#) = Out of Range

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061810\
Data File : BE064915.D
Acq On : 18 Jun 2010 12:10
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 04:00:58 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Sat Jun 19 03:59:12 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
5		2,4,5-Trichlorophenol	0.384	0.411	-7.0	76	-0.06
6	S	2-Fluorobiphenyl	1.311	1.356	-3.4	72	-0.06
7		1,1'-Biphenyl	1.455	1.480	-1.7	72	-0.06
8		2-Chloronaphthalene	1.186	1.206	-1.7	72	-0.06
9		2-Nitroaniline	0.351	0.346	1.4	70	-0.06
0		Acenaphthylene	1.827	1.868	-2.2	73	-0.06
1		Dimethylphthalate	1.365	1.479	-8.4	77	-0.05
2		2,6-Dinitrotoluene	0.323	0.345	-6.8	76	-0.05
3	C	Acenaphthene	1.105	1.119	-1.3	72	-0.06
4		3-Nitroaniline	0.347	0.362	-4.3	73	-0.06
5	P	2,4-Dinitrophenol	0.064	0.156	-143.8#	201#	-0.06
6		Dibenzofuran	1.653	1.735	-5.0	74	-0.06
7	P	4-Nitrophenol	0.264	0.289	-9.5	77	-0.06
8		2,4-Dinitrotoluene	0.414	0.458	-10.6	77	-0.05
9		Fluorene	1.357	1.446	-6.6	75	-0.06
0		2,3,4,6-Tetrachlorophenol	0.305	0.352	-15.4	81	-0.06
1		Diethylphthalate	1.329	1.468	-10.5	78	-0.06
2		4-Chlorophenyl-phenylether	0.657	0.711	-8.2	77	-0.06
3		4-Nitroaniline	0.360	0.383	-6.4	75	-0.05
4		Azobenzene	1.348	1.342	0.4	70	-0.06
5	I	Phenanthrene-d10	1.000	1.000	0.0	78	-0.05
6		4,6-Dinitro-2-methylphenol	0.083	0.134	-61.4#	122	-0.06
7	c	n-Nitrosodiphenylamine	0.681	0.684	-0.4	77	-0.06
8		4-Bromophenyl-phenylether	0.219	0.229	-4.6	80	-0.05
9		Hexachlorobenzene	0.216	0.231	-6.9	82	-0.05
0		Atrazine	0.219	0.238	-8.7	88	-0.05
1	C	Pentachlorophenol	0.103	0.131	-27.2#	98	-0.05
2		Phenanthrene	1.098	1.127	-2.6	78	-0.05
3		Anthracene	1.119	1.155	-3.2	79	-0.05
4		Carbazole	1.066	1.098	-3.0	78	-0.05
5		Di-n-butylphthalate	1.248	1.328	-6.4	80	-0.04
6	C	Fluoranthene	1.160	1.245	-7.3	81	-0.05
7	I	Chrysene-d12	1.000	1.000	0.0	88	-0.06
8		Benzidine	0.544	0.525	3.5	84	-0.05
9		Pyrene	1.253	1.199	4.3	82	-0.05
0	S	Terphenyl-d14	0.853	0.856	-0.4	86	-0.04
1		Butylbenzylphthalate	0.559	0.549	1.8	84	-0.05
2		Benzo(a)anthracene	1.127	1.132	-0.4	86	-0.06
3		3,3'-Dichlorobenzidine	0.408	0.431	-5.6	90	-0.06
4		Chrysene	1.082	1.087	-0.5	86	-0.06
5		Bis(2-ethylhexyl)phthalate	0.750	0.735	2.0	85	-0.06
6	c	Di-n-octyl phthalate	1.215	1.224	-0.7	86	-0.08
7		Indeno(1,2,3-cd)pyrene	1.105	1.099	0.5	86	-0.16

CHEMTECH

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2643 **SAS No :** B2643 **SDG No:** B2643

Matrix Spike - EPA Sample No : B2643-06

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
Benzaldehyde	2000	0	220	11	(10-161)
Phenol	2000	0	1600	80	(43-127)
bis(2-Chloroethyl)ether	2000	0	1700	85	(43-134)
2-Chlorophenol	2000	0	1700	85	(41-131)
2-Methylphenol	2000	0	1700	85	(44-129)
2,2-oxybis(1-Chloropropane)	2000	0	1400	70	(36-137)
Acetophenone	2000	0	1700	85	(48-131)
3+4-Methylphenols	2000	0	1700	85	(44-131)
n-Nitroso-di-n-propylamine	2000	0	1700	85	(41-137)
Hexachloroethane	2000	0	1600	80	(25-142)
Nitrobenzene	2000	0	1700	85	(37-136)
Isophorone	2000	0	1700	85	(42-137)
2-Nitrophenol	2000	0	1800	90	(28-135)
2,4-Dimethylphenol	2000	0	1700	85	(35-136)
bis(2-Chloroethoxy)methane	2000	0	1700	85	(38-139)
2,4-Dichlorophenol	2000	0	1800	90	(34-137)
Naphthalene	2000	0	1700	85	(23-160)
4-Chloroaniline	2000	0	1300	65	(10-160)
Hexachlorobutadiene	2000	0	1800	90	(37-132)
Caprolactam	2000	0	1700	85	(24-145)
4-Chloro-3-methylphenol	2000	0	1800	90	(40-131)
2-Methylnaphthalene	2000	0	1700	85	(37-139)
Hexachlorocyclopentadiene	3900	0	3000	77	(10-128)
2,4,6-Trichlorophenol	2000	0	1800	90	(32-131)
2,4,5-Trichlorophenol	2000	0	1900	95	(39-134)
1,1-Biphenyl	2000	0	1700	85	(47-131)
2-Chloronaphthalene	2000	0	1700	85	(43-133)
2-Nitroaniline	2000	0	1700	85	(41-138)
Dimethylphthalate	2000	460	2200	87	(51-132)
Acenaphthylene	2000	0	1700	85	(28-155)
2,6-Dinitrotoluene	2000	0	1800	90	(41-130)
3-Nitroaniline	2000	0	1600	80	(10-155)
Acenaphthene	2000	0	1700	85	(32-146)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

RPD : 0 Out of 0 outside limits

Spike Recovery : 2 Out of 156 outside limits

CHEMTECH

3A

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2643 **SAS No :** B2643 **SDG No:** B2643

Matrix Spike - EPA Sample No : B2643-06

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC#	QC LIMITS REC
2,4-Dinitrophenol	3900	0	3000	77	(10-177)
4-Nitrophenol	3900	0	3600	92	(10-155)
Dibenzofuran	2000	0	1700	85	(36-147)
2,4-Dinitrotoluene	2000	0	1900	95	(38-131)
Diethylphthalate	2000	0	1800	90	(47-132)
4-Chlorophenyl-phenylether	2000	0	1800	90	(43-133)
Fluorene	2000	0	1700	85	(17-166)
4-Nitroaniline	2000	0	1700	85	(23-137)
4,6-Dinitro-2-methylphenol	2000	0	1900	95	(10-153)
n-Nitrosodiphenylamine	2000	0	1700	85	(40-143)
4-Bromophenyl-phenylether	2000	0	1800	90	(40-135)
Hexachlorobenzene	2000	0	1700	85	(43-132)
Atrazine	2000	0	1700	85	(38-135)
Pentachlorophenol	3900	0	3700	95	(10-146)
Phenanthrene	2000	0	1700	85	(30-149)
Anthracene	2000	0	1700	85	(27-158)
Carbazole	2000	0	1700	85	(38-147)
Di-n-butylphthalate	2000	0	1800	90	(45-135)
Fluoranthene	2000	56	1700	82	(26-155)
Pyrene	2000	0	1700	85	(22-173)
Butylbenzylphthalate	2000	0	1700	85	(46-141)
3,3-Dichlorobenzidine	2000	0	1600	80	(10-126)
Benzo(a)anthracene	2000	0	1700	85	(27-159)
Chrysene	2000	0	1700	85	(23-166)
Bis(2-ethylhexyl)phthalate	2000	340	2000	83	(39-159)
Di-n-octyl phthalate	2000	0	1800	90	(36-151)
Benzo(b)fluoranthene	2000	0	1600	80	(21-171)
Benzo(k)fluoranthene	2000	0	1700	85	(26-165)
Benzo(a)pyrene	2000	0	1700	85	(26-157)
Indeno(1,2,3-cd)pyrene	2000	0	1800	90	(10-188)
Dibenzo(a,h)anthracene	2000	0	1700	85	(18-147)
Benzo(g,h,i)perylene	2000	0	1700	85	(10-177)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

RPD : 0 Out of 0 outside limits

Spike Recovery : 2 Out of 156 outside limits

CHEMTECH

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2643 **SAS No :** B2643 **SDG No:** B2643

Matrix Spike - EPA Sample No : B2643-06

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD %	MSD %	QC LIMITS RPD	QC LIMITS REC
			(ug/Kg)			
Benzaldehyde	2000	190	10	10	20	(10-161)
Phenol	2000	1400	70	13	20	(43-127)
bis(2-Chloroethyl)ether	2000	1500	75	13	20	(43-134)
2-Chlorophenol	2000	1400	70	19	20	(41-131)
2-Methylphenol	2000	1400	70	19	20	(44-129)
2,2-oxybis(1-Chloropropane)	2000	1200	60	15	20	(36-137)
Acetophenone	2000	1400	70	19	20	(48-131)
3+4-Methylphenols	2000	1400	70	19	20	(44-131)
n-Nitroso-di-n-propylamine	2000	1400	70	19	20	(41-137)
Hexachloroethane	2000	1400	70	13	20	(25-142)
Nitrobenzene	2000	1400	70	19	20	(37-136)
Isophorone	2000	1400	70	19	20	(42-137)
2-Nitrophenol	2000	1400	70	25*	20	(28-135)
2,4-Dimethylphenol	2000	1400	70	19	20	(35-136)
bis(2-Chloroethoxy)methane	2000	1400	70	19	20	(38-139)
2,4-Dichlorophenol	2000	1500	75	18	20	(34-137)
Naphthalene	2000	1400	70	19	20	(23-160)
4-Chloroaniline	2000	930	47	32*	20	(10-160)
Hexachlorobutadiene	2000	1500	75	18	20	(37-132)
Caprolactam	2000	1400	70	19	20	(24-145)
4-Chloro-3-methylphenol	2000	1500	75	18	20	(40-131)
2-Methylnaphthalene	2000	1500	75	13	20	(37-139)
Hexachlorocyclopentadiene	3900	2500	64	18	20	(10-128)
2,4,6-Trichlorophenol	2000	1500	75	18	20	(32-131)
2,4,5-Trichlorophenol	2000	1500	75	24*	20	(39-134)
1,1-Biphenyl	2000	1400	70	19	20	(47-131)
2-Chloronaphthalene	2000	1400	70	19	20	(43-133)
2-Nitroaniline	2000	1400	70	19	20	(41-138)
Dimethylphthalate	2000	1800	67	26*	20	(51-132)
Acenaphthylene	2000	1400	70	19	20	(28-155)
2,6-Dinitrotoluene	2000	1500	75	18	20	(41-130)
3-Nitroaniline	2000	1200	60	29*	20	(10-155)
Acenaphthene	2000	1400	70	19	20	(32-146)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 22 Out of 78 outside limits

Spike Recovery : 1 Out of 78 outside limits

CHEMTECH

SOLID SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH **Contract:** MACT03

Lab Code: CHEM **Cas No:** B2643 **SAS No :** B2643 **SDG No:** B2643

Matrix Spike - EPA Sample No : B2643-06

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % (ug/Kg)	MSD %	QC LIMITS RPD	QC LIMITS REC
2,4-Dinitrophenol	3900	2600	67	14	20	(10-177)
4-Nitrophenol	3900	2800	72	24*	20	(10-155)
Dibenzofuran	2000	1400	70	19	20	(36-147)
2,4-Dinitrotoluene	2000	1500	75	24*	20	(38-131)
Diethylphthalate	2000	1500	75	18	20	(47-132)
4-Chlorophenyl-phenylether	2000	1400	70	25*	20	(43-133)
Fluorene	2000	1400	70	19	20	(17-166)
4-Nitroaniline	2000	1300	65	27*	20	(23-137)
4,6-Dinitro-2-methylphenol	2000	1600	80	17	20	(10-153)
n-Nitrosodiphenylamine	2000	1400	70	19	20	(40-143)
4-Bromophenyl-phenylether	2000	1400	70	25*	20	(40-135)
Hexachlorobenzene	2000	1400	70	19	20	(43-132)
Atrazine	2000	1300	65	27*	20	(38-135)
Pentachlorophenol	3900	2900	74	25*	20	(10-146)
Phenanthrene	2000	1400	70	19	20	(30-149)
Anthracene	2000	1400	70	19	20	(27-158)
Carbazole	2000	1400	70	19	20	(38-147)
Di-n-butylphthalate	2000	1400	70	25*	20	(45-135)
Fluoranthene	2000	1400	67	20	20	(26-155)
Pyrene	2000	1400	70	19	20	(22-173)
Butylbenzylphthalate	2000	1400	70	19	20	(46-141)
3,3-Dichlorobenzidine	2000	1200	60	29*	20	(10-126)
Benzo(a)anthracene	2000	1400	70	19	20	(27-159)
Chrysene	2000	1400	70	19	20	(23-166)
Bis(2-ethylhexyl)phthalate	2000	1600	63	27*	20	(39-159)
Di-n-octyl phthalate	2000	1400	70	25*	20	(36-151)
Benzo(b)fluoranthene	2000	1300	65	21*	20	(21-171)
Benzo(k)fluoranthene	2000	1300	65	27*	20	(26-165)
Benzo(a)pyrene	2000	1400	70	19	20	(26-157)
Indeno(1,2,3-cd)pyrene	2000	1500	75	18	20	(10-188)
Dibenzo(a,h)anthracene	2000	1400	70	19	20	(18-147)
Benzo(g,h,i)perylene	2000	1400	70	19	20	(10-177)

 # Column to be used to flag recovery and RPD values with an asterisk

*** Values outside of QC limits**

RPD : 22 Out of 78 outside limits

Spike Recovery : 1 Out of 78 outside limits

CHEMTECH

3A

SOIL SEMIVOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Cas No: B2643 SAS No : B2643 SDG No: B2643

Matrix Spike - EPA Sample No : PB49798BS

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
Benzaldehyde	1700		150	9*	(10-161)
Phenol	1700		1200	71	(51-111)
bis(2-Chloroethyl)ether	1700		1200	71	(48-114)
2-Chlorophenol	1700		1200	71	(53-110)
2-Methylphenol	1700		1200	71	(52-111)
2,2-oxybis(1-Chloropropane)	1700		990	58	(45-117)
Acetophenone	1700		1200	71	(51-114)
3+4-Methylphenols	1700		1200	71	(54-109)
n-Nitroso-di-n-propylamine	1700		1200	71	(51-114)
Hexachloroethane	1700		1200	71	(44-113)
Nitrobenzene	1700		1200	71	(49-114)
Isophorone	1700		1200	71	(52-113)
2-Nitrophenol	1700		1200	71	(51-116)
2,4-Dimethylphenol	1700		1200	71	(46-148)
bis(2-Chloroethoxy)methane	1700		1200	71	(52-115)
2,4-Dichlorophenol	1700		1300	76	(53-112)
Naphthalene	1700		1200	71	(51-114)
4-Chloroaniline	1700		910	54	(25-115)
Hexachlorobutadiene	1700		1400	82	(47-116)
Caprolactam	1700		1200	71	(34-117)
4-Chloro-3-methylphenol	1700		1200	71	(56-111)
2-Methylnaphthalene	1700		1300	76	(54-111)
Hexachlorocyclopentadiene	3300		2700	82	(43-112)
2,4,6-Trichlorophenol	1700		1300	76	(53-112)
2,4,5-Trichlorophenol	1700		1300	76	(53-113)
1,1-Biphenyl	1700		1200	71	(55-109)
2-Chloronaphthalene	1700		1200	71	(55-112)
2-Nitroaniline	1700		1100	65	(53-118)
Dimethylphthalate	1700		1400	82	(57-112)
Acenaphthylene	1700		1200	71	(54-113)
2,6-Dinitrotoluene	1700		1200	71	(55-114)
3-Nitroaniline	1700		980	58	(10-157)
Acenaphthene	1700		1200	71	(54-113)
2,4-Dinitrophenol	3300		2900	88	(15-153)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 78 outside limits

Comments: _____

CHEMTECH

3A

SOIL SEMIVOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Contract: MACT03

Lab Code: CHEM Cas No: B2643 SAS No : B2643 SDG No: B2643

Matrix Spike - EPA Sample No : PB49798BS

COMPOUND	SPIKE ADDED (ug/Kg)	CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC#	QC LIMITS REC
4-Nitrophenol	3300		2400	73	(44-115)
Dibenzofuran	1700		1200	71	(59-108)
2,4-Dinitrotoluene	1700		1300	76	(55-115)
Diethylphthalate	1700		1200	71	(56-111)
4-Chlorophenyl-phenylether	1700		1300	76	(56-111)
Fluorene	1700		1200	71	(56-113)
4-Nitroaniline	1700		1100	65	(46-113)
4,6-Dinitro-2-methylphenol	1700		1600	94	(39-126)
n-Nitrosodiphenylamine	1700		1200	71	(54-115)
4-Bromophenyl-phenylether	1700		1300	76	(51-120)
Hexachlorobenzene	1700		1200	71	(52-117)
Atrazine	1700		1100	65	(40-127)
Pentachlorophenol	3300		2500	76	(47-116)
Phenanthrene	1700		1200	71	(56-113)
Anthracene	1700		1200	71	(56-113)
Carbazole	1700		1200	71	(54-117)
Di-n-butylphthalate	1700		1200	71	(58-115)
Fluoranthene	1700		1200	71	(54-117)
Pyrene	1700		1200	71	(58-117)
Butylbenzylphthalate	1700		1200	71	(57-122)
3,3-Dichlorobenzidine	1700		830	49	(10-157)
Benzo(a)anthracene	1700		1200	71	(57-112)
Chrysene	1700		1200	71	(59-114)
Bis(2-ethylhexyl)phthalate	1700		1200	71	(60-119)
Di-n-octyl phthalate	1700		1200	71	(56-122)
Benzo(b)fluoranthene	1700		1200	71	(53-120)
Benzo(k)fluoranthene	1700		1200	71	(56-117)
Benzo(a)pyrene	1700		1200	71	(56-117)
Indeno(1,2,3-cd)pyrene	1700		1200	71	(49-120)
Dibenzo(a,h)anthracene	1700		1200	71	(52-119)
Benzo(g,h,i)perylene	1700		1200	71	(53-119)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 0 outside limits

Spike Recovery : 1 Out of 78 outside limits

Comments: _____

_____

CHEMTECH

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PB49798B

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: PB49798B

Sample wt/vol: 30.02 (g/mL) g Lab File ID: BE064918.D

Level: (low/med) LOW Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Extraction: (Type) SOXH

Concentration Units:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/Kg	Q
100-52-7	Benzaldehyde	330	U
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2-oxybis(1-Chloropropane)	330	U
98-86-2	Acetophenone	330	U
65794-96-9	3+4-Methylphenols	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
105-60-2	Caprolactam	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
92-52-4	1,1-Biphenyl	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	200	J

Comments:

CHEMTECH

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

PB49798B

Lab Name: Chemtech Contract: MACT03

Lab Code: CHEM Case No.: B2643 SAS No.: B2643 SDG No.: B2643

Matrix (soil/water): SOIL Lab Sample ID: PB49798B

Sample wt/vol: 30.02 (g/mL) g Lab File ID: BE064918.D

Level: (low/med) LOW Date Received:

% Moisture: 0 Decanted: (Y/N) N Date Extracted: 06/14/10

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/18/10

Injection Volume: 1 Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Concentration Units: ug/Kg

Number TICS found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	5.3	450	A
52182-29-3	Propenone, 3-(3-chlorophenyl)-1-(3	17.64	78	J

TICs

Data Path : Z:\HPCHEM1\BNA_E\Data\BE061410\
Data File : BE064786.D
Acq On : 14 Jun 2010 17:04
Operator : QM
Sample : 40 ng BNA ICV
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 12:21:21 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Tue Jun 15 12:17:17 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00
2		1,4-Dioxane	0.509	0.485	4.7	106	0.00
3		Pyridine	1.261	1.315	-4.3	113	0.00
4		n-Nitrosodimethylamine	0.552	0.555	-0.5	110	0.00
5	S	2-Fluorophenol	1.303	1.298	0.4	109	0.00
6		Aniline	2.173	2.229	-2.6	114	0.00
7	S	Phenol-d5	1.648	1.618	1.8	109	0.00
8		2-Chlorophenol	1.428	1.485	-4.0	115	0.00
9		Benzaldehyde	0.875	0.939	-7.3	111	0.00
0	C	Phenol	1.729	1.768	-2.3	111	0.00
1		bis(2-Chloroethyl)ether	1.415	1.461	-3.3	114	0.00
2	S	2-Chlorophenol-d4	1.279	1.273	0.5	110	0.00
3		1,3-Dichlorobenzene	1.500	1.558	-3.9	115	0.00
4	C	1,4-Dichlorobenzene	1.566	1.609	-2.7	113	0.00
5	s	1,2-Dichlorobenzene-d4	0.905	0.912	-0.8	111	0.00
6		1,2-Dichlorobenzene	1.447	1.496	-3.4	113	0.00
7		Benzyl Alcohol	1.072	1.133	-5.7	114	0.00
8		2,2'-oxybis(1-Chloropropane	1.642	1.669	-1.6	113	0.00
9		2-Methylphenol	1.129	1.149	-1.8	114	0.00
0		Hexachloroethane	0.607	0.636	-4.8	116	0.00
1	P	n-Nitroso-di-n-propylamine	1.007	1.018	-1.1	111	0.00
2		3+4-Methylphenols	1.485	1.518	-2.2	113	0.00
3	I	Naphthalene-d8	1.000	1.000	0.0	109	0.00
4		Acetophenone	0.502	0.523	-4.2	112	0.00
5	S	Nitrobenzene-d5	0.383	0.391	-2.1	111	0.00
6		Nitrobenzene	0.385	0.408	-6.0	114	0.00
7		Isophorone	0.688	0.721	-4.8	113	0.00
8	C	2-Nitrophenol	0.193	0.202	-4.7	112	0.00
9		2,4-Dimethylphenol	0.323	0.336	-4.0	118	0.00
0		bis(2-Chloroethoxy)methane	0.424	0.440	-3.8	112	0.00
1	C	2,4-Dichlorophenol	0.283	0.297	-4.9	113	0.00
2		1,2,4-Trichlorobenzene	0.321	0.340	-5.9	114	0.00
3		Naphthalene	1.048	1.102	-5.2	112	0.00
4		Benzoic acid	0.065	0.094	-44.6#	163#	0.02
5		4-Chloroaniline	0.449	0.474	-5.6	115	0.00
6	C	Hexachlorobutadiene	0.181	0.194	-7.2	116	0.00
7		Caprolactam	0.116	0.120	-3.4	112	0.00
8	C	4-Chloro-3-methylphenol	0.325	0.342	-5.2	113	0.00
9		2-Methylnaphthalene	0.659	0.710	-7.7	116	0.00
0	I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00
1		1,2,4,5-Tetrachlorobenzene	0.535	0.566	-5.8	113	0.00
2	P	Hexachlorocyclopentadiene	0.326	0.342	-4.9	117	0.00
3	S	2,4,6-Tribromophenol	0.160	0.165	-3.1	109	0.00
4	C	2,4,6-Trichlorophenol	0.371	0.401	-8.1	115	0.00

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061810\
Data File : BE064915.D
Acq On : 18 Jun 2010 12:10
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 04:00:58 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Sat Jun 19 03:59:12 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	68	-0.06
2		1,4-Dioxane	0.509	0.553	-8.6	73	-0.05
3		Pyridine	1.261	1.346	-6.7	69	-0.05
4		n-Nitrosodimethylamine	0.552	0.594	-7.6	71	-0.05
5	S	2-Fluorophenol	1.303	1.291	0.9	65	-0.06
6		Aniline	2.173	2.100	3.4	64	-0.05
7	S	Phenol-d5	1.648	1.610	2.3	65	-0.06
8		2-Chlorophenol	1.428	1.412	1.1	66	-0.06
9		Benzaldehyde	0.875	0.790	9.7	56	-0.06
0	C	Phenol	1.729	1.639	5.2	62	-0.06
1		bis(2-Chloroethyl)ether	1.415	1.339	5.4	63	-0.06
2	S	2-Chlorophenol-d4	1.279	1.298	-1.5	67	-0.06
3		1,3-Dichlorobenzene	1.500	1.512	-0.8	67	-0.06
4	C	1,4-Dichlorobenzene	1.566	1.600	-2.2	67	-0.06
5	s	1,2-Dichlorobenzene-d4	0.905	0.925	-2.2	67	-0.06
6		1,2-Dichlorobenzene	1.447	1.458	-0.8	66	-0.06
7		Benzyl Alcohol	1.072	1.121	-4.6	68	-0.05
8		2,2'-oxybis(1-Chloropropane	1.642	1.326	19.2	54	-0.06
9		2-Methylphenol	1.129	1.085	3.9	64	-0.06
0		Hexachloroethane	0.607	0.609	-0.3	67	-0.06
1	P	n-Nitroso-di-n-propylamine	1.007	0.989	1.8	65	-0.06
2		3+4-Methylphenols	1.485	1.487	-0.1	66	-0.06
3	I	Naphthalene-d8	1.000	1.000	0.0	67	-0.06
4		Acetophenone	0.502	0.500	0.4	66	-0.05
5	S	Nitrobenzene-d5	0.383	0.383	0.0	67	-0.06
6		Nitrobenzene	0.385	0.377	2.1	65	-0.06
7		Isophorone	0.688	0.684	0.6	66	-0.06
8	C	2-Nitrophenol	0.193	0.198	-2.6	68	-0.06
9		2,4-Dimethylphenol	0.323	0.312	3.4	68	-0.06
0		bis(2-Chloroethoxy)methane	0.424	0.412	2.8	64	-0.06
1	C	2,4-Dichlorophenol	0.283	0.304	-7.4	71	-0.06
2		1,2,4-Trichlorobenzene	0.321	0.342	-6.5	71	-0.06
3		Naphthalene	1.048	1.068	-1.9	67	-0.06
4		Benzoic acid	0.065	0.162	149.2#	173#	-0.02
5		4-Chloroaniline	0.449	0.459	-2.2	68	-0.06
6	C	Hexachlorobutadiene	0.181	0.203	-12.2	75	-0.06
7		Caprolactam	0.116	0.125	-7.8	71	-0.05
8	C	4-Chloro-3-methylphenol	0.325	0.351	-8.0	72	-0.06
9		2-Methylnaphthalene	0.659	0.684	-3.8	69	-0.06
0	I	Acenaphthene-d10	1.000	1.000	0.0	73	-0.06
1		1,2,4,5-Tetrachlorobenzene	0.535	0.571	-6.7	76	-0.06
2	P	Hexachlorocyclopentadiene	0.326	0.363	-11.3	83	-0.06
3	S	2,4,6-Tribromophenol	0.160	0.186	-16.2	82	-0.06
4	C	2,4,6-Trichlorophenol	0.371	0.400	-7.8	76	-0.06

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061810\
Data File : BE064915.D
Acq On : 18 Jun 2010 12:10
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 04:00:58 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Sat Jun 19 03:59:12 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
5		2,4,5-Trichlorophenol	0.384	0.411	-7.0	76	-0.06
6	S	2-Fluorobiphenyl	1.311	1.356	-3.4	72	-0.06
7		1,1'-Biphenyl	1.455	1.480	-1.7	72	-0.06
8		2-Chloronaphthalene	1.186	1.206	-1.7	72	-0.06
9		2-Nitroaniline	0.351	0.346	1.4	70	-0.06
0		Acenaphthylene	1.827	1.868	-2.2	73	-0.06
1		Dimethylphthalate	1.365	1.479	-8.4	77	-0.05
2		2,6-Dinitrotoluene	0.323	0.345	-6.8	76	-0.05
3	C	Acenaphthene	1.105	1.119	-1.3	72	-0.06
4		3-Nitroaniline	0.347	0.362	-4.3	73	-0.06
5	P	2,4-Dinitrophenol	0.064	0.156	-143.8#	201#	-0.06
6		Dibenzofuran	1.653	1.735	-5.0	74	-0.06
7	P	4-Nitrophenol	0.264	0.289	-9.5	77	-0.06
8		2,4-Dinitrotoluene	0.414	0.458	-10.6	77	-0.05
9		Fluorene	1.357	1.446	-6.6	75	-0.06
0		2,3,4,6-Tetrachlorophenol	0.305	0.352	-15.4	81	-0.06
1		Diethylphthalate	1.329	1.468	-10.5	78	-0.06
2		4-Chlorophenyl-phenylether	0.657	0.711	-8.2	77	-0.06
3		4-Nitroaniline	0.360	0.383	-6.4	75	-0.05
4		Azobenzene	1.348	1.342	0.4	70	-0.06
5	I	Phenanthrene-d10	1.000	1.000	0.0	78	-0.05
6		4,6-Dinitro-2-methylphenol	0.083	0.134	-61.4#	122	-0.06
7	c	n-Nitrosodiphenylamine	0.681	0.684	-0.4	77	-0.06
8		4-Bromophenyl-phenylether	0.219	0.229	-4.6	80	-0.05
9		Hexachlorobenzene	0.216	0.231	-6.9	82	-0.05
0		Atrazine	0.219	0.238	-8.7	88	-0.05
1	C	Pentachlorophenol	0.103	0.131	-27.2#	98	-0.05
2		Phenanthrene	1.098	1.127	-2.6	78	-0.05
3		Anthracene	1.119	1.155	-3.2	79	-0.05
4		Carbazole	1.066	1.098	-3.0	78	-0.05
5		Di-n-butylphthalate	1.248	1.328	-6.4	80	-0.04
6	C	Fluoranthene	1.160	1.245	-7.3	81	-0.05
7	I	Chrysene-d12	1.000	1.000	0.0	88	-0.06
8		Benzidine	0.544	0.525	3.5	84	-0.05
9		Pyrene	1.253	1.199	4.3	82	-0.05
0	S	Terphenyl-d14	0.853	0.856	-0.4	86	-0.04
1		Butylbenzylphthalate	0.559	0.549	1.8	84	-0.05
2		Benzo(a)anthracene	1.127	1.132	-0.4	86	-0.06
3		3,3'-Dichlorobenzidine	0.408	0.431	-5.6	90	-0.06
4		Chrysene	1.082	1.087	-0.5	86	-0.06
5		Bis(2-ethylhexyl)phthalate	0.750	0.735	2.0	85	-0.06
6	c	Di-n-octyl phthalate	1.215	1.224	-0.7	86	-0.08
7		Indeno(1,2,3-cd)pyrene	1.105	1.099	0.5	86	-0.16

Data Path : \\Terastorage\svoasrv\HPCHEM1\BNA_E\Data\BE061810\
Data File : BE064915.D
Acq On : 18 Jun 2010 12:10
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 04:00:58 2010
Quant Method : Z:\HPCHEM1\BNA_E\METHOD\8270-BE061410.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Sat Jun 19 03:59:12 2010
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
8 I	Perylene-d12	1.000	1.000	0.0	89	-0.12
9	Benzo(b)fluoranthene	1.194	1.207	-1.1	86	-0.10
0	Benzo(k)fluoranthene	1.200	1.228	-2.3	89	-0.09
1 C	Benzo(a)pyrene	1.136	1.160	-2.1	87	-0.11
2	Dibenzo(a,h)anthracene	1.013	1.013	0.0	85	-0.17
3	Benzo(g,h,i)perylene	0.998	1.011	-1.3	87	-0.18

(#) = Out of Range SPCC's out = 0 CCC's out = 1

PCBs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD

Project: Loehn's Corary

Method : 8082

Laboratory and SDG(s): Chemtech B2643

Date: 8/4/10

Reviewer:

Review Level ☒ NYSDEC DUSR ☐ USEPA Region II Guideline

1. ☑ Case Narrative Review and Data Package Completeness — COMMENTS

   Where all the samples on the COC analyzed for the requested analyses? YES NO (circle one) 8/4/10

2. ☑ Holding time and Sample Collection

   Aqueous hold time is 7days to extraction, solid is 14 days.

   Hold time met for all samples? YES NO (circle one)

3. ☑ QC Blanks

   Are method blanks free of contamination? YES NO (circle one)

   Are Rinse blanks free of contamination? YES NO NA (circle one)

   ☑ Percent difference between columns (Region II criteria is 25% for PCBs)

   Is the percent difference between columns ≤25 for PCBs% YES NO NA (circle one)

   ☑ Instrument Calibration

   For aroclors was the I-cal criteria of 20% (%RSD) met? YES NO NA (circle one)

   For aroclors, was the continuing calibration criteria of 15% (%D) met? YES NO NA (circle one)

   ☑ Surrogate Recovery (soil and water limits: 30-150%)

   Were all results were within limits? YES NO (circle one)

   ☑ Matrix Spike (soil and water limits: 29-135% and RPD of 20, RPD is 15 for Aroclor 1016)

   Were MS/MSDs submitted/analyzed? YES NO (circle one)

   Were all results were within limits? YES NO NA (circle one)

   ☑ Field Duplicates (RPD limits for soil=100, water = 50)

   Were Field Duplicates submitted/analyzed? YES NO

   Were RPDs within the limits? YES NO NA (circle one)

   ☑ Laboratory Control Sample Results (soil and water percent recovery limits: 50-150%)

   Were all results were within limits? YES NO (circle one)

4. ☑ Raw Data Review and Calculation Checks

5. ☑ Electronic Data Review and Edits

   Does the EDD match the Form I's? YES NO (circle one)

6. ☐ DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).

   Were all tables produced? YES NO (circle one)

DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS SITE
CORNING, NEW YORK

1.0 INTRODUCTION

Soil vapor and groundwater samples were collected at the Loohns Dry Cleaning Site (Site) in Corning, New York in June 2011 and submitted to an off-site laboratory for analysis. Soil vapor samples were analyzed by Enalytic located in Syracuse, New York and groundwater samples were analyzed by Chemtech in Mountainside, New Jersey. Results were reported in the following Sample Delivery Groups (SDG): E1106002 (soil vapor) and C2487 (water).

A listing of samples included in this Data Usability Summary Report is presented in Table 1. A summary of the analytical results is presented in Table 2. A summary of sample results qualified during this review is presented in Table 3 (Summary of Validation Actions). Tentatively Identified Compounds (TICs) are presented in Table 4. Samples were analyzed by the following methods:

- Volatile organic compounds (VOCs) by USEPA Method TO-15
- VOCs by USEPA Method SW-846-8260B
- Semi volatile organic compounds (SVOCs) by USEP Method SW-846-8270C
- Metals by USEPA Method SW-846-6010B
- Mercury by USEPA Method SW-846-7470A
- Polychlorinated biphenyls (PCBs) by USEPA Method SW-846-8082
- Pesticides by USEPA Method SW-846-8081

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2010). Laboratory quality control (QC) limits were used during the data evaluation unless noted otherwise. The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, instrument calibrations, duplicates, surrogate recovery, and spike recovery), data transcription, electronic data reporting, calculations, and data qualification.

The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated
UJ = target analyte is not detected at the reported detection limit and is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – AIR

Air samples were reported in SDG E1106002. The laboratory provided results in units of ppbv and µg/m^3 in the data reports. Final results are reported in units of µg/m^3.

Initial and Continuing Calibration

In the initial calibration analyzed on April 21, 2011, the percent relative standard deviation for methylene chloride (35) exceeded the QC limit of 30. Methylene chloride was not detected in associated samples and the reporting limits were qualified as estimated (UJ).

In the continuing calibration analyzed on June 20, 2011, the following compounds had a percent difference that exceeded the QC limit of 30: 1,1,2,2-tetrachloroethane (34) and 2-butanone (31). 1,1,2,2-Tetrachloroethane and 2-butanone were not detected in associated samples and the reporting limits were qualified estimated (UJ).

Laboratory Control Sample Results

A subset of sample results were qualified due to low LCS recovery.

In the LSC analyzed on June 20, 2011, the percent recovery for isopropanol (65) was below the QC limit of 70. Isopropanol was not detected in associated samples and the reporting limits were qualified estimated (UJ).

Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported by the laboratory. TICs reported in samples are presented in Table 4. Only samples that had TICs reported are included on Table 4. If a sample is not listed, no TICs were reported in the sample.

3.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – WATER

Initial and Continuing Calibration

In the initial calibration analyzed on June 1, 2011, the percent relative standard deviation (RSD) QC limit of 20 was exceeded for the following compounds: methylene chloride (79) and bromoform (22). Methylene chloride and bromoform were not detected in the associated samples and the reporting limits were qualified estimated (UJ).

In the continuing calibration analyzed on June 7, 2011, the following compounds had a percent difference that exceeded the QC limit of 20: methylene chloride (39) and bromoform (21). Methylene chloride and bromoform were not detected in the associated samples and the reporting limits were qualified estimated (UJ).

4.0 SEMI VOLATILE ORGANIC COMPOUNDS (SVOCs) – WATER

Initial Calibration

In the initial calibration analyzed on June 4, 2011, the following compounds had a percent RSD that exceeded QC limit of 15: 2,4-dinitrophenol (30) and 4,6-dinitro-2-methlyphenol (23). 2,4-Dintrophenol and 4,6-dinitro-2-methlyphenol were not detected in associated samples and the reporting limits were qualified estimated (UJ)

Surrogates

The percent recoveries of surrogates 2-fluorophenol (27) and phenol-d5 (17) in sample LCMW001016 were less than the lower QC limit of 30. The associated acid fraction compounds in sample LCMW001016 were not detected and the results were qualified estimated (UJ) at the reporting limits.

Laboratory Control Sample and Duplicate (LCS/LCSD)

The LCS/LCSD percent recoveries for benzaldehyde (2/3) and caprolactam (28/26) were below the QC of 50. Benzaldehyde and caprolactam were not detected in the associated samples and the reporting limits were qualified and estimated (UJ).

The LCS/LCSD relative percent difference for benzaldehyde (40) exceeded the QC limit of 30. Benzaldehyde not detected in the associated samples and sample results were qualified estimated (UJ) at the reporting limit.

5.0 METALS – WATER

Blanks

Aluminum (29.7 µg/L) and lead (6.0 µg/L) were detected in the method and continuing calibration blank associated with samples in SDG C2487. Action levels were established at five times the highest concentration reported in the blanks and compared to sample results. Concentrations of aluminum and lead reported below the action level were qualified not detected (U) in samples LCMW001016 and LCMW002019.

6.0 PESTICIDES – WATER

Laboratory Control Sample and Duplicate (LCS/LCSD)

The RPD of gamma-chlordane (24) exceeded the laboratory QC limit of 20 in the LCS/LCSD analyzed with associated samples. Gamma-chlordane was not detected in associated samples and the reporting limits were qualified estimated (UJ).

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

New York State Department of Environmental Conservation (NYSDEC), 2010. "Technical Guidance for Site Investigation and Remediation-Appendix 2B"; DER-10; Division of Environmental Remediation; May 2010.

USEPA, 2006. "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B"; SOP # HW-24, Revision 2, Hazardous Waste Support Branch; October 2006.

USEPA, 2006. "Validating Air Samples by Volatile Organic Analysis of Ambient Air Canisiter by Method TO-15"; SOP # HW-31, Revision 4, Hazardous Waste Support Branch; October 2006.

USEPA, 2006. "Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D"; SOP # HW-22, Revision 3, Hazardous Waste Support Branch; October 2006.

USEPA, 2006. "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3 (SOP Revision 13)"; SOP # HW-2, Revision 13, Hazardous Waste Support Branch; September 2006.

USEPA, 2006. "Validating PCBs by Gas Chromatography SW-846 Method 8082A"; SOP # HW-45, Revision 1, Hazardous Waste Support Branch; October 2006.

USEPA, 2006. "Validating Pesticide Compounds Organochlorine pesticides by Gas Chromatography SW-846 Method 8081B"; SOP # HW-44, Revision 1, Hazardous Waste Support Branch; October 2006.

Data Validator: Mike Washburn

Date: 8/2/2011

Reviewed by Tige Cunningham, NRCC-EAC

Date: 8/15/2011

TABLE 1
SUMMARY OF SAMPLES AND ANALYTICAL METHODS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

					Class	VOC	VOC	SVOC	Pesticides	PCBs	Metals	Metals
					Analysis Method	EPA TO-15	SW8260B	SW8270C	SW8081A	SW8082	SW6010B	SW7470A
					Fraction	T	T	T	T	T	T	T
SDG	**Location**	**Sample Date**	**Sample ID**	**Qc Code**	**Media**							
C2487	MW-1	6/1/2011	LCMW001016	FS	GW		X	X	X	X	X	X
C2487	MW-2	6/1/2011	LCMW002019	FS	GW		X	X	X	X	X	X
C2487	QC	6/1/2011	LCTB001	TB	BW		X					
MT005	EW-01	6/1/2011	LCSVEW1005	FS	SV	X						
MT005	SV-02	6/1/2011	LCSV002007	FS	SV	X						

Notes:

QC CODE

FS = field sample, FD = field duplicate, TB = trip blank

Media

GW = groundwater, BW = blank water, SV = soil vapor

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

		Sample Delivery Group	C2487		C2487		C2487	
		Location	MW-1		MW-2		QC	
		Sample Date	6/1/2011		6/1/2011		6/1/2011	
		Sample ID	LCMW001016		LCMW002019		LCTB001	
		Qc Code	FS		FS		TB	
Analysis	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8260B	1,1,1-Trichloroethane	ug/l	1	U	1	U	1	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U
SW8260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	1	U	1	U	1	U
SW8260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U
SW8260B	1,1-Dichloroethane	ug/l	1	U	1	U	1	U
SW8260B	1,1-Dichloroethene	ug/l	1	U	1	U	1	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	1	U	1	U	1	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1	U	1	U	1	U
SW8260B	1,2-Dibromoethane	ug/l	1	U	1	U	1	U
SW8260B	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U
SW8260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U
SW8260B	1,2-Dichloropropane	ug/l	1	U	1	U	1	U
SW8260B	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U
SW8260B	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U
SW8260B	2-Butanone	ug/l	5	U	5	U	5	U
SW8260B	2-Hexanone	ug/l	5	U	5	U	5	U
SW8260B	4-Methyl-2-pentanone	ug/l	5	U	5	U	5	U
SW8260B	Acetic acid, methyl ester	ug/l	1	U	1	U	1	U
SW8260B	Acetone	ug/l	5	U	5	U	5	U
SW8260B	Benzene	ug/l	1	U	1	U	1	U
SW8260B	Bromodichloromethane	ug/l	1	U	1	U	1	U
SW8260B	Bromoform	ug/l	1	UJ	1	UJ	1	U
SW8260B	Bromomethane	ug/l	1	U	1	U	1	U
SW8260B	Carbon disulfide	ug/l	1	U	1	U	1	U
SW8260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U
SW8260B	Chlorobenzene	ug/l	1	U	1	U	1	U
SW8260B	Chlorodibromomethane	ug/l	1	U	1	U	1	U
SW8260B	Chloroethane	ug/l	1	U	1	U	1	U
SW8260B	Chloroform	ug/l	1	U	1	U	1	U
SW8260B	Chloromethane	ug/l	1	U	1	U	1	U
SW8260B	Cis-1,2-Dichloroethene	ug/l	1	U	1	U	1	U
SW8260B	cis-1,3-Dichloropropene	ug/l	1	U	1	U	1	U
SW8260B	Cyclohexane	ug/l	1	U	1	U	1	U
SW8260B	Dichlorodifluoromethane	ug/l	1	U	1	U	1	U
SW8260B	Ethyl benzene	ug/l	1	U	1	U	1	U
SW8260B	Isopropylbenzene	ug/l	1	U	1	U	1	U
SW8260B	Methyl cyclohexane	ug/l	1	U	1	U	1	U
SW8260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U
SW8260B	Methylene chloride	ug/l	1	UJ	1	UJ	1	U
SW8260B	Styrene	ug/l	1	U	1	U	1	U
SW8260B	Tetrachloroethene	ug/l	1.1		4.7		1	U
SW8260B	Toluene	ug/l	1	U	1	U	1	U
SW8260B	trans-1,2-Dichloroethene	ug/l	1	U	1	U	1	U
SW8260B	trans-1,3-Dichloropropene	ug/l	1	U	1	U	1	U
SW8260B	Trichloroethene	ug/l	1	U	1	U	1	U
SW8260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U
SW8260B	Vinyl chloride	ug/l	1	U	1	U	1	U
SW8260B	Xylene, o	ug/l	1	U	1	U	1	U
SW8260B	Xylenes (m&p)	ug/l	2	U	2	U	2	U
SW8270C	2,4,5-Trichlorophenol	ug/l	10	UJ	10	U		

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

		Sample Delivery Group	C2487		C2487		C2487	
		Location	MW-1		MW-2		QC	
		Sample Date	6/1/2011		6/1/2011		6/1/2011	
		Sample ID	LCMW001016		LCMW002019		LCTB001	
		Qc Code	FS		FS		TB	
Analysis	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8270C	2,4,6-Trichlorophenol	ug/l	10	UJ	10	U		
SW8270C	2,4-Dichlorophenol	ug/l	10	UJ	10	U		
SW8270C	2,4-Dimethylphenol	ug/l	10	UJ	10	U		
SW8270C	2,4-Dinitrophenol	ug/l	10	UJ	10	UJ		
SW8270C	2,4-Dinitrotoluene	ug/l	10	U	10	U		
SW8270C	2,6-Dinitrotoluene	ug/l	10	U	10	U		
SW8270C	2-Chloronaphthalene	ug/l	10	U	10	U		
SW8270C	2-Chlorophenol	ug/l	10	U	10	U		
SW8270C	2-Methylnaphthalene	ug/l	10	U	10	U		
SW8270C	2-Methylphenol	ug/l	10	UJ	10	U		
SW8270C	2-Nitroaniline	ug/l	10	U	10	U		
SW8270C	2-Nitrophenol	ug/l	10	UJ	10	U		
SW8270C	3,3`-Dichlorobenzidine	ug/l	10	U	10	U		
SW8270C	3-Nitroaniline	ug/l	10	U	10	U		
SW8270C	4,6-Dinitro-2-methylphenol	ug/l	10	UJ	10	UJ		
SW8270C	4-Bromophenyl phenyl ether	ug/l	10	U	10	U		
SW8270C	4-Chloro-3-methylphenol	ug/l	10	UJ	10	U		
SW8270C	4-Chloroaniline	ug/l	10	UJ	10	UJ		
SW8270C	4-Chlorophenyl phenyl ether	ug/l	10	U	10	U		
SW8270C	4-Nitroaniline	ug/l	10	U	10	U		
SW8270C	4-Nitrophenol	ug/l	10	UJ	10	UJ		
SW8270C	Acenaphthene	ug/l	10	U	10	U		
SW8270C	Acenaphthylene	ug/l	10	U	10	U		
SW8270C	Acetophenone	ug/l	10	U	10	U		
SW8270C	Anthracene	ug/l	10	U	10	U		
SW8270C	Atrazine	ug/l	10	U	10	U		
SW8270C	Benzaldehyde	ug/l	10	UJ	10	UJ		
SW8270C	Benzo(a)anthracene	ug/l	10	U	10	U		
SW8270C	Benzo(a)pyrene	ug/l	10	U	10	U		
SW8270C	Benzo(b)fluoranthene	ug/l	10	U	10	U		
SW8270C	Benzo(ghi)perylene	ug/l	10	U	10	U		
SW8270C	Benzo(k)fluoranthene	ug/l	10	U	10	U		
SW8270C	Biphenyl	ug/l	10	U	10	U		
SW8270C	Bis(2-Chloroethoxy)methane	ug/l	10	U	10	U		
SW8270C	Bis(2-Chloroethyl)ether	ug/l	10	U	10	U		
SW8270C	Bis(2-Chloroisopropyl)ether	ug/l	10	U	10	U		
SW8270C	Bis(2-Ethylhexyl)phthalate	ug/l	10	U	10	U		
SW8270C	Butylbenzylphthalate	ug/l	10	U	10	U		
SW8270C	Caprolactum	ug/l	10	UJ	10	UJ		
SW8270C	Carbazole	ug/l	10	U	10	U		
SW8270C	Chrysene	ug/l	10	U	10	U		
SW8270C	Di-n-butylphthalate	ug/l	10	U	10	U		
SW8270C	Di-n-octylphthalate	ug/l	10	U	10	U		
SW8270C	Dibenz(a,h)anthracene	ug/l	10	U	10	U		
SW8270C	Dibenzofuran	ug/l	10	U	10	U		
SW8270C	Diethylphthalate	ug/l	10	U	10	U		
SW8270C	Dimethylphthalate	ug/l	10	U	10	U		
SW8270C	Fluoranthene	ug/l	10	U	10	U		
SW8270C	Fluorene	ug/l	10	U	10	U		
SW8270C	Hexachlorobenzene	ug/l	10	U	10	U		

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

		Sample Delivery Group	C2487		C2487		C2487	
		Location	MW-1		MW-2		QC	
		Sample Date	6/1/2011		6/1/2011		6/1/2011	
		Sample ID	LCMW001016		LCMW002019		LCTB001	
		Qc Code	FS		FS		TB	
Analysis	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW8270C	Hexachlorobutadiene	ug/l	10	U	10	U		
SW8270C	Hexachlorocyclopentadiene	ug/l	10	U	10	U		
SW8270C	Hexachloroethane	ug/l	10	U	10	U		
SW8270C	Indeno(1,2,3-cd)pyrene	ug/l	10	U	10	U		
SW8270C	Isophorone	ug/l	10	U	10	U		
SW8270C	m+p-Methylphenol	ug/l	10	UJ	10	U		
SW8270C	N-Nitrosodi-n-propylamine	ug/l	10	U	10	U		
SW8270C	N-Nitrosodiphenylamine	ug/l	10	U	10	U		
SW8270C	Naphthalene	ug/l	10	U	10	U		
SW8270C	Nitrobenzene	ug/l	10	U	10	U		
SW8270C	Pentachlorophenol	ug/l	10	UJ	10	U		
SW8270C	Phenanthrene	ug/l	10	U	10	U		
SW8270C	Phenol	ug/l	10	UJ	10	UJ		
SW8270C	Pyrene	ug/l	10	U	10	U		
SW8081A	4,4`-DDD	ug/l	0.052	U	0.051	U		
SW8081A	4,4`-DDE	ug/l	0.052	U	0.051	U		
SW8081A	4,4`-DDT	ug/l	0.052	U	0.051	U		
SW8081A	Aldrin	ug/l	0.052	U	0.051	U		
SW8081A	Alpha-BHC	ug/l	0.052	U	0.051	U		
SW8081A	Alpha-Chlordane	ug/l	0.052	U	0.051	U		
SW8081A	Beta-BHC	ug/l	0.052	U	0.051	U		
SW8081A	Delta-BHC	ug/l	0.052	U	0.051	U		
SW8081A	Dieldrin	ug/l	0.052	U	0.051	U		
SW8081A	Endosulfan I	ug/l	0.052	U	0.051	U		
SW8081A	Endosulfan II	ug/l	0.052	U	0.051	U		
SW8081A	Endosulfan sulfate	ug/l	0.052	U	0.051	U		
SW8081A	Endrin	ug/l	0.052	U	0.051	U		
SW8081A	Endrin aldehyde	ug/l	0.052	U	0.051	U		
SW8081A	Endrin ketone	ug/l	0.052	U	0.051	U		
SW8081A	Gamma-BHC/Lindane	ug/l	0.052	U	0.051	U		
SW8081A	Gamma-Chlordane	ug/l	0.052	UJ	0.051	UJ		
SW8081A	Heptachlor	ug/l	0.052	U	0.051	U		
SW8081A	Heptachlor epoxide	ug/l	0.052	U	0.051	U		
SW8081A	Methoxychlor	ug/l	0.052	U	0.051	U		
SW8081A	Toxaphene	ug/l	0.52	U	0.51	U		
SW8082	Aroclor-1016	ug/l	0.51	U	0.51	U		
SW8082	Aroclor-1221	ug/l	0.51	U	0.51	U		
SW8082	Aroclor-1232	ug/l	0.51	U	0.51	U		
SW8082	Aroclor-1242	ug/l	0.51	U	0.51	U		
SW8082	Aroclor-1248	ug/l	0.51	U	0.51	U		
SW8082	Aroclor-1254	ug/l	0.51	U	0.51	U		
SW8082	Aroclor-1260	ug/l	0.51	U	0.51	U		
SW6010B	Aluminum	ug/l	50	U	106	U		
SW6010B	Antimony	ug/l	25	U	25	U		
SW6010B	Arsenic	ug/l	10	U	10	U		
SW6010B	Barium	ug/l	89		98.4			
SW6010B	Beryllium	ug/l	3	U	3	U		
SW6010B	Cadmium	ug/l	3	U	3	U		
SW6010B	Calcium	ug/l	59,900		83,300			
SW6010B	Chromium	ug/l	5	U	5	U		

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

		Sample Delivery Group	C2487		C2487		C2487	
		Location	MW-1		MW-2		QC	
		Sample Date	6/1/2011		6/1/2011		6/1/2011	
		Sample ID	LCMW001016		LCMW002019		LCTB001	
		Qc Code	FS		FS		TB	
Analysis	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
SW6010B	Cobalt	ug/l	15	U	15	U		
SW6010B	Copper	ug/l	2.26	J	2.08	J		
SW6010B	Iron	ug/l	50.4		190			
SW6010B	Lead	ug/l	6	U	7.35	U		
SW6010B	Magnesium	ug/l	11,300		18,200			
SW6010B	Manganese	ug/l	3.26	J	27.3			
SW6010B	Nickel	ug/l	20	U	20	U		
SW6010B	Potassium	ug/l	3,090		4,390			
SW6010B	Selenium	ug/l	10	U	5.87	J		
SW6010B	Silver	ug/l	5	U	5	U		
SW6010B	Sodium	ug/l	55,700		115,000			
SW6010B	Thallium	ug/l	20	U	20	U		
SW6010B	Vanadium	ug/l	20	U	20	U		
SW6010B	Zinc	ug/l	10.6	J	20	U		
SW7470A	Mercury	ug/l	0.14	J	0.2	U		

Notes:
ug/l = micrograms per liter
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample
TB = Trip Blank

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

		Sample Delivery Group	MT005		MT005	
		Location	EW-01		SV-02	
		Sample Date	6/1/2011		6/1/2011	
		Sample ID	LCSVEW1005		LCSV002007	
		Qc Code	FS		FS	
Analysis	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier
EPA TO-15	1,1,1-Trichloroethane	UG/M3	1.1	U	2	
EPA TO-15	1,1,2,2-Tetrachloroethane	UG/M3	1.4	UJ	3.4	J
EPA TO-15	1,1,2-Trichloro-1,2,2-Trifluoroethane	UG/M3	1.6	U	1.6	U
EPA TO-15	1,1,2-Trichloroethane	UG/M3	1.1	U	1.1	U
EPA TO-15	1,1-Dichloroethane	UG/M3	0.82	U	0.82	U
EPA TO-15	1,1-Dichloroethene	UG/M3	0.81	U	0.81	U
EPA TO-15	1,2,4-Trichlorobenzene	UG/M3	1.5	U	1.5	U
EPA TO-15	1,2,4-Trimethylbenzene	UG/M3	1.6		4.9	
EPA TO-15	1,2-Dibromoethane	UG/M3	1.6	U	1.6	U
EPA TO-15	1,2-Dichloro-1,1,2,2-tetrafluoroethane	UG/M3	1.4	U	1.4	U
EPA TO-15	1,2-Dichlorobenzene	UG/M3	1.2	U	1.2	U
EPA TO-15	1,2-Dichloroethane	UG/M3	0.82	U	0.82	U
EPA TO-15	1,2-Dichloropropane	UG/M3	0.94	U	0.94	U
EPA TO-15	1,3,5-Trimethylbenzene	UG/M3	5.2		9.4	
EPA TO-15	1,3-Butadiene	UG/M3	0.45	U	0.45	U
EPA TO-15	1,3-Dichlorobenzene	UG/M3	1.2	U	1.2	U
EPA TO-15	1,4-Dichlorobenzene	UG/M3	1.2	U	1.5	
EPA TO-15	1,4-Dioxane	UG/M3	1.5	U	1.5	U
EPA TO-15	2-Butanone	UG/M3	6.9	J	5.6	J
EPA TO-15	2-Hexanone	UG/M3	0.83	U	0.83	U
EPA TO-15	2-Propanol	UG/M3	36	J	5	UJ
EPA TO-15	4-Ethyltoluene	UG/M3	3.7		4.8	
EPA TO-15	4-Methyl-2-pentanone	UG/M3	0.83	U	0.83	U
EPA TO-15	Acetone	UG/M3	200		55	
EPA TO-15	Benzene	UG/M3	0.65	U	7.9	
EPA TO-15	Benzyl chloride	UG/M3	1.1	U	1.1	U
EPA TO-15	Bromodichloromethane	UG/M3	1.4	U	1.4	U
EPA TO-15	Bromoform	UG/M3	2.1	U	2.1	U
EPA TO-15	Bromomethane	UG/M3	0.79	U	0.79	U
EPA TO-15	Carbon disulfide	UG/M3	1.1		2.1	
EPA TO-15	Carbon tetrachloride	UG/M3	1.3	U	1.3	U
EPA TO-15	Chlorobenzene	UG/M3	0.94	U	0.94	U
EPA TO-15	Chlorodibromomethane	UG/M3	1.7	U	1.7	U
EPA TO-15	Chloroethane	UG/M3	0.54	U	0.54	U
EPA TO-15	Chloroform	UG/M3	0.99	U	0.99	U
EPA TO-15	Chloromethane	UG/M3	0.42	U	0.42	U
EPA TO-15	Cis-1,2-Dichloroethene	UG/M3	5.7		1.6	
EPA TO-15	cis-1,3-Dichloropropene	UG/M3	0.92	U	0.92	U
EPA TO-15	Cyclohexane	UG/M3	0.7	U	19	
EPA TO-15	Dichlorodifluoromethane	UG/M3	2.5		2.6	
EPA TO-15	Ethyl benzene	UG/M3	2.6		2.8	
EPA TO-15	Heptane	UG/M3	1.2		43	
EPA TO-15	Hexachlorobutadiene	UG/M3	2.2	U	2.2	U
EPA TO-15	Hexane	UG/M3	1.3		38	
EPA TO-15	Methyl Tertbutyl Ether	UG/M3	0.73	U	0.73	U
EPA TO-15	Methylene chloride	UG/M3	0.71	UJ	0.71	UJ
EPA TO-15	Styrene	UG/M3	3		2.8	
EPA TO-15	Tetrachloroethene	UG/M3	3200		130000	
EPA TO-15	Tetrahydrofuran	UG/M3	0.6	U	1.3	
EPA TO-15	Toluene	UG/M3	90		92	

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

EPA TO-15	trans-1,2-Dichloroethene	UG/M3	0.81 U	0.81 U
EPA TO-15	trans-1,3-Dichloropropene	UG/M3	0.92 U	0.92 U
EPA TO-15	Trichloroethene	UG/M3	29	170
EPA TO-15	Trichlorofluoromethane	UG/M3	2.3	2.7
EPA TO-15	Vinyl acetate	UG/M3	0.72 U	0.72 U
EPA TO-15	Vinyl chloride	UG/M3	0.52 U	0.52 U
EPA TO-15	Xylene, o	UG/M3	3.2	5.5
EPA TO-15	Xylenes (m&p)	UG/M3	7.9	19

Notes:
ug/m3 = micrograms per cubic meter
Qualifiers
U = not detected at the reporting limit
J = estimated concentration
QC Code
FS = Field Sample

TABLE 3
SUMMARY OF VALIDATION ACTIONS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

SDG	Lab Sample Id	Analysis Method	Field Sample ID	Paramater Name	Lab Result	Lab Qualifier	Validated Result	Validation Qualifie	Val Reason Code	Result Units	Lab Id
C2487	C2487-01	SW6010B	LCMW001016	Aluminum	25.8	J	50	U	BL1	ug/l	CCGE
C2487	C2487-01	SW6010B	LCMW001016	Lead	6		6	U	BL1	ug/l	CCGE
C2487	C2487-01	SW8081A	LCMW001016	Gamma-Chlordane	0.052	U	0.052	UJ	LCS-RPD	ug/l	CCGE
C2487	C2487-01	SW8260B	LCMW001016	Bromoform	1	U	1	UJ	ICVRSD, CCV%D	ug/l	CCGE
C2487	C2487-01	SW8260B	LCMW001016	Methylene chloride	1	U	1	UJ	ICVRSD, CCV%D	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2,4,5-Trichlorophenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2,4,6-Trichlorophenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2,4-Dichlorophenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2,4-Dimethylphenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2,4-Dinitrophenol	10	U	10	UJ	ICVRSD, SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2-Methylphenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	2-Nitrophenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	4,6-Dinitro-2-methylphenol	10	U	10	UJ	ICVRSD, SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	4-Chloro-3-methylphenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	4-Nitrophenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	Benzaldehyde	10	U	10	UJ	LCS-L, LCS-RPD	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	Caprolactum	10	U	10	UJ	LCS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	m+p-Methylphenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	Pentachlorophenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-01	SW8270C	LCMW001016	Phenol	10	U	10	UJ	SS-L	ug/l	CCGE
C2487	C2487-03	SW6010B	LCMW002019	Aluminum	106		106	U	BL1	ug/l	CCGE
C2487	C2487-03	SW6010B	LCMW002019	Lead	7.35		7.35	U	BL1	ug/l	CCGE
C2487	C2487-03	SW8081A	LCMW002019	Gamma-Chlordane	0.051	U	0.051	UJ	LCS-RPD	ug/l	CCGE
C2487	C2487-03	SW8260B	LCMW002019	Bromoform	1	U	1	UJ	ICVRSD, CCV%D	ug/l	CCGE
C2487	C2487-03	SW8260B	LCMW002019	Methylene chloride	1	U	1	UJ	ICVRSD, CCV%D	ug/l	CCGE
C2487	C2487-03	SW8270C	LCMW002019	2,4-Dinitrophenol	10	U	10	UJ	ICVRSD	ug/l	CCGE
C2487	C2487-03	SW8270C	LCMW002019	4,6-Dinitro-2-methylphenol	10	U	10	UJ	ICVRSD	ug/l	CCGE
C2487	C2487-03	SW8270C	LCMW002019	Benzaldehyde	10	U	10	UJ	LCS-L, LCS-RPD	ug/l	CCGE
C2487	C2487-03	SW8270C	LCMW002019	Caprolactum	10	U	10	UJ	LCS-L	ug/l	CCGE
MT005	E1106002-001A	EPA TO-15	LCSV002007	1,1,2,2-Tetrachloroethane	3.4		3.4	J	CCV%D	UG/M3	Enalytic
MT005	E1106002-001A	EPA TO-15	LCSV002007	2-Butanone	5.6		5.6	J	CCV%D	UG/M3	Enalytic
MT005	E1106002-001A	EPA TO-15	LCSV002007	2-Propanol	5	U	5	UJ	LCS-L	UG/M3	Enalytic
MT005	E1106002-001A	EPA TO-15	LCSV002007	Methylene chloride	0.71	U	0.71	UJ	ICVRSD	UG/M3	Enalytic
MT005	E1106002-002A	EPA TO-15	LCSVEW1005	1,1,2,2-Tetrachloroethane	1.4	U	1.4	UJ	CCV%D	UG/M3	Enalytic
MT005	E1106002-002A	EPA TO-15	LCSVEW1005	2-Butanone	6.9		6.9	J	CCV%D	UG/M3	Enalytic
MT005	E1106002-002A	EPA TO-15	LCSVEW1005	2-Propanol	36		36	J	LCS-L	UG/M3	Enalytic
MT005	E1106002-002A	EPA TO-15	LCSVEW1005	Methylene chloride	0.71	U	0.71	UJ	ICVRSD	UG/M3	Enalytic

Notes:

Validation Qualifier Reason Codes-

BL1 = contamination in a method blank
LCS-L = laboratory control sample recovery below the limit
LCS-RPD = laboratory control sample relative percent difference limit exceeded
ICVRSD = initial calibration relative percent difference limit exceeded
CCV%D = Continuing calibration percent difference limit exceeded
SS-L = surrogate recovery below the limit

TABLE 4
SUMMARY OF TENTATIVELY IDENTIFIED COMPOUNDS
DATA USABILITY SUMMARY REPORT
JUNE 2011 SOIL VAPOR AND GROUNDWATER SAMPLING
LOOHNS DRY CLEANERS
CORNING, NEW YORK

SDG	Sample ID	Lab Sample ID	Method	Compound	Final Result	Qualifier	Analysis Date
MT005	LCSV002007	E1106002-001A	EPA TO-15	Butane	25	JN	06/20/2011
MT005	LCSV002007	E1106002-001A	EPA TO-15	Butane, 2-methyl-	18	JN	06/20/2011
MT005	LCSV002007	E1106002-001A	EPA TO-15	Isobutane	19	JN	06/20/2011
MT005	LCSV002007	E1106002-001A	EPA TO-15	Nonadecane	7.9	JN	06/20/2011
MT005	LCSV002007	E1106002-001A	EPA TO-15	Nonane	12	JN	06/20/2011
MT005	LCSV002007	E1106002-001A	EPA TO-15	Propane	17	JN	06/20/2011
MT005	LCSV002007	E1106002-001A	EPA TO-15	unknown hydrocarbon	15	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	Decane, 2,2-dimethyl-	810	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	Dodecane, 2,6,10-trimethyl-	410	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	Heptane, 2,2,4,6,6-pentamethyl-	390	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	Nonane, 3-methyl-5-propyl-	610	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	Octane, 2,2,6-trimethyl-	210	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	Undecane, 3,6-dimethyl-	280	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	unknown hydrocarbon (12.103)	270	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	unknown hydrocarbon (13.636)	860	JN	06/20/2011
MT005	LCSVEW1005	E1106002-002A	EPA TO-15	unknown hydrocarbon (13.726)	200	JN	06/20/2011

Notes:

Qualifiers

JN = estimated value with presumptive evidence that the compound is present in the sample

SVOC

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Dry Cleaners 3612102148
Method : SW-846 8270C
Laboratory and SDG(s): Chemtech **SDG# C2487**
Date:29 July, 2011
Reviewer: Mike Washburn
Review Level [X] NYSDEC DUSR ☐ USEPA Region II Guideline

1. ☐ **Case Narrative Review and Data Package Completeness** COMMENTS
   Were problems noted? Noted problems addressed in the following sections.
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. ☐ **Holding time and Sample Collection**
   All water samples were extracted within the 7 day holding time, soil is 14 day? Extracted within required hold time

3. ☐ **QC Blanks**
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

4. ☐ **Instrnment Tuning**
   Were all results were within method criteria. (YES) NO (circle one)

5. ☐ **Internal Standards** (Area Limits = 50% to +100%, RT's within 30 seconds of mid point cal Std)
   Were all results within criteria? (YES) NO (circle one)

6. ☐ **Instrument Calibration**

   Control Limits (Region II HW-22): Initial Calibration %RSD = 15% Continuing Calibration %D = 20% Average RRF should be ≥ 0.05 (or reject NDs, J detects or use professional judgment to J/UJ)

   Were all results were within criteria. YES (NO) (circle one)

   In the initial calibration dated 6/4/2011, the following compounds exceeded the percent standard deviation QC limit of 15: 2,4-dinitrophenol (30) and 4,6-dinitro-2-methlyphenol (23). 2,4-dintrophenol and 4,6-dinitro-2-methlyphenol were not detected in associated samples and the reporting limits were qualified estimated (UJ)

7. ☐ **Surrogate Recovery** (water and soil limits: Base/Neutral 50-140%, Acid 30-140%)
   Were all results were within limits? YES (NO) (circle one)
   Were any recoveries < 10%? (Reject fraction compounds if recoveries are < 10%)

   Percent recoveries of surrogates 2-fluorophenol (27) and phenol-d5 (17) in sample LCMW001016 were less than the lower QC limit of 30. Acid fraction compounds in sample LCMW001016 were not detected and were qualified estimated (UJ) at the reporting limits.

8. ☐ **Matrix Spike** (water & soil limits: Base/Neutral 50-140%, Acid 30-140%) (RPD soil=35,water=20)
   Were MS/MSDs submitted/analyzed? YES (NO)
   Were all results were within limits? YES NO (NA) (circle one)

9. ☐ **Duplicates/replicates** (RPD limits = water:50, soil:100)
   Were Field Duplicates submitted/analyzed? YES (NO)
   Were RPDs within criteria. YES NO (NA) (circle one)

10. ☐ **Laboratory Control Sample Results** (water&soil limits: Base/Neutral 50-140%, Acid 30-140%)

Were all results were within limits? YES (NO) (circle one)

LCS/LCSD percent recoveries for benzaldehyde (2/3) and caprolactam (28/26) were below the QC of 50. Benzaldehyde and caprolactam were not detected in the associated and the reporting limits were qualified and estimated (UJ).

The LCS/LCSD relative percent difference for benzaldehyde (40) exceeded the QC limit of 30. Benzaldehyde not detected in the associated samples and sample results were qualified estimated (UJ) at the reporting limit.

11. □ **Raw Data Review and Calculation Checks**

When calculating LCS/LCSD RPD values, it was determined that only the value for benzaldehyde was calculated correctly. The remaining RPD values were recalculated and only the benzaldehyde value exceeded the QC limit.

12. □ **Electronic Data Review and Edits**: Does the EDD match the Form I's? (YES) NO (circle one)

13. □ **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? (YES) NO (circle one)

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8270C	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	SEPF Decanted : N	Level :	LOW
Injection Volume :	1 GPC Factor : 1.0	GPC Cleanup : N	PH : 6

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF046071.D	1	06/07/11	06/07/11	PB55865

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
100-52-7	Benzaldehyde	10	UJ	0.79	10	ug/L
108-95-2	Phenol	10	UJ	0.21	10	ug/L
111-44-4	bis(2-Chloroethyl)ether	10	U	0.56	10	ug/L
95-57-8	2-Chlorophenol	10	U	0.55	10	ug/L
95-48-7	2-Methylphenol	10	UJ	0.24	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	10	U	0.17	10	ug/L
98-86-2	Acetophenone	10	U	0.14	10	ug/L
65794-96-9	3+4-Methylphenols	10	UJ	0.39	10	ug/L
621-64-7	N-Nitroso-di-n-propylamine	10	U	0.2	10	ug/L
67-72-1	Hexachloroethane	10	U	0.26	10	ug/L
98-95-3	Nitrobenzene	10	U	0.69	10	ug/L
78-59-1	Isophorone	10	U	0.31	10	ug/L
88-75-5	2-Nitrophenol	10	UJ	0.53	10	ug/L
105-67-9	2,4-Dimethylphenol	10	UJ	0.72	10	ug/L
111-91-1	bis(2-Chloroethoxy)methane	10	U	0.56	10	ug/L
120-83-2	2,4-Dichlorophenol	10	UJ	0.67	10	ug/L
91-20-3	Naphthalene	10	U	0.12	10	ug/L
106-47-8	4-Chloroaniline	10	U	2.9	10	ug/L
87-68-3	Hexachlorobutadiene	10	U	0.26	10	ug/L
105-60-2	Caprolactam	10	UJ	2	10	ug/L
59-50-7	4-Chloro-3-methylphenol	10	UJ	0.41	10	ug/L
91-57-6	2-Methylnaphthalene	10	U	0.33	10	ug/L
77-47-4	Hexachlorocyclopentadiene	10	U	0.24	10	ug/L
88-06-2	2,4,6-Trichlorophenol	10	UJ	0.57	10	ug/L
95-95-4	2,4,5-Trichlorophenol	10	UJ	0.41	10	ug/L
92-52-4	1,1-Biphenyl	10	U	0.15	10	ug/L
91-58-7	2-Chloronaphthalene	10	U	0.16	10	ug/L
88-74-4	2-Nitroaniline	10	U	0.5	10	ug/L
131-11-3	Dimethylphthalate	10	U	0.22	10	ug/L
208-96-8	Acenaphthylene	10	U	0.71	10	ug/L
606-20-2	2,6-Dinitrotoluene	10	U	0.33	10	ug/L

MJW 7/29/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8270C	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	SEPF Decanted : N	Level :	LOW
Injection Volume :	1 GPC Factor : 1.0	GPC Cleanup : N	PH : 6

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF046071.D	1	06/07/11	06/07/11	PB55865

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-09-2	3-Nitroaniline	10	U	1.1	10	ug/L
83-32-9	Acenaphthene	10	U	0.21	10	ug/L
51-28-5	2,4-Dinitrophenol	10	UJ	2.1	10	ug/L
100-02-7	4-Nitrophenol	10	UJ	2	10	ug/L
132-64-9	Dibenzofuran	10	U	0.24	10	ug/L
121-14-2	2,4-Dinitrotoluene	10	U	1.1	10	ug/L
84-66-2	Diethylphthalate	10	U	0.39	10	ug/L
7005-72-3	4-Chlorophenyl-phenylether	10	U	0.21	10	ug/L
86-73-7	Fluorene	10	U	0.32	10	ug/L
100-01-6	4-Nitroaniline	10	U	1.4	10	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	10	UJ	0.76	10	ug/L
86-30-6	N-Nitrosodiphenylamine	10	U	0.61	10	ug/L
101-55-3	4-Bromophenyl-phenylether	10	U	0.23	10	ug/L
118-74-1	Hexachlorobenzene	10	U	0.18	10	ug/L
1912-24-9	Atrazine	10	U	0.41	10	ug/L
87-86-5	Pentachlorophenol	10	UJ	1.8	10	ug/L
85-01-8	Phenanthrene	10	U	0.27	10	ug/L
120-12-7	Anthracene	10	U	0.16	10	ug/L
86-74-8	Carbazole	10	U	0.22	10	ug/L
84-74-2	Di-n-butylphtbalate	10	U	2	10	ug/L
206-44-0	Fluoranthene	10	U	0.41	10	ug/L
129-00-0	Pyrene	10	U	0.2	10	ug/L
85-68-7	Butylbenzylphthalate	10	U	0.19	10	ug/L
91-94-1	3,3-Dichlorobenzidine	10	U	2	10	ug/L
56-55-3	Benzo(a)anthracene	10	U	0.16	10	ug/L
218-01-9	Chrysene	10	U	0.18	10	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	10	U	0.16	10	ug/L
117-84-0	Di-n-octyl phthalate	10	U	0.52	10	ug/L
205-99-2	Benzo(b)fluoranthene	10	U	0.3	10	ug/L
207-08-9	Benzo(k)fluoranthene	10	U	0.18	10	ug/L
50-32-8	Benzo(a)pyrene	10	U	0.14	10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	0.15	10	ug/L
53-70-3	Dibenz(a,h)anthracene	10	U	0.43	10	ug/L

MW 7/29/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8270C	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	SEPF Decanted : N	Level :	LOW
Injection Volume :	1 GPC Factor : 1.0	GPC Cleanup : N	PH : 6

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF046071.D	1	06/07/11	06/07/11	PB55865

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
191-24-2	Benzo(g,h,i)perylene	10	U	0.3	10	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	39.8		10 - 160	27%	SPK: 150
13127-88-3	Phenol-d5	25.2		10 - 160	17%	SPK: 150
4165-60-0	Nitrobenzene-d5	66.5		20 - 139	67%	SPK: 100
321-60-8	2-Fluorobiphenyl	68.2		10 - 173	68%	SPK: 100
118-79-6	2,4,6-Tribromophenol	105		10 - 169	70%	SPK: 150
1718-51-0	Terphenyl-d14	77.1		20 - 171	77%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	167715	4.85			
1146-65-2	Naphthalene-d8	636409	6			
15067-26-2	Acenaphthene-d10	342667	7.7			
1517-22-2	Phenanthrene-d10	491115	9.36			
1719-03-5	Chrysene-d12	321863	12.54			
1520-96-3	Perylene-d12	280222	14.44			
TENTATIVE IDENTIFIED COMPOUNDS						
(1) ~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~5.6~~	~~AB~~	~~3.27~~		~~ug/L~~

(1) compound in method blank

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

MW 7/29/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8270C	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	SEPF Decanted : N	Level :	LOW
Injection Volume :	1 GPC Factor : 1.0	GPC Cleanup : N	PH : 6

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF046070.D	1	06/07/11	06/07/11	PB55865

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
100-52-7	Benzaldehyde	10	U J	0.79	10	ug/L
108-95-2	Phenol	10	U	0.21	10	ug/L
111-44-4	bis(2-Chloroethyl)ether	10	U	0.56	10	ug/L
95-57-8	2-Chlorophenol	10	U	0.55	10	ug/L
95-48-7	2-Methylphenol	10	U	0.24	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	10	U	0.17	10	ug/L
98-86-2	Acetophenone	10	U	0.14	10	ug/L
65794-96-9	3+4-Methylphenols	10	U	0.39	10	ug/L
621-64-7	N-Nitroso-di-n-propylamine	10	U	0.2	10	ug/L
67-72-1	Hexachloroethane	10	U	0.26	10	ug/L
98-95-3	Nitrobenzene	10	U	0.69	10	ug/L
78-59-1	Isophorone	10	U	0.31	10	ug/L
88-75-5	2-Nitrophenol	10	U	0.53	10	ug/L
105-67-9	2,4-Dimethylphenol	10	U	0.72	10	ug/L
111-91-1	bis(2-Chloroethoxy)methane	10	U	0.56	10	ug/L
120-83-2	2,4-Dichlorophenol	10	U	0.67	10	ug/L
91-20-3	Naphthalene	10	U	0.12	10	ug/L
106-47-8	4-Chloroaniline	10	U	2.9	10	ug/L
87-68-3	Hexachlorobutadiene	10	U	0.26	10	ug/L
105-60-2	Caprolactam	10	U J	2	10	ug/L
59-50-7	4-Chloro-3-methylphenol	10	U	0.41	10	ug/L
91-57-6	2-Methylnaphthalene	10	U	0.33	10	ug/L
77-47-4	Hexachlorocyclopentadiene	10	U	0.24	10	ug/L
88-06-2	2,4,6-Trichlorophenol	10	U	0.57	10	ug/L
95-95-4	2,4,5-Trichlorophenol	10	U	0.41	10	ug/L
92-52-4	1,1-Biphenyl	10	U	0.15	10	ug/L
91-58-7	2-Chloronaphthalene	10	U	0.16	10	ug/L
88-74-4	2-Nitroaniline	10	U	0.5	10	ug/L
131-11-3	Dimethylphthalate	10	U	0.22	10	ug/L
208-96-8	Acenaphthylene	10	U	0.71	10	ug/L
606-20-2	2,6-Dinitrotoluene	10	U	0.33	10	ug/L

MJW 7/29/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8270C	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	SEPF Decanted : N	Level :	LOW
Injection Volume :	1 GPC Factor : 1.0	GPC Cleanup : N	PH : 6

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF046070.D	1	06/07/11	06/07/11	PB55865

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-09-2	3-Nitroaniline	10	U	1.1	10	ug/L
83-32-9	Acenaphthene	10	U	0.21	10	ug/L
51-28-5	2,4-Dinitrophenol	10	U J	2.1	10	ug/L
100-02-7	4-Nitrophenol	10	U	2	10	ug/L
132-64-9	Dibenzofuran	10	U	0.24	10	ug/L
121-14-2	2,4-Dinitrotoluene	10	U	1.1	10	ug/L
84-66-2	Diethylphthalate	10	U	0.39	10	ug/L
7005-72-3	4-Chlorophenyl-phenylether	10	U	0.21	10	ug/L
86-73-7	Fluorene	10	U	0.32	10	ug/L
100-01-6	4-Nitroaniline	10	U	1.4	10	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	10	U J	0.76	10	ug/L
86-30-6	N-Nitrosodiphenylamine	10	U	0.61	10	ug/L
101-55-3	4-Bromophenyl-phenylether	10	U	0.23	10	ug/L
118-74-1	Hexachlorobenzene	10	U	0.18	10	ug/L
1912-24-9	Atrazine	10	U	0.41	10	ug/L
87-86-5	Pentachlorophenol	10	U	1.8	10	ug/L
85-01-8	Phenanthrene	10	U	0.27	10	ug/L
120-12-7	Anthracene	10	U	0.16	10	ug/L
86-74-8	Carbazole	10	U	0.22	10	ug/L
84-74-2	Di-n-butylphthalate	10	U	2	10	ug/L
206-44-0	Fluoranthene	10	U	0.41	10	ug/L
129-00-0	Pyrene	10	U	0.2	10	ug/L
85-68-7	Butylbenzylphthalate	10	U	0.19	10	ug/L
91-94-1	3,3-Dichlorobenzidine	10	U	2	10	ug/L
56-55-3	Benzo(a)anthracene	10	U	0.16	10	ug/L
218-01-9	Chrysene	10	U	0.18	10	ug/L
117-81-7	bis(2-Ethylhexyl)phthalate	10	U	0.16	10	ug/L
117-84-0	Di-n-octyl phthalate	10	U	0.52	10	ug/L
205-99-2	Benzo(b)fluoranthene	10	U	0.3	10	ug/L
207-08-9	Benzo(k)fluoranthene	10	U	0.18	10	ug/L
50-32-8	Benzo(a)pyrene	10	U	0.14	10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	0.15	10	ug/L
53-70-3	Dibenz(a,h)anthracene	10	U	0.43	10	ug/L

msw 7/29/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8270C	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-TCL BNA -20
Extraction Type :	SEPF Decanted : N	Level :	LOW
Injection Volume :	1 GPC Factor : 1.0	GPC Cleanup : N	PH : 6

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BF046070.D	1	06/07/11	06/07/11	PB55865

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
191-24-2	Benzo(g,h,i)perylene	10	U	0.3	10	ug/L
SURROGATES						
367-12-4	2-Fluorophenol	50.8		10 - 160	34%	SPK: 150
13127-88-3	Phenol-d5	33.1		10 - 160	22%	SPK: 150
4165-60-0	Nitrobenzene-d5	79.5		20 - 139	79%	SPK: 100
321-60-8	2-Fluorobiphenyl	80.3		10 - 173	80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	130		10 - 169	87%	SPK: 150
1718-51-0	Terphenyl-d14	85.8		20 - 171	86%	SPK: 100
INTERNAL STANDARDS						
3855-82-1	1,4-Dichlorobenzene-d4	170637	4.85			
1146-65-2	Naphthalene-d8	645459	6			
15067-26-2	Acenaphthene-d10	339586	7.7			
1517-22-2	Phenanthrene-d10	491921	9.36			
1719-03-5	Chrysene-d12	326627	12.54			
1520-96-3	Perylene-d12	285570	14.44			
TENTATIVE IDENTIFIED COMPOUNDS						
(1) ~~127-18-4~~	~~Tetrachloroethylene~~	~~2.7~~	~~J~~		~~2.98~~	~~ug/L~~
(2) ~~123-42-2~~	~~2-Pentanone, 4-hydroxy-4-methyl-~~	~~7.3~~	~~AB~~		~~3.27~~	~~ug/L~~

(1) Identified VOC
(2) compound in method blank

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

MDW 7/29/11

Method Path : Z:\HPCHEM1\BNA_F\METHOD\
Method File : 8270-BF060411.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Sat Jun 04 20:57:51 2011
Response Via : Initial Calibration

Calibration Files
40 =BF045935.D 10 =BF045936.D 25 =BF045937.D
50 =BF045938.D 60 =BF045939.D 80 =BF045940.D

		Compound	40	10	25	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
2)		1,4-Dioxane	0.627	0.650	0.694	0.728	0.715	0.725	0.690	6.10
3)		Pyridine	1.469	1.483	1.543	1.649	1.597	1.597	1.556	4.54
4)		n-Nitrosodimethyl	0.662	0.697	0.683	0.697	0.665	0.672	0.679	2.29
5)	S	2-Fluorophenol	1.363	1.425	1.435	1.370	1.290	1.255	1.356	5.30
6)		Aniline	1.898	2.090	1.966	1.881	1.785	1.785	1.901	6.10
7)	S	Phenol-d5	1.615	1.701	1.673	1.584	1.505	1.463	1.590	5.85
8)		2-Chlorophenol	1.319	1.353	1.340	1.313	1.258	1.252	1.306	3.22
9)		Benzaldehyde	1.033	1.135	1.042	0.847	0.812		0.974	14.20
10)	C	Phenol	1.571	1.658	1.626	1.553	1.494	1.490	1.565	4.36
11)		bis(2-Chloroethyl	1.373	1.447	1.396	1.367	1.309	1.285	1.363	4.31
12)	S	2-Chlorophenol-d4	1.277	1.339	1.302	1.232	1.156	1.124	1.238	6.78
13)		1,3-Dichlorobenze	1.536	1.520	1.562	1.525	1.485	1.482	1.518	2.01
14)	C	1,4-Dichlorobenze	1.477	1.531	1.502	1.493	1.454	1.432	1.482	2.38
15)	s	1,2-Dichlorobenze	0.934	0.921	0.943	0.933	0.873	0.838	0.907	4.64
16)		1,2-Dichlorobenze	1.356	1.425	1.391	1.336	1.291	1.262	1.344	4.53
17)		Benzyl Alcohol	0.814	0.749	0.833	0.847	0.907	0.910	0.843	7.17
18)		2,2'-oxybis(1-Chl	1.874	2.041	1.923	1.759	1.667	1.617	1.814	8.91
19)		2-Methylphenol	0.993	1.020	1.008	0.989	0.973	0.979	0.994	1.77
20)		Hexachloroethane	0.551	0.552	0.563	0.570	0.553	0.559	0.558	1.31
21)	P	n-Nitroso-di-n-pr	0.904	0.943	0.917	0.877	0.812	0.804	0.876	6.51
22)		3+4-Methylphenols	1.423	1.418	1.433	1.413	1.350	1.306	1.391	3.66
23)	I	Naphthalene-d8	----------ISTD----------							
24)		Acetophenone	0.481	0.501	0.499	0.476	0.451	0.435	0.474	5.55
25)	S	Nitrobenzene-d5	0.320	0.346	0.333	0.316	0.298	0.294	0.318	6.32
26)		Nitrobenzene	0.322	0.353	0.333	0.316	0.309	0.308	0.323	5.30
27)		Isophorone	0.607	0.645	0.634	0.600	0.584	0.575	0.608	4.51
28)	C	2-Nitrophenol	0.205	0.201	0.206	0.211	0.212	0.216	0.209	2.63
29)		2,4-Dimethylpheno	0.301	0.262	0.297	0.311	0.313	0.327	0.302	7.33
30)		bis(2-Chloroethox	0.422	0.448	0.436	0.417	0.406	0.396	0.421	4.53
31)	C	2,4-Dichloropheno	0.279	0.277	0.281	0.287	0.286	0.293	0.284	2.04
32)		1,2,4-Trichlorobe	0.330	0.323	0.336	0.338	0.336	0.337	0.333	1.71
33)		Naphthalene	0.936	1.041	0.978	0.869	0.806	0.765	0.899	11.71
34)		Benzoic acid	0.096	0.108	0.109	0.134	0.141	0.160	0.125	19.51
35)		4-Chloroaniline	0.422	0.431	0.434	0.423	0.412	0.403	0.421	2.77
36)	C	Hexachlorobutadie	0.130	0.119	0.133	0.142	0.144	0.152	0.137	8.61
37)		Caprolactam	0.102	0.102	0.104	0.107	0.109	0.111	0.106	3.51
38)	C	4-Chloro-3-methyl	0.276	0.276	0.286	0.284	0.280	0.280	0.280	1.43
39)		2-Methylnaphthale	0.671	0.680	0.688	0.667	0.645	0.620	0.662	3.78
40)	I	Acenaphthene-d10	----------ISTD----------							
41)		1,2,4,5-Tetrachlo	0.523	0.476	0.501	0.549	0.545	0.547	0.524	5.74
42)	P	Hexachlorocyclope	0.287	0.241	0.282	0.328	0.339	0.353	0.305	13.90
43)	S	2,4,6-Tribromophe	0.161	0.135	0.156	0.181	0.184	0.192	0.168	12.60
44)	C	2,4,6-Trichloroph	0.338	0.323	0.336	0.362	0.363	0.368	0.348	5.32
45)		2,4,5-Trichloroph	0.321	0.305	0.332	0.339	0.342	0.357	0.333	5.38
46)	S	2-Fluorobiphenyl	1.241	1.318	1.284	1.147	0.985	0.908	1.147	14.60
47)		1,1'-Biphenyl	1.507	1.575	1.520	1.486	1.401	1.334	1.470	5.97
48)		2-Chloronaphthale	1.138	1.193	1.132	1.127	1.083	1.055	1.121	4.27
49)		2-Nitroaniline	0.332	0.345	0.331	0.340	0.329	0.331	0.335	1.89
50)		Acenaphthylene	1.734	1.849	1.766	1.680	1.569	1.510	1.685	7.50
51)		Dimethylphthalate	1.194	1.216	1.195	1.179	1.134	1.112	1.171	3.42

NT

MJW 7/29/11

Method Path : Z:\HPCHEM1\BNA_F\METHOD\
Method File : 8270-BF060411.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Sat Jun 04 20:57:51 2011
Response Via : Initial Calibration

Calibration Files
40 =BF045935.D 10 =BF045936.D 25 =BF045937.D
50 =BF045938.D 60 =BF045939.D 80 =BF045940.D

		Compound	40	10	25	50	60	80	Avg	%RSD
52)		2,6-Dinitrotoluen	0.285	0.257	0.279	0.289	0.284	0.290	0.281	4.35
53)	C	Acenaphthene	1.134	1.088	1.132	1.173	1.139	1.130	1.133	2.39
54)		3-Nitroaniline	0.361	0.352	0.359	0.371	0.368	0.370	0.363	2.09
55)	P	2,4-Dinitrophenol	0.073	0.045	0.065	0.091	0.098	0.112	0.081	30.14
56)		Dibenzofuran	1.463	1.540	1.456	1.428	1.367	1.324	1.430	5.33
57)	P	4-Nitrophenol	0.271	0.240	0.265	0.283	0.278	0.292	0.271	6.72
58)		2,4-Dinitrotoluen	0.364	0.343	0.347	0.368	0.369	0.380	0.362	3.90
59)		Fluorene	1.341	1.276	1.328	1.344	1.263	1.218	1.295	3.93
60)		2,3,4,6-Tetrachlo	0.225	0.212	0.224	0.245	0.254	0.270	0.238	9.14
61)		Diethylphthalate	1.158	1.170	1.157	1.151	1.123	1.118	1.146	1.82
62)		4-Chlorophenyl-ph	0.583	0.511	0.570	0.625	0.615	0.606	0.585	7.09
63)		4-Nitroaniline	0.339	0.348	0.336	0.345	0.337	0.339	0.340	1.39
64)		Azobenzene	1.180	1.237	1.179	1.146	1.096	1.070	1.151	5.32
65)	I	Phenanthrene-d10	----------ISTD----------							
66)		4,6-Dinitro-2-met	0.079	0.055	0.075	0.093	0.101	0.108	0.085	22.71
67)	c	n-Nitrosodiphenyl	0.702	0.682	0.687	0.690	0.691	0.691	0.690	0.94
68)		4-Bromophenyl-phe	0.198	0.179	0.192	0.204	0.212	0.226	0.202	8.06
69)		Hexachlorobenzene	0.217	0.207	0.216	0.228	0.237	0.248	0.226	6.79
70)		Atrazine	0.152	0.162	0.168	0.155	0.147	0.133	0.153	7.92
71)	C	Pentachlorophenol	0.116	0.084	0.092	0.109	0.113	0.127	0.107	14.88
72)		Phenanthrene	1.088	1.051	1.076	1.054	1.036	1.025	1.055	2.24
73)		Anthracene	1.095	1.100	1.082	1.056	1.035	1.015	1.064	3.23
74)		Carbazole	1.040	1.014	1.039	1.019	0.996	0.993	1.017	1.97
75)		Di-n-butylphthala	1.300	1.297	1.295	1.228	1.191	1.157	1.245	4.99
76)	C	Fluoranthene	1.005	0.942	1.014	1.032	1.043	1.052	1.015	3.93
77)	I	Chrysene-d12	----------ISTD----------							
78)		Benzidine	0.733	0.730	0.701	0.655	0.627	0.602	0.675	8.17
79)		Pyrene	1.397	1.390	1.392	1.353	1.322	1.272	1.354	3.67
80)	S	Terphenyl-d14	0.916	0.834	0.915	0.893	0.825	0.757	0.857	7.31
81)		Butylbenzylphthal	0.770	0.741	0.764	0.744	0.740	0.730	0.748	2.06
82)		Benzo(a)anthracen	1.185	1.145	1.152	1.175	1.178	1.157	1.165	1.38
83)		3,3'-Dichlorobenz	0.482	0.443	0.472	0.465	0.479	0.491	0.472	3.58
84)		Chrysene	1.143	1.030	1.100	1.179	1.178	1.098	1.121	5.09
85)		Bis(2-ethylhexyl)	1.011	0.945	0.977	0.968	0.941	0.884	0.954	4.46
86)	c	Di-n-octyl phthal	1.771	1.676	1.724	1.676	1.608	1.566	1.670	4.45
87)		Indeno(1,2,3-cd)p	1.237	1.118	1.204	1.223	1.225	1.254	1.210	3.98
88)	I	Perylene-d12	----------ISTD----------							
89)		Benzo(b)fluoranth	1.229	1.186	1.185	1.257	1.300	1.329	1.248	4.74
90)		Benzo(k)fluoranth	1.245	1.137	1.214	1.259	1.292	1.274	1.237	4.48
91)	C	Benzo(a)pyrene	1.191	1.111	1.139	1.232	1.253	1.267	1.199	5.30
92)		Dibenzo(a,h)anthr	1.132	1.040	1.085	1.125	1.162	1.179	1.121	4.56
93)		Benzo(g,h,i)peryl	1.167	1.100	1.120	1.191	1.205	1.208	1.165	3.91

(#) = Out of Range

MJW 7/29/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	L1 10	L2 25	L3 40	L4 50	L5 60	L6 80	L7	L8	L9	Ave.	%SD	%RSD
Phenol	DCB	1.65815	1.626408	1.570851	1.553165	1.493527	1.490486	---	---	---	1.565431	6.8	4.4
Fluoranthene	PD10	0.941615	1.01382	1.005292	1.031614	1.043461	1.052317	---	---	---	1.014687	4.0	3.9
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!

MJW 4/29/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Phenol	DCB	142838	1.65815
Fluoranthene	PD10	206562	0.941615
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
DCB	172286	20	10
PD10	438740	20	10
0			10
0			10
0			10
0			10

MJW 1/29/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Phenol	DCB	357084	1.626408
Fluoranthene	PD10	554158	1.01382
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
DCB	175643	20	25
PD10	437283	20	25
0		0	25
0		0	25
0		0	25
0		0	25

MJ~ 1/29/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Phenol	DCB	423803	1.570851
Fluoranthene	PD10	664510	1.005292
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
DCB	134896	20	40
PD10	330506	20	40
0		0	40
0		0	40
0		0	40
0		0	40

MJW 7/29/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Phenol	DCB	637978	1.553165
Fluoranthene	PD10	1073428	1.031614
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
DCB	164304	20	50
PD10	416213	20	50
0		0	50
0		0	50
0		0	50
0		0	50

KJW
2/24/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Phenol	DCB	807517	1.493527
Fluoranthene	PD10	1414411	1.043461
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
DCB	180226	20	60
PD10	451833	20	60
0		0	60
0		0	60
0		0	60
0		0	60

MW 7/22/11

DUSR Calculations
SVOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Phenol	DCB	981610	1.490486
Fluoranthene	PD10	1730783	1.052317
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
DCB	164646	20	80
PD10	411184	20	80
0		0	80
0		0	80
0		0	80
0		0	80

MJW 1/24/11

Evaluate Continuing Calibration Report

Data Path : Z:\HPCHEM1\BNA_F\Data\BF060711\
Data File : BF046061.D
Acq On : 7 Jun 2011 17:41
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 00:53:39 2011
Quant Method : Z:\HPCHEM1\BNA_F\METHOD\8270-BF060411.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 08 00:50:45 2011
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	-0.04
2		1,4-Dioxane	0.690	0.671	2.8	91	-0.04
3		Pyridine	1.556	1.683	-8.2	98	-0.04
4		n-Nitrosodimethylamine	0.679	0.599	11.8	77	-0.04
5	S	2-Fluorophenol	1.356	1.436	-5.9	90	-0.04
6		Aniline	1.901	1.969	-3.6	89	-0.04
7	S	Phenol-d5	1.590	1.680	-5.7	89	-0.04
8		2-Chlorophenol	1.306	1.342	-2.8	87	-0.04
9		Benzaldehyde	0.974	1.080	-10.9	89	-0.04
10	C	Phenol	1.565	1.677	-7.2	91	-0.04
11		bis(2-Chloroethyl)ether	1.363	1.419	-4.1	88	-0.04
12	S	2-Chlorophenol-d4	1.238	1.321	-6.7	88	-0.04
13		1,3-Dichlorobenzene	1.518	1.579	-4.0	88	-0.04
14	C	1,4-Dichlorobenzene	1.482	1.548	-4.5	89	-0.04
15	s	1,2-Dichlorobenzene-d4	0.907	0.931	-2.6	85	-0.04
16		1,2-Dichlorobenzene	1.344	1.403	-4.4	88	-0.04
17		Benzyl Alcohol	0.843	0.869	-3.1	91	-0.04
18		2,2'-oxybis(1-Chloropropane	1.814	1.727	4.8	79	-0.04
19		2-Methylphenol	0.994	1.065	-7.1	92	-0.04
20		Hexachloroethane	0.558	0.554	0.7	86	-0.04
21	P	n-Nitroso-di-n-propylamine	0.876	0.917	-4.7	87	-0.04
22		3+4-Methylphenols	1.391	1.474	-6.0	88	-0.04
23	I	Naphthalene-d8	1.000	1.000	0.0	90	-0.04
24		Acetophenone	0.474	0.479	-1.1	90	-0.04
25	S	Nitrobenzene-d5	0.318	0.314	1.3	88	-0.04
26		Nitrobenzene	0.323	0.317	1.9	89	-0.04
27		Isophorone	0.608	0.617	-1.5	91	-0.04
28	C	2-Nitrophenol	0.209	0.213	-1.9	93	-0.04
29		2,4-Dimethylphenol	0.302	0.313	-3.6	93	-0.04
30		bis(2-Chloroethoxy)methane	0.421	0.430	-2.1	91	-0.04
31	C	2,4-Dichlorophenol	0.284	0.293	-3.2	94	-0.04
32		1,2,4-Trichlorobenzene	0.333	0.332	0.3	90	-0.04
33		Naphthalene	0.899	0.972	-8.1	93	-0.04
34		Benzoic acid	0.125	0.133	-6.4	125	-0.05
35		4-Chloroaniline	0.421	0.441	-4.8	94	-0.04
36	C	Hexachlorobutadiene	0.137	0.126	8.0	87	-0.04
37		Caprolactam	0.106	0.119	-12.3	104	-0.05
38	C	4-Chloro-3-methylphenol	0.280	0.286	-2.1	93	-0.04
39		2-Methylnaphthalene	0.662	0.686	-3.6	92	-0.04
40	I	Acenaphthene-d10	1.000	1.000	0.0	96	-0.04
41		1,2,4,5-Tetrachlorobenzene	0.524	0.479	8.6	87	-0.04
42	P	Hexachlorocyclopentadiene	0.305	0.266	12.8	88	-0.04
43	S	2,4,6-Tribromophenol	0.168	0.168	0.0	99	-0.05
44	C	2,4,6-Trichlorophenol	0.348	0.334	4.0	95	-0.04

Evaluate Continuing Calibration Report

Data Path : Z:\HPCHEM1\BNA_F\Data\BF060711\
Data File : BF046061.D
Acq On : 7 Jun 2011 17:41
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 00:53:39 2011
Quant Method : Z:\HPCHEM1\BNA_F\METHOD\8270-BF060411.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 08 00:50:45 2011
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
45		2,4,5-Trichlorophenol	0.333	0.356	-6.9	106	-0.04
46	S	2-Fluorobiphenyl	1.147	1.207	-5.2	93	-0.04
47		1,1'-Biphenyl	1.470	1.485	-1.0	94	-0.04
48		2-Chloronaphthalene	1.121	1.120	0.1	94	-0.04
49		2-Nitroaniline	0.335	0.320	4.5	92	-0.04
50		Acenaphthylene	1.685	1.762	-4.6	97	-0.05
51		Dimethylphthalate	1.171	1.203	-2.7	96	-0.04
52		2,6-Dinitrotoluene	0.281	0.289	-2.8	97	-0.05
53	C	Acenaphthene	1.133	1.125	0.7	95	-0.04
54		3-Nitroaniline	0.363	0.374	-3.0	99	-0.04
55	P	2,4-Dinitrophenol	0.081	0.095	-17.3	124	-0.04
56		Dibenzofuran	1.430	1.504	-5.2	98	-0.04
57	P	4-Nitrophenol	0.271	0.294	-8.5	104	-0.04
58		2,4-Dinitrotoluene	0.362	0.372	-2.8	98	-0.04
59		Fluorene	1.295	1.351	-4.3	96	-0.05
60		2,3,4,6-Tetrachlorophenol	0.238	0.232	2.5	99	-0.05
61		Diethylphthalate	1.146	1.181	-3.1	98	-0.05
62		4-Chlorophenyl-phenylether	0.585	0.591	-1.0	97	-0.05
63		4-Nitroaniline	0.340	0.355	-4.4	100	-0.05
64		Azobenzene	1.151	1.163	-1.0	94	-0.05
65	I	Phenanthrene-d10	1.000	1.000	0.0	106	-0.05
66		4,6-Dinitro-2-methylphenol	0.085	0.097	-14.1	130	-0.04
67	c	n-Nitrosodiphenylamine	0.690	0.655	5.1	99	-0.05
68		4-Bromophenyl-phenylether	0.202	0.185	8.4	99	-0.05
69		Hexachlorobenzene	0.226	0.212	6.2	103	-0.05
70		Atrazine	0.153	0.157	-2.6	109	-0.04
71	C	Pentachlorophenol	0.107	0.093	13.1	85	-0.04
72		Phenanthrene	1.055	1.043	1.1	102	-0.05
73		Anthracene	1.064	1.052	1.1	102	-0.05
74		Carbazole	1.017	1.041	-2.4	106	-0.05
75		Di-n-butylphthalate	1.245	1.268	-1.8	103	-0.05
76	C	Fluoranthene	1.015✓	1.017✓	-0.2✓	107	-0.05
77	I	Chrysene-d12	1.000	1.000	0.0	110	-0.05
78		Benzidine	0.675	0.627	7.1	94	-0.05
79		Pyrene	1.354	1.366	-0.9	107	-0.05
80	S	Terphenyl-d14	0.857	0.905	-5.6	108	-0.05
81		Butylbenzylphthalate	0.748	0.746	0.3	106	-0.05
82		Benzo(a)anthracene	1.165	1.185	-1.7	110	-0.05
83		3,3'-Dichlorobenzidine	0.472	0.478	-1.3	109	-0.05
84		Chrysene	1.121	1.089	2.9	104	-0.05
85		Bis(2-ethylhexyl)phthalate	0.954	0.943	1.2	102	-0.05
86	c	Di-n-octyl phthalate	1.670	1.697	-1.6	105	-0.06
87		Indeno(1,2,3-cd)pyrene	1.210	1.156	4.5	102	-0.13

Quantitation Report (QT Reviewed)

Data Path : Z:\HPCHEM1\BNA_F\Data\BF060711\
Data File : BF046061.D
Acq On : 7 Jun 2011 17:41
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 00:53:39 2011
Quant Method : Z:\HPCHEM1\BNA_F\METHOD\8270-BF060411.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 08 00:50:45 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.85	152	115112	20.00 ng	0.00
23) Naphthalene-d8	6.00	136	423525	20.00 ng	0.00
40) Acenaphthene-d10	7.70	164	220561	20.00 ng	0.00
65) Phenanthrene-d10	9.36	188	350016	20.00 ng	0.00
77) Chrysene-d12	12.54	240	254999	20.00 ng	0.00
88) Perylene-d12	14.45	264	219272	20.00 ng	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.58	112	661346	84.73 ng	0.00
7) Phenol-d5	4.49	99	773438	84.51 ng	0.00
12) 2-Chlorophenol-d4	4.63	132	608358	85.35 ng	0.00
15) 1,2-Dichlorobenzene-d4	5.00	152	428539	82.09 ng	0.00
25) Nitrobenzene-d5	5.36	82	531830	79.02 ng	0.00
43) 2,4,6-Tribromophenol	8.56	330	147857	79.72 ng	0.00
46) 2-Fluorobiphenyl	7.01	172	1064709	84.16 ng	0.00
80) Terphenyl-d14	11.28	244	923506	84.54 ng	0.00
Target Compounds					Qvalue
2) 1,4-Dioxane	2.05	88	154550	38.93 ng	100
3) Pyridine	2.36	79	387552	43.26 ng	100
4) n-Nitrosodimethylamine	2.32	42	137811	35.25 ng	100
6) Aniline	4.53	93	453353	41.44 ng	100
8) 2-Chlorophenol	4.65	128	308978	41.11 ng	100
9) Benzaldehyde	4.43	77	248628	44.37 ng	100
10) Phenol	4.50	94	386117	42.85 ng	100
11) bis(2-Chloroethyl)ether	4.59	93	326653	41.64 ng	100
13) 1,3-Dichlorobenzene	4.80	146	363432	41.59 ng	100
14) 1,4-Dichlorobenzene	4.87	146	356366	41.79 ng	100
16) 1,2-Dichlorobenzene	5.01	146	322955	41.76 ng	100
17) Benzyl Alcohol	4.97	79	200175	41.24 ng	100
18) 2,2'-oxybis(1-Chloropropan	5.10	45	397493	38.08 ng	100
19) 2-Methylphenol	5.07	107	245250	42.89 ng	100
20) Hexachloroethane	5.32	117	127503	39.71 ng	100
21) n-Nitroso-di-n-propylamine	5.22	70	211159	41.88 ng	100
22) 3+4-Methylphenols	5.22	107	339255	42.39 ng	100
24) Acetophenone	5.22	105	405874	40.44 ng	100
26) Nitrobenzene	5.38	77	268607	39.22 ng	100
27) Isophorone	5.59	82	522343	40.59 ng	100
28) 2-Nitrophenol	5.66	139	180216	40.81 ng	100
29) 2,4-Dimethylphenol	5.70	122	264865	41.46 ng	100
30) bis(2-Chloroethoxy)methane	5.78	93	364063	40.83 ng	100
31) 2,4-Dichlorophenol	5.88	162	248146	41.28 ng	100
32) 1,2,4-Trichlorobenzene	5.96	180	281007	39.83 ng	100
33) Naphthalene	6.03	128	823599	43.25 ng	100
34) Benzoic acid	5.75	122	112865m	44.55 ng	
35) 4-Chloroaniline	6.07	127	373234	41.88 ng	100
36) Hexachlorobutadiene	6.14	225	106412	36.78 ng	100
37) Caprolactam	6.37	113	100387	44.84 ng	100
38) 4-Chloro-3-methylphenol	6.50	107	241881	40.76 ng	100
39) 2-Methylnaphthalene	6.66	142	580829	41.45 ng	100

$\frac{386117\,(20)}{115112\,(40)} = 1.6771$

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MJW 2/24/14

Quantitation Report (QT Reviewed)

Data Path : Z:\HPCHEM1\BNA_F\Data\BF060711\
Data File : BF046061.D
Acq On : 7 Jun 2011 17:41
Operator : QM
Sample : 40 ng BNA CCC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 00:53:39 2011
Quant Method : Z:\HPCHEM1\BNA_F\METHOD\8270-BF060411.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 08 00:50:45 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
41) 1,2,4,5-Tetrachlorobenzene	6.82	216	211113	36.56 ng	100
42) Hexachlorocyclopentadiene	6.81	237	117169	34.83 ng	100
44) 2,4,6-Trichlorophenol	6.92	196	147483	38.40 ng	100
45) 2,4,5-Trichlorophenol	6.96	196	157106	42.81 ng	100
47) 1,1'-Biphenyl	7.10	154	654880	40.38 ng	100
48) 2-Chloronaphthalene	7.13	162	494121	39.96 ng	100
49) 2-Nitroaniline	7.23	65	141117	38.23 ng	100
50) Acenaphthylene	7.55	152	777112	41.83 ng	100
51) Dimethylphthalate	7.41	163	530589	41.08 ng	100
52) 2,6-Dinitrotoluene	7.47	165	127689	41.27 ng	100
53) Acenaphthene	7.74	154	496415	39.74 ng	100
54) 3-Nitroaniline	7.65	138	164802	41.13 ng	100
55) 2,4-Dinitrophenol	7.76	184	41874	45.23 ng	100
56) Dibenzofuran	7.92	168	663447	42.08 ng	100
57) 4-Nitrophenol	7.82	139	129750	43.35 ng	100
58) 2,4-Dinitrotoluene	7.90	165	163970	41.09 ng	100
59) Fluorene	8.29	166	596032	41.73 ng	100
60) 2,3,4,6-Tetrachlorophenol	8.05	232	102423m	38.97 ng	
61) Diethylphthalate	8.16	149	520763	41.20 ng	100
62) 4-Chlorophenyl-phenylether	8.29	204	260629	40.41 ng	100
63) 4-Nitroaniline	8.31	138	156454	41.67 ng	100
64) Azobenzene	8.47	77	512996	40.40 ng	100
66) 4,6-Dinitro-2-methylphenol	8.35	198	67560	43.99 ng	100
67) n-Nitrosodiphenylamine	8.42	169	458518	37.95 ng	100
68) 4-Bromophenyl-phenylether	8.85	248	129254	36.60 ng	100
69) Hexachlorobenzene	8.92	284	148088	37.52 ng	100
70) Atrazine	9.03	200	109632	41.00 ng	100
71) Pentachlorophenol	9.15	266	65290	34.83 ng	100
72) Phenanthrene	9.39	178	730277	39.55 ng	100
73) Anthracene	9.45	178	736629	39.57 ng	100
74) Carbazole	9.64	167	728431	40.93 ng	100
75) Di-n-butylphthalate	10.06	149	887943	40.76 ng	100
76) Fluoranthene	10.80	202	711794	40.08 ng	100
78) Benzidine	10.97	184	319961	37.20 ng	100
79) Pyrene	11.07	202	696698	40.35 ng	100
81) Butylbenzylphthalate	11.88	149	380535	39.90 ng	100
82) Benzo(a)anthracene	12.53	228	604451	40.68 ng	100
83) 3,3'-Dichlorobenzidine	12.51	252	243783	40.50 ng	100
84) Chrysene	12.57	228	555332	38.84 ng	100
85) Bis(2-ethylhexyl)phthalate	12.59	149	481054	39.53 ng	100
86) Di-n-octyl phthalate	13.36	149	865402	40.64 ng	100
87) Indeno(1,2,3-cd)pyrene	16.54	276	589424m	38.20 ng	
89) Benzo(b)fluoranthene	13.87	252	562796	41.14 ng	100
90) Benzo(k)fluoranthene	13.91	252	516514	38.09 ng	100
91) Benzo(a)pyrene	14.36	252	511708	38.93 ng	100
92) Dibenzo(a,h)anthracene	16.60	278	476944	38.82 ng	100
93) Benzo(g,h,i)perylene	17.20	276	494548	38.71 ng	100

711794 (20) / 350016 (40) = 1.0168

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MW 7/29/11

Coninuing Calibration Calculations

	Ave RF	CCRF	%D
Phenol	1.565	1.677	7.2
Fluoranthene	1.015	1.017	0.2

MJW
7/29/11

CHEMTECH

Surrogate Summary

SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
C2487-01	LCMW001016	2-Fluorophenol	150	39.82	27		10	160
		Phenol-d5	150	25.15	17		10	160
		Nitrobenzene-d5	100	66.50	67		20	139
		2-Fluorobiphenyl	100	68.18	68		10	173
		2,4,6-Tribromophenol	150	105.09	70		10	169
		Terphenyl-d14	100	77.11	77		20	171
C2487-03	LCMW002019	2-Fluorophenol	150	50.76	34		10	160
		Phenol-d5	150	33.11	22		10	160
		Nitrobenzene-d5	100	79.47	79		20	139
		2-Fluorobiphenyl	100	80.34	80		10	173
		2,4,6-Tribromophenol	150	130.80	87		10	169
		Terphenyl-d14	100	85.75	86		20	171
PB55865B	PB55865B	2-Fluorophenol	150	59.92	40		10	160
		Phenol-d5	150	41.06	27		10	160
		Nitrobenzene-d5	100	79.70	80		20	139
		2-Fluorobiphenyl	100	78.12	78		10	173
		2,4,6-Tribromophenol	150	135.28	90		10	169
		Terphenyl-d14	100	96.66	97		20	171
PB55865BS	PB55865BS	2-Fluorophenol	150	71.05	47		10	160
		Phenol-d5	150	52.60	35		10	160
		Nitrobenzene-d5	100	82.04	82		20	139
		2-Fluorobiphenyl	100	79.62	80		10	173
		2,4,6-Tribromophenol	150	133.96	89		10	169
		Terphenyl-d14	100	91.72	92		20	171
PB55865BSD	PB55865BSD	2-Fluorophenol	150	71.12	47		10	160
		Phenol-d5	150	50.82	34		10	160
		Nitrobenzene-d5	100	83.94	84		20	139
		2-Fluorobiphenyl	100	80.12	80		10	173
		2,4,6-Tribromophenol	150	134.52	90		10	169
		Terphenyl-d14	100	90.77	91		20	171

Phenol D5

$\frac{33.11}{150} \cdot \frac{100}{100} = 22.07\%$

MJW 7/29/11

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55865BS	Benzaldehyde	50	1.2	2		*		10	161	
	Phenol	50	20	40				10	132	
	bis(2-Chloroethyl)ether	50	44	88				38	127	
	2-Chlorophenol	50	37	74				10	148	
	2-Methylphenol	50	35	70				10	152	
	2,2-oxybis(1-Chloropropane)	50	37	74				46	118	
	Acetophenone	50	43	86				57	116	
	3+4-Methylphenols	50	32	64				10	152	
	N-Nitroso-di-n-propylamine	50	43	86				49	120	
	Hexachloroethane	50	33	66				26	152	
	Nitrobenzene	50	41	82				37	127	
	Isophorone	50	43	86				50	122	
	2-Nitrophenol	50	43	86				49	122	
	2,4-Dimethylphenol	50	43	86				10	119	
	bis(2-Chloroethoxy)methane	50	44	88				48	123	
	2,4-Dichlorophenol	50	43	86				10	124	
	Naphthalene	50	41	82				42	115	
	4-Chloroaniline	50	34	68				10	161	
	Hexachlorobutadiene	50	35	70				33	114	
	Caprolactam	50	14	28				10	161	
	4-Chloro-3-methylphenol	50	42	84				10	114	
	2-Methylnaphthalene	50	42	84				51	114	
	Hexachlorocyclopentadiene	100	74	74				10	155	
	2,4,6-Trichlorophenol	50	43	86				10	121	
	2,4,5-Trichlorophenol	50	43	86				10	123	
	1,1-Biphenyl	50	41	82				58	115	
	2-Chloronaphthalene	50	41	82				52	117	
	2-Nitroaniline	50	41	82				62	123	
	Dimethylphthalate	50	44	88				3	142	
	Acenaphthylene	50	43	86				52	118	
	2,6-Dinitrotoluene	50	44	88				65	120	
	3-Nitroaniline	50	37	74				10	120	
	Acenaphthene	50	44	88				51	118	
	2,4-Dinitrophenol	100	79	79				10	136	
	4-Nitrophenol	100	42	42				10	161	
	Dibenzofuran	50	43	86				61	115	
	2,4-Dinitrotoluene	50	44	88				68	122	
	Diethylphthalate	50	44	88				51	122	
	4-Chlorophenyl-phenylether	50	44	88				62	119	
	Fluorene	50	43	86				55	121	
	4-Nitroaniline	50	43	86				66	123	
	4,6-Dinitro-2-methylphenol	50	48	96				10	144	
	N-Nitrosodiphenylamine	50	43	86				64	119	
	4-Bromophenyl-phenylether	50	43	86				63	123	
	Hexachlorobenzene	50	43	86				45	136	
	Atrazine	50	52	104				61	132	

MW 7/20/11

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55865BS	Pentachlorophenol	100	100	100				10	124	
	Phenanthrene	50	44	88				55	126	
	Anthracene	50	43	86				59	122	
	Carbazole	50	45	90				70	124	
	Di-n-butylphthalate	50	45	90				72	121	
	Fluoranthene	50	44	88				61	127	
	Pyrene	50	45	90				62	128	
	Butylbenzylphthalate	50	45	90				66	129	
	3,3-Dichlorobenzidine	50	33	66				10	160	
	Benzo(a)anthracene	50	45	90				52	136	
	Chrysene	50	44	88				55	136	
	bis(2-Ethylhexyl)phthalate	50	45	90				69	130	
	Di-n-octyl phthalate	50	45	90				66	131	
	Benzo(b)fluoranthene	50	45	90				48	149	
	Benzo(k)fluoranthene	50	43	86				54	138	
	Benzo(a)pyrene	50	45	90				55	139	
	Indeno(1,2,3-cd)pyrene	50	43	86				10	145	
	Dibenz(a,h)anthracene	50	44	88				45	150	
	Benzo(g,h,i)perylene	50	43	86				54	138	
PB55865BSD	Benzaldehyde	50	1.3	3	40	*	*	10	161	20
	Phenol	50	19	38	73	5	*	10	132	20
	bis(2-Chloroethyl)ether	50	46	92	19			38	127	20
	2-Chlorophenol	50	39	78	3			10	148	20
	2-Methylphenol	50	36	72	13			10	152	20
	2,2-oxybis(1-Chloropropane)	50	38	76	7			46	118	20
	Acetophenone	50	45	90	17			57	116	20
	3+4-Methylphenols	50	33	66	22		*	10	152	20
	N-Nitroso-di-n-propylamine	50	44	88	15			49	120	20
	Hexachloroethane	50	36	72	1			26	152	20
	Nitrobenzene	50	43	86	12			37	127	20
	Isophorone	50	46	92	11			50	122	20
	2-Nitrophenol	50	46	92	19			49	122	20
	2,4-Dimethylphenol	50	45	90	9			10	119	20
	bis(2-Chloroethoxy)methane	50	46	92	19			48	123	20
	2,4-Dichlorophenol	50	46	92	11			10	124	20
	Naphthalene	50	43	86	5			42	115	20
	4-Chloroaniline	50	31	62	67	9	*	10	161	20
	Hexachlorobutadiene	50	37	74	4			33	114	20
	Caprolactam	50	13	26	104	7	*	10	161	20
	4-Chloro-3-methylphenol	50	43	86	5			10	114	20
	2-Methylnaphthalene	50	44	88	15			51	114	20
	Hexachlorocyclopentadiene	100	78	78	3			10	155	20
	2,4,6-Trichlorophenol	50	44	88	21		*	10	121	20
	2,4,5-Trichlorophenol	50	45	90	17			10	123	20
	1,1-Biphenyl	50	43	86	12			58	115	20
	2-Chloronaphthalene	50	42	84	10			52	117	20

Revised

MJW 7/29/11

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55865BSD	2-Nitroaniline	50	43	86	19			62	123	20
	Dimethylphthalate	50	46	92	19			3	142	20
	Acenaphthylene	50	44	88	15			52	118	20
	2,6-Dinitrotoluene	50	46	92	11			65	120	20
	3-Nitroaniline	50	37	74	28		*	10	120	20
	Acenaphthene	50	46	92	11			51	118	20
	2,4-Dinitrophenol	100	85	85	7			10	136	20
	4-Nitrophenol	100	41	41	70		*	10	161	20
	Dibenzofuran	50	45	90	17			61	115	20
	2,4-Dinitrotoluene	50	46	92	19			68	122	20
	Diethylphthalate	50	45	90	17			51	122	20
	4-Chlorophenyl-phenylether	50	46	92	19			62	119	20
	Fluorene	50	44	88	15			55	121	20
	4-Nitroaniline	50	44	88	15			66	123	20
	4,6-Dinitro-2-methylphenol	50	50	100	6			10	144	20
	N-Nitrosodiphenylamine	50	45	90	17			64	119	20
	4-Bromophenyl-phenylether	50	45	90	24		*	63	123	20
	Hexachlorobenzene	50	44	88	15			45	136	20
	Atrazine	50	54	108	20			61	132	20
	Pentachlorophenol	100	100	100	9			10	124	20
	Phenanthrene	50	45	90	17			55	126	20
	Anthracene	50	44	88	15			59	122	20
	Carbazole	50	45	90	9			70	124	20
	Di-n-butylphthalate	50	46	92	11			72	121	20
	Fluoranthene	50	46	92	19			61	127	20
	Pyrene	50	47	94	21		*	62	128	20
	Butylbenzylphthalate	50	47	94	21		*	66	129	20
	3,3-Dichlorobenzidine	50	32	64	69		*	10	160	20
	Benzo(a)anthracene	50	47	94	14			52	136	20
	Chrysene	50	45	90	17			55	136	20
	bis(2-Ethylhexyl)phthalate	50	45	90	17			69	130	20
	Di-n-octyl phthalate	50	46	92	11			66	131	20
	Benzo(b)fluoranthene	50	47	94	21		*	48	149	20
	Benzo(k)fluoranthene	50	45	90	17			54	138	20
	Benzo(a)pyrene	50	46	92	19			55	139	20
	Indeno(1,2,3-cd)pyrene	50	44	88	7			10	145	20
	Dibenz(a,h)anthracene	50	46	92	19			45	150	20
	Benzo(g,h,i)perylene	50	46	92	19			54	138	20

MJW 1/29/11

Cunningham, Tige Waiting for a response from Lab

8/11/11 TC

From: Cunningham, Tige
Sent: Thursday, August 11, 2011 3:20 PM
To: 'krupa'
Cc: 'Kurt Hummler'; Washburn, Michael; Ricardi, Christian; 'Divya Mehta'
Subject: Loohns Corning Site: SDG C2487: LCS/LCSD RPD calculation errors?
Attachments: SVOC spike summary Pages from C2487 SVOC Data Package.pdf

Hi Krupa

When validating the SVOC data reported in SDG C2487 it seems as though the RPDs were calculated incorrectly. I have attached the pages from the report that present the summary forms for the LCS/LCSD. On these forms, is the RPD calculated from the percent recovery value or the analyte concentration value? Can these SVOC summary forms be reprocessed and a revised report sent to us.

Also can you check the LCS/LCSD forms for the other methods (VOC, Pest, PCB and Metals) reported in this SDG and send me an email verifying that the values presented on the forms were checked and are correctly reported?

We are trying to report this data to the NYSDEC as soon as possible.

Thanks for the help.

Tige

Tige Cunningham, NRCC EAC
Project Scientist
AMEC Environment & Infrastructure
511 Congress Street, Suite 200
Portland Maine 04101
Tel 207-828-3415 Cell 207-329-0164 (personal)
Fax 207-772-4762

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

Revised 8/15/11 from Lab

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55865BS	Benzaldehyde	50	1.2	2				10	109	
	Phenol	50	20	40				10	130	
	bis(2-Chloroethyl)ether	50	44	88				46	116	
	2-Chlorophenol	50	37	74				40	105	
	2-Methylphenol	50	35	70				32	94	
	2,2-oxybis(1-Chloropropane)	50	37	74				60	113	
	Acetophenone	50	43	86				64	120	
	3+4-Methylphenols	50	32	64				24	91	
	N-Nitroso-di-n-propylamine	50	43	86				61	115	
	Hexachloroethane	50	33	66				52	104	
	Nitrobenzene	50	41	82				49	120	
	Isophorone	50	43	86				65	114	
	2-Nitrophenol	50	43	86				57	116	
	2,4-Dimethylphenol	50	43	86				43	108	
	bis(2-Chloroethoxy)methane	50	44	88				65	111	
	2,4-Dichlorophenol	50	43	86				49	113	
	Naphthalene	50	41	82				61	107	
	4-Chloroaniline	50	34	68				10	93	
	Hexachlorobutadiene	50	35	70				35	120	
	Caprolactam	50	14	28				10	130	
	4-Chloro-3-methylphenol	50	42	84				51	109	
	2-Methylnaphthalene	50	42	84				63	110	
	Hexachlorocyclopentadiene	100	74	74				42	121	
	2,4,6-Trichlorophenol	50	43	86				62	114	
	2,4,5-Trichlorophenol	50	43	86				58	116	
	1,1-Biphenyl	50	41	82				65	117	
	2-Chloronaphthalene	50	41	82				65	111	
	2-Nitroaniline	50	41	82				63	119	
	Dimethylphthalate	50	44	88				68	112	
	Acenaphthylene	50	43	86				65	110	
	2,6-Dinitrotoluene	50	44	88				68	115	
	3-Nitroaniline	50	37	74				16	104	
	Acenaphthene	50	44	88				66	114	
	2,4-Dinitrophenol	100	79	79				35	129	
	4-Nitrophenol	100	42	42				10	130	
	Dibenzofuran	50	43	86				66	111	
	2,4-Dinitrotoluene	50	44	88				65	119	
	Diethylphthalate	50	44	88				66	116	
	4-Chlorophenyl-phenylether	50	44	88				66	113	
	Fluorene	50	43	86				66	112	
	4-Nitroaniline	50	43	86				53	115	
	4,6-Dinitro-2-methylphenol	50	48	96				47	137	
	N-Nitrosodiphenylamine	50	43	86				65	116	
	4-Bromophenyl-phenylether	50	43	86				66	119	
	Hexachlorobenzene	50	43	86				57	121	
	Atrazine	50	52	104				53	130	

TC
8/15/11

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

revised 8/15/11 from lab

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55865BS	Pentachlorophenol	100	100	100				51	128	
	Phenanthrene	50	44	88				68	112	
	Anthracene	50	43	86				69	112	
	Carbazole	50	45	90				65	115	
	Di-n-butylphthalate	50	45	90				67	117	
	Fluoranthene	50	44	88				67	115	
	Pyrene	50	45	90				67	116	
	Butylbenzylphthalate	50	45	90				66	121	
	3,3-Dichlorobenzidine	50	33	66				13	119	
	Benzo(a)anthracene	50	45	90				64	117	
	Chrysene	50	44	88				65	116	
	bis(2-Ethylhexyl)phthalate	50	45	90				61	123	
	Di-n-octyl phthalate	50	45	90				63	123	
	Benzo(b)fluoranthene	50	45	90				62	122	
	Benzo(k)fluoranthene	50	43	86				60	123	
	Benzo(a)pyrene	50	45	90				65	118	
	Indeno(1,2,3-cd)pyrene	50	43	86				50	133	
	Dibenz(a,h)anthracene	50	44	88				45	150	
	Benzo(g,h,i)perylene	50	43	86				64	123	
PB55865BSD	Benzaldehyde	50	1.3	3	40	*	*	10	109	20
	Phenol	50	19	38	5			10	130	20
	bis(2-Chloroethyl)ether	50	46	92	4			46	116	20
	2-Chlorophenol	50	39	78	5			40	105	20
	2-Methylphenol	50	36	72	3			32	94	20
	2,2-oxybis(1-Chloropropane)	50	38	76	3			60	113	20
	Acetophenone	50	45	90	5			64	120	20
	3+4-Methylphenols	50	33	66	3			24	91	20
	N-Nitroso-di-n-propylamine	50	44	88	2			61	115	20
	Hexachloroethane	50	36	72	9			52	104	20
	Nitrobenzene	50	43	86	5			49	120	20
	Isophorone	50	46	92	7			65	114	20
	2-Nitrophenol	50	46	92	7			57	116	20
	2,4-Dimethylphenol	50	45	90	5			43	108	20
	bis(2-Chloroethoxy)methane	50	46	92	4			65	111	20
	2,4-Dichlorophenol	50	46	92	7			49	113	20
	Naphthalene	50	43	86	5			61	107	20
	4-Chloroaniline	50	31	62	9			10	93	20
	Hexachlorobutadiene	50	37	74	6			35	120	20
	Caprolactam	50	13	26	7			10	130	20
	4-Chloro-3-methylphenol	50	43	86	2			51	109	20
	2-Methylnaphthalene	50	44	88	5			63	110	20
	Hexachlorocyclopentadiene	100	78	78	5			42	121	20
	2,4,6-Trichlorophenol	50	44	88	2			62	114	20
	2,4,5-Trichlorophenol	50	45	90	5			58	116	20
	1,1-Biphenyl	50	43	86	5			65	117	20
	2-Chloronaphthalene	50	42	84	2			65	111	20

TC
8/15/11

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

Revised 8/15/11 from Lab

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8270

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55865BSD	2-Nitroaniline	50	43	86	5			63	119	20
	Dimethylphthalate	50	46	92	4			68	112	20
	Acenaphthylene	50	44	88	2			65	110	20
	2,6-Dinitrotoluene	50	46	92	4			68	115	20
	3-Nitroaniline	50	37	74	0			16	104	20
	Acenaphthene	50	46	92	4			66	114	20
	2,4-Dinitrophenol	100	85	85	7			35	129	20
	4-Nitrophenol	100	41	41	2			10	130	20
	Dibenzofuran	50	45	90	5			66	111	20
	2,4-Dinitrotoluene	50	46	92	4			65	119	20
	Diethylphthalate	50	45	90	2			66	116	20
	4-Chlorophenyl-phenylether	50	46	92	4			66	113	20
	Fluorene	50	44	88	2			66	112	20
	4-Nitroaniline	50	44	88	2			53	115	20
	4,6-Dinitro-2-methylphenol	50	50	100	4			47	137	20
	N-Nitrosodiphenylamine	50	45	90	5			65	116	20
	4-Bromophenyl-phenylether	50	45	90	5			66	119	20
	Hexachlorobenzene	50	44	88	2			57	121	20
	Atrazine	50	54	108	4			53	130	20
	Pentachlorophenol	100	100	100	0			51	128	20
	Phenanthrene	50	45	90	2			68	112	20
	Anthracene	50	44	88	2			69	112	20
	Carbazole	50	45	90	0			65	115	20
	Di-n-butylphthalate	50	46	92	2			67	117	20
	Fluoranthene	50	46	92	4			67	115	20
	Pyrene	50	47	94	4			67	116	20
	Butylbenzylphthalate	50	47	94	4			66	121	20
	3,3-Dichlorobenzidine	50	32	64	3			13	119	20
	Benzo(a)anthracene	50	47	94	4			64	117	20
	Chrysene	50	45	90	2			65	116	20
	bis(2-Ethylhexyl)phthalate	50	45	90	0			61	123	20
	Di-n-octyl phthalate	50	46	92	2			63	123	20
	Benzo(b)fluoranthene	50	47	94	4			62	122	20
	Benzo(k)fluoranthene	50	45	90	5			60	123	20
	Benzo(a)pyrene	50	46	92	2			65	118	20
	Indeno(1,2,3-cd)pyrene	50	44	88	2			50	133	20
	Dibenz(a,h)anthracene	50	46	92	4			45	150	20
	Benzo(g,h,i)perylene	50	46	92	7			64	123	20

TC
8/15/11

LCS/LCSD

	LCS	LCSD	Difference	Average	RPD
Phenol	2	3	1	2.5	40
Nitrobenzene	82	86	4	84	5
Fluorene	86	88	2	87	2

MJW
7/29/11

Quantitation Report (LSC Reviewed)

Data Path : Z:\HPCHEM1\BNA_F\DATA\BF060711\
Data File : BF046071.D
Acq On : 7 Jun 2011 23:04
Operator : QM
Sample : C2487-01
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 01:23:05 2011
Quant Method : Z:\HPCHEM1\BNA_F\METHOD\8270-BF060411.M
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
QLast Update : Wed Jun 08 00:50:45 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	4.85	152	167715	20.00 ng	0.00
23) Naphthalene-d8	6.00	136	636409	20.00 ng	0.00
40) Acenaphthene-d10	7.70	164	342667	20.00 ng	0.00
65) Phenanthrene-d10	9.36	188	491115	20.00 ng	0.00
77) Chrysene-d12	12.54	240	321863	20.00 ng	0.00
88) Perylene-d12	14.44	264	280222	20.00 ng	0.00
System Monitoring Compounds					
5) 2-Fluorophenol	3.58	112	452906	39.82 ng	0.00
7) Phenol-d5	4.49	99	335387	25.15 ng	0.00
12) 2-Chlorophenol-d4	4.63	132	838018	80.70 ng	0.00
15) 1,2-Dichlorobenzene-d4	5.00	152	487359	64.08 ng	0.00
25) Nitrobenzene-d5	5.36	82	672520	66.50 ng	0.00
43) 2,4,6-Tribromophenol	8.56	330	302822	105.09 ng	0.00
46) 2-Fluorobiphenyl	7.00	172	1340092	68.18 ng	0.00
80) Terphenyl-dl4	11.27	244	1063312	77.11 ng	0.00

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

#7

$$\frac{335387\ (20)}{167715\ (1.590)} = 25.15$$

#25

$$\frac{672520\ (20)}{636409\ (0.318)} = 66.46$$

MW 1/29/11

VOCs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Dry Cleaners 3612102148
Method : SW-846 8260B
Laboratory and SDG(s): Chemtech **SDG# C2487**
Date:28 July, 2011
Reviewer: Mike Washburn
Review Level [X] NYSDEC DUSR ☐ USEPA Region II Guideline

1. ☐ **Case Narrative Review and COC/Data Package Completeness** COMMENTS
   Were problems noted? No problems were noted
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. ☐ **Holding time and Sample Collection**
   All samples were analyzed within the 14 day holding time. (YES) NO (circle one)

3. ☐ **QC Blanks**
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Trip blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

4. ☐ **Instrument Tuning**
   Were all results were within method criteria? (YES) NO (circle one)

5. ☐ **Instrument Calibration** Were all results within criteria? YES (NO) (circle one)
   Initial Calibration %RSD = 20% **(30% for 1,1-DCE, chloroform, 1,2-DCP, toluene, ethylbenzene, VC)**
   Initial Avg RRF and Continuing RRF should be ≥ 0.05 and 0.10 for Chloromethane, 1,1-Dichloroethane, Bromoform and 0.30 for Chlorobenzene and 1,1,2,2-Tetrachloroethane
   Continuing Calibration %D = 20%

   In the initial calibration dated 6/1/2011, the percent relative standard deviation QC limit of 20 was exceeded for the following compounds: methylene chloride (79) and bromoform (22). Methylene chloride and bromoform was not detected in the associated samples and the reporting limits were qualified estimated (UJ).

   In the continuing calibration dated 6/7/2011, the percent difference QC limit of 20 was exceeded for the following compounds: methylene chloride (39) and bromoform (21). Methylene chloride and bromoform was not detected in the associated samples and the reporting limits were qualified estimated (UJ).

6. ☐ **Internal Standards** (Area Limits = -50% to +100%, RT's within 30 seconds of mid point cal Std)
   Were all results within criteria? (YES) NO (circle one)

7. ☐ **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

   Were all results were within Region II limits? (YES) NO (circle one)

8. ☐ **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)

   Were MS/MSDs submitted/analyzed? YES (NO)

   Were all results were within the Region II limits? YES NO (NA) (circle one)

9. ☐ **Duplicates/replicates** - Region II Limits (water RPD 50, soil RPD 100)

   Were Field Duplicates submitted/analyzed? YES (NO)

   Were all results were within Region II Limits? YES NO (NA) (circle one)

10. ☐ **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

Were all results were within Region II control limits? (YES) NO (circle one)

11. □ **Raw Data Review and Calculation Checks**

12. □ **Electronic Data Review and Edits**
Does the EDD match the Form I's? (YES) NO (circle one)

13. □ **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? (YES) NO (circle one)

Response Factor Report MSVOAH

Method Path : W:\HPCHEM1\MSVOA_H\METHOD\
Method File : 82H060111W.M
Title : SW846 8260
Last Update : Wed Jun 01 17:49:36 2011
Response Via : Initial Calibration

Calibration Files
5 =VH041130.D 20 =VH041131.D 50 =VH041132.D
100 =VH041133.D 150 =VH041134.D 1 =VH041135.D

		Compound	5	20	50	100	150	1	Avg	%RSD	
1)	I	Pentafluorobenzene	----------ISTD----------								
2)	T	Dichlorodifluorom	0.778	0.818	0.764	0.786	0.746	0.674	0.761	6.43	
3)	P	Chloromethane	1.188	1.412	1.296	1.265	1.232	1.223	1.269	6.24	
4)	CM	Vinyl Chloride	1.003	1.107	0.973	0.981	0.905	0.857	0.971	8.86#	
5)	T	Bromomethane	0.481	0.484	0.394	0.464	0.360	0.371	0.426	13.40	
6)	T	Chloroethane	0.472	0.519	0.428	0.511	0.407	0.482	0.470	9.51	
7)	T	Trichlorofluorome	0.926	0.989	0.905	0.974	0.949	0.681	0.904	12.54	
8)	T	Tert butyl alcoho	0.140	0.153	0.136	0.134	0.126	0.137	0.137	6.31	
9)	T	Diethyl Ether	0.513	0.540	0.499	0.495	0.471	0.528	0.508	4.88	
10)	T	Diisopropyl ether	3.210	3.385	2.908	3.044	2.992	2.746	3.048	7.38	
11)	CM	1,1-Dichloroethen	0.620	0.723	0.662	0.664	0.658	0.702	0.671	5.41#	
12)	T	Methyl Iodide	1.055	0.971	0.815	0.967	0.796	0.891	0.916	10.96	
13)	T	Acrolein	0.232	0.165	0.138	0.139	0.137	0.312	0.187	37.96	NT
14)	T	1,1,2-Trichlorotr	0.677	0.699	0.632	0.656	0.615	0.587	0.644	6.35	
15)	T	Acrylonitrile	0.451	0.469	0.410	0.439	0.430	0.416	0.436	5.06	
16)	T	Allyl Chloride	1.420	1.489	1.217	1.180	1.248	1.239	1.299	9.61	
17)	T	Acetone	0.633	0.496	0.399	0.401	0.388	0.481	0.466	20.10	
18)	T	Carbon Disulfide	2.125	2.258	1.998	2.130	1.960	2.041	2.085	5.18	
19)	T	Methyl Acetate	1.504	1.688	1.442	1.575	1.502	1.534	1.541	5.46	
20)	T	Methyl tert-butyl	2.163	2.255	2.025	2.077	2.093	2.155	2.128	3.78	
21)	T	Methylene Chlorid	1.052	0.874	0.734	0.746	0.691	3.139	1.206	79.27	
22)	T	trans-1,2-Dichlor	0.622	0.703	0.638	0.653	0.650	0.755	0.670	7.40	
23)	T	Acetonitrile							0.000	-1.00	
24)	T	Vinyl Acetate	1.975	1.979	1.729	1.722	1.636	1.708	1.792	8.23	
25)	P	1,1-Dichloroethan	1.414	1.493	1.257	1.305	1.287	1.209	1.328	7.98	
26)	TM	2-Butanone	0.891	0.827	0.700	0.676	0.702	0.717	0.752	11.48	
27)	T	2,2-Dichloropropa	0.531	0.550	0.484	0.486	0.504	0.628	0.530	10.21	
28)	T	cis-1,2-Dichloroe	0.928	0.939	0.844	0.833	0.845	0.869	0.876	5.24	
29)	T	Bromochloromethan	0.306	0.326	0.307	0.343	0.330	0.337	0.325	4.65	
30)	CM	Chloroform	1.169	1.300	1.181	1.182	1.212	1.230	1.212	4.02#	
31)	T	Ethyl Acetate	1.604	1.664	1.526	1.476	1.556	1.750	1.596	6.22	
32)	T	Cyclohexane	1.204	1.208	1.058	1.075	1.130	1.240	1.152	6.59	
33)	T	1,1,1-Trichloroet	0.852	0.845	0.725	0.847	0.731	0.787	0.798	7.39	
34)	S	1,2-Dichloroethan	0.753	0.745	0.673	0.626	0.655	0.664	0.686	7.47	
35)	I	1,4-Difluorobenzene	----------ISTD----------								
36)	S	Dibromofluorometh	0.324	0.332	0.308	0.273	0.316	0.285	0.306	7.47	
37)	T	1,1-Dichloroprope	0.483	0.501	0.437	0.430	0.492	0.385	0.455	9.85	
38)	TM	Carbon Tetrachlor	0.428	0.462	0.398	0.400	0.428	0.256	0.395	18.23	
39)	TM	Benzene	1.260	1.422	1.213	1.152	1.285	1.366	1.283	7.71	
40)	T	Methacrylonitrile	0.321	0.370	0.318	0.299	0.347	0.333	0.331	7.45	
41)	TM	1,2-Dichloroethan	0.363	0.416	0.383	0.366	0.405	0.343	0.379	7.26	
42)	T	Isobutyl Alcohol							0.000	-1.00	
43)	T	Isopropyl Acetate	1.045	1.082	0.986	0.970	1.056	0.927	1.011	5.88	
44)	TM	Trichloroethene	0.353	0.400	0.352	0.335	0.353	0.353	0.358	6.15	
45)	T	Methylcyclohexane	0.383	0.470	0.380	0.372	0.392	0.446	0.407	9.94	
46)	C	1,2-Dichloropropa	0.370	0.420	0.376	0.366	0.398	0.412	0.390	5.82#	
47)	T	Dibromomethane	0.273	0.290	0.257	0.239	0.260	0.226	0.257	8.98	
48)	T	Bromodichlorometh	0.466	0.504	0.462	0.447	0.485	0.410	0.462	6.98	
49)	S	Toluene-d8	0.991	1.281	1.109	1.025	1.121	0.987	1.086	10.28	
50)	T	4-Methyl-2-Pentan	0.569	0.641	0.581	0.543	0.561	0.484	0.563	9.13	
51)	CM	Toluene	0.860	0.930	0.824	0.815	0.868	0.677	0.829	10.28#	
52)	T	t-1,3-Dichloropro	0.552	0.597	0.537	0.529	0.559	0.434	0.535	10.28	

MJW 7/28/11

Method Path : W:\HPCHEM1\MSVOA_H\METHOD\
Method File : 82H060111W.M
Title : SW846 8260
Last Update : Wed Jun 01 17:49:36 2011
Response Via : Initial Calibration

Calibration Files
5 =VH041130.D 20 =VH041131.D 50 =VH041132.D
100 =VH041133.D 150 =VH041134.D 1 =VH041135.D

		Compound	5	20	50	100	150	1	Avg	%RSD
53)	T	Methyl Methacryla	0.370	0.406	0.362	0.359	0.385	0.288	0.362	11.15
54)	T	1,4-Dioxane	0.005	0.005	0.004	0.004	0.004	0.005	0.004	13.77
55)	T	cis-1,3-Dichlorop	0.611	0.674	0.620	0.592	0.637	0.547	0.613	6.96
56)	T	1,1,2-Trichloroet	0.318	0.382	0.336	0.336	0.352	0.264	0.331	11.90
57)	T	Ethyl Methacrylat	0.528	0.640	0.595	0.571	0.615	0.411	0.560	14.77
58)	T	1,3-Dichloropropa	0.626	0.721	0.615	0.605	0.628	0.587	0.630	7.44
59)	T	2-Chloroethyl Vin	0.244	0.203	0.162	0.156	0.154	0.214	0.189	19.72
60)	T	2-Hexanone	0.439	0.483	0.424	0.405	0.411	0.336	0.416	11.61
61)	T	Dibromochlorometh	0.337	0.403	0.354	0.351	0.367	0.253	0.344	14.48
62)	T	1,2-Dibromoethane	0.369	0.418	0.367	0.356	0.369	0.300	0.363	10.39
63)	S	4-Bromofluorobenz	0.377	0.472	0.418	0.393	0.413	0.402	0.412	7.93
64)	I	Chlorobenzene-d5	----------ISTD----------							
65)	TM	Tetrachloroethene	0.318	0.393	0.358	0.347	0.306	0.245	0.328	15.55
66)	PM	Chlorobenzene	1.128	1.156	1.023	1.019	1.039	0.872	1.040	9.66
67)	T	1,1,1,2-Tetrachlo	0.377	0.383	0.346	0.351	0.366	0.290	0.352	9.57
68)	C	Ethyl Benzene	0.531	0.562	0.509	0.525	0.538	0.458	0.520	6.77#
69)	T	m/p-Xylenes	0.656	0.706	0.623	0.630	0.644	0.557	0.636	7.62
70)	T	o-Xylene	0.624	0.697	0.620	0.636	0.644	0.530	0.625	8.67
71)	T	Styrene	1.007	1.228	1.064	1.076	1.050	0.895	1.054	10.23
72)	P	Bromoform	0.298	0.330	0.291	0.296	0.300	0.158	0.279	21.81
73)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
74)	T	Isopropylbenzene	3.468	3.772	3.409	3.425	3.608	3.437	3.520	4.06
75)	T	n-Amyl Acetate	1.640	2.282	2.199	2.329	2.542	0.909	1.984	30.58NT
76)	P	1,1,2,2-Tetrachlo	1.337	1.505	1.355	1.366	1.505	1.182	1.375	8.80
77)	T	1,2,3-Trichloropr	1.133	1.123	1.018	1.027	1.101	0.942	1.057	7.07
78)	T	Bromobenzene	1.021	0.981	0.906	0.844	0.917	0.778	0.908	9.74
79)	T	n-propylbenzene	3.996	4.200	3.748	3.877	4.054	4.221	4.016	4.58
80)	T	2-Chlorotoluene	2.675	2.710	2.468	2.514	2.651	2.466	2.581	4.28
81)	T	1,3,5-Trimethylbe	2.457	2.713	2.402	2.459	2.545	2.391	2.495	4.82
82)	T	trans-1,4-Dichlor	0.649	0.688	0.644	0.636	0.728	0.463	0.635	14.32
83)	T	p-ethyltoluene							0.000	-1.00
84)	T	4-Chlorotoluene	2.711	2.870	2.461	2.513	2.627	2.104	2.548	10.29
85)	T	tert-Butylbenzene	2.459	2.521	2.185	2.235	2.359	2.394	2.359	5.46
86)	T	1,2,4-Trimethylbe	2.552	2.834	2.471	2.545	2.646	2.445	2.582	5.50
87)	T	sec-Butylbenzene	2.852	3.085	2.592	2.738	2.750	2.964	2.830	6.23
88)	T	p-Isopropyltoluen	2.217	2.397	2.054	2.191	2.189	2.418	2.244	6.18
89)	T	1,3-Dichlorobenze	1.532	1.696	1.478	1.506	1.558	1.424	1.532	6.03
90)	T	1,4-Dichlorobenze	1.749	1.760	1.491	1.512	1.683	1.832	1.671	8.37
91)	T	p-diethylbenzene							0.000	-1.00
92)	T	n-Butylbenzene	1.881	2.155	1.814	2.010	1.971	2.100	1.988	6.48
93)	T	Hexachloroethane	0.475	0.519	0.451	0.478	0.498	0.430	0.475	6.73
94)	T	1,2-Dichlorobenze	1.306	1.621	1.425	1.458	1.544	1.289	1.441	9.06
95)	T	1,2,4,5-tetrameth							0.000	-1.00
96)	T	1,2-Dibromo-3-Chl	0.191	0.233	0.210	0.230	0.246	0.147	0.209	17.32
97)	T	1,2,4-Trichlorobe	0.531	0.675	0.594	0.646	0.719	0.782	0.658	13.54
98)	T	Hexachlorobutadie	0.203	0.205	0.158	0.183	0.183	0.515	0.241	56.00NT
99)	T	Naphthalene	2.142	2.498	2.411	2.690	2.981	2.240	2.494	12.30
100)	T	1,2,3-Trichlorobe	0.490	0.567	0.537	0.592	0.711	0.846	0.624	21.12

(#) = Out of Range

MJW 7/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	L1 1	L2 5	L3 20	L4 50	L5 100	L6 150	L7	L8	L9	Ave.	%SD	%RSD
Vinyl Chloride	PFB	0.857191	1.002512	1.107041	0.973491	0.980976	0.904507	---	---	---	0.970953	8.6	8.9
Trichloroethene	DFB	0.352528	0.352558	0.400028	0.352481	0.334893	0.352913	---	---	---	0.357567	2.2	6.1
Chlorobenzene	CB5	0.871558	1.128485	1.156059	1.023427	1.018776	1.039197	---	---	---	1.039584	10.0	9.7
Bromobenzene	DCB	0.778224	1.020616	0.98124	0.905635	0.843856	0.917418	---	---	---	0.907831	8.8	9.7
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!

MJW
3/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	PFB	1788889	0.904507
Trichloroethene	DFB	1421692	0.352913
Chlorobenzene	CB5	3485436	1.039197
Bromobenzene	DCB	1272873	0.917418
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
PFB	659250	50	150
DFB	1342815	50	150
CB5	1117990	50	150
DCB	462484	50	150
0		0	150
0		0	150

M/w 7/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	PFB	1241456	0.980976
Trichloroethene	DFB	924386	0.334893
Chlorobenzene	CB5	2318719	1.018776
Bromobenzene	DCB	837871	0.843856
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
PFB	632766	50	100
DFB	1380120	50	100
CB5	1137993	50	100
DCB	496454	50	100
0		0	100
0		0	100

MJW 4/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	PFB	668259	0.973491
Trichloroethene	DFB	517676	0.352481
Chlorobenzene	CB5	1287747	1.023427
Bromobenzene	DCB	498150	0.905635
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
PFB	686456	50	50
DFB	1468665	50	50
CB5	1258270	50	50
DCB	550056	50	50
0		0	50
0		0	50

MJW 7/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	PFB	310619	1.107041
Trichloroethene	DFB	237484	0.400028
Chlorobenzene	CB5	590860	1.156059
Bromobenzene	DCB	223094	0.98124
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
PFB	701462	50	20
DFB	1484171	50	20
CB5	1277746	50	20
DCB	568398	50	20
0		0	20
0		0	20

MW 4/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	PFB	63380	1.002512
Trichloroethene	DFB	48016	0.352558
Chlorobenzene	CB5	129331	1.128485
Bromobenzene	DCB	49873	1.020616
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
PFB	632212	50	5
DFB	1361931	50	5
CB5	1146059	50	5
DCB	488656	50	5
0		0	5
0		0	5

MJC 2/28/11

DUSR Calculations
VOC SDG C2487
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	PFB	10128	0.857191
Trichloroethene	DFB	9259	0.352528
Chlorobenzene	CB5	19703	0.871558
Bromobenzene	DCB	7053	0.778224
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
PFB	590767	50	1
DFB	1313229	50	1
CB5	1130332	50	1
DCB	453147	50	1
0			1
0			1

mjw 7/28/11

Evaluate Continuing Calibration Report

Data Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\DATA\VH060711\
Data File : VH041291.D
Acq On : 7 Jun 2011 12:20
Operator : NS
Sample : 50 PPB CCC
Misc : 5mL MSVOA_H
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 14:13:43 2011
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\82H060111W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 06 14:37:57 2011
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	98	0.00
2	T	Dichlorodifluoromethane	0.761	0.709	6.8	91	0.00
3	P	Chloromethane	1.269	1.148	9.5	87	0.00
4	CM	Vinyl Chloride	0.971	0.923	4.9#	93	0.00
5	T	Bromomethane	0.426	0.399	6.3	99	0.00
6	T	Chloroethane	0.470	0.426	9.4	97	0.00
7	T	Trichlorofluoromethane	0.904	0.782	13.5	85	0.00
8	T	Tert butyl alcohol	0.137	0.127	7.3	92	0.00
9	T	Diethyl Ether	0.508	0.460	9.4	90	0.00
10	T	Diisopropyl ether	3.048	2.481	18.6	84	0.00
11	CM	1,1-Dichloroethene	0.671	0.621	7.5#	92	0.00
12	T	Methyl Iodide	0.916	0.833	9.1	100	0.00
13	T	Acrolein	0.187	0.105	43.9#	75	0.00
14	T	1,1,2-Trichlorotrifluoroeth	0.644	0.607	5.7	94	0.00
15	T	Acrylonitrile	0.436	0.399	8.5	95	0.00
16	T	Allyl Chloride	1.299	1.138	12.4	92	0.00
17	T	Acetone	0.466	0.390	16.3	96	0.00
18	T	Carbon Disulfide	2.085	1.826	12.4	89	0.00
19	T	Methyl Acetate	1.541	1.543	-0.1	105	0.00
20	T	Methyl tert-butyl Ether	2.128	1.886	11.4	91	0.00
21	T	Methylene Chloride	1.206	0.733	39.2#	98	0.00
22	T	trans-1,2-Dichloroethene	0.670	0.625	6.7	96	0.00
23	T	Acetonitrile	0.000	0.000	0.0	0#	-2.57#
24	T	Vinyl Acetate	1.792	1.643	8.3	93	0.00
25	P	1,1-Dichloroethane	1.328	1.221	8.1	95	0.00
26	TM	2-Butanone	0.752	0.677	10.0	95	0.00
27	T	2,2-Dichloropropane	0.530	0.529	0.2	107	0.00
28	T	cis-1,2-Dichloroethene	0.876	0.850	3.0	99	0.00
29	T	Bromochloromethane	0.325	0.382	-17.5	122	0.00
30	CM	Chloroform	1.212	1.148	5.3#	95	0.00
31	T	Ethyl Acetate	1.596	1.438	9.9	92	0.00
32	T	Cyclohexane	1.152	0.965	16.2	89	0.00
33	T	1,1,1-Trichloroethane	0.798	0.817	-2.4	110	0.00
34	S	1,2-Dichloroethane-d4	0.686	0.650	5.2	95	0.00
35	I	1,4-Difluorobenzene	1.000	1.000	0.0	88	0.00
36	S	Dibromofluoromethane	0.306	0.329	-7.5	95	0.00
37	T	1,1-Dichloropropene	0.455	0.468	-2.9	95	0.00
38	TM	Carbon Tetrachloride	0.395	0.442	-11.9	98	0.00
39	TM	Benzene	1.283	1.314	-2.4	96	0.00
40	T	Methacrylonitrile	0.331	0.338	-2.1	94	0.00
41	TM	1,2-Dichloroethane	0.379	0.417	-10.0	96	0.00
42	T	Isobutyl Alcohol	0.000	0.000	0.0	0#	-4.31#
43	T	Isopropyl Acetate	1.011	1.064	-5.2	95	0.00
44	TM	Trichloroethene	0.358	0.389	-8.7	98	0.00
45	T	Methylcyclohexane	0.407	0.411	-1.0	96	0.00

MW 7/28/11

Evaluate Continuing Calibration Report

Data Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\DATA\VH060711\
Data File : VH041291.D
Acq On : 7 Jun 2011 12:20
Operator : NS
Sample : 50 PPB CCC
Misc : 5mL MSVOA_H
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 14:13:43 2011
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\82H060111W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 06 14:37:57 2011
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	C	1,2-Dichloropropane	0.390	0.414	-6.2#	97	0.00
47	T	Dibromomethane	0.257	0.274	-6.6	94	0.00
48	T	Bromodichloromethane	0.462	0.478	-3.5	91	0.00
49	S	Toluene-d8	1.086	1.165	-7.3	93	0.00
50	T	4-Methyl-2-Pentanone	0.563	0.632	-12.3	96	0.00
51	CM	Toluene	0.829	0.917	-10.6#	99	0.00
52	T	t-1,3-Dichloropropene	0.535	0.578	-8.0	95	0.00
53	T	Methyl Methacrylate	0.362	0.390	-7.7	95	0.00
54	T	1,4-Dioxane	0.004	0.005	-25.0#	99	0.00
55	T	cis-1,3-Dichloropropene	0.613	0.655	-6.9	94	0.00
56	T	1,1,2-Trichloroethane	0.331	0.377	-13.9	99	0.00
57	T	Ethyl Methacrylate	0.560	0.624	-11.4	93	0.00
58	T	1,3-Dichloropropane	0.630	0.701	-11.3	101	0.00
59	T	2-Chloroethyl Vinyl ether	0.189	0.048	74.6#	26#	0.00
60	T	2-Hexanone	0.416	0.486	-16.8	101	0.00
61	T	Dibromochloromethane	0.344	0.375	-9.0	94	0.00
62	T	1,2-Dibromoethane	0.363	0.410	-12.9	99	0.00
63	S	4-Bromofluorobenzene	0.412	0.437	-6.1	92	0.00
64	I	Chlorobenzene-d5	1.000	1.000	0.0	87	0.00
65	TM	Tetrachloroethene	0.328	0.328	0.0	80	0.00
66	PM	Chlorobenzene	1.040	1.145	-10.1	98	0.00
67	T	1,1,1,2-Tetrachloroethane	0.352	0.410	-16.5	103	0.00
68	C	Ethyl Benzene	0.520	0.585	-12.5#	100	0.00
69	T	m/p-Xylenes	0.636	0.721	-13.4	101	0.00
70	T	o-Xylene	0.625	0.726	-16.2	102	0.00
71	T	Styrene	1.054	1.224	-16.1	100	0.00
72	P	Bromoform	0.279	0.337	-20.8#	101	0.00
73	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
74	T	Isopropylbenzene	3.520	3.628	-3.1	99	0.00
75	T	n-Amyl Acetate	1.984	2.332	-17.5	99	0.00
76	P	1,1,2,2-Tetrachloroethane	1.375	1.444	-5.0	99	0.00
77	T	1,2,3-Trichloropropane	1.057	1.020	3.5	93	0.00
78	T	Bromobenzene	0.908	1.017	-12.0	104	0.00
79	T	n-propylbenzene	4.016	4.048	-0.8	100	0.00
80	T	2-Chlorotoluene	2.581	2.665	-3.3	100	0.00
81	T	1,3,5-Trimethylbenzene	2.495	2.590	-3.8	100	0.00
82	T	trans-1,4-Dichloro-2-Butene	0.635	0.610	3.9	88	0.00
83	T	p-ethyltoluene	0.000	0.000	0.0	0#	-9.53#
84	T	4-Chlorotoluene	2.548	2.729	-7.1	103	0.00
85	T	tert-Butylbenzene	2.359	2.500	-6.0	106	0.00
86	T	1,2,4-Trimethylbenzene	2.582	2.735	-5.9	103	0.00
87	T	sec-Butylbenzene	2.830	2.943	-4.0	106	0.00
88	T	p-Isopropyltoluene	2.244	2.350	-4.7	106	0.00
89	T	1,3-Dichlorobenzene	1.532	1.633	-6.6	103	0.00

MJW 7/28/11

Coninuing Calibration Calculations

	Ave RF	CCRF	%D
Vinyl Chloride	0.971	0.923	-4.9
2-butanone	0.752	0.677	-10.0
Benzene	1.283	1.314	2.4
Chrysene	1.081699	1.106159	2.3
Indeno(1,2,3-cd)pyrene	1.282605	1.220694	-4.8

MJW 7/28/11

Quantitation Report (QT Reviewed)

Data Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\DATA\VH060711\
Data File : VH041291.D
Acq On : 7 Jun 2011 12:20
Operator : NS
Sample : 50 PPB CCC
Misc : 5mL MSVOA_H
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 07 14:13:43 2011
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\82H060111W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 06 14:37:57 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.08	168	672076	50.00	ug/l	0.01
35) 1,4-Difluorobenzene	4.59	114	1299695	50.00	ug/l	0.00
64) Chlorobenzene-d5	7.93	117	1098162	50.00	ug/l	0.00
73) 1,4-Dichlorobenzene-d4	10.43	152	511388	50.00	ug/l	0.00
System Monitoring Compounds						
34) 1,2-Dichloroethane-d4	4.10	65	436874	47.37	ug/l	0.00
Spiked Amount 50.000	Range 66 - 150		Recovery = 94.74%			
36) Dibromofluoromethane	3.64	113	428097	53.79	ug/l	0.00
Spiked Amount 50.000	Range 76 - 130		Recovery = 107.58%			
49) Toluene-d8	6.07	98	1514368	53.66	ug/l	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 107.32%			
63) 4-Bromofluorobenzene	9.36	95	568230	53.00	ug/l	0.00
Spiked Amount 50.000	Range 70 - 131		Recovery = 106.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.08	85	476494	46.58	ug/l	98
3) Chloromethane	1.16	50	771321	45.21	ug/l	99
4) Vinyl Chloride	1.21	62	619999	47.51	ug/l	100
5) Bromomethane	1.39	94	268126	46.85	ug/l	98
6) Chloroethane	1.48	64	286053	45.29	ug/l	94
7) Trichlorofluoromethane	1.56	101	525332m	43.23	ug/l	
8) Tert butyl alcohol	2.51	59	427229	231.19	ug/l	99
9) Diethyl Ether	1.69	74	309227	45.31	ug/l	96
10) Diisopropyl ether	2.71	45	1667493	40.71	ug/l	99
11) 1,1-Dichloroethene	1.86	96	417377	46.24	ug/l	97
12) Methyl Iodide	1.95	142	559597	45.47	ug/l	97
13) Acrolein	2.02	56	352065	180.60	ug/l	96
14) 1,1,2-Trichlorotrifluoroet	1.90	101	408268	47.14	ug/l	99
15) Acrylonitrile	2.81	53	1341260	228.90	ug/l	99
16) Allyl Chloride	2.12	41	765143	43.83	ug/l	99
17) Acetone	2.22	43	1310156	239.53	ug/l	99
18) Carbon Disulfide	1.87	76	1227315	43.79	ug/l	100
19) Methyl Acetate	2.33	43	1036800	50.06	ug/l	99
20) Methyl tert-butyl Ether	2.41	73	1267629	44.32	ug/l	100
21) Methylene Chloride	2.19	84	492756m	49.25	ug/l	
22) trans-1,2-Dichloroethene	2.32	96	420217	46.66	ug/l	94
24) Vinyl Acetate	2.99	43	5520477	229.23	ug/l	100
25) 1,1-Dichloroethane	2.78	63	820353	45.97	ug/l	98
26) 2-Butanone	3.74	43	2275200	225.04	ug/l	100
27) 2,2-Dichloropropane	3.30	77	355848	49.92	ug/l	99
28) cis-1,2-Dichloroethene	3.23	96	571449	48.53	ug/l	94
29) Bromochloromethane	3.39	128	256995	58.87	ug/l	93
30) Chloroform	3.48	83	771647	47.35	ug/l	97
31) Ethyl Acetate	3.60	43	966134	45.04	ug/l #	99
32) Cyclohexane	3.39	56	648806	41.88	ug/l	98
33) 1,1,1-Trichloroethane	3.64	97	549034	51.20	ug/l	99
37) 1,1-Dichloropropene	3.75	75	608232	51.45	ug/l	98
38) Carbon Tetrachloride	3.58	117	573915m	53.08	ug/l	
39) Benzene	3.97	78	1707613	51.20	ug/l	99

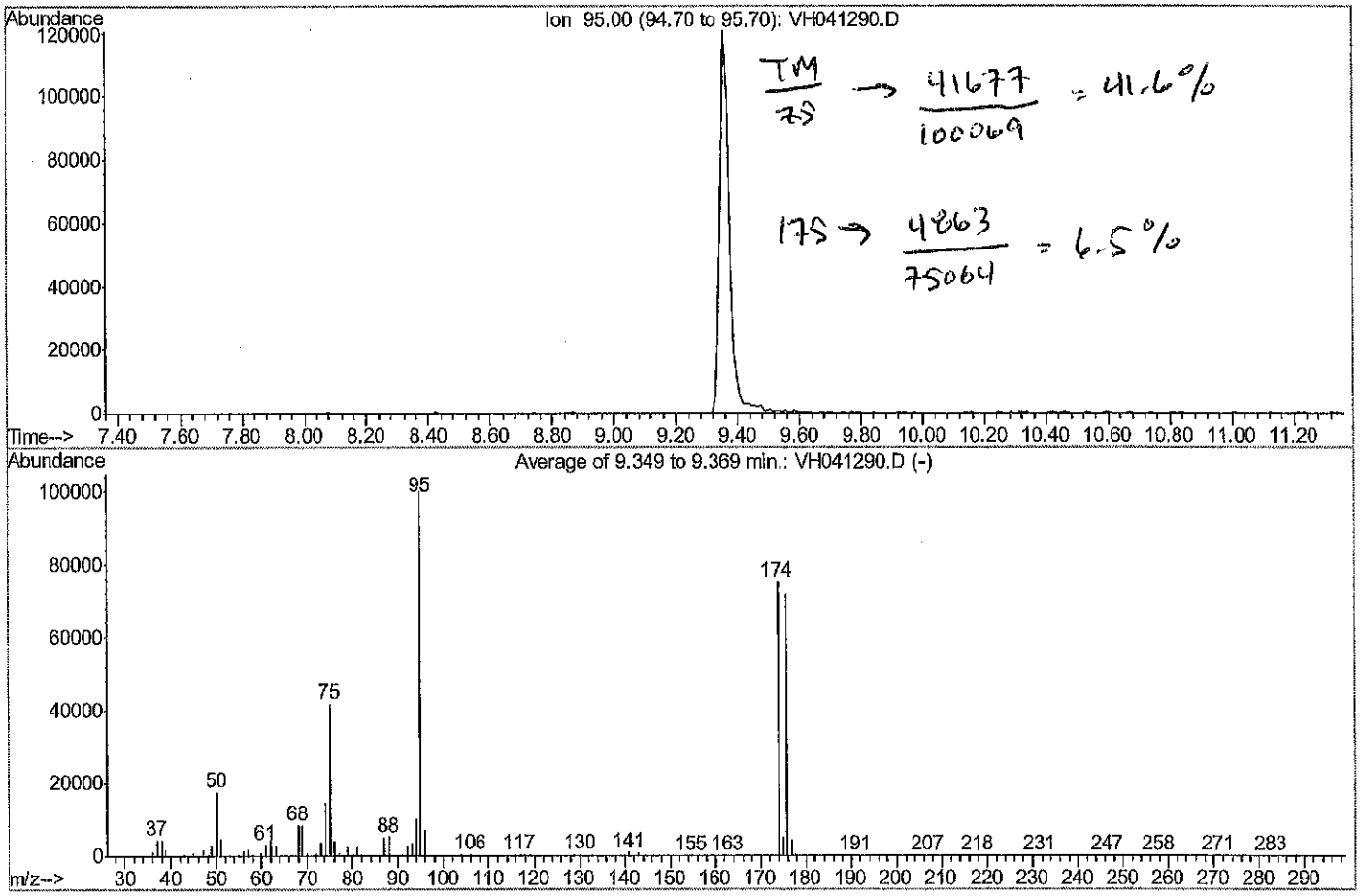
$\frac{619999\,(50)}{672076\,(50)} = 0.923$

MJW 4/27/11

Data Path : \\Terastorage\voasrv\HPCHEM1\Msvoa_H\Data\VH060711\
Data File : VH041290.D
Acq On : 7 Jun 2011 11:46
Operator : NS
Sample : BFB TUNE CHECK
Misc : 5mL MSVOA_H
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\82H060111W.M
Title : SW846 8260
Last Update : Mon Jun 06 14:37:57 2011



AutoFind: Scans 893, 894, 895; Background Corrected with Scan 888

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	17579	PASS
75	95	30	60	41.6	41677	PASS
95	95	100	100	100.0	100069	PASS
96	95	5	9	6.8	6833	PASS
173	174	0.00	2	0.3	208	PASS
174	95	50	100	75.0	75064	PASS
175	174	5	9	6.5	4863	PASS
176	174	95	101	95.5	71682	PASS
177	176	5	9	6.1	4388	PASS

MW 7/28/11

CHEMTECH

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CHEMTECH Client: MACTEC Inc.

Lab Code: CHEM CASE No.: C2487 SAS No.: C2487 SDG NO.: C2487

Analytical Method: EPA SW846 8260

	Lab Sample ID.	Client Sample NO.	SMC1 (DCE) #	SMC2 (DBFM) #	SMC3 (TOL) #	SMC4 (BFB) #	TOT OUT
01	VBH0607W1	VBH0607W1	76	95	94	91	0
02	BSH0607W1	BSH0607W1	78	94	93	93	0
03	BSH0607W2	BSH0607W2	77	90	88	87	0
04	C2487-02	LCTB001	83	88	91	84	0
05	C2487-01	LCMW001016	80	96	97	92	0
06	C2487-03	LCMW002019	106	104	113	108	0

$\frac{47.61}{50} \cdot 100 = 95.22$

	QC LIMITS
SMC1 (DCE) = 1,2-Dichloroethane-d4	(70-120)
SMC2 (DBFM) =Dibromofluoromethane	(85-115)
SMC3 (TOL) =Toluene-d8	(85-120)
SMC4 (BFB) =4-Bromofluorobenzene	(75-120)

Column to be used to flag recovery values
* Values outside of contract required QC Limits

MJW 7/28/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	
Client Sample ID:	VBH0607W1	SDG No.:	C2487
Lab Sample ID:	VBH0607W1	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH041293.D	1		06/07/11	VH060711

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	37.9		70 - 120	76%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		85 - 115	95%	SPK: 50
2037-26-5	Toluene-d8	46.9		85 - 120	94%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.4		75 - 120	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	716610	4.08			
540-36-3	1,4-Difluorobenzene	1352740	4.6			
3114-55-4	Chlorobenzene-d5	1133670	7.93			
3855-82-1	1,4-Dichlorobenzene-d4	520319	10.43			

MJW 7/28/11

Quantitation Report (QT Reviewed)

Data Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\DATA\VH060711\
Data File : VH041293.D
Acq On : 7 Jun 2011 13:30
Operator : NS
Sample : VBH0607W1
Misc : 5mL MSVOA_H
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 07 14:25:44 2011
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\82H060111W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 07 14:17:00 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.08	168	716610	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	4.60	114	1352741	50.00	ug/l	0.00
64) Chlorobenzene-d5	7.93	117	1133673	50.00	ug/l	0.00
73) 1,4-Dichlorobenzene-d4	10.43	152	520319	50.00	ug/l	0.00
System Monitoring Compounds						
34) 1,2-Dichloroethane-d4	4.10	65	372826	37.91	ug/l	0.00
Spiked Amount 50.000	Range 66 - 150		Recovery = 75.82%			
36) Dibromofluoromethane	3.64	113	394399	47.63	ug/l	0.00
Spiked Amount 50.000	Range 76 - 130		Recovery = 95.22%			
49) Toluene-d8	6.07	98	1378147	46.92	ug/l	0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 93.84%			
63) 4-Bromofluorobenzene	9.36	95	507043	45.44	ug/l	0.00
Spiked Amount 50.000	Range 70 - 131		Recovery = 90.88%			

Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

#36

$$\frac{394399(50)}{1352741(6.306)} = 47.63$$

MJW 7/27/11

CHEMTECH

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MACTEC Inc.

Lab Code: CHEM Cas No: C2487 SAS No : C2487 SDG No: C2487

Matrix Spike - EPA Sample No : BSH0607W1 Analytical Method: EPA SW846 8260 Datafile : VH041294.D

COMPOUND	SPIKE ADDED (ug/L)	CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC#	QC LIMITS REC
Dichlorodifluoromethane	20		16	80	(35-124)
Chloromethane	20		17	85	(40-125)
Vinyl Chloride	20		17	85	(50-144)
Bromomethane	20		18	90	(44-145)
Chloroethane	20		17	85	(60-135)
Trichlorofluoromethane	20		16	80	(60-137)
1,1,2-Trichlorotrifluoroethane	20		18	90	(52-142)
1,1-Dichloroethene	20		17	85	(70-130)
Acetone	100		86	86	(50-140)
Carbon Disulfide	20		16	80	(36-155)
Methyl tert-butyl Ether	20		15	75	(65-125)
Methyl Acetate	20		18	90	(51-158)
Methylene Chloride	20		18	90	(61-138)
trans-1,2-Dichloroethene	20		16	80	(60-137)
1,1-Dichloroethane	20		16	80	(70-135)
Cyclohexane	20		15	75	(56-141)
2-Butanone	100		84	84	(56-150)
Carbon Tetrachloride	20		20	100	(65-138)
cis-1,2-Dichloroethene	20		17	85	(70-125)
Chloroform	20		17	85	(67-135)
1,1,1-Trichloroethane	20		17	85	(65-130)
Methylcyclohexane	20		19	95	(56-137)
Benzene	20		19	95	(80-120)
1,2-Dichloroethane	20		20	100	(70-130)
Trichloroethene	20		20	100	(70-125)
1,2-Dichloropropane	20		19	95	(75-125)
Bromodichloromethane	20		19	95	(75-120)
4-Methyl-2-Pentanone	100		100	100	(63-135)
Toluene	20		19	95	(75-120)
t-1,3-Dichloropropene	20		19	95	(66-135)
cis-1,3-Dichloropropene	20		19	95	(70-130)
1,1,2-Trichloroethane	20		21	105	(75-125)
2-Hexanone	100		100	100	(56-130)
Dibromochloromethane	20		19	95	(64-135)

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

$\frac{17}{20} \cdot 100\% = 85\%$

RPD : 0 Out of 0 outside limits

Spike Recovery : 4 Out of 90 outside limits

Comments: _____

MJW 7/28/11

Quantitation Report (QT Reviewed)

Data Path : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\DATA\VH060711\
Data File : VH041294.D
Acq On : 7 Jun 2011 14:07
Operator : NS
Sample : BSH0607W1
Misc : 5mL MSVOA_H
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 14:32:54 2011
Quant Method : \\TERASTORAGE\VOASRV\HPCHEM1\MSVOA_H\METHOD\82H060111W.M
Quant Title : SW846 8260
QLast Update : Tue Jun 07 14:17:00 2011
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.08	168	745806	50.00	ug/l		0.00
35) 1,4-Difluorobenzene	4.60	114	1419886	50.00	ug/l		0.00
64) Chlorobenzene-d5	7.94	117	1197419	50.00	ug/l		0.00
73) 1,4-Dichlorobenzene-d4	10.43	152	533880	50.00	ug/l		0.00
System Monitoring Compounds							
34) 1,2-Dichloroethane-d4	4.10	65	396766	38.77	ug/l		0.00
Spiked Amount 50.000	Range 66 - 150		Recovery = 77.54%				
36) Dibromofluoromethane	3.63	113	408128	46.94	ug/l		0.00
Spiked Amount 50.000	Range 76 - 130		Recovery = 93.88%				
49) Toluene-d8	6.07	98	1432167	46.45	ug/l		0.00
Spiked Amount 50.000	Range 78 - 121		Recovery = 92.90%				
63) 4-Bromofluorobenzene	9.36	95	542693	46.34	ug/l		0.00
Spiked Amount 50.000	Range 70 - 131		Recovery = 92.68%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.08	85	176931	15.59	ug/l		100
3) Chloromethane	1.16	50	316319	16.71	ug/l		100
4) Vinyl Chloride	1.21	62	244994	16.92	ug/l		98
5) Bromomethane	1.39	94	114950	18.10	ug/l		99
6) Chloroethane	1.48	64	116643	16.64	ug/l		89
7) Trichlorofluoromethane	1.56	101	216849	16.08	ug/l	#	84
8) Tert butyl alcohol	2.51	59	176492	86.06	ug/l	#	96
9) Diethyl Ether	1.69	74	132536	17.50	ug/l		94
10) Diisopropyl ether	2.71	45	677127	14.90	ug/l		99
11) 1,1-Dichloroethene	1.86	96	166324	16.61	ug/l	#	62
12) Methyl Iodide	1.96	142	211564	15.49	ug/l		95
13) Acrolein	2.02	56	125776	48.93	ug/l		97
14) 1,1,2-Trichlorotrifluoroet	1.89	101	170719	17.76	ug/l		94
15) Acrylonitrile	2.81	53	542370	83.41	ug/l		100
16) Allyl Chloride	2.12	41	323094	16.68	ug/l		97
17) Acetone	2.23	43	579067	86.40	ug/l		100
18) Carbon Disulfide	1.87	76	508116	16.34	ug/l		99
19) Methyl Acetate	2.33	43	411651	17.91	ug/l		99
20) Methyl tert-butyl Ether	2.41	73	488542	15.39	ug/l		98
21) Methylene Chloride	2.20	84	226514m	17.91	ug/l		
22) trans-1,2-Dichloroethene	2.32	96	164598	16.47	ug/l		98
24) Vinyl Acetate	3.00	43	2252609	84.29	ug/l		100
25) 1,1-Dichloroethane	2.78	63	324275	16.37	ug/l		99
26) 2-Butanone	3.74	43	937641	83.58	ug/l		98
27) 2,2-Dichloropropane	3.31	77	143952	18.20	ug/l		99
28) cis-1,2-Dichloroethene	3.23	96	224408	17.17	ug/l		99
29) Bromochloromethane	3.40	128	87853	18.13	ug/l		99
30) Chloroform	3.48	83	311957	17.25	ug/l		94
31) Ethyl Acetate	3.61	43	390143	16.39	ug/l	#	98
32) Cyclohexane	3.40	56	262770	15.29	ug/l		99
33) 1,1,1-Trichloroethane	3.63	97	198786	16.70	ug/l		93
37) 1,1-Dichloropropene	3.75	75	249682	19.33	ug/l		98
38) Carbon Tetrachloride	3.59	117	232590m	20.01	ug/l		
39) Benzene	3.97	78	681259	18.70	ug/l		98

$\frac{244994\ (50)}{745806\ (0.971)} = 16.92$

MSW 7/28/11

CHEMTECH

WATER VOLATILE LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: CHEMTECH Client: MACTEC Inc.

Lab Code: CHEM Cas No: C2487 SAS No : C2487 SDG No: C2487

Matrix Spike - EPA Sample No : BSH0607W2 Analytical Method: EPA SW846 8260 Datafile : VH041295.D

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	LCSD % RPD #	QC LIMITS RPD	QC LIMITS REC
Dichlorodifluoromethane	20	17	85	6	20	(35-124)
Chloromethane	20	18	90	6	20	(40-125)
Vinyl Chloride	20	19	95	11	20	(50-144)
Bromomethane	20	18	90	0	20	(44-145)
Chloroethane	20	19	95	11	20	(60-135)
Trichlorofluoromethane	20	18	90	12	20	(60-137)
1,1,2-Trichlorotrifluoroethane	20	19	95	5	20	(52-142)
1,1-Dichloroethene	20	18	90	6	20	(70-130)
Acetone	100	89	89	3	20	(50-140)
Carbon Disulfide	20	17	85	6	20	(36-155)
Methyl tert-butyl Ether	20	17	85	13	20	(65-125)
Methyl Acetate	20	19	95	5	20	(51-158)
Methylene Chloride	20	16	80	12	20	(61-138)
trans-1,2-Dichloroethene	20	17	85	6	20	(60-137)
1,1-Dichloroethane	20	17	85	6	20	(70-135)
Cyclohexane	20	16	80	6	20	(56-141)
2-Butanone	100	85	85	1	20	(56-150)
Carbon Tetrachloride	20	20	100	0	20	(65-138)
cis-1,2-Dichloroethene	20	18	90	6	20	(70-125)
Chloroform	20	17	85	0	20	(67-135)
1,1,1-Trichloroethane	20	20	100	16	20	(65-130)
Methylcyclohexane	20	20	100	5	20	(56-137)
Benzene	20	19	95	0	20	(80-120)
1,2-Dichloroethane	20	21	105	5	20	(70-130)
Trichloroethene	20	21	105	5	20	(70-125)
1,2-Dichloropropane	20	19	95	0	20	(75-125)
Bromodichloromethane	20	19	95	0	20	(75-120)
4-Methyl-2-Pentanone	100	110	110	10	20	(63-135)
Toluene	20	20	100	5	20	(75-120)
t-1,3-Dichloropropene	20	19	95	0	20	(66-135)
cis-1,3-Dichloropropene	20	19	95	0	20	(70-130)
1,1,2-Trichloroethane	20	20	100	5	20	(75-125)
2-Hexanone	100	100	100	0	20	(56-130)
Dibromochloromethane	20	20	100	5	20	(64-135)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD : 0 Out of 90 outside limits

Spike Recovery : 4 Out of 90 outside limits

MJW 7/28/11

Comments: _____

LCS RPD

	LCS	LCSD	Difference	Average	RPD
Vinyl Chloride	17	19	2	18	11

MJW
7/27/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH041312.D	1		06/07/11	VH060711

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	UJ	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

MJW 7/28/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH041312.D	1		06/07/11	VH060711

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	4.7		0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.2		66 - 150	106%	SPK: 50
1868-53-7	Dibromofluoromethane	52		76 - 130	104%	SPK: 50
2037-26-5	Toluene-d8	56.7		78 - 121	113%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.1		70 - 131	108%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	583367	4.08			
540-36-3	1,4-Difluorobenzene	1260780	4.6			
3114-55-4	Chlorobenzene-d5	1025250	7.94			
3855-82-1	1,4-Dichlorobenzene-d4	457379	10.43			

MJW 7/28/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH041311.D	1		06/07/11	VH060711

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1	U	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.34	1	ug/L
74-83-9	Bromomethane	1	U	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.35	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.45	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.47	1	ug/L
67-64-1	Acetone	5	U	0.5	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	1	ug/L
75-09-2	Methylene Chloride	1	UJ	0.41	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.41	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.36	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.35	1	ug/L
67-66-3	Chloroform	1	U	0.34	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.4	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	1	ug/L
71-43-2	Benzene	1	U	0.32	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.48	1	ug/L
79-01-6	Trichloroethene	1	U	0.28	1	ug/L
78-87-5	1,2-Diehloropropane	1	U	0.46	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.36	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	2.1	5	ug/L
108-88-3	Toluene	1	U	0.37	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.29	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.31	1	ug/L

MJW 7/28/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8260B	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH041311.D	1		06/07/11	VH060711

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.38	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.41	1	ug/L
127-18-4	Tetrachloroethene	1.1		0.27	1	ug/L
108-90-7	Chlorobenzene	1	U	0.49	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.95	2	ug/L
95-47-6	o-Xylene	1	U	0.43	1	ug/L
100-42-5	Styrene	1	U	0.36	1	ug/L
75-25-2	Bromoform	1	U	0.47	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.45	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.31	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.43	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.32	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.45	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.46	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	1	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	40		66 - 150	80%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		76 - 130	96%	SPK: 50
2037-26-5	Toluene-d8	48.2		78 - 121	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	46		70 - 131	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	691573	4.08			
540-36-3	1,4-Difluorobenzene	1346950	4.59			
3114-55-4	Chlorobenzene-d5	1086110	7.94			
3855-82-1	1,4-Dichlorobenzene-d4	493339	10.44			

MSW 7/28/11

PCBs

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Dry Cleaners 3612102148
Method :EPA SW-846 8082 PCBs
Laboratory and SDG(s): Chemtech SDG# C2487
Date: 8/1/2011
Reviewer: Mike Washburn
Review Level [X] NYSDEC DUSR ☐ USEPA Region II Guideline

1. ☐ Case Narrative Review and Data Package Completeness COMMENTS
   Package complete. No issues noted.
   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. ☐ Holding time and Sample Collection
   Aqueous hold time is 7days to extraction, solid is 14 days.
   Hold time met for all samples? (YES) NO (circle one)

3. ☐ QC Blanks
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   ☐ Percent difference between columns (Region II criteria is 25% for PCBs)
   Is the percent difference between columns ≤ 25 for PCBs% YES NO (NA) (circle one)

   ☐ Instrument Calibration
   For aroclors was the I-cal criteria of 20% (%RSD) met? (YES) NO NA (circle one)

   For aroclors, was the continuing calibration criteria of 15% (%D) met? (YES) NO NA (circle one)

   ☐ Surrogate Recovery (soil and water limits: 30-150%)

   Were all results were within limits? (YES) NO (circle one)

   ☐ Matrix Spike (soil and water limits: 29-135% and RPD of 20, RPD is 15 for Aroclor 1016)

   Were MS/MSDs submitted/analyzed? YES (NO) (circle one)

   Were all results were within limits? YES NO (NA) (circle one)

   ☐ Field Duplicates (RPD limits for soil=100, water = 50)

   Were Field Duplicates submitted/analyzed? YES (NO)

   Were RPDs within the limits? YES NO (NA) (circle one)

   ☐ Laboratory Control Sample Results (soil and water percent recovery limits: 50-150%)

   Were all results were within limits? (YES) NO (circle one)

4. ☐ Raw Data Review and Calculation Checks Completed MSW 8/4/11

5. ☐ Electronic Data Review and Edits

   Does the EDD match the Form I's? (YES) NO (circle one)

6. ☐ DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).
   Were all tables produced? (YES) NO (circle one)

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8082	% Moisture:	100 Decanted:
Sample Wt/Vol:	990 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0 PH : 5		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC002043.D	1	06/07/11	06/09/11	PB55866

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.51	U	0.097	0.51	ug/L
11104-28-2	Aroclor-1221	0.51	U	0.192	0.51	ug/L
11141-16-5	Aroclor-1232	0.51	U	0.152	0.51	ug/L
53469-21-9	Aroclor-1242	0.51	U	0.09	0.51	ug/L
12672-29-6	Aroclor-1248	0.51	U	0.242	0.51	ug/L
11097-69-1	Aroclor-1254	0.51	U	0.044	0.51	ug/L
11096-82-5	Aroclor-1260	0.51	U	0.082	0.51	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	17.1		35 - 137	85%	SPK: 20
2051-24-3	Decachlorobiphenyl	18.6		40 - 135	93%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

MW 8/2/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8082	% Moisture:	100 Decanted:
Sample Wt/Vol:	980 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume	1
GPC Factor :	1.0 PH : 5		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PC002044.D	1	06/07/11	06/09/11	PB55866

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
12674-11-2	Aroclor-1016	0.51	U	0.098	0.51	ug/L
11104-28-2	Aroclor-1221	0.51	U	0.194	0.51	ug/L
11141-16-5	Aroclor-1232	0.51	U	0.153	0.51	ug/L
53469-21-9	Aroclor-1242	0.51	U	0.091	0.51	ug/L
12672-29-6	Aroclor-1248	0.51	U	0.245	0.51	ug/L
11097-69-1	Aroclor-1254	0.51	U	0.045	0.51	ug/L
11096-82-5	Aroclor-1260	0.51	U	0.083	0.51	ug/L
SURROGATES						
877-09-8	Tetrachloro-m-xylene	17.4		35 - 137	87%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.8		40 - 135	84%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

MJW 8/2/11

CHEMTECH

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MACT03

Lab Code: CHEM **Case No.:** C2487 **SAS No.:** C2487 **SDG NO.:** C2487

Instrument ID: ECD_C **Calibration Date(s):** 06/04/2011 06/04/2011

Calibration Times: 11:02 12:07

GC Column: RTX-CLPest **ID:** 0.32 (mm)

LAB FILE ID: **CF 50 =** PC001931.D **CF 250 =** PC001930.D

CF 500 = PC001929.D **CF 750 =** PC001928.D **CF 1000 =** PC001927.D

COMPOUND	CF 50	CF 250	CF 500	CF 750	CF 1000	CF	% RSD
Tetrachloro-m-xylene	1501900	1469828	1418864	1380945	1391028	1432513	4
Decachlorobiphenyl	1793560	2007300	2173688	2063085	2110738	2029674	7
AROCLOR 1016 (1)	75398	67706	60781	56933	55815	63327	13
AROCLOR 1016 (2)	153198	148642	138897	132969	133411	141423	6
AROCLOR 1016 (3)	57550	53204	48740	46412	46295	50440	10
AROCLOR 1016 (4)	92092	81487	72571	68451	67594	76439	14
AROCLOR 1016 (5)	61136	59068	54181	52842	52735	55992	7
AROCLOR 1260 (1)	99962	88185	85687	81231	81026	87218	9
AROCLOR 1260 (2)	190740	187246	167217	158981	159761	172789	9
AROCLOR 1260 (3)	168478	159052	147180	142139	144426	152255	7
AROCLOR 1260 (4)	241650	245248	228462	210465	219035	228972	6
AROCLOR 1260 (5)	112324 ✓	108531 ✓	102267 ✓	99301 ✓	101096 ✓	104704 ✓	5 ✓

Ave CF = 104703.8

%RSD = $\frac{4916.49}{104703.8}$ = 4.7

MJW 8/2/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060511\
Data File : PC001931.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 4 Jun 2011 12:07
Operator : BI
Sample : 1660 50 PPB
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 04 12:23:48 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 12:07:36 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	1.597	1.987	75095	154918	5.306	5.547
2)	SA Decachlor...	8.467	9.909	89678	214139	4.293m	5.744m#
	Target Compounds						
3)	L1 Aroclor-1...	2.277	3.025	37699	70905	62.510m	56.078
4)	L1 Aroclor-1...	2.767	3.590	76599	145980	55.314m	59.119m
5)	L1 Aroclor-1...	2.921	3.763	28775	60833	59.132m	54.664m
6)	L1 Aroclor-1...	3.158	3.893	46046	42921	63.490m	48.689m
7)	L1 Aroclor-1...	3.400	4.541	30568	51355	55.877m	50.896m
31)	L7 Aroclor-1...	4.937	6.105	49981	105372	59.479m	59.923m
32)	L7 Aroclor-1...	5.310	6.411	95370	115651	56.666m	56.562m
33)	L7 Aroclor-1...	5.674	6.886	84239	155087	56.842	55.067m
34)	L7 Aroclor-1...	6.584	7.791	120825	211212	53.509m	55.931
35)	L7 Aroclor-1...	6.955	8.285	56162	144467	54.633	50.672m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{56162}{0.5} = 112324$

MJW 6/2/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060511\
Data File : PC001930.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 4 Jun 2011 11:51
Operator : BI
Sample : 1660 250 PPB
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 04 12:06:56 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 12:05:39 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 ul
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	1.597	1.986	367457	744509	25.966	26.657
2)	SA Decachlor...	8.469	9.909	501825	1032801	24.026	27.705
	Target Compounds						
3)	L1 Aroclor-1...	2.277	3.024	169266	354684	280.667	280.514
4)	L1 Aroclor-1...	2.766	3.589	371604	691471	268.346	280.030
5)	L1 Aroclor-1...	2.921	3.763	133010	307600	273.331	276.406
6)	L1 Aroclor-1...	3.159	3.893	203717	235908	280.889	267.609
7)	L1 Aroclor-1...	3.402	4.542	147671	268813	269.933	266.410
31)	L7 Aroclor-1...	4.938	6.106	220463	485153	262.355	275.897
32)	L7 Aroclor-1...	5.309	6.411	468115	565463	278.141	276.555
33)	L7 Aroclor-1...	5.672	6.886	397630	761889	268.308	270.524
34)	L7 Aroclor-1...	6.584	7.790	613119	1020239	271.529	270.168
35)	L7 Aroclor-1...	6.954	8.285	271327	773043	263.940	271.146

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{271327}{2.5} = 108530.8$

MW 8/2/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060511\
Data File : PC001929.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 4 Jun 2011 11:34
Operator : BI
Sample : 1660 500 PPB
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 04 11:56:03 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 11:54:42 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	1.597	1.986	709432	1396875	50.000	50.000
2)	SA Decachlor...	8.469	9.909	1086844	1870764	50.000	50.000
	Target Compounds						
3)	L1 Aroclor-1...	2.277	3.023	303903	636701	500.000	500.000
4)	L1 Aroclor-1...	2.766	3.589	694484	1240704	500.000	500.000
5)	L1 Aroclor-1...	2.920	3.763	243699	558496	500.000	500.000
6)	L1 Aroclor-1...	3.158	3.893	362856	439673	500.000	500.000
7)	L1 Aroclor-1...	3.401	4.541	270903	506460	500.000	500.000
31)	L7 Aroclor-1...	4.937	6.104	428436	880799	500.000	500.000
32)	L7 Aroclor-1...	5.308	6.410	836085	1022064	500.000	500.000
33)	L7 Aroclor-1...	5.671	6.885	735899	1407680	500.000	500.000
34)	L7 Aroclor-1...	6.583	7.790	1142312	1879077	500.000	500.000
35)	L7 Aroclor-1...	6.954	8.285	511337	1422023	500.000	500.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{511337}{5} = 102267.4$

MJW 8/2/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060511\
Data File : PC001928.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 4 Jun 2011 11:18
Operator : BI
Sample : 1660 750 PPB
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 04 12:02:19 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 12:01:17 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	1.595	1.986	1035709	2026921	74.141	74.212
2)	SA Decachlor...	8.469	9.910	1547314	2648108	73.130	73.693
	Target Compounds						
3)	L1 Aroclor-1...	2.275	3.023	426996	898743	738.201	740.948
4)	L1 Aroclor-1...	2.764	3.589	997266	1752853	738.211	739.475
5)	L1 Aroclor-1...	2.919	3.763	348087	794248	738.272	739.746
6)	L1 Aroclor-1...	3.157	3.893	513382	637555	738.266	740.618
7)	L1 Aroclor-1...	3.400	4.542	396315	731398	744.220	741.072
31)	L7 Aroclor-1...	4.936	6.105	609232	1260223	737.140	742.297
32)	L7 Aroclor-1...	5.307	6.410	1192359	1461555	736.086	741.051
33)	L7 Aroclor-1...	5.671	6.886	1066042	2034613	737.329	742.755
34)	L7 Aroclor-1...	6.582	7.790	1578485	2719413	719.716	740.024
35)	L7 Aroclor-1...	6.953	8.285	744761	2061121	738.204	743.914

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{744761}{7.5} \cdot 99301.4$

MJW 8/1/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060511\
Data File : PC001927.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 4 Jun 2011 11:02
Operator : BI
Sample : 1660 1000 PPB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 04 12:00:18 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 11:58:52 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 ul
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	1.596	1.985	1391028	2697513	99.009	98.247
2)	SA Decachlor...	8.468	9.909	2110738	3507934	98.531	96.778
	Target Compounds						
3)	L1 Aroclor-1...	2.276	3.023	558148	1167164	957.411	956.469
4)	L1 Aroclor-1...	2.765	3.589	1334111	2292665	979.855	960.465
5)	L1 Aroclor-1...	2.919	3.762	462952	1045042	974.276	966.721
6)	L1 Aroclor-1...	3.157	3.892	675943	853105	964.492	984.854
7)	L1 Aroclor-1...	3.400	4.541	527347	972720	986.476	979.755
31)	L7 Aroclor-1...	4.936	6.104	810262	1651310	972.042	967.685
32)	L7 Aroclor-1...	5.308	6.410	1597609	1923948	977.197	969.713
33)	L7 Aroclor-1...	5.671	6.885	1444260	2689658	990.557	977.166
34)	L7 Aroclor-1...	6.582	7.790	2190347	3640248	978.932	984.063
35)	L7 Aroclor-1...	6.953	8.285	1010961	2719725	994.240	977.655

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{1010961}{10} = 101096.1$

MJW 8/2/11

CHEMTECH

CALIBRATION VERIFICATION SUMMARY

Contract: MACT03

Lab Code: CHEM **Case No.:** C2487 **SAS No.:** C2487 **SDG NO.:** C2487

GC Column: RTX-CLPest **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/04/2011 06/04/2011

Client Sample No.: CCAL02 **Date Analyzed:** 06/09/2011

Lab Sample No.: 1660 500 **Data File :** PC002042.D **Time Analyzed:** 18:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
AROCLOR 1016 (1)	2.285	2.230	2.330	0.461	0.500	7.8
AROCLOR 1016 (2)	2.775	2.720	2.820	0.466	0.500	6.8
AROCLOR 1016 (3)	2.929	2.870	2.970	0.498	0.500	0.4
AROCLOR 1016 (4)	3.166	3.110	3.210	0.518	0.500	3.6
AROCLOR 1016 (5)	3.409	3.350	3.450	0.467	0.500	6.6
AROCLOR 1260 (1)	4.942	4.890	4.990	0.450	0.500	10.0
AROCLOR 1260 (2)	5.314	5.260	5.360	0.445	0.500	11.0
AROCLOR 1260 (3)	5.677	5.620	5.720	0.435	0.500	13.0
AROCLOR 1260 (4)	6.589	6.530	6.630	0.416	0.500	16.8
AROCLOR 1260 (5)	6.959	6.900	7.000	0.466 ✓	0.500	6.8 ✓
Tetrachloro-m-xylene	1.607	1.550	1.650	0.046	0.050	8.0
Decachlorobiphenyl	8.476	8.370	8.570	0.044	0.050	12.0

$$1 - \frac{0.466}{0.5} \times 100 = 6.8\%$$

MW 8/1/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060911\
Data File : PC002042.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 9 Jun 2011 18:55
Operator : BI
Sample : 1660 500
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 10 02:15:46 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 15:21:08 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml	
	System Monitoring Compounds							
1)	SA Tetrachlo...	1.607	1.997	656384	1513432	45.820	53.028	
2)	SA Decachlor...	8.476	9.916	884345	2030603	43.571	52.896	
	Target Compounds							
3)	L1 Aroclor-1...	2.285	3.033	292172	633614	461.375	489.222	
4)	L1 Aroclor-1...	2.775	3.598	659391	1295674	466.254	506.253	
5)	L1 Aroclor-1...	2.929	3.772	251222	578279	498.058	510.117	
6)	L1 Aroclor-1...	3.166	3.902	395725	457156	517.699	521.323	
7)	L1 Aroclor-1...	3.409	4.551	261303	526667	466.676	520.094	
31)	L7 Aroclor-1...	4.942	6.113	392295	936298	449.784m	512.128	
32)	L7 Aroclor-1...	5.314	6.418	769514	1149549	445.349m	547.837	
33)	L7 Aroclor-1...	5.677	6.894	662991	1528423	435.448m	531.916	
34)	L7 Aroclor-1...	6.589	7.797	953383	2057307	416.376m	532.168	#
35)	L7 Aroclor-1...	6.959	8.293	487827	1555771	465.911m	544.225	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{487827}{104704} = 4.659106$

MW 8/2/11

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8082

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55866BS	AROCLOR 1016	2.000	2.3	115				56	149	
	AROCLOR 1260	2.000	2.3	115				66	147	
PB55866BSD	AROCLOR 1016	2.000	2.3	115	0			56	149	20
	AROCLOR 1260	2.000	2.3	115	0			66	147	20

$\frac{2.3}{2} \cdot 100\% = 115\%$

MJW 8/2/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd C\Data\PC060911\
Data File : PC002039.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 9 Jun 2011 18:06
Operator : BI
Sample : PB55866BS
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 10 02:08:19 2011
Quant Method : P:\HPCHEM1\Ecd C\Method\PC060511.M
Quant Title : GC EXTRACTABLES
QLast Update : Sat Jun 04 15:21:08 2011
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 µl
Signal #1 Phase : Rtx-CLPesticides Signal #2 Phase: Rtx-CLPesticides II
Signal #1 Info : 30Mx0.53mmx 0.5µm Signal #2 Info : 30M x 0.53mm x 0.25µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	1.608	1.998	291566	590297	20.353	20.683
2)	SA Decachlor...	8.476	9.917	402605	895641	19.836	23.331
	Target Compounds						
3)	L1 Aroclor-1...	2.285	3.033	141097	285279	222.809m	220.267m
4)	L1 Aroclor-1...	2.775	3.600	277123	636660	195.953m	248.759 #
5)	L1 Aroclor-1...	2.928	3.773	119260	269564	236.438m	237.790
6)	L1 Aroclor-1...	3.165	3.904	169574	209458	221.841m	238.858
7)	L1 Aroclor-1...	3.408	4.552	123262	214545	220.140m	211.867
31)	L7 Aroclor-1...	4.945	6.112	195270	442353	223.886	241.954m
32)	L7 Aroclor-1...	5.316	6.417	380752	504483	220.357	240.420m
33)	L7 Aroclor-1...	5.680	6.892	353992	689503	232.499	239.958m
34)	L7 Aroclor-1...	6.591	7.798	392861	890610	171.576	230.376 #
35)	L7 Aroclor-1...	6.959	8.291	193022	605526	184.351m	211.819

AVG 232.954

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{193022}{104704} = 1.843502$

MJW 6/2/11

CHEMTECH

Surrogate Summary

SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8082

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery	Qual	Limits Low	Limits High
I.BLK-PC001926.D	PIBLK-PC001926.D	Tetrachloro-m-xylene	20	20.56	103		35	137
		Decachlorobiphenyl	20	24.51	123		40	135
I.BLK-PC002029.D	PIBLK-PC002029.D	Tetrachloro-m-xylene	20	19.42	97		35	137
		Decachlorobiphenyl	20	20.98	105		40	135
PB55866BL	PB55866BL	Tetrachloro-m-xylene	20	20.81	104		35	137
		Decachlorobiphenyl	20	21	105		40	135
PB55866BS	PB55866BS	Tetrachloro-m-xylene	20	20.35	102		35	137
		Decachlorobiphenyl	20	19.84	99		40	135
PB55866BSD	PB55866BSD	Tetrachloro-m-xylene	20	20.2	101		35	137
		Decachlorobiphenyl	20	19.88	99		40	135
I.BLK-PC002041.D	PIBLK-PC002041.D	Tetrachloro-m-xylene	20	20.61	103		35	137
		Decachlorobiphenyl	20	20.55	103		40	135
C2487-01	LCMW001016	Tetrachloro-m-xylene	20	17.07	85		35	137
		Decachlorobiphenyl	20	18.59	93		40	135
C2487-03	LCMW002019	Tetrachloro-m-xylene	20	17.41	87		35	137
		Decachlorobiphenyl	20	16.82	84		40	135
I.BLK-PC002052.D	PIBLK-PC002052.D	Tetrachloro-m-xylene	20	20.91	105		35	137
		Decachlorobiphenyl	20	20.77	104		40	135

$\frac{17.07}{20} \cdot 100 = 85.4\%$

MJW 8/2/11

PESTICIDES

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Dry Cleaners 3612102148
Method :EPA SW-846 8081 Pesticide
Laboratory and SDG(s): Chemtech SDG# C2487
Date: 8/1/2011
Reviewer: Mike Washburn

Review Level ☒ NYSDEC DUSR ☐ USEPA Region II Guideline

1. ☐ Case Narrative Review and Data Package Completeness COMMENTS

   Package completed. Problems noted in case narrative discussed in sections below.

   Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

2. ☐ Holding time (HT) and Sample Collection
   Aqueous is 7days to extraction, solid is 14 days. HT met for all samples? (YES) NO (circle one)

3. ☐ QC Blanks
   Are method blanks free of contamination? (YES) NO (circle one)
   Are Rinse blanks free of contamination? YES NO (NA) (circle one)

   ☐ Percent difference between columns (Region II criteria is 25% for Pest's)
   Is the percent difference between columns ≤ 25? (YES) NO (circle one)

   ☐ Instrument Calibration

   I-cal criteria of 20% (%RSD) (alpha-BHC, delta-BHC = 25%, Toxaphene = 30%) met? (YES) NO (circle one)

   Continuing calibration criteria of (%D) 20% met? (YES) NO NA (circle one)

   ☐ Surrogate Recovery (soil and water limits: 30-150%)

   Were all results were within laboratory limits? (YES) NO (circle one)

   ☐ Matrix Spike (Use lab limits) (refer to limits listed in SOP HW-44 Oct 2006 if no lab limits are listed)

   Were MS/MSDs submitted/analyzed? YES (NO)

   Were all results were within laboratory limits? YES NO (NA) (circle one)

   ☐ Field Duplicates (RPD limits for soil=100, water = 50)

   Were Field Duplicates submitted/analyzed? YES (NO)
   Were RPDs within the limits? YES NO (NA) (circle one)

   ☐ Laboratory Control Samples (Use lab limits) (refer to limits in SOP HW-44 Oct 2006 if no lab limits are listed)

   Were all results were within laboratory limits? YES (NO) (circle one)

   The LCS relative percent difference for gamma-chlordane (24) exceeded the laboratory QC limit of 20. Gamma-chlordane was not detected in associated samples and the reporting limits were qualified estimated (UJ).

   Limits used were: (Lab Limits) Region II SOP HW-44 Oct 2006 (circle one)

4. ☐ Raw Data Review and Calculation Checks Completed

5. ☐ Electronic Data Review and Edits: Does the EDD match the Form I's? (YES) NO (circle one)

6. ☐ DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes). Were all tables produced? (YES) NO (circle one)

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Analytical Method:	SW8081A	% Moisture:	100 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0 PH : 5		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD002267.D	1	06/07/11	06/15/11	PB55867

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.052	U	0.0053	0.052	ug/L
319-85-7	beta-BHC	0.052	U	0.0089	0.052	ug/L
319-86-8	delta-BHC	0.052	U	0.0058	0.052	ug/L
58-89-9	gamma-BHC	0.052	U	0.0057	0.052	ug/L
76-44-8	Heptachlor	0.052	U	0.0071	0.052	ug/L
309-00-2	Aldrin	0.052	U	0.0064	0.052	ug/L
1024-57-3	Heptachlor epoxide	0.052	U	0.0069	0.052	ug/L
959-98-8	Endosulfan I	0.052	U	0.0063	0.052	ug/L
60-57-1	Dieldrin	0.052	U	0.0048	0.052	ug/L
72-55-9	4,4-DDE	0.052	U	0.0041	0.052	ug/L
72-20-8	Endrin	0.052	U	0.006	0.052	ug/L
33213-65-9	Endosulfan II	0.052	U	0.0057	0.052	ug/L
72-54-8	4,4-DDD	0.052	U	0.0073	0.052	ug/L
1031-07-8	Endosulfan Sulfate	0.052	U	0.0062	0.052	ug/L
50-29-3	4,4-DDT	0.052	U	0.0061	0.052	ug/L
72-43-5	Methoxychlor	0.052	U	0.0043	0.052	ug/L
53494-70-5	Endrin ketone	0.052	U	0.0059	0.052	ug/L
7421-93-4	Endrin aldehyde	0.052	U	0.0046	0.052	ug/L
5103-71-9	alpha-Chlordane	0.052	U	0.0051	0.052	ug/L
5103-74-2	gamma-Chlordane	0.052	U J	0.0052	0.052	ug/L
8001-35-2	Toxaphene	0.52	U	0.103	0.52	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.1		10 - 192	116%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.5		10 - 172	98%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

MJW 8/1/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Analytical Method:	SW8081A	% Moisture:	100 Decanted:
Sample Wt/Vol:	980 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0 PH : 5		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD002268.D	1	06/07/11	06/15/11	PB55867

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.051	U	0.0052	0.051	ug/L
319-85-7	beta-BHC	0.051	U	0.0088	0.051	ug/L
319-86-8	delta-BHC	0.051	U	0.0057	0.051	ug/L
58-89-9	gamma-BHC	0.051	U	0.0056	0.051	ug/L
76-44-8	Heptachlor	0.051	U	0.007	0.051	ug/L
309-00-2	Aldrin	0.051	U	0.0063	0.051	ug/L
1024-57-3	Heptachlor epoxide	0.051	U	0.0068	0.051	ug/L
959-98-8	Endosulfan I	0.051	U	0.0062	0.051	ug/L
60-57-1	Dieldrin	0.051	U	0.0048	0.051	ug/L
72-55-9	4,4-DDE	0.051	U	0.0041	0.051	ug/L
72-20-8	Endrin	0.051	U	0.0059	0.051	ug/L
33213-65-9	Endosulfan II	0.051	U	0.0056	0.051	ug/L
72-54-8	4,4-DDD	0.051	U	0.0072	0.051	ug/L
1031-07-8	Endosulfan Sulfate	0.051	U	0.0061	0.051	ug/L
50-29-3	4,4-DDT	0.051	U	0.006	0.051	ug/L
72-43-5	Methoxychlor	0.051	U	0.0043	0.051	ug/L
53494-70-5	Endrin ketone	0.051	U	0.0058	0.051	ug/L
7421-93-4	Endrin aldehyde	0.051	U	0.0046	0.051	ug/L
5103-71-9	alpha-Chlordane	0.051	U	0.005	0.051	ug/L
5103-74-2	gamma-Chlordane	0.051	UJ	0.0051	0.051	ug/L
8001-35-2	Toxaphene	0.51	U	0.102	0.51	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.3		10 - 192	116%	SPK: 20
877-09-8	Tetrachloro-m-xylene	19.4		10 - 172	97%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

MJW 8/1/11

CHEMTECH

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: MACT03

Lab Code: CHEM **Case No.:** C2487 **SAS No.:** C2487 **SDG NO.:** C2487

Instrument ID: ECD_D **Calibration Date(s):** 06/14/2011 06/14/2011

Calibration Times: 19:08 20:07

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 005 = PD002208.D CF 025 = PD002207.D

CF 050 = PD002206.D CF 075 = PD002205.D CF 100 = PD002204.D

COMPOUND	CF 005	CF 025	CF 050	CF 075	CF 100	CF	% RSD
Decachlorobiphenyl	17696601480	16055575548	18874246020	19097390403	16470828837	17638928458	8
Tetrachloro-m-xylene	14883818260	13645556408	13365650114	13139294596	13415324203	13689928716	5
alpha-BHC	251423865800	233195117520	171471461360	242124337800	195741941680	218791344832	15
beta-BHC	101400885600	93843997440	90762977920	90381248347	90603774410	93398576743	5
delta-BHC	247452028400	243954223080	179698836160	252385936880	207870217740	226272248452	14
gamma-BHC (Lindane)	233668538000	232378415120	166771211560	237487431453	193387289920	212738577211	15
Heptachlor	224340050400	214137274760	208236311780	194968634853	200830367160	208502527791	5
Aldrin	238707100800	231291754160	225752243420	219235526427	186476254710	220292575908	9
Heptachlor epoxide	238411849400	218095006040	207272713580	194004844373	191297873240	209816457327	9
Endosulfan I	243445474800	236775794440	224100682540	205703333800	202852449090	222575546934	8
Dieldrin	280908006400	264835173680	196440990560	242299961827	209018456020	238700517697	15
4,4-DDE	266427823800	257960082600	196162863700	255805306373	221953969750	239662009245	12
Endrin	247498800800	240103140040	228881165400	212110559560	205396292790	226797991718	8
Endosulfan II	245037781000	237536734800	229514698740	210357539227	206280564990	225745463751	7
4,4-DDD	225511410200	224295998720	223292220740	207177159213	206880737100	217431505195	4
Endosulfan sulfate	197425630400	191985244120	190227368120	181631625587	177336546190	187721282883	4
4,4-DDT	204317896000	224296545720	232230929600	226121341440	229191555190	223231653590	5
Methoxychlor	92360872800	87536412640	84255439440	80098293347	77185831540	84287369953	7
Endrin ketone	259698133800	240166948360	224817997680	213694673227	203421134530	228359777519	10
Endrin aldehyde	195610944200	188158778080	184380801400	172993023427	166033973720	181435504165	7
alpha-Chlordane	256655187600	249654862480	178119511140	243680904467	209984829820	227619059101	14
gamma-Chlordane	272004500000	257997093800	256095281960	251491361267	249874953960	257492638197	3

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	Aldrin	
CF	Conc	
238707100800	5	
231291754160	25	
225752243420	50	
219235526427	75	
186476254710	100	
	9	%RSD
220292575903		Ave

MJW 8/1/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002204.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jun 2011 19:08
Operator : JJ
Sample : 100 PPB PEST STD
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 02:25:25 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 01:59:49 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
		System Monitoring Compounds						
1)	SA	Tetrachlo...	3.766	4.475	13415.3E6	24341.7E6	100.185	104.678m
22)	SA	Decachlor...	8.392	9.531	16470.8E6	10599.2E6	93.200	99.833
		Target Compounds						
2)	A	alpha-BHC	4.200	4.858	19574.2E6	30827.1E6	106.609	105.814m
3)	MA	gamma-BHC...	4.470	5.145	19338.7E6	30336.7E6	107.390	99.982m
4)	MA	Heptachlor	4.744	5.659	20083.0E6	24385.6E6	98.190	103.911
5)	MB	Aldrin	4.977	5.962	18647.6E6	24357.6E6	90.472	104.405
6)	B	beta-BHC	4.712	5.321	9060.4E6	13547.3E6	99.912	99.575
7)	B	delta-BHC	4.902	5.531	20787.0E6	29510.1E6	107.269	104.289m
8)	B	Heptachlo...	5.406	6.348	19129.8E6	23325.6E6	105.259m	104.789m
9)	A	Endosulfan I	5.728	6.703	20285.2E6	21349.8E6	103.184m	104.471m
10)	B	gamma-Chl...	5.621	6.583	24987.5E6	25580.7E6	106.029m	114.185m
11)	B	alpha-Chl...	5.683	6.656	20998.5E6	24125.3E6	108.211	105.339m
12)	B	4,4'-DDE	5.853	6.814	22195.4E6	23770.5E6	106.168	105.010m
13)	MA	Dieldrin	5.962	6.959	20901.8E6	23437.2E6	103.102	105.001m
14)	MA	Endrin	6.215	7.175	20539.6E6	19063.9E6	102.580m	106.839m
15)	B	Endosulfa...	6.484	7.383	20628.1E6	18863.0E6	94.488m	105.704m
16)	A	4,4'-DDD	6.355	7.302	20688.1E6	17453.8E6	103.296m	107.228m
17)	MA	4,4'-DDT	6.588	7.600	22919.2E6	17501.0E6	107.948m	108.444m
18)	B	Endrin al...	6.655	7.507	16603.4E6	14720.1E6	105.136m	96.584m
19)	B	Endosulfa...	6.862	7.733	17733.7E6	16948.7E6	106.819m	98.525
20)	A	Methoxychlor	7.142	8.060	7718.6E6	6223.2E6	95.621	96.751m
21)	B	Endrin ke...	7.342	8.199	20342.1E6	16213.8E6	94.647m	97.202

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$CF = \frac{18647600000}{0.100} = 186476000000$

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002205.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jun 2011 19:22
Operator : JJ
Sample : 75 PPB PEST STD
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autointl.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 03:17:34 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 02:03:39 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.766	4.476	9854.5E6	18777.8E6	74.056	83.959m
22)	SA Decachlor...	8.393	9.531	14323.0E6	7830.8E6	85.951m	74.167
	Target Compounds						
2)	A alpha-BHC	4.194	4.861	18159.3E6	27332.0E6	96.652m	91.158m
3)	MA gamma-BHC...	4.466	5.145	17811.6E6	25966.8E6	96.795m	90.525m
4)	MA Heptachlor	4.743	5.659	14622.6E6	18032.0E6	71.936m	76.215
5)	MB Aldrin	4.975	5.962	16442.7E6	21329.0E6	84.419m	90.823m
6)	B beta-BHC	4.712	5.321	6778.6E6	10118.0E6	74.833	74.578
7)	B delta-BHC	4.902	5.535	18928.9E6	25209.3E6	95.770m	93.724m
8)	B Heptachlo...	5.406	6.349	14550.4E6	17753.6E6	85.366m	78.106
9)	A Endosulfan I	5.728	6.703	15427.8E6	16330.5E6	83.632m	84.347m
10)	B gamma-Chl...	5.622	6.585	18861.9E6	19297.7E6	84.007m	82.076
11)	B alpha-Chl...	5.680	6.656	18276.1E6	18422.5E6	93.881m	84.508m
12)	B 4,4'-DDE	5.851	6.814	19185.4E6	17980.1E6	91.520m	83.434m
13)	MA Dieldrin	5.964	6.959	18172.5E6	17831.9E6	89.676m	84.021m
14)	MA Endrin	6.214	7.176	15908.3E6	14605.0E6	84.305m	79.432
15)	B Endosulfa...	6.483	7.385	15776.8E6	14547.2E6	72.945m	79.224
16)	A 4,4'-DDD	6.355	7.304	15538.3E6	13421.5E6	82.284m	79.811
17)	MA 4,4'-DDT	6.587	7.602	16959.1E6	13329.0E6	84.443m	79.897
18)	B Endrin al...	6.656	7.509	12974.5E6	11320.9E6	79.624	74.519
19)	B Endosulfa...	6.862	7.734	13622.4E6	12768.1E6	87.668m	74.480
20)	A Methoxychlor	7.142	8.061	6007.4E6	4782.6E6	74.614	74.569
21)	B Endrin ke...	7.344	8.200	16027.1E6	12353.7E6	74.713	74.371

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{16442.700000}{0.075} = 219236000000$

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Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002206.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jun 2011 19:37
Operator : JJ
Sample : 50 PPB PEST STD
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 01:52:23 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 01:52:12 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
		System Monitoring Compounds						
1)	SA	Tetrachlo...	3.766	4.477	6682.8E6	12849.5E6	50.000	50.000
22)	SA	Decachlor...	8.395	9.530	9437.1E6	5317.3E6	50.000	50.000
		Target Compounds						
2)	A	alpha-BHC	4.192	4.865	8573.6E6	17262.7E6	50.000	50.000
3)	MA	gamma-BHC...	4.470	5.148	8338.6E6	18745.8E6	50.000	50.000
4)	MA	Heptachlor	4.744	5.659	10411.8E6	11275.0E6	50.000	50.000
5)	MB	Aldrin	4.977	5.962	11287.6E6	11151.0E6	50.000	50.000
6)	B	beta-BHC	4.713	5.321	4538.1E6	6831.5E6	50.000	50.000
7)	B	delta-BHC	4.902	5.537	8984.9E6	17119.1E6	50.000	50.000
8)	B	Heptachlo...	5.407	6.349	10363.6E6	12366.7E6	50.000	50.000
9)	A	Endosulfan I	5.729	6.704	11205.0E6	11463.9E6	50.000	50.000
10)	B	gamma-Chl...	5.623	6.585	12804.8E6	13102.1E6	50.000	50.000
11)	B	alpha-Chl...	5.684	6.657	8906.0E6	12468.1E6	50.000	50.000
12)	B	4,4'-DDE	5.853	6.816	9808.1E6	12374.3E6	50.000	50.000
13)	MA	Dieldrin	5.962	6.960	9822.0E6	12372.3E6	50.000	50.000
14)	MA	Endrin	6.216	7.176	11444.1E6	10066.5E6	50.000	50.000
15)	B	Endosulfa...	6.485	7.384	11475.7E6	10080.0E6	50.000	50.000
16)	A	4,4'-DDD	6.356	7.304	11164.6E6	9196.8E6	50.000	50.000
17)	MA	4,4'-DDT	6.588	7.601	11611.5E6	9002.3E6	50.000	50.000
18)	B	Endrin al...	6.656	7.508	9219.0E6	7844.0E6	50.000	50.000
19)	B	Endosulfa...	6.863	7.733	9511.4E6	8728.1E6	50.000	50.000
20)	A	Methoxychlor	7.142	8.062	4212.8E6	3281.3E6	50.000	50.000
21)	B	Endrin ke...	7.344	8.200	11240.9E6	8573.6E6	50.000	50.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{11287600000}{0.05} = 225752000000$ ✓

MJW 8/1/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002207.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jun 2011 19:52
Operator : JJ
Sample : 25 PPB PEST STD
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 02:14:02 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 02:06:24 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
		System Monitoring Compounds						
1)	SA	Tetrachlo...	3.766	4.477	3411.4E6	6431.4E6	25.474	27.715
22)	SA	Decachlor...	8.394	9.531	4013.9E6	2661.1E6	24.309	25.153
		Target Compounds						
2)	A	alpha-BHC	4.194	4.863	5829.9E6	10187.3E6	28.991m	31.157m
3)	MA	gamma-BHC...	4.466	5.147	5809.5E6	9132.5E6	29.565m	29.709m
4)	MA	Heptachlor	4.744	5.658	5353.4E6	7503.3E6	25.989	29.671m
5)	MB	Aldrin	4.976	5.962	5782.3E6	7479.9E6	28.358	29.711m
6)	B	beta-BHC	4.713	5.321	2346.1E6	3401.4E6	25.669	25.053
7)	B	delta-BHC	4.902	5.536	6098.9E6	8357.9E6	29.011m	29.248m
8)	B	Heptachlo...	5.406	6.349	5452.4E6	6439.8E6	29.760m	27.418
9)	A	Endosulfan I	5.729	6.705	5919.4E6	5941.0E6	29.964	29.035
10)	B	gamma-Chl...	5.623	6.585	6449.9E6	6604.3E6	27.695	27.247
11)	B	alpha-Chl...	5.680	6.657	6241.4E6	6282.3E6	29.835m	27.758
12)	B	4,4'-DDE	5.851	6.814	6449.0E6	6107.2E6	28.718m	27.235m
13)	MA	Dieldrin	5.964	6.958	6620.9E6	6236.0E6	29.847m	28.003m
14)	MA	Endrin	6.216	7.176	6002.6E6	5193.4E6	29.782	27.358
15)	B	Endosulfa...	6.485	7.385	5938.4E6	5208.1E6	26.798	27.440
16)	A	4,4'-DDD	6.357	7.304	5607.4E6	4678.7E6	28.363	27.058
17)	MA	4,4'-DDT	6.588	7.602	5607.4E6	4454.3E6	27.128	26.254
18)	B	Endrin al...	6.655	7.509	4704.0E6	4054.8E6	27.793	26.247
19)	B	Endosulfa...	6.863	7.733	4799.6E6	4415.3E6	29.171	25.563
20)	A	Methoxychlor	7.142	8.062	2188.4E6	1655.9E6	26.601	25.608
21)	B	Endrin ke...	7.344	8.200	6004.2E6	4386.9E6	27.177	26.043

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$\frac{5782300000}{0.025} = 231292000000$

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002208.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 14 Jun 2011 20:07
Operator : JJ
Sample : 5 PPB PEST STD
Misc :
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 02:18:54 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 02:09:06 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.767	4.477	744.2E6	1300.8E6	5.436	5.473
22)	SA Decachlor...	8.394	9.531	884.8E6	540.4E6	5.283	5.086
	Target Compounds						
2)	A alpha-BHC	4.196	4.864	1257.1E6	1977.4E6	5.953	5.805
3)	MA gamma-BHC...	4.466	5.147	1168.3E6	1787.1E6	5.714m	5.617m
4)	MA Heptachlor	4.744	5.660	1121.7E6	1501.2E6	5.350	5.722
5)	MB Aldrin	4.976	5.963	1193.5E6	1536.5E6	5.660	5.845
6)	B beta-BHC	4.713	5.322	507.0E6	681.1E6	5.428	5.013
7)	B delta-BHC	4.904	5.537	1237.3E6	1644.6E6	5.684	5.586
8)	B Heptachlo...	5.406	6.348	1192.1E6	1334.9E6	6.087m	5.481m
9)	A Endosulfan I	5.728	6.703	1217.2E6	1195.4E6	5.820m	5.629m
10)	B gamma-Chl...	5.623	6.585	1360.0E6	1332.5E6	5.650	5.390
11)	B alpha-Chl...	5.680	6.657	1283.3E6	1267.3E6	5.826m	5.469
12)	B 4,4'-DDE	5.851	6.816	1332.1E6	1252.4E6	5.620m	5.457
13)	MA Dieldrin	5.964	6.960	1404.5E6	1289.7E6	5.895m	5.614
14)	MA Endrin	6.216	7.176	1237.5E6	1061.3E6	5.872	5.461
15)	B Endosulfa...	6.485	7.385	1225.2E6	1091.6E6	5.414	5.584
16)	A 4,4'-DDD	6.357	7.304	1127.6E6	992.8E6	5.547	5.576
17)	MA 4,4'-DDT	6.589	7.603	1021.6E6	810.3E6	4.954	4.819
18)	B Endrin al...	6.655	7.509	978.1E6	845.3E6	5.604	5.370
19)	B Endosulfa...	6.863	7.733	987.1E6	895.9E6	5.769	5.149
20)	A Methoxychlor	7.142	8.062	461.8E6	329.0E6	5.479	5.070
21)	B Endrin ke...	7.344	8.199	1298.5E6	892.9E6	5.678	5.238

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$$\frac{1193500000}{0.005} = 238700000000$$

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CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: C2487

Client: MACTEC Inc.

Analytical Method: EPA SW-846 8081

Lab Sample ID	Parameter	Spike	Result	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB55867BS	alpha-BHC	0.5000	0.56	112				85	130	
	beta-BHC	0.5000	0.58	116				83	126	
	delta-BHC	0.5000	0.52	104				69	141	
	gamma-BHC (Lindane)	0.5000	0.53	106				82	129	
	Heptachlor	0.5000	0.56	112				79	127	
	Aldrin	0.5000	0.56	112				79	126	
	Heptachlor epoxide	0.5000	0.54	108				81	124	
	Endosulfan I	0.5000	0.61	122				85	122	
	Dieldrin	0.5000	0.47	94				83	125	
	4,4-DDE	0.5000	0.61	122				80	127	
	Endrin	0.5000	0.60	120				81	128	
	Endosulfan II	0.5000	0.59	118				82	123	
	4,4-DDD	0.5000	0.59	118				77	131	
	Endosulfan sulfate	0.5000	0.62	124				76	129	
	4,4-DDT	0.5000	0.63	126				80	133	
	Methoxychlor	0.5000	0.60	120				76	137	
	Endrin ketone	0.5000	0.64	128				80	131	
	Endrin aldehyde	0.5000	0.61	122				82	127	
	alpha-Chlordane	0.5000	0.60	120				82	125	
	gamma-Chlordane	0.5000	0.48	96				82	125	
PB55867BSD	alpha-BHC	0.5000	0.55	110	2			85	130	20
	beta-BHC	0.5000	0.57	114	2			83	126	20
	delta-BHC	0.5000	0.52	104	0			69	141	20
	gamma-BHC (Lindane)	0.5000	0.61	122	14			82	129	20
	Heptachlor	0.5000	0.55	110	2			79	127	20
	Aldrin	0.5000	0.56	112	0			79	126	20
	Heptachlor epoxide	0.5000	0.59	118	9			81	124	20
	Endosulfan I	0.5000	0.60	120	2			85	122	20
	Dieldrin	0.5000	0.47	94	0			83	125	20
	4,4-DDE	0.5000	0.61	122	0			80	127	20
	Endrin	0.5000	0.60	120	0			81	128	20
	Endosulfan II	0.5000	0.59	118	0			82	123	20
	4,4-DDD	0.5000	0.59	118	0			77	131	20
	Endosulfan sulfate	0.5000	0.62	124	0			76	129	20
	4,4-DDT	0.5000	0.63	126	0			80	133	20
	Methoxychlor	0.5000	0.60	120	0			76	137	20
	Endrin ketone	0.5000	0.65	130	2			80	131	20
	Endrin aldehyde	0.5000	0.61	122	0			82	127	20
	alpha-Chlordane	0.5000	0.59	118	2			82	125	20
	gamma-Chlordane	0.5000	0.61	122	24		*	82	125	20

MJW 8/1/11

CHEMTECH

CALIBRATION VERIFICATION SUMMARY

Contract: MACT03

Lab Code: CHEM **Case No.:** C2487 **SAS No.:** C2487 **SDG NO.:** C2487

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/14/2011 06/14/2011

Client Sample No.: CCAL01 **Date Analyzed:** 06/15/2011

Lab Sample No.: STD 50 **Data File :** PD002263.D **Time Analyzed:** 09:37

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
alpha-BHC	4.194	4.150	4.250	0.052	0.050	4.0
beta-BHC	4.713	4.660	4.760	0.046	0.050	8.0
delta-BHC	4.902	4.850	4.950	0.053	0.050	6.0
gamma-BHC (Lindane)	4.466	4.420	4.520	0.053	0.050	6.0
Heptachlor	4.744	4.690	4.790	0.049	0.050	2.0
Aldrin	4.977	4.930	5.030	0.049	0.050	2.0
Heptachlor epoxide	5.407	5.340	5.480	0.047	0.050	6.0
Endosulfan I	5.729	5.660	5.800	0.048	0.050	4.0
Dieldrin	5.964	5.890	6.030	0.052	0.050	4.0
4,4-DDE	5.853	5.780	5.920	0.052	0.050	4.0
Endrin	6.217	6.150	6.290	0.048	0.050	4.0
Endosulfan II	6.485	6.410	6.550	0.050	0.050	0.0
4,4-DDD	6.357	6.290	6.430	0.049	0.050	2.0
Endosulfan sulfate	6.864	6.790	6.930	0.052	0.050	4.0
4,4-DDT	6.589	6.520	6.660	0.051	0.050	2.0
Methoxychlor	7.144	7.070	7.210	0.051	0.050	2.0
Endrin ketone	7.345	7.270	7.410	0.053	0.050	6.0
Endrin aldehyde	6.656	6.590	6.730	0.050	0.050	0.0
alpha-Chlordane	5.682	5.610	5.750	0.052	0.050	4.0
gamma-Chlordane	5.623	5.550	5.690	0.047	0.050	6.0
Decachlorobiphenyl	8.395	8.290	8.490	0.056	0.050	12.0
Tetrachloro-m-xylene	3.767	3.670	3.870	0.046	0.050	8.0

$100\% - \frac{0.049}{0.05} \cdot 100 = 2\%$

MJW 8/1/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002263.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Jun 2011 9:37
Operator : JJ
Sample : STD 50
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 12:33:23 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 03:19:27 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
		System Monitoring Compounds						
1)	SA	Tetrachlo...	3.767	4.477	6285.3E6	12620.0E6	45.912	49.755
22)	SA	Decachlor...	8.395	9.531	9931.8E6	6171.6E6	56.306	58.083
		Target Compounds						
2)	A	alpha-BHC	4.194	4.865	11402.4E6	17596.6E6	52.116m	48.318
3)	MA	gamma-BHC...	4.466	5.149	11198.5E6	15643.3E6	52.640m	44.766
4)	MA	Heptachlor	4.744	5.659	10314.2E6	12002.5E6	49.468	45.806
5)	MB	Aldrin	4.977	5.962	10849.7E6	11831.9E6	49.251	43.581
6)	B	beta-BHC	4.713	5.321	4306.6E6	7000.4E6	46.110	51.528
7)	B	delta-BHC	4.902	5.538	12053.7E6	18085.0E6	53.271m	55.244
8)	B	Heptachlo...	5.407	6.349	9948.9E6	13122.1E6	47.417	52.832
9)	A	Endosulfan I	5.729	6.704	10642.6E6	12324.4E6	47.816	54.186
10)	B	gamma-Chl...	5.623	6.585	12172.9E6	14215.2E6	47.275	54.430
11)	B	alpha-Chl...	5.682	6.657	11914.5E6	13600.6E6	52.344	54.797
12)	B	4,4'-DDE	5.853	6.816	12525.3E6	13418.0E6	52.262	55.006
13)	MA	Dieldrin	5.964	6.960	12320.8E6	13467.4E6	51.616m	54.881
14)	MA	Endrin	6.217	7.177	10979.0E6	10865.9E6	48.409	53.969
15)	B	Endosulfa...	6.485	7.385	11258.6E6	11181.1E6	49.873	55.306
16)	A	4,4'-DDD	6.357	7.304	10651.4E6	9903.9E6	48.987	53.643
17)	MA	4,4'-DDT	6.589	7.601	11283.8E6	9861.6E6	50.547	56.480m
18)	B	Endrin al...	6.656	7.509	8999.2E6	8613.1E6	49.600	54.771
19)	B	Endosulfa...	6.864	7.733	9705.6E6	9674.0E6	51.702	55.592
20)	A	Methoxychlor	7.144	8.062	4309.1E6	3652.2E6	51.124	56.420
21)	B	Endrin ke...	7.345	8.200	12158.3E6	9942.1E6	53.242	58.319

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

$$\frac{10849700000}{220292575903} = 0.049 \text{ ng}$$

MJW 8/1/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	
Client Sample ID:	PB55867BL	SDG No.:	C2487
Lab Sample ID:	PB55867BL	Matrix:	WATER
Analytical Method:	SW8081A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	Pesticide-TCL
Extraction Type:		Injection Volume	1
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PD002264.D	1	06/07/11	06/15/11	PB55867

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
319-84-6	alpha-BHC	0.05	U	0.0051	0.05	ug/L
319-85-7	beta-BHC	0.05	U	0.0086	0.05	ug/L
319-86-8	delta-BHC	0.05	U	0.0056	0.05	ug/L
58-89-9	gamma-BHC	0.05	U	0.0055	0.05	ug/L
76-44-8	Heptachlor	0.05	U	0.0069	0.05	ug/L
309-00-2	Aldrin	0.05	U	0.0062	0.05	ug/L
1024-57-3	Heptachlor epoxide	0.05	U	0.0067	0.05	ug/L
959-98-8	Endosulfan I	0.05	U	0.0061	0.05	ug/L
60-57-1	Dieldrin	0.05	U	0.0047	0.05	ug/L
72-55-9	4,4-DDE	0.05	U	0.004	0.05	ug/L
72-20-8	Endrin	0.05	U	0.0058	0.05	ug/L
33213-65-9	Endosulfan II	0.05	U	0.0055	0.05	ug/L
72-54-8	4,4-DDD	0.05	U	0.0071	0.05	ug/L
1031-07-8	Endosulfan Sulfate	0.05	U	0.006	0.05	ug/L
50-29-3	4,4-DDT	0.05	U	0.0059	0.05	ug/L
72-43-5	Methoxychlor	0.05	U	0.0042	0.05	ug/L
53494-70-5	Endrin ketone	0.05	U	0.0057	0.05	ug/L
7421-93-4	Endrin aldehyde	0.05	U	0.0045	0.05	ug/L
5103-71-9	alpha-Chlordane	0.05	U	0.0049	0.05	ug/L
5103-74-2	gamma-Chlordane	0.05	U	0.005	0.05	ug/L
8001-35-2	Toxaphene	0.5	U	0.1	0.5	ug/L
SURROGATES						
2051-24-3	Decachlorobiphenyl	23.6		10 - 192	118%	SPK: 20
877-09-8	Tetrachloro-m-xylene	21.2		10 - 172	106%	SPK: 20

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns

$\frac{23.6}{20} \cdot 100 = 118\%$

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

MW 8/1/11

Quantitation Report (QT Reviewed)

Data Path : P:\HPCHEM1\Ecd_D\Data\PD061511\
Data File : PD002264.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Jun 2011 10:00
Operator : JJ
Sample : PB55867BL
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jun 15 12:33:48 2011
Quant Method : P:\HPCHEM1\Ecd_D\Method\PD061511.M
Quant Title : GC Extractables
QLast Update : Wed Jun 15 03:19:27 2011
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 2 µl
Signal #1 Phase : ZB-MR2 Signal #2 Phase: ZB-MR1
Signal #1 Info : 30M x 0.32mm x0.2 Signal #2 Info : 30M x 0.32mm x 0.50µm

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
	System Monitoring Compounds						
1)	SA Tetrachlo...	3.773	4.477	2897.7E6	5620.1E6	21.167	22.158
22)	SA Decachlor...	8.405	9.536	4162.1E6	2674.2E6	23.596	25.167
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

4162100000
2897700000 = 23.6 ✓
0.07*
17638928458

* MJW 8/1/11

METALS

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Dry Cleaners 3612102148
Method :TAL Metals-SW6010B, Mercury-SW7470A
Laboratory and SDG(s): Chemtech SDG# C2487
Date: 8/1/2011
Reviewer: Mike Washburn

Review Level [X] NYSDEC DUSR [ ] USEPA Region II Guideline

1. [ ] Case Narrative Review and Data Package Completeness COMMENTS
2. Where all the samples on the COC analyzed for the requested analyses? (YES) NO (circle one)

3. [ ] Holding time and Sample Collection
Were all samples were all prepped and analyzed with the holding time (6 month). (YES) NO (circle one)

4. [ ] QC Blanks
Are method blanks clean? YES (NO) (circle one)

Aluminum (11.99 µg/L) and lead (3.06 µg/L) were detected in the method blank associated with samples in SDG C2487. Action levels were established at five times the concentration reported in the blank and compared to sample results. Concentrations of aluminum and lead reported below the action level were qualified not detected (U) in samples LCMW001016 and LCMW002019.

Are Initial and continuing calibration blanks clean? YES (NO) (circle one)

Aluminum (29.7 µg/L), magnesium (36.2 µg/L), lead (6.0 µg/L), and mercury (0.09 µg/L) were detected in the continuing calibration blanks associated with samples in SDG C2487. Action levels were established at five times the highest concentration reported in the blanks and compared to sample results. Concentrations of aluminum and lead reported below the action level were qualified not detected (U) in samples LCMW001016 and LCMW002019.

[ ] Interference Check Standard

Within QC limits.

[ ] Instrument Calibration
Initial calibration criteria met for the method? (YES) NO (circle one)
90-110% (80-120% Hg) recovery on continuing calibration standards met? (YES) NO (circle one)

[ ] Serial Dilutions
Were all results were within the control limit of 10% (for values > 50X MDL)? (YES)

[ ] Laboratory Control Sample Results
Were all results were within 80-120% limits? (YES) NO (circle one)

[ ] Matrix Spike
Were MS/MSDs submitted/analyzed? YES (NO)

Were all results were within 75-125% limits? YES NO (NA) (circle one)

[ ] Duplicates/replicates
Were Field Duplicates submitted/analyzed? YES (NO)
Aqueous RPD within limit? (50%) YES NO (NA) (circle one)
Soil RPD within limit? (100%) YES NO (NA) (circle one)

Was the lab dup RPD <20% for values > 5X the CRQL (or ± CRQL) (NA)

- ☐ Were both Total and Dissolved metals reported? YES (NO) NA (circle one)
  If the dissolved concentration is > 20% of the total concentration then estimate (J) both results

- ☐ Percent solids < 50% for any soil/sediment sample? YES NO (NA) (circle one)
  If yes, estimate all results.

5. ☐ Raw Data Review and Calculation Checks

   Completed

6. ☐ Electronic Data Review and Edits. Does the EDD match the Form I's? (YES) NO (circle one)

7. ☐ DUSR Tables: **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes).
   Were all tables produced? (YES) NO (circle one)

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW002019	SDG No.:	C2487
Lab Sample ID:	C2487-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	106	U	1	6.5	50	ug/L	06/07/11	06/07/11	SW6010B
7440-36-0	Antimony	25	U	1	8	25	ug/L	06/07/11	06/07/11	SW6010B
7440-38-2	Arsenic	10	U	1	4.2	10	ug/L	06/07/11	06/07/11	SW6010B
7440-39-3	Barium	98.4		1	4	50	ug/L	06/07/11	06/07/11	SW6010B
7440-41-7	Beryllium	3	U	1	0.7	3	ug/L	06/07/11	06/07/11	SW6010B
7440-43-9	Cadmium	3	U	1	0.5	3	ug/L	06/07/11	06/07/11	SW6010B
7440-70-2	Calcium	83300		1	31.8	1000	ug/L	06/07/11	06/07/11	SW6010B
7440-47-3	Chromium	5	U	1	1.1	5	ug/L	06/07/11	06/07/11	SW6010B
7440-48-4	Cobalt	15	U	1	5.8	15	ug/L	06/07/11	06/07/11	SW6010B
7440-50-8	Copper	2.08	J	1	2	10	ug/L	06/07/11	06/07/11	SW6010B
7439-89-6	Iron	190		1	20.4	50	ug/L	06/07/11	06/07/11	SW6010B
7439-92-1	Lead	7.35	U	1	2.6	6	ug/L	06/07/11	06/07/11	SW6010B
7439-95-4	Magnesium	18200		1	32.5	1000	ug/L	06/07/11	06/07/11	SW6010B
7439-96-5	Manganese	27.3		1	1.7	10	ug/L	06/07/11	06/07/11	SW6010B
7439-97-6	Mercury	0.2	U	1	0.09	0.2	ug/L	06/13/11	06/14/11	SW7470A
7440-02-0	Nickel	20	U	1	4.2	20	ug/L	06/07/11	06/07/11	SW6010B
7440-09-7	Potassium	4390		1	38.8	1000	ug/L	06/07/11	06/07/11	SW6010B
7782-49-2	Selenium	5.87	J	1	4.8	10	ug/L	06/07/11	06/07/11	SW6010B
7440-22-4	Silver	5	U	1	1.5	5	ug/L	06/07/11	06/07/11	SW6010B
7440-23-5	Sodium	115000		1	13.9	1000	ug/L	06/07/11	06/07/11	SW6010B
7440-28-0	Thallium	20	U	1	2.4	20	ug/L	06/07/11	06/07/11	SW6010B
7440-62-2	Vanadium	20	U	1	6.1	20	ug/L	06/07/11	06/07/11	SW6010B
7440-66-6	Zinc	20	U	1	6.5	20	ug/L	06/07/11	06/07/11	SW6010B

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:					

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
E = Value Exceeds Calibration Range
OR = Over Range

MW 8/1/11

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	MACTEC Inc.	Date Collected:	06/01/11
Project:	Loohns Dry Cleaners- APO 201007181	Date Received:	06/03/11
Client Sample ID:	LCMW001016	SDG No.:	C2487
Lab Sample ID:	C2487-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	50 ~~25.8~~	~~J~~ U	1	6.5	50	ug/L	06/07/11	06/07/11	SW6010B
7440-36-0	Antimony	25	U	1	8	25	ug/L	06/07/11	06/07/11	SW6010B
7440-38-2	Arsenic	10	U	1	4.2	10	ug/L	06/07/11	06/07/11	SW6010B
7440-39-3	Barium	89		1	4	50	ug/L	06/07/11	06/07/11	SW6010B
7440-41-7	Beryllium	3	U	1	0.7	3	ug/L	06/07/11	06/07/11	SW6010B
7440-43-9	Cadmium	3	U	1	0.5	3	ug/L	06/07/11	06/07/11	SW6010B
7440-70-2	Calcium	59900		1	31.8	1000	ug/L	06/07/11	06/07/11	SW6010B
7440-47-3	Chromium	5	U	1	1.1	5	ug/L	06/07/11	06/07/11	SW6010B
7440-48-4	Cobalt	15	U	1	5.8	15	ug/L	06/07/11	06/07/11	SW6010B
7440-50-8	Copper	2.26	J	1	2	10	ug/L	06/07/11	06/07/11	SW6010B
7439-89-6	Iron	50.4		1	20.4	50	ug/L	06/07/11	06/07/11	SW6010B
7439-92-1	Lead	6	U	1	2.6	6	ug/L	06/07/11	06/07/11	SW6010B
7439-95-4	Magnesium	11300		1	32.5	1000	ug/L	06/07/11	06/07/11	SW6010B
7439-96-5	Manganese	3.26	J	1	1.7	10	ug/L	06/07/11	06/07/11	SW6010B
7439-97-6	Mercury	0.14	J	1	0.09	0.2	ug/L	06/13/11	06/14/11	SW7470A
7440-02-0	Nickel	20	U	1	4.2	20	ug/L	06/07/11	06/07/11	SW6010B
7440-09-7	Potassium	3090		1	38.8	1000	ug/L	06/07/11	06/07/11	SW6010B
7782-49-2	Selenium	10	U	1	4.8	10	ug/L	06/07/11	06/07/11	SW6010B
7440-22-4	Silver	5	U	1	1.5	5	ug/L	06/07/11	06/07/11	SW6010B
7440-23-5	Sodium	55700		1	13.9	1000	ug/L	06/07/11	06/07/11	SW6010B
7440-28-0	Thallium	20	U	1	2.4	20	ug/L	06/07/11	06/07/11	SW6010B
7440-62-2	Vanadium	20	U	1	6.1	20	ug/L	06/07/11	06/07/11	SW6010B
7440-66-6	Zinc	10.6	J	1	6.5	20	ug/L	06/07/11	06/07/11	SW6010B

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:					

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
E = Value Exceeds Calibration Range
OR = Over Range

MJW 8/1/11

CHEMTECH

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: MACTEC Inc. **SDG No.:** C2487

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	MDL ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB55852BL		**WATER**		**Batch Number:**	**PB55852**			**Prep Date:**	**06/07/2011**	
	Aluminum	11.990	<50.000	J	6.500	50.000	P	06/07/2011	15:18	LB55416
	Antimony	8.000	<25.000	U	8.000	25.000	P	06/07/2011	15:18	LB55416
	Arsenic	4.200	<10.000	U	4.200	10.000	P	06/07/2011	15:18	LB55416
	Barium	4.000	<50.000	U	4.000	50.000	P	06/07/2011	15:18	LB55416
	Beryllium	0.700	<3.000	U	0.700	3.000	P	06/07/2011	15:18	LB55416
	Cadmium	0.500	<3.000	U	0.500	3.000	P	06/07/2011	15:18	LB55416
	Calcium	31.800	<1000.000	U	31.800	1000.000	P	06/07/2011	15:18	LB55416
	Chromium	1.100	<5.000	U	1.100	5.000	P	06/07/2011	15:18	LB55416
	Cobalt	5.800	<15.000	U	5.800	15.000	P	06/07/2011	15:18	LB55416
	Copper	2.000	<10.000	U	2.000	10.000	P	06/07/2011	15:18	LB55416
	Iron	20.400	<50.000	U	20.400	50.000	P	06/07/2011	15:18	LB55416
	Lead	3.060	<6.000	J	2.600	6.000	P	06/07/2011	15:18	LB55416
	Magnesium	32.500	<1000.000	U	32.500	1000.000	P	06/07/2011	15:18	LB55416
	Manganese	1.700	<10.000	U	1.700	10.000	P	06/07/2011	15:18	LB55416
	Nickel	4.200	<20.000	U	4.200	20.000	P	06/07/2011	15:18	LB55416
	Potassium	38.800	<1000.000	U	38.800	1000.000	P	06/07/2011	15:18	LB55416
	Selenium	4.800	<10.000	U	4.800	10.000	P	06/07/2011	15:18	LB55416
	Silver	1.500	<5.000	U	1.500	5.000	P	06/07/2011	15:18	LB55416
	Sodium	13.900	<1000.000	U	13.900	1000.000	P	06/07/2011	15:18	LB55416
	Thallium	2.400	<20.000	U	2.400	20.000	P	06/07/2011	15:18	LB55416
	Vanadium	6.100	<20.000	U	6.100	20.000	P	06/07/2011	15:18	LB55416
	Zinc	6.500	<20.000	U	6.500	20.000	P	06/07/2011	15:18	LB55416
PB56025BL		**WATER**		**Batch Number:**	**PB56025**			**Prep Date:**	**06/13/2011**	
	Mercury	0.092	<0.200	U	0.092	0.200	CV	06/14/2011	15:48	LB55526

MJW 8/1/11

CHEMTECH

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB07	Lead	6.0	+/-6.0	J	2.6	6.0	P	06/07/2011	15:42	LB55416
	Magnesium	36.2	+/-1000.0	J	32.5	1000.0	P	06/07/2011	15:42	LB55416
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	06/07/2011	15:42	LB55416
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	06/07/2011	15:42	LB55416
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	06/07/2011	15:42	LB55416
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	06/07/2011	15:42	LB55416
	Silver	1.5	+/-5.0	U	1.5	5.0	P	06/07/2011	15:42	LB55416
	Sodium	13.9	+/-1000.0	U	13.9	1000.0	P	06/07/2011	15:42	LB55416
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	06/07/2011	15:42	LB55416
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	06/07/2011	15:42	LB55416
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	06/07/2011	15:42	LB55416
CCB08	Aluminum	29.7	+/-50.0	J	6.5	50.0	P	06/07/2011	16:53	LB55416
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	06/07/2011	16:53	LB55416
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	06/07/2011	16:53	LB55416
	Barium	4.0	+/-50.0	U	4.0	50.0	P	06/07/2011	16:53	LB55416
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	06/07/2011	16:53	LB55416
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	06/07/2011	16:53	LB55416
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	06/07/2011	16:53	LB55416
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	06/07/2011	16:53	LB55416
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	06/07/2011	16:53	LB55416
	Copper	2.0	+/-10.0	U	2.0	10.0	P	06/07/2011	16:53	LB55416
	Iron	20.4	+/-50.0	U	20.4	50.0	P	06/07/2011	16:53	LB55416
	Lead	2.6	+/-6.0	U	2.6	6.0	P	06/07/2011	16:53	LB55416
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	06/07/2011	16:53	LB55416
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	06/07/2011	16:53	LB55416
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	06/07/2011	16:53	LB55416
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	06/07/2011	16:53	LB55416
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	06/07/2011	16:53	LB55416
	Silver	1.5	+/-5.0	U	1.5	5.0	P	06/07/2011	16:53	LB55416
	Sodium	13.9	+/-1000.0	U	13.9	1000.0	P	06/07/2011	16:53	LB55416
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	06/07/2011	16:53	LB55416
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	06/07/2011	16:53	LB55416
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	06/07/2011	16:53	LB55416
CCB09	Aluminum	24.8	+/-50.0	J	6.5	50.0	P	06/07/2011	17:29	LB55416
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	06/07/2011	17:29	LB55416
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	06/07/2011	17:29	LB55416
	Barium	4.0	+/-50.0	U	4.0	50.0	P	06/07/2011	17:29	LB55416
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	06/07/2011	17:29	LB55416
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	06/07/2011	17:29	LB55416
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	06/07/2011	17:29	LB55416
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	06/07/2011	17:29	LB55416
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	06/07/2011	17:29	LB55416

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CHEMTECH

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB11	Chromium	1.1	+/-5.0	U	1.1	5.0	P	06/07/2011	18:42	LB55416
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	06/07/2011	18:42	LB55416
	Copper	2.0	+/-10.0	U	2.0	10.0	P	06/07/2011	18:42	LB55416
	Iron	20.4	+/-50.0	U	20.4	50.0	P	06/07/2011	18:42	LB55416
	Lead	4.0	+/-6.0	J	2.6	6.0	P	06/07/2011	18:42	LB55416
	Magnesium	32.5	+/-1000.0	U	32.5	1000.0	P	06/07/2011	18:42	LB55416
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	06/07/2011	18:42	LB55416
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	06/07/2011	18:42	LB55416
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	06/07/2011	18:42	LB55416
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	06/07/2011	18:42	LB55416
	Silver	1.5	+/-5.0	U	1.5	5.0	P	06/07/2011	18:42	LB55416
	Sodium	13.9	+/-1000.0	U	13.9	1000.0	P	06/07/2011	18:42	LB55416
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	06/07/2011	18:42	LB55416
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	06/07/2011	18:42	LB55416
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	06/07/2011	18:42	LB55416
CCB12	Aluminum	38.9	+/-50.0	J	6.5	50.0	P	06/07/2011	19:03	LB55416
	Antimony	8.0	+/-25.0	U	8.0	25.0	P	06/07/2011	19:03	LB55416
	Arsenic	4.2	+/-10.0	U	4.2	10.0	P	06/07/2011	19:03	LB55416
	Barium	4.0	+/-50.0	U	4.0	50.0	P	06/07/2011	19:03	LB55416
	Beryllium	0.7	+/-3.0	U	0.7	3.0	P	06/07/2011	19:03	LB55416
	Cadmium	0.5	+/-3.0	U	0.5	3.0	P	06/07/2011	19:03	LB55416
	Calcium	31.8	+/-1000.0	U	31.8	1000.0	P	06/07/2011	19:03	LB55416
	Chromium	1.1	+/-5.0	U	1.1	5.0	P	06/07/2011	19:03	LB55416
	Cobalt	5.8	+/-15.0	U	5.8	15.0	P	06/07/2011	19:03	LB55416
	Copper	2.0	+/-10.0	U	2.0	10.0	P	06/07/2011	19:03	LB55416
	Iron	20.4	+/-50.0	U	20.4	50.0	P	06/07/2011	19:03	LB55416
	Lead	4.1	+/-6.0	J	2.6	6.0	P	06/07/2011	19:03	LB55416
	Magnesium	68.1	+/-1000.0	J	32.5	1000.0	P	06/07/2011	19:03	LB55416
	Manganese	1.7	+/-10.0	U	1.7	10.0	P	06/07/2011	19:03	LB55416
	Nickel	4.2	+/-20.0	U	4.2	20.0	P	06/07/2011	19:03	LB55416
	Potassium	38.8	+/-1000.0	U	38.8	1000.0	P	06/07/2011	19:03	LB55416
	Selenium	4.8	+/-10.0	U	4.8	10.0	P	06/07/2011	19:03	LB55416
	Silver	1.5	+/-5.0	U	1.5	5.0	P	06/07/2011	19:03	LB55416
	Sodium	13.9	+/-1000.0	U	13.9	1000.0	P	06/07/2011	19:03	LB55416
	Thallium	2.4	+/-20.0	U	2.4	20.0	P	06/07/2011	19:03	LB55416
	Vanadium	6.1	+/-20.0	U	6.1	20.0	P	06/07/2011	19:03	LB55416
	Zinc	6.5	+/-20.0	U	6.5	20.0	P	06/07/2011	19:03	LB55416
ICB01	Mercury	0.09	+/-0.20	U	0.09	0.20	CV	06/14/2011	15:36	LB55526
CCB01	Mercury	0.09	+/-0.20	U	0.09	0.20	CV	06/14/2011	15:40	LB55526
CCB02	Mercury	0.09	+/-0.20	U	0.09	0.20	CV	06/14/2011	16:09	LB55526
CCB03	Mercury	0.09	+/-0.20	J	0.09	0.20	CV	06/14/2011	16:30	LB55526

MJC
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CHEMTECH

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2413.70	2521.0	95.7	90 - 110	P	06/07/2011	11:15	LB55416
	Antimony	964.64	994.0	97.0	90 - 110	P	06/07/2011	11:15	LB55416
	Arsenic	1001.20	999.0	100.2	90 - 110	P	06/07/2011	11:15	LB55416
	Barium	515.41	503.0	102.5	90 - 110	P	06/07/2011	11:15	LB55416
	Beryllium	487.29	495.0	98.4	90 - 110	P	06/07/2011	11:15	LB55416
	Cadmium	501.58	496.0	101.1	90 - 110	P	06/07/2011	11:15	LB55416
	Calcium	10004.00	10026.0	99.8	90 - 110	P	06/07/2011	11:15	LB55416
	Chromium	496.40	490.0	101.3	90 - 110	P	06/07/2011	11:15	LB55416
	Cobalt	497.42	499.0	99.7	90 - 110	P	06/07/2011	11:15	LB55416
	Copper	500.62	492.0	101.8	90 - 110	P	06/07/2011	11:15	LB55416
	Iron	5082.00	5082.0	100.0	90 - 110	P	06/07/2011	11:15	LB55416
	Lead	981.47	1002.0	98.0	90 - 110	P	06/07/2011	11:15	LB55416
	Magnesium	5998.50	6074.0	98.8	90 - 110	P	06/07/2011	11:15	LB55416
	Manganese	506.85	499.0	101.6	90 - 110	P	06/07/2011	11:15	LB55416
	Nickel	502.47	503.0	99.9	90 - 110	P	06/07/2011	11:15	LB55416
	Potassium	9994.80	10021.0	99.7	90 - 110	P	06/07/2011	11:15	LB55416
	Selenium	964.84	1003.0	96.2	90 - 110	P	06/07/2011	11:15	LB55416
	Silver	491.44	501.0	98.1	90 - 110	P	06/07/2011	11:15	LB55416
	Sodium	9815.00	10097.0	97.2	90 - 110	P	06/07/2011	11:15	LB55416
	Thallium	994.17	1003.0	99.1	90 - 110	P	06/07/2011	11:15	LB55416
	Vanadium	504.07	501.0	100.6	90 - 110	P	06/07/2011	11:15	LB55416
	Zinc	1006.20	1025.0	98.2	90 - 110	P	06/07/2011	11:15	LB55416
CCV01	Aluminum	10701.00	10000.0	107.0	90 - 110	P	06/07/2011	11:44	LB55416
	Antimony	5113.20	5000.0	102.3	90 - 110	P	06/07/2011	11:44	LB55416
	Arsenic	5152.60	5000.0	103.1	90 - 110	P	06/07/2011	11:44	LB55416
	Barium	10925.00	10000.0	109.2	90 - 110	P	06/07/2011	11:44	LB55416
	Beryllium	266.65	250.0	106.7	90 - 110	P	06/07/2011	11:44	LB55416
	Cadmium	2499.90	2500.0	100.0	90 - 110	P	06/07/2011	11:44	LB55416
	Calcium	27081.00	25000.0	108.3	90 - 110	P	06/07/2011	11:44	LB55416
	Chromium	1056.80	1000.0	105.7	90 - 110	P	06/07/2011	11:44	LB55416
	Cobalt	2695.00	2500.0	107.8	90 - 110	P	06/07/2011	11:44	LB55416
	Copper	1338.40	1250.0	107.1	90 - 110	P	06/07/2011	11:44	LB55416

$\frac{496.40}{490} \cdot 100\% = 101.3\%$

MJW 8/1/11

CHEMTECH

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

Initial Calibration Source: EPA

Continuing Calibration Source: INORGANIC-VENTURES

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Cadmium	2458.70	2500.0	98.3	90 - 110	P	06/07/2011	15:03	LB55416
	Calcium	24018.00	25000.0	96.1	90 - 110	P	06/07/2011	15:03	LB55416
	Chromium	926.93	1000.0	92.7	90 - 110	P	06/07/2011	15:03	LB55416
	Cobalt	2453.00	2500.0	98.1	90 - 110	P	06/07/2011	15:03	LB55416
	Copper	1202.60	1250.0	96.2	90 - 110	P	06/07/2011	15:03	LB55416
	Iron	4872.00	5000.0	97.4	90 - 110	P	06/07/2011	15:03	LB55416
	Lead	4909.80	5000.0	98.2	90 - 110	P	06/07/2011	15:03	LB55416
	Magnesium	24619.00	25000.0	98.5	90 - 110	P	06/07/2011	15:03	LB55416
	Manganese	2450.00	2500.0	98.0	90 - 110	P	06/07/2011	15:03	LB55416
	Nickel	2451.90	2500.0	98.1	90 - 110	P	06/07/2011	15:03	LB55416
	Potassium	25189.00	25000.0	100.8	90 - 110	P	06/07/2011	15:03	LB55416
	Selenium	5242.40	5000.0	104.8	90 - 110	P	06/07/2011	15:03	LB55416
	Silver	1176.00	1250.0	94.1	90 - 110	P	06/07/2011	15:03	LB55416
	Sodium	25376.00	25000.0	101.5	90 - 110	P	06/07/2011	15:03	LB55416
	Thallium	4953.20	5000.0	99.1	90 - 110	P	06/07/2011	15:03	LB55416
	Vanadium	2386.10	2500.0	95.4	90 - 110	P	06/07/2011	15:03	LB55416
	Zinc	2400.20	2500.0	96.0	90 - 110	P	06/07/2011	15:03	LB55416
CCV07	Aluminum	9706.50	10000.0	97.1	90 - 110	P	06/07/2011	15:39	LB55416
	Antimony	5381.90	5000.0	107.6	90 - 110	P	06/07/2011	15:39	LB55416
	Arsenic	5388.10	5000.0	107.8	90 - 110	P	06/07/2011	15:39	LB55416
	Barium	10444.00	10000.0	104.4	90 - 110	P	06/07/2011	15:39	LB55416
	Beryllium	234.17	250.0	93.7	90 - 110	P	06/07/2011	15:39	LB55416
	Cadmium	2499.20	2500.0	100.0	90 - 110	P	06/07/2011	15:39	LB55416
	Calcium	24157.00	25000.0	96.6	90 - 110	P	06/07/2011	15:39	LB55416
	Chromium	946.05	1000.0	94.6 ✓	90 - 110	P	06/07/2011	15:39	LB55416
	Cobalt	2496.20	2500.0	99.8	90 - 110	P	06/07/2011	15:39	LB55416
	Copper	1202.30	1250.0	96.2	90 - 110	P	06/07/2011	15:39	LB55416
	Iron	4925.30	5000.0	98.5	90 - 110	P	06/07/2011	15:39	LB55416
	Lead	4992.70	5000.0	99.9	90 - 110	P	06/07/2011	15:39	LB55416
	Magnesium	24932.00	25000.0	99.7	90 - 110	P	06/07/2011	15:39	LB55416
	Manganese	2463.70	2500.0	98.5	90 - 110	P	06/07/2011	15:39	LB55416
	Nickel	2496.20	2500.0	99.8	90 - 110	P	06/07/2011	15:39	LB55416
	Potassium	25410.00	25000.0	101.6	90 - 110	P	06/07/2011	15:39	LB55416
	Selenium	5449.90	5000.0	109.0	90 - 110	P	06/07/2011	15:39	LB55416
	Silver	1205.80	1250.0	96.5	90 - 110	P	06/07/2011	15:39	LB55416

$\frac{946.05}{1000} \cdot 100 = 94.6\%$

MW 9/1/11

CHEMTECH

Metals
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INTERFERENCE CHECK SAMPLE

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	246000	244100	100.8	80 - 120%	06/07/2011	11:30	LB55416
	Antimony	6.5				06/07/2011	11:30	LB55416
	Arsenic	11.2				06/07/2011	11:30	LB55416
	Barium	2.7				06/07/2011	11:30	LB55416
	Beryllium	2.1				06/07/2011	11:30	LB55416
	Cadmium	-4.5				06/07/2011	11:30	LB55416
	Calcium	251000	234900	106.9	80 - 120%	06/07/2011	11:30	LB55416
	Chromium	41.4	43	96.3	80 - 120%	06/07/2011	11:30	LB55416
	Cobalt	2.4				06/07/2011	11:30	LB55416
	Copper	50.2				06/07/2011	11:30	LB55416
	Iron	96400	95600	100.8	80 - 120%	06/07/2011	11:30	LB55416
	Lead	5.2				06/07/2011	11:30	LB55416
	Magnesium	259000	247500	104.6	80 - 120%	06/07/2011	11:30	LB55416
	Manganese	19.4	19	102.1	80 - 120%	06/07/2011	11:30	LB55416
	Nickel	24.3				06/07/2011	11:30	LB55416
	Potassium	-0.100				06/07/2011	11:30	LB55416
	Selenium	1.6				06/07/2011	11:30	LB55416
	Silver	-1.5				06/07/2011	11:30	LB55416
	Sodium	756				06/07/2011	11:30	LB55416
	Thallium	0.97				06/07/2011	11:30	LB55416
	Vanadium	5.6				06/07/2011	11:30	LB55416
	Zinc	26.9				06/07/2011	11:30	LB55416
ICSAB01	Aluminum	243000	241100	100.8	80 - 120%	06/07/2011	11:33	LB55416
	Antimony	607	589	103.1	80 - 120%	06/07/2011	11:33	LB55416
	Arsenic	115	101	113.9	80 - 120%	06/07/2011	11:33	LB55416
	Barium	502	495	101.4	80 - 120%	06/07/2011	11:33	LB55416
	Beryllium	501	475	105.5	80 - 120%	06/07/2011	11:33	LB55416
	Cadmium	988	940	105.1	80 - 120%	06/07/2011	11:33	LB55416
	Calcium	248000	231100	107.3	80 - 120%	06/07/2011	11:33	LB55416
	Chromium	493	511	96.5	80 - 120%	06/07/2011	11:33	LB55416
	Cobalt	497	461	107.8	80 - 120%	06/07/2011	11:33	LB55416
	Copper	536	548	97.8	80 - 120%	06/07/2011	11:33	LB55416
	Iron	95600	94800	100.8	80 - 120%	06/07/2011	11:33	LB55416
	Lead	59.2	61	97.0	80 - 120%	06/07/2011	11:33	LB55416
	Magnesium	254000	251100	101.2	80 - 120%	06/07/2011	11:33	LB55416
	Manganese	510	502	101.6	80 - 120%	06/07/2011	11:33	LB55416
	Nickel	1030	984	104.7	80 - 120%	06/07/2011	11:33	LB55416
	Potassium	-19.4				06/07/2011	11:33	LB55416
	Selenium	57.3	53	108.1	80 - 120%	06/07/2011	11:33	LB55416
	Silver	201	206	97.6	80 - 120%	06/07/2011	11:33	LB55416
	Sodium	739				06/07/2011	11:33	LB55416
	Thallium	102	103	99.0	80 - 120%	06/07/2011	11:33	LB55416
	Vanadium	476	494	96.4	80 - 120%	06/07/2011	11:33	LB55416
	Zinc	961	1028	93.5	80 - 120%	06/07/2011	11:33	LB55416

41.4/43 · 100% = 96.3%

493/511 · 100% = 96.5%

MLW 8/1/11

CHEMTECH

Metals
- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB55852BS							
Aluminum	ug/L	2000.0	1821.20		91.1	81 - 117	P
Antimony	ug/L	800.0	793.80		99.2	79 - 114	P
Arsenic	ug/L	800.0	816.56		102.1	82 - 113	P
Barium	ug/L	200.0	207.74		103.9	83 - 118	P
Beryllium	ug/L	200.0	186.25		93.1	84 - 115	P
Cadmium	ug/L	200.0	197.52		98.8	82 - 119	P
Calcium	ug/L	1000.0	942.02	J	94.2	10 - 129	P
Chromium	ug/L	400.0	378.57		94.6 ✓	83 - 118	P
Cobalt	ug/L	200.0	194.59		97.3	82 - 118	P
Copper	ug/L	300.0	289.35		96.4	80 - 115	P
Iron	ug/L	3000.0	2952.80		98.4	79 - 112	P
Lead	ug/L	1000.0	945.91		94.6	83 - 119	P
Magnesium	ug/L	2000.0	1994.90		99.7	10 - 123	P
Manganese	ug/L	200.0	198.01		99.0	10 - 115	P
Nickel	ug/L	500.0	491.93		98.4	84 - 123	P
Potassium	ug/L	10000.0	9973.30		99.7	67 - 121	P
Selenium	ug/L	2000.0	2025.30		101.3	75 - 108	P
Silver	ug/L	75.0	70.02		93.4	81 - 126	P
Sodium	ug/L	3000.0	2951.00		98.4	10 - 165	P
Thallium	ug/L	2000.0	1870.20		93.5	86 - 122	P
Vanadium	ug/L	300.0	289.94		96.6	84 - 114	P
Zinc	ug/L	200.0	192.89		96.4	89 - 126	P

$\frac{378.57}{400.0} \cdot 100\% = 94.6\%$

MSW 9/1/11

CHEMTECH

Metals
- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: MACTEC Inc. **SDG No.:** C2487

Contract: MACT03 **Lab Code:** CHEM **Case No.:** C2487 **SAS No.:** C2487

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB56025BS							
Mercury	ug/L	4.000	3.840		96.0 ✓	80 - 120	CV

$\frac{3.84}{4.0} \cdot 100\% = 96\%$

MJW 8/1/11

CHEMTECH

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

MW-01L

Lab Name: Chemtech Consulting Group **Contract:** MACT03

Lab Code: CHEM **Case No.:** C2487 **SAS No.:** C2487 **SDG No.:** C2487

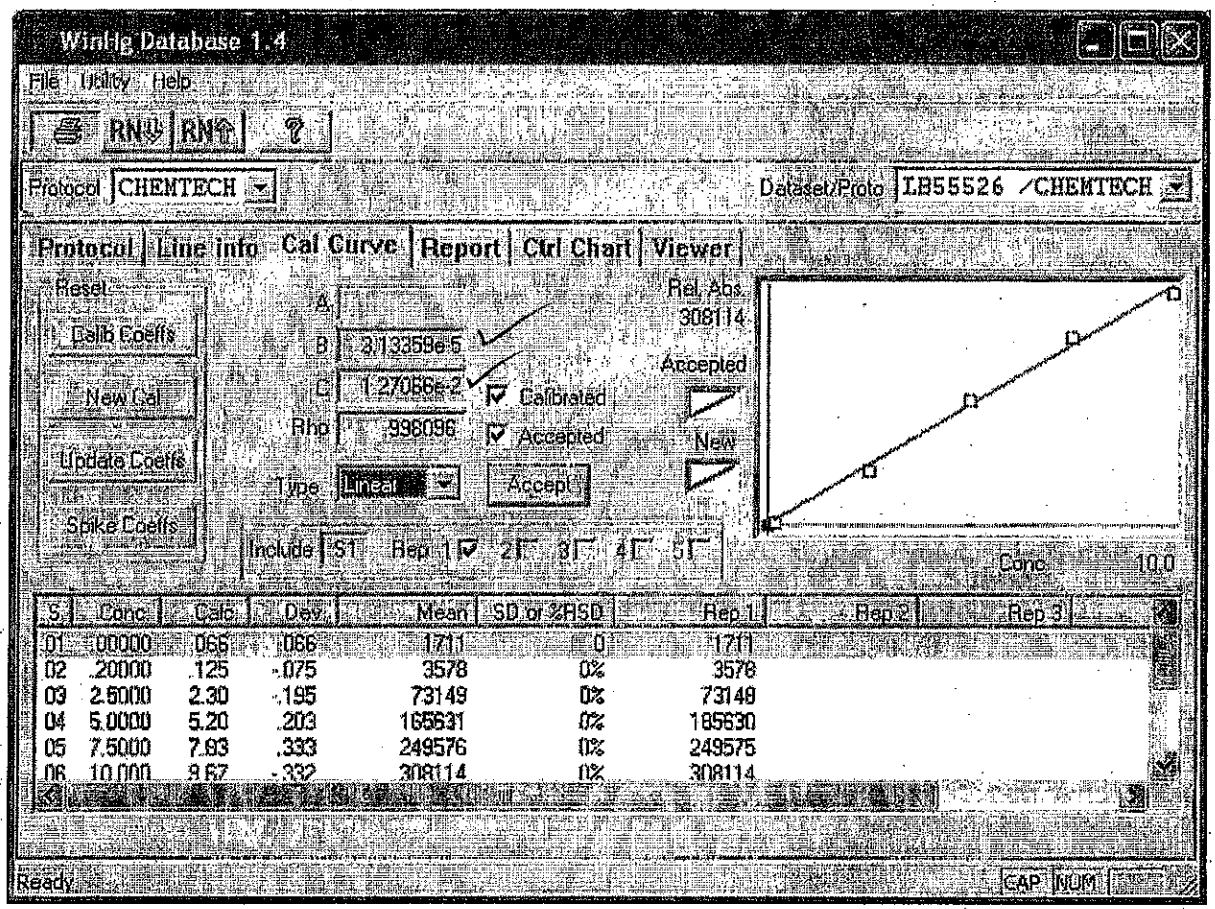
Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	18.05	J	76.00	J	321.1		P
Antimony	8.00	U	40.00	U			P
Arsenic	4.20	U	21.00	U			P
Barium	47.89	J	48.65	J	1.6		P
Beryllium	0.70	U	3.50	U			P
Cadmium	0.50	U	2.50	U			P
Calcium	69145.00		74395.00		7.6		P
Chromium	1.10	U	5.50	U			P
Cobalt	5.80	U	29.00	U			P
Copper	2.37	J	10.00	U	100.0		P
Iron	33.50	J	102.00	U	100.0		P
Lead	7.63		23.30	J	205.4		P
Magnesium	29309.00		30939.50		5.6		P
Manganese	2.38	J	9.30	J	290.8		P
Nickel	4.20	U	21.00	U			P
Potassium	4792.80		5014.50		4.6		P
Selenium	4.80	U	24.00	U			P
Silver	1.50	U	7.50	U			P
Sodium	28966.00		30032.00		3.7		P
Thallium	2.40	U	12.00	U			P
Vanadium	6.10	U	30.50	U			P
Zinc	16.09	J	32.50	U	100.0		P

$\frac{74395}{69145} - 1 \cdot 100\% = 7.59\%$

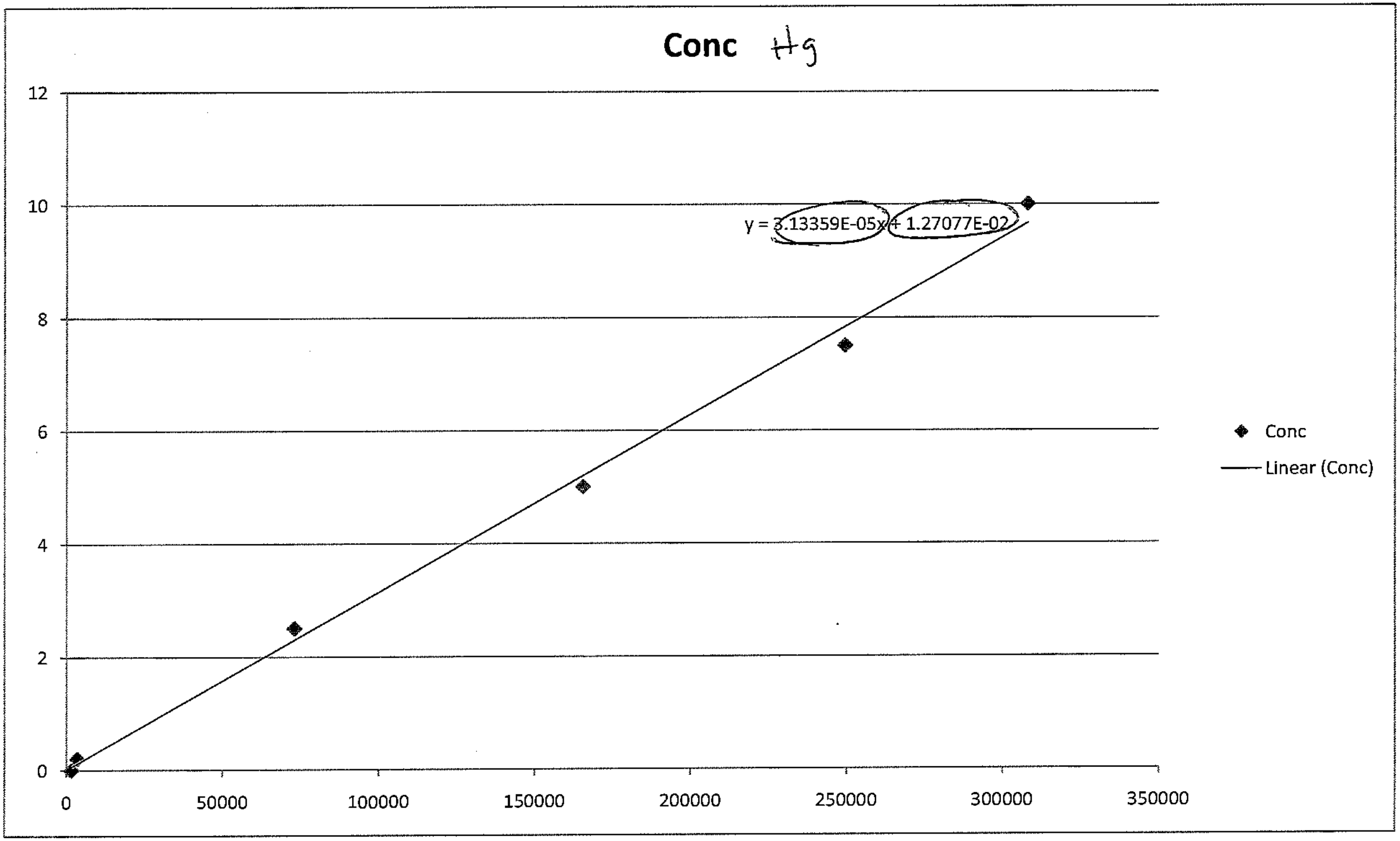
MW 8/1/11



Instrument ID: QV LB 55526 A-1.

MJW 8/1/11

Calibration



MJW
8/1/11

VOCs in Air

NYSDEC DUSR PROJECT CHEMIST REVIEW RECORD
Project: Loohn's Dry Cleaners 3612102148
Method : TO-15
Laboratory and SDG(s): Enalytic **SDG# E1106002**
Date: 26 July, 2011
Reviewer: Mike Washburn
Review Level [X] NYSDEC DUSR ☐ USEPA Region II Guideline

Control limits are from EPA Region 2 - SOP# HW-31, October 2006.

1. ☐ **Case Narrative Review and Data Package Completeness** COMMENTS
Were problems noted? Package complete, noted problems addressed in the following sections.

2. ☐ **Holding time and Sample Collection**
All samples were analyzed within the 30 day holding time.

3. ☐ **QC Blanks** (use 5x rule for calculating action levels)
Are method blanks free of contamination? YES (NO) (circle one)

Acetone (1.9 µg/m^3) and isopropanol (2.3 µg/kg) were reported in the method blank. Action levels were established at five times the reported blank concentrations. Reported detections for acetone and methylene chloride were greater than the action level. No action was necessary`.

Are Trip blanks free of contamination? YES NO (circle one)
There were no trip blanks analyzed.

4. ☐ **Instrument Tuning**
Were all results were within method criteria (YES) NO (circle one)

5. ☐ **Instrument Calibration**
Initial Calibration %RSD = 30%, RRF ≥0.05. Were all results were within criteria? YES (NO)

In the initial calibration dated 4/27/2011, the %RSD exceeds the QC limit of 30 for methylene chloride (35). Methylene chloride was not detected in associated samples and the reporting limits were qualified as estimated (UJ).

Continuing Calibration %D = 30% Were all results were within criteria? YES (NO)

In a continuing calibration dated 6/20/2011, the %D exceeded the QC limit of 30 for 1,1,2,2-tetrachloroethane (34) and 2-butanone (31). Results for 1,1,2,2-tetrachloroethane and 2-butanone in associated samples were qualified estimated (J/UJ).

6. ☐ **Internal Standards** (Area Limits = +40% to -40%, RT's within 20 seconds of mid point cal Std)
Were all results within criteria? (YES) NO (circle one)

7. ☐ **Surrogate Recovery**

Were all results were within laboratory limits? (YES) NO (circle one)

8. ☐ **Field Duplicates/replicates**
Were Field Duplicates submitted/analyzed? YES (NO)

Were all results were within criteria (Field Dup RPD goal = 50). YES NO (NA) (circle one)

9. ☐ **Laboratory Control Sample Results** (limits 70-130%)

Were all results were within limits? YES (NO) (circle one)

In LSC dated 6/20/2011, the percent recovery for isopropanol (65) was below the QC limit of 70. The sample results for isopropanol in the associated samples were qualified estimated (J/UJ).

10. ☐ **Raw Data Review and Calculation Checks**
Completed.

11. ☐ **Electronic Data Review and Edits**
Does the EDD match the Form I's? (YES) NO (circle one)

12. ☐ **TIC Review** and DUSR **Table 1** (sample Listing), **Table 2** (results summary), **Table 3** (Reason Codes), **Table 4** (TIC's). Did lab report TICs? (YES) NO (circle one)

Enalytic,LLC

Analytical Report

Date *22-Jun-11*

CLIENT MACTEC Engineering and Consulting, I
Locatio Loohn's Corning
Project: PO#210107176
Lab ID E1106002-001A

Client Sample ID LCSV002007
Collection Date: 6/1/2011
Tag # 283/4969
Matrix SOIL VAPOR

TO-15(SG+TICS)

CAS#	Target Compound List	Dilution Factor	Date Analyzed	ppbV PQL	ppbV Result	Data Qualifiers	ug/m3 PQL	ug/m3 Result
71-55-6	1,1,1-Trichloroethane	1	20-Jun-11	0.20	0.36		1.10	2.0
79-34-5	1,1,2,2-Tetrachloroethane	1	20-Jun-11	0.20	0.48	J	1.40	3.4
79-00-5	1,1,2-Trichloroethane	1	20-Jun-11	0.20	ND		1.10	ND
76-13-1	1,1,2-Trifluoro-1,2,2-Trichloroethane (Freon 11:	1	20-Jun-11	0.20	ND		1.60	ND
75-34-3	1,1-Dichloroethane	1	20-Jun-11	0.20	ND		0.82	ND
75-35-4	1,1-Dichloroethene	1	20-Jun-11	0.20	ND		0.81	ND
120-82-1	1,2,4-Trichlorobenzene	1	20-Jun-11	0.20	ND		1.50	ND
95-63-6	1,2,4-Trimethylbenzene	1	20-Jun-11	0.30	0.98		1.50	4.9
106-93-4	1,2-Dibromoethane	1	20-Jun-11	0.20	ND		1.60	ND
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-1	1	20-Jun-11	0.20	ND		1.40	ND
95-50-1	1,2-Dichlorobenzene	1	20-Jun-11	0.20	ND		1.20	ND
107-06-2	1,2-Dichloroethane	1	20-Jun-11	0.20	ND		0.82	ND
78-87-5	1,2-Dichloropropane	1	20-Jun-11	0.20	ND		0.94	ND
108-67-8	1,3,5-Trimethylbenzene	1	20-Jun-11	0.20	1.9		1.00	9.4
106-99-0	1,3-Butadiene	1	20-Jun-11	0.20	ND		0.45	ND
541-73-1	1,3-Dichlorobenzene	1	20-Jun-11	0.20	ND		1.20	ND
106-46-7	1,4-Dichlorobenzene	1	20-Jun-11	0.20	0.24		1.20	1.5
123-91-1	1,4-Dioxane	1	20-Jun-11	0.40	ND		1.50	ND
78-93-3	2-Butanone (MEK)	1	20-Jun-11	0.20	1.9	J	0.60	5.6
591-78-6	2-Hexanone (*)	1	20-Jun-11	0.20	ND		0.83	ND
622-96-8	4-Ethyltoluene (*)	1	20-Jun-11	0.20	0.96		1.00	4.8
108-10-1	4-Methyl-2-Pentanone (MIBK)	1	20-Jun-11	0.20	ND		0.83	ND
67-64-1	Acetone	1	20-Jun-11	2.0	23		4.80	55
71-43-2	Benzene	1	20-Jun-11	0.20	2.4		0.65	7.9
100-44-7	Benzyl chloride	1	20-Jun-11	0.20	ND		1.10	ND
75-27-4	Bromodichloromethane	1	20-Jun-11	0.20	ND		1.40	ND
75-25-2	Bromoform	1	20-Jun-11	0.20	ND		2.10	ND
74-83-9	Bromomethane	1	20-Jun-11	0.20	ND		0.79	ND
75-15-0	Carbon disulfide	1	20-Jun-11	0.20	0.67		0.63	2.1
56-23-5	Carbon tetrachloride	1	20-Jun-11	0.20	ND		1.30	ND
108-90-7	Chlorobenzene	1	20-Jun-11	0.20	ND		0.94	ND
75-00-3	Chloroethane	1	20-Jun-11	0.20	ND		0.54	ND
67-66-3	Chloroform	1	20-Jun-11	0.20	ND		0.99	ND
74-87-3	Chloromethane	1	20-Jun-11	0.20	ND		0.42	ND
156-59-2	cis-1,2-Dichloroethene	1	20-Jun-11	0.20	0.39		0.81	1.6

Qualifiers:

(*)	Certification not offered by NYS for this compound	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this analyte	S	Spike Recovery outside accepted recovery limits

Approved By KLP **Date:** 6-22-11

MJW 7/27/11

Enalytic,LLC

Analytical Report

Date *22-Jun-11*

CLIENT MACTEC Engineering and Consulting, I
Locatio Loohn's Corning
Project: PO#210107176
Lab ID E1106002-001A

Client Sample ID LCSV002007
Collection Date: 6/1/2011
Tag # 283/4969
Matrix SOIL VAPOR

TO-15(SG+TICS)

CAS#	Target Compound List	Dilution Factor	Date Analyzed	ppbV PQL	ppbV Result	Data Qualifiers	ug/m3 PQL	ug/m3 Result
10061-01-5	cis-1,3-Dichloropropene	1	20-Jun-11	0.20	ND		0.92	ND
110-82-7	Cyclohexane	1	20-Jun-11	0.20	5.5		0.70	19
124-48-1	Dibromochloromethane	1	20-Jun-11	0.20	ND		1.70	ND
75-71-8	Dichlorodifluoromethane (Freon 12)	1	20-Jun-11	0.20	0.51		1.00	2.6
100-41-4	Ethyl benzene	1	20-Jun-11	0.20	0.63		0.88	2.8
87-68-3	Hexachlorobutadiene	1	20-Jun-11	0.20	ND		2.20	ND
110-54-3	Hexane	1	20-Jun-11	0.20	10		0.72	37
67-63-0	Isopropanol	1	20-Jun-11	2.0	ND	UJ	5.00	ND
1330-20-7	m,p-Xylene	1	20-Jun-11	0.60	4.3		2.60	19
1634-04-4	Methyl tert-butyl ether (MTBE)	1	20-Jun-11	0.20	ND		0.73	ND
75-09-2	Methylene chloride	1	20-Jun-11	0.20	ND	UJ	0.71	ND
142-82-5	n-Heptane	1	20-Jun-11	0.20	10		0.83	43
95-47-6	o-Xylene	1	20-Jun-11	0.20	1.2		0.88	5.5
100-42-5	Styrene	1	20-Jun-11	0.30	0.65		1.30	2.8
127-18-4	Tetrachloroethene	262	21-Jun-11	52	19000		360.00	130000
109-99-9	Tetrahydrofuran (*)	1	20-Jun-11	0.20	0.45		0.60	1.3
108-88-3	Toluene	1	20-Jun-11	0.20	24		0.77	91
166-60-5	trans-1,2-Dichloroethene	1	20-Jun-11	0.20	ND		0.81	ND
10061-02-6	trans-1,3-Dichloropropene	1	20-Jun-11	0.20	ND		0.92	ND
79-01-6	Trichloroethene	1	20-Jun-11	0.20	32		1.10	180
75-69-4	Trichlorofluoromethane (Freon 11)	1	20-Jun-11	0.20	0.47		1.10	2.7
108-05-4	Vinyl acetate	1	20-Jun-11	0.20	ND		0.72	ND
75-01-4	Vinyl chloride	1	20-Jun-11	0.20	ND		0.52	ND
	Surr: Bromofluorobenzene	262	21-Jun-11	65-135	106		0.00	0
	Surr: Bromofluorobenzene	1	20-Jun-11	65-135	103		0.00	0
	TIC: Butane	1	20-Jun-11	0	25	NJ	0.00	0
	TIC: Butane, 2-methyl-	1	20-Jun-11	0	18		0.00	0
	TIC: Cyclotetrasiloxane, octamethyl-	1	20-Jun-11	0	26		0.00	0
	TIC: Isobutane	1	20-Jun-11	0	19		0.00	0
	TIC: Nonadecane	1	20-Jun-11	0	7.9		0.00	0
	TIC: Nonane	1	20-Jun-11	0	12		0.00	0
	TIC: Propane	1	20-Jun-11	0	17		0.00	0
	TIC: unknown hydrocarbon	1	20-Jun-11	0	15		0.00	0

Qualifiers:

(*)	Certification not offered by NYS for this compound	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this analyte	S	Spike Recovery outside accepted recovery limits

Approved By KLP **Date:** 6-22-11

MJW 7/12/11

Enalytic,LLC

Analytical Report

Date *22-Jun-11*

CLIENT MACTEC Engineering and Consulting, I
Locatio Loohn's Corning
Project: PO#210107176
Lab ID E1106002-002A

Client Sample ID LCSVEW1005
Collection Date: 6/1/2011
Tag # 245/4970
Matrix SOIL VAPOR

TO-15(SG+TICS)

CAS#	Target Compound List	Dilution Factor	Date Analyzed	ppbV PQL	ppbV Result	Data Qualifiers	ug/m3 PQL	ug/m3 Result
71-55-6	1,1,1-Trichloroethane	1	20-Jun-11	0.20	ND		1.10	ND
79-34-6	1,1,2,2-Tetrachloroethane	1	20-Jun-11	0.20	ND	UJ	1.40	ND
79-00-5	1,1,2-Trichloroethane	1	20-Jun-11	0.20	ND		1.10	ND
76-13-1	1,1,2-Trifluoro-1,2,2-Trichloroethane (Freon 11:	1	20-Jun-11	0.20	ND		1.60	ND
75-34-3	1,1-Dichloroethane	1	20-Jun-11	0.20	ND		0.82	ND
75-35-4	1,1-Dichloroethene	1	20-Jun-11	0.20	ND		0.81	ND
120-82-1	1,2,4-Trichlorobenzene	1	20-Jun-11	0.20	ND		1.50	ND
95-63-6	1,2,4-Trimethylbenzene	1	20-Jun-11	0.30	0.32		1.50	1.6
106-93-4	1,2-Dibromoethane	1	20-Jun-11	0.20	ND		1.60	ND
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-1	1	20-Jun-11	0.20	ND		1.40	ND
95-50-1	1,2-Dichlorobenzene	1	20-Jun-11	0.20	ND		1.20	ND
107-06-2	1,2-Dichloroethane	1	20-Jun-11	0.20	ND		0.82	ND
78-87-5	1,2-Dichloropropane	1	20-Jun-11	0.20	ND		0.94	ND
108-67-8	1,3,5-Trimethylbenzene	1	20-Jun-11	0.20	1.0		1.00	5.2
106-99-0	1,3-Butadiene	1	20-Jun-11	0.20	ND		0.45	ND
541-73-1	1,3-Dichlorobenzene	1	20-Jun-11	0.20	ND		1.20	ND
106-46-7	1,4-Dichlorobenzene	1	20-Jun-11	0.20	ND		1.20	ND
123-91-1	1,4-Dioxane	1	20-Jun-11	0.40	ND		1.50	ND
78-93-3	2-Butanone (MEK)	1	20-Jun-11	0.20	2.3	J	0.60	6.9
591-78-6	2-Hexanone (*)	1	20-Jun-11	0.20	ND		0.83	ND
622-96-8	4-Ethyltoluene (*)	1	20-Jun-11	0.20	0.75		1.00	3.7
108-10-1	4-Methyl-2-Pentanone (MIBK)	1	20-Jun-11	0.20	ND		0.83	ND
67-64-1	Acetone	1	20-Jun-11	2.0	83		4.80	200
71-43-2	Benzene	1	20-Jun-11	0.20	ND		0.65	ND
100-44-7	Benzyl chloride	1	20-Jun-11	0.20	ND		1.10	ND
75-27-4	Bromodichloromethane	1	20-Jun-11	0.20	ND		1.40	ND
75-25-2	Bromoform	1	20-Jun-11	0.20	ND		2.10	ND
74-83-9	Bromomethane	1	20-Jun-11	0.20	ND		0.79	ND
75-15-0	Carbon disulfide	1	20-Jun-11	0.20	0.35		0.63	1.1
56-23-5	Carbon tetrachloride	1	20-Jun-11	0.20	ND		1.30	ND
108-90-7	Chlorobenzene	1	20-Jun-11	0.20	ND		0.94	ND
75-00-3	Chloroethane	1	20-Jun-11	0.20	ND		0.54	ND
67-66-3	Chloroform	1	20-Jun-11	0.20	ND		0.99	ND
74-87-3	Chloromethane	1	20-Jun-11	0.20	ND		0.42	ND
156-59-2	cis-1,2-Dichloroethene	1	20-Jun-11	0.20	1.4		0.81	5.7

Qualifiers:

(*)	Certification not offered by NYS for this compound
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
Q	Outlying QC recoveries were associated with this analyte
S	Spike Recovery outside accepted recovery limits

Approved By KLP

Date: 6-22-11

MSW 7/27/11

Enalytic,LLC

Analytical Report

Date *22-Jun-11*

CLIENT MACTEC Engineering and Consulting, I
Locatio Loohn's Corning
Project: PO#210107176
Lab ID E1106002-002A

Client Sample ID LCSVEW1005
Collection Date: 6/1/2011
Tag # 245/4970
Matrix SOIL VAPOR

TO-15(SG+TICS)

CAS#	Target Compound List	Dilution Factor	Date Analyzed	ppbV PQL	ppbV Result	Data Qualifiers	ug/m3 PQL	ug/m3 Result
10061-01-5	cis-1,3-Dichloropropene	1	20-Jun-11	0.20	ND		0.92	ND
110-82-7	Cyclohexane	1	20-Jun-11	0.20	ND		0.70	ND
124-48-1	Dibromochloromethane	1	20-Jun-11	0.20	ND		1.70	ND
75-71-8	Dichlorodifluoromethane (Freon 12)	1	20-Jun-11	0.20	0.50		1.00	2.5
100-41-4	Ethyl benzene	1	20-Jun-11	0.20	0.59		0.88	2.6
87-68-3	Hexachlorobutadiene	1	20-Jun-11	0.20	ND		2.20	ND
110-54-3	Hexane	1	20-Jun-11	0.20	0.36		0.72	1.3
67-63-0	Isopropanol	1	20-Jun-11	2.0	16	J	5.00	37
1330-20-7	m,p-Xylene	1	20-Jun-11	0.60	1.8		2.60	7.9
1634-04-4	Methyl tert-butyl ether (MTBE)	1	20-Jun-11	0.20	ND		0.73	ND
75-09-2	Methylene chloride	1	20-Jun-11	0.20	ND	J	0.71	ND
142-82-5	n-Heptane	1	20-Jun-11	0.20	0.29		0.83	1.2
95-47-6	o-Xylene	1	20-Jun-11	0.20	0.73		0.88	3.2
100-42-5	Styrene	1	20-Jun-11	0.30	0.69		1.30	3.0
127-18-4	Tetrachloroethene	5	21-Jun-11	1.0	470		6.90	3200
109-99-9	Tetrahydrofuran (*)	1	20-Jun-11	0.20	ND		0.60	ND
108-88-3	Toluene	1	20-Jun-11	0.20	23		0.77	90
156-60-5	trans-1,2-Dichloroethene	1	20-Jun-11	0.20	ND		0.81	ND
10061-02-6	trans-1,3-Dichloropropene	1	20-Jun-11	0.20	ND		0.92	ND
79-01-6	Trichloroethene	1	20-Jun-11	0.20	5.4		1.10	29
75-69-4	Trichlorofluoromethane (Freon 11)	1	20-Jun-11	0.20	0.41		1.10	2.3
108-05-4	Vinyl acetate	1	20-Jun-11	0.20	ND		0.72	ND
75-01-4	Vinyl chloride	1	20-Jun-11	0.20	ND		0.52	ND
	Surr: Bromofluorobenzene	1	20-Jun-11	65-135	78.6		0.00	0
	Surr: Bromofluorobenzene	5	21-Jun-11	65-135	67.5		0.00	0
	TIC: Decane, 2,2-dimethyl-	1	20-Jun-11	0	810	NJ	0.00	0
	TIC: Dodecane, 2,6,10-trimethyl-	1	20-Jun-11	0	410		0.00	0
	TIC: Heptane, 2,2,4,6,6-pentamethyl-	1	20-Jun-11	0	390		0.00	0
	TIC: Nonane, 3-methyl-5-propyl-	1	20-Jun-11	0	610		0.00	0
	TIC: Octane, 2,2,6-trimethyl-	1	20-Jun-11	0	210		0.00	0
	TIC: Undecane, 3,6-dimethyl-	1	20-Jun-11	0	280		0.00	0
	TIC: unknown hydrocarbon (12.103)	1	20-Jun-11	0	270		0.00	0
	TIC: unknown hydrocarbon (13.636)	1	20-Jun-11	0	860		0.00	0
	TIC: unknown hydrocarbon (13.726)	1	20-Jun-11	0	200		0.00	0

Qualifiers:

(*)	Certification not offered by NYS for this compound
E	Value above quantitation range
J	Analyte detected below quantitation limits
Q	Outlying QC recoverics were associated with this analyte
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits

Approved By KLP

Date: 6-22-11

MJV 2/27/11

Form 6

EPA TO-15 INITIAL CALIBRATION DATA

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: SDG No.: MT005

Instrument ID: 1.0 Calibration Dates: 4/27/2011 4/27/2011

Heated Purge: (Y/N) N Calibration Times: 14:29 17:42

GC Column: Rtx-VMS ID: (mm)

LAB FILE ID: VSTD100= EN5003.D VSTD050= EN5004.D VSTD030= EN5005.D VSTD010= EN5006.D VSTD002= EN5008.D
VSTD0.2= EN5009.D

COMPOUND		VSTD100	VSTD050	VSTD030	VSTD010	VSTD002	VSTD0.2					RRF	% RSD	R^2
Benzene	*	2.552	2.598	2.895	3.083	3.696	3.046					2.978	13.957	
Benzyl chloride	*	0.553	0.652	0.559	0.657	0.854	0.544					0.636	18.523	
Bromodichloromethane	*	0.519	0.567	0.583	0.63	0.781	0.521					0.6	16.298	
Bromoform	*	0.284	0.355	0.359	0.385	0.491	0.282					0.359	21.437	
Bromomethane	*	0.904	0.915	1.012	1.096	1.242	1.034					1.034	12.132	
Carbon disulfide	*	2.421	2.399	2.719	2.939	3.128	3.392					2.833	13.958	
Carbon tetrachloride	*	1.898	1.953	2.245	2.491	2.818	1.977					2.23	16.352	
Chlorobenzene	*	✓0.831	✓0.93	✓0.973	✓1.052	✓1.354	✓0.856					✓0.999	✓19.141	
Chloroethane	*	0.461	0.466	0.516	0.546	0.6	0.593					0.53	11.369	
Chloroform	*	1.864	1.92	2.172	2.311	2.878	1.928					2.179	17.601	
Chloromethane	*	0.936	0.9	1.021	1.111	0.431	1.2					0.933	28.907	
cis-1,2-Dichloroethene	*	1.215	1.273	1.388	1.516	1.856	1.352					1.433	16.138	
cis-1,3-Dichloropropene	*	0.443	0.468	0.486	0.52	0.63	0.501					0.508	12.874	
Cyclohexane	*	1.235	1.331	1.547	1.694	2.15	1.243					1.533	22.975	
Dibromochloromethane	*	0.473	0.472	0.473	0.506	0.621	0.387					0.489	15.563	
Dichlorodifluoromethane (Freon 12)	*	2.56	2.482	2.833	3.076	3.877	2.707					2.922	17.545	
Ethyl benzene	*	0.845	0.846	0.826	0.861	1.068	0.748					0.866	12.355	
Hexachlorobutadiene	*	0.454	0.441	0.55	0.44	0.688	0.502					0.512	18.737	
Hexane	*	1.462	1.474	1.625	1.786	1.754	1.629					1.622	8.359	
Isopropanol	*	1.137	1.064	1.106	1.207	1.076	0					1.118	5.12	
m,p-Xylene	*	0.746	0.887	0.918	0.898	1.102	0.898					0.908	12.518	
Methyl tert-butyl ether (MTBE)	*	1.98	1.916	2.123	2.154	1.986	1.699					1.976	8.275	
Methylene chloride	*	0.762	0.755	0.854	0.926	0.981	1.665					0.99	34.548	

MW 7/26/11

Form 6

EPA TO-15 INITIAL CALIBRATION DATA

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: SDG No.: MT005

Instrument ID: 1.0 Calibration Dates: 4/27/2011 4/27/2011

Heated Purge: (Y/N) N Calibration Times: 14:29 17:42

GC Column: Rtx-VMS ID: (mm)

LAB FILE ID: VSTD100= EN5003.D VSTD050= EN5004.D VSTD030= EN5005.D VSTD010= EN5006.D VSTD002= EN5008.D
VSTD0.2= EN5009.D

COMPOUND		VSTD100	VSTD050	VSTD030	VSTD010	VSTD002	VSTD0.2					$\overline{RRF}$	% RSD	R^2
n-Heptane	*	1.505	1.561	1.733	1.922	2.257	1.772					1.792	15.239	
o-Xylene	*	0.601	0.667	0.703	0.694	0.704	0.743					0.685	7.001	
Styrene	*	0.467	0.546	0.536	0.548	0.559	0.527					0.53	6.214	
Tetrachloroethene	*	0.423	0.41	0.423	0.477	0.589	0.451					0.462	14.424	
Tetrahydrofuran (*)	*	0.992	1.056	1.133	1.183	1.215	0.99					1.095	8.831	
Toluene	*	0.872	0.862	0.892	0.953	1.158	1.032					0.962	11.985	
trans-1,2-Dichloroethene	*	1.06	1.075	1.193	1.309	1.296	1.043					1.163	10.368	
trans-1,3-Dichloropropene	*	0.373	0.37	0.378	0.393	0.482	0.367					0.394	11.211	
Trichloroethene	*	✓0.409	✓0.445	✓0.476	✓0.545	✓0.698	✓0.686					✓0.543	✓22.777	
Trichlorofluoromethane (Freon 11)	*	2.112	2.122	2.394	2.65	2.857	2.377					2.419	12.125	
Vinyl acetate	*	1.724	1.732	1.828	1.61	1.534	1.515					1.657	7.482	
Vinyl chloride	*	✓1.062	✓1.022	✓1.173	✓1.255	✓1.508	✓1.066					✓1.181	✓15.388	
Bromofluorobenzene		0.49	0.517	0.425	0.482	0.528	0.408					0.475	10.243	

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

MJW 7/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEANER

Analyte	IS	L1 .2	L2 2	L3 10	L4 30	L5 50	L6 100	L7	L8	L9	Ave.	%SD	%RSD
Vinyl Chloride	BCM	1.066103	1.508017	1.254901	1.172963	1.022432	1.062074	---	---	---	1.181082	18.2	15.4
Trichloroethene	DFB	0.685473	0.697762	0.544623	0.475983	0.444938	0.408591	---	---	---	0.542895	12.4	22.8
Chlorobenzene	CB5	0.85636	1.354346	1.052098	0.972979	0.929867	0.831366	---	---	---	0.999503	19.1	19.1
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!
		---	---	---	---	---	---	---	---	---	#DIV/0!	#DIV/0!	#DIV/0!

MJ 2/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM		---
Trichloroethene	DFB		---
Chlorobenzene	CB5		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM		10	20
DFB		10	20
CB5		10	20
0		0	20
0		0	20
0		0	20

MJW 1/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM		---
Trichloroethene	DFB		---
Chlorobenzene	CB5		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM		10	15
DFB		10	15
CB5		10	15
0		0	15
0		0	15
0		0	15

MJW 2/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM		---
Trichloroethene	DFB		---
Chlorobenzene	CB5		---
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM		10	10
DFB		10	10
CB5		10	10
0		0	10
0		0	10
0		0	10

MJW 7/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM	1399219	1.062074
Trichloroethene	DFB	1726307	0.408591
Chlorobenzene	CB5	2353430	0.831366
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM	131744	10	100
DFB	422502	10	100
CB5	283080	10	100
0		0	100
0		0	100
0		0	100

mjw 3/24/14

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM	702452	1.022432
Trichloroethene	DFB	909880	0.444938
Chlorobenzene	CB5	1167058	0.929867
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM	137408	10	50
DFB	408992	10	50
CB5	251016	10	50
0		0	50
0		0	50
0		0	50

MJC 2/27/14

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM	426711	1.172963
Trichloroethene	DFB	549645	0.475983
Chlorobenzene	CB5	645955	0.972979
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM	121263	10	30
DFB	384919	10	30
CB5	221298	10	30
0		0	30
0		0	30
0		0	30

MJ~ 7/29/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM	146063	1.254901
Trichloroethene	DFB	200273	0.544623
Chlorobenzene	CB5	229713	1.052098
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM	116394	10	10
DFB	367728	10	10
CB5	218338	10	10
0		0	10
0		0	10
0		0	10

MJL 3/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM	40537	1.508017
Trichloroethene	DFB	56375	0.697762
Chlorobenzene	CB5	61756	1.354346
0			---
0			---
0			---
0			---
0			---

IS	Area	IS AMT	CAL AMT
BCM	134405	10	2
DFB	403970	10	2
CB5	227992	10	2
		0	2
		0	2
		0	2

MJ 7/27/11

DUSR Calculations
TO-15 SDG E1106002
LOOHN'S DRY CLEARNERS

Analyte	IS	Area	RRF
Vinyl Chloride	BCM	2465	1.066103
Trichloroethene	DFB	4923	0.685473
Chlorobenzene	CB5	3714	0.85636
0	0		---
0	0		---
0	0		---
0	0		---
0	0		---

IS	Area	IS AMT	CAL AMT
BCM	115608	10	0.2
DFB	359095	10	0.2
CB5	216848	10	0.2
0			0.2
0			0.2
0			0.2

7B

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Instrument ID: 1.0 Calibration Date: 06/20/11 Time: 12:59

Lab File ID: EN5128.D Init. Calib. Date(s): 04/27/11 04/27/11

EPA Sample No.(VSTD050##): CC Init. Calib. Times: 14:29 17:42

Heated Purge: (Y/N) N

GC Column: Rtx-VMS ID: (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
cis-1,3-Dichloropropene	0.508	0.456		10.2	30.0
Cyclohexane	1.533	1.413		7.8	30.0
Dibromochloromethane	0.489	0.523		-7.0	30.0
Dichlorodifluoromethane (Freon 12)	2.922	2.522		13.7	30.0
Ethyl benzene	0.866	0.865		1.3	30.0
Hexachlorobutadiene	0.512	0.509		0.6	30.0
Hexane	1.622	1.326		18.2	30.0
Isopropanol	1.118	0.827		26.0	30.0
m,p-Xylene	0.908	0.914		-0.7	30.0
Methyl tert-butyl ether (MTBE)	1.976	1.717		13.1	30.0
Methylene chloride	0.990	0.706		28.7	30.0
n-Heptane	1.792	1.412		21.2	30.0
o-Xylene	0.685	0.650		5.1	30.0
Styrene	0.530	0.485		8.5	30.0
Tetrachloroethene	0.462	0.487		-5.4	30.0
Tetrahydrofuran (*)	1.095	0.884		19.3	30.0
Toluene	0.962	0.864		10.2	30.0
trans-1,2-Dichloroethene	1.163	1.012		13.0	30.0
trans-1,3-Dichloropropene	0.394	0.360		8.6	30.0
Trichloroethene	0.543	0.464		14.5	30.0
Trichlorofluoromethane (Freon 11)	2.419	2.213		8.5	30.0
Vinyl acetate	1.657	1.357		18.1	30.0
Vinyl chloride	1.181 ✓	0.982 ✓		16.9 ✓	30.0

$1 - \frac{0.982}{1.181} \cdot 100 = 16.850\%$

All other compounds must meet a minimum RRF of 0.010.

MJW 7/28/11

Quantitation Report (QT Reviewed)

Data Path : \\LAB-01\GCMS-01\DATA\
Data File : EN5128.D
Acq On : 20 Jun 2011 12:59 pm
Operator : KLP
Sample : CC
Misc : 100MLS
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 20 13:14:52 2011
Quant Method : C:\GCMS-01\METHODS\E042711.M
Quant Title : Volatiles in Air by TO-15
QLast Update : Tue Jun 07 12:20:03 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.318	130	177789	10.00	ppbv		0.00
32) 1,4-Difluorobenzene	8.283	114	520868	10.00	ppbv		0.00
48) Chlorobenzene-d5	11.167	117	324636	10.00	ppbv		0.00
System Monitoring Compounds							
54) BFB	12.472	95	92000	5.97	ppbv		0.00
Spiked Amount 10.000			Recovery = 59.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.328	85	448365	8.63	ppbv		99
3) 1,2-Dichloro-1,1,2,2-t...	4.485	85	463951	8.66	ppbv		94
4) Chloromethane	4.572	50	153329	9.24	ppbv		97
5) Vinyl chloride	4.672	62	174511	8.31	ppbv		100
6) 1,3-Butadiene	4.685	39	116187	7.84	ppbv		93
7) Bromomethane	5.029	94	162007	8.82	ppbv		98
8) Chloroethane	5.132	64	79682	8.45	ppbv		91
9) Trichlorofluoromethane	5.251	101	393386	9.15	ppbv		100
10) 1,1,2-Trifluoro-1,2,2-...	5.675	101	323812	8.65	ppbv		99
11) 1,1-Dichloroethene	5.691	61	202163	7.94	ppbv		93
12) Carbon disulfide	5.797	76	410967	8.16	ppbv		99
13) Acrolein	5.939	56	24712	7.97	ppbv		97
14) Isopropanol	5.919	45	147018	7.40	ppbv		94
15) Methylene chloride	6.125	49	125565	7.13	ppbv		92
16) Acetone	6.135	43	134055	8.21	ppbv		99
17) trans-1,2-Dichloroethene	6.254	61	180000	8.71	ppbv		94
18) Hexane	6.276	57	235795	8.18	ppbv		99
19) Methyl tert-butyl ethe...	6.279	73	305280	8.69	ppbv		100
20) 1,1-Dichloroethane	6.733	63	299843	9.02	ppbv		99
21) Vinyl acetate	6.820	43	241190	8.19	ppbv		93
22) cis-1,2-Dichloroethene	7.141	61	219786	8.63	ppbv		99
23) Chloroform	7.312	83	343661	8.87	ppbv		99
24) Cyclohexane	7.360	84	251199	9.21	ppbv		98
25) Tetrahydrofuran (*)	7.492	42	157114	8.07	ppbv		99
26) Carbon Tetrachloride	7.508	117	407554	10.28	ppbv		99
27) 2-Butanone (MEK)	7.540	43	213658	6.87	ppbv	#	98
28) 1,1,1-Trichloroethane	7.556	97	329428	9.40	ppbv		99
29) n-Heptane	7.697	43	251074	7.88	ppbv		98
30) Benzene	7.852	78	457829	8.65	ppbv		99
31) 1,2-Dichloroethane	8.006	62	184564	8.34	ppbv		96
33) Trichloroethene	8.308	130	241718	8.55	ppbv		98
34) 1,2-Dichloropropane	8.791	63	153073	8.41	ppbv		97
35) Bromodichloromethane	8.787	83	294879	9.43	ppbv		100
36) Methyl methacrylate	8.820	69	104407	7.99	ppbv		92
37) 1,4-Dioxane	8.961	88	60510	8.41	ppbv		94
38) cis-1,3-Dichloropropene	9.360	75	237398	8.98	ppbv		98
39) Toluene	9.607	91	449849	8.98	ppbv		98
40) 4-Methyl-2-pentanone (...	9.897	43	185320	6.96	ppbv		97
41) trans-1,3-Dichloropropene	9.961	75	187555	9.14	ppbv		99
42) Tetrachloroethene	10.012	166	253446	10.53	ppbv		99
43) 1,1,2-Trichloroethane	10.148	97	163567	9.60	ppbv		99
44) Dibromochloromethane	10.360	129	272441	10.71	ppbv		98

174511 (10) / 177789 (10) = 0.981562

MJW 7/27/11

Form 1

CLIENT SAMPLE NO.

MB

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Matrix: (soil/water/air) Lab Sample ID: MB

Sample wt/vol: 100.00 (g/mL) G Lab File ID: EN5130.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 6/20/2011

GC Column: Rtx-VMS ID: (mm) Dilution Factor: 1.00

Extract Volume: _____ (µl)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ppbV or ug/m3) ppbV	Q
71-55-6	1,1,1-Trichloroethane	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
76-13-1	1,1,2-Trifluoro-1,2,2-Trichloroethane (	0.20	U
75-34-3	1,1-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
120-82-1	1,2,4-Trichlorobenzene	0.20	U
95-63-6	1,2,4-Trimethylbenzene	0.30	U
106-93-4	1,2-Dibromoethane	0.20	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
108-67-8	1,3,5-Trimethylbenzene	0.20	U
106-99-0	1,3-Butadiene	0.20	U
541-73-1	1,3-Dichlorobenzene	0.20	U
106-46-7	1,4-Dichlorobenzene	0.20	U
123-91-1	1,4-Dioxane	0.40	U
78-93-3	2-Butanone (MEK)	0.20	U
591-78-6	2-Hexanone (*)	0.20	U
622-96-8	4-Ethyltoluene (*)	0.20	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.20	U
67-64-1	Acetone	0.8	J
71-43-2	Benzene	0.20	U
100-44-7	Benzyl chloride	0.20	U
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	0.20	U
74-83-9	Bromomethane	0.20	U
75-15-0	Carbon disulfide	0.20	U
56-23-5	Carbon tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	0.20	U
67-66-3	Chloroform	0.20	U

FORM I VOA EPA TO-15

MJW 7/26/11

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Instrument ID: 1.0 Calibration Date: 06/20/11 Time: 12:59

Lab File ID: EN5128.D Init. Calib. Date(s): 04/27/11 04/27/11

EPA Sample No.(VSTD050##): CC Init. Calib. Times: 14:29 17:42

Heated Purge: (Y/N) N

GC Column: Rtx-VMS ID: (mm)

COMPOUND	RRF	RRF10	MIN RRF	%D	MAX %D
1,1,1-Trichloroethane	1.971	1.853		6.0	30.0
1,1,2,2-Tetrachloroethane	0.640	0.425		33.6	30.0
1,1,2-Trichloroethane	0.327	0.314		4.0	30.0
1,1,2-Trifluoro-1,2,2-Trichloroethane (Freon 113)	2.106	1.821		13.5	30.0
1,1-Dichloroethane	1.869	1.686		9.8	30.0
1,1-Dichloroethene	1.431	1.137		20.5	30.0
1,2,4-Trichlorobenzene	0.345	0.417		-20.9	30.0
1,2,4-Trimethylbenzene	0.873	0.902		-3.3	30.0
1,2-Dibromoethane	0.462	0.465		-0.6	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon-114)	3.013	2.610		13.4	30.0
1,2-Dichlorobenzene	0.539	0.577		-7.1	30.0
1,2-Dichloroethane	1.244	1.038		16.6	30.0
1,2-Dichloropropane	0.350	0.294		16.0	30.0
1,3,5-Trimethylbenzene	0.807	0.796		1.4	30.0
1,3-Butadiene	0.834	0.654		21.6	30.0
1,3-Dichlorobenzene	0.680	0.702		-3.2	30.0
1,4-Dichlorobenzene	0.646	0.653		-1.1	30.0
1,4-Dioxane	0.138	0.116		15.9	30.0
2-Butanone (MEK)	1.748	1.202		31.2	30.0
2-Hexanone (*)	0.435	0.308		29.2	30.0
4-Ethyltoluene (*)	1.039	0.961		7.5	30.0
4-Methyl-2-Pentanone (MIBK)	0.511	0.356		30.3	30.0
Acetone	0.919	0.754		18.0	30.0
Benzene	2.978	2.575		13.5	30.0
Benzyl chloride	0.636	0.681		-7.1	30.0
Bromodichloromethane	0.600	0.566		5.7	30.0
Bromoform	0.359	0.382		-6.4	30.0
Bromomethane	1.034	0.911		11.9	30.0
Carbon disulfide	2.833	2.312		18.4	30.0
Carbon tetrachloride	2.230	2.292		-2.8	30.0
Chlorobenzene	0.999	0.978		2.1	30.0
Chloroethane	0.530	0.448		15.5	30.0
Chloroform	2.179	1.933		11.3	30.0
Chloromethane	0.933	0.862		7.6	30.0
cis-1,2-Dichloroethene	1.433	1.236		13.7	30.0

All other compounds must meet a minimum RRF of 0.010.

MW 7/26/11

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Sample ID LCS Level: (low/med LOW

Chlorobenzene	10	0	9.9	99	45.4-115
Chloroethane	10	0	9.2	92	46.7-117
Chloroform	10	0	9.7	97	51.6-106
Chloromethane	10	0	9.4	94	21.6-163
cis-1,2-Dichloroethene	10	0	9.1	91	51.6-107
cis-1,3-Dichloropropene	10	0	9.1	91	43.2-113
Cyclohexane	10	0	10	100	55.1-109
Dibromochloromethane	10	0	11	109*	43.4-108
Dichlorodifluoromethane (Freon 12)	10	0	9	90	46.5-122
Ethyl benzene	10	0	9.9	99	36.6-114
Hexachlorobutadiene	10	0	12	120	2.51-149
Hexane	10	0	8.8	88	28.4-142
Isopropanol	10	0.94	7.5	65	13.6-151
m,p-Xylene	20	0	20	99	19.6-143
Methyl tert-butyl ether (MTBE)	10	0	9	90	34.1-134
Methylene chloride	10	0	7.5	75	19.3-145
n-Heptane	10	0	8.3	83	50-110
o-Xylene	10	0	9.7	97	25.6-149
Styrene	10	0	9.4	94	14.4-161
Tetrachloroethene	10	0	11	110*	40-106
Tetrahydrofuran (*)	10	0	7.8	79	42.6-121
Toluene	10	0	9.3	93	34.8-116
trans-1,2-Dichloroethene	10	0	8.9	89	30.3-139
trans-1,3-Dichloropropene	10	0	9	90	43.4-109
Trichloroethene	10	0	9.6	96	45.6-111
Trichlorofluoromethane (Freon 11)	10	0	10	102	49.4-119
Vinyl acetate	10	0	7.9	79	44.9-124
Vinyl chloride	10	0	8.6	86	57.1-123

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 4 out of 58 outside limits

COMMENTS: _____

FORM III EPA TO-15

MJW 7/26/11

Form 1

CLIENT SAMPLE NO.

MB

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Matrix: (soil/water/air) Lab Sample ID: MB

Sample wt/vol: 100.00 (g/mL) G Lab File ID: EN5130.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 6/20/2011

GC Column: Rtx-VMS ID: (mm) Dilution Factor: 1.00

Extract Volume: _____ (µl)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ppbV or ug/m3) ppbV	Q
74-87-3	Chloromethane	0.20	U
156-59-2	cis-1,2-Dichloroethene	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
110-82-7	Cyclohexane	0.20	U
124-48-1	Dibromochloromethane	0.20	U
75-71-8	Dichlorodifluoromethane (Freon 12)	0.20	U
100-41-4	Ethyl benzene	0.20	U
87-68-3	Hexachlorobutadiene	0.20	U
110-54-3	Hexane	0.20	U
67-63-0	Isopropanol	0.9	J
1330-20-7	m,p-Xylene	0.60	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.20	U
75-09-2	Methylene chloride	0.20	U
142-82-5	n-Heptane	0.20	U
95-47-6	o-Xylene	0.20	U
100-42-5	Styrene	0.30	U
127-18-4	Tetrachloroethene	0.20	U
109-99-9	Tetrahydrofuran (*)	0.20	U
108-88-3	Toluene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.20	U
108-05-4	Vinyl acetate	0.20	U
75-01-4	Vinyl chloride	0.20	U

MJW 7/26/11

Quantitation Report (QT Reviewed)

Data Path : \\LAB-01\GCMS-01\DATA\
Data File : EN5130.D
Acq On : 20 Jun 2011 2:09 pm
Operator : KLP
Sample : MB
Misc : 100MLS
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 20 14:24:32 2011
Quant Method : C:\GCMS-01\METHODS\E042711.M
Quant Title : Volatiles in Air by TO-15
QLast Update : Mon Jun 20 13:36:12 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.315	130	170855	10.00	ppbv	0.00
32) 1,4-Difluorobenzene	8.283	114	514992	10.00	ppbv	0.00
48) Chlorobenzene-d5	11.170	117	336135	10.00	ppbv	0.00
System Monitoring Compounds						
54) BFB	12.475	95	99056	6.21	ppbv	0.00
Spiked Amount 10.000			Recovery =	62.10%		
Target Compounds						Qvalue
14) Isopropanol	5.926	45	18005	0.94	ppbv	88
16) Acetone	6.128	43	12715	0.81	ppbv	97
50) m,p-Xylene	11.295	91	6368	0.21	ppbv #	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

$$\frac{12715(10)}{170855(0.919)} = 0.8097$$

MJW 7/27/11 m)

3A

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: SAS No.: SDG No.: MT005

Sample ID LCS Level: (low/med LOW

Chlorobenzene	10	0	9.4	94	45.4-115
Chloroethane	10	0	8.6	86	46.7-117
Chloroform	10	0	8.3	83	51.6-106
Chloromethane	10	0	9.4	94	21.6-153
cis-1,2-Dichloroethene	10	0	7.8	78	51.6-107
cis-1,3-Dichloropropene	10	0	8.4	84	43.2-113
Cyclohexane	10	0	8.9	89	55.1-109
Dibromochloromethane	10	0	9.9	99	43.4-108
Dichlorodifluoromethane (Freon 12)	10	0	8.6	86	46.5-122
Ethyl benzene	10	0	9.3	93	36.6-114
Hexachlorobutadiene	10	0	10	100	2.51-149
Hexane	10	0	7.7	77	28.4-142
Isopropanol	10	0	7.3	73	13.6-151
m,p-Xylene	20	0	17	85	19.6-143
Methyl tert-butyl ether (MTBE)	10	0	8.5	85	34.1-134
Methylene chloride	10	0	6.8	68	19.3-145
n-Heptane	10	0	7.4	74	50-110
o-Xylene	10	0	8.4	84	25.5-149
Styrene	10	0	8.4	84	14.4-161
Tetrachloroethene	10	0	9.8	98	40-106
Tetrahydrofuran (*)	10	0	7.9	79	42.6-121
Toluene	10	0	8.5	85	34.8-116
trans-1,2-Dichloroethene	10	0	8.4	84	30.3-139
trans-1,3-Dichloropropene	10	0	8.4	84	43.4-109
Trichloroethene	10	0	8.2	82	45.6-111
Trichlorofluoromethane (Freon 11)	10	0	9.5	95	49.4-119
Vinyl acetate	10	0	8.2	82	44.9-124
Vinyl chloride	10	0	8.5	85 ✓	57.1-123

$\frac{8.5}{100} \cdot 100 = 85\%$

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 58 outside limits

COMMENTS:

FORM III EPA TO-15

MW 7/27/11

Quantitation Report (QT Reviewed)

Data Path : \\LAB-01\GCMS-01\DATA\
Data File : EN5131.D
Acq On : 20 Jun 2011 2:33 pm
Operator : KLP
Sample : LCS
Misc : 100MLS
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 20 14:48:34 2011
Quant Method : C:\GCMS-01\METHODS\E042711.M
Quant Title : Volatiles in Air by TO-15
QLast Update : Mon Jun 20 13:36:12 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.318	130	164009	10.00	ppbv		0.00
32) 1,4-Difluorobenzene	8.283	114	480668	10.00	ppbv		0.00
48) Chlorobenzene-d5	11.170	117	298306	10.00	ppbv		0.00
System Monitoring Compounds							
54) BFB	12.479	95	88913	6.28	ppbv		0.00
Spiked Amount 10.000			Recovery =	62.80%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.331	85	433639	9.05	ppbv		100
3) 1,2-Dichloro-1,1,2,2-t...	4.485	85	450204	9.11	ppbv		96
4) Chloromethane	4.572	50	144239	9.42	ppbv		98
5) Vinyl chloride	4.672	62	166571	8.60	ppbv		99
6) 1,3-Butadiene	4.688	39	108741	7.95	ppbv		94
7) Bromomethane	5.026	94	169608	10.00	ppbv		100
8) Chloroethane	5.135	64	80224	9.22	ppbv		90
9) Trichlorofluoromethane	5.254	101	403694	10.18	ppbv		99
10) 1,1,2-Trifluoro-1,2,2-...	5.678	101	347513	10.06	ppbv		99
11) 1,1-Dichloroethene	5.694	61	209492	8.92	ppbv		92
12) Carbon disulfide	5.797	76	400553	8.62	ppbv		97
13) Acrolein	5.936	56	21951	7.68	ppbv		96
14) Isopropanol	5.923	45	137154	7.48	ppbv		98
15) Methylene chloride	6.128	49	121299	7.47	ppbv		91
16) Acetone	6.135	43	121221	8.05	ppbv		96
17) trans-1,2-Dichloroethene	6.257	61	170416	8.94	ppbv		91
18) Hexane	6.276	57	232817	8.75	ppbv		99
19) Methyl tert-butyl ethe...	6.286	73	293545	9.05	ppbv		100
20) 1,1-Dichloroethane	6.736	63	300872	9.81	ppbv		98
21) Vinyl acetate	6.823	43	214901	7.91	ppbv		93
22) cis-1,2-Dichloroethene	7.148	61	212881	9.06	ppbv		97
23) Chloroform	7.315	83	347419	9.72	ppbv		99
24) Cyclohexane	7.363	84	250951	9.98	ppbv		97
25) Tetrahydrofuran (*)	7.492	42	142587	7.94	ppbv		96
26) Carbon Tetrachloride	7.508	117	401127	10.97	ppbv		100
27) 2-Butanone (MEK)	7.543	43	200751	7.00	ppbv	#	99
28) 1,1,1-Trichloroethane	7.556	97	330626	10.23	ppbv		99
29) n-Heptane	7.701	43	244167	8.31	ppbv		98
30) Benzene	7.855	78	453891	9.29	ppbv		98
31) 1,2-Dichloroethane	8.006	62	177455	8.70	ppbv		96
33) Trichloroethene	8.312	130	251721	9.65	ppbv		99
34) 1,2-Dichloropropane	8.791	63	146164	8.70	ppbv		98
35) Bromodichloromethane	8.791	83	289131	10.02	ppbv		98
36) Methyl methacrylate	8.823	69	98683	8.18	ppbv		91
37) 1,4-Dioxane	8.961	88	56703	8.54	ppbv		97
38) cis-1,3-Dichloropropene	9.363	75	222104	9.10	ppbv		99
39) Toluene	9.611	91	429312	9.29	ppbv		98
40) 4-Methyl-2-pentanone (...	9.900	43	192280	7.83	ppbv		97
41) trans-1,3-Dichloropropene	9.968	75	170985	9.03	ppbv		99
42) Tetrachloroethene	10.019	166	244814	11.02	ppbv		99
43) 1,1,2-Trichloroethane	10.151	97	154425	9.82	ppbv		99
44) Dibromochloromethane	10.366	129	255063	10.86	ppbv		99

166571 (10)
164009 (1.181)
= 8.59967

MJW 7/27/11

BFB

Data Path : \\LAB-01\GCMS-01\DATA\
Data File : EN5127.D
Acq On : 20 Jun 2011 12:07 pm
Operator : KLP
Sample : BFB
Misc : 100MLS
ALS Vial : 1 Sample Multiplier: 1

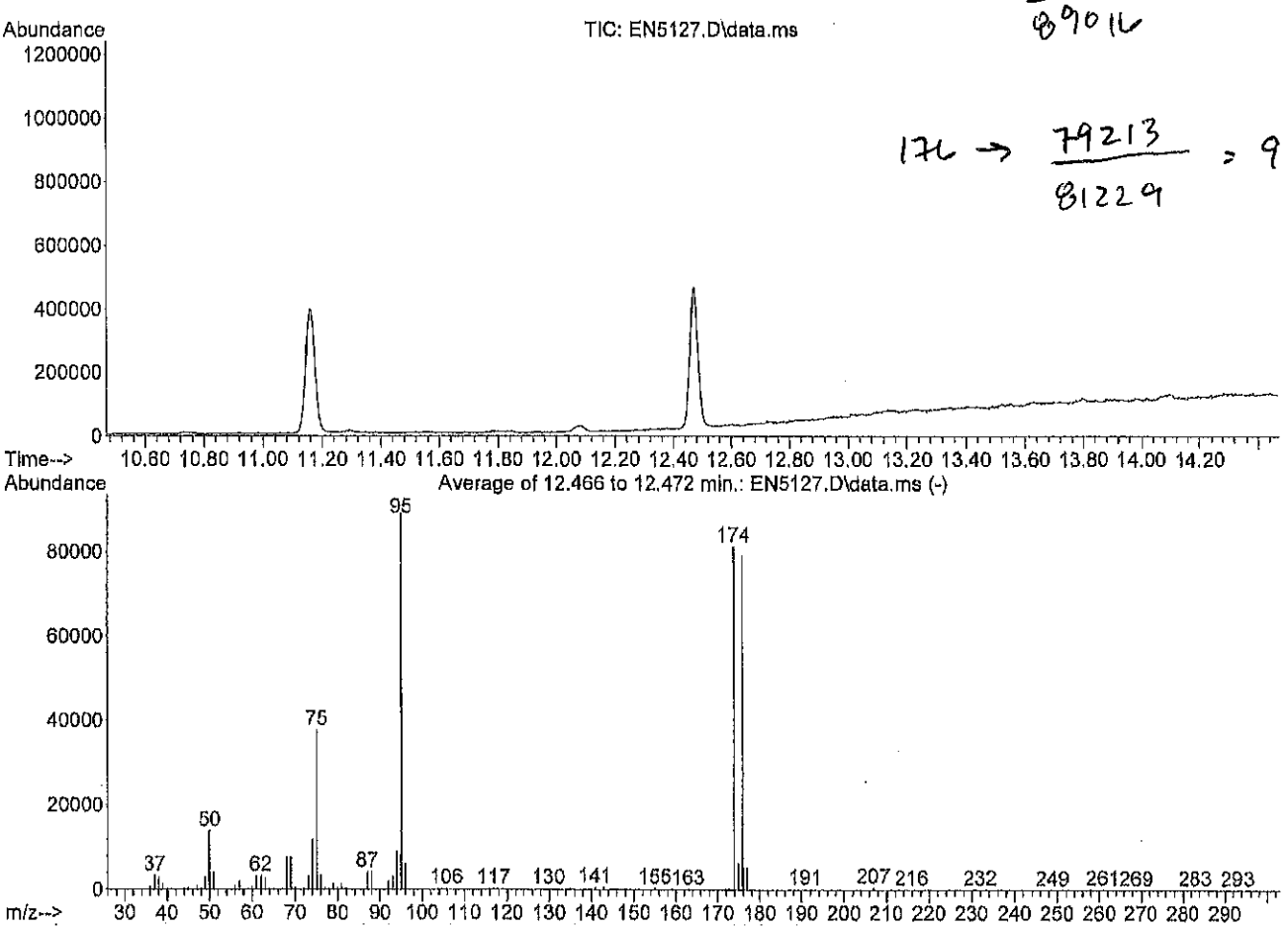
Integration File: rteint.p

Method : \\Lab-01\GCMS-01\METHODS\E042711.M
Title : Volatiles in Air by TO-15
Last Update : Mon Jun 20 13:36:12 2011

TM

50 → 13917 / 89016 = 15.6 %

176 → 79213 / 81229 = 97.5%



AutoFind: Scans 2917, 2918, 2919; Background Corrected with Scan 2902

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6 ✓	13917	PASS
75	95	30	60	42.4	37712	PASS
95	95	100	100	100.0	89016	PASS
96	95	5	9	6.8	6061	PASS
173	174	0.00	2	0.4	299	PASS
174	95	50	100	91.3	81229	PASS
175	174	5	9	7.6	6161	PASS
176	174	95	101	97.5 ✓	79213	PASS
177	176	5	9	6.8	5347	PASS

Quantitation Report (QT Reviewed)

Data Path : \\LAB-01\GCMS-01\DATA\
Data File : EN5132.D
Acq On : 20 Jun 2011 2:57 pm
Operator : KLP
Sample : E1106002-001A
Misc : 100MLS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 21 13:53:27 2011
Quant Method : C:\GCMS-01\METHODS\E042711.M
Quant Title : Volatiles in Air by TO-15
QLast Update : Mon Jun 20 13:36:12 2011
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.318	130	159672	10.00	ppbv		0.00
32) 1,4-Difluorobenzene	8.283	114	518439	10.00	ppbv		0.00
48) Chlorobenzene-d5	11.180	117	334892	10.00	ppbv		0.01
System Monitoring Compounds							
54) BFB	12.485	95	163620	10.29	ppbv		0.01
Spiked Amount 10.000			Recovery =	102.90%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	4.328	85	23595	0.51	ppbv		97
9) Trichlorofluoromethane	5.254	101	18043	0.47	ppbv		96
12) Carbon disulfide	5.801	76	30413	0.67	ppbv	#	82
16) Acetone	6.135	43	333376	22.73	ppbv		98
18) Hexane	6.276	57	270892	10.46	ppbv		91
22) cis-1,2-Dichloroethene	7.145	61	8897	0.39	ppbv		92
24) Cyclohexane	7.366	84	134838	5.51	ppbv	#	39
25) Tetrahydrofuran (*)	7.495	42	7930	0.45	ppbv	#	60
27) 2-Butanone (MEK)	7.543	43	51856	1.86	ppbv	#	88
28) 1,1,1-Trichloroethane	7.559	97	11452	0.36	ppbv		98
29) n-Heptane	7.701	43	297528	10.40	ppbv		96
30) Benzene	7.855	78	115675	2.43	ppbv		99
33) Trichloroethene	8.312	130	901960	32.05	ppbv		98
39) Toluene	9.617	91	1190326	23.88	ppbv		98
42) Tetrachloroethene	10.096	166	1783771	744.52	ppbv		
47) Ethylbenzene	11.170	91	28296	0.63	ppbv		94
50) m,p-Xylene	11.315	91	131908	4.34	ppbv		99
51) o-Xylene	11.807	91	28423	1.24	ppbv		98
52) Styrene	11.855	104	11579	0.65	ppbv		91
55) 1,1,2,2-Tetrachloroethane	12.623	83	10213	0.48	ppbv	#	32
56) 4-Ethyltoluene (*)	12.659	105	33424	0.96	ppbv		79
57) 1,2,4-Trimethylbenzene	12.749	105	28628	0.98	ppbv		96
58) 1,3,5-Trimethylbenzene	13.157	105	50837	1.88	ppbv		98
60) 1,4-Dichlorobenzene	13.643	146	5212	0.24	ppbv		86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Benzene

$$\frac{115675\,(10)}{159672\,(2.978)} = 2.432685 = 7.9\ \mu g/m^3$$

TCE

$$\frac{901960\,(10)}{518439\,(0.543)} = 32.039799 = 175.4\ \mu g/m^3$$

MSW 7/27/11

Form 1

CLIENT SAMPLE NO.

LCSV002007

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Matrix: (soil/water/air) Soil Vapor Lab Sample ID: E1106002-001A

Sample wt/vol: 100.00 (g/mL) ML Lab File ID: EN5132.D

Level: (low/med) LOW Date Received: 6/7/2011

% Moisture: not dec. Date Analyzed: 6/20/2011

GC Column: Rtx-VMS ID: (mm) Dilution Factor: 1.00

Extract Volume: _____ (µl)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ppbV or ug/m3) ug/m3	Q
71-55-6	1,1,1-Trichloroethane	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	3.4	
79-00-5	1,1,2-Trichloroethane	1.1	U
76-13-1	1,1,2-Trifluoro-1,2,2-Trichloroethane (	1.6	U
75-34-3	1,1-Dichloroethane	0.82	U
75-35-4	1,1-Dichloroethene	0.81	U
120-82-1	1,2,4-Trichlorobenzene	1.5	U
95-63-6	1,2,4-Trimethylbenzene	4.9	
106-93-4	1,2-Dibromoethane	1.6	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	U
95-50-1	1,2-Dichlorobenzene	1.2	U
107-06-2	1,2-Dichloroethane	0.82	U
78-87-5	1,2-Dichloropropane	0.94	U
108-67-8	1,3,5-Trimethylbenzene	9.4	
106-99-0	1,3-Butadiene	0.45	U
541-73-1	1,3-Dichlorobenzene	1.2	U
106-46-7	1,4-Dichlorobenzene	1.5	
123-91-1	1,4-Dioxane	1.5	U
78-93-3	2-Butanone (MEK)	5.6	
591-78-6	2-Hexanone (*)	0.83	U
622-96-8	4-Ethyltoluene (*)	4.8	
108-10-1	4-Methyl-2-Pentanone (MIBK)	0.83	U
67-64-1	Acetone	55	
71-43-2	Benzene	7.9 ✓	
100-44-7	Benzyl chloride	1.1	U
75-27-4	Bromodichloromethane	1.4	U
75-25-2	Bromoform	2.1	U
74-83-9	Bromomethane	0.79	U
75-15-0	Carbon disulfide	2.1	
56-23-5	Carbon tetrachloride	1.3	U
108-90-7	Chlorobenzene	0.94	U
75-00-3	Chloroethane	0.54	U
67-66-3	Chloroform	0.99	U

MSW 7/27/11

Form 1

CLIENT SAMPLE NO.

LCSV002007

Lab Name: Enalytic,LLC Contract: MACTEC

Lab Code: 11920 Case No.: _____ SAS No.: _____ SDG No.: MT005

Matrix: (soil/water/air) Soil Vapor Lab Sample ID: E1106002-001A

Sample wt/vol: 100.00 (g/mL) ML Lab File ID: EN5132.D

Level: (low/med) LOW Date Received: 6/7/2011

% Moisture: not dec. Date Analyzed: 6/20/2011

GC Column: Rtx-VMS ID: (mm) Dilution Factor: 1.00

Extract Volume: _____ (µl)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ppbV or ug/m3) ug/m3	Q
74-87-3	Chloromethane	0.42	U
156-59-2	cis-1,2-Dichloroethene	1.6	
10061-01-5	cis-1,3-Dichloropropene	0.92	U
110-82-7	Cyclohexane	19	
124-48-1	Dibromochloromethane	1.7	U
75-71-8	Dichlorodifluoromethane (Freon 12)	2.6	
100-41-4	Ethyl benzene	2.8	
87-68-3	Hexachlorobutadiene	2.2	U
110-54-3	Hexane	37	
67-63-0	Isopropanol	5.0	U
1330-20-7	m,p-Xylene	19	
1634-04-4	Methyl tert-butyl ether (MTBE)	0.73	U
75-09-2	Methylene chloride	0.71	U
142-82-5	n-Heptane	43	
95-47-6	o-Xylene	5.5	
100-42-5	Styrene	2.8	
109-99-9	Tetrahydrofuran (*)	1.3	
108-88-3	Toluene	91	
156-60-5	trans-1,2-Dichloroethene	0.81	U
10061-02-6	trans-1,3-Dichloropropene	0.92	U
79-01-6	Trichloroethene	180 ✓	
75-69-4	Trichlorofluoromethane (Freon 11)	2.7	
108-05-4	Vinyl acetate	0.72	U
75-01-4	Vinyl chloride	0.52	U

MJW 7/27/11

APPENDIX F

DETAILED COST ESTIMATE AND CALCULATIONS

Alternative 2 - Continued Operation of SVE with Land Use Institutional controls
Prepared By: ECS
Date: 1/12/2012
Checked By: RTB
Date: 1/12/2012

Task / Subtask / Assembly (1)	Description	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost	Comments/ Assumptions
ALTERNATIVE CAPITAL COSTS								
Institutional Controls (Year 0 only)								
33022037	Overnight Delivery, 8 oz Letter	4	EA	$ 13.18	$ -	$ -	$ 52.72	RSMeans 2004 ECHOS
33220102	Project Manager	32	HR	$ -	$ 51.77	$ -	$ 1,656.64	RACER 2007
33220105	Project Engineer	48	HR	$ -	$ 50.20	$ -	$ 2,409.60	RACER 2007
33220106	Staff Engineer	48	HR	$ -	$ 43.93	$ -	$ 2,108.64	RACER 2007
33220110	QA/QC Officer	8	HR	$ -	$ 42.34	$ -	$ 338.72	RACER 2007
33220114	Word Processing/Clerical	24	HR	$ -	$ 22.35	$ -	$ 536.40	RACER 2007
33220115	Draftsman/CADD	16	HR	$ -	$ 29.22	$ -	$ 467.52	RACER 2007
33220120	Computer Data Entry	16	HR	$ -	$ 20.08	$ -	$ 321.28	RACER 2007
33220505	Attorney, Senior Associate, Real Estate	6	HR	$ -	$ 175.00	$ -	$ 1,050.00 $ -	RACER 2007
33220509	Paralegal, Real Estate	6	HR	$ -	$ 100.00	$ -	$ 600.00	RACER 2007
33240101	Other Direct Costs	1	LS	$ 751.16	$ -	$ -	$ 751.16	RACER 2007
99041205	Portable GPS Set with Mapping,	1	MO	$ 689.22	$ -	$ -	$ 689.22	RACER 2007
99130602	Local Fees	2	LS	$ 200.00	$ -	$ -	$ 400.00	RACER 2007
	Task Subtotal						$ 11,381.90	
ALTERNATIVE ANNUAL AND PERIODIC COSTS								
Annual SSV OM&M (Assume planned operation of SSV system is 5 years)								
	Annual Inspection/Sampling Event	1	LS	$ -	$ 1,500.00	$ -	$ 1,500.00	one day labor and travel costs
	Quaterly Inspection (no sampling)	1	ea	$ -	$ 650.00	$ -	$ 650.00	SVE sucontractor quote
	Analytical for annual inspection	4	ea	$ 225.00	$ -	$ -	$ 900.00	lab only (1 samples per quarter)
	Electrical	1	LS	$ 100.00	$ -	$ -	$ 100.00	estimated fan usage
	Reporting for IRM	1	LS/annual	$ -	$ 3,500.00	$ -	$ 3,500.00	data management/annual O&M report
	Task Subtotal						$ 6,650.00	

APPENDIX F - PRESENT VALUE OF PERIODIC COSTS FOR ALTERNATIVE 2

Year	Cost*	Number of Annual Periods	Annual Discount Rate	Number of 5-Year Periods	5-Year Discount Rate	Number of 10-Year Periods	10-Year Discount Rate	Total Non-Discounted Cost	Present Value Cost
Capital (Year 0)	$ 19,000	1	0	NA	NA	NA	NA	$ 19,000.00	$ 19,000.00
Periodic Inspections and Reporting (Years 1-5)	$ 5,000	5	0.05	NA	NA	NA	NA	$ 25,000.00	$ 21,647.38
Long Term Monitoring (Years 1-5)	$ 4,000	5	0.05	NA	NA	NA	NA	$ 20,000.00	$ 17,317.91
Totals								**$ 64,000.00**	**$ 57,965.29**

*Annual and periodic costs include 10% for technical support and 25% contingency for unforeseen project complexities, including insurance, taxes, and licensing costs.
Capital costs include 25% contingency, as well as and project management, remedial design, and construction management costs per DER-10 guidance.

Alternative 3 – Restoration to Pre-Disposal Conditions

Task	Description	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost	Comments/ Assumptions
ALTERNATIVE CAPITAL COSTS								
Pre-Design Investigation								
Sampling Crew								
33010104	Sample collection, vehicle mileage charge, car or van	500	MI	$ 0.49	$ -	$ -	$ 245.00	
33220108	Project Scientist	150	HR	$ -	$ 70.87	$ -	$ 10,630.50	
Engineer's Estimate	Field Technician	75	HR	$ -	$ 75.00	$ -	$ 5,625.00	
33010202	Per Diem	5.00	DAY	$ 89.40	$ -	$ -	$ 447.00	
Subsurface Soil Sampling (five locations with five sample intervals and four locations with one interval)							$ 8,814.00	
33021720	Testing, purgeable organics (624, 8260)	60	EA	$ 146.90	$ -	$ -		
Drilling								
33010101	Mobilize/DeMobilize Drilling Rig & Crew	1	LS	$ 1,500.00	$ -	$ -	$ 1,500.00	
Engineer's Estimate	Geoprobe	5	DAY	$ 1,000.00	$ -	$ -	$ 5,000.00	20 borings to 20'
33231813	Portland Cement Grout	400	LF	$ 9.78	$ -	$ -	$ 3,912.00	
Surveying								
33029903	Ground penetrating radar	1	DAY	$ 1,327.28	$ -	$ -	$ 1,327.28	
99041201	Surveying - 2-man Crew	2	DAY	$ -	$ 1,004.76	$ 240.97	$ 2,491.46	
Bench Testing - Reagent		1	LS	$ 20,000.00			$ 20,000.00	Engineer's estimate
GW monitoring well installation								Assume 4 additional monitoring wells will be installed as part of pre-design investigation activities.
Eng. Est	Driller mobilization	1	LS	$ 1,000.00	$ -	$ -	$ 1,000.00	
Eng. Est	Drill - Day rate	2	EA	$ -	$ -	$ 2,500.00	$ 5,000.00	
Eng. Est	4" -solid pipe PVC sch40	80	LF	$ 4.83	$ -	$ -	$ 386.08	Assume 20 feet deep
33-21-13.10-8130	4" stainless steel well screen	40	LF	$ 157.00	$ -	$ -	$ 6,280.00	Assume 10 foot screens
Eng. Est	Sand pack	80	LF	$ 12.00	$ -	$ -	$ 960.00	
Eng. Est	Bentonite chips	40	LF	$ 5.00	$ -	$ -	$ 200.00	
Eng. Est	Wellhead/vault	4	LS	$ 1,000.00	$ -	$ -	$ 4,000.00	
	Task Subtotal						$ 77,818.32	
Mobilization and Temporary Facilities and Controls								
Temporary Utilities								
Eng. Est	Site Superintendent	240	HR	$ -	$ 100.00	$ -	$ 24,000.00	
Eng. Est	Site Foreman	240	HR	$ -	$ 75.00	$ -	$ 18,000.00	
99040101	Temporary Office 20' x 8'	1	MO	$ 206.42	$ -	$ -	$ 270.41	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
99140201	Temporary Storage Trailer 16' x 8'	1	MO	$ 80.72	$ -	$ -	$ 105.74	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
99040501	Portable Toilets	1	MO	$ 82.65	$ -	$ -	$ 108.27	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
01520.550.0140	Telephone utility fee	1	MO	$ 210.00	$ -	$ -	$ 245.49	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
MACTEC	Electrical utility fee	1	MO	$ 200.00	$ -	$ -	$ 200.00	
01520.550.0100	Field office expenses, office equipment rental, average	1	MO	$ 145.00	$ -	$ -	$ 169.51	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation

Alternative 3 – Restoration to Pre-Disposal Conditions

Task	Description	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost	Comments/ Assumptions
Dewatering/Wastewater Treatment System								
Eng. Est.	Frac EQ Tank	30	DAY	$ 30.00	$ -	$ -	$ 900.00	Assumes 20,000 gallon FRAC EQ tank could be used to store water and existing MPE treatment tailer could be used for treatment.
02240.500.1000	Pumping 8 hr., attended 2 hrs. per day, including 20 LF of suction hose and 100 LF of discharge hose, w/ 4" diaphragm pumped used 8 hrs.	30	DAY	$ -	$ 405.00	$ 83.00	$ 17,114.16	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
Temporary Discharge Monitoring								
Eng. Est.	Aqueous Sampling, Metals	30	EA	$ 130.00			$ 3,900.00	24-hr turn around expedited at additional 100% of cost
Eng. Est.	Aqueous Sampling, VOCs	30	EA	$ 140.00			$ 4,200.00	24-hr turn around expedited at additional 100% of cost
Decontamination Facility								
33290401	25 gpm, 1-1/2" discharge, cast iron sump pu	1	EA	$ -	$ -	$ 2,317.00	$ 3,035.27	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
33290704	50' Flexible, Product Discharge Hose	1	EA	$ -	$ -	$ 175.00	$ 229.25	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
02060.150.0300	3/4" crushed stone borrow, spread w/ 200 HP dozer, no compaction, 2 mi rt haul	56	CY	$ 27.50	$ 1.43	$ 3.12	$ 2,081.47	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation, assume 125 ft by 65 ft by one foot thick
02315.310.5100	Compaction, General, riding vibrating roller, 12" lifts, 4 passes	56	ECY	$ -	$ 0.16	$ 0.16	$ 20.78	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
3308544	60-mil Polymeric Liner, Very Low Density F	167	SY	$ 1.97	$ -		$ 430.12	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation, assume 135 ft by 75 ft
							$ 521.82	
33080534	16 oz/sy nonwoven geotextile	167	SY	$ 2.39	$ -			RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
33170814	1,800 psi pressure washer, 6HP, 4.8 gpm	1	EA	$ -	$ -	$ 1,635.00	$ 2,141.85	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
19040605	2,000 gal steel sump, aboveground w/ supports and fittings	1	EA	$ 2,233.00	$ 853.69	$ 123.26	$ 4,205.03	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
33170823	Operation of pressure washer, including water, soap, electricity, and labor	40	HR	$ -	$ -	$ 41.69	$ 2,184.56	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation, assume 4 hours per day
33410101	Pump and motor maintenance/repair	1	EA	$ -	$ -	$ 431.15	$ 564.81	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
Erosion and Sediment Control Measures								
18050206	Filter Barrier, Silt Fences, Vinyl, 3' High with 7.5' Posts	500	LF	$ 0.70	$ 1.41	$ -	$ 1,382.05	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation, around work area
Demolition and MPE Trailer Demobilization								
024113.17.5100	Bituminous Driveways	65	SY	$ -	$ 2.22	$ 1.63	$ 262.01	RSMeans 2009 Heavy Construction Cost Data adjusted by 1.047 multiplier for escalation
024113.17.5200	Concrete to 6" thick	903	SY	$ -	$ 5.55	$ 4.10	$ 11,412.47	RSMeans 2004 ECHOS adjusted by 1.31 multiplier for escalation
	C&D Debris Transportation and Disposal	8125	TON	$ -	$ 85.00	$ -	$ 690,625.00	Engineer's estimate
	Trailer Demobilization	1	EA	$ -	$ -	$10,000	$ 10,000.00	Engineer's estimate
	Monitoring and Extraction Well Removal 1.		LF	$ -	$ -	$20	$ 19.75	Engineer's estimate
1006 S. Clinton Ave. Building Demolition								
024116.17.2040	Single story concrete building - walls	0	SF	$ -	$ 2.31	$ -	$ -	RSMeans 2009 Heavy Construction Cost Data
024116.17.0400	Slab	125	SF	$ -	$ 5.85	$ -	$ 731.25	RSMeans 2009 Heavy Construction Cost Data
024116.17.1000	Footings	65	LF	$ -	$ 14.30	$ -	$ 929.50	RSMeans 2009 Heavy Construction Cost Data
	C&D Debris Transportation and Disposal	10	TON	$ -	$ 85.00	$ -	$ 850.00	Engineer's estimate
	Utility capping	1	LS	$ -	$ 1,000.00	$ -	$ 1,000.00	Engineer's estimate
	Permitting	1	LS	$ -	$ 500.00	$ -	$ 500.00	Engineer's estimate

Alternative 3 – Restoration to Pre-Disposal Conditions

Task	Description	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost	Comments/ Assumptions
Survey of Work/Stockpile Areas								
	Surveying - 2-man Crew	1	DAY	$ 1,500.00	$ -	$ -	$ 1,500.00	Engineer's estimate
	Task Subtotal						$ 803,840.56	
Excavation and Off-site Disposal of Site Soil								
Eng. Est.	Sheet Piling	1053	SF	$ 35.00	$ -	$ -	$ 38,596.01	Excavation perimeter for 10' excavation. Piling driven, extracted and salvaged.
Eng. Est.	Sheet Pile bracing and anchoring	1	LS	$ -	$ -	$ -	$ 38,596.01	Assume that excavation bracing will be 100% of sheet piling cost
Eng. Est.	Excavation, soil, loading for stockpile	15	BCY	$ -	$ -	$ -	$ -	Refer to Excavation Rate Calculations
Eng. Est.	Absorbent	1,270	LB	$ 2.25	$ -	$ -	$ 2,856.45	Refer to Alternative 3 Calculations; assumes 25 lb/cy-soil
Eng. Est.	Absorbent application	120	HR	$ 65.70	$ -	$ -	$ 8,254.55	RSMeans Heavy Construction Cost Data 2009., assume labor crew B6.
Clean Stockpile								
02315.490.0310	Hauling, excavated material, 12 CY dump truck, 1/4 mile RT	0	LCY	$ -	$ 0.79	$ 1.66	$ -	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
Eng. Est.	Stockpile construction and management	1	LS	$ 5,000.00	$ -	$ -	$ 5,000.00	Assumed cost for construction of stockpiles and erosion controls
311413.23.0020	Stockpile loadout and management	0	CY	$ -	$ 0.20	$ 0.47	$ -	Assumed cost for management of stockpiles.
Contaminated Stockpile								
02315.490.0310	Hauling, excavated material, 12 CY dump truck, 1/4 mile RT	17	LCY	$ -	$ 0.79	$ 1.66	$ 47.26	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
Eng. Est.	Stockpile construction and management	1	LS	$ 5,000.00	$ -	$ -	$ 5,000.00	Assumed cost for construction of stockpiles and erosion controls
311413.23.0020	Stockpile loadout and management	17	CY	$ -	$ 0.20	$ 0.47	$ 11.06	Assumed cost for management of stockpiles.
33021720	Testing, purgeable organics (624, 8260)	9	EA	$ 146.90	$ -	$ -	$ 1,322.10	Confirmation Sampling per NYSDEC DER-10. 1 sample per 900 sf bottom; no sidewall sampling due to sheet pile
Transportation and Disposal								
Vendor	Transportation and Disposal, VOCs less than 60 ppm	3047	TON	$ 115.88	$ -	$ -	$ 353,084.06	Refer to Disposal Cost Calculations
Vendor	Transportation and Disposal, VOCs between 60 and 180 ppm	1523	TON	$ 210.06	$ -	$ -	$ 320,013.28	Refer to Disposal Cost Calculations
Vendor	Transportation and Disposal, VOCs greater than 180 ppm	508	TON	$ 1,328.40	$ -	$ -	$ 674,578.13	Refer to Disposal Cost Calculations
	Task Subtotal						$ 1,447,358.89	
In-Situ Chemical Oxidation								
Contractor Costs								
Eng. Est	Mobilization	1	LS	$ -	$ -	$ 20,000.00	$ 20,000.00	
Eng. Est	Work Plan	1	LS	$ -	$ -	$ 10,000.00	$ 10,000.00	
Eng. Est	Field Technician	20	HR	$ -	$ 70.00	$ -	$ 1,400.00	
Eng. Est	Equipment	1	LS	$ -	$ -	$ 2,500.00	$ 2,500.00	
Vendor	Reagent	80,356	LB	$ 2.53			$ 203,300.01	Based on Carus product information
Eng. Est	Demobilization	1	LS	$ -	$ -	$ 15,000.00	$ 15,000.00	
	Task Subtotal						$ 252,200.01	

Alternative 3 – Restoration to Pre-Disposal Conditions

Task	Description	Quantity	Unit of Measure	Material Unit Cost	Labor Unit Cost	Equipment Unit Cost	Extended Cost	Comments/ Assumptions
Site Restoration								
Backfill excavation								
02315.490.0310	Hauling, clean excavated material, 12 CY dt truck, 1/4 mile RT	0	LCY	$ -	$ 0.79	$ 1.66	$ -	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
02315.210.4060	Borrow, Loading, commmon earth, 1-1/2 CY bucket	18	LCY	$ 8.25	$ 0.42	$ 0.25	$ 189.26	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
02315.490.0560	Hauling, excavated or borrow, loose CY, 12 CY dump truck, 20 mile round trip, 0.4 loads per hour	18	LCY	$ -	$ 5.80	$ 12.20	$ 381.91	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation, assume 10% fluff
02315.120.3220	Backfill, Structural, dozer or FE Loader, from existing stockpile, no compaction, 105 HP, 150' haul, common earth	18	LCY	$ -	$ 0.66	$ 0.76	$ 30.13	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation
02315.310.7000	Compaction, Walk behind, vibrating plate 18" wide, 6" lifts, 2 passes	18	ECY	$ -	$ 1.10	$ 0.13	$ 26.10	RSMeans Site Work & Landscape Cost Data 2006 adjusted by 1.169 multiplier for escalation, assume 10% consolidation
	Task Subtotal						$ 627.40	

ALTERNATIVE ANNUAL AND PERIODIC COSTS

NONE

PRESENT VALUE OF ANNUAL AND PERIODIC COSTS FOR ALTERNATIVE 3 – Restoration to Pre-Disposal Conditions

Year	Cost*	Number of Annual Periods	Annual Discount Rate	Number of 2-Year Periods	2-Year Discount Rate	Number of 4-Year Periods	4-Year Discount Rate	Total Non-Discounted Cost	Present Value Cost
Capital (Year 0)	$ 3,720,000	1	0	NA	NA	NA	NA	$ 3,720,000.00	$ 3,720,000.00
Quarterly Monitoring (Years 1-2)	$ -	2	0.05	NA	NA	NA	NA	$ -	$ -
Semi-Annual Monitoring (Years 3-4)	$ -	2	0.05	1	0.1025	NA	NA	$ -	$ -
Annual Monitoring (Years 5-30)	$ -	26	0.05	NA	NA	1	0.215506	$ -	$ -
Annual Performance Reporting (Years 1-30)	$ -	30	0.05	NA	NA	NA	NA	$ -	$ -
Totals								**$ 3,720,000.00**	**$ 3,720,000.00**

*Annual and periodic costs include 10% for technical support and 15% contingency for unforeseen project complexities, including insurance, taxes, and licensing costs.
Capital costs include 25% contingency, as well as project management, remedial design, and construction management costs per DER-10 guidance.
Discount rate of 5% (for 30-years) percent based on NYSDEC PRAP Outline / Instructions.

Demolition and Disposal

Building

Length	125	ft			
Width	65	ft			
Height	12	ft			
Wall Area	4560	ft^2	Assume 6" thick concrete block walls		
Floor area	8125	ft^2	Assume 6" thick concrete slab on grade		
Footing length	380	ft	Assume concrete footing, 1' thick, 2 ' wide		
Volume	7103	ft^3			
Weight	515	tons	Assume density =	145	lb/cf

Excavation Volume

Length	125	ft			
Width	65	ft			
Area	8125	ft^2			
Depth	10	ft			
Volume	81250	ft^3			
Volume	3009	yd^3			
Tonnage	5078	tons	Assume density =	125	lb/cf

Absorbent Quantity

Waste Lock 770=	75231	lbs	Assume absorbent ratio =	25	lb/cy

Sheet Piling

Perimeter	380	ft			
Depth	15	ft	Assume depth into weathered bedrock of 15'		
Area	5700	ft^2			

Dipsosal Characaterization

Clean soil	752	yd^3	25%		
Tonnage	1270	tons			
> 180 ppm	301	yd^3	10%		
Tonnage	508	tons	Assume density =	3375	lb/cy
180 ppm > x > 60 ppm	903	yd^3	30%		
Tonnage	1523	tons			
< 60 ppm	1053	yd^3	35%		
Tonnage	1777	tons			

Estimated Bedrock Contamination (including downgradient)

	10ppm	5ppm			
Area	4063	4063	ft^2		
GW Depth	10	10	ft		
GW Volume	10156	10156	ft^3	Assume porosity =	0.25
Contaminant Conc	10	5	ppm		
Contaminant Mass	6	3	lb		

Estimated Saturated Contamination Downgradient

	10ppm			
Area	0	ft^2		
GW Depth	10	ft		
GW Volume	0	ft^3	Assume porosity =	0.43
Contaminant Conc	10	ppm		
Contaminant Mass	0	lb		

Site Restoration

Area	8937.5	ft^2	Building Area +10%

Excavation Unit Cost Calculation Based on Crew and Equipment Production Rates, Source Soils

Production			
1. Excavated volume of soil	**3,009**	bcy	
2. Excavator	Typ. Hyd.		
3. Bucket Size	**2.5**	cy	
4. Bucket Fill Factor	**90%**		Note 1
5. CY/bucket	2.3	cy	
6. Operator/Site Efficiency	**25%**		Note 2
7. Cycles/minute	1.5		Note 3
8. Actual cycles/minute	0.375	cycles/min	
9. LCY/minute	0.8	lcy/min	
10. Productive minutes/hour	**49**	min/hr	Note 4
11. LCY/hour	41.3		
12. Hours/day	8	hrs/day	
13. LCY/day	330.75	lcy/day	
14. BCY/day	298	bcy/day	Note 5
15. Days to complete	11.1		
16. Crew Hours	96.0		Note 6

Bucket Fill Factors	
Moist Loam Sandy Soil	100-110%
Sand & Gravel	95-110%
Hard Tough Clay	80-90%
Rock - Well Blasted	60-75%
Rock - Poorly Blasted	40-50%

Labor and Equipment Costs

Unit	Quantity	Rate	Hours	Cost
1. Laborer	1	$31.60	96.0	$3,033.60
2. Operator	1	$41.35	96.0	$3,969.60
3. Excavator	1	$202.38	96.0	$19,428.00

Diesel

Machine	HP	$/gallon	Gallons/hr	Cost
Typ. Hyd.	222	$3.25	12.68	$3,956.36

Total Excavation Costs (Note 7)	
Lump Sum	$30,387.56
Cost/BCY	$10.10

Notes:

1. See "Bucket Fill Factors Table".
2. All inefficiencies are carried in the "Operator/Site Efficiency" line item.
3. "Cycles/minute" line item assumes 100% efficiency.
4. "Productive minutes/hour" accounts for time lost to:safety talk, nonproductive time before/after breaks, early breakdown.

calculation:		
	8	hr work day
	15	minute safety talk
	15	minutes post talk prior to productive work
	10	minutes nonproductive time before and after coffee break (20 min total)
	10	minutes nonproductive time before and after lunch break (20 min total)
	15	minutes nonproductive time at end of day
	85	nonproductive minutes/day
	11	nonproductive minutes/hour
	49	productive minutes/hour

5. Assume 10% shrink/swell conversion between bank cubic yards (bcy) and loose cubic yards (lcy).
6. Assume hours are rounded up to the nearest whole day.
7. Total excavation cost estimate does not include mobilization/demobilization or transportation.

Prepared by: KAW 12/21/11
Checked by: MJS 1/9/12

RemOx® S and L ISCO Reagents Estimation Spreadsheet

Input data into boxes with blue font.

Proj/Area: Dinaburg Distributing - Alt 3 10ppm Backfill and Groundwater. NOD=2

	Estimates	Units
Treatment Area Volume		
Length	-	ft
Width	-	ft
Area	4063	sq ft
Thickness	10	ft
Total Volume	1505	cu yd
Soil Characteristics/Analysis		
Porosity	30	%
Total Plume Pore Volume	91169	gal
Avg Contaminant Conc	-	ppm
Mass of Contaminant	6.00	lb
PNOD	2	g/kg
Effective PNOD	100	%
Effective PNOD Calculated	2	
PNOD Oxidant Demand	8937.5	lb
Avg Stoichiometric Demand	2.4	lb/lb
Contaminant Oxidant Demand	14.40	lb
Theoretical Oxidant Demand	8951.90	lb
Confidence Factor	2	
Calculated Oxidant Demand	17903.8	
Injection Volumes for RemOx S		
RemOx S Injection Concentration	2.5%	%
Total Volume of Injection Fluid	85,818	gal
Pore Volume Replaced	94.13	%
Amount of RemOx S ISCO Reagent Estimated		**17,904 pounds**
Injection Volumes for RemOx L		
RemOx L Injection Concentration	40.0%	%
Calculated Specific Gravity	1.366492	g/ml
Total Volume of Injection Fluid	3,525	gal
Pore Volume Replaced	3.87	%
Amount of RemOx L ISCO Reagent Estimated		**40,194 pounds**
		3,517 gallons

RemOx® S and L ISCO Reagents Estimation Spreadsheet

Input data into boxes with blue font.

Proj/Area: Dinaburg Distributing - Alt 3 5ppm Groundwater. NOD=2

	Estimates	Units
Treatment Area Volume		
Length	-	ft
Width	-	ft
Area	4063	sq ft
Thickness	10	ft
Total Volume	1505	cu yd
Soil Characteristics/Analysis		
Porosity	30	%
Total Plume Pore Volume	91169	gal
Avg Contaminant Conc	-	ppm
Mass of Contaminant	3.00	lb
PNOD	2	g/kg
Effective PNOD	100	%
Effective PNOD Calculated	2	
PNOD Oxidant Demand	8937.5	lb
Avg Stoichiometric Demand	2.4	lb/lb
Contaminant Oxidant Demand	7.20	lb
Theoretical Oxidant Demand	8944.70	lb
Confidence Factor	2	
Calculated Oxidant Demand	17889.4	
Injection Volumes for RemOx S		
RemOx S Injection Concentration	2.5%	%
Total Volume of Injection Fluid	85,749	gal
Pore Volume Replaced	94.06	%

Amount of RemOx S ISCO Reagent Estimated **17,889 pounds**

Injection Volumes for RemOx L		
RemOx L Injection Concentration	40.0%	%
Calculated Specific Gravity	1.366492	g/ml
Total Volume of Injection Fluid	3,522	gal
Pore Volume Replaced	3.86	%

Amount of RemOx L ISCO Reagent Estimated **40,162 pounds**
3,514 gallons