Revitalizing Auto Communities
Environmental Response Trust

August 9, 2017

Mr. Jacky Luo
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Re: RACER Trust – General Motors – Fisher Guide Site –
NYSDEC Order on Consent Index #D-7-0853-15-06
Indoor Air Sampling Work Plan

Dear Mr. Luo:

As a follow-up to analytical results from the March 2017 indoor air sampling conducted at the facility, RACER Trust proposes to collect an additional round of indoor air samples at the facility.

Indoor Air Monitoring

RACER proposes to collect eight indoor air samples from within the manufacturing building. In addition, one ambient air sample will be collected from a location upwind outside of the former manufacturing building. One duplicate indoor air sample will also be collected. The proposed sample locations within the former manufacturing building are consistent with previously sampled locations and are depicted on the attached figure. The results for the volatile organic compounds 1,1,1-Trichloethane, Tetrachloroethene, and Trichloroethene for indoor air samples collected in 2012, 2014 and 2017 are also summarized on the attached figure.

Sampling procedures will be as outlined in the February 27, 2006 Vapor Intrusion (VI) Investigation Work Plan (WP) (Attached). This work plan was approved by the Department in its letter of March 17, 2006. Analytical methods will be as outlined in the February 27, 2006 VI Monitoring WP, but the list of analytes will be modified. Specifically, the air samples will be submitted for laboratory analysis using Method TO-15 for the following list of target compounds:

Tetrachloroethene
Trichloroethene

1,1,1-Trichlorothane

The analysis will be conducted using Selected Ion Monitoring (SIM) technique. Consistent with the October 1, 2009 VI Monitoring WP Addendum, the following target reporting limits will be requested from the analytical laboratory:

- Approximately 0.25 micrograms per cubic meter or less for trichloroethene
- Approximately 1.0 micrograms per cubic meter for the remaining compounds.

Evaluation of Sub-slab Depressurization Systems

During the indoor air sampling event, the Sub-slab depressurization systems will also be evaluated. This will consist of sub-slab pressure readings at four communication test points, as illustrated on Figure 2. Pressure readings will be collected using a portable digital micro-manometer.

Reporting

Following data validation, the indoor air analytical results will be summarized in a table and provided to the Department. The pressure readings will also be provided. Figures will be provided illustrating the sample and pressure reading locations.

Please contact me at (201) 247 – 4890 should you have any questions or require further information.

Sincerely,

M. Brendan Mullen, P.E., BCEE
Cleanup Manager, NY

I:\Racer-Trust.15388\65427.2017-Vi-65427\Docs\Reports\August 2017 IA Sampling WP\OU-1 IA Sampling WP_rev2.docx

Attachments:

Figure 1 - Proposed Indoor Air Sample Locations
Figure 2 – Proposed Communication Test Points
Attachment 1 - October 1, 2009 VI Monitoring Work Plan Addendum, February 27, 2006 VI Investigation Work Plan

cc: Distribution List

Syracuse Main Plant Site (OU-1) RI/FS Program Distribution List - RACER Team

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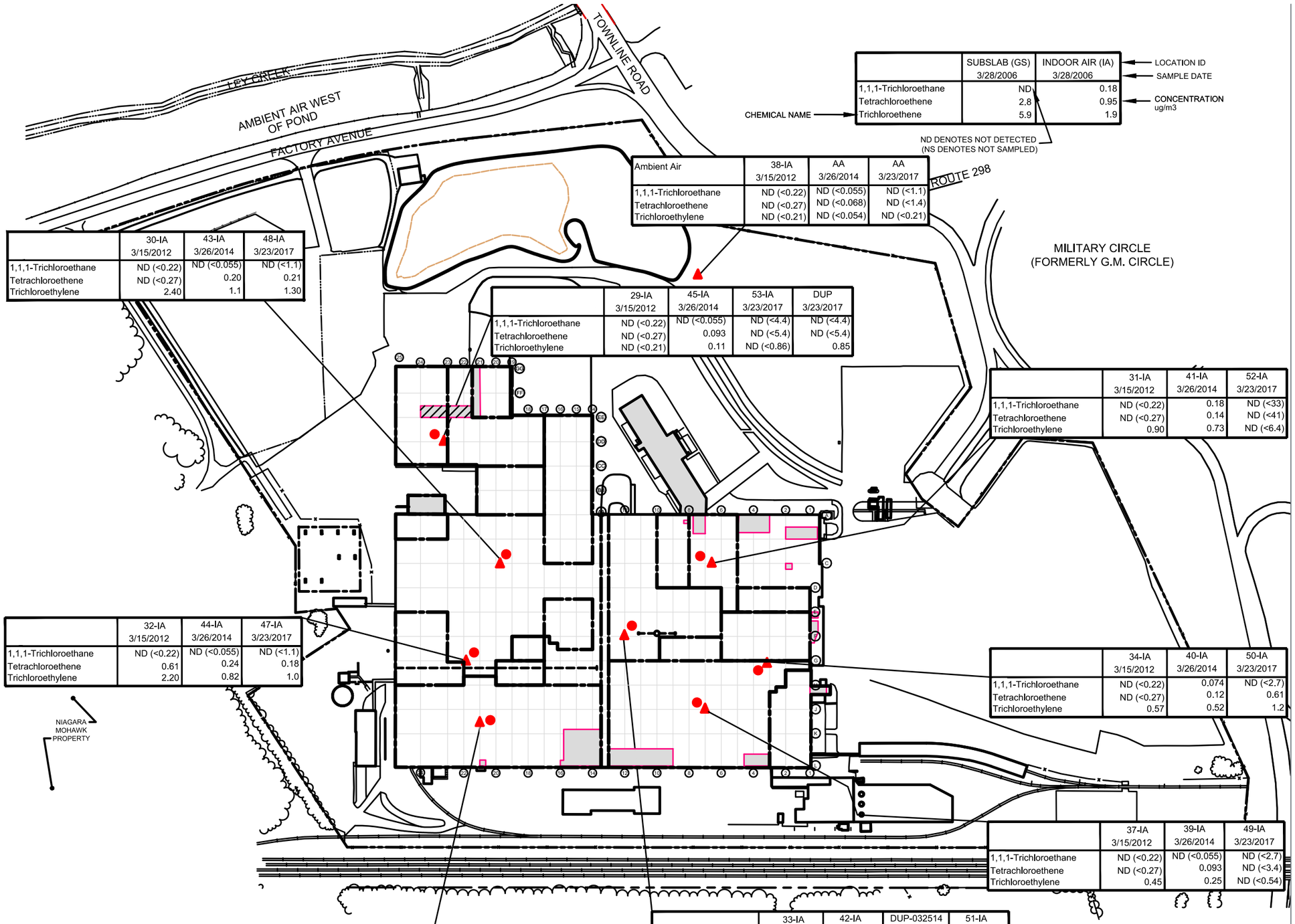
FIGURES



	SUBSLAB (GS) 3/28/2006	INDOOR AIR (IA) 3/28/2006
1,1,1-Trichloroethane	ND	0.18
Tetrachloroethene	2.8	0.95
Trichloroethene	5.9	1.9

CHEMICAL NAME

LOCATION ID

SAMPLE DATE

CONCENTRATION ug/m3

ND DENOTES NOT DETECTED (NS DENOTES NOT SAMPLED)

Ambient Air	38-IA 3/15/2012	AA 3/26/2014	AA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	ND (<0.055)	ND (<1.1)
Tetrachloroethene	ND (<0.27)	ND (<0.068)	ND (<1.4)
Trichloroethylene	ND (<0.21)	ND (<0.054)	ND (<0.21)

	30-IA 3/15/2012	43-IA 3/26/2014	48-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	ND (<0.055)	ND (<1.1)
Tetrachloroethene	ND (<0.27)	0.20	0.21
Trichloroethylene	2.40	1.1	1.30

	29-IA 3/15/2012	45-IA 3/26/2014	53-IA 3/23/2017	DUP 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	ND (<0.055)	ND (<4.4)	ND (<4.4)
Tetrachloroethene	ND (<0.27)	0.093	ND (<5.4)	ND (<5.4)
Trichloroethylene	ND (<0.21)	0.11	ND (<0.86)	0.85

	31-IA 3/15/2012	41-IA 3/26/2014	52-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	0.18	ND (<33)
Tetrachloroethene	ND (<0.27)	0.14	ND (<41)
Trichloroethylene	0.90	0.73	ND (<6.4)

	32-IA 3/15/2012	44-IA 3/26/2014	47-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	ND (<0.055)	ND (<1.1)
Tetrachloroethene	0.61	0.24	0.18
Trichloroethylene	2.20	0.82	1.0

	34-IA 3/15/2012	40-IA 3/26/2014	50-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	0.074	ND (<2.7)
Tetrachloroethene	ND (<0.27)	0.12	0.61
Trichloroethylene	0.57	0.52	1.2

	37-IA 3/15/2012	39-IA 3/26/2014	49-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	ND (<0.055)	ND (<2.7)
Tetrachloroethene	ND (<0.27)	0.093	ND (<3.4)
Trichloroethylene	0.45	0.25	ND (<0.54)

	35-IA 3/15/2012	DUP-031512 3/15/2012	38-IA 3/26/2014	46-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	ND (<0.22)	ND (<0.55)	ND (<1.1)
Tetrachloroethene	0.66	0.73	0.20	0.65
Trichloroethylene	0.84	0.85	0.31	6.4

	33-IA 3/15/2012	42-IA 3/26/2014	DUP-032514 3/26/2014	51-IA 3/23/2017
1,1,1-Trichloroethane	ND (<0.22)	0.073	0.070	1.4
Tetrachloroethene	ND (<0.27)	0.13	0.15	ND (<1.4)
Trichloroethylene	0.89	0.56	0.50	0.9

LEGEND

- PROPERTY LINE
- TREE LINE
- FENCE
- GUARDRAIL
- TENANT SPACE OUTLINES
- OFFICE AREA
- 2ND FLOOR AREA
- SUB-SLAB DEPRESSURIZATION SYSTEM
- AIR SAMPLE LOCATION
- PROPOSED AIR SAMPLE LOCATION

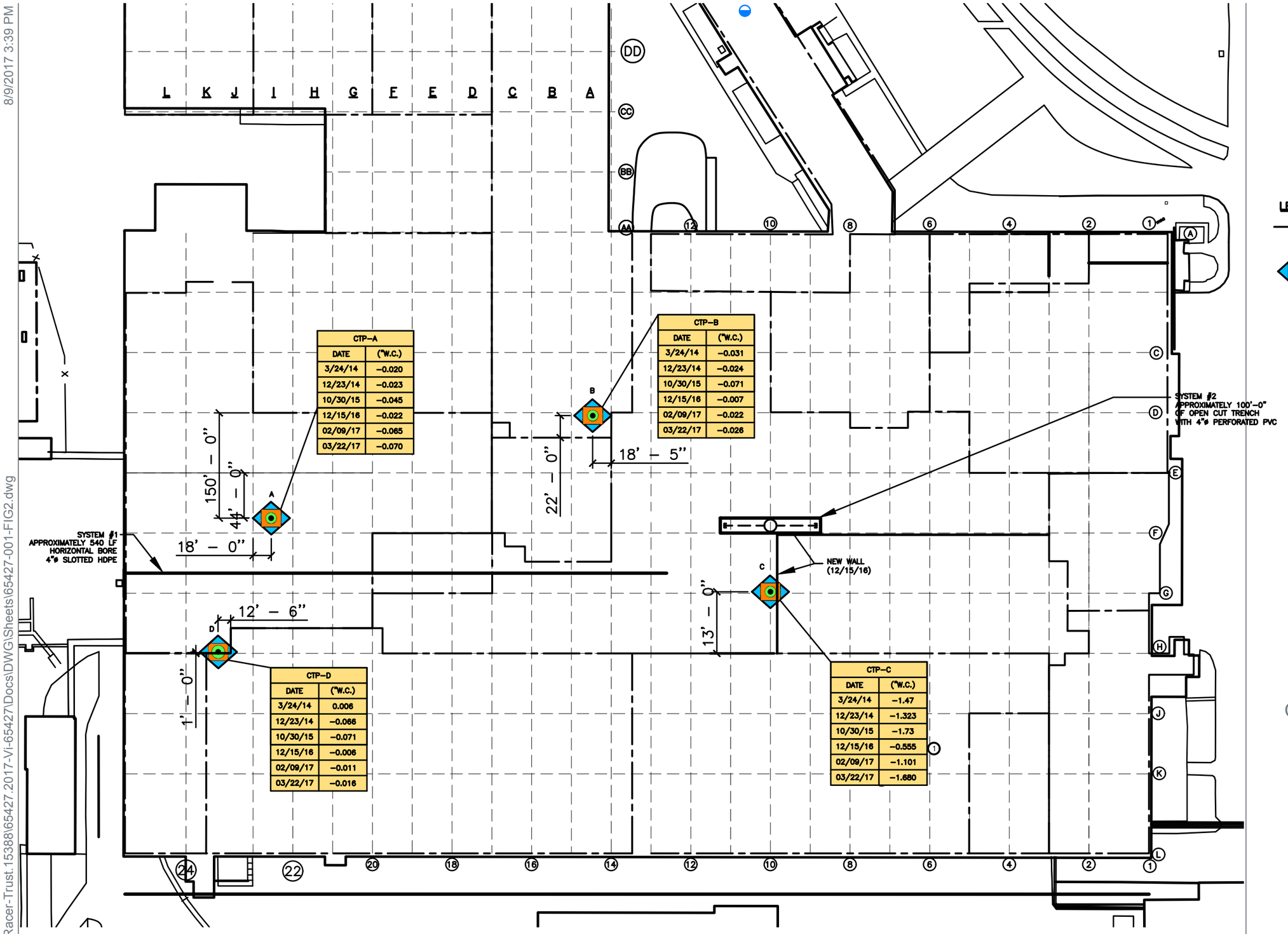
RACER TRUST
FORMER INLAND
FISHER GUIDE FACILITY
SYRACUSE, NEW YORK

INDOOR AIR SAMPLING LOCATIONS

1"=250' 250 0 250

FILE NO. 15388.65427-001
AUGUST 2017

O'BRIEN & GERE ENGINEERS, INC.



CTP–A	
DATE	("W.C.)
3/24/14	–0.020
12/23/14	–0.023
10/30/15	–0.045
12/15/16	–0.022
02/09/17	–0.065
03/22/17	–0.070

CTP–B	
DATE	("W.C.)
3/24/14	–0.031
12/23/14	–0.024
10/30/15	–0.071
12/15/16	–0.007
02/09/17	–0.022
03/22/17	–0.026

CTP–C	
DATE	("W.C.)
3/24/14	–1.47
12/23/14	–1.323
10/30/15	–1.73
12/15/16	–0.555 (1)
02/09/17	–1.101
03/22/17	–1.680

CTP–D	
DATE	("W.C.)
3/24/14	0.006
12/23/14	–0.066
10/30/15	–0.071
12/15/16	–0.006
02/09/17	–0.011
03/22/17	–0.016

PLAN

LEGEND

TENANT SPACE OUTLINES

A — PERMANENT COMMUNICATION TEST POINT (CTP). THE LETTER ABOBE THEW SYMBOL INDICATES THE CTP ID, THE PRESSURE READING IS MEASURED IN UNITS OF INCHES OF WATER COLUMN ("W.C)

NOTES:

(1) CTP–C WAS RELOCATED 13' NORTH, ALONG COLUMN LINE 10 (ON 12/15/16) DUE TO THE NEW DIMISING WALL CONSTRUCTION.

RACER TRUST
FORMER INLAND
FISHER GUIDE FACILITY
SYRACUSE, NEW YORK

COMMUNICATION TEST POINT LOCATIONS

15388.65427-001
AUGUST 2017

O'BRIEN & GERE ENGINEERS, INC.

ATTACHMENT 1

October 1, 2009 VI Monitoring Work Plan Addendum

February 27, 2006 VI Investigation Work Plan

BOW
ENVIRONMENTAL
SOLUTIONS INC.

October 1, 2009

Ms. Susan Edwards, P.E.
Bureau of Central Remedial Action
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th floor
Albany, New York 12233

Re: General Motors- Former IFG Facility (Registry # 7-34-057) and Ley Creek Deferred Media Site NYSDEC Administrative Order on Consent Index # D-7-0001-97-06
Vapor Intrusion Monitoring Work Plan Addendum

Dear Ms. Edwards:

The following letter is an Addendum to the July 9, 2009 Vapor Intrusion Monitoring Work Plan. This Addendum addresses the New York State Department of Environmental Conservation's (Department's) comments on the July 9, 2009 Work Plan and provides additional sampling that Motors Liquidation Company (MLC) proposes for the site.

As requested by the Department, MLC will be submitting the indoor air samples for the following additional analytes:
1,1,1-Trichloroethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
Chloroethane

As requested by the Department, MLC will request that the analytical laboratory provide the analytical results reported to analytical reporting limits of 0.25 mcg/m3 (micrograms per cubic meter) or less for trichloroethene, and approximately 1.0 mcg/m3 for the remaining compounds being reported on the EPA Method TO-15 list.

In addition to the above-listed modifications to the July 9, 2009 Work Plan, MLC proposes to collect seven additional subslab soil vapor samples. The location of the proposed samples is depicted on Figure 1. The additional subslab soil vapor samples will be collected for use in the evaluation and design of an indoor air mitigation pilot system.

Subslab soil vapor sampling procedures will be as outlined in the February 27, 2006 VI Investigation Work Plan. This work plan was approved by the Department in its letter of March 17, 2006. Analytical methods will be as outlined in the February 27, 2006 VI Investigation Work Plan, with the following exceptions:

Subslab soil vapor analyses are proposed to be limited to those VOCs perceived to be of concern as described in Section 2.3 of the February 27, 2006 VI Investigation Work Plan and

based on analytical results from the 2006 and 2007 sampling events. Specifically, the soil vapor samples will be submitted for laboratory analysis using Method TO-15 for the following constituents:

cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
Ethylbenzene
Methylene Chloride
Tetrachloroethene
Toluene
Trichoroethane
Trichloroethene
Vinyl Chloride
Xylene

Given the concentrations detected during previous rounds of sub-slab air samples, the target reporting limit for these constituents will be 0.5 ppbv.

If the Department concurs with the modifications described in this Addendum, MLC anticipates conducting the indoor air and subslab sampling during the week of October 12, 2009.

Please contact me at (937) 478 - 8221 should you have any questions or require further information.

Sincerely,

Pamela L. Barnett

Pamela L. Barnett, PG
Project Manager
BOW Environmental Solutions, Inc. on behalf of GM

Enclosure
Distribution

Sep 29, 2009 - 1:46pm

FIGURE 1

LEY CREEK

TOWNLINE ROAD

FACTORY AVENUE

ROUTE 298

LOCATION ID

1	SUBSLAB (GS) 3/28/2006	INDOOR AIR (IA) 3/28/2006
1,1,1-Trichloroethane	ND	0.18
Tetrachloroethene	2.8	0.95
Trichloroethene	5.9	1.9

SAMPLE DATE

CHEMICAL NAME

CONCENTRATION ug/m3

ND DENOTES NOT DETECTED

7	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	1.1	ND
Tetrachloroethene	1.9	3.9
Trichloroethene	100	310

13	GS 3/7/2007	IA 3/7/2007
Tetrachloroethene	1.6 J	530/540
Trichloroethene	1.9 J	2.6/2.3

8	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	ND	ND
Tetrachloroethene	3.1	1.5
Trichloroethene	100	18

NIAGARA MOHAWK PROPERTY

12	GS 3/7/2007	IA 3/7/2007
Tetrachloroethene	ND	1.4
Trichloroethene	2800	130

9	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	ND	ND
Tetrachloroethene	ND	2.9
Trichloroethene	4100	26

14	GS 3/7/2007	IA 3/7/2007
Tetrachloroethene	ND	ND
Trichloroethene	6000	17

11	GS 3/7/2007	IA 3/7/2007
Tetrachloroethene	ND/ND	ND
Trichloroethene	340000/330000	7.9

MILITARY CIRCLE
(FORMERLY G.M. CIRCLE)

1	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	ND	0.18
Tetrachloroethene	2.8	0.95
Trichloroethene	5.9	1.9

6	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	ND/ND	ND
Tetrachloroethene	75/56	2.3
Trichloroethene	7000/7000	86

2	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	87	1.5/1.4
Tetrachloroethene	ND	1.7/1.5
Trichloroethene	ND	37/35

10	GS 3/7/2007	IA 3/7/2007
Tetrachloroethene	2.6 J	0.99 J
Trichloroethene	610	2.0

5	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	ND	ND
Tetrachloroethene	ND	1.6
Trichloroethene	1900000	39

3	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	65	ND
Tetrachloroethene	ND	1.4
Trichloroethene	190	30

4	GS 3/28/2006	IA 3/28/2006
1,1,1-Trichloroethane	1400	ND
Tetrachloroethene	68	ND
Trichloroethene	970	15

15	GS 3/7/2007	IA 3/7/2007
Tetrachloroethene	ND	ND
Trichloroethene	170	1.8

LEGEND

- PROPERTY LINE
- TREE LINE
- FENCE
- GUARDRAIL
- TENANT SPACE OUTLINES
- 2006 AIR SAMPLE LOCATIONS
- 2007 AIR SAMPLE LOCATIONS
- 2006/2007 AIR SAMPLE LOCATIONS ABOVE 5ug/M^3 IA, AND 50 ug/M^3 GS
- OFFICE AREA
- 2ND FLOOR AREA
- 2009 PROPOSED SAMPLE LOCATIONS

MOTORS LIQUIDATION COMPANY

GM-FORMER INLAND
FISHER GUIDE FACILITY
SYRACUSE, NEW YORK

2009 PROPOSED SUBSLAB SAMPLING LOCATIONS

0 250 500

SCALE IN FEET

FILE NO. 14774.45148
SEPTEMBER 2009

O'BRIEN & GERE
ENGINEERS INC.

I:\Mtc.14774\45148.Main-Plant-Proj\Docs\DWG\PropLocs2010_Rev.dwg

Syracuse Main Plant RI/FS Program Distribution List - Government Agencies

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New York State Department of Health
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New York, New York 10007-1866

WORK PLAN

Vapor Intrusion Investigation Work Plan Former Inland Fisher Guide Facility and Ley Creek Deferred Media

General Motors Corporation
Syracuse, New York

February 2006

4966/34128

WORK PLAN

Vapor Intrusion Investigation
Former Inland Fisher Guide Facility
and Ley Creek Deferred Media

General Motors Corporation
Syracuse, New York

Douglas M. Crawford, P.E.
Vice President

February 2006

O'BRIEN & GERE
ENGINEERS, INC.

Contents

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1. Introduction

General Motors Corporation (GM) has retained O'Brien & Gere to prepare this Vapor Intrusion Work Plan to define the activities proposed to assess the potential presence of site-related chemicals in soil gas. This project is specifically focused on delineation of the potential vapor intrusion pathway, and the extent to which this pathway may impact potential receptors.

This document has been prepared pursuant to a letter received by GM from the New York Department of Environmental Conservation (NYSDEC), dated July 6, 2005. This document is intended to communicate elements of work to be performed and the timing and sequence of these elements.

1.1. Purpose and objectives

The purpose of this document is to communicate elements associated with the planning and execution of a program of site-specific soil gas, indoor air and ambient air quality sampling, laboratory analysis, and data management activities. This work is proposed to aid in confirming the presence or absence of the vapor intrusion potential attributable to contaminated ground water, with the goal of identifying whether on-site or off-site structures are, or may be, impacted by vapor intrusion.

1.2. Site description and background

GM and NYSDEC entered into an Administrative Order on Consent (Index # D-7-0001-97-06; Order) on September 25, 1997, for the development and implementation of a Remedial Investigation/Feasibility Study (RI/FS) at the Former Inland Fisher Guide (IFG) Facility and the Ley Creek Deferred Media (collectively designated the site) located in the Town of Salina, Onondaga County, New York. The location of the site is presented in Figure 1-1.

The Former IFG Facility is classified as a Class 2 site on the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites (Site No. 7-34-057). The Ley Creek Deferred Media include ground water underlying the Ley Creek PCB Dredgings site, which is also a Class 2 site on NYSDEC's Registry (Site No. 7-34-044), as well as surface water and sediment in Ley Creek between Townline Road and Route 11. The Former IFG Facility and the Ley Creek PCB Dredgings site were also designated as sub-sites of the Onondaga Lake National Priorities List

(NPL) site by NYSDEC and United States Environmental Protection Agency (USEPA).

The facility is currently being redeveloped for tenant use. To date, various tenants occupy space or are preparing to occupy space in the main manufacturing building. These tenants perform light industrial, packaging and warehousing activities. The former Administration Building is currently used for office space for various tenants.

A Preliminary RI/FS Report for the site (O'Brien & Gere 1997) was developed by O'Brien & Gere on behalf of GM. The Preliminary RI/FS Report was submitted to NYSDEC, consistent with the requirements of the Order, on October 24, 1997.

A Supplemental RI/FS Work Plan (Work Plan) was initially submitted to NYSDEC on June 28, 1998 (O'Brien & Gere 1998a) and the Final Supplemental RI/FS Work Plan (Final Work Plan) was submitted to NYSDEC on November 2, 1999 (O'Brien & Gere 1999b).

The Supplemental RI was performed in November 1999. An Analytical Data Summary Report (O'Brien & Gere 2000a) was submitted to NYSDEC on February 9, 2000. This document was the analytical data summary report for the manufacturing building and surrounding property areas as well as Ley Creek Deferred Media including high flow surface water and ground water data. This document summarized the ground water sampling, soil/source area sampling, and high flow surface water sampling and presented the analytical data obtained through these sampling efforts.

A Supplemental RI Report for the site (O'Brien & Gere 2000b) was prepared by O'Brien & Gere on behalf of GM. The Supplemental RI Report was submitted to NYSDEC on April 20, 2000.

A Supplemental RI Addendum Work Plan (Hartnett 2000a) was submitted on April 28, 2000. NYSDEC approved the Supplemental RI Addendum Work Plan on May 5, 2000 (Benjamin 2000a). The Supplemental RI Addendum Work Plan was further amended in letters dated June 30, 2000 (Hartnett 2000b) and August 8, 2000 (Hartnett 2000c). These amendments were approved by NYSDEC in letters dated July 12, 2000 and August 15, 2000 (Benjamin 2000b, 2000d), respectively. Findings of the Supplemental RI Addendum were reported in letters dated October 27, 2000, and January 11, 2001 (Hartnett 2000e, 2001a).

An indoor air sampling plan was submitted to NYSDEC on July 11, 2000 (Hartnett 2000d). NYSDEC provided written approval of the indoor air sampling plan in a letter dated July 12, 2000 (Benjamin 2000c). A copy of the indoor air sampling results, which were previously communicated to NYSDEC, is included as Appendix A.

An Analytical Data Summary Report (O'Brien & Gere 2000c) was submitted to NYSDEC on November 16, 2000. This document summarized analytical data obtained from an additional investigation to evaluate the extent of volatile organic compound (VOC) impacts on ground water in the deep overburden zone at the eastern and northeastern boundaries of the site and adjacent off-site areas. Because routine surface impoundment ground water monitoring was conducted in conjunction with the Supplemental RI Addendum, these data were also included in this report. In addition, data obtained during an indoor air quality investigation were also included in this report.

Following the Supplemental RI Addendum, additional data needs were identified in a letter dated March 2, 2001 (Hartnett 2001b). The proposed additional sampling was approved by NYSDEC in a letter dated April 12, 2001 (Benjamin 2001).

The additional sampling described in GM's letter dated March 2, 2001 was performed on July 30, 2001. An Analytical Data Summary Report (O'Brien & Gere 2001b) was submitted to NYSDEC October 24, 2001. This document summarized analytical ground water data obtained from the new monitoring wells located on Remediation and Liability Management Company, Incorporated (REALM – a wholly owned GM subsidiary) property adjacent to Ley Creek, a new monitoring well located on Onondaga County property, and a new monitoring well located behind the Mold Storage Building.

In a letter dated November 20, 2002 (Benjamin 2002b) from NYSDEC, GM received comments on the SRI report dated April 2000, as well as the addenda investigation reports dated October and November 2000, and March 2001, which required additional sampling to be performed. GM proposed to perform additional sampling to the Department in letters dated May 2, 2003 (Hartnett 2003a) and July 10, 2003 (Hartnett 2003b). These letters were approved by NYSDEC in letters dated May 13, 2003 (Benjamin 2003a) and August 8, 2003 (Benjamin 2003b), respectively. GM provided NYSDEC a response letter dated September 22, 2003 (Hartnett 2003c) to the November 20, 2002 NYSDEC comment letter.

Additional sampling described in letters from GM dated May 2, 2003 and July 10, 2003 was performed from October 8 through 13, 2003. Analytical data collected during the October 2003 sampling event was presented in an Analytical Data Summary Report (O'Brien & Gere 2004), which was submitted to NYSDEC on February 20, 2004. This document summarized analytical ground water data from an on-site monitoring well, soil samples collected from background soil borings, wetland sediment samples collected on Niagara Mohawk property adjacent to the Site, and floodplain soil samples collected on properties west of the Site along the banks of Ley Creek.

NYSDEC has requested that GM investigate the potential existence and extent of soil gas associated with ground water containing constituents of

concern (COCs) in the vicinity of the Former IFG Facility. Consequently, GM intends to implement a vapor intrusion investigation within a planned study area where such COCs are considered to be potentially present based on available ground water quality data.

As an interim step in the process, GM voluntarily performed sub-slab soil vapor sampling in two sections (the central and southern portions) of the Administration Building on May 5, 2005. The purpose of this sampling effort was to confirm that sub-slab concentrations of COCs do not present an immediate health hazard to the current tenants of the Administration Building.

In general, test results from the Administration Building indicated that minor concentrations of COCs were present in sub-slab vapors, but that with projected attenuation across the slab, resultant indoor air concentrations were not likely to exceed relevant comparison criteria.

This sub-slab sampling effort indicated that ethylbenzene was present in the highest concentrations (ranging from 35 to 74 $\mu g/m^3$), while trichloroethylene (TCE) was present in one sample at a concentration (5.2 $\mu g/m^3$) above the method reporting limit (1.1 $\mu g/m^3$). Vinyl chloride was also detected in one sample (2.8 $\mu g/m^3$). A copy of the report presenting these interim sub-slab vapor results is included as Appendix B.

The study area for this project includes the manufacturing building and a portion of the northeastern property and adjacent properties to the northeast. As shown in Figure 1-2, the study area encapsulates the area where ongoing ground water monitoring and sampling has identified the presence of COCs.

1.3. Hydrogeologic setting

1.3.1. Regional geology

As described in the 2000 Supplemental RI report, the site lies within the Erie-Ontario Lowlands Physiographic Province (Ontario Lowland) of New York State (Thompson 1966). The Ontario Lowland lies between Lake Ontario to the north and the Appalachian Upland Physiographic Province to the south, and is characterized by generally flat topography. The Ontario Lowland in Onondaga County consists of a lake plain covered with glaciolacustrine sediment, and drumlin fields underlain by molded lodgement till. The glaciolacustrine sediments consist of varied silt and clay and fine to medium grained sand. The lodgement till is generally a poorly-sorted mixture of rounded to sub-rounded cobbles and boulders embedded within a silt/clay matrix. The lake plain lies below an elevation of 450 ft above mean sea level (Winkley 1989).

1.3.2. Site geology

On-site geology has been characterized by soil borings, trenches, and monitoring well borings, as documented in the 1997 RI/FS, and 2000 Supplemental RI report. Off-site geologic conditions were evaluated from temporary wells installed northeast of the facility, as documented in various letters describing the Supplemental RI Addendum field investigations (James Hartnett, 2000e and 2001b). Figure 1-2 shows the locations of the on-site and off-site monitoring wells. Materials encountered are consistent with the geologic setting of the site. The site unconsolidated (overburden) geology consists of fill, glaciolacustrine deposits, and lodgement till underlain by red shale bedrock. The off-site geologic conditions are similar to on-site conditions other than the absence of the surficial fill.

Fill at the site consists of a mixture of reworked native silt and fine grained sand (glaciolacustrine deposits), gravel backfill, vegetative matter, and anthropogenic debris (*e.g.*, coal, wood, cinders, concrete, refuse). The fill is loose to dense and ranges in thickness from approximately 1 ft at boring OBG-13 inside the manufacturing building to greater than 16 ft at the on-site landfill area in the northwestern portion of the site.

Glaciolacustrine deposits at the site underlie the fill. These materials are predominantly soft to stiff, brown-gray silt with varying amounts of fine-grained sand and clay. Fine layering (or varves) of the silt, fine-grained sand and clay were clearly observed. The thickness of the glaciolacustrine deposits increase to the northeast across the site. The deposit ranges in thickness from 7 ft at well U-2 to 28 ft at well OBG-6D.

A detailed review of the boring logs indicates that in the northern portion of the site the glaciolacustrine deposits are divided into an upper, middle and lower unit. The upper unit consists predominantly of silt and fine-grained sand and varies in thickness from approximately 4 to 14 ft. The middle unit consists predominantly of silt and clay. The middle unit originates beneath the central portion of the manufacturing building and is continuous in the northern portion of the site. The middle unit varies in thickness from approximately 5 to 15 ft. The deeper portion of the glaciolacustrine deposits consists of silt and fine-grained sand. Sand and gravel lenses were noted at isolated locations at the interface between the glaciolacustrine deposits and the till. The thickness of this deeper layer varies from 5 to 11 ft. In the southern portion of the site, the glaciolacustrine deposits consist primarily of silt and fine-grained sand to depths of 13 to 17 ft.

Lodgement till underlies the glaciolacustrine deposits and overlies the bedrock at the site. The till consists of a very dense to hard, red clayey silt with embedded fine to medium sub-rounded gravel. Although not fully penetrated, the till thickness was at least 45.5 ft at boring MW-11R in the southwest portion of the site. The till was reportedly fully

penetrated at well W-6D, in the northwest property area where the thickness was approximately 4 ft. Although not fully penetrated, till thickness was at least 9 ft at well W-7D located in the northern portion of the facility that is consistent with findings at the adjacent Ley Creek PCB Dredgings site. Till thickness in monitoring well OBG- 3D at the adjacent Ley Creek PCB Dredgings site was 7 ft.

A contour map illustrating the elevation of the top of the lodgement till is presented as Figure 1-3. The figure illustrates that the surface of the till slopes downward to the northeast toward temporary well TW-1. The top of till elevation ranges from approximately 385 ft at OBG-11 in the southwest portion of the site to 343 ft at TW-1 located east of Town Line Road. Further to the northeast in the vicinity of TW-2, 3, and 4, the top of till elevation increases. The figure also illustrates that the downward slope of the till is the greatest in the vicinity of monitoring well MWI-3 and OBG-10D located in the central portion of the property. The configuration of the top of till may influence the direction of migration of contaminants.

1.3.3. Site bedrock geology

Bedrock geology is characterized by the Vernon Shale that underlies much of the Ontario Lowland (Winkley 1989). The Vernon Shale is the oldest member of the Salina Group and was formed during the Upper Silurian period (approximately 400 million yrs ago). The Vernon Shale measures 500 to 600 ft thick and consists of predominantly red and green shale beds, although minor beds of dolostone, limestone, and sandstone occurs locally (Mozola 1938). The Vernon shale reportedly dips southward at a rate of 40 to 50 ft per mile (Winkley 1989).

1.3.4. Hydrogeology

The depth to ground water at the site, the downgradient Ley Creek PCB Dredgings Site, and off-site varies from approximately 3 to 13 ft below ground surface. The saturated portions of the fill and glaciolacustrine deposit constitute the unconfined, overburden water-bearing zone. The overburden zone is underlain by the lodgement till unit that limits hydraulic connection between the overburden and bedrock. Based on the geology at the site, the overburden water bearing zone was divided into a shallow and a deep zone. The classifications were developed to evaluate ground water quality in the two zones and to discuss variations in ground water flow regimes.

The upper approximate 15 ft of the saturated overburden has been designated the shallow overburden zone. This zone encompasses the entire site and contains the saturated portion of fill and the upper and middle glaciolacustrine unit.

Beginning near the northern boundary of the manufacturing building, the depth to till increases to the north. As a result, the thickness of the water

bearing materials increases, and both shallow and deep overburden ground water zones are present. The deep overburden water bearing zone encompasses the 10-ft immediately above the lodgement till. The deep overburden water bearing zone is not present in the southwestern property area, IWT Plant area, and manufacturing building area, as the till layer was encountered at a depth of approximately between 14 and 18 ft bgs.

Ground water elevation data have been collected since 1985. A comparison of elevation data from numerous sampling events shows similar trends that result from seasonal fluctuations.

Shallow overburden zone. A ground water elevation map (Figure 1-4) was developed from ground water elevation data measured on October 27, 1999. The shallow ground water flow direction is generally northeast across the site toward Ley Creek under an average hydraulic gradient of 0.009 ft/ft. The shallow zone ground water elevation contours show apparent troughs located in the southwest property area and in the northern property boundary area. The troughs are in the vicinity where the facility storm drains are routed. The trough suggests that shallow ground water flow direction locally converges due to the storm drain effects on the shallow water bearing zone. The horizontal hydraulic conductivity values in the shallow overburden water bearing zone range from 7.51 x 10-3 ft/day to 1.76 ft/day. Also, the ground water velocity in the shallow ground water has been calculated using the range of hydraulic conductivity values, the hydraulic gradients and assumed porosity. Shallow ground water velocities range between 1.9×10^{-4} ft/day to 4.5×10^{-2} ft/day (0.07 to 16.4 ft/year).

Vertical hydraulic potential between the shallow and deep overburden ground water zones is generally downward across much of the site. Vertical gradients range from 0.01 ft/ft to 0.18 ft/ft with no apparent pattern in the variations. In areas adjacent to Ley Creek, well nests OBG-9S/9D and OBG-3S/3D exhibited upward flow potentials. The deep well OBG-3D was fully screened in the glacial till, while OBG-9D was screened partially in the till and overlying glaciolacustrine unit. The lower hydraulic conductivity of the glacial till is likely responsible for this variation in the observed ground water elevations.

Tri-axial permeability tests were completed on samples of the glaciolacustrine unit to assess the vertical hydraulic conductivity of this deposit. The vertical permeability of the upper and glaciolacustrine unit ranged from 2.4×10^{-4} to 3.9×10^{-4} ft/day. This permeability is approximately 1 to 3 orders of magnitude less than the horizontal hydraulic conductivity. This trend is consistent with the varied and fine-grained nature of the glaciolacustrine deposits and suggests that horizontal ground water flow is the preferential flow path.

Deep overburden zone. A ground water elevation map (Figure 1-5) was developed from ground water elevation data measured on November 27,

2000. As previously discussed, the deep overburden zone is not present in the southern portion of the property due to the limited saturated thickness as a result of the shallow depth to the till. Similar to the shallow zone, the deep ground water flow direction is generally to the north toward Ley Creek under an average hydraulic gradient of 0.008 ft/ft.

Horizontal hydraulic conductivity values in the deep overburden aquifer zone range from 4.25×10^{-2} ft/day to 3.12 ft/day. The ground water velocity in the deep ground water has been calculated to range between 1.21×10^{-3} ft/day to- 8.9×10^{-2} ft/day (0.44 ft/year to 32.5 ft/year)

Lodgement till. Lodgement till vertical hydraulic conductivity was evaluated by laboratory tri-axial testing of three samples. Vertical hydraulic conductivity values ranged from 1.42×10^{-4} ft/day to 7.09×10^{-5} ft/day. The results are less than the vertical hydraulic conductivities of the glaciolacustrine deposits.

At the Ley Creek PCB Dredgings Site, monitoring wells OBG-3D and MW-9D were installed within the lodgement till atop bedrock. These wells were installed to either partially or fully screen the till. Historical data indicate these wells exhibited an upward flow potential with the hydraulic head in OBG-3D approximately 5 ft higher than in the adjacent shallow monitoring well OBG-3. Well MW-9D exhibited artesian conditions with water flowing from the top of the well casing. These conditions further corroborate the assessment that the Ley Creek PCB Dredgings site behaves as a ground water discharge area.

2. Ground Water Delineation

2.1. General

A significant amount of data related to site environmental conditions has been collected over the past 18 years under various regulatory programs and as part of other GM activities. Twenty-five environmental investigations, the majority conducted in accordance with regulatory programs, have been conducted at or near the site.

These site investigations, conducted from approximately 1983 to the present time, included the sampling and analysis of soil and ground water, as well as other media. These investigations are documented in the Remedial Investigation/Feasibility Study (O'Brien & Gere 1997), the Supplemental Remedial Investigation report (O'Brien & Gere 2000b), and the SRI Addendum letters (Hartnett, 2000e, 2001b). The results of many of these investigations have revealed the presence of certain VOCs and PCBs in the soil and ground water at the facility.

2.2. Ground water flow

VOCs are present in the shallow and deep ground water at the facility. Ground water flow at the facility is generally to the north and northeast. Ground water contaminants at the northern property boundary are present mainly in the deep overburden ground water that sits atop the underlying lodgement till. It is likely that the surface of the lodgement till is a controlling factor on ground water flow and contaminant migration to areas north of the facility.

The background geologic data review in the vicinity of the Former IFG Facility provided some indication that overburden ground water underlying the immediate northern portions of the Former IFG Facility likely flows to the northeast. As stated in the hydrogeologic conceptual model for the site, the top of till is likely a controlling factor for ground water flow and contaminant migration in the deep overburden in the immediate vicinity of the site. Geologic data from areas surrounding the Former IFG Facility indicate that south of Ley Creek, the till dips from south to north. In addition, geologic data along Ley Creek between Town Line Road and the Town of Salina highway garage indicates that the till dips from west to east, opposite from the flow of Ley Creek. Data from north of Ley Creek indicates that the till is either absent or dips from north to south toward Ley Creek. As well, the data from the off-site

temporary wells indicates that the till may increase in elevation to the north of the Former IFG Facility.

The review of water level information collected for the Supplemental RI and Supplemental RI Addendum also provides an indication that ground water flow in the deep overburden ground water is to the northeast. In addition to the analytical data, ground water elevation data, as summarized on the deep overburden ground water flow map show that deep overburden ground water flows to the northeast from the Former IFG Facility.

While the geologic and analytical data collected suggest that flow is to the northeast, these data also suggest that ground water contaminants underlying the northern portions of the facility do not likely migrate north of Ley Creek. This is evidenced by the sharp decline in total VOC concentrations between OBG-6D (48,000 µg/L) and TW-1 (34 µg/L) over a relatively short distance of 250 ft, as well as the presence of upward hydraulic gradients from the till to the deep overburden unit that likely acts as a hydraulic divide limiting the migration of contaminants beyond Ley Creek to the north. This decline in concentration within 250 ft of the site also indicates that contaminant transport in the deep overburden ground water at any significant distance away from the facility property is limited.

2.3. Summary of ground water data

2.3.1. Shallow ground water

The presence of VOCs in shallow ground water at the site is primarily confined to those areas immediately beneath and adjacent to the main manufacturing building and the administration building. Average concentrations of the following potential COCs have been observed in shallow ground water near on-site structures (in units of µg/l):

cis-1,2-Dichloroethene:	1,500
trans-1,2-Dichloroethene:	57
Ethylbenzene:	15,000
Methylene Chloride:	11
Toluene:	1,500
Trichloroethene:	6,300
Vinyl Chloride:	73
Xylene:	83,000

Conversely, shallow ground water to the north and northeast of the manufacturing building has not exhibited the presence of VOCs with the exception of monitoring well OBG-5, which indicated a trace amount of methylene chloride (8 µg/l).

2.3.2. Deep ground water

Deep ground water, which essentially begins on or near the northern border of the manufacturing building and continues northward, has exhibited detectable concentrations of COCs. Average concentrations of the following COCs have been observed in deep ground water north, and northeast of the manufacturing building (in units of µg/l):

cis-1,2-Dichloroethene:	2,800
Trichloroethene:	56,500
Vinyl Chloride:	27

2.4. Constituents of concern summary

Based on the ground water data that has been developed for the site, the shallow ground water constituents listed in Section 2.3.1 are considered by GM to be the COCs as it relates to on-site building structures. The organic compounds listed in Section 2.3.2 for deep ground water are potential COCs for off-site structures.

However, based on a request from NYSDEC, GM intends to submit vapor samples collected as part of this investigation for "full" VOC analysis by USEPA method TO-15. More details on proposed analytes and detection limits are presented in Section 3.2.

3. Action Plan Elements

The following overall plan of action is proposed in consideration of the background information outlined above, and the objectives outlined in Section 1.1.

As an initial step, subsurface soil gas samples will be collected north and northeast of the facility property boundaries to define the potential COC presence in soil vapor throughout the study area. Based on the conceptual site model for the study area, which suggests that there may be both a confining layer and fresh water lens above the deeper aquifer, and the general absence of COCs in shallow ground water north of the manufacturing facility, significant concentrations of COCs in the soil vapor are not expected.

Non-detectable, or insignificant concentrations of the COCs observed in these soil vapor samples will be an indication that the vapor intrusion potential is restricted to on-site structures and that further off-site investigation of the vapor intrusion pathway is not warranted. In the event that significant concentrations of the COCs are detected in these soil gas samples, additional soil gas sampling will be required to evaluate the areal extent of potential vapor migration.

In addition, an air sampling program, consisting of the concurrent sampling of indoor air, substructure soil gas and ambient air, will be completed within the manufacturing and administration buildings. Figure 1-2 shows the general distribution of the planned sample locations.

3.1. Soil gas sampling program

3.1.1. General

The objective of this task is to evaluate the extent of COCs in subsurface soil gas north and northeast of the property boundaries. To accomplish this objective, subsurface soil gas will be collected for laboratory analysis by method TO-15.

The proposed soil gas sampling program involves the collection of discrete foundation-depth (approximately 8 feet below grade) soil gas samples from six locations along the property boundary where existing ground water data show the presence of the COCs. In cases of ground water depths less than 8 feet below grade, soil vapor samples will be collected at least 1 foot above the water table. Care will be taken to confirm that an adequate seal is in place prior to commencing sampling from such locations, as discussed in Sections 3.1.4. and 3.1.5. As shown

in Figure 1-2, perimeter soil vapor sampling is being conducted mostly on GM property, with some sampling off-site.

Based on the results of the soil gas sample analyses, additional sample locations may be chosen to evaluate the extent of the COCs in soil gas within the site perimeter study area. As such, an iterative approach will be used where necessary to fill in data gaps as they are identified. In the event that additional soil vapor samples are needed to define the areal extent of the vapor plume, it may require gaining access to off-site, private property. The location of these off-site soil vapor samples, if required, will be established after consulting with NYSDEC and the applicable landowners.

3.1.2. Drilling and sample point installation program

To facilitate the installation of the soil gas sample point, a soil boring will be advanced through the unconsolidated unit to the boring's target depth using direct push soil sampling methods and/or geotechnical drilling techniques (drive casing). For portability and ease of access, it is anticipated that drilling activities will be completed using an all-terrain vehicle mounted direct push drill rig (***i.e.***, such as that manufactured by Geoprobe® or equivalent).

The final locations and elevations of the new monitoring points will be surveyed and will be incorporated into the existing Site base map. The location and surface elevation of the soil gas sampling points will be surveyed using either a survey grade global positioning system or by a NYS-licensed surveyor.

3.1.3. Soil gas sampling point installation

Discrete samples of soil gas will be collected using a dedicated soil gas sampling implant. The soil gas sampling point will be installed to a depth of approximately eight feet below grade surface. Sample depths will be measured in relation to depth below ground surface to the nearest 0.1 foot.

The soil gas sample point will consist of a 6-inch length of double woven stainless steel wire screen with a pore diameter of 0.0057 inches (0.145 mm) attached to an appropriate length of Nalgene® 489 polyethylene tubing.

The sample point will be driven to its target depth using geoprobe drive rods. As the drive rods are removed, the annular space around the sampling point will be packed with glass beads of an appropriate size to a point about six inches above the screened interval. The annular space around the sample tubing will be sealed with approximately 1-foot of a dry granular bentonite to prevent water, infiltration/infilling across the sample inlet. The remainder of the boring's annular space will be sealed above the sampling zone to ground surface with a minimum bentonite

slurry thickness of three feet to prevent ambient air infiltration. Bentonite slurry may also be used to "top-seal" the area above those sample point locations in which the depth to ground water is less than 6 feet below grade.

3.1.4. Soil gas sampling and analysis

Prior to the collection of the soil gas samples, the sampling tubing will be purged of ambient air. A minimum of one and a maximum volume of three volumes of air within the sample probe and tubing will be purged prior to sample collection. In addition, tracer gas screening will be used during sampling of each of the six soil gas probes to evaluate the adequacy of the sampling technique. The tracer gas screening procedure is presented below:

- Helium tracer gas will be retained around the sample location by filling a bucket or clear plastic hopper, which is positioned over the sample location;
- The bucket will be suitably sealed to the ground surface;
- The bucket will have a valve fitting at the top to introduce helium tracer gas into the bucket and a valve fitting at the bottom to let the ambient air out while introducing the helium. The valves will be closed after the bucket has been filled with helium;
- In addition, a modified bulkhead compression fitting will also be installed at the top of the bucket to allow the sample tubing to pass through the compression fitting and exit the bucket;
- After the bucket has been filled with helium, the sample tube will be attached to a personal air-monitoring pump;
- The pump will be pre-calibrated to extract soil vapor at a rate of 0.1 liters per minute;
- A hand-held helium detector will be attached to the exit fitting on the pump to confirm there is no short circuiting of ambient air around the annular space of the borehole (***e.g.***, the presence or absence of helium in soil gas will confirm the integrity of the borehole seal prior to sampling);
- The soil gas probe will be purged for a period of three to five minutes to screen for helium/short circuiting;
- A Mark Helium detector Model 9822 or equivalent will be used to screen the extracted vapor stream for helium. This detector is sensitive to 100 part per million by volume (ppmv);

- If helium is detected during this procedure, the soil gas sample will not be collected until the short-circuit is corrected and the sample probe is re-screened and passes;

- If helium is not detected, the sample tubing will be attached to the sampling equipment and soil gas sample collection will be initiated. Soil gas collection procedures are discussed below;

- After sample collection is complete, the bucket will be checked using the fitting on the bucket to verify helium is still present around the sample probe location;

- Finally, following the completion of sample collection, the personal monitoring pump and helium meter will be reconnected to the sample tubing to check for helium in the soil gas sample to verify that short circuiting has not occurred during sampling. If helium is not detected, the sample will be submitted to the laboratory for analysis. If helium is detected, the GM project manager will be notified and a decision will be made as to whether or not the sample will be submitted for analysis, or if an additional sample should be obtained following an evaluation of the integrity of the borehole seal.

The soil gas samples will be collected using certified-clean 6-liter stainless steel SUMMA vacuum canisters equipped with laboratory-calibrated fixed rate flow controllers. The flow controllers will be set to collect soil gas samples for a period of four hours. As such, the airflow into the SUMMA canister will not exceed 0.2 liters per minute. Sample collection will be terminated before the canister vacuum is exhausted, and the canister vacuum at the beginning and ending times of sample collection will be recorded. An example of the field form used for the sampling of soil gas is included as Exhibit A.

The soil gas samples will be submitted for analysis in "full-scan" mode by USEPA Method TO-15 with reporting limits ranging between 0.2 and 0.5 parts per billion by volume (ppbv) for each compound. Note that actual reporting limits may be higher in the event that significant concentrations of one or more target compounds are present in a given sample.

Ordinarily, the full TO-15 scan produces a report of 63 potential contaminants. However, in order to avoid confusion, soil gas sample results will be reported for the same compounds submitted for indoor air and ambient air analyses (see Section 3.2.5 for more discussion). Soil gas analyses will be performed by a NYSDOH-ELAP certified environmental laboratory.

It should be noted that USEPA Method TO-15 in the selective ion-monitoring (SIM) mode was considered for laboratory analysis based on its selective compound identification and its low-level detection ability. However, this analytical method was excluded in favor of the USEPA

Method TO-15 because the water and carbon dioxide, commonly found in soil gas samples, can cause interference in the SIM instrumentation. In addition, potentially higher levels of COCs in soil gas samples can be harmful to the sensitive SIM instrumentation. The selected laboratory will document that the USEPA Method TO-15 will be able to achieve the data quality objectives of this study prior to initiation of the sampling program. The laboratory will calibrate the gas chromatograph/mass spectrometry (GC/MS) instrument to yield analytical results and laboratory QC analyses for the COC constituents of this study (***i.e.,*** TCE, cis-1,2-DCE and vinyl chloride).

After sample collection, the soil gas sampling points will be removed, borings backfilled to surface grade with bentonite and area restored to pre-existing conditions. In the event that the soil gas sampling points can not be retrieved, the sampling tubing will be cut, plugged, folded, and buried beneath native soil, and the ground surface restored as closely as possible to original condition.

3.2. Air sampling

Indoor air, substructure soil gas and ambient air sampling will be performed in the manufacturing and administration buildings. A total of nine sampling locations will be included this assessment, including four immediately above the ground water plume, two in the vicinity of the thinner area and three others elsewhere in the structure. One of the sample locations will be in the northern end of the Administration Building, which is located above a portion of the ground water plume. Figure 1-2 shows the general distribution of the planned sample locations.

Descriptions of specific components proposed as a part of the air sampling program are provided in the subsections to follow. In general, the specific components include the following:

- Notification and access coordination/scheduling with occupants prior to sampling;
- Pre-sampling survey
- Indoor air sampling
- Substructure air sampling
- Ambient air sampling
- Communication with occupants regarding the results of the sampling and decisions for follow-up activities, if any.

Air sampling activities will consist of two separate visits to the property. The initial visit will consist of a pre-sampling survey, including an interview with the property manager and observations of the portions of the structure where samples will be obtained. The sampling team will consist of a two-person sampling team of trained O'Brien and Gere technicians. Indoor air, substructure soil gas, and ambient air sampling will commence after this pre-survey and upon confirmation of a mutually acceptable date between the property manager and the occupant (if any). Approximately 24 hours after commencement of sampling, the property will be revisited to retrieve the indoor air, substructure soil gas, and ambient air samples.

The proposed protocols for the pre-sampling survey and sample collection are discussed in the following sections.

3.2.1. Pre-sampling survey

Pre-sampling survey activities will include visual observations of the portions of the building where samples will be obtained, and completion of a site use survey based on an interview with the property manager providing access to the property. The inspection and survey will be completed to establish/document conditions prior to sampling and to identify items or activities that could contribute to a presence of target VOCs in the structure. The information will be recorded using the indoor air quality building survey form provided as Exhibit B. Photographs will be taken as necessary for additional documentation of existing conditions.

The survey will review property-specific factors that could influence VOC concentrations in indoor air including:

- Building construction characteristics such as foundation type and building materials;
- Building features such as building footprint, condition of floor in contact with soil;
- Heating and ventilation systems;
- Items/activities within the structure, if any, that could serve as a potential VOC source;
- Characteristics of the surrounding grounds; and
- Items/activities in outside portions of the property, if any, that could serve as a potential VOC source.

Screening of the building area proposed for indoor air sampling will be conducted using a photoionization detector (PID) and a flame ionization detector (FID) as a general check for a gross presence of VOC vapors in

advance of sampling. The screening will focus on the breathing zone height and the proximity of potential sources of VOCs (*e.g.*, consumer product containers, gasoline-powered equipment), and floor penetrations or cracks in contact with soil. Although many consumer products may not contain the target VOCs, the presence of other vapors will alter detection limits and analytical resolution. The screening results will be recorded on the indoor air quality building survey form included as Exhibit B.

During the pre-sampling survey, the property manager may be asked to request the occupant to remove probable sources of VOCs as indicated by PID and FID screening. The sampling may be rescheduled for at least 24 hours following the removal of probable sources. Items constituting potential sources of VOCs but not probable sources through screening will remain but will be noted on the survey form and photo-documented with permission of the occupant. In the event that a probable source of VOCs is not removable, relocation of the sample will be considered.

As noted on the vapor intrusion sampling form, we will record weather conditions at the time of the visits. We propose that sampling proceed regardless of the weather conditions as long as the property is accessible. Certain weather conditions such as barometric fluctuations and precipitation conditions could influence vapor intrusion potential; the actual effect is not readily predictable and would likely be influenced by other variables such as building conditions and ground cover, and other more latent factors. Daily climatic data regarding barometric pressure, precipitation and temperature will be obtained from Hancock Airport in Syracuse, New York on a daily basis during the investigation.

3.2.2. Indoor air sampling

Collection of indoor air samples will be completed in general accordance with the following protocols. The samples will be collected over a 24-hour period from the lowest area within the general area of the structure being sampled. Prior to the pre-sampling survey, the occupants located within proposed sampling areas will be provided a set of instructions to follow during the air sampling program. A copy of these instructions is provided in Exhibit C.

The sample canister will be deployed following the pre-sampling survey and will be retrieved approximately 24 hours later. Indoor air samples will be collected using certified-clean stainless-steel 6-liter pre-evacuated SUMMA canisters. The SUMMA canister intake will be placed at breathing zone height of approximately three to five feet above the floor by affixing to wall/ceiling support with nylon rope or placement on a stable surface. As much as practical, and based on building features, the canister will be placed in a central location away from outside windows and doors.

The indoor air samples will be collected using certified-clean 6-liter stainless steel SUMMA vacuum canisters equipped with laboratory-

calibrated fixed rate flow controllers. Flow controllers will be calibrated to collect the sample over a 24-hour period to account for daily building activities that might influence COC concentrations in indoor air. As such, the airflow into the SUMMA canister will not exceed 0.2 liters per minute. Sample collection will be terminated before the canister vacuum is exhausted, and the canister vacuum at the beginning and ending times of sample collection will be recorded. The sampling location will also be screened for possible organic vapors using a portable PID during the air sampling activities. Sample identifications, SUMMA canister identification numbers, flow controller identification numbers, initial and final vacuum readings, time of sample collection, and PID readings will be documented for each air sample. Chain-of-custody documentation will be maintained throughout sample collection and analysis. An example of the field form used for the air sampling is included as Exhibit A.

Digital photos will be taken of the SUMMA canister and the surrounding area in all directions. At the time of retrieval, any noticeable changes in the condition of the sampling area, such as open windows and doors, changes in the operation of the heating/ventilation system or the condition or location of items in proximity to the canister will also be noted.

3.2.3. Substructure soil gas sampling

A sample of substructure soil gas will be collected over a 24-hour period, concurrent with the collection of indoor and ambient air samples. Substructure soil gas samples will be collected by installing a temporary sealed sampling port through the concrete floor slab.

The following procedures for substructure soil gas sample collection are based on the building being a slab-on-grade construction. The steps provided below should be considered a general guidance on the collection of substructure soil gas samples for each location. The actual sequence may need to be modified based on site conditions and sample location access at the time of sample collection.

- A ⅜-inch diameter hole is drilled through the concrete slab using an electric hammer drill. The hole will be extended about three inches into the substructure material using either the drill bit or a steel probe rod.

- A section of ¼-inch O.D. Teflon tubing will be inserted into the bottom of the floor slab. The annular space between the ⅜-inch hole and ¼-inch tubing will be sealed using a hydrated bentonite slurry or 100% beeswax seal.

- The ¼-inch Teflon tubing will be purged using a polyethylene 60 cubic centimeter (cc) syringe. The ¼-inch Teflon tubing will then be connected to a SUMMA canister. Care will be taken not to discharge

the air/soil vapor syringe into indoor air. For duplicate sample locations, a second canister will be connected by installing a ¼-inch stainless steel "tee" fitting between the probe discharge tubing and the SUMMA canisters. Additional lengths of ¼-inch Teflon tubing will then be connected from each end of the tee fitting to the SUMMA canisters.

- A sample of substructure soil gas will be collected over a 24-hour period, concurrent with collection of indoor and ambient air samples utilizing certified-clean stainless-steel 6-liter pre-evacuated SUMMA canisters. The required sampling rate will be maintained by laboratory-calibrated constant-differential low volume flow controllers. Vacuum readings on the SUMMA canisters will be obtained and documented prior to sample collection and upon completion of sampling. Sample identifications, SUMMA canister identification numbers, flow controller identification numbers, initial and final vacuum readings, time of sample collection, and PID readings will be documented for each soil vapor sample. Chain-of-custody documentation will be maintained throughout sample collection and analysis.

3.2.4. Ambient air sampling

An ambient (outdoor) air sample will be collected concurrently with indoor air and substructure soil gas sampling using the procedure outlined below. The ambient air sample will be collected over a 24-hour period, following completion of the last indoor air building survey and will commence immediately before the start of the indoor air sampling. Ambient air sample collection will be terminated immediately before the end of indoor sampling.

The intent of the ambient air sampling is to obtain data that is likely to be representative of the ambient condition in the vicinity of the structure concurrently with collection of indoor air and substructure soil gas samples. Since indoor air samples are being collected within a single structure, one ambient air sample will be collected and will be considered representative for each sample location.

The ambient air samples will be collected at a height of approximately five feet above the ground surface, the approximate mid-point of the ground story level of the building. To the extent allowed by site features, the air samples will be collected about five to 15 feet upwind from the building. Sample locations will be away from "wind breaks" such as bushes or fences; and potential "point sources" of VOCs such as fuel oil storage tanks, gasoline (***e.g.***, such as from a motor vehicle) or paint storage.

3.2.5. Air sample analysis

Substructure samples will be submitted to an ELAP-certified environmental laboratory for "full-scan" VOC analysis by USEPA Method TO-15 with reporting limits ranging between 0.2 and 0.5 ppbv for each compound. As with the soil gas samples, results for substructure samples will be reported for the same compounds analyzed in indoor and ambient air samples.

To achieve the low detection limits required by NYSDEC (***e.g.,*** 0.25 $\mu g/m^3$ for TCE in indoor air), indoor and ambient air samples will be analyzed in "low level" mode by USEPA Method TO-15 with a reporting limit of 0.01 ppbv for each compound. Analysis of these samples will be conducted by an ELAP-certified environmental laboratory. Note that reporting limits may be higher for some samples where dilution of the sample is required to obtain results within the instrument's calibration range.

To achieve these low detection limits, the full list of parameters in a typical TO-15 scan is narrowed to the 40 compounds shown in Table 1. It should be noted that of the COCs identified by GM for this investigation, the only compound that is not reported on this reduced list of analytes is methylene chloride. This omission, however, is not considered significant since methylene chloride has only been observed in a few shallow ground water samples and its average concentration across the site is the lowest of the COCs. Thus, unless significant concentrations of methylene chloride are observed in soil gas or substructure samples, this omission is not likely to affect conclusions reached about the impact, if any, of vapor intrusion.

3.3. Quality assurance/quality control

Quality Assurance/Quality Control (QA/QC) measures implemented during field sampling activities will include but not be limited to:

- Documentation of sample container vacuum/pressure before and after sample collection;
- Equipment blanks accompanying empty SUMMA canisters to the field, and filled sample containers back to the laboratory; and
- Collection of field duplicate samples.

The SUMMA canisters used for subsurface and substructure soil gas sampling will be batch "certified clean" by the analytical laboratory for TO-15 analysis to a limit of less than 0.2 ppbv for each compound. Confirmation of the presence of the certification seal or label for each container will be noted on sampling documentation.

The SUMMA canisters used for indoor and ambient air sampling will be individually "certified clean" by the analytical laboratory for TO-15 analysis to a limit of less than 0.2 ppbv for each compound. Confirmation of the presence of the certification seal or label for each container will be noted on sampling documentation.

For the collection of the soil gas samples, the 4-hour flow metering valves will be cleaned and the flow rate will be pre-set by the analytical laboratory and will be labeled certifying the sampling flow rate calibration. For the collection of the substructure, indoor and ambient air samples, the 24-hour flow metering valves will be cleaned and the flow rate will be pre-set by the analytical laboratory and will be labeled certifying the sampling flow rate calibration. The vacuum/pressure of the canisters will be noted and recorded before and after the collection of samples.

Soil gas and air samples will be collected following the methods and procedures described in this Work Plan and pursuant to equipment suppliers/manufacturers and the analytical laboratory. Equipment blanks ("trip blanks") will accompany sample containers (empty) to the field, and collected samples back to the lab. Trip blanks will be collected at the frequency of one per 20 environmental samples per parameter. These trip blanks will consist of a clean SUMMA canister filled with zero air (by the laboratory) (not ambient outdoor air), and will not be opened during the course of its transport. The trip blanks should not contain any target analyte at a concentration greater than its corresponding reporting limit, or other non-target compounds that may interfere with the analysis of a target analyte.

Duplicate samples will be collected simultaneously (*i.e.*, over the same time interval) and from the same sample point at the frequency of one per 10 environmental samples per parameter. For duplicate sample locations, a second canister will be connected by installing a ¼-inch stainless steel "tee" fitting between the probe discharge tubing and the SUMMA canisters. Additional lengths of ¼-inch Teflon tubing will then be connected from each end of the tee fitting to the SUMMA canisters.

3.4. Decontamination procedures

The field sampling program will include decontamination procedures to ensure that potential contaminants are not introduced into each sample location or transferred across the study area. Equipment which will come into contact with the soil, as well as drill tools, drill casing, drill rod, hoses and the back of the drill rig will undergo an initial cleaning process. While working within the study area, the drilling equipment that comes into contact with the soil will be decontaminated between monitoring point locations to prevent cross-contamination. Drilling equipment will again undergo the cleaning process prior to leaving the study area at the conclusion of drilling activities.

For large equipment, such as the direct push drill rig, the initial and final cleaning process will involve the use of a high-pressure steam cleaner. Potable water will be used for all decontamination procedures. Smaller pieces of drilling equipment and/or sampling tools will be hand washed in small buckets using an Alconox and tap water wash and a tap water rinse. Decontamination water will be collected and for subsequent characterization and disposal by GM.

3.5. Handling of investigation derived materials

Investigation derived materials (IDM) resulting from performance of the field program will require appropriate management. This IDM includes the following:

- Drill cuttings and debris generated during subslab sampling within structures;
- Decontamination fluids and sediments which may settle out from cleaning activities; and
- Personnel protective equipment (PPE), disposable sampling supplies, and associated debris resulting from the execution of field activities.

These materials will be segregated and placed in 55-gallon drums for subsequent characterization and disposal by GM in accordance with applicable regulations.

3.6. Sampling documentation

The collection of air, soil gas and ground water samples will be documented with the use of Field Sampling Summary Forms. Examples of these forms are included in Exhibit A. Information included on the these forms will include:

- identification of sample
- date and time of sample collection
- identity of sample collector(s)
- description of location of sample collection
- weather conditions at the time of sample collection
- sampling equipment and sample containers (***e.g.***, type, serial number) used
- starting and ending vacuums of SUMMA canisters
- depth of sample collection below ground.

In addition to the information included on the Field Sampling Summary Forms, thorough representative photo documentation will be obtained during the sampling program.

The collection, transfer of custody, and shipping/transport of the samples to the analytical laboratory will be documented using chain-of-custody forms. Information included on the chain-of-custody form will include:

- sample identification
- date and time of sample collection
- identity of sample collector(s)
- requested analyses
- additional notes or comments pertinent to analysis of the samples.

3.7. Data validation and usability assessment

The analytical data generated during the investigation will be validated, and the usability of the data for assessing the extent of COCs will be assessed. A Data Usability Summary Report (DUSR) will be prepared by

an independent third party data validation subcontractor. The DUSR will be completed in accordance with the NYSDEC DUSR guidance and/or USEPA data validation documents and the specified method. The purpose of this data assessment is to provide information to determine the uncertainty and bias in the data as considerations for decision-making.

3.8. Data management

Data management procedures are established to effectively process the data generated during the investigation such that the relevant data descriptions (sample numbers, methods, procedures) are readily accessible and accurately maintained. Data will be collected and recorded in a variety of ways during this project. These include standard field forms (such as field data sheets, chain-of-custody forms, and soil boring logs) and laboratory generated data. Each of these original forms will be kept in a file maintained by O'Brien & Gere throughout the project. Data that lends itself to computerization, such as analytical data, will be placed in a data storage system. The computerized system will be capable of basic data reduction, manipulation, and reporting functions. In addition, laboratory analytical data will be provided to the NYSDEC in EQUIS electronic data deliverable format.

Daily progress reports will be made by telephone from the field team to O'Brien & Gere's Project Manager or designee during the field investigation portions of the project. O'Brien & Gere will provide daily email updates to GM during all phases of the effort.

Frequent data reduction and reporting may be necessary throughout the project in order to maintain communication between involved parties. To fulfill this need, informal meetings and conference calls may be arranged between and within O'Brien & Gere and GM.

NYSDEC will be notified at least two weeks in advance of the start of sampling and, if not in attendance during sampling, will be kept apprised of the progress and results of the investigation through informal monthly progress reports and, as appropriate, via telephone calls.

3.9. Data analysis and review

Preliminary analytical results will be obtained from the laboratory within 10 business days of verified time of sample receipt at the laboratory. Following the receipt of the preliminary analytical results from the laboratory, the results will be provided to GM and concurrently reviewed by O'Brien & Gere. Once the preliminary analytical results have been reviewed by O'Brien & Gere and GM, results will be promptly communicated to NYSDEC staff and next steps will be identified.

Upon receipt of the final analytical data packages, the analytical results will be validated, reviewed and final summary tables will be prepared and submitted to GM. Copies of analytical data packages and summaries will be prepared and provided to NYSDEC.

As discussed in Section 3.1.1, based on the results of the sampling effort, additional sample locations may be necessary to define the extent of the COCs and satisfy project objectives within the study area. The delineation objective is to obtain non-detectable concentrations of COCs in soil gas at or above the nominal reporting limit of 0.2 ppbv.

4. Project Organization and Management

This project will be managed by GM, with work performed by its technical consultant, O'Brien & Gere. NYSDEC will serve in an oversight role. This section outlines our present understanding of the principal roles and responsibilities among these parties and subcontractors who will provide assistance in completion portions of the work.

4.1. State of New York

The soil gas project defined in the prior text is being undertaken by GM under the oversight of NYSDEC as the prime State agency that administers GM's efforts. As such, progress reports and data submittals will be directed to NYSDEC. The project manager for NYSDEC will be Ms. Sue Benjamin. In her role as project manager, Ms. Benjamin will coordinate the necessary reviews and other involvement of the New York State Department of Health on the project.

4.2. GM

Mr. James Hartnett will be the primary point of contact for GM. Mr. Hartnett will serve as GM's project manager for this efforts and will be responsible for:

- Communicating to the property manager and building tenants regarding site investigation activities and scheduling of sampling; and

- Acquisition of access agreements from off-site property owners, if required. It is understood that property owners have no obligation to provide access and hence GM can make no guarantees in this regard and cannot be responsible for such withholding of permission. If needed, GM may solicit support from NYSDEC, as required, to assist in gaining property access for sampling and/or any subsequent response actions.

4.3. O'Brien & Gere

O'Brien & Gere will serve as the lead technical consultant in the execution of the field investigation and testing programs, and reporting.

For work including the field soil gas survey, analytical laboratory analyses, and data validation and usability assessment services, O'Brien & Gere will be assisted by the subcontractors described in the following sections.

4.4. Subcontractors

4.4.1. Drilling contractor

A licensed driller will be subcontractor by O'Brien and Gere to complete installation of the soil gas sampling points. Drilling will be completed using an ATV or truck-mounted direct push drilling techniques.

4.4.2. Analytical laboratories

A NYSDOH Environmental Laboratory Accreditation Program (ELAP) certified environmental laboratory will be subcontracted by GM for the analysis of the air and soil gas samples.

4.4.3. Data validation and usability assessment

Data validation services will be provided by an independent third party data validation subcontractor.

5. Schedule

A tentative implementation schedule for the vapor intrusion investigation is shown in Figure 5-1. The schedule was derived based on the present estimate of the general sequencing and duration of tasks. It should be recognized that in application, the work will require cooperation among all parties involved and may be contingent on weather conditions and the availability of materials and other factors beyond our direct control.

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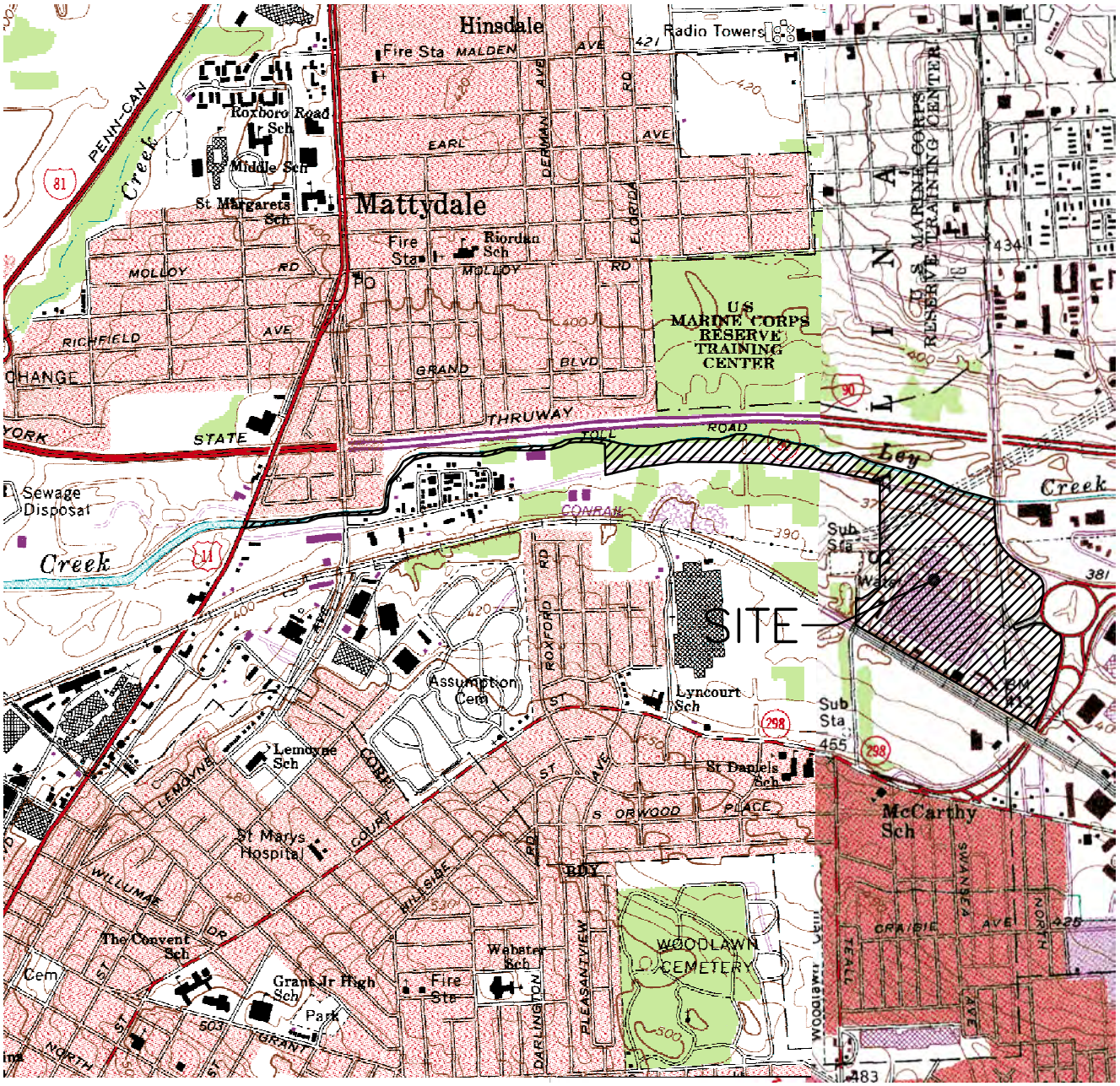
Table 1. ***STL Burlington TO-15 Low Level Target Analytes and RLs***

Compound	ppbv	M.W.	ug/m^3
1,1,1-Trichloroethane	0.01	133.42	0.05
1,1,2,2-Tetrachloroethane	0.01	167.86	0.07
1,1,2-Trichloroethane	0.01	133.42	0.05
1,1-Dichloroethane	0.01	98.97	0.04
1,1-Dichloroethene	0.01	96.95	0.04
1,2-Dibromoethane	0.01	187.88	0.08
1,2-Dichloroethane	0.01	98.96	0.04
1,2-Dichloropropane	0.01	112.99	0.05
1,3,5-Trimethylbenzene	0.01	120.19	0.05
1,3-Butadiene	0.01	60.14	0.02
2,2,4-Trimethylpentane	0.01	132.38	0.05
3-Chloropropene	0.01	76.53	0.03
4-Ethyltoluene	0.01	120.2	0.05
Benzene	0.01	78.11	0.03
Bromodichloromethane	0.01	163.83	0.07
Bromoethene	0.01	106.96	0.04
Bromoform	0.01	252.75	0.10
Bromomethane	0.01	94.95	0.04
Carbon Tetrachloride	0.01	153.84	0.06
Chloroethane	0.01	64.52	0.03
Chloroform	0.01	119.39	0.05
cis-1,2-Dichloroethene	0.01	96.95	0.04
cis-1,3-Dichloropropene	0.01	110.98	0.05
Cyclohexane	0.01	84.16	0.03
Dibromochloromethane	0.01	242.74	0.10
Dichlorodifluoromethane	0.01	120.92	0.05
Dichlorotetrafluoroethane	0.01	170.93	0.07
Ethylbenzene	0.01	106.16	0.04
m,p-Xylene	0.01	106.16	0.04
Methyl tert-Butyl Ether	0.01	88.15	0.04
n-Heptane	0.01	101.2	0.04
n-Hexane	0.01	86.18	0.04
o-Xylene	0.01	106.16	0.04
Tetrachloroethene	0.01	165.85	0.07
Toluene	0.01	92.13	0.04
trans-1,2-Dichloroethene	0.01	96.95	0.04
trans-1,3-Dichloropropene	0.01	110.98	0.05
Trichloroethene	0.01	131.4	0.05
Trichlorofluoromethane	0.01	137.38	0.06
Vinyl Chloride	0.01	62.5	0.03

FIGURE 1-1



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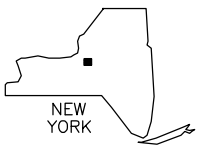
SYRACUSE, NEW YORK

SITE LOCATION MAP



QUADRANGLE LOCATION

1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 5 0 1 KILOMETER

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FEBRUARY 2006

SCALE: 1:24000

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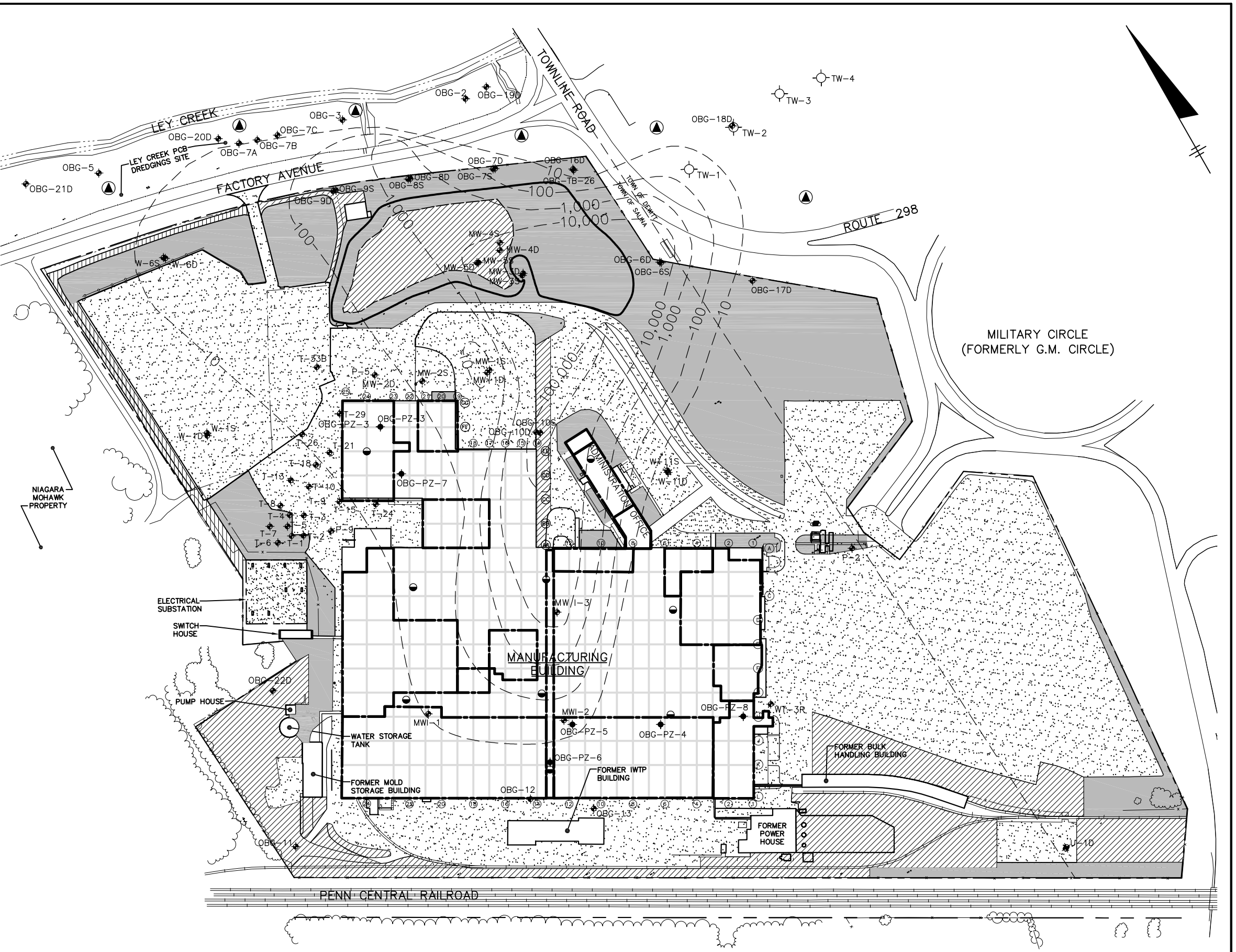
Feb 27, 2006 - 2:10pm

FIGURE 1-2



LEGEND

- PROPERTY LINE
- TREE LINE
- FENCE
- GUARDRAIL
- VEGETATION
- CRUSHED STONE
- ASPHALT
- 10 — CHLORINATED VOC ISO CONCENTRATION LINE
- TENANT SPACE OUTLINES
- PROPOSED BUILDING AIR SAMPLES
- PROPOSED SOIL GAS SAMPLES
- TEST BORING
- PHASE II TEMPORARY MONITORING WELL
- MONITORING WELL
- (45) TOTAL VOC CONCENTRATION (ug/L)

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FORMER INLAND
FISHER GUIDE
SYRACUSE, NEW YORK

PROPOSED SAMPLE LOCATIONS

0 250 500
SCALE IN FEET

FILE NO. 4966.34128.025
FEBRUARY 2006

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NOTE:

1. WHERE PRACTICAL, SAMPLES WILL BE COLLECTED NEAR FLOOR DRAINS.

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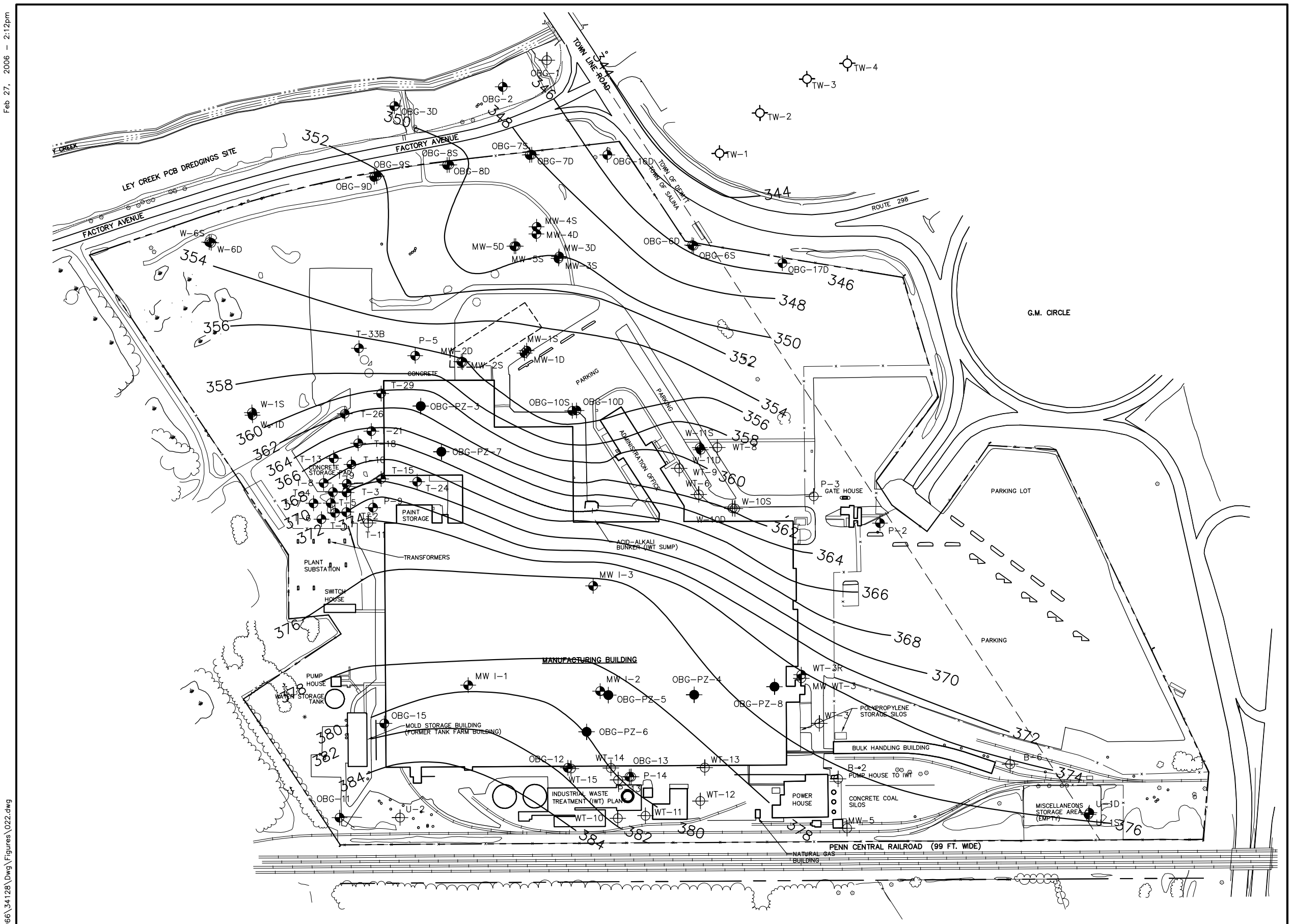
FIGURE 1-3



LEGEND

- MONITORING WELL
- MONITORING WELL NOT SAMPLED
- PIEZOMETER
- PROPERTY BOUNDARY
- TREE LINE
- TOP OF TILL ELEVATION
- ELEVATION CONTOUR

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TOP OF TILL ELEVATION CONTOUR MAP

0 250 500
SCALE IN FEET

FILE NO. 4966.34128.022
FEBRUARY 2006

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ENGINEERS INC.

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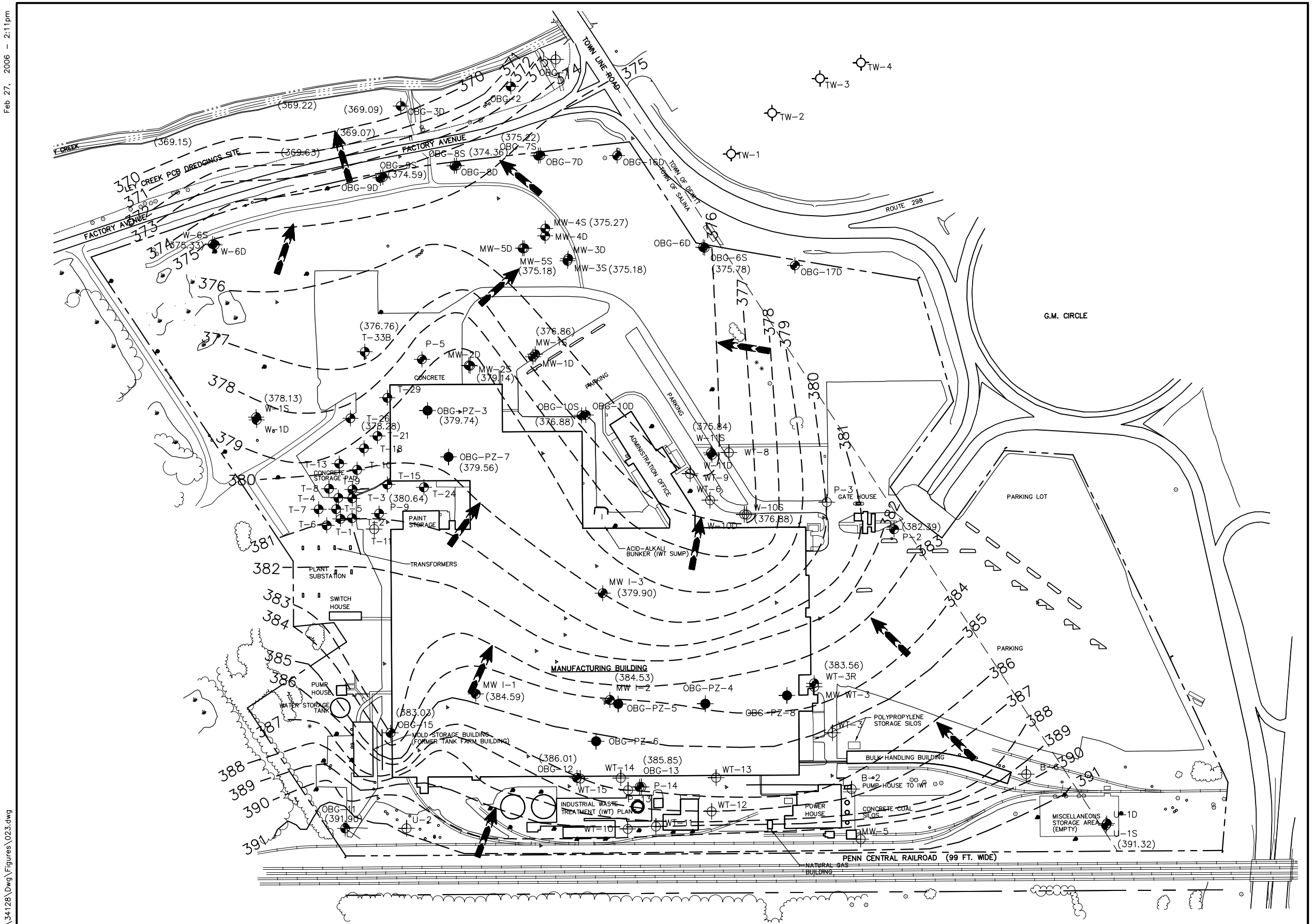
Feb 27, 2006 - 2:11pm

FIGURE 1-4



LEGEND

- MONITORING WELL
- MONITORING WELL NOT SAMPLED
- PIEZOMETER
- PROPERTY BOUNDARY
- TREE LINE
- (375.78) GROUND WATER ELEVATION
- GROUND WATER ELEVATION CONTOUR
- SHALLOW GROUND WATER FLOW DIRECTION

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SYRACUSE, NEW YORK

SHALLOW GROUND WATER ELEVATION MAP (10/27/99)

0 250 500
SCALE IN FEET

FILE NO. 4966.34128.023
FEBRUARY 2006

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ENGINEERS INC.

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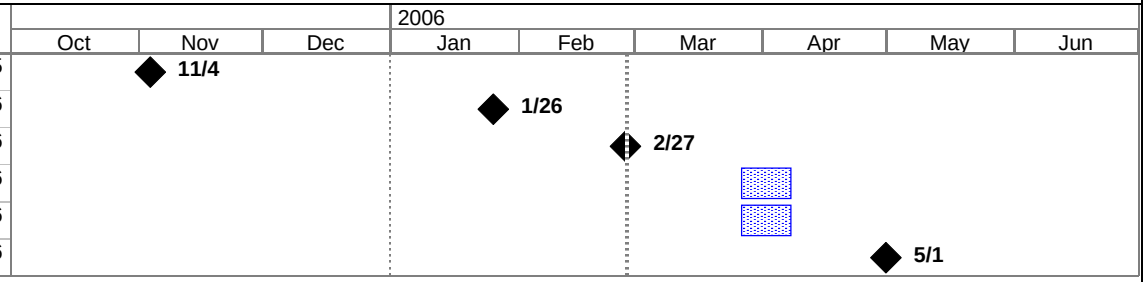
Figure 5-1

Tentative Project Schedule

ID	Task Name	Duration	Start
1	WP Submitted to DEC/DOH	0 days	Fri 11/4/05
2	DEC/DOH Comments Submitte	0 days	Thu 1/26/06
3	Revised WP Submitted to DEC/	0 days	Mon 2/27/06
4	Perimeter Soil Vapor Sampling	10 days	Mon 3/27/06
5	Substructure/Indoor Air Samplir	10 days	Mon 3/27/06
6	Meet to Discuss Results	0 days	Mon 5/1/06



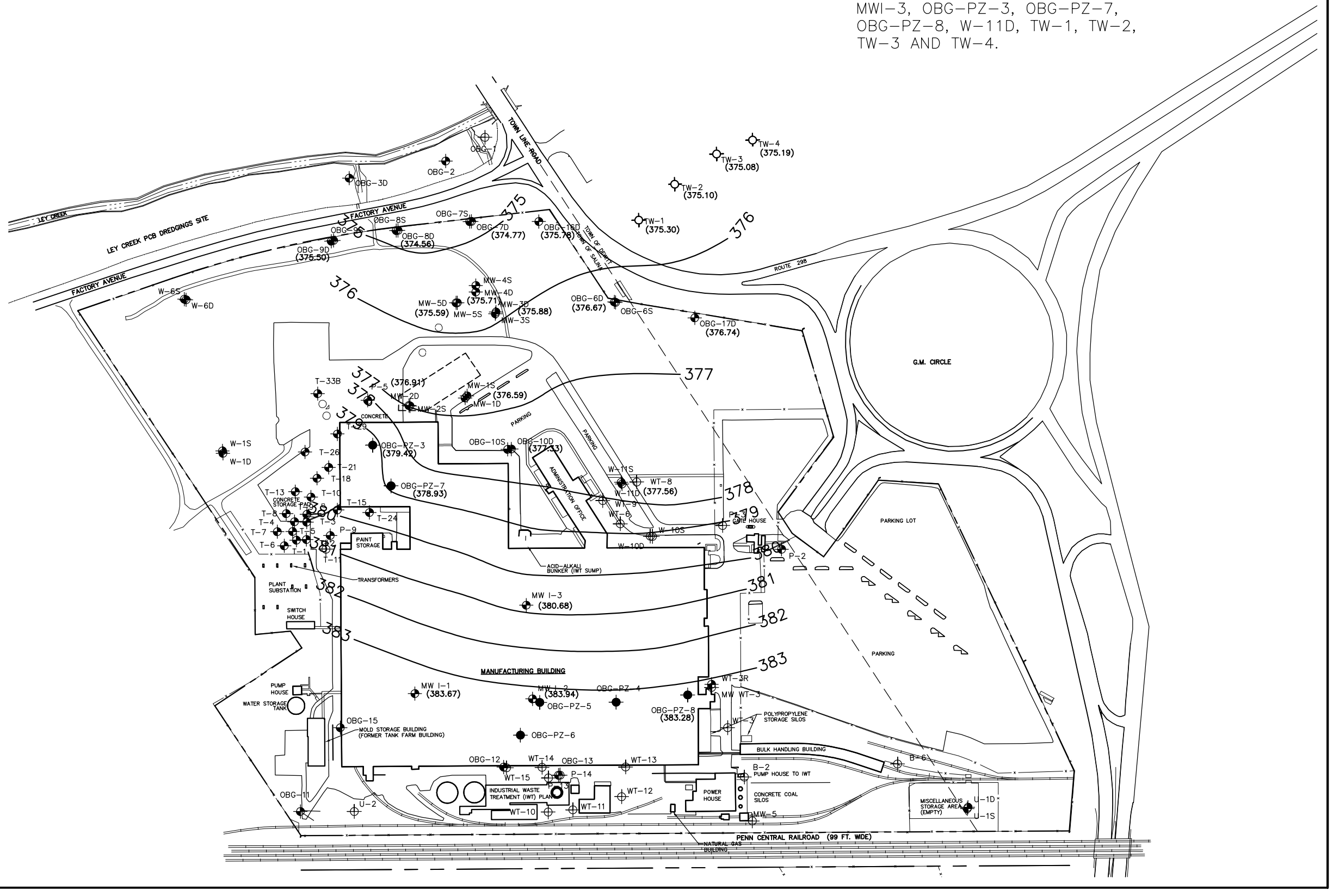
Project: Figure 5-1
Date: Mon 2/27/06

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

Feb 27, 2006 - 2:11pm

FIGURE 1-5

NOTE:
CONTOURS BASED ON ELEVATIONS MEASURED ON NOVEMBER 27, 2000 AT WELLS OBG-6D, OBG-7D, OBG-8D, OBG-9D, OBG-10D, OBG-16D, OBG-17D, MW-1D, MW-2D, MW-3D, MW-4D, MW-5D, MWI-1, MWI-2, MWI-3, OBG-PZ-3, OBG-PZ-7, OBG-PZ-8, W-11D, TW-1, TW-2, TW-3 AND TW-4.



LEGEND

- MONITORING WELL
- MONITORING WELL NOT SAMPLED
- PIEZOMETER
- PROPERTY BOUNDARY
- PHASE II TEMPORARY MONITORING WELL

GENERAL MOTORS CORP.
SYRACUSE, NEW YORK

DEEP GROUND WATER ELEVATION MAP (11/27/00)

0 300 600
SCALE IN FEET

FILE NO. 4966.34128.024
FEBRUARY 2006

O'BRIEN & GERE ENGINEERS INC.

I:\DIV71\Projects\4966\34128\Dwg\Figures\024.dwg

Appendix A

Administration Building Air Monitoring Results, July 2000

Worldwide Facilities Group
Environmental Services
Remediation Team

James F. Hartnett
Program Manager

July 26, 2000

Ms. Susan Benjamin, P.E.
Bureau of Central Remedial Action
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Wolf Road, Room 228
Albany, New York 12233-7010

Re: Former IFG Facility (Registry # 7-34-057) and Ley Creek Deferred Media
NYSDEC Order on Consent Index # D-7-0001-97-06
Indoor Air Sampling

Dear Ms. Benjamin:

Attached are the analytical results and sampling locations for the indoor air sampling conducted in the basement of the Administrative Building. As proposed in our letter of July 11, 2000 (and approved in your letter of July 12, 2000), three air samples were collected using Minicans. The samples were collected over an 8-hour period on July 17, 2000. The samples were submitted to Galson Laboratories for analysis of trichloroethylene, cis-1, 2-dichloroethylene, and vinyl chloride using USEPA Method TO15. The results show that none of these analytes were detected above the practical quantitation limit (PQL) of 5 parts per billion by volume (ppbv).

In comparison, Occupational Safety Health Administration (OSHA) Time Weighted Average permissible exposure limits (PELs) for trichloroethylene, cis-1, 2-dichloroethylene, and vinyl chloride are 1,000, 200,000, and 100,000 ppbv (29 CFR 1910.1000 and 1017). Additionally, the American Conference of Governmental Industrial Hygienists (ACIGH) Time Weighted Average PELs for trichloroethylene, cis-1, 2-dichloroethylene, and vinyl chloride are 1,000, 200,000, and 50,000 ppbv. Thus, these analytical results indicate no exceedances to OSHA regulatory requirements for these compounds.

If you have any questions, please contact Clare Leary at O'Brien & Gere (315) 437-6100, or me at (315) 764-2239.

Sincerely,

James F. Hartnett / CFL

James F. Hartnett
Remedial Program Manager

cc: Distribution List
Clare F. Leary, P.E.
I:\DIV71\PROJECTS\4966\21535\2_CORRES\2000\agencies\sbltr072100.doc

GM Powertrain • Remediation Project Office • Route 37 East • P.O. Box 460 • Massena, NY 13662
Phone (315) 764-2239 • GM 8-344-2239 • FAX (315) 764-2312 • GM 8-344-2312

Syracuse Main Plant RI/FS Program Distribution List - Government Agencies

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1 unbound and 1 on computer diskette):

Susan Benjamin
NYSDEC Project Manager
NYS Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

---

1 copy of correspondence (Report cover letters only):

Donald Hesler
NYSDEC
Room 228
50 Wolf Road
Albany, New York 12233-7010

---

1 copy:

Robert Montione
Bureau of Environmental Exposure Investigation
New York State Department of Health
Flanigan Square
547 River Street, Room 300
Albany, New York 12180-2216

---

1 copy:

Henriette M. Hamel, R.S.
New York State Department of Health
Syracuse Field Office
217 S. Salina St., 3rd Floor
Syracuse, New York 13202-3952

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NYS Department of Environmental Conservation
615 Eire Blvd. West
Syracuse, New York 13204-2400

---

1 copy (excluding plans or reports):

George A. Shanahan, Esq.
Assistant Regional Counsel
U.S. Environmental Protection Agency, Region II
290 Broadway
New York, New York 10007-1866

---

1 copy (or transmittal letter only if plan or report):

Carol Conyers, Esq.
Onondaga Lake Unit
NYS Department of Environmental Conservation
Room 410A
50 Wolf Road
Albany, New York 12233-5550

---

1 copy:

Robert Nunes
Onondaga Lake Project Manager
U.S. Environmental Protection Agency, Region II
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New York, New York 10007-1866

Syracuse Main Plant RI/FS Program Distribution List - GM Team

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James F. Hartnett

General Motors Corporation - Remediation Team
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Doug Crawford
Maureen Markert

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Syracuse, NY 13221
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Bond, Schoeneck and King, LLP
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Syracuse, New York 13202-1355
Phone: 315-422-0121 Fax: 315-422-3598

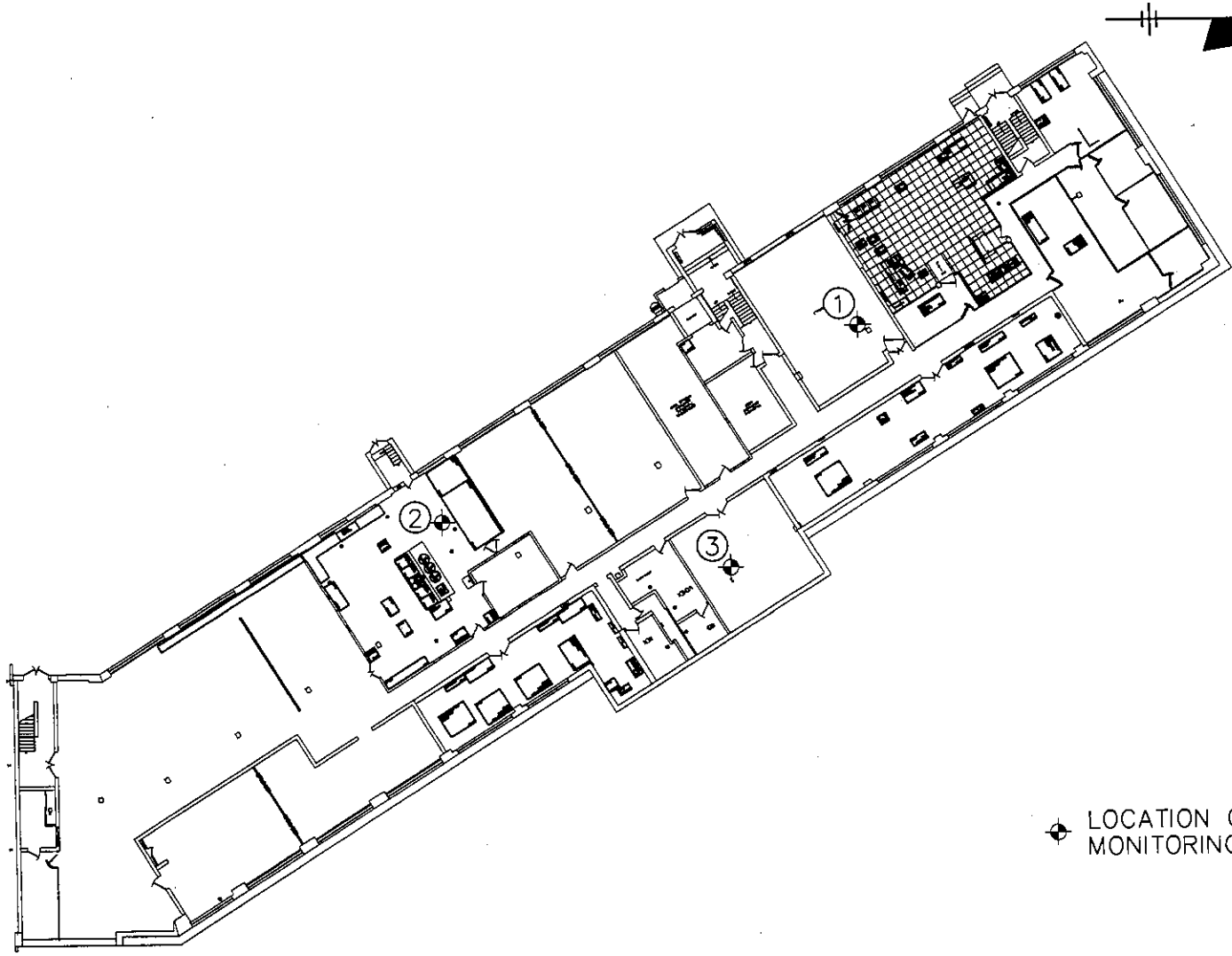
David Spencer

General Motors Corporation
Worldwide Real Estate
M. C. 482-309-939
485 West Milwaukee
Detroit, MI 48202

PLOT DATE: 7/26/00

I:\DIV71\PROJECTS\4966\21535\DWG\ADMINDN.DWG 1=1

FILE NO.: 4966.21535
DATE: JULY 2000



LOCATION OF AIR MONITORING

GENERAL MOTORS CORP.
SYRACUSE, NEW YORK
ASBESTOS AIR MONITORING

ADMINISTRATION BUILDING BASEMENT PLAN

FIGURE 1

O'BRIEN & GERE ENGINEERS INC.

Galson Laboratories

LABORATORY ANALYSIS REPORT

Client : O'Brien & Gere Engineers, Inc.
Site : GM Syracuse-Facility Cleaning
Date Sampled : 17-JUL-00
Date Received : 18-JUL-00
Date Analyzed : 19-JUL-00

Account No. : 10864
Login No. : L61968
Units : ppbv

Galson ID: Client ID:	DL ug	L61968-1 ADM. BASE-1	L61968-2 ADM. BASE-2	L61968-3 ADM. BASE-3
Vinyl Chloride	5	<5	<5	<5
cis-1,2-Dichloroethylene	5	<5	<5	<5
Trichloroethylene	5	<5	<5	<5

COMMENTS: cis-1,2-Dichloroethylene was detected in sample Admin. Basement-2 at a level below the practical quantitation limit (PQL) of 5 ppbv.

Analytical Method : EPA TO15
Collection Media : Air

Submitted by: rjp
Approved by : PJT
Date : 20-JUL-00
QC by : MGW

< -Less Than
> -Greater Than
NA -Not Applicable
NS -Not Specified

MG -Milligrams
UG -Micrograms
ND -Not Detected
KG -Kilograms

M3 -Cubic Meters
L -Liters
PPM -Parts per Million
DL -Detection Limit

Appendix B

Administration Building Sub-Slab Soil Vapor Sampling Report, May 2005

O'BRIEN & GERE

May 24, 2005

Mr. James F. Hartnett
General Motors Corporation
1 General Motors Drive STE2
Syracuse, New York 13206-1127

Re: Sub-Slab Soil Vapor Sampling Results

File: 4966/34127 #5

Dear Jim:

At the request of General Motors Corporation (GM), O'Brien & Gere has prepared this brief letter report to summarize the results of two sub-slab soil vapor samples collected beneath the Administration Building at the Former IFG Facility in Syracuse, NY. These sub-slab soil vapor samples were collected by O'Brien & Gere on May 5, 2005 in accordance with a request made by GM.

Description of Sampling Event

O'Brien & Gere collected two sub-slab soil vapor samples in the basement area of the Administration Building. The first sample, which was identified on the chain-of-custody form as SS-1, was collected in the southern end of the building, adjacent to a stairwell. The second sample (SS-2) was collected near the center section of the building, across the hall from the floor's restroom facilities. Figure 1 shows the approximate location of the sub-slab soil vapor samples relative to other site elements.

Six-liter, pre-cleaned SUMMA® canisters provided by Severn Trent Laboratories (STL) of Burlington, VT were used for sample collection. Pre-set flow controllers were used to collect samples over a six hour period.

O'Brien & Gere drilled 3/8-inch diameter holes through the concrete floor in order to access the sub-slab soils. Polyethylene tubing was connected to the SUMMA® canisters and inserted in the bore hole. The bore hole was then sealed with beeswax. Photographic documentation of the sampling system is provided in Appendix A.

Following sample collection and completion of the chain-of-custody forms, O'Brien & Gere shipped the samples to STL (via overnight courier) for analysis by USEPA Method TO-15. Based on historical facility information provided by GM, the TO-15 analysis focused on three known soil gas constituents that are believed to represent the greatest potential for intrusion into indoor air:

- Trichloroethylene (TCE)
- Ethylbenzene (EB)
- Vinyl chloride (VC)

Sample Results

Each of the three target compounds was detected in SS-1; however, only ethylbenzene was detected above its quantitation limit in SS-2. Table 1 summarizes the analytical results by sampling location and target compound:

Table 1 *Summary of Sub-Slab Soil Vapor Concentrations.*

Sample ID	Parameter	Concentration (ug/m^3)
SS-1	Ethylbenzene	74
SS-1	Trichloroethylene	5.2
SS-1	Vinyl Chloride	2.8
SS-2	Ethylbenzene	35
SS-2	Trichloroethylene	1.1 U
SS-2	Vinyl Chloride	0.5 U

Note: U = Compound analyzed, but not detected abcve reporting limit.

A summary of the analytical report provided by STL is included as Exhibit A.

Discussion of Results

The New York State Department of Health (NYSDOH) issued draft guidance for the evaluation of the vapor intrusion pathway in February 2005[1]. This draft guidance document contains two "generic" matrices relating sub-slab soil vapor and indoor air quality concentrations for use in evaluating whether further action is required in order to prevent unacceptable human health exposures. Matrix 1 is frequently used for evaluating TCE exposures. It is expected that NYSDOH would use Matrix 2 to evaluate potential exposures to EB and VC.

It should be noted that, although indoor air samples were not collected as part of this sampling event, some conclusions can still be made with respect to the data collected (*e.g.*, sub-slab soil vapor). First, it is reasonable to assume that, for each constituent of concern, indoor air concentrations are less than the corresponding sub-slab concentration, since attenuation across the slab is likely to occur. Indeed, the work of other researchers[2] indicates attenuation may reduce sub-slab concentrations by as much as three orders of magnitude (*i.e.*, a factor of 1000).

Assuming that the sub-slab soil vapor concentrations at the GM facility attenuate by a factor of 50, the estimated indoor air concentrations of TCE and VC would be below their respective method detection limits. Moreover, the maximum estimated indoor air concentration of EB would be approximately 1.5 $\mu g/m^3$. Based on a review of Matrix 2, situations involving a sub-slab

[1] *Guidance for Evaluating Soil Vapor Intrusion in the State of New York.* Public Comment Draft. February 2005.

[2] *Evaluating Vapor Intrusion from Ground Water and Soil to Indoor Air*, Dawson, H., USEPA Region 8, presented at the EPA Brownfields Conference, Charlotte, NC, November 2002; *New York's Approach to Vapor Intrusion – An Example*, Wuertz, B., NYSDEC, and McDonald, G., NYSDOH, 2004.

concentration of EB of 74 $\mu g/m^3$ and an indoor air concentration of 1.5 $\mu g/m^3$ do not require further action. Similar conclusions would also be drawn based on the predicted concentrations of TCE and VC with this attenuation factor.

It is important to note that the thickness of the slab in the Administration Building (9 inches at SS-1; 7-3/4 inches at SS-2) would likely support a higher attenuation factor than traditional structures will thinner slabs.

Conclusions

Based on the low sub-slab soil vapor concentrations of the target compounds observed in the vicinity of the Administration Building at the Former IFG Facility in Syracuse, NY, it would appear that there is limited potential for significant indoor air quality concerns in the Administration Building resulting solely from vapor intrusion.

If you have any questions about this report or the data contained therein, please do not hesitate to contact me at (315) 437-6100 ext. 2537.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

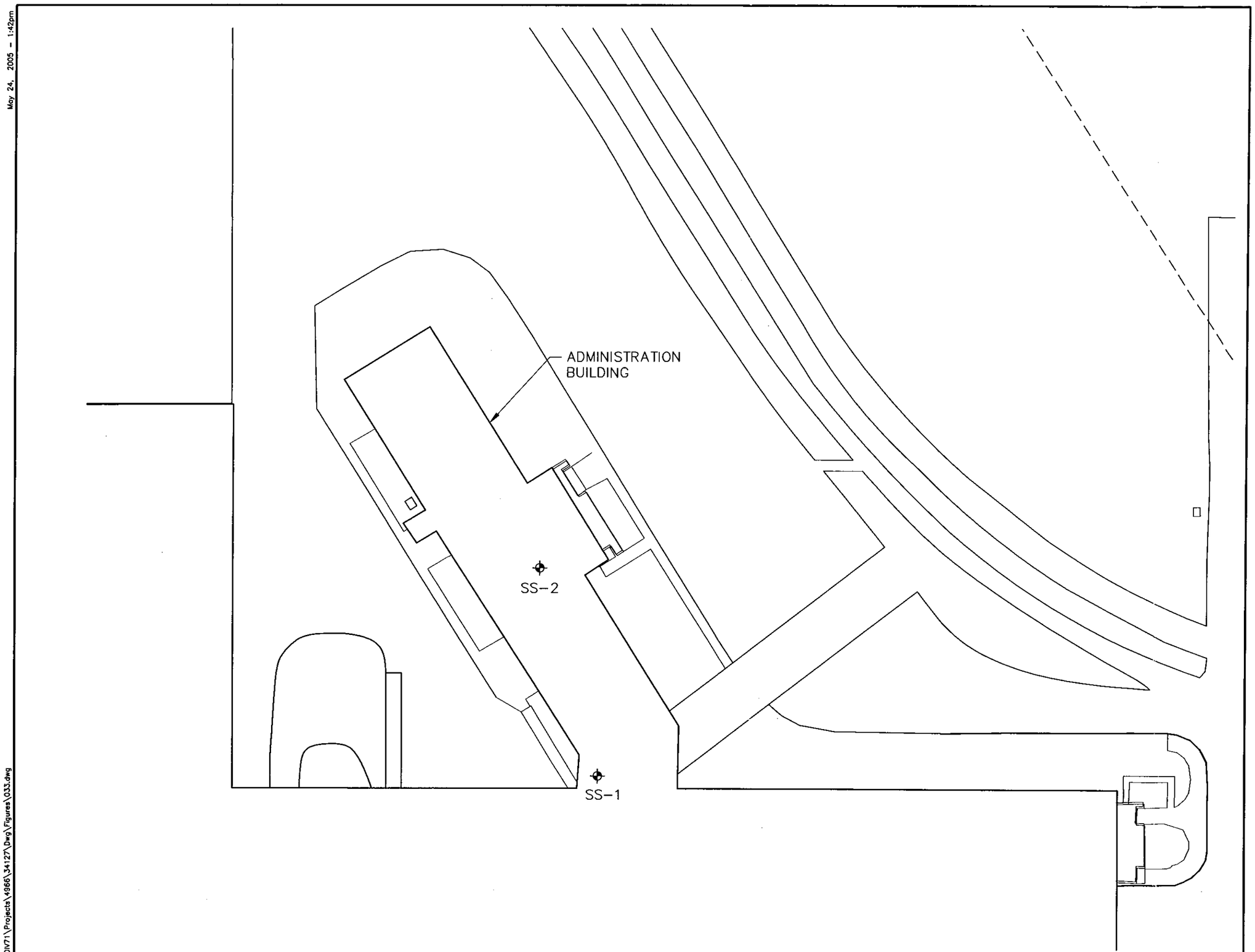
Matthew Traister, P.E.
Managing Engineer

Attachments: Figure 1 – *Sub-Slab Soil Vapor Sampling Locations (Administration Building)*
Appendix A – *Photographic Documentation of the Sub-Slab Soil Vapor Sampling System*
Exhibit A – *Analytical Report by Severn Trent Laboratories*

cc: Douglas Crawford, P.E. – O'Brien & Gere
Clare Leary, P.E. – O'Brien & Gere
Maureen Markert, P.E. – O'Brien & Gere
Bradley Kubiak, P.E. – O'Brien & Gere

FIGURES

FIGURE 1



LEGEND

SS-1 ⌖ APPROXIMATE SUB-SLAB SOIL VAPOR SAMPLING LOCATIONS

SALINA INDUSTRIAL
POWER PARK
SYRACUSE, NEW YORK

SUB-SLAB VAPOR SAMPLING LOCATIONS ADMINISTRATION BUILDING

0 60 120
SCALE IN FEET

FILE NO. 4966.34127.033
MAY 2005

O'BRIEN & GERE
ENGINEERS INC.

May 24, 2005 - 1:42pm

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APPENDICES

APPENDIX A

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

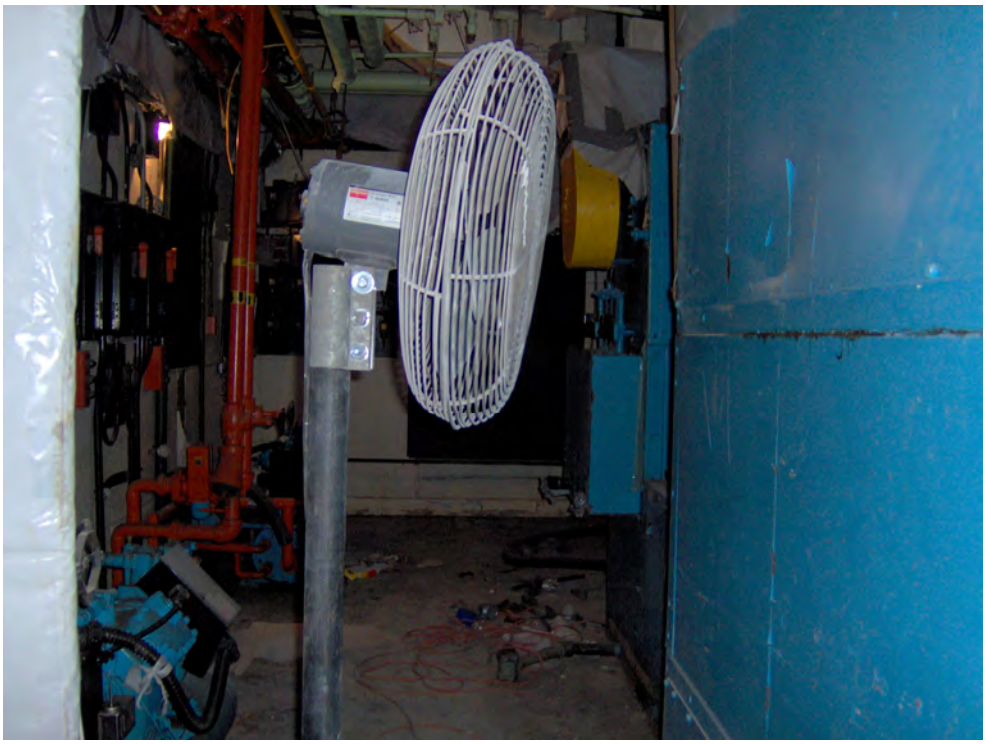
Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System



General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

General Motors Corporation
Syracuse, New York

Photographic Documentation of the Sub-Slab Soil Vapor Sampling System

EXHIBITS

EXHIBIT A

Analytical Report by Severn Trent Laboratories

STL Burlington
Colchester, Vermont

Extended Data Package

SDG: 107092

SEVERN TRENT STL

NARRATIVE

SEVERN TRENT STL

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446

Tel: 802 655 1203 Fax: 802 655 1248
www.stl-inc.com

May 16, 2005

Mr. Matt Traister
O'Brien & Gere Engineers, Inc.
5000 Brittonfield Parkway
E. Syracuse, NY 13057

Re: Laboratory Project No.: 25000
Case: 25000; SDG: 107092

Dear Mr. Traister:

Enclosed are the analytical results of the sample received intact by STL Burlington on May 9, 2005. This report is sequentially numbered starting with page 0001 and ending with page 0128. The laboratory ID number was designated as follows:

Lab ID	Client Sample ID	Sample Date	Sample Matrix
	Received: 05/09/05 ETR No: 107092		
619705	GM-SS-1	05/05/05	Air
619706	GM-SS-2	05/05/05	Air

Documentation of the condition of the sample at the time of its receipt and any exceptions to the laboratory's Sample Acceptance Policy is included in the Sample Handling section of this submittal.

Sample GM-SS-1 was received by the laboratory at a pressure of –23.2" Hg. The analysis of this sample proceeded, although at a small dilution factor, and yielded concentrations of target analytes within the calibrated range.

The analytical results presented in this data report were generated under a quality system that adheres to the requirements specified in the NELAC standard. This report shall not be reproduced, except in full, without the written approval of the laboratory. The release of the data in this report is authorized by the Laboratory Director or his designee, as verified by the following signature.

If there are any questions regarding this submittal, please contact Don Dawicki at (802) 655-1203.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director

Enclosure

0001A last alpha

TO-14/15
Result Summary

CLIENT SAMPLE NO.

GM-SS-1

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: Air

Lab Sample No.: 619705

Date Analyzed: 05/10/2005

Date Received: 05/09/2005

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	1.1		0.47	2.8		1.2
Trichloroethene	79-01-6	0.97		0.47	5.2		2.5
Ethylbenzene	100-41-4	17		0.47	74		2.0

0302

TO-14/15
Result Summary

CLIENT SAMPLE NO.

GM-SS-2

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: Air

Lab Sample No.: 619706

Date Analyzed: 05/11/2005

Date Received: 05/09/2005

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	0.20	U	0.20	0.51	U	0.51
Trichloroethene	79-01-6	0.20	U	0.20	1.1	U	1.1
Ethylbenzene	100-41-4	8.0		0.20	35		0.87

0003

TO-14/15
Result Summary

CLIENT SAMPLE NO.

ABLKG9

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: AIR

Lab Sample No.: ABLKG9

Date Analyzed: 05/10/2005

Date Received: / /

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	0.10	U	0.10	0.26	U	0.26
Trichloroethene	79-01-6	0.10	U	0.10	0.54	U	0.54
Ethylbenzene	100-41-4	0.10	U	0.10	0.43	U	0.43

TO-14/15
Result Summary

CLIENT SAMPLE NO.

ABLKH3

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: AIR

Lab Sample No.: ABLKH3

Date Analyzed: 05/11/2005

Date Received: / /

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	0.10	U	0.10	0.26	U	0.26
Trichloroethene	79-01-6	0.10	U	0.10	0.54	U	0.54
Ethylbenzene	100-41-4	0.10	U	0.10	0.43	U	0.43

TO-14/15
Result Summary

CLIENT SAMPLE NO.

G9LCS

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: AIR

Lab Sample No.: G9LCS

Date Analyzed: 05/10/2005

Date Received: / /

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	10		0.20	26		0.51
Trichloroethene	79-01-6	10		0.20	54		1.1
Ethylbenzene	100-41-4	9.9		0.20	43		0.87

0000

TO-14/15
Result Summary

CLIENT SAMPLE NO.

G9LCSD

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: AIR

Lab Sample No.: G9LCSD

Date Analyzed: 05/10/2005

Date Received: / /

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	10		0.20	26		0.51
Trichloroethene	79-01-6	10		0.20	54		1.1
Ethylbenzene	100-41-4	9.8		0.20	43		0.87

TO-14/15
Result Summary

CLIENT SAMPLE NO.

H3LCS

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: AIR

Lab Sample No.: H3LCS

Date Analyzed: 05/11/2005

Date Received: / /

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	10		0.20	26		0.51
Trichloroethene	79-01-6	10		0.20	54		1.1
Ethylbenzene	100-41-4	9.9		0.20	43		0.87

TO-14/15
Result Summary

CLIENT SAMPLE NO.

H3LCSD

Lab Name: STL Burlington

SDG Number: 107092

Case Number:

Sample Matrix: AIR

Lab Sample No.: H3LCSD

Date Analyzed: 05/11/2005

Date Received: / /

Target Compound	CAS Number	Results in ppbv	Q	RL in ppbv	Results in ug/m3	Q	RL in ug/m3
Vinyl Chloride	75-01-4	11		0.20	28		0.51
Trichloroethene	79-01-6	11		0.20	59		1.1
Ethylbenzene	100-41-4	11		0.20	48		0.87

STL Burlington Data Qualifier Definitions

Organic

U: Compound analyzed but not detected at a concentration above the reporting limit.

J: Estimated value.

N: Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds (TICs) where the identification of a compound is based on a mass spectral library search.

P: Greater than 25% difference for detected concentrations between two GC columns. Unless otherwise specified in project QA plan, the lower of the two values is reported on the Form I.

C: Pesticide result whose identification has been confirmed by GC/MS.

B: Analyte is found in the sample and the associated method blank. The flag is used for tentatively identified compounds as well as positively identified compounds.

E: Compounds whose concentrations exceed the upper limit of the calibration range of the instrument for that specific analysis.

D: Concentrations identified from analysis of the sample at a secondary dilution.

A: Tentatively identified compound is a suspected aldol condensation product.

X,Y,Z: Laboratory defined flags that may be used alone or combined, as needed. If used, the description of the flag is defined in the project narrative.

Inorganic/Metals

E: Reported value is estimated due to the presence of interference.

N: Matrix spike sample recovery is not within control limits.

* Duplicate sample analysis is not within control limits.

B: The result reported is less than the reporting limit but greater than the instrument detection limit.

U: Analyte was analyzed for but not detected above the reporting limit.

Method Codes:

P	ICP-AES
MS	ICP-MS
CV	Cold Vapor AA
AS	Semi-Automated Spectrophotometric

SEVERN TRENT **STL**

SEVERN TRENT LABORATORIES, INC.

STL Burlington
208 South Park Drive, Suite 1
Colchester, VT 05446 Tel 802 655 1203

CHAIN OF CUSTODY RECORD

Report to:	Invoice to:
Company: O'Brien & Gere	Company: SAME
Address: 5000 Brittonfield Pkwy E. Syracuse, NY 13057	Address:
Contact: Chris Matt Traister	Contact:
Phone: 315-437-6100	Phone:
Fax: 315-463-7554	Fax:
Contract/ Quote: 34127	

Sampler's Name: Chris Fiske

Sampler's Signature:

Proj. No.: 34127

Project Name: GM

No/Type of Containers²: 2/6L summa

ANALYSIS REQUESTED: TO-15 for TCE, Ethyl Benzene, Vinyl Chloride, 3-Day turnaround

Lab Use Only
Due Date:

Temp. of coolers when received (C°):

1	2	3	4	5

Custody Seal N / Y
Intact N / Y

Screened For Radioactivity ☐

Matrix¹	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Lab/Sample ID (Lab Use Only)
A	5/5/05	1444	✓		GM-SS-1					
A	5/5/05	1455	✓		GM-SS-2					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	5/5/05	1715	Angela Patnaude	05.09.05	0910
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Fed Ex #s 852418268416
852418268427

Client's delivery of samples constitutes acceptance of Severn Trent Laboratories terms and conditions contained in the Price Schedule.

¹Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil

²Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other _____

STL cannot accept verbal changes.
Please Fax written changes to
(802) 655-1248

STL8234-200 (12/02)

SEVERN TRENT STL

METHOD TO-15
VOLATILE ORGANIC ANALYSIS

QC SUMMARY

0012

FORM 3
AIR VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix Spike - Sample No.: G9LCS

COMPOUND	SPIKE ADDED (ppbv)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	10		10	100	70-130
Trichloroethene	10		10	100	70-130
Ethylbenzene	10		9.9	99	70-130

COMPOUND	SPIKE ADDED (ppbv)	LCSD CONCENTRATION (ppbv)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Vinyl Chloride	10	10	100	0	40	70-130
Trichloroethene	10	10	100	0	40	70-130
Ethylbenzene	10	9.8	98	1	40	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

FORM 3
AIR VOLATILE LAB CONTROL SAMPLE

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix Spike - Sample No.: H3LCS

COMPOUND	SPIKE ADDED (ppbv)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.
Vinyl Chloride	10		10	100	70-130
Trichloroethene	10		10	100	70-130
Ethylbenzene	10		9.9	99	70-130

COMPOUND	SPIKE ADDED (ppbv)	LCSD CONCENTRATION (ppbv)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Vinyl Chloride	10	11	110	10	40	70-130
Trichloroethene	10	11	110	10	40	70-130
Ethylbenzene	10	11	110	10	40	70-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

ABLKG9

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Lab File ID: BDJB01K Lab Sample ID: ABLKG9

Date Analyzed: 05/10/05 Time Analyzed: 1211

GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: B

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	G9LCS	G9LCS	BDJ10KQ	1025
02	G9LCSD	G9LCSD	BDJ10KQD	1111
03	GM-SS-1	619705	619705	2218
04				
05				
06				
07				
08				
09				
10				
11				
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30				

COMMENTS:

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

ABLKH3

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Lab File ID: BDJB01L Lab Sample ID: ABLKH3

Date Analyzed: 05/11/05 Time Analyzed: 1146

GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: B

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	H3LCS	H3LCS	BDJ10LQ	1002
02	H3LCSD	H3LCSD	BDJ10LQD	1047
03	GM-SS-2	619706	619706I2	1319
04				
05				
06				
07				
08				
09				
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COMMENTS:

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Lab File ID: DJ001P BFB Injection Date: 04/26/05

Instrument ID: B BFB Injection Time: 0715

GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	25.7
75	30.0 - 66.0% of mass 95	39.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	70.0
175	4.0 - 9.0% of mass 174	4.7 (6.7)1
176	93.0 - 101.0% of mass 174	66.2 (94.5)1
177	5.0 - 9.0% of mass 176	4.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ASTD005	ASTD005	DJ005	04/26/05	0823
02	ASTD015	ASTD015	DJ015	04/26/05	0953
03	ASTD020	ASTD020	DJ020	04/26/05	1038
04	ASTD040	ASTD040	DJ040	04/26/05	1124
05	ASTD0005	ASTD0005	DJ0005	04/26/05	1428
06	ASTD0002	ASTD0002	DJ0002	04/26/05	1513
07	ASTD010	ASTD010	DJ010I2	04/26/05	1624
08					
09					
10					
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FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Lab File ID (Standard): BDJ10KV Date Analyzed: 05/10/05

Instrument ID: B Time Analyzed: 0931

GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DFB) AREA #	RT #
	12 HOUR STD	351640	9.70	1840260	12.96	1885436	10.53
	UPPER LIMIT	492296	10.03	2576364	13.29	2639610	10.86
	LOWER LIMIT	210984	9.37	1104156	12.63	1131262	10.20
	CLIENT SAMPLE NO.						
01	G9LCS	389112	9.70	2015957	12.96	2107364	10.53
02	G9LCSD	417210	9.70	2188240	12.96	2249517	10.53
03	ABLKG9	308085	9.70	1363305	12.96	1596917	10.53
04	GM-SS-1	392378	9.70	2200060	12.96	2107170	10.53
05							
06							
07							
08							
09							
10							
11							
12							
13							
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16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DFB) = 1,4-Difluorobenzene

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40% of internal standard area
RT UPPER LIMIT = + 0.33 minutes of internal standard RT
RT LOWER LIMIT = - 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Lab File ID (Standard): BDJ10LV Date Analyzed: 05/11/05

Instrument ID: B Time Analyzed: 0915

GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA	#	RT	#	IS2 (CBZ) AREA	#	RT	#	IS3 (DFB) AREA	#	RT	#
	12 HOUR STD	386533		9.70		2037388		12.96		2078590		10.53	
	UPPER LIMIT	541146		10.03		2852343		13.29		2910026		10.86	
	LOWER LIMIT	231920		9.37		1222433		12.63		1247154		10.20	
	CLIENT SAMPLE NO.												
01	H3LCS	401998		9.70		2072453		12.96		2136384		10.53	
02	H3LCSD	384938		9.70		1965189		12.96		2026527		10.53	
03	ABLKH3	313951		9.70		1406440		12.96		1623450		10.53	
04	GM-SS-2	440939		9.70		2496096		12.96		2446784		10.53	
05													
06													
07													
08													
09													
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18													
19													
20													
21													
22													

IS1 (BCM) = Bromochloromethane
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DFB) = 1,4-Difluorobenzene

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40% of internal standard area
RT UPPER LIMIT = + 0.33 minutes of internal standard RT
RT LOWER LIMIT = - 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SEVERN TRENT STL

METHOD TO-15
VOLATILE ORGANIC ANALYSIS

SUPPORTIVE DOCUMENTATION

0022

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

OBRGER SAMPLE NO.

GM-SS-1

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: 619705

Sample wt/vol: 600.0 (g/mL) ML Lab File ID: 619705

Level: (low/med) LOW Date Received: 05/09/05

% Moisture: not dec. _____ Date Analyzed: 05/10/05

GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 2.4

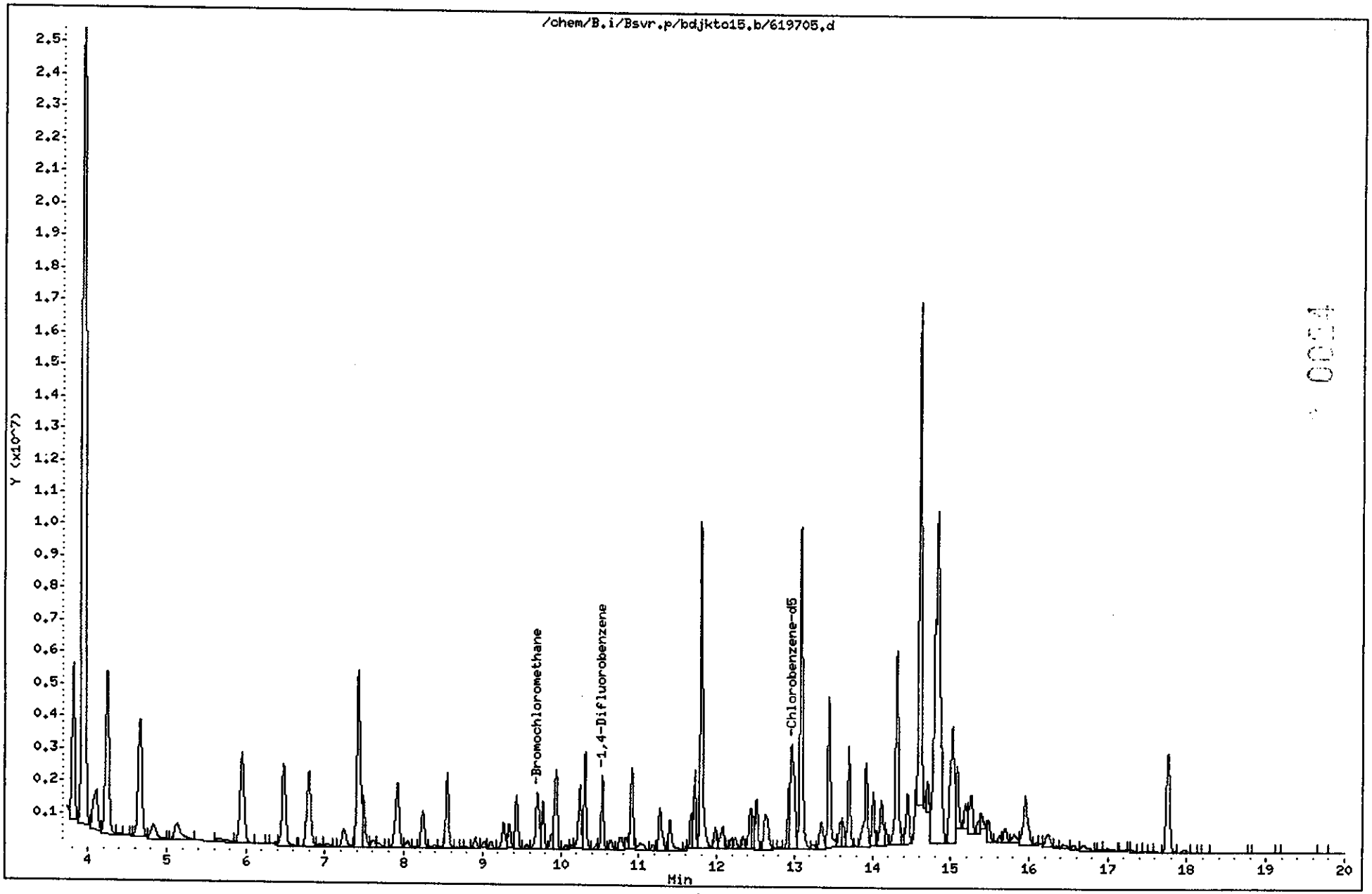
Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	1.1	
79-01-6	Trichloroethene	0.97	
100-41-4	Ethylbenzene	17	

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/619705.d
Date : 10-MAY-2005 22:18
Client ID: CH-SS-1
Sample Info: CH-SS-1 :[ ]05/05/05 @1444(Air)
Purge Volume: 600.0
Column phase: RTX-624

Instrument: B.i

Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjkto15.b/619705.d
Lab Smp Id: 619705 Client Smp ID: GM-SS-1
Inj Date : 10-MAY-2005 22:18
Operator : wrd Inst ID: B.i
Smp Info : GM-SS-1 :[ ]05/05/05 @1444(Air)
Misc Info : 619705;0510G9;2.35;600;cdf 7.06
Comment :
Method : /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Meth Date : 12-May-2005 09:57 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 15
Dil Factor: 2.35000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	2.35000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	600.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)	
	4 Vinyl Chloride	62	4.722	4.717	(0.487)	25933	0.45117	1.1	
*	25 Bromochloromethane	128	9.696	9.697	(1.000)	392378	10.0000		(Q)
*	35 1,4-Difluorobenzene	114	10.534	10.529	(1.000)	2107170	10.0000		
	36 Trichloroethene	95	10.780	10.775	(1.023)	18333	0.41473	0.97	
*	50 Chlorobenzene-d5	117	12.963	12.957	(1.000)	2200060	10.0000		
	52 Ethylbenzene	91	12.995	12.995	(1.002)	1468823	7.24712	17	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/619705.d

Date : 10-MAY-2005 22:18

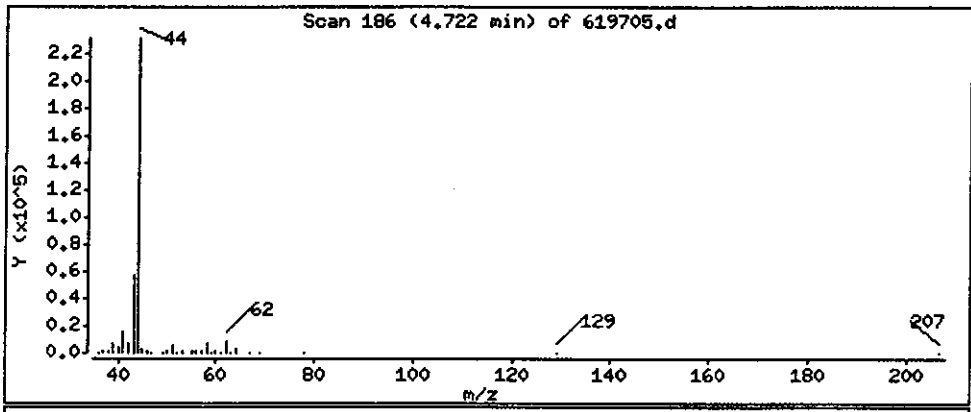
Client ID: GM-SS-1 Instrument: B.i

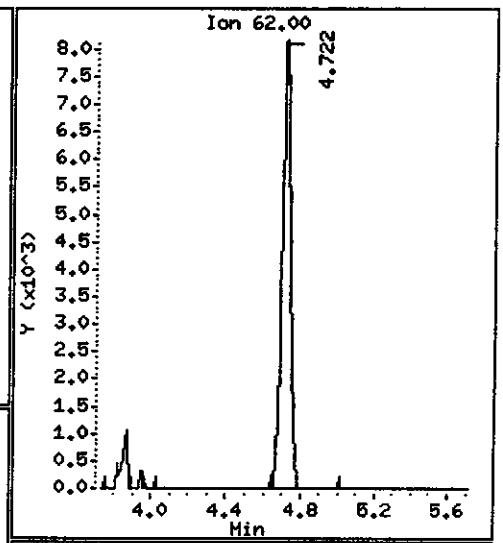
Sample Info: GM-SS-1 :[ ]05/05/05 @1444(Air)

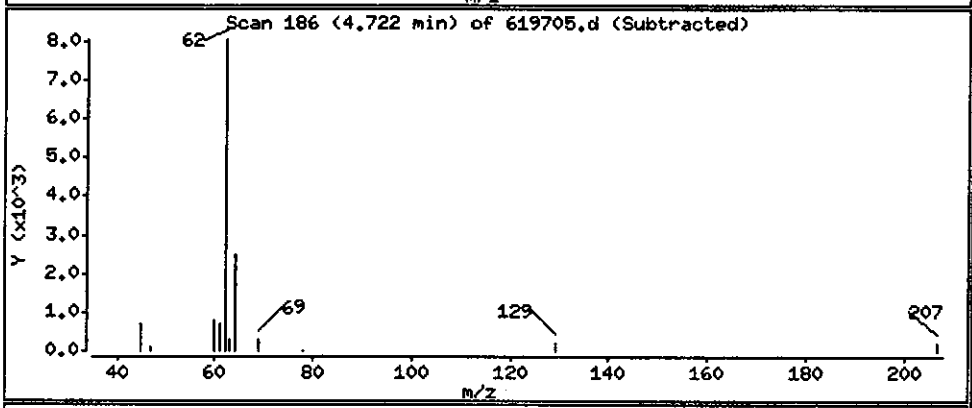
Purge Volume: 600.0 Operator: wrd

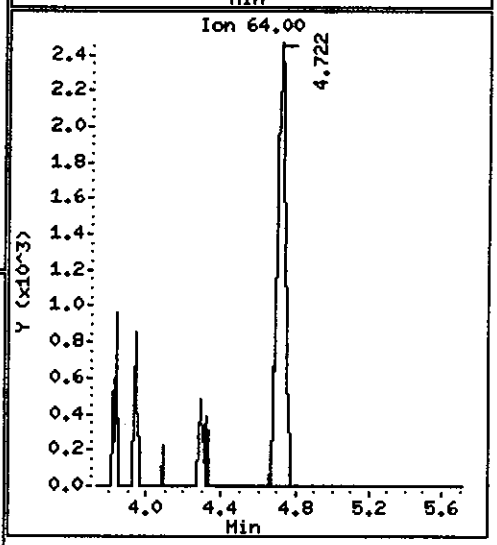
Column phase: RTX-624 Column diameter: 0.32

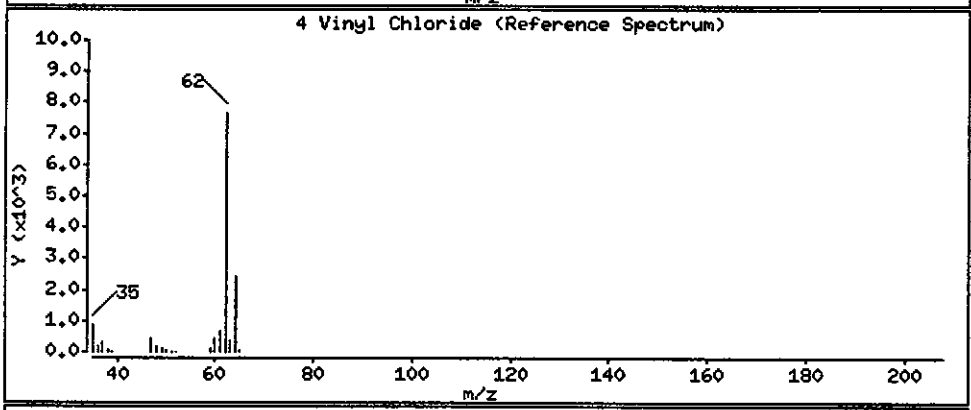
4 Vinyl Chloride Concentration: 1.1 ppbv

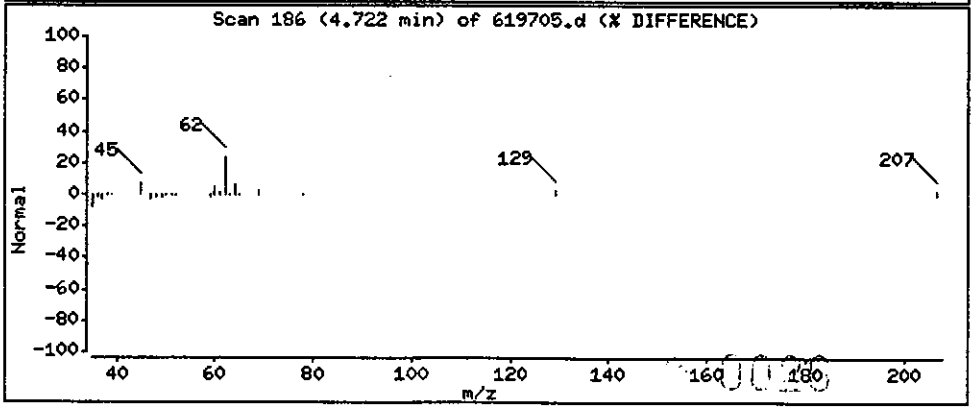












Data File: /chem/B.i/Bsvr.p/bdjkto15.b/619705.d

Date : 10-MAY-2005 22:18

Client ID: GM-SS-1

Instrument: B.i

Sample Info: GM-SS-1 :[ ]05/05/05 @1444(Air)

Purge Volume: 600.0

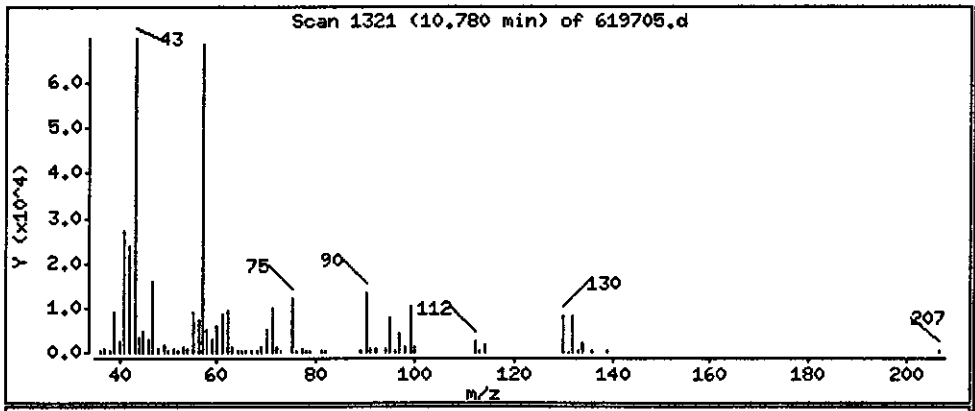
Operator: wrd

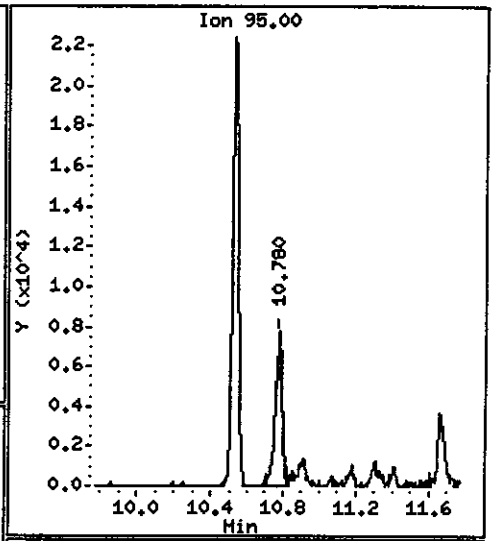
Column phase: RTX-624

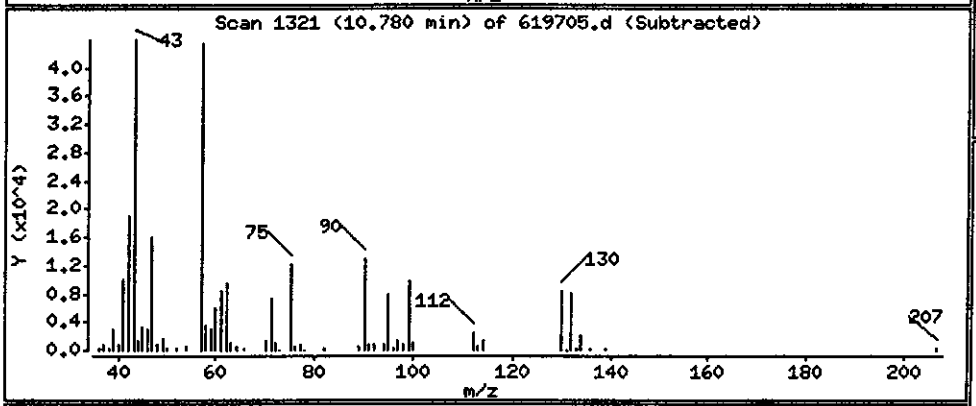
Column diameter: 0.32

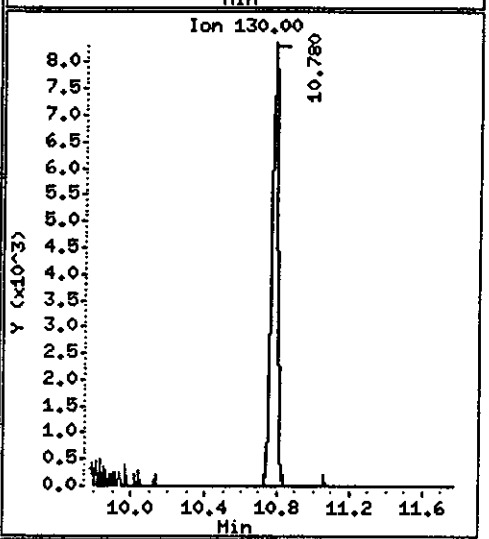
36 Trichloroethene

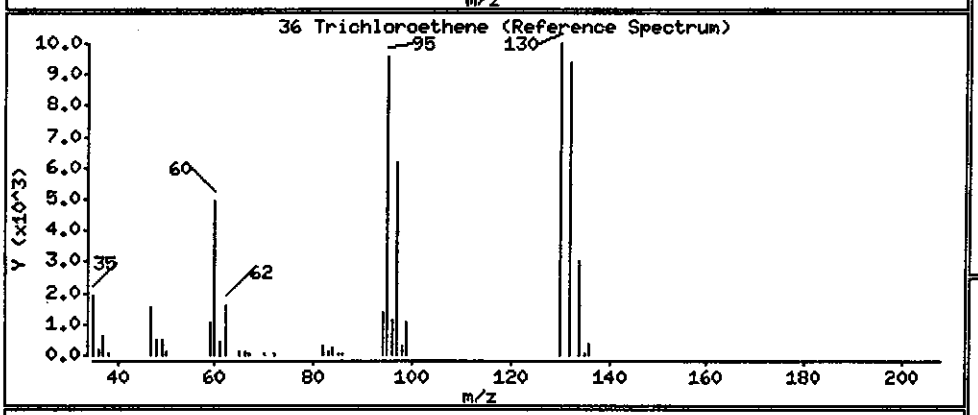
Concentration: 0.97 ppbv

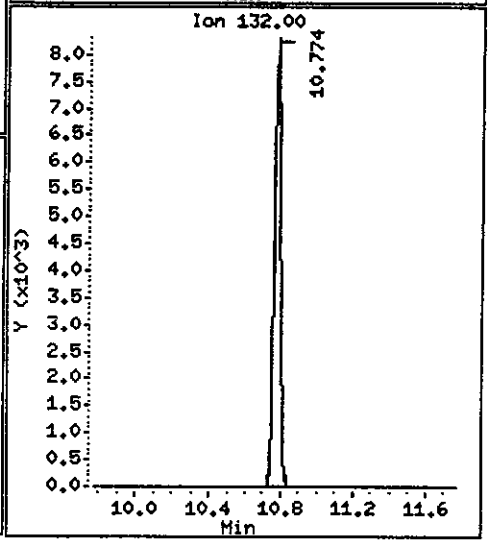


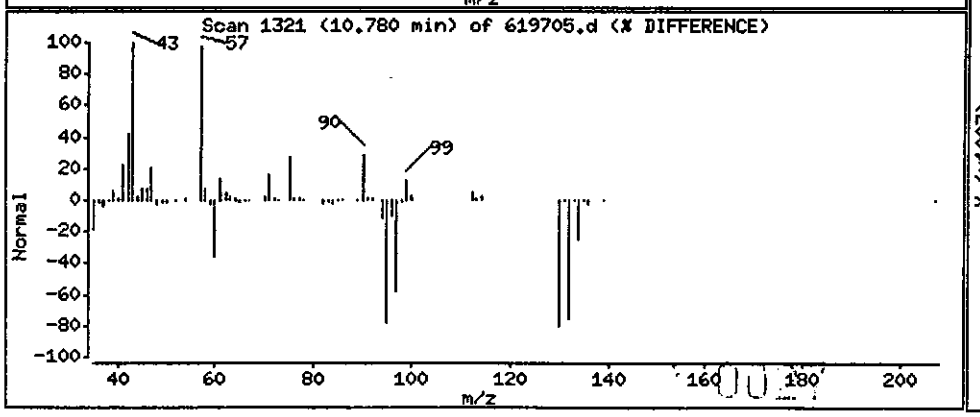












Data File: /chem/B.i/Bsvr.p/bdjkto15.b/619705.d

Date : 10-MAY-2005 22:18

Client ID: GH-SS-1

Instrument: B.i

Sample Info: GH-SS-1 :[ ]05/05/05 @1444(Air)

Purge Volume: 600.0

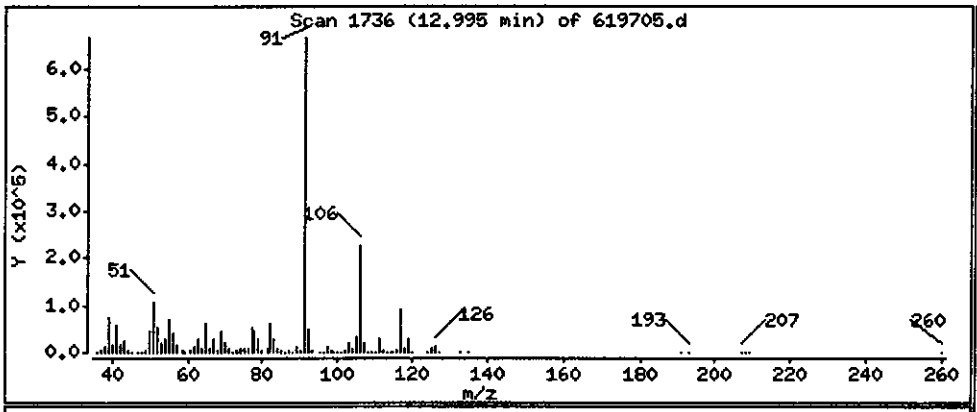
Operator: wrd

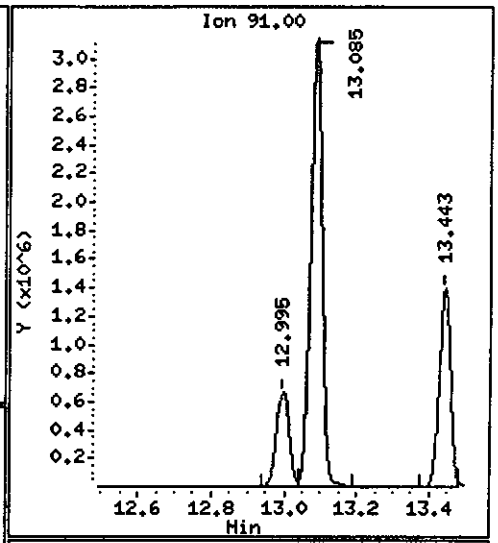
Column phase: RTX-624

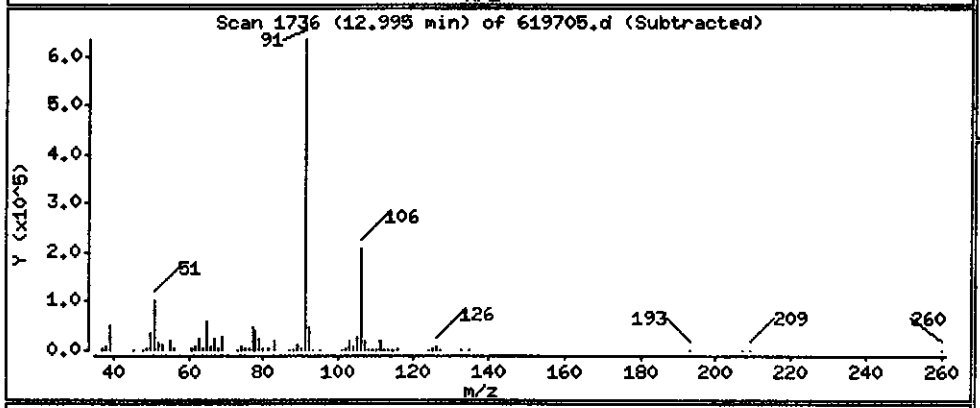
Column diameter: 0.32

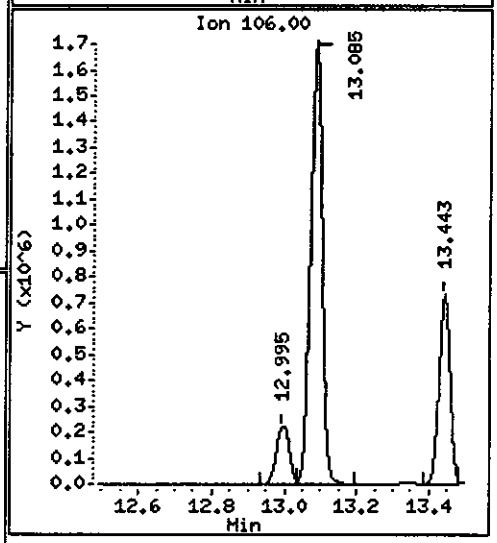
52 Ethylbenzene

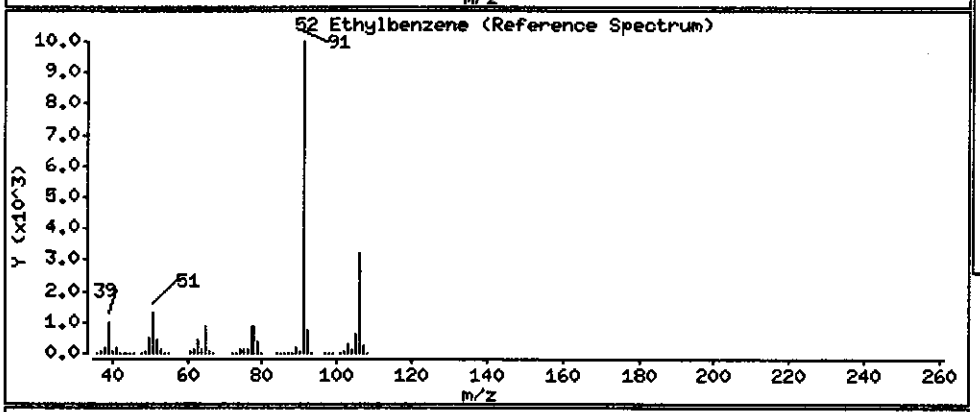
Concentration: 17 ppbv

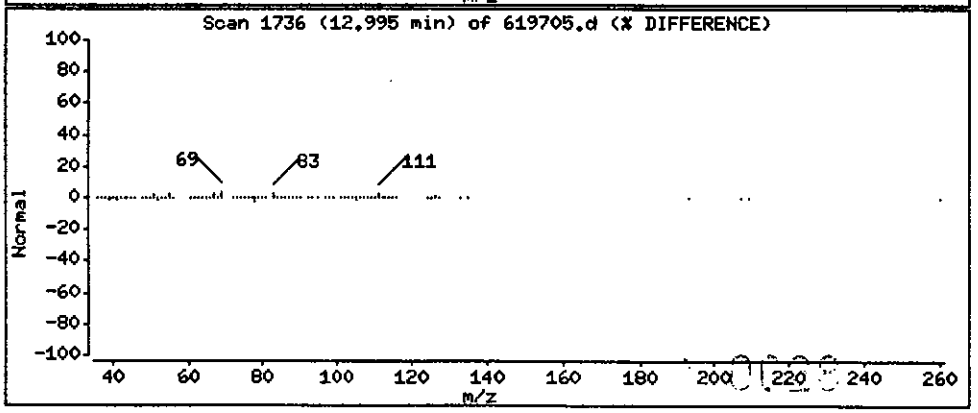












FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

OBRGER SAMPLE NO.

GM-SS-2

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: 619706

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: 619706I2

Level: (low/med) LOW Date Received: 05/09/05

% Moisture: not dec. _____ Date Analyzed: 05/11/05

GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 1.0

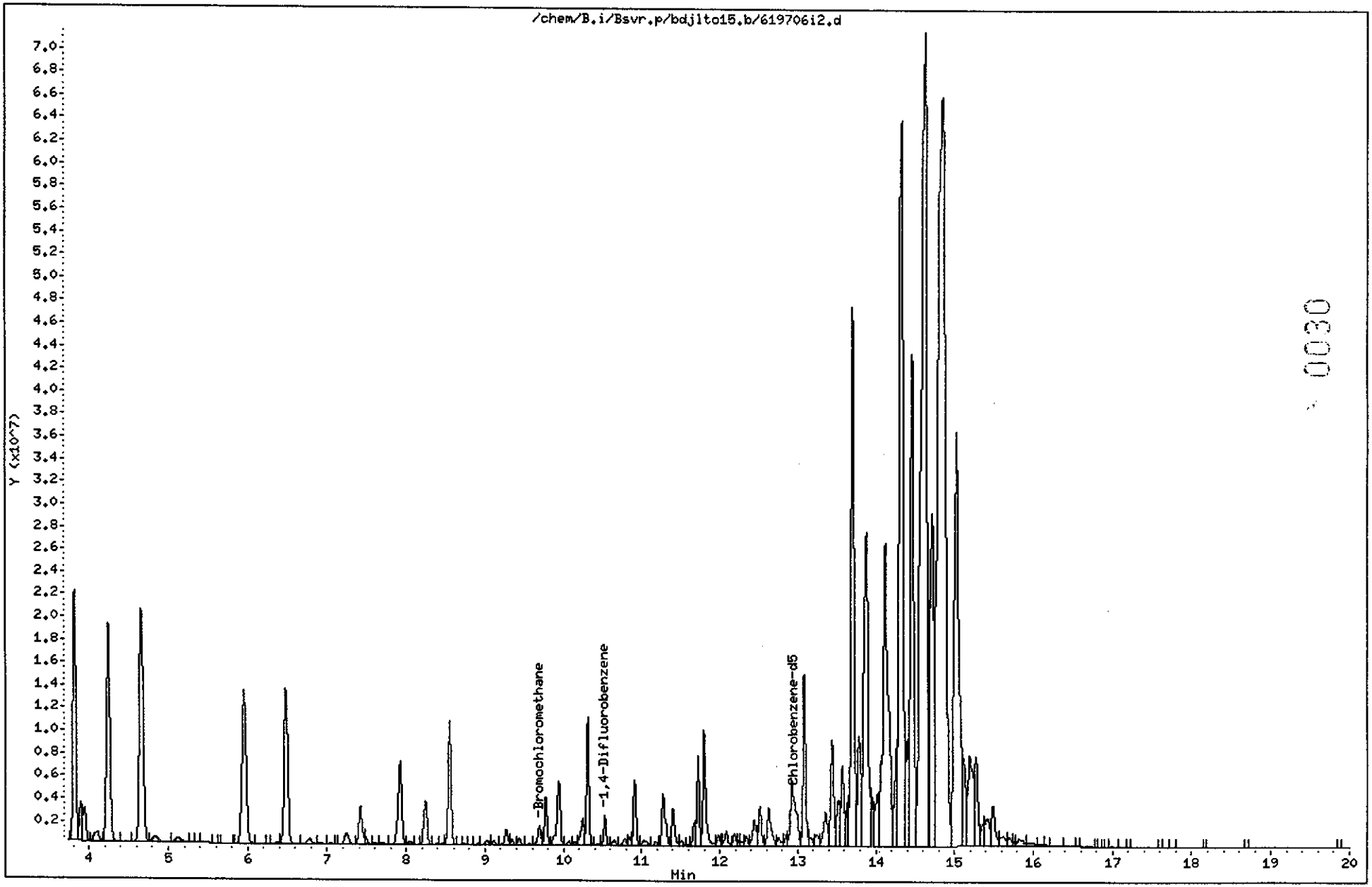
Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	0.20	U
79-01-6	Trichloroethene	0.20	U
100-41-4	Ethylbenzene	8.0	

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/61970612.d
Date : 11-MAY-2005 13:19
Client ID: GM-SS-2
Sample Info: GM-SS-2 :[05/05/05 @1455(Air)
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i

Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjlto15.b/619706i2.d
Lab Smp Id: 619706 Client Smp ID: GM-SS-2
Inj Date : 11-MAY-2005 13:19
Operator : wrd Inst ID: B.i
Smp Info : GM-SS-2 :[ ]05/05/05 @1455(Air)
Misc Info : 619706;0511H3;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Meth Date : 12-May-2005 10:13 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)	
	4 Vinyl Chloride	62	Compound Not Detected.						
*	25 Bromochloromethane	128	9.696	9.696	(1.000)	440939	10.0000		(Q)
*	35 1,4-Difluorobenzene	114	10.534	10.529	(1.000)	2446784	10.0000		
	36 Trichloroethene	95	Compound Not Detected.						
*	50 Chlorobenzene-d5	117	12.957	12.957	(1.000)	2496096	10.0000		
	52 Ethylbenzene	91	12.995	12.995	(1.003)	1848878	8.04040	8.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/619706i2.d

Date : 11-MAY-2005 13:19

Client ID: GM-SS-2

Instrument: B.i

Sample Info: GM-SS-2 :[J05/05/05 @1455(Air)

Purge Volume: 200.0

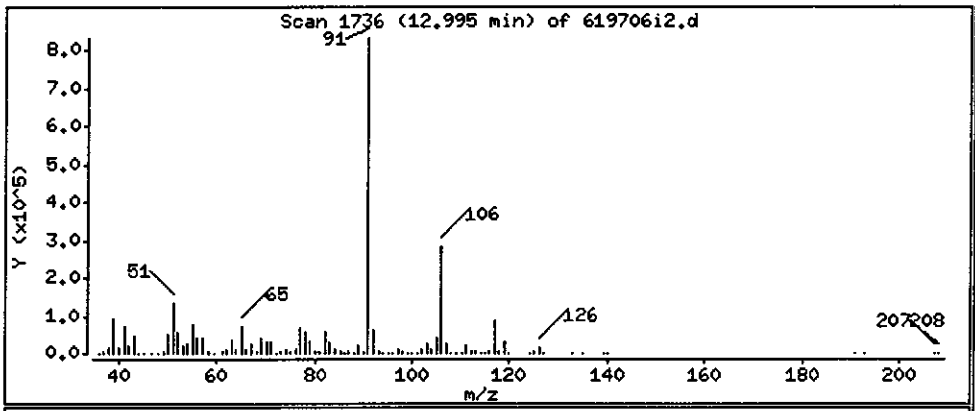
Operator: wrd

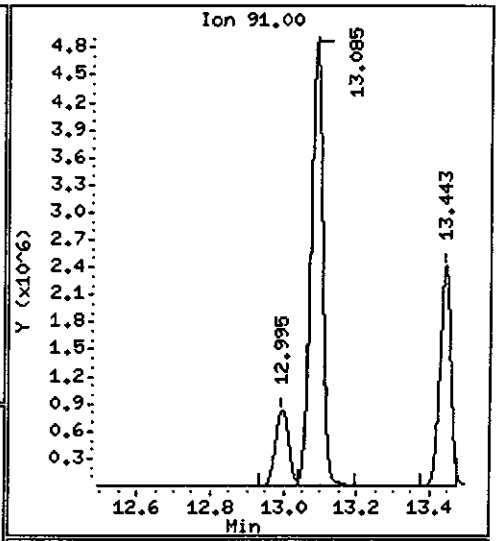
Column phase: RTX-624

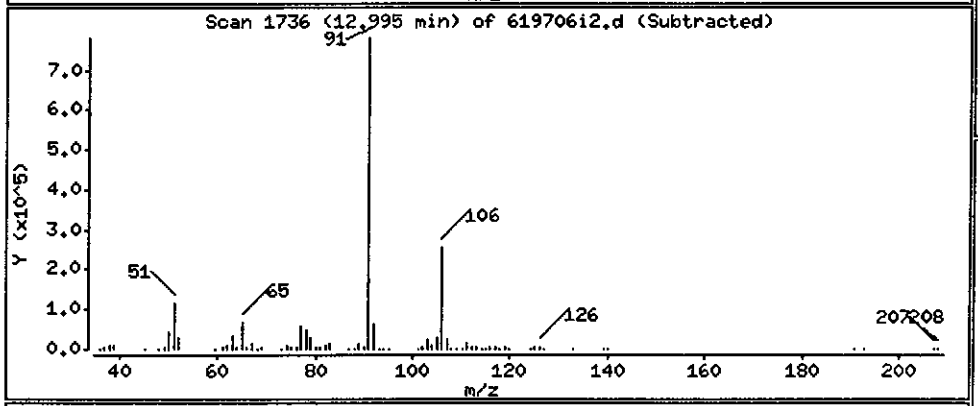
Column diameter: 0.32

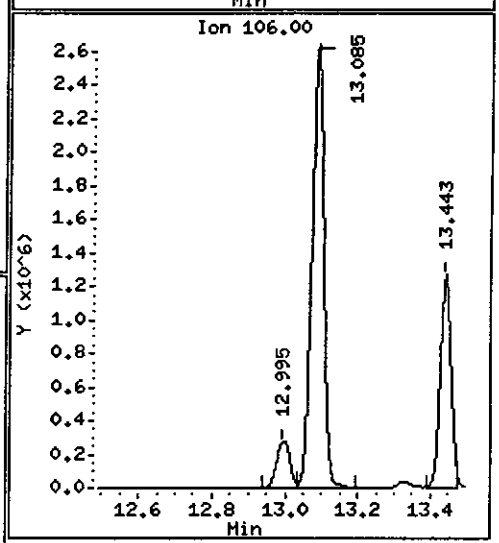
52 Ethylbenzene

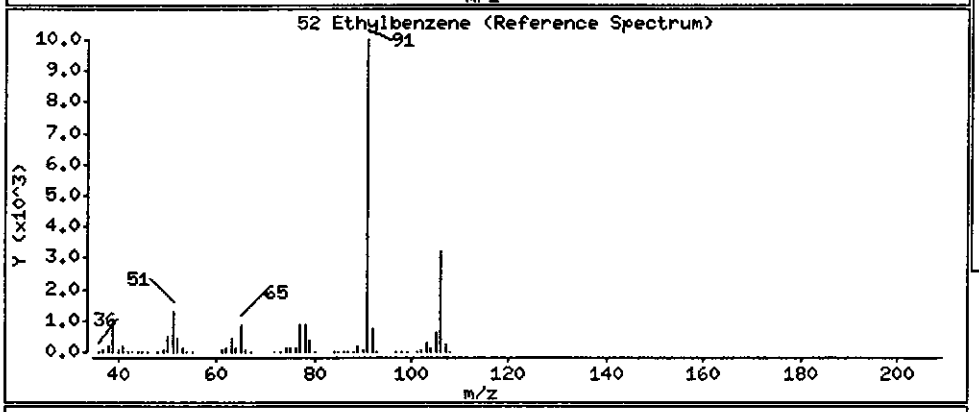
Concentration: 8.0 ppbv

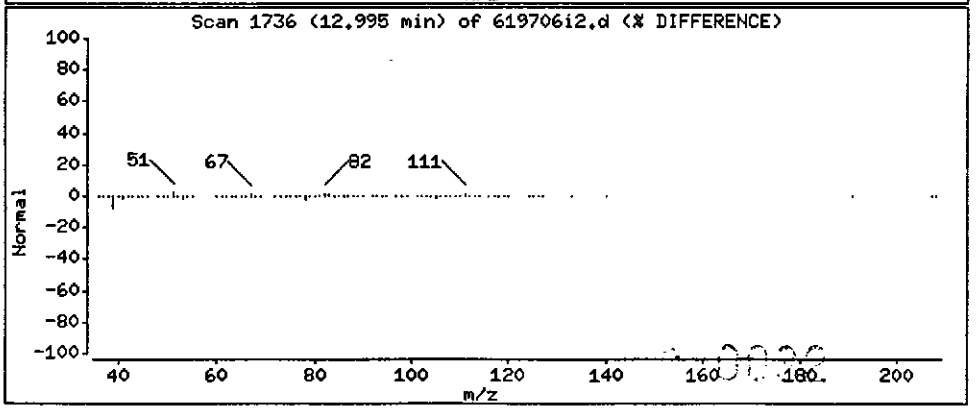












SEVERN TRENT STL

METHOD TO-15
VOLATILE ORGANIC ANALYSIS

STANDARDS

9999

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Instrument ID: B Calibration Date(s): 04/26/05 04/26/05

Heated Purge: (Y/N) N Calibration Time(s): 0823 1624

GC Column: RTX-624 ID: 0.32 (mm)

LAB FILE ID: RRF0.2=DJ0002 RRF0.5=DJ0005
RRF2 = RRF5 =DJ005 RRF10 =DJ010I2

COMPOUND	RRF0.2	RRF0.5	RRF2	RRF5	RRF10	$\overline{RRF}$	% RSD
Vinyl Chloride	1.341	1.212		2.025	1.440		
Trichloroethene	0.213	0.194		0.265	0.194		
Ethylbenzene	0.951	0.778		1.204	0.849		

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Instrument ID: B Calibration Date(s): 04/26/05 04/26/05

Heated Purge: (Y/N) N Calibration Time(s): 0823 1624

GC Column: RTX-624 ID: 0.32 (mm)

LAB FILE ID: RRF15 =DJ015 RRF20 =DJ020
RRF40 =DJ040

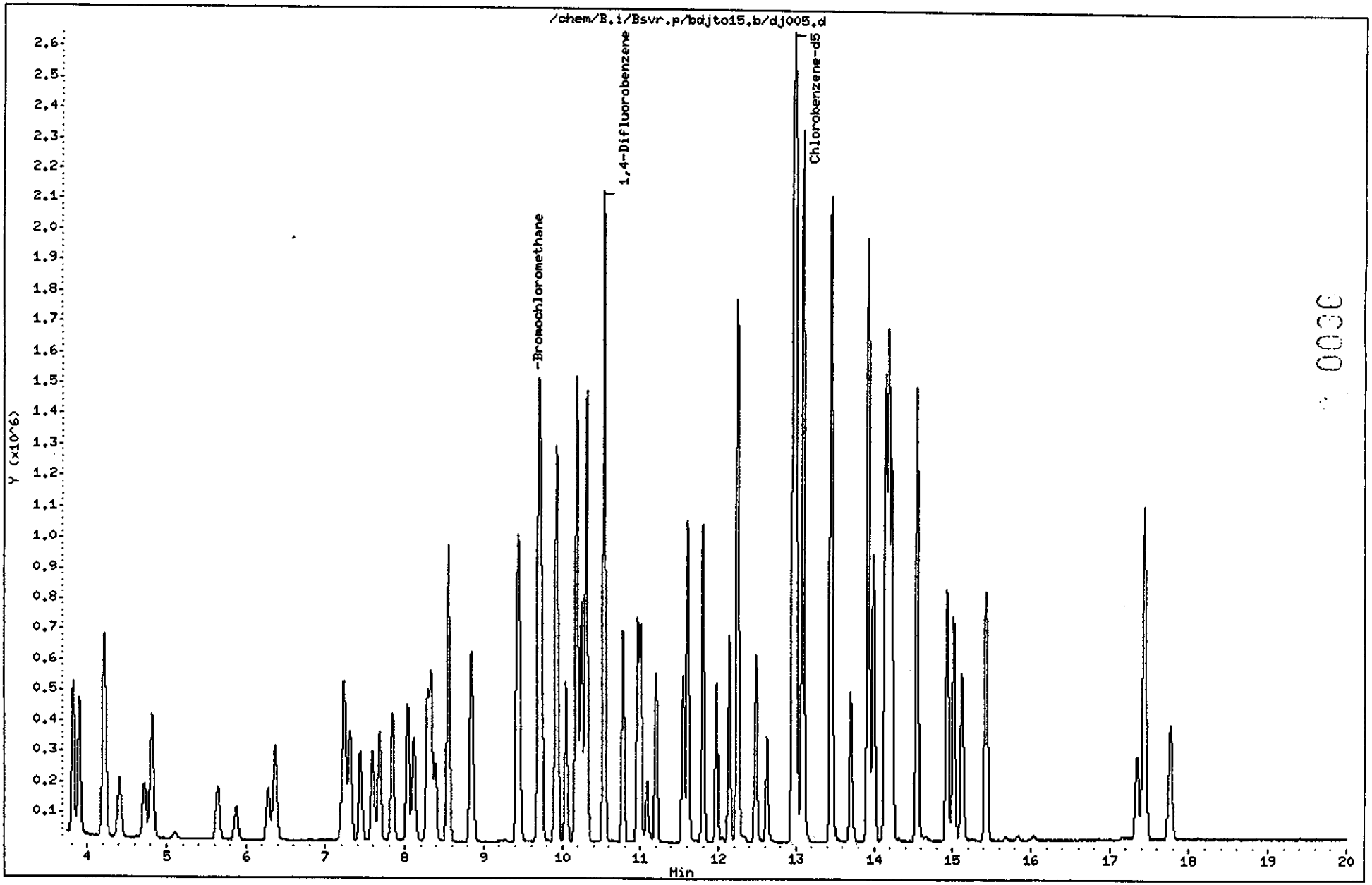
COMPOUND	RRF15	RRF20	RRF40			$\overline{RRF}$	% RSD
Vinyl Chloride		1.447	1.324			1.465	19.6
Trichloroethene		0.198	0.194			0.210	13.4
Ethylbenzene		0.880	0.866			0.921	16.2

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj005.d
Date : 26-APR-2005 08:23
Client ID: astd005
Sample Info:
Purge Volume: 100.0
Column phase: RTX-624

Instrument: B.i

Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj005.d
Lab Smp Id: astd005 Client Smp ID: astd005
Inj Date : 26-APR-2005 08:23
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd005;0426C8;1;100
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 08:23 Cal File: dj005.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	100.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1 Dichlorodifluoromethane	85	3.895	3.895	(0.401)	602889	5.00000	5.0
2 1,2-Dichlorotetrafluoroethane	85	4.215	4.210	(0.434)	731957	5.00000	5.0
3 Chloromethane	50	4.397	4.402	(0.453)	413514	5.00000	5.0
4 Vinyl Chloride	62	4.717	4.722	(0.486)	371554	5.00000	5.0
5 1,3-Butadiene	54	4.813	4.819	(0.496)	356246	5.00000	5.0
6 Bromomethane	94	5.640	5.640	(0.581)	229220	5.00000	5.0
7 Chloroethane	64	5.881	5.875	(0.606)	184018	5.00000	5.0
8 Bromoethene	106	6.276	6.276	(0.647)	224456	5.00000	5.0
9 Trichlorofluoromethane	101	6.366	6.366	(0.656)	466571	5.00000	5.0
10 Freon TF	101	7.231	7.236	(0.745)	424662	5.00000	5.0
11 1,1-Dichloroethene	96	7.311	7.306	(0.754)	202307	5.00000	5.0
12 Acetone	43	7.439	7.439	(0.767)	548991	5.00000	5.0
13 Isopropyl Alcohol	45	7.594	7.588	(0.783)	629886	5.00000	5.0
14 Carbon Disulfide	76	7.684	7.679	(0.792)	712992	5.00000	5.0
15 3-Chloropropene	41	7.845	7.839	(0.809)	493224	5.00000	5.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	16 Methylene Chloride	49	8.037	8.037	(0.828)	457701	5.00000	5.0
	17 tert-Butyl Alcohol	59	8.117	8.111	(0.837)	589932	5.00000	5.0
	18 Methyl tert-Butyl Ether	73	8.293	8.288	(0.855)	562110	5.00000	5.0
	19 trans-1,2-Dichloroethene	61	8.336	8.330	(0.859)	429550	5.00000	5.0
	20 n-Hexane	57	8.549	8.549	(0.881)	620722	5.00000	5.0
	21 1,1-Dichloroethane	63	8.859	8.853	(0.913)	496906	5.00000	5.0
M	22 1,2-Dichloroethene (total)	61				659609	10.0000	10
	23 Methyl Ethyl Ketone	72	9.440	9.440	(0.973)	125408	5.00000	5.0(Q)
	24 cis-1,2-Dichloroethene	96	9.456	9.456	(0.975)	230059	5.00000	5.0
*	25 Bromochloromethane	128	9.702	9.696	(1.000)	366899	10.0000	(Q)
	26 Tetrahydrofuran	42	9.729	9.723	(0.923)	477112	5.00000	5.0
	27 Chloroform	83	9.729	9.728	(1.003)	365277	5.00000	5.0
	28 1,1,1-Trichloroethane	97	9.915	9.915	(0.941)	343454	5.00000	5.0
	29 Cyclohexane	84	9.931	9.931	(0.943)	362192	5.00000	5.0
	30 Carbon Tetrachloride	117	10.049	10.049	(0.954)	388935	5.00000	5.0
	31 2,2,4-Trimethylpentane	57	10.182	10.182	(0.967)	1825093	5.00000	5.0
	32 Benzene	78	10.246	10.246	(0.973)	727384	5.00000	5.0
	33 1,2-Dichloroethane	62	10.294	10.294	(0.977)	269296	5.00000	5.0
	34 n-Heptane	43	10.310	10.310	(0.979)	769880	5.00000	5.0
*	35 1,4-Difluorobenzene	114	10.534	10.534	(1.000)	1964119	10.0000	
	36 Trichloroethene	95	10.775	10.775	(1.023)	260651	5.00000	5.0
	37 Methyl Methacrylate	69	10.961	10.967	(1.041)	261491	5.00000	5.0(Q)
	38 1,2-Dichloropropane	63	11.004	10.999	(1.045)	340490	5.00000	5.0
	39 1,4-Dioxane	88	11.089	11.079	(1.053)	166569	5.00000	5.0
	40 Bromodichloromethane	83	11.201	11.201	(1.063)	388058	5.00000	5.0
	41 cis-1,3-Dichloropropene	75	11.548	11.548	(1.096)	332057	5.00000	5.0
	42 Methyl Isobutyl Ketone	43	11.607	11.607	(1.102)	975272	5.00000	5.0
	43 Toluene	92	11.805	11.799	(0.911)	506634	5.00000	5.0
	44 trans-1,3-Dichloropropene	75	11.975	11.970	(1.137)	289752	5.00000	5.0
	45 1,1,2-Trichloroethane	83	12.141	12.141	(0.937)	230098	5.00000	5.0
	46 Tetrachloroethene	166	12.242	12.242	(0.944)	332687	5.00000	5.0
	47 Methyl Butyl Ketone	43	12.253	12.248	(0.945)	876073	5.00000	5.0
	48 Dibromochloromethane	129	12.488	12.482	(0.963)	418899	5.00000	5.0
	49 1,2-Dibromoethane	107	12.626	12.626	(0.974)	348779	5.00000	5.0
*	50 Chlorobenzene-d5	117	12.963	12.963	(1.000)	1808845	10.0000	
	51 Chlorobenzene	112	12.989	12.989	(1.002)	656942	5.00000	5.0
	52 Ethylbenzene	91	13.000	13.000	(1.003)	1088582	5.00000	5.0
	53 Xylene (m,p)	106	13.085	13.085	(1.009)	924745	10.0000	10
	54 Xylene (o)	106	13.443	13.443	(1.037)	474709	5.00000	5.0
M	55 Xylene (total)	106				1399454	5.00000	15
	56 Styrene	104	13.454	13.454	(1.038)	669786	5.00000	5.0
	57 Bromoform	173	13.704	13.699	(1.057)	335212	5.00000	5.0
	58 1,1,2,2-Tetrachloroethane	83	13.993	13.993	(1.079)	681136	5.00000	5.0
	59 4-Ethyltoluene	105	14.142	14.142	(1.091)	1427072	5.00000	5.0
	60 1,3,5-Trimethylbenzene	105	14.179	14.179	(1.094)	1181739	5.00000	5.0
	61 2-Chlorotoluene	91	14.222	14.222	(1.097)	1042189	5.00000	5.0
	62 1,2,4-Trimethylbenzene	105	14.548	14.548	(1.122)	1122978	5.00000	5.0

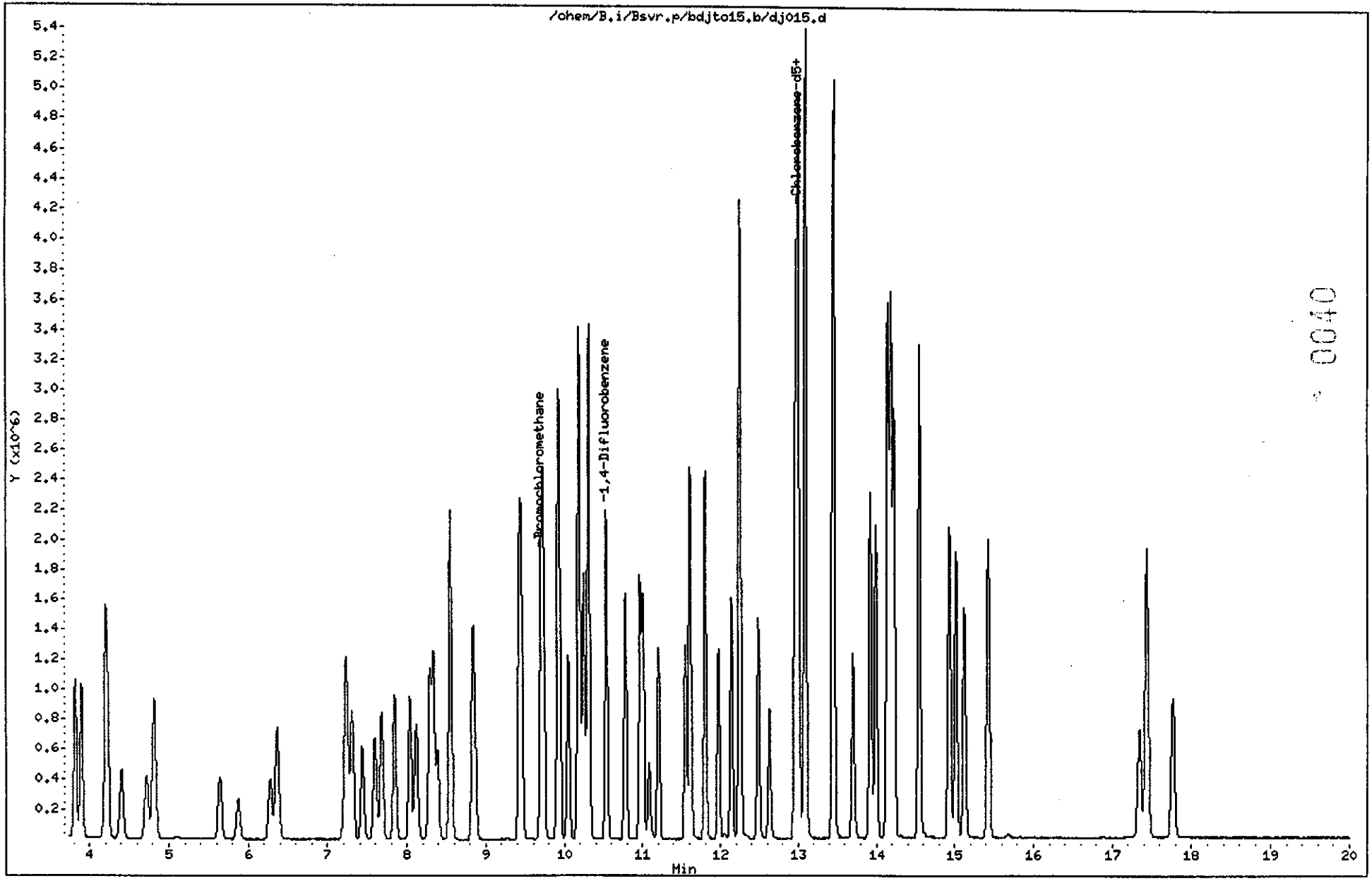
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
63 1,3-Dichlorobenzene	146	14.937	14.932	(1.152)	520210	5.00000	5.0
64 1,4-Dichlorobenzene	146	15.017	15.017	(1.159)	481571	5.00000	5.0
65 1,2-Dichlorobenzene	146	15.428	15.428	(1.190)	541572	5.00000	5.0
66 1,2,4-Trichlorobenzene	180	17.344	17.339	(1.338)	146456	5.00000	5.0
67 Hexachlorobutadiene	225	17.430	17.440	(1.345)	303031	5.00000	5.0
68 Naphthalene	128	17.766	17.766	(1.371)	567578	5.00000	5.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj015.d
Date : 26-APR-2006 09:53
Client ID: astd015
Sample Info:
Purge Volume: 75.0
Column phase: RTX-624

Instrument: B.i
Operator: urd
Column diameter: 0.32



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AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj015.d
Lab Smp Id: astd015 Client Smp ID: astd015
Inj Date : 26-APR-2005 09:53
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd015;0426C8;1;75
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 09:53 Cal File: dj015.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Ketones.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	75.00000	Sample Volume purged (mL)

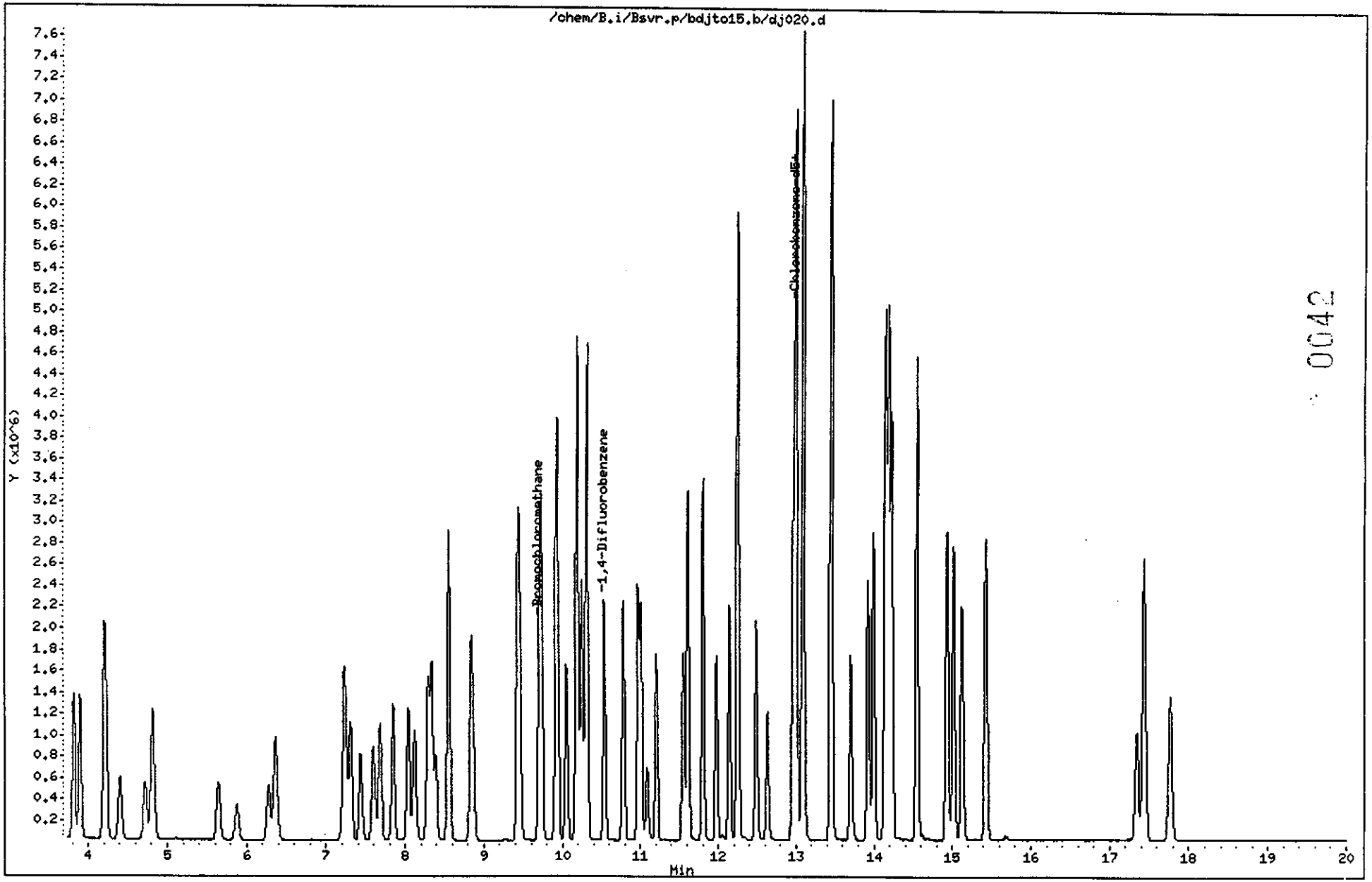
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
	12 Acetone	43	7.434	7.439	(0.766)	1162149	15.0000	12
	13 Isopropyl Alcohol	45	7.594	7.588	(0.783)	1428219	15.0000	13
	17 tert-Butyl Alcohol	59	8.117	8.111	(0.837)	1365877	15.0000	13
*	25 Bromochloromethane	128	9.702	9.696	(1.000)	382313	10.0000	
	26 Tetrahydrofuran	42	9.729	9.723	(0.924)	1083232	15.0000	13
*	35 1,4-Difluorobenzene	114	10.534	10.534	(1.000)	2040214	10.0000	
	39 1,4-Dioxane	88	11.084	11.079	(1.052)	397206	15.0000	13
*	50 Chlorobenzene-d5	117	12.963	12.963	(1.000)	1960647	10.0000	

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj020.d
Date : 26-APR-2005 10:38
Client ID: astd020
Sample Info:
Purge Volume: 100.0
Column phase: RTX-624

Instrument: B.i

Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj020.d
Lab Smp Id: astd020 Client Smp ID: astd020
Inj Date : 26-APR-2005 10:38
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd020;0426C8;1;100
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 10:38 Cal File: dj020.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	100.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1 Dichlorodifluoromethane	85	3.895	3.895	(0.401)	1819086	20.0000	16
2 1,2-Dichlorotetrafluoroethane	85	4.210	4.210	(0.434)	2222401	20.0000	17
3 Chloromethane	50	4.402	4.402	(0.454)	1235633	20.0000	16
4 Vinyl Chloride	62	4.717	4.722	(0.486)	1145005	20.0000	17
5 1,3-Butadiene	54	4.818	4.819	(0.497)	1082943	20.0000	17
6 Bromomethane	94	5.640	5.640	(0.581)	717774	20.0000	17
7 Chloroethane	64	5.880	5.875	(0.606)	576150	20.0000	17
8 Bromoethene	106	6.275	6.276	(0.647)	705951	20.0000	17
9 Trichlorofluoromethane	101	6.366	6.366	(0.656)	1489214	20.0000	17
10 Freon TF	101	7.231	7.236	(0.745)	1292102	20.0000	17
11 1,1-Dichloroethene	96	7.311	7.306	(0.754)	628206	20.0000	17
12 Acetone	43	7.433	7.439	(0.766)	1549294	20.0000	17
13 Isopropyl Alcohol	45	7.594	7.588	(0.783)	1905507	20.0000	17
14 Carbon Disulfide	76	7.679	7.679	(0.792)	2181638	20.0000	17
15 3-Chloropropene	41	7.844	7.839	(0.809)	1488305	20.0000	16

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	16 Methylene Chloride	49	8.037	8.037	(0.828)	1283907	20.0000	16
	17 tert-Butyl Alcohol	59	8.117	8.111	(0.837)	1841988	20.0000	18
	18 Methyl tert-Butyl Ether	73	8.287	8.288	(0.854)	1751104	20.0000	17
	19 trans-1,2-Dichloroethene	61	8.335	8.330	(0.859)	1314785	20.0000	17
	20 n-Hexane	57	8.554	8.549	(0.882)	1894633	20.0000	17
	21 1,1-Dichloroethane	63	8.858	8.853	(0.913)	1537047	20.0000	17
M	22 1,2-Dichloroethene (total)	61				2024924	40.0000	33
	23 Methyl Ethyl Ketone	72	9.440	9.440	(0.973)	388604	20.0000	17(Q)
	24 cis-1,2-Dichloroethene	96	9.456	9.456	(0.975)	710139	20.0000	17
*	25 Bromochloromethane	128	9.702	9.696	(1.000)	395534	10.0000	
	26 Tetrahydrofuran	42	9.728	9.723	(0.923)	1485055	20.0000	18
	27 Chloroform	83	9.728	9.728	(1.003)	1128633	20.0000	17
	28 1,1,1-Trichloroethane	97	9.915	9.915	(0.941)	1082012	20.0000	17
	29 Cyclohexane	84	9.931	9.931	(0.942)	1126558	20.0000	17
	30 Carbon Tetrachloride	117	10.049	10.049	(0.953)	1239222	20.0000	17
	31 2,2,4-Trimethylpentane	57	10.187	10.182	(0.967)	5715258	20.0000	17
	32 Benzene	78	10.246	10.246	(0.972)	2260990	20.0000	17
	33 1,2-Dichloroethane	62	10.294	10.294	(0.977)	860658	20.0000	17
	34 n-Heptane	43	10.315	10.310	(0.979)	2412375	20.0000	17
*	35 1,4-Difluorobenzene	114	10.540	10.534	(1.000)	2119035	10.0000	
	36 Trichloroethene	95	10.780	10.775	(1.023)	840254	20.0000	17
	37 Methyl Methacrylate	69	10.967	10.967	(1.040)	881472	20.0000	18
	38 1,2-Dichloropropane	63	11.004	10.999	(1.044)	1080681	20.0000	17
	39 1,4-Dioxane	88	11.084	11.079	(1.052)	545711	20.0000	18
	40 Bromodichloromethane	83	11.201	11.201	(1.063)	1254469	20.0000	17
	41 cis-1,3-Dichloropropene	75	11.548	11.548	(1.096)	1087776	20.0000	17
	42 Methyl Isobutyl Ketone	43	11.612	11.607	(1.102)	3143532	20.0000	17
	43 Toluene	92	11.804	11.799	(0.911)	1679354	20.0000	17
	44 trans-1,3-Dichloropropene	75	11.975	11.970	(1.136)	982299	20.0000	18
	45 1,1,2-Trichloroethane	83	12.141	12.141	(0.937)	744294	20.0000	17
	46 Tetrachloroethene	166	12.247	12.242	(0.945)	1092089	20.0000	17
	47 Methyl Butyl Ketone	43	12.253	12.248	(0.945)	2925884	20.0000	17
	48 Dibromochloromethane	129	12.488	12.482	(0.963)	1407781	20.0000	17
	49 1,2-Dibromoethane	107	12.632	12.626	(0.974)	1183611	20.0000	17
*	50 Chlorobenzene-d5	117	12.963	12.963	(1.000)	2062697	10.0000	
	51 Chlorobenzene	112	12.989	12.989	(1.002)	2185177	20.0000	17
	52 Ethylbenzene	91	13.000	13.000	(1.003)	3628310	20.0000	17
	53 Xylene (m,p)	106	13.091	13.085	(1.010)	3080756	40.0000	34
	54 Xylene (o)	106	13.448	13.443	(1.037)	1526291	20.0000	17
M	55 Xylene (total)	106				4607047	20.0000	50
	56 Styrene	104	13.459	13.454	(1.038)	2320100	20.0000	17
	57 Bromoform	173	13.704	13.699	(1.057)	1142352	20.0000	17
	58 1,1,2,2-Tetrachloroethane	83	13.993	13.993	(1.079)	2133306	20.0000	16
	59 4-Ethyltoluene	105	14.142	14.142	(1.091)	4505864	20.0000	16
	60 1,3,5-Trimethylbenzene	105	14.179	14.179	(1.094)	3877312	20.0000	17
	61 2-Chlorotoluene	91	14.222	14.222	(1.097)	3327757	20.0000	16
	62 1,2,4-Trimethylbenzene	105	14.548	14.548	(1.122)	3515797	20.0000	16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
63 1,3-Dichlorobenzene	146	14.937	14.932	(1.152)	1863232	20.0000	18
64 1,4-Dichlorobenzene	146	15.017	15.017	(1.159)	1738006	20.0000	18
65 1,2-Dichlorobenzene	146	15.428	15.428	(1.190)	1850162	20.0000	17
66 1,2,4-Trichlorobenzene	180	17.344	17.339	(1.338)	542095	20.0000	18
67 Hexachlorobutadiene	225	17.440	17.440	(1.345)	747562	20.0000	14
68 Naphthalene	128	17.766	17.766	(1.371)	2055700	20.0000	18

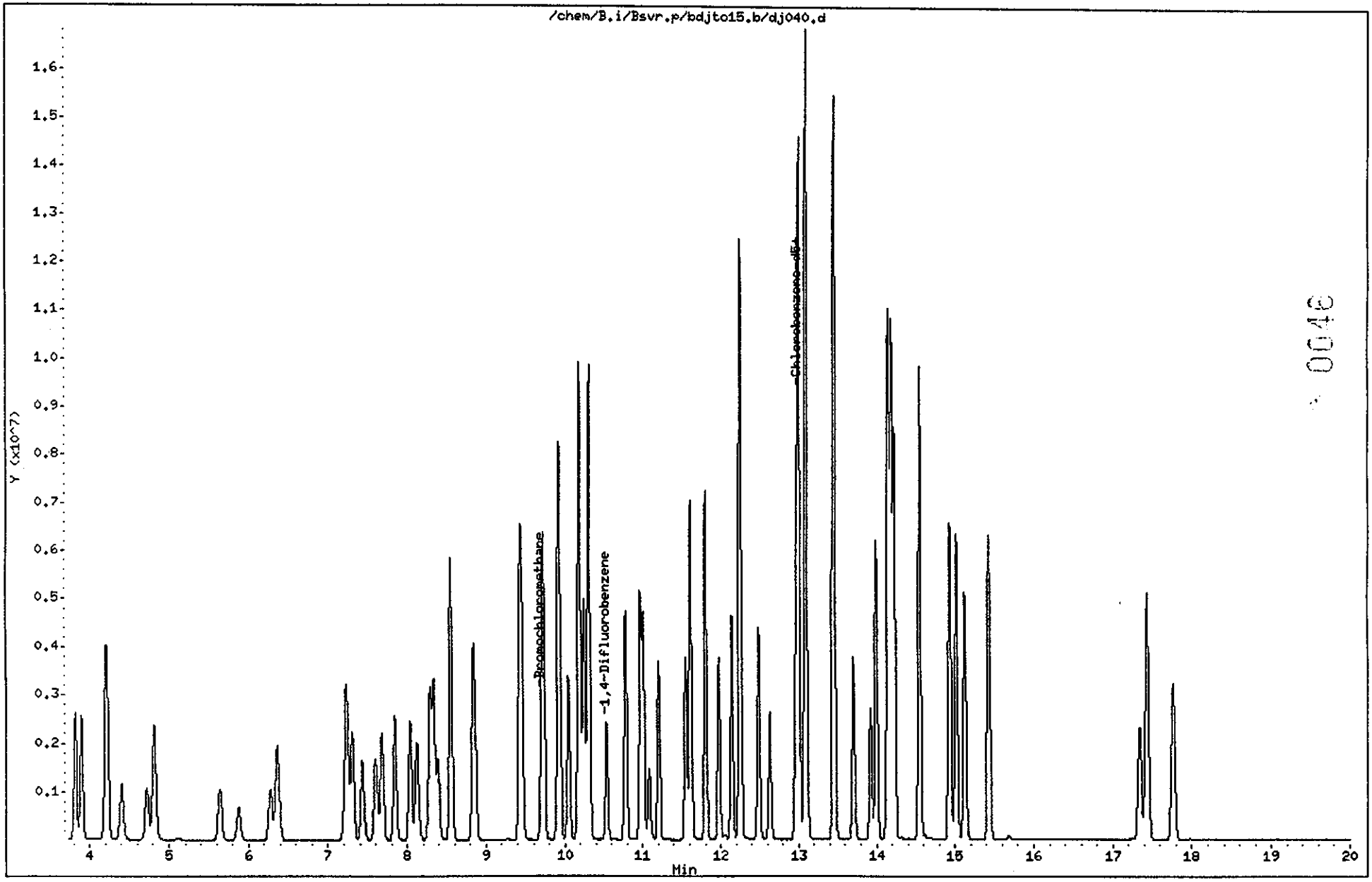
QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj040.d
Date : 26-APR-2005 11:24
Client ID: astd040
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i

Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj040.d
Lab Smp Id: astd040 Client Smp ID: astd040
Inj Date : 26-APR-2005 11:24
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd040;0426C8;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 11:24 Cal File: dj040.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1 Dichlorodifluoromethane	85	3.895	3.895	(0.401)	3482026	40.0000	33
2 1,2-Dichlorotetrafluoroethane	85	4.210	4.210	(0.434)	4335472	40.0000	33
3 Chloromethane	50	4.402	4.402	(0.454)	2376129	40.0000	33
4 Vinyl Chloride	62	4.717	4.722	(0.486)	2219225	40.0000	33
5 1,3-Butadiene	54	4.813	4.819	(0.496)	2113828	40.0000	33
6 Bromomethane	94	5.640	5.640	(0.581)	1400646	40.0000	34
7 Chloroethane	64	5.875	5.875	(0.606)	1115589	40.0000	33
8 Bromoethene	106	6.276	6.276	(0.647)	1400279	40.0000	34
9 Trichlorofluoromethane	101	6.366	6.366	(0.656)	2982899	40.0000	34
10 Freon TF	101	7.231	7.236	(0.745)	2552184	40.0000	33
11 1,1-Dichloroethene	96	7.311	7.306	(0.754)	1234335	40.0000	34
12 Acetone	43	7.434	7.439	(0.766)	3172279	40.0000	34
13 Isopropyl Alcohol	45	7.599	7.588	(0.783)	3833015	40.0000	34
14 Carbon Disulfide	76	7.679	7.679	(0.792)	4304764	40.0000	33
15 3-Chloropropene	41	7.845	7.839	(0.809)	3018590	40.0000	34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	16 Methylene Chloride	49	8.037	8.037	(0.828)	2530533	40.0000	32
	17 tert-Butyl Alcohol	59	8.122	8.111	(0.837)	3766458	40.0000	35
	18 Methyl tert-Butyl Ether	73	8.293	8.288	(0.855)	3665084	40.0000	35
	19 trans-1,2-Dichloroethene	61	8.336	8.330	(0.859)	2645859	40.0000	34
	20 n-Hexane	57	8.549	8.549	(0.881)	3828608	40.0000	34
	21 1,1-Dichloroethane	63	8.859	8.853	(0.913)	3151072	40.0000	35
M	22 1,2-Dichloroethene (total)	61				4104922	80.0000	68
	23 Methyl Ethyl Ketone	72	9.440	9.440	(0.973)	823124	40.0000	35(Q)
	24 cis-1,2-Dichloroethene	96	9.456	9.456	(0.975)	1459063	40.0000	35
*	25 Bromochloromethane	128	9.702	9.696	(1.000)	419044	10.0000	(Q)
	26 Tetrahydrofuran	42	9.723	9.723	(0.923)	3107008	40.0000	36
	27 Chloroform	83	9.729	9.728	(1.003)	2354270	40.0000	35
	28 1,1,1-Trichloroethane	97	9.915	9.915	(0.941)	2254642	40.0000	35
	29 Cyclohexane	84	9.931	9.931	(0.942)	2308065	40.0000	34
	30 Carbon Tetrachloride	117	10.049	10.049	(0.953)	2555390	40.0000	35
	31 2,2,4-Trimethylpentane	57	10.188	10.182	(0.967)	12060302	40.0000	35
	32 Benzene	78	10.246	10.246	(0.972)	4733346	40.0000	35
	33 1,2-Dichloroethane	62	10.294	10.294	(0.977)	1822992	40.0000	35
	34 n-Heptane	43	10.310	10.310	(0.978)	5056946	40.0000	35
*	35 1,4-Difluorobenzene	114	10.540	10.534	(1.000)	2286985	10.0000	
	36 Trichloroethene	95	10.780	10.775	(1.023)	1773789	40.0000	35
	37 Methyl Methacrylate	69	10.967	10.967	(1.040)	1893999	40.0000	36(Q)
	38 1,2-Dichloropropane	63	11.004	10.999	(1.044)	2260737	40.0000	35
	39 1,4-Dioxane	88	11.079	11.079	(1.051)	1139196	40.0000	36
	40 Bromodichloromethane	83	11.202	11.201	(1.063)	2658335	40.0000	36
	41 cis-1,3-Dichloropropene	75	11.548	11.548	(1.096)	2365560	40.0000	36
	42 Methyl Isobutyl Ketone	43	11.612	11.607	(1.102)	6676701	40.0000	36
	43 Toluene	92	11.805	11.799	(0.911)	3568415	40.0000	35
	44 trans-1,3-Dichloropropene	75	11.975	11.970	(1.136)	2156350	40.0000	37
	45 1,1,2-Trichloroethane	83	12.141	12.141	(0.937)	1581039	40.0000	34
	46 Tetrachloroethene	166	12.242	12.242	(0.944)	2323028	40.0000	35
	47 Methyl Butyl Ketone	43	12.253	12.248	(0.945)	6359000	40.0000	35
	48 Dibromochloromethane	129	12.488	12.482	(0.963)	3051716	40.0000	35
	49 1,2-Dibromoethane	107	12.632	12.626	(0.974)	2586074	40.0000	36
*	50 Chlorobenzene-d5	117	12.963	12.963	(1.000)	2270414	10.0000	
	51 Chlorobenzene	112	12.989	12.989	(1.002)	4714771	40.0000	35
	52 Ethylbenzene	91	13.000	13.000	(1.003)	7860665	40.0000	35
	53 Xylene (m,p)	106	13.091	13.085	(1.010)	6688287	80.0000	71
	54 Xylene (o)	106	13.448	13.443	(1.037)	3285334	40.0000	35
M	55 Xylene (total)	106				9973621	40.0000	100
	56 Styrene	104	13.454	13.454	(1.038)	5173498	40.0000	37
	57 Bromoform	173	13.705	13.699	(1.057)	2503432	40.0000	36
	58 1,1,2,2-Tetrachloroethane	83	13.998	13.993	(1.080)	4560613	40.0000	34
	59 4-Ethyltoluene	105	14.142	14.142	(1.091)	9962524	40.0000	35
	60 1,3,5-Trimethylbenzene	105	14.185	14.179	(1.094)	8350632	40.0000	35
	61 2-Chlorotoluene	91	14.228	14.222	(1.098)	7221707	40.0000	35
	62 1,2,4-Trimethylbenzene	105	14.548	14.548	(1.122)	7578959	40.0000	34

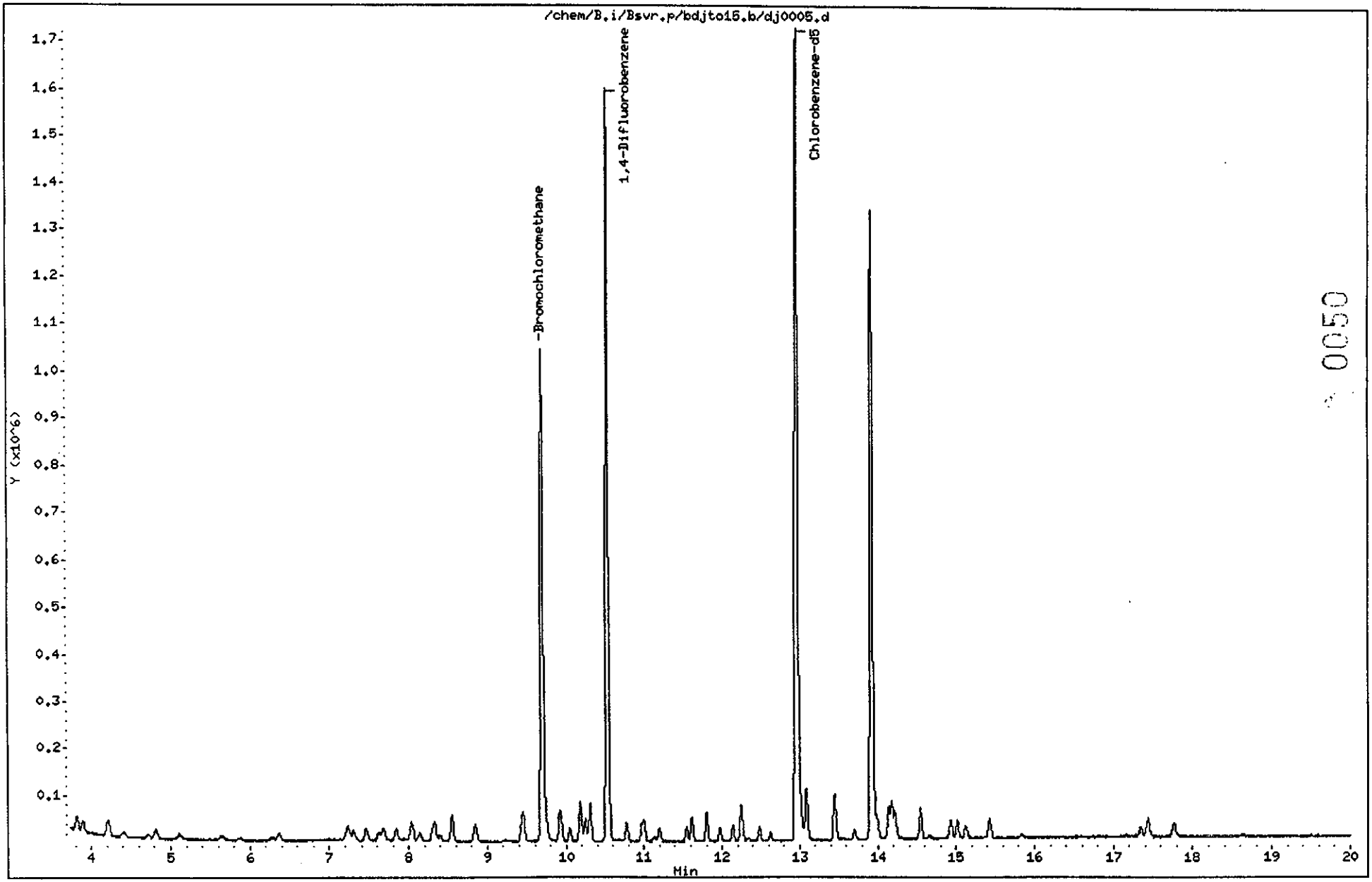
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
63 1,3-Dichlorobenzene	146	14.937	14.932	(1.152)	4140362	40.0000	37
64 1,4-Dichlorobenzene	146	15.017	15.017	(1.159)	3976691	40.0000	38
65 1,2-Dichlorobenzene	146	15.428	15.428	(1.190)	4123424	40.0000	36
66 1,2,4-Trichlorobenzene	180	17.344	17.339	(1.338)	1255001	40.0000	38
67 Hexachlorobutadiene	225	17.435	17.440	(1.345)	1468961	40.0000	29
68 Naphthalene	128	17.761	17.766	(1.370)	4958734	40.0000	39

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj0005.d
Date : 26-APR-2005 14:28
Client ID: astd0005
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



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AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj0005.d
Lab Smp Id: astd0005 Client Smp ID: astd0005
Inj Date : 26-APR-2005 14:28
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd0005;0426C8;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 14:28 Cal File: dj0005.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1	Dichlorodifluoromethane	85	3.895	3.895	(0.402)	30329	0.50000	0.44(a)
2	1,2-Dichlorotetrafluoroethane	85	4.210	4.210	(0.434)	34483	0.50000	0.42
3	Chloromethane	50	4.397	4.402	(0.453)	22227	0.50000	0.47(a)
4	Vinyl Chloride	62	4.717	4.722	(0.486)	16940	0.50000	0.40
5	1,3-Butadiene	54	4.808	4.819	(0.496)	16400	0.50000	0.41
6	Bromomethane	94	5.624	5.640	(0.580)	10543	0.50000	0.40
7	Chloroethane	64	5.886	5.875	(0.607)	8794	0.50000	0.42
8	Bromoethene	106	6.276	6.276	(0.647)	10545	0.50000	0.41
9	Trichlorofluoromethane	101	6.361	6.366	(0.656)	22708	0.50000	0.42
10	Freon TF	101	7.226	7.236	(0.745)	22193	0.50000	0.45
11	1,1-Dichloroethene	96	7.306	7.306	(0.753)	10481	0.50000	0.44
12	Acetone	43	7.460	7.439	(0.769)	49818	0.50000	0.80(a)
13	Isopropyl Alcohol	45	7.626	7.588	(0.786)	34376	0.50000	0.46(a)
14	Carbon Disulfide	76	7.684	7.679	(0.792)	47898	0.50000	0.54
15	3-Chloropropene	41	7.850	7.839	(0.810)	27191	0.50000	0.47

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	16 Methylene Chloride	49	8.037	8.037	(0.829)	32571	0.50000	0.59
	17 tert-Butyl Alcohol	59	8.138	8.111	(0.839)	28649	0.50000	0.40(a)
	18 Methyl tert-Butyl Ether	73	8.304	8.288	(0.856)	30984	0.50000	0.46(a)
	19 trans-1,2-Dichloroethene	61	8.330	8.330	(0.859)	22589	0.50000	0.45
	20 n-Hexane	57	8.554	8.549	(0.882)	36000	0.50000	0.48
	21 1,1-Dichloroethane	63	8.859	8.853	(0.914)	28319	0.50000	0.47
M	22 1,2-Dichloroethene (total)	61				34997	1.00000	0.90
	23 Methyl Ethyl Ketone	72	9.456	9.440	(0.975)	7146	0.50000	0.47(aQ)
	24 cis-1,2-Dichloroethene	96	9.456	9.456	(0.975)	12408	0.50000	0.45
*	25 Bromochloromethane	128	9.697	9.696	(1.000)	279510	10.0000	
	26 Tetrahydrofuran	42	9.755	9.723	(0.926)	26224	0.50000	0.47(a)
	27 Chloroform	83	9.729	9.728	(1.003)	20672	0.50000	0.47
	28 1,1,1-Trichloroethane	97	9.915	9.915	(0.941)	18802	0.50000	0.47
	29 Cyclohexane	84	9.926	9.931	(0.942)	17402	0.50000	0.43
	30 Carbon Tetrachloride	117	10.049	10.049	(0.954)	20307	0.50000	0.45
	31 2,2,4-Trimethylpentane	57	10.182	10.182	(0.967)	100225	0.50000	0.47
	32 Benzene	78	10.246	10.246	(0.973)	40534	0.50000	0.48
	33 1,2-Dichloroethane	62	10.300	10.294	(0.978)	13723	0.50000	0.44
	34 n-Heptane	43	10.310	10.310	(0.979)	43055	0.50000	0.48
*	35 1,4-Difluorobenzene	114	10.534	10.534	(1.000)	1447801	10.0000	
	36 Trichloroethene	95	10.775	10.775	(1.023)	14030	0.50000	0.46
	37 Methyl Methacrylate	69	10.967	10.967	(1.041)	11917	0.50000	0.39(a)
	38 1,2-Dichloropropane	63	11.004	10.999	(1.045)	18265	0.50000	0.46(Q)
	39 1,4-Dioxane	88	11.132	11.079	(1.057)	8012	0.50000	0.40(a)
	40 Bromodichloromethane	83	11.196	11.201	(1.063)	19382	0.50000	0.43
	41 cis-1,3-Dichloropropene	75	11.543	11.548	(1.096)	16920	0.50000	0.43
	42 Methyl Isobutyl Ketone	43	11.612	11.607	(1.102)	48923	0.50000	0.43(a)
	43 Toluene	92	11.805	11.799	(0.911)	25795	0.50000	0.45
	44 trans-1,3-Dichloropropene	75	11.975	11.970	(1.137)	15123	0.50000	0.43
	45 1,1,2-Trichloroethane	83	12.146	12.141	(0.937)	11481	0.50000	0.45
	46 Tetrachloroethene	166	12.242	12.242	(0.944)	15783	0.50000	0.43
	47 Methyl Butyl Ketone	43	12.258	12.248	(0.946)	43450	0.50000	0.44(a)
	48 Dibromochloromethane	129	12.488	12.482	(0.963)	17702	0.50000	0.39
	49 1,2-Dibromoethane	107	12.626	12.626	(0.974)	15046	0.50000	0.39
*	50 Chlorobenzene-d5	117	12.963	12.963	(1.000)	1300084	10.0000	
	51 Chlorobenzene	112	12.989	12.989	(1.002)	31343	0.50000	0.43(Q)
	52 Ethylbenzene	91	12.995	13.000	(1.002)	50598	0.50000	0.42
	53 Xylene (m,p)	106	13.091	13.085	(1.010)	42807	1.00000	0.83
	54 Xylene (o)	106	13.443	13.443	(1.037)	21460	0.50000	0.42
M	55 Xylene (total)	106				64267	0.50000	1.2
	56 Styrene	104	13.459	13.454	(1.038)	29793	0.50000	0.39
	57 Bromoform	173	13.710	13.699	(1.058)	13685	0.50000	0.37
	58 1,1,2,2-Tetrachloroethane	83	13.993	13.993	(1.079)	31053	0.50000	0.42
	59 4-Ethyltoluene	105	14.137	14.142	(1.091)	60838	0.50000	0.40
	60 1,3,5-Trimethylbenzene	105	14.180	14.179	(1.094)	52635	0.50000	0.41
	61 2-Chlorotoluene	91	14.222	14.222	(1.097)	42563	0.50000	0.38
	62 1,2,4-Trimethylbenzene	105	14.548	14.548	(1.122)	46841	0.50000	0.39

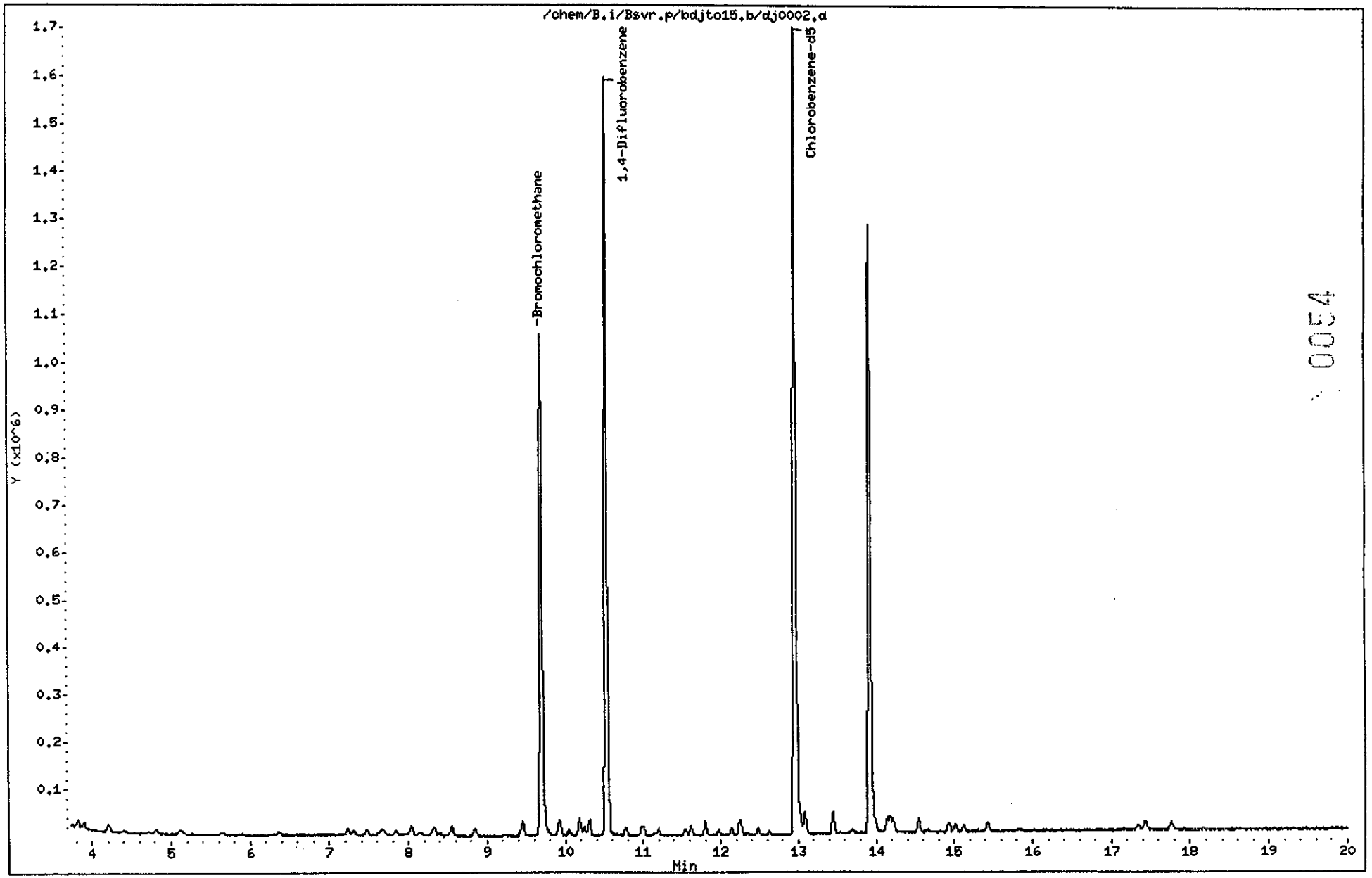
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
63 1,3-Dichlorobenzene	146	14.937	14.932	(1.152)	24094	0.50000	0.40
64 1,4-Dichlorobenzene	146	15.023	15.017	(1.159)	20391	0.50000	0.37
65 1,2-Dichlorobenzene	146	15.428	15.428	(1.190)	23155	0.50000	0.38
66 1,2,4-Trichlorobenzene	180	17.344	17.339	(1.338)	9550	0.50000	0.51
67 Hexachlorobutadiene	225	17.435	17.440	(1.345)	9022	0.50000	0.34
68 Naphthalene	128	17.766	17.766	(1.371)	36879	0.50000	0.51

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj0002.d
Date : 26-APR-2005 15:13
Client ID: astd0002
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj0002.d
Lab Smp Id: astd0002 Client Smp ID: astd0002
Inj Date : 26-APR-2005 15:13
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd0002;0426C8;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 15:13 Cal File: dj0002.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1 Dichlorodifluoromethane	85	3.900	3.895	(0.402)	13887	0.20000	0.20(a)
2 1,2-Dichlorotetrafluoroethane	85	4.210	4.210	(0.434)	15913	0.20000	0.19(a)
3 Chloromethane	50	4.413	4.402	(0.455)	11331	0.20000	0.23(a)
4 Vinyl Chloride	62	4.717	4.722	(0.486)	7731	0.20000	0.18(a)
5 1,3-Butadiene	54	4.808	4.819	(0.496)	7844	0.20000	0.19(a)
6 Bromomethane	94	5.646	5.640	(0.582)	5045	0.20000	0.19(a)
7 Chloroethane	64	5.880	5.875	(0.606)	3693	0.20000	0.17(a)
8 Bromoethene	106	6.270	6.276	(0.647)	4975	0.20000	0.19(aM)
9 Trichlorofluoromethane	101	6.355	6.366	(0.655)	9856	0.20000	0.18(a)
10 Freon TF	101	7.225	7.236	(0.745)	9644	0.20000	0.19(a)
11 1,1-Dichloroethene	96	7.316	7.306	(0.755)	4928	0.20000	0.20
12 Acetone	43	7.476	7.439	(0.771)	23808	0.20000	0.37(a)
13 Isopropyl Alcohol	45	7.636	7.588	(0.788)	16274	0.20000	0.21(aH)
14 Carbon Disulfide	76	7.679	7.679	(0.792)	21526	0.20000	0.24(a)
15 3-Chloropropene	41	7.844	7.839	(0.809)	12230	0.20000	0.20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	16 Methylene Chloride	49	8.031	8.037	(0.828)	14292	0.20000	0.25(a)
	17 tert-Butyl Alcohol	59	8.143	8.111	(0.840)	12886	0.20000	0.18(a)
	18 Methyl tert-Butyl Ether	73	8.309	8.288	(0.857)	12439	0.20000	0.18(a)
	19 trans-1,2-Dichloroethene	61	8.335	8.330	(0.860)	10046	0.20000	0.19(a)
	20 n-Hexane	57	8.554	8.549	(0.882)	14075	0.20000	0.19(a)
	21 1,1-Dichloroethane	63	8.858	8.853	(0.914)	12063	0.20000	0.20
M	22 1,2-Dichloroethene (total)	61				15463	0.40000	0.39
	23 Methyl Ethyl Ketone	72	9.456	9.440	(0.975)	2717	0.20000	0.17(aQ)
	24 cis-1,2-Dichloroethene	96	9.456	9.456	(0.975)	5417	0.20000	0.19(a)
*	25 Bromochloromethane	128	9.696	9.696	(1.000)	288298	10.0000	(Q)
	26 Tetrahydrofuran	42	9.766	9.723	(0.927)	11236	0.20000	0.20(a)
	27 Chloroform	83	9.728	9.728	(1.003)	9663	0.20000	0.21
	28 1,1,1-Trichloroethane	97	9.910	9.915	(0.941)	9142	0.20000	0.22
	29 Cyclohexane	84	9.931	9.931	(0.943)	7530	0.20000	0.18(a)
	30 Carbon Tetrachloride	117	10.049	10.049	(0.954)	9386	0.20000	0.20
	31 2,2,4-Trimethylpentane	57	10.182	10.182	(0.967)	42557	0.20000	0.20
	32 Benzene	78	10.241	10.246	(0.972)	17586	0.20000	0.20
	33 1,2-Dichloroethane	62	10.294	10.294	(0.977)	6210	0.20000	0.19(a)
	34 n-Heptane	43	10.310	10.310	(0.979)	18273	0.20000	0.20
*	35 1,4-Difluorobenzene	114	10.534	10.534	(1.000)	1480185	10.0000	
	36 Trichloroethene	95	10.769	10.775	(1.022)	6297	0.20000	0.20
	37 Methyl Methacrylate	69	10.967	10.967	(1.041)	4342	0.20000	0.14(aQ)
	38 1,2-Dichloropropane	63	11.004	10.999	(1.045)	8007	0.20000	0.20(Q)
	39 1,4-Dioxane	88	11.148	11.079	(1.058)	3907	0.20000	0.19(aQ)
	40 Bromodichloromethane	83	11.196	11.201	(1.063)	8854	0.20000	0.19(a)
	41 cis-1,3-Dichloropropene	75	11.543	11.548	(1.096)	7711	0.20000	0.19(a)
	42 Methyl Isobutyl Ketone	43	11.612	11.607	(1.102)	20821	0.20000	0.18(a)
	43 Toluene	92	11.799	11.799	(0.911)	11874	0.20000	0.21
	44 trans-1,3-Dichloropropene	75	11.981	11.970	(1.137)	6071	0.20000	0.17(a)
	45 1,1,2-Trichloroethane	83	12.135	12.141	(0.937)	5146	0.20000	0.20
	46 Tetrachloroethene	166	12.237	12.242	(0.944)	7874	0.20000	0.21
	47 Methyl Butyl Ketone	43	12.258	12.248	(0.946)	19993	0.20000	0.20(a)
	48 Dibromochloromethane	129	12.482	12.482	(0.963)	7605	0.20000	0.17(a)
	49 1,2-Dibromoethane	107	12.621	12.626	(0.974)	6802	0.20000	0.18(a)
*	50 Chlorobenzene-d5	117	12.957	12.963	(1.000)	1284131	10.0000	
	51 Chlorobenzene	112	12.989	12.989	(1.002)	13757	0.20000	0.19(aQ)
	52 Ethylbenzene	91	12.989	13.000	(1.002)	24436	0.20000	0.20
	53 Xylene (m,p)	106	13.085	13.085	(1.010)	18547	0.40000	0.37
	54 Xylene (o)	106	13.443	13.443	(1.037)	9399	0.20000	0.19(a)
M	55 Xylene (total)	106				27946	0.20000	0.56
	56 Styrene	104	13.448	13.454	(1.038)	13266	0.20000	0.18(a)
	57 Bromoform	173	13.699	13.699	(1.057)	5564	0.20000	0.16(a)
	58 1,1,2,2-Tetrachloroethane	83	13.993	13.993	(1.080)	14815	0.20000	0.20
	59 4-Ethyltoluene	105	14.147	14.142	(1.092)	26122	0.20000	0.18(a)
	60 1,3,5-Trimethylbenzene	105	14.174	14.179	(1.094)	22188	0.20000	0.18(a)
	61 2-Chlorotoluene	91	14.222	14.222	(1.098)	20050	0.20000	0.19(a)
	62 1,2,4-Trimethylbenzene	105	14.542	14.548	(1.122)	21629	0.20000	0.19(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
63 1,3-Dichlorobenzene	146	14.932	14.932	(1.152)	11159	0.20000	0.19(a)
64 1,4-Dichlorobenzene	146	15.017	15.017	(1.159)	10289	0.20000	0.19(a)
65 1,2-Dichlorobenzene	146	15.428	15.428	(1.191)	11291	0.20000	0.19(a)
66 1,2,4-Trichlorobenzene	180	17.339	17.339	(1.338)	5919	0.20000	0.32(a)
67 Hexachlorobutadiene	225	17.430	17.440	(1.345)	4829	0.20000	0.19(a)
68 Naphthalene	128	17.766	17.766	(1.371)	21982	0.20000	0.31(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

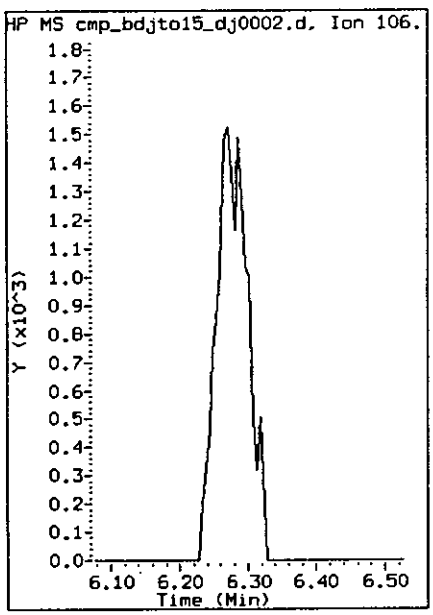
CMP 4/27/05

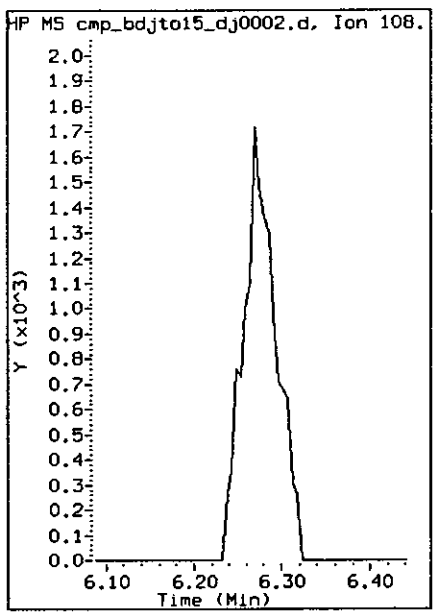
MANUAL INTEGRATION REPORT

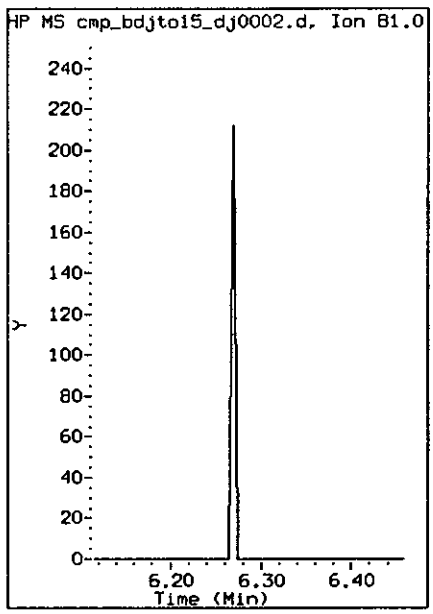
Data File Name: dj0002.d
Client Sample ID: astd0002
Compound Name: Bromoethene

Inj. Date and Time: 26-APR-2005 15:13
Instrument ID: B.i
CAS #: 593-60-2

Target Version: Target 3.50
Report Version: 1.1
Report Date: 04/27/2005 12:23





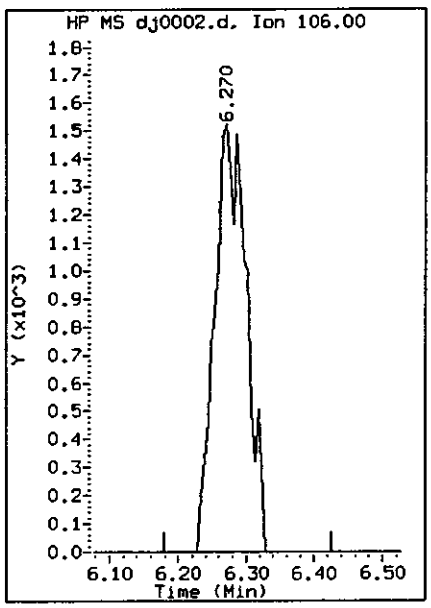


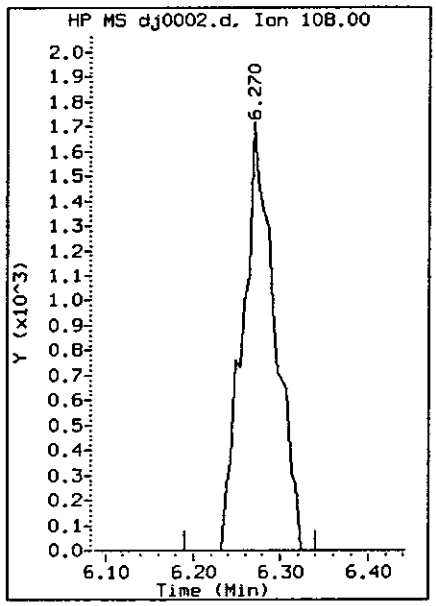
Original Integrations:

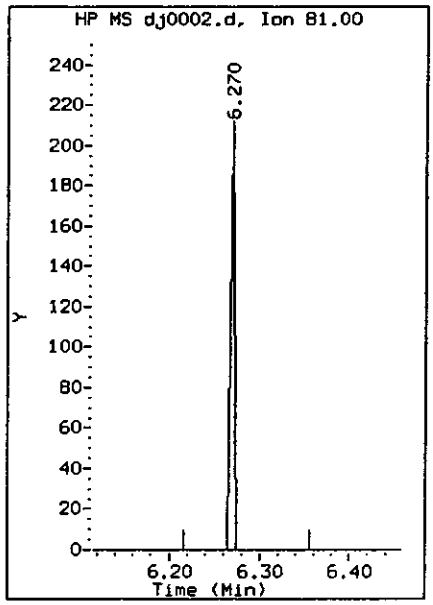
Area = 0

Area = 0

Area = 0







Final Integrations:

Area = 4975

Area = 4368

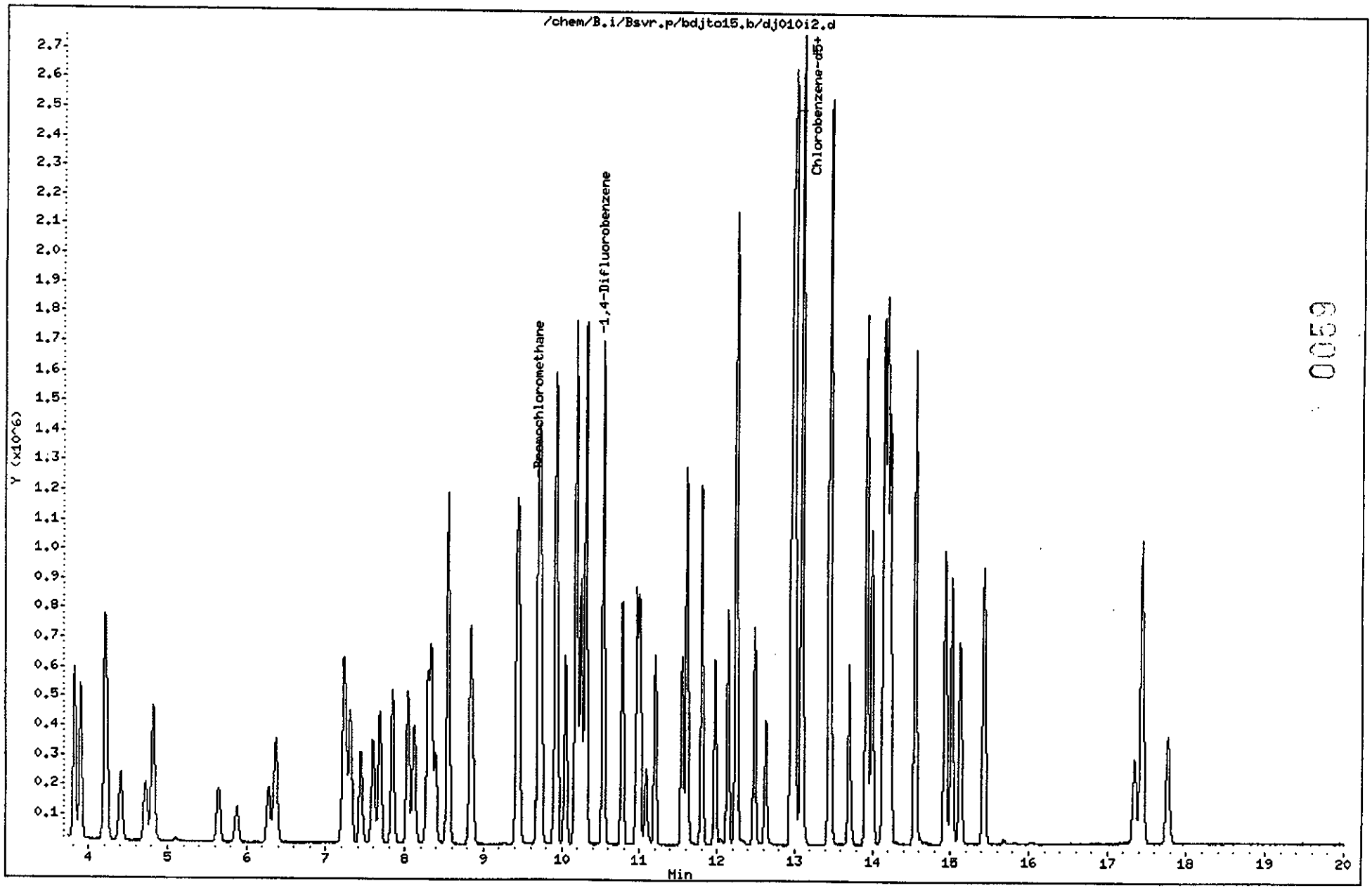
Area = 67

Manual Integration Reason: M1 - Peak Missed

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj010i2.d
Date : 26-APR-2005 16:24
Client ID: astd010
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i

Operator: wrd
Column diameter: 0.32



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AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjto15.b/dj010i2.d
Lab Smp Id: astd010 Client Smp ID: astd010
Inj Date : 26-APR-2005 16:24
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd010;0426C8;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Meth Date : 27-Apr-2005 12:23 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1 Dichlorodifluoromethane	85	3.895	3.895	(0.402)	709084	10.0000	10
2 1,2-Dichlorotetrafluoroethane	85	4.210	4.210	(0.434)	837933	10.0000	10
3 Chloromethane	50	4.402	4.402	(0.454)	483633	10.0000	9.9
4 Vinyl Chloride	62	4.722	4.722	(0.487)	414429	10.0000	9.8
5 1,3-Butadiene	54	4.819	4.819	(0.497)	401773	10.0000	9.9
6 Bromomethane	94	5.640	5.640	(0.582)	240501	10.0000	9.2
7 Chloroethane	64	5.875	5.875	(0.606)	200378	10.0000	9.6
8 Bromoethene	106	6.276	6.276	(0.647)	246809	10.0000	9.5
9 Trichlorofluoromethane	101	6.366	6.366	(0.657)	526001	10.0000	9.6
10 Freon TF	101	7.236	7.236	(0.746)	506087	10.0000	10
11 1,1-Dichloroethene	96	7.306	7.306	(0.753)	247403	10.0000	10
12 Acetone	43	7.439	7.439	(0.767)	592963	10.0000	9.4
13 Isopropyl Alcohol	45	7.588	7.588	(0.783)	737391	10.0000	9.7
14 Carbon Disulfide	76	7.679	7.679	(0.792)	852531	10.0000	9.5
15 3-Chloropropene	41	7.839	7.839	(0.808)	602228	10.0000	10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	16 Methylene Chloride	49	8.037	8.037	(0.829)	528755	10.0000	9.4
	17 tert-Butyl Alcohol	59	8.111	8.111	(0.837)	691748	10.0000	9.6
	18 Methyl tert-Butyl Ether	73	8.288	8.288	(0.855)	630436	10.0000	9.2
	19 trans-1,2-Dichloroethene	61	8.330	8.330	(0.859)	524094	10.0000	10
	20 n-Hexane	57	8.549	8.549	(0.882)	750560	10.0000	10
	21 1,1-Dichloroethane	63	8.853	8.853	(0.913)	597986	10.0000	9.8
M	22 1,2-Dichloroethene (total)	61				790599	20.0000	20
	23 Methyl Ethyl Ketone	72	9.440	9.440	(0.974)	137555	10.0000	9.0
	24 cis-1,2-Dichloroethene	96	9.456	9.456	(0.975)	266505	10.0000	9.6
*	25 Bromochloromethane	128	9.696	9.696	(1.000)	287849	10.0000	
	26 Tetrahydrofuran	42	9.723	9.723	(0.923)	564063	10.0000	9.6
	27 Chloroform	83	9.728	9.728	(1.003)	420857	10.0000	9.3
	28 1,1,1-Trichloroethane	97	9.915	9.915	(0.941)	399325	10.0000	9.2
	29 Cyclohexane	84	9.931	9.931	(0.943)	433010	10.0000	10
	30 Carbon Tetrachloride	117	10.049	10.049	(0.954)	473102	10.0000	9.8
	31 2,2,4-Trimethylpentane	57	10.182	10.182	(0.967)	2103509	10.0000	9.3
	32 Benzene	78	10.246	10.246	(0.973)	828458	10.0000	9.2
	33 1,2-Dichloroethane	62	10.294	10.294	(0.977)	317822	10.0000	9.6
	34 n-Heptane	43	10.310	10.310	(0.979)	921557	10.0000	9.6
*	35 1,4-Difluorobenzene	114	10.534	10.534	(1.000)	1553316	10.0000	
	36 Trichloroethene	95	10.775	10.775	(1.023)	302268	10.0000	9.3
	37 Methyl Methacrylate	69	10.967	10.967	(1.041)	303598	10.0000	9.4
	38 1,2-Dichloropropane	63	10.999	10.999	(1.044)	400016	10.0000	9.5
	39 1,4-Dioxane	88	11.079	11.079	(1.052)	194407	10.0000	9.2
	40 Bromodichloromethane	83	11.201	11.201	(1.063)	446056	10.0000	9.4
	41 cis-1,3-Dichloropropene	75	11.548	11.548	(1.096)	387923	10.0000	9.4
	42 Methyl Isobutyl Ketone	43	11.607	11.607	(1.102)	1185156	10.0000	9.8
	43 Toluene	92	11.799	11.799	(0.910)	595608	10.0000	9.2
	44 trans-1,3-Dichloropropene	75	11.970	11.970	(1.136)	350127	10.0000	9.6
	45 1,1,2-Trichloroethane	83	12.141	12.141	(0.937)	264327	10.0000	9.1
	46 Tetrachloroethene	166	12.242	12.242	(0.944)	393428	10.0000	9.3
	47 Methyl Butyl Ketone	43	12.248	12.248	(0.945)	1075538	10.0000	9.6
	48 Dibromochloromethane	129	12.482	12.482	(0.963)	494966	10.0000	9.8
	49 1,2-Dibromoethane	107	12.626	12.626	(0.974)	406105	10.0000	9.5
*	50 Chlorobenzene-d5	117	12.963	12.963	(1.000)	1490323	10.0000	
	51 Chlorobenzene	112	12.989	12.989	(1.002)	771201	10.0000	9.4
	52 Ethylbenzene	91	13.000	13.000	(1.003)	1265100	10.0000	9.2
	53 Xylene (m,p)	106	13.085	13.085	(1.009)	1079649	20.0000	19
	54 Xylene (o)	106	13.443	13.443	(1.037)	547379	10.0000	9.5
M	55 Xylene (total)	106				1627028	10.0000	28
	56 Styrene	104	13.454	13.454	(1.038)	802040	10.0000	9.5
	57 Bromoform	173	13.699	13.699	(1.057)	400633	10.0000	10
	58 1,1,2,2-Tetrachloroethane	83	13.993	13.993	(1.079)	766156	10.0000	9.2
	59 4-Ethyltoluene	105	14.142	14.142	(1.091)	1674171	10.0000	9.8
	60 1,3,5-Trimethylbenzene	105	14.179	14.179	(1.094)	1283888	10.0000	9.1
	61 2-Chlorotoluene	91	14.222	14.222	(1.097)	1207823	10.0000	9.7
	62 1,2,4-Trimethylbenzene	105	14.548	14.548	(1.122)	1250975	10.0000	9.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
63 1,3-Dichlorobenzene	146	14.932	14.932	(1.152)	614942	10.0000	9.2
64 1,4-Dichlorobenzene	146	15.017	15.017	(1.159)	565556	10.0000	9.2
65 1,2-Dichlorobenzene	146	15.428	15.428	(1.190)	612397	10.0000	9.1
66 1,2,4-Trichlorobenzene	180	17.339	17.339	(1.338)	146167	10.0000	7.2
67 Hexachlorobutadiene	225	17.440	17.440	(1.345)	273603	10.0000	9.3
68 Naphthalene	128	17.766	17.766	(1.371)	548413	10.0000	7.1

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Calibration File Names:
Level 1: /chem/B.i/Bsvr.p/bdjto15.b/dj0002.d
Level 2: /chem/B.i/Bsvr.p/bdjto15.b/dj0005.d
Level 4: /chem/B.i/Bsvr.p/bdjto15.b/dj005.d
Level 5: /chem/B.i/Bsvr.p/bdjto15.b/dj010i2.d
Level 6: /chem/B.i/Bsvr.p/bdjto15.b/dj015.d
Level 7: /chem/B.i/Bsvr.p/bdjto15.b/dj020.d
Level 8: /chem/B.i/Bsvr.p/bdjto15.b/dj040.d

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	RRF	% RSD
	40.000 Level 8							
1 Dichlorodifluoromethane	+++++	2.17015	3.28640	2.46339	+++++	2.29953		
	2.07736						2.45937	19.702
2 1,2-Dichlorotetrafluoroethane	2.75982	2.46739	3.98996	2.91102	+++++	2.80937		
	2.58653						2.92068	18.746
3 Chloromethane	+++++	1.59043	2.25410	1.68016	+++++	1.56198		
	1.41759						1.70085	19.011
4 Vinyl Chloride	1.34080	1.21212	2.02537	1.43974	+++++	1.44742		
	1.32398						1.46491	19.648
5 1,3-Butadiene	1.36040	1.17348	1.94193	1.39578	+++++	1.36896		
	1.26110						1.41694	19.071
6 Bromomethane	0.87496	0.75439	1.24950	0.83551	+++++	0.90735		
	0.83562						0.90956	19.156

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	RRF	% RSD
	40.000 Level 8							
7 Chloroethane	0.64048	0.62924	1.00310	0.69612	+++++	0.72832		
	0.66556						0.72714	19.254
8 Bromoethene	0.86282	0.75453	1.22353	0.85743	+++++	0.89240		
	0.83540						0.90435	18.044
9 Trichlorofluoromethane	1.70934	1.62484	2.54332	1.82735	+++++	1.88254		
	1.77959						1.89450	17.440
10 Freon TF	1.67257	1.58799	2.31487	1.75817	+++++	1.63336		
	1.52262						1.74827	16.512
11 1,1-Dichloroethene	0.85467	0.74996	1.10279	0.85949	+++++	0.79412		
	0.73640						0.84957	15.796
12 Acetone	+++++	+++++	2.99260	2.05998	2.02652	1.95848		
	1.89257						2.18603	20.835
13 Isopropyl Alcohol	+++++	+++++	3.43357	2.56173	2.49049	2.40878		
	2.28676						2.63626	17.346
14 Carbon Disulfide	+++++	3.42728	3.88658	2.96173	+++++	2.75784		
	2.56821						3.12033	17.130
15 3-Chloropropene	2.12107	1.94562	2.68861	2.09217	+++++	1.88139		
	1.80088						2.08829	15.252

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	40.000 Level 8	RRF	% RSD
16 Methylene Chloride	+++++	2.33058	2.49497	1.83692	+++++	1.62300	1.50971	1.95904	22.177
17 tert-Butyl Alcohol	+++++	+++++	3.21577	2.40316	2.38178	2.32848	2.24705	2.51525	15.752
18 Methyl tert-Butyl Ether	+++++	2.21702	3.06411	2.19016	+++++	2.21359	2.18657	2.37429	16.252
19 trans-1,2-Dichloroethene	1.74229	1.61633	2.34152	1.82073	+++++	1.66204	1.57851	1.79357	15.742
20 n-Hexane	2.44105	2.57594	3.38361	2.60748	+++++	2.39503	2.28413	2.61454	15.111
21 1,1-Dichloroethane	2.09211	2.02633	2.70868	2.07743	+++++	1.94300	1.87992	2.12124	14.093
M 22 1,2-Dichloroethene (total)	1.34089	1.25208	1.79779	1.37329	+++++	1.27987	1.22449	1.37807	15.451
23 Methyl Ethyl Ketone	+++++	0.51132	0.68361	0.47787	+++++	0.49124	0.49107	0.53102	16.220
24 cis-1,2-Dichloroethene	0.93948	0.88784	1.25407	0.92585	+++++	0.89770	0.87047	0.96257	15.064

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	___ RRF	% RSD
	40.000 Level 8							
26 Tetrahydrofuran	+++++	+++++	0.48583	0.36313	0.35396	0.35041		
	0.33964						0.37859	15.989
27 Chloroform	1.67587	1.47916	1.99116	1.46208	+++++	1.42672		
	1.40455						1.57326	14.392
28 1,1,1-Trichloroethane	0.30881	0.25973	0.34973	0.25708	+++++	0.25531		
	0.24646						0.27952	14.630
29 Cyclohexane	0.25436	0.24039	0.36881	0.27876	+++++	0.26582		
	0.25230						0.27674	16.963
30 Carbon Tetrachloride	0.31705	0.28052	0.39604	0.30458	+++++	0.29240		
	0.27934						0.31166	14.048
31 2,2,4-Trimethylpentane	1.43756	1.38451	1.85843	1.35421	+++++	1.34855		
	1.31836						1.45027	14.066
32 Benzene	0.59405	0.55994	0.74067	0.53335	+++++	0.53350		
	0.51742						0.57982	14.361
33 1,2-Dichloroethane	0.20977	0.18957	0.27422	0.20461	+++++	0.20308		
	0.19928						0.21342	14.309
34 n-Heptane	0.61725	0.59476	0.78394	0.59328	+++++	0.56922		
	0.55280						0.61854	13.588

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	RRF	% RSD
	40.000 Level 8							
36 Trichloroethene	0.21271	0.19381	0.26541	0.19460	+++++	0.19826		
	0.19390						0.20978	13.439
37 Methyl Methacrylate	+++++	0.16462	0.26627	0.19545	+++++	0.20799		
	0.20704						0.20827	17.698
38 1,2-Dichloropropane	0.27047	0.25231	0.34671	0.25752	+++++	0.25499		
	0.24713						0.27152	13.866
39 1,4-Dioxane	+++++	+++++	0.16961	0.12516	0.12979	0.12876		
	0.12453						0.13557	14.135
40 Bromodichloromethane	0.29908	0.26774	0.39515	0.28716	+++++	0.29600		
	0.29059						0.30596	14.727
41 cis-1,3-Dichloropropene	0.26047	0.23373	0.33812	0.24974	+++++	0.25667		
	0.25859						0.26622	13.729
42 Methyl Isobutyl Ketone	+++++	0.67582	0.99309	0.76298	+++++	0.74174		
	0.72986						0.78070	15.756
43 Toluene	0.46234	0.39682	0.56017	0.39965	+++++	0.40708		
	0.39293						0.43650	15.079
44 trans-1,3-Dichloropropene	0.20508	0.20891	0.29505	0.22541	+++++	0.23178		
	0.23572						0.23366	13.899

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	RRF	% RSD
	40.000 Level 8							
45 1,1,2-Trichloroethane	0.20037	0.17662	0.25441	0.17736	+++++	0.18042		
	0.17409						0.19388	16.064
46 Tetrachloroethene	0.30659	0.24280	0.36784	0.26399	+++++	0.26472		
	0.25579						0.28362	16.390
47 Methyl Butyl Ketone	+++++	0.66842	0.96865	0.72168	+++++	0.70924		
	0.70020						0.75364	16.162
48 Dibromochloromethane	0.29611	0.27232	0.46317	0.33212	+++++	0.34125		
	0.33603						0.34017	19.391
49 1,2-Dibromoethane	0.26485	0.23146	0.38564	0.27249	+++++	0.28691		
	0.28476						0.28768	18.073
51 Chlorobenzene	0.53565	0.48217	0.72637	0.51747	+++++	0.52969		
	0.51915						0.55175	15.866
52 Ethylbenzene	0.95146	0.77838	1.20362	0.84888	+++++	0.87951		
	0.86555						0.92123	16.184
53 Xylene (m,p)	0.36108	0.32926	0.51124	0.36222	+++++	0.37339		
	0.36823						0.38424	16.683
54 Xylene (o)	0.36597	0.33013	0.52488	0.36729	+++++	0.36997		
	0.36175						0.38667	17.918

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	RRF	% RSD
	40.000 Level 8							
M 55 Xylene (total)	0.36597	0.33013	0.52488	0.36729	+++++	0.36997		
	0.36175						0.38667	17.918
56 Styrene	0.51654	0.45832	0.74057	0.53817	+++++	0.56239		
	0.56966						0.56428	16.868
57 Bromoform	0.21664	0.21052	0.37064	0.26882	+++++	0.27691		
	0.27566						0.26987	21.347
58 1,1,2,2-Tetrachloroethane	0.57685	0.47771	0.75312	0.51409	+++++	0.51712		
	0.50218						0.55684	18.240
59 4-Ethyltoluene	1.01711	0.93591	1.57788	1.12336	+++++	1.09223		
	1.09699						1.14058	19.718
60 1,3,5-Trimethylbenzene	0.86393	0.80972	1.30662	0.86148	+++++	0.93986		
	0.91951						0.95019	19.010
61 2-Chlorotoluene	0.78068	0.65477	1.15233	0.81044	+++++	0.80665		
	0.79520						0.83335	20.015
62 1,2,4-Trimethylbenzene	0.84216	0.72058	1.24165	0.83940	+++++	0.85223		
	0.83453						0.88843	20.242
63 1,3-Dichlorobenzene	0.43450	0.37065	0.57518	0.41262	+++++	0.45165		
	0.45590						0.45009	15.278

STL Burlington

INITIAL CALIBRATION DATA

Start Cal Date : 26-APR-2005 08:23
End Cal Date : 26-APR-2005 16:24
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/B.i/Bsvr.p/bdjto15.b/nto15.m
Cal Date : 27-Apr-2005 12:23 cmp
Curve Type : Average

Compound	0.20000 Level 1	0.50000 Level 2	5.000 Level 4	10.000 Level 5	15.000 Level 6	20.000 Level 7	RRF	% RSD	
	40.000 Level 8								
64 1,4-Dichlorobenzene	0.40062	0.31369	0.53246	0.37949	+++++	0.42129			
	0.43788						0.41424	17.438	
65 1,2-Dichlorobenzene	0.43964	0.35621	0.59880	0.41092	+++++	0.44848			
	0.45404						0.45135	17.885	
66 1,2,4-Trichlorobenzene	+++++	0.14691	0.16193	0.09808	+++++	0.13140			
	0.13819						0.13530	17.541	
67 Hexachlorobutadiene	0.18803	0.13879	0.33505	0.18359	+++++	0.18121			
	0.16175						0.19807	35.119	<-
68 Naphthalene	+++++	0.56733	0.62756	0.36798	+++++	0.49830			
	0.54602						0.52144	18.706	

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Instrument ID: B Calibration Date: 05/10/05 Time: 0931

Lab File ID: BDJ10KV Init. Calib. Date(s): 04/26/05 04/26/05

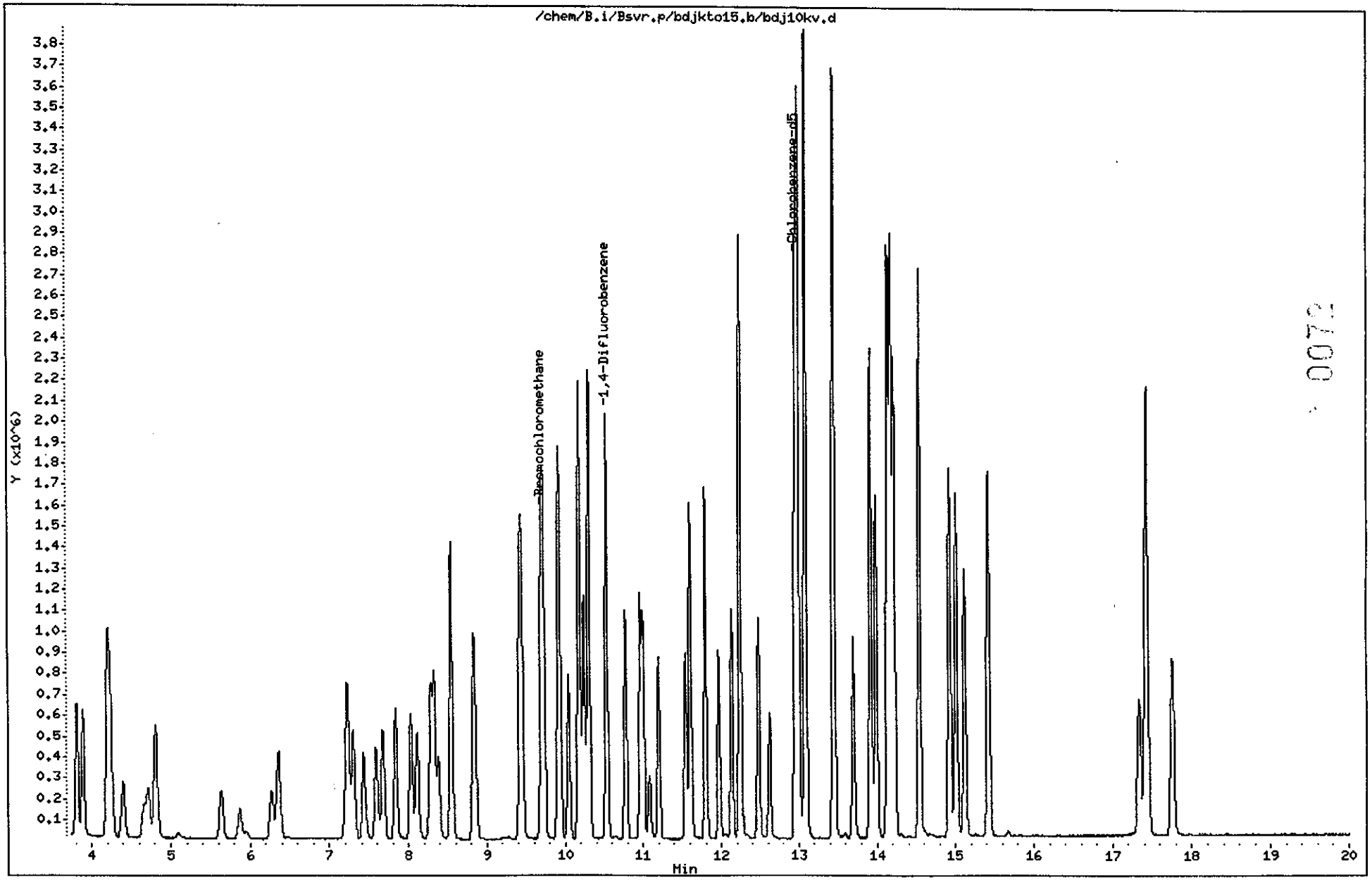
Heated Purge: (Y/N) N Init. Calib. Times: 0823 1624

GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Vinyl Chloride	1.465	1.326	0.01	9.5	30.0
Trichloroethene	0.210	0.212	0.01	1.0	30.0
Ethylbenzene	0.921	0.961	0.01	4.3	30.0

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdj10kv.d
Date : 10-MAY-2005 09:31
Client ID: astd010
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjkto15.b/bdj10kv.d
Lab Smp Id: astd010 Client Smp ID: astd010
Inj Date : 10-MAY-2005 09:31
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd010;0510G9;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Meth Date : 12-May-2005 09:57 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
	4 Vinyl Chloride	62	4.717	4.717	(0.486)	466160	10.0000	9.0
*	25 Bromochloromethane	128	9.697	9.697	(1.000)	351640	10.0000	
*	35 1,4-Difluorobenzene	114	10.529	10.529	(1.000)	1885436	10.0000	
	36 Trichloroethene	95	10.775	10.775	(1.023)	399919	10.0000	10
*	50 Chlorobenzene-d5	117	12.957	12.957	(1.000)	1840260	10.0000	
	52 Ethylbenzene	91	12.995	12.995	(1.003)	1768759	10.0000	10

STL Burlington

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: B.i
Lab File ID: bdj10kv.d
Analysis Type: AIR
Lab Sample ID: astd010
Method: /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m

Injection Date: 10-MAY-2005 09:31
Init. Cal. Date(s): 26-APR-2005 26-APR-2005
Init. Cal. Times: 08:23 16:24
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Vinyl Chloride	1.46491	1.32567	0.010	9.50452	30.00000	Averaged
36 Trichloroethene	0.20978	0.21211	0.010	-1.10945	30.00000	Averaged
52 Ethylbenzene	0.92123	0.96115	0.010	-4.33257	30.00000	Averaged

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Instrument ID: B Calibration Date: 05/11/05 Time: 0915

Lab File ID: BDJ10LV Init. Calib. Date(s): 04/26/05 04/26/05

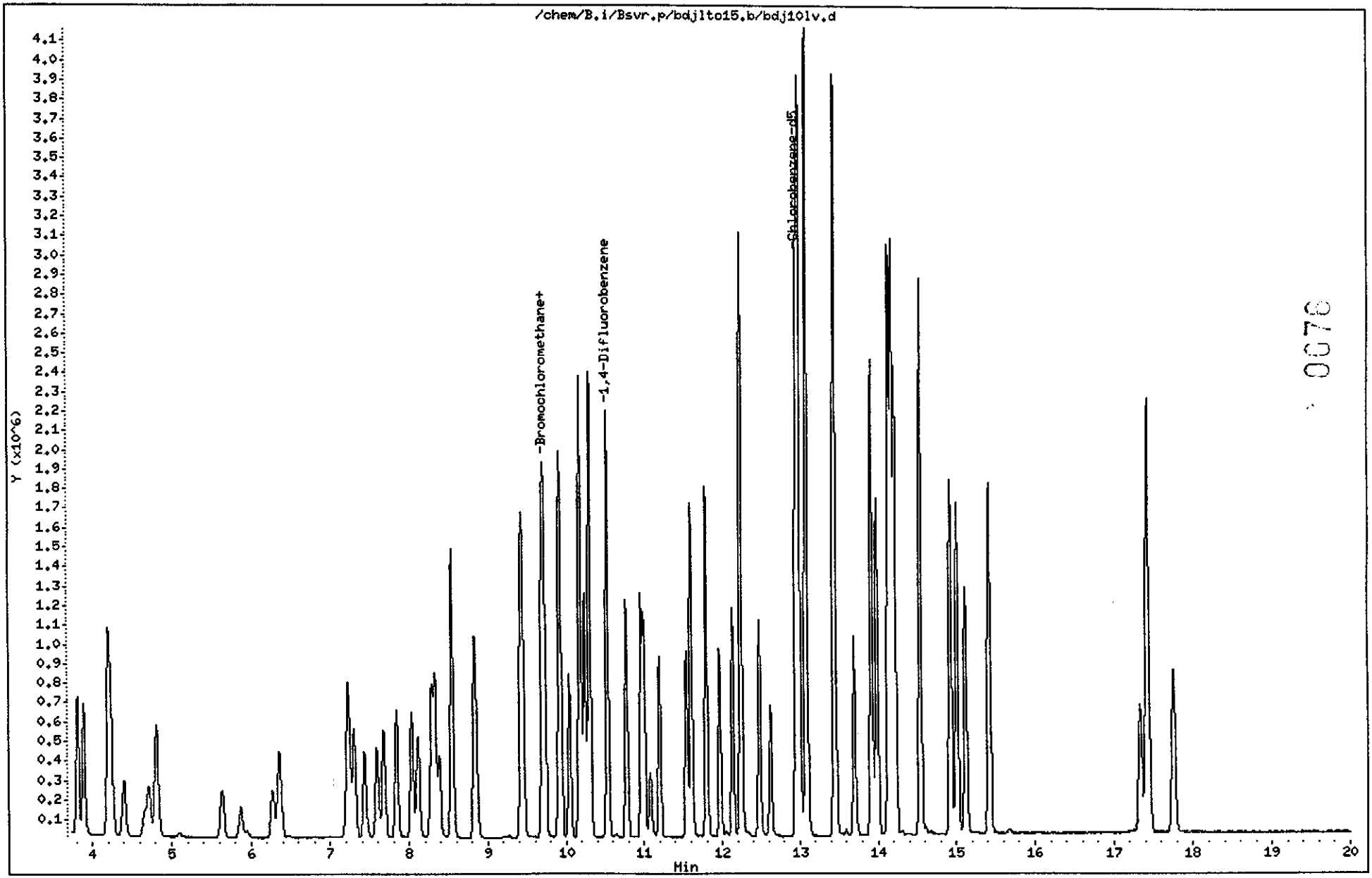
Heated Purge: (Y/N) N Init. Calib. Times: 0823 1624

GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Vinyl Chloride	1.465	1.318	0.01	10.0	30.0
Trichloroethene	0.210	0.214	0.01	1.9	30.0
Ethylbenzene	0.921	0.941	0.01	2.2	30.0

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/bdj101v.d
Date : 11-MAY-2005 09:15
Client ID: astd010
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjlto15.b/bdj10lv.d
Lab Smp Id: astd010 Client Smp ID: astd010
Inj Date : 11-MAY-2005 09:15
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : astd010;0511H3;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Meth Date : 12-May-2005 10:13 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
4	Vinyl Chloride	62	4.712	4.712	(0.486)	509649	10.0000	9.0
* 25	Bromochloromethane	128	9.696	9.696	(1.000)	386533	10.0000	
* 35	1,4-Difluorobenzene	114	10.529	10.529	(1.000)	2078590	10.0000	
36	Trichloroethene	95	10.775	10.775	(1.023)	444228	10.0000	10
* 50	Chlorobenzene-d5	117	12.957	12.957	(1.000)	2037388	10.0000	
52	Ethylbenzene	91	12.995	12.995	(1.003)	1917445	10.0000	10

STL Burlington

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: B.i
Lab File ID: bdj10lv.d
Analysis Type: AIR
Lab Sample ID: astd010
Method: /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m

Injection Date: 11-MAY-2005 09:15
Init. Cal. Date(s): 26-APR-2005 26-APR-2005
Init. Cal. Times: 08:23 16:24
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
4 Vinyl Chloride	1.46491	1.31851	0.010	9.99332	30.00000	Averaged
36 Trichloroethene	0.20978	0.21372	0.010	-1.87523	30.00000	Averaged
52 Ethylbenzene	0.92123	0.94113	0.010	-2.15970	30.00000	Averaged

SEVERN TRENT STL

METHOD TO-15
VOLATILE ORGANIC ANALYSIS

RAW QC DATA

0070

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj001p.d

Date : 26-APR-2005 07:15

Client ID: VBFB01

Instrument: B.i

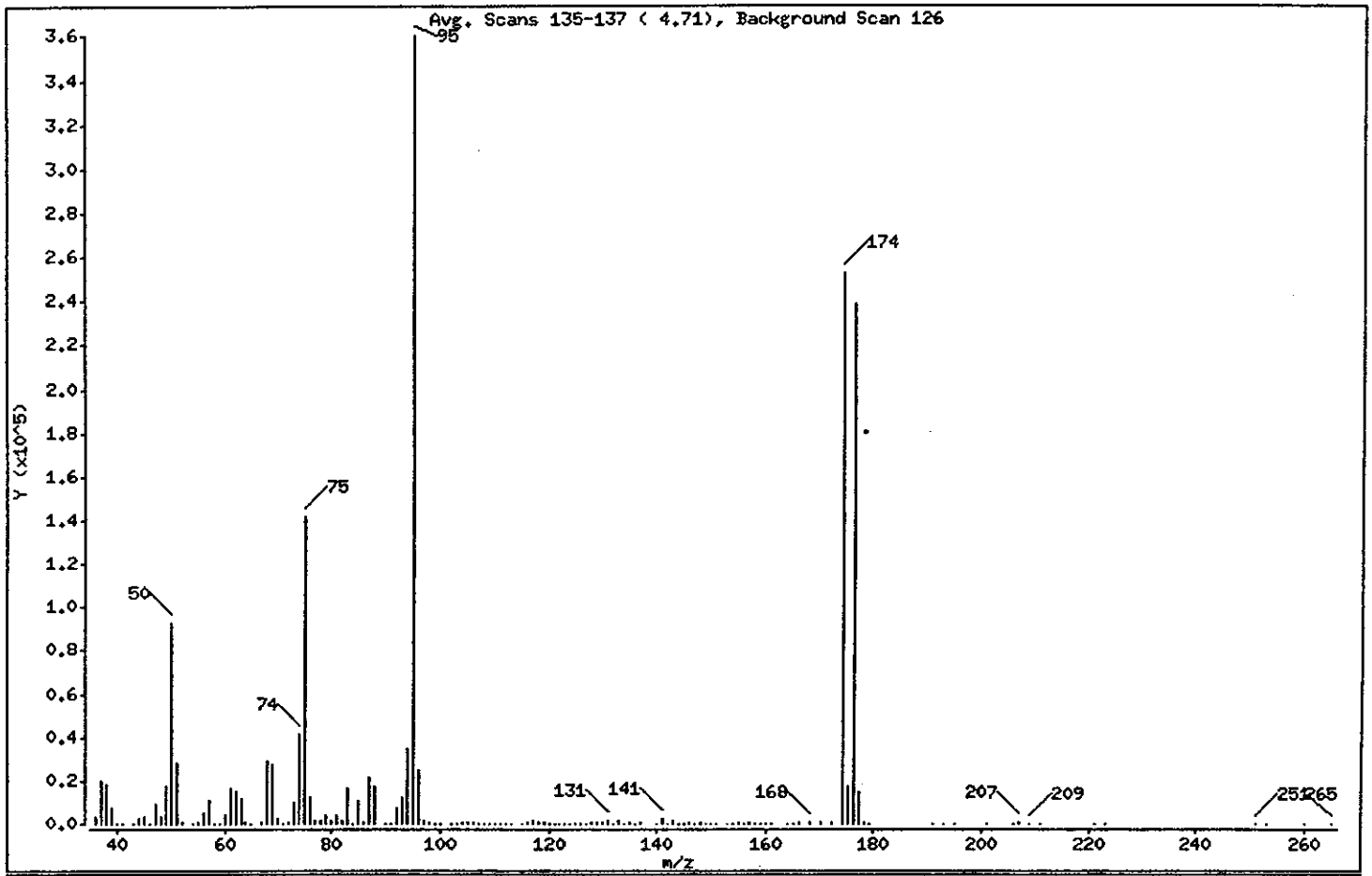
Sample Info: VBFB01

Operator: bes

Column phase: RTX-624

Column diameter: 0.32

\$ 1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	25.68
75	30.00 - 66.00% of mass 95	39.20
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	70.01
175	4.00 - 9.00% of mass 174	4.71 (6.73)
176	93.00 - 101.00% of mass 174	66.18 (94.53)
177	5.00 - 9.00% of mass 176	4.15 (6.28)

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj001p.d

Date : 26-APR-2005 07:15

Client ID: VBFB01

Instrument: B.i

Sample Info: VBFB01

Operator: bes

Column phase: RTX-624

Column diameter: 0.32

Data File: dj001p.d

Spectrum: Avg. Scans 135-137 (4.71), Background Scan 126

Location of Maximum: 95.00

Number of points: 143

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3503	75.00	141248	113.00	8	153.00	247
37.00	20016	76.00	12280	115.00	135	154.00	119
38.00	18376	77.00	1722	116.00	617	155.00	622
39.00	7740	78.00	1250	117.00	1281	156.00	165
40.00	232	79.00	3800	118.00	516	157.00	444
41.00	388	80.00	1502	119.00	835	158.00	35
43.00	388	81.00	3986	120.00	67	159.00	273
44.00	2093	82.00	1390	121.00	83	160.00	42
45.00	3505	83.00	16276	122.00	96	161.00	164
46.00	235	84.00	278	123.00	90	164.00	74
47.00	9063	85.00	10907	124.00	114	165.00	186
48.00	3310	86.00	622	125.00	241	166.00	850
49.00	17664	87.00	21272	126.00	224	168.00	942
50.00	92536	88.00	17752	127.00	158	170.00	686
51.00	28144	90.00	86	128.00	895	172.00	471
52.00	995	91.00	36	129.00	424	174.00	252288
54.00	159	92.00	7440	130.00	1238	175.00	16984
55.00	1048	93.00	12138	131.00	2045	176.00	238464
56.00	4596	94.00	34480	132.00	338	177.00	14965
57.00	10608	95.00	360320	133.00	1771	178.00	598
58.00	332	96.00	24720	134.00	8	179.00	34
59.00	177	97.00	1969	135.00	1064	191.00	25
60.00	4206	98.00	823	136.00	106	193.00	84
61.00	16512	99.00	300	137.00	466	195.00	35
62.00	15227	100.00	168	140.00	163	201.00	41
63.00	11263	102.00	176	141.00	2244	206.00	38
64.00	780	103.00	45	142.00	237	207.00	876
65.00	6	104.00	949	143.00	1893	209.00	110
67.00	852	105.00	593	144.00	123	211.00	57
68.00	29208	106.00	621	145.00	243	221.00	52
69.00	27296	107.00	293	146.00	421	223.00	53
70.00	2259	108.00	108	147.00	63	251.00	71
71.00	51	109.00	151	148.00	657	253.00	27
72.00	1077	110.00	37	149.00	143	260.00	48
73.00	10036	111.00	144	150.00	38	265.00	135

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj001p.d

Date : 26-APR-2005 07:15

Client ID: VBFB01

Instrument: B.i

Sample Info: VBFB01

Operator: bes

Column phase: RTX-624

Column diameter: 0.32

Data File: dj001p.d

Spectrum: Avg. Scans 135-137 (4.71), Background Scan 126

Location of Maximum: 95.00

Number of points: 143

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	41408	112.00	28	151.00	60		

Data File: /chem/B.i/Bsvr.p/bdjto15.b/dj001p.d

Date : 26-APR-2005 07:15

Client ID: VBFB01

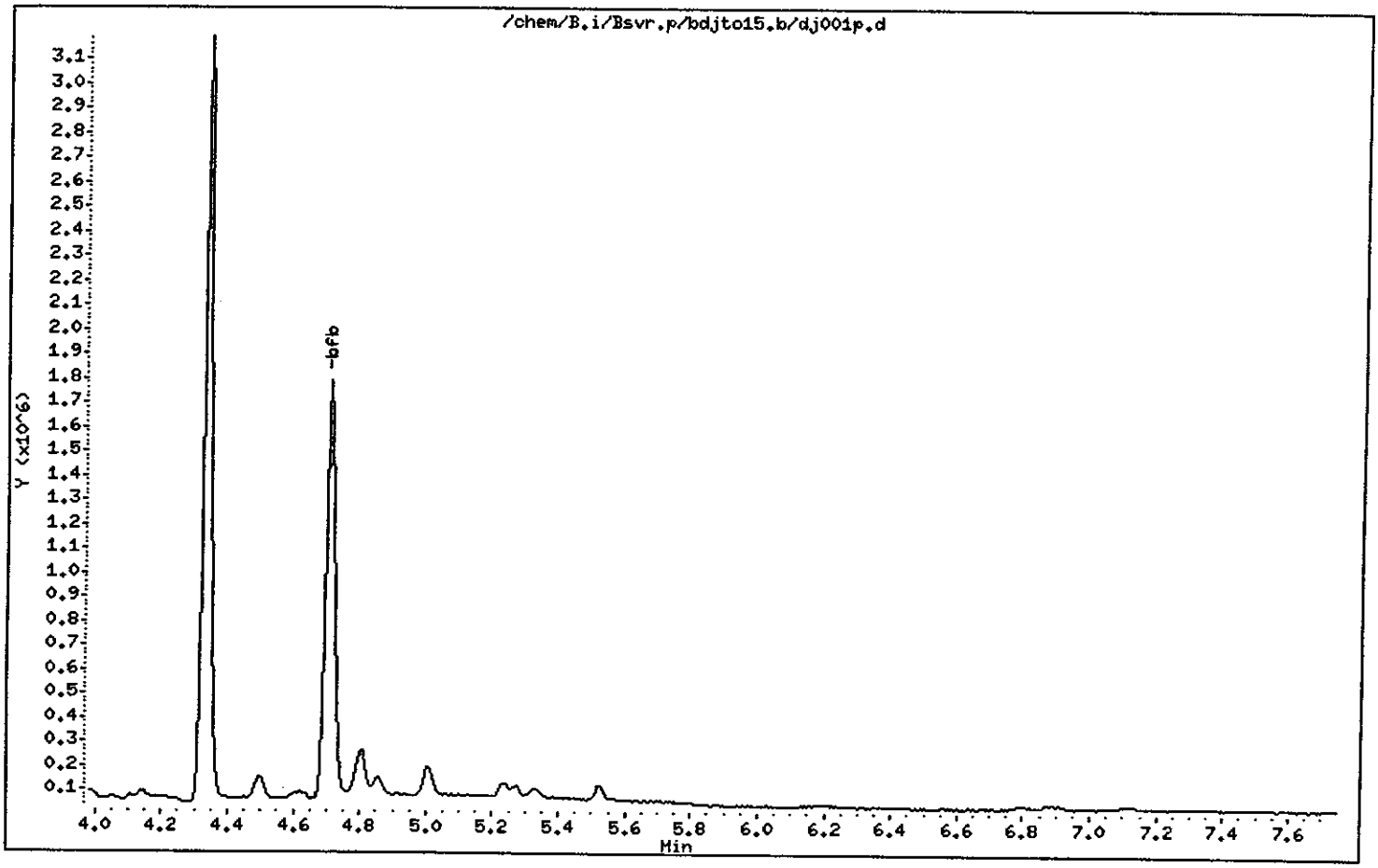
Instrument: B.i

Sample Info: VBFB01

Operator: bes

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdj11pv.d

Date : 10-MAY-2005 08:45

Client ID: VBFB

Instrument: B.i

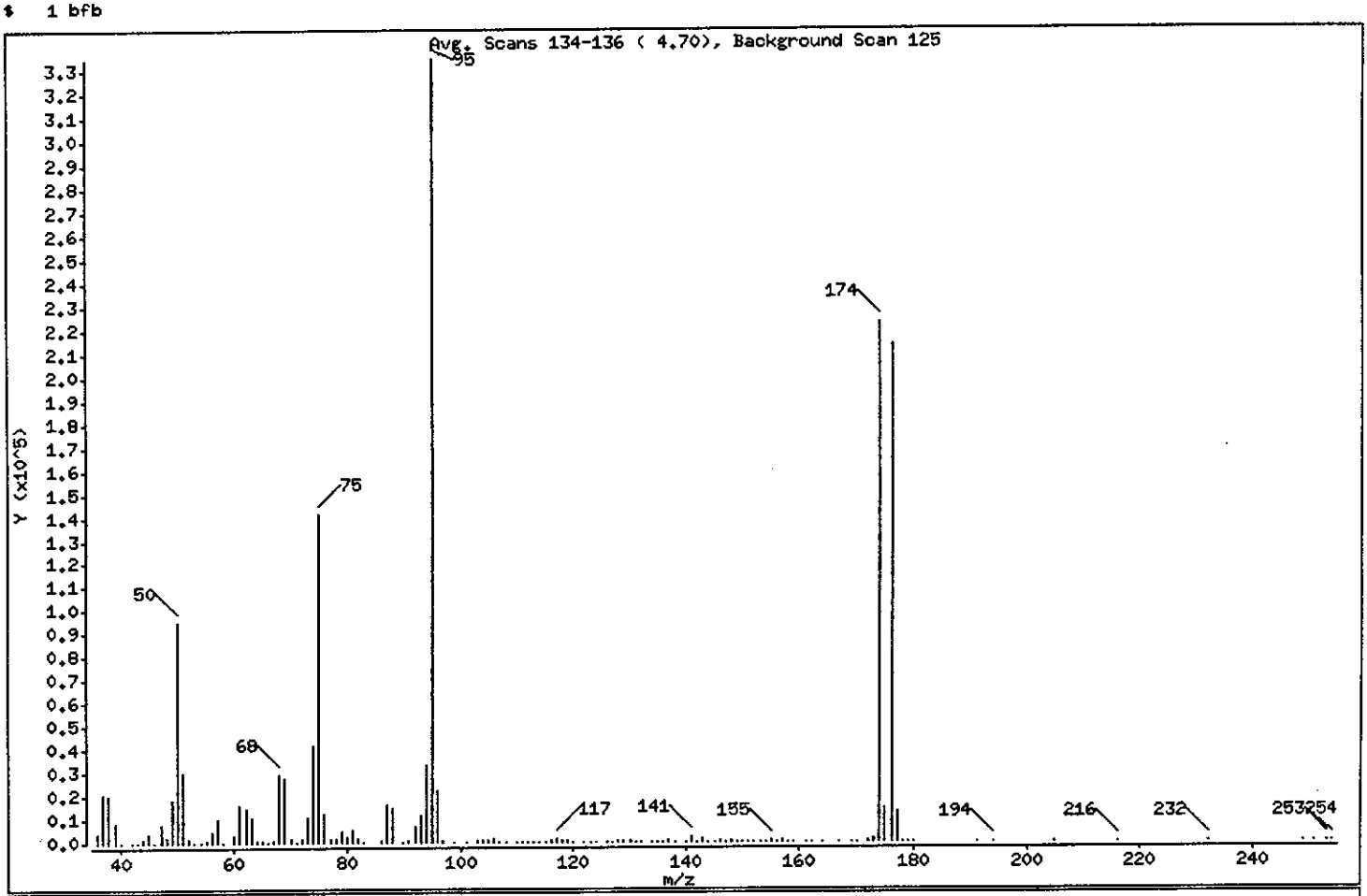
Sample Info: VBFB

Operator: wrd

Column phase: RTX-624

Column diameter: 0.32

$ 1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	28.25
75	30.00 - 66.00% of mass 95	42.25
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.45 (0.67)
174	50.00 - 120.00% of mass 95	66.57
175	4.00 - 9.00% of mass 174	4.33 (6.50)
176	93.00 - 101.00% of mass 174	63.88 (95.95)
177	5.00 - 9.00% of mass 176	3.91 (6.12)

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdj11pv.d

Date : 10-MAY-2005 08:45

Client ID: VBFB

Instrument: B.i

Sample Info: VBFB

Operator: wrd

Column phase: RTX-624

Column diameter: 0.32

Data File: bdj11pv.d

Spectrum: Avg. Scans 134-136 (4.70), Background Scan 125

Location of Maximum: 95.00

Number of points: 135

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4059	72.00	1283	113.00	298	151.00	35
37.00	21192	73.00	10639	114.00	8	152.00	176
38.00	19808	74.00	41760	115.00	229	153.00	325
39.00	8400	75.00	141440	116.00	977	154.00	147
40.00	343	76.00	12059	117.00	1572	155.00	645
42.00	65	77.00	1813	118.00	898	156.00	145
43.00	362	78.00	1836	119.00	812	157.00	447
44.00	1687	79.00	4588	120.00	187	158.00	122
45.00	3952	80.00	2088	122.00	116	159.00	334
46.00	2	81.00	5021	123.00	34	161.00	233
47.00	7837	82.00	1468	124.00	126	162.00	57
48.00	2437	83.00	227	126.00	116	164.00	97
49.00	18632	86.00	445	127.00	260	167.00	40
50.00	94608	87.00	15853	128.00	988	169.00	45
51.00	30336	88.00	14914	129.00	456	170.00	172
52.00	1301	90.00	33	130.00	861	172.00	739
53.00	284	91.00	907	131.00	308	173.00	1500
54.00	167	92.00	7081	132.00	99	174.00	222976
55.00	787	93.00	11628	134.00	151	175.00	14501
56.00	4879	94.00	33008	135.00	122	176.00	213952
57.00	10342	95.00	334912	136.00	68	177.00	13099
58.00	263	96.00	22104	137.00	474	178.00	342
60.00	2979	97.00	747	138.00	62	179.00	45
61.00	16075	99.00	35	140.00	206	180.00	125
62.00	14497	101.00	76	141.00	2099	191.00	1
63.00	10715	103.00	403	142.00	333	194.00	38
64.00	970	104.00	828	143.00	1926	205.00	41
65.00	561	105.00	487	144.00	128	216.00	53
66.00	18	106.00	1235	145.00	109	232.00	43
67.00	705	107.00	360	146.00	409	249.00	63
68.00	29096	108.00	33	147.00	106	251.00	67
69.00	27680	110.00	174	148.00	567	253.00	72
70.00	1855	111.00	147	149.00	228	254.00	39
71.00	136	112.00	185	150.00	276		

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdj11pv.d

Date : 10-MAY-2005 08:45

Client ID: VBFB

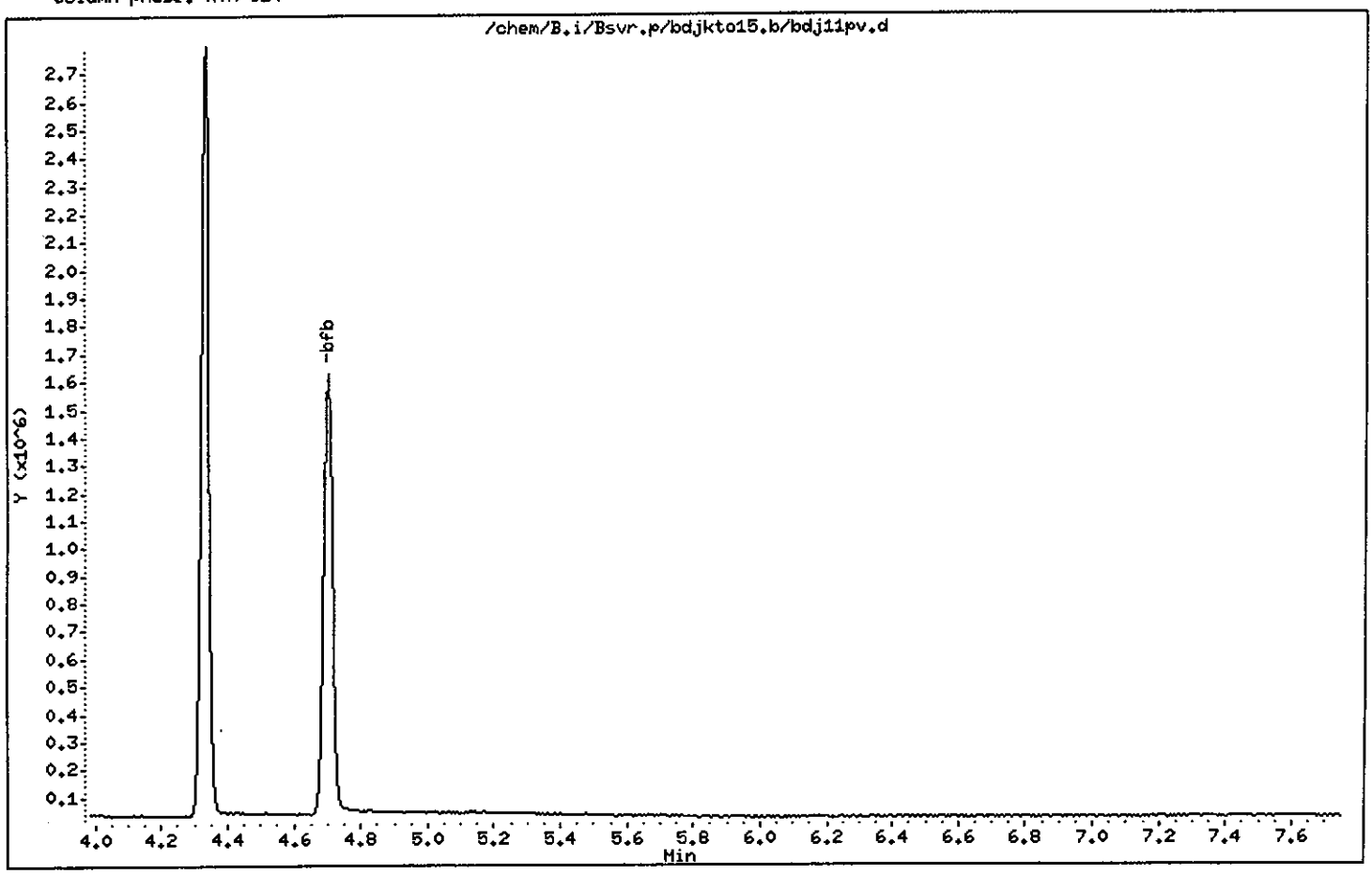
Instrument: B.i

Sample Info: VBFB

Operator: wrd

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/B.i/Bsvr.p/bdj1to15.b/bdj12pv.d

Date : 11-MAY-2005 08:21

Client ID: VBFB

Instrument: B.i

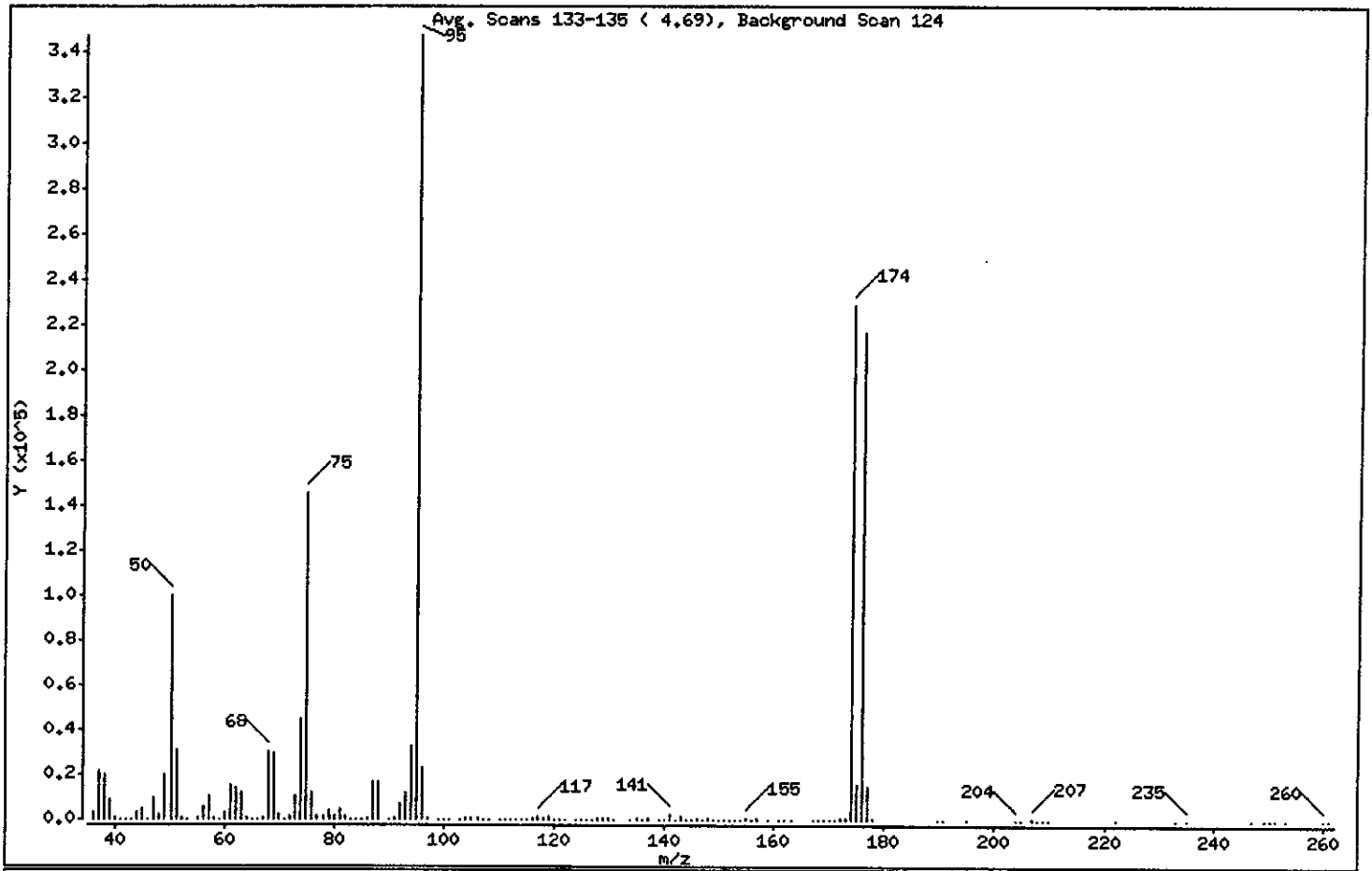
Sample Info: VBFB

Operator: wrd

Column phase: RTX-624

Column diameter: 0.32

$ 1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	28.72
75	30.00 - 66.00% of mass 95	42.04
96	5.00 - 9.00% of mass 95	6.62
173	Less than 2.00% of mass 174	0.31 (0.47)
174	50.00 - 120.00% of mass 95	65.89
175	4.00 - 9.00% of mass 174	4.71 (7.15)
176	93.00 - 101.00% of mass 174	62.44 (94.77)
177	5.00 - 9.00% of mass 176	4.27 (6.85)

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/bdj12pv.d

Date : 11-MAY-2005 08:21

Client ID: VBFB

Instrument: B.i

Sample Info: VBFB

Operator: wrd

Column phase: RTX-624

Column diameter: 0.32

Data File: bdj12pv.d

Spectrum: Avg. Scans 133-135 (4.69), Background Scan 124

Location of Maximum: 95.00

Number of points: 148

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3494	75.00	145984	117.00	1692	161.00	290
37.00	21592	76.00	11893	118.00	821	162.00	34
38.00	20040	77.00	1859	119.00	1492	163.00	79
39.00	8996	78.00	1819	120.00	7	167.00	42
40.00	700	79.00	4396	121.00	51	168.00	65
41.00	24	80.00	1904	122.00	35	169.00	57
42.00	83	81.00	6154	124.00	148	170.00	130
43.00	276	82.00	1360	125.00	125	171.00	254
44.00	2913	83.00	89	126.00	202	172.00	645
45.00	4500	84.00	55	127.00	89	173.00	1080
46.00	300	85.00	78	128.00	772	174.00	228800
47.00	9472	86.00	466	129.00	528	175.00	16361
48.00	2676	87.00	16888	130.00	1013	176.00	216832
49.00	19960	88.00	16688	131.00	315	177.00	14846
50.00	99760	90.00	59	134.00	226	178.00	487
51.00	31464	91.00	681	135.00	442	190.00	34
52.00	447	92.00	7318	136.00	149	191.00	11
53.00	119	93.00	11739	137.00	536	195.00	37
55.00	728	94.00	32480	139.00	37	204.00	49
56.00	5372	95.00	347328	140.00	70	205.00	45
57.00	10427	96.00	23008	141.00	2108	207.00	1044
58.00	474	97.00	888	142.00	150	208.00	329
59.00	106	99.00	35	143.00	1763	209.00	128
60.00	3076	100.00	33	144.00	70	210.00	33
61.00	15023	101.00	57	145.00	259	222.00	53
62.00	14595	103.00	295	146.00	472	233.00	36
63.00	11697	104.00	1051	147.00	111	235.00	37
64.00	1060	105.00	449	148.00	645	247.00	40
65.00	333	106.00	811	149.00	258	249.00	101
66.00	247	107.00	284	150.00	247	250.00	34
67.00	701	108.00	77	151.00	114	251.00	56
68.00	30168	110.00	152	152.00	93	253.00	19
69.00	29912	111.00	179	153.00	346	260.00	266
70.00	2236	112.00	175	154.00	149	261.00	47
71.00	27	113.00	225	155.00	654		

Date : 11-MAY-2005 08:21

Client ID: VBFB Instrument: B.i

Sample Info: VBFB

Operator: wrd

Column phase: RTX-624 Column diameter: 0.32

Data File: bdj12pv.d
Spectrum: Avg. Scans 133-135 (4.69), Background Scan 124
Location of Maximum: 95.00
Number of points: 148

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	1347	114.00	64	156.00	84		
73.00	10405	115.00	4	157.00	418		
74.00	44840	116.00	967	159.00	352		

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/bdj12pv.d

Date : 11-MAY-2005 08:21

Client ID: VBFB

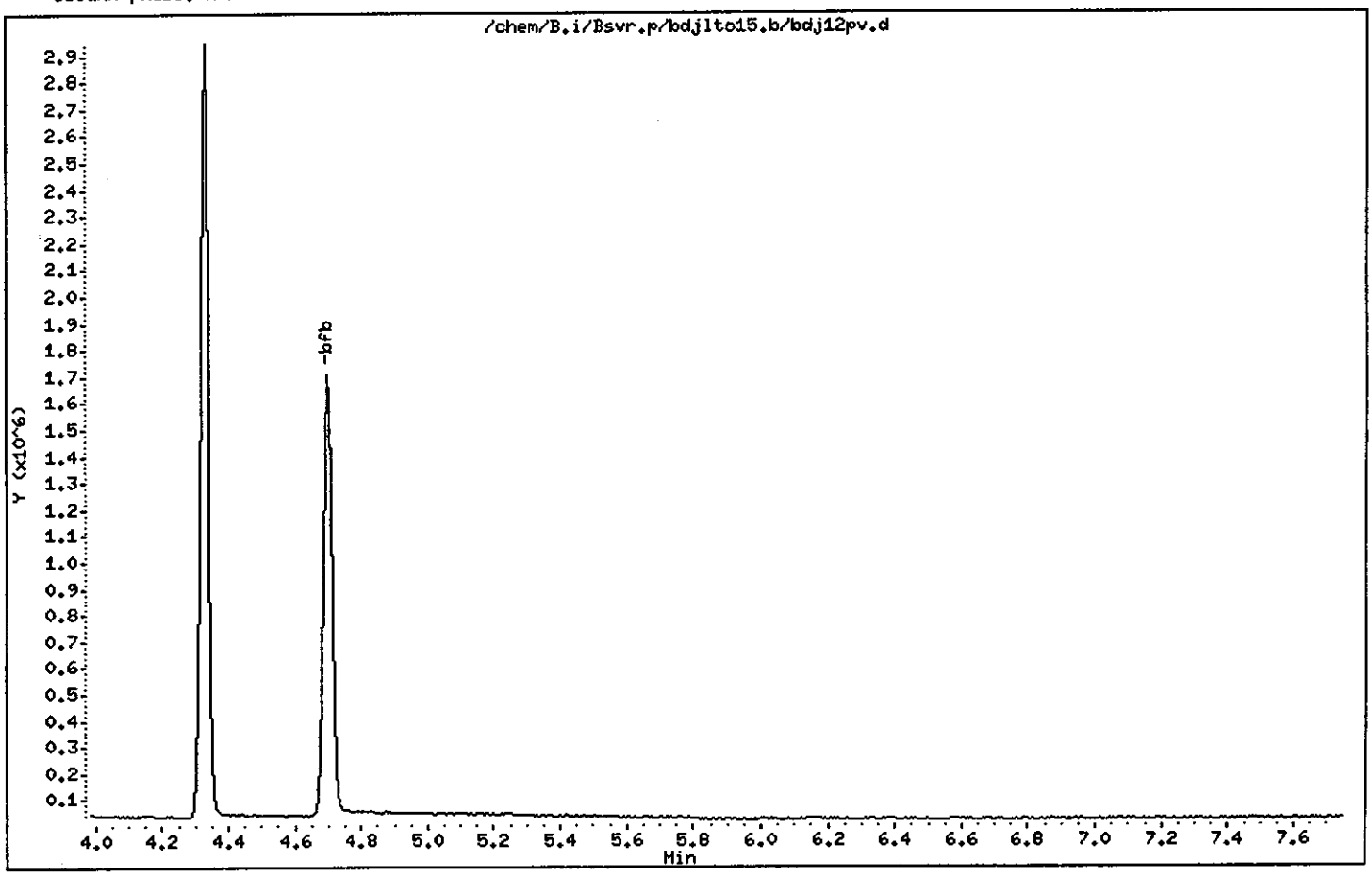
Instrument: B.i

Sample Info: VBFB

Operator: wrd

Column phase: RTX-624

Column diameter: 0.32



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ABLKG9

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: ABLKG9

Sample wt/vol: 400.0 (g/mL) ML Lab File ID: BDJB01K

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/10/05

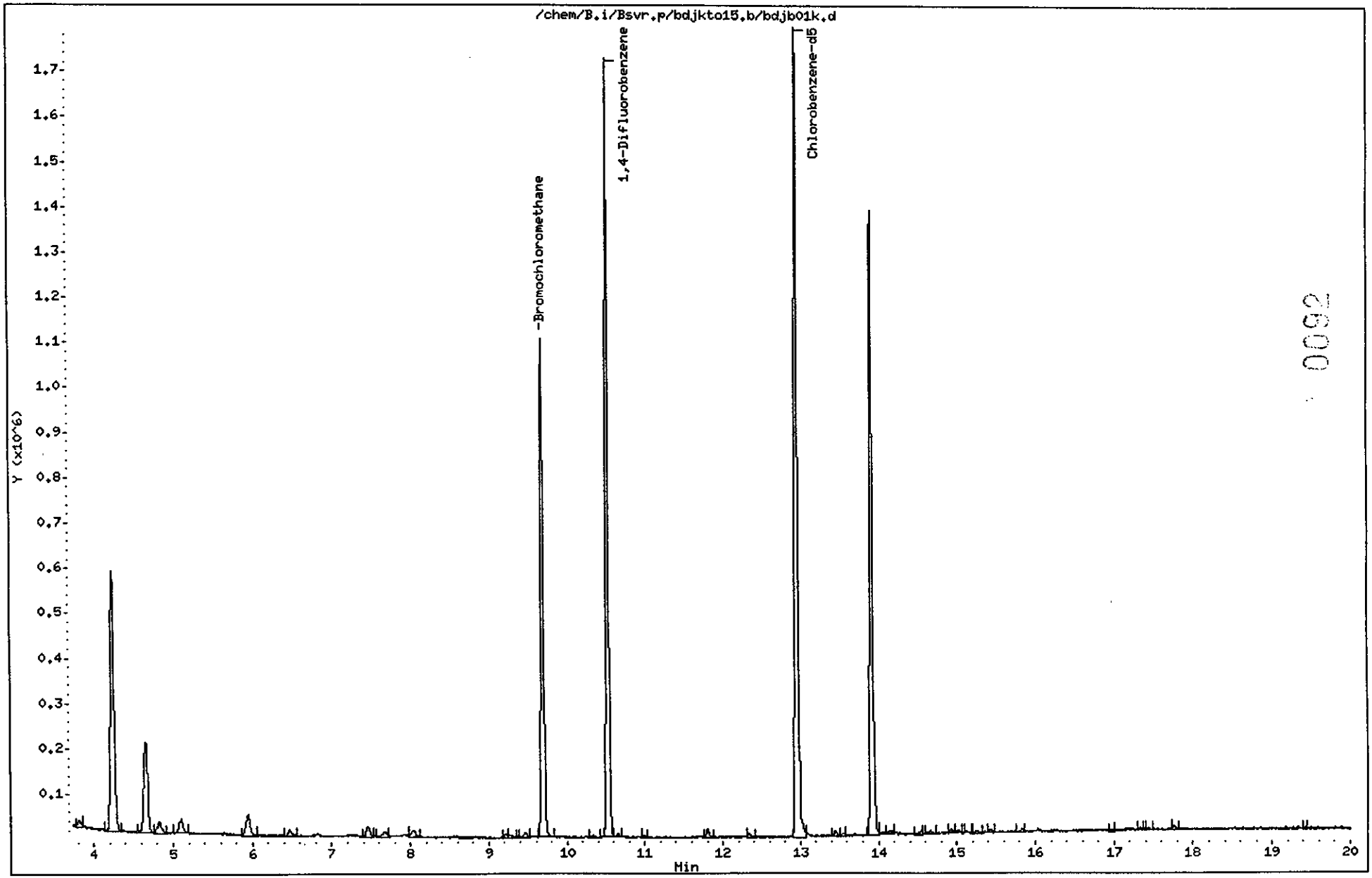
GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 0.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	0.10	U
79-01-6	Trichloroethene	0.10	U
100-41-4	Ethylbenzene	0.10	U

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdjb01k.d
Date : 10-MAY-2005 12:11
Client ID: ABLKG9
Sample Info:
Purge Volume: 400.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjkto15.b/bdjb01k.d
Lab Smp Id: ABLKG9 Client Smp ID: ABLKG9
Inj Date : 10-MAY-2005 12:11
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : ABLKG9;0510G9;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Meth Date : 12-May-2005 09:57 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 0.50000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	0.50000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	400.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)	
	4 Vinyl Chloride	62	Compound Not Detected.						
*	25 Bromochloromethane	128	9.696	9.697	(1.000)	308085	10.0000		(Q)
*	35 1,4-Difluorobenzene	114	10.529	10.529	(1.000)	1596917	10.0000		
	36 Trichloroethene	95	Compound Not Detected.						
*	50 Chlorobenzene-d5	117	12.957	12.957	(1.000)	1363305	10.0000		
	52 Ethylbenzene	91	Compound Not Detected.						

QC Flag Legend

Q - Qualifier signal failed the ratio test.

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

ABLKH3

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: ABLKH3

Sample wt/vol: 400.0 (g/mL) ML Lab File ID: BDJB01L

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/11/05

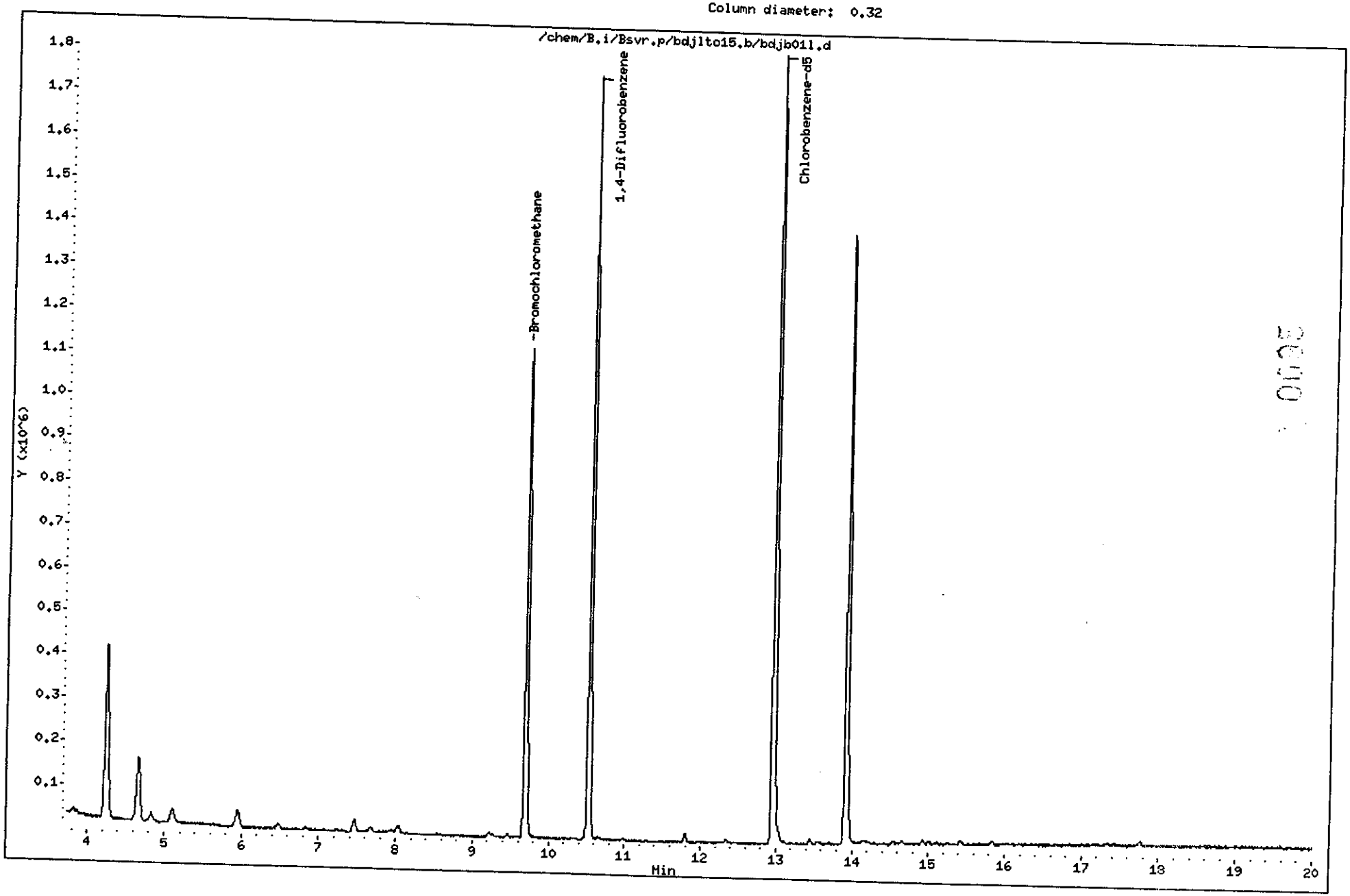
GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 0.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	0.10	U
79-01-6	Trichloroethene	0.10	U
100-41-4	Ethylbenzene	0.10	U

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/bdjb011.d
Date : 11-MAY-2005 11:46
Client ID: ABLKH3
Sample Info:
Purge Volume: 400.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjlto15.b/bdjb011.d
Lab Smp Id: ABLKH3 Client Smp ID: ABLKH3
Inj Date : 11-MAY-2005 11:46
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : iblk;0511H3;.5;400
Comment :
Method : /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Meth Date : 12-May-2005 10:13 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 11 QC Sample: BLANK
Dil Factor: 0.50000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	0.50000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	400.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	4 Vinyl Chloride	62	Compound Not Detected.					
*	25 Bromochloromethane	128	9.696	9.696	(1.000)	313951	10.0000	
*	35 1,4-Difluorobenzene	114	10.529	10.529	(1.000)	1623450	10.0000	
	36 Trichloroethene	95	Compound Not Detected.					
*	50 Chlorobenzene-d5	117	12.957	12.957	(1.000)	1406440	10.0000	
	52 Ethylbenzene	91	Compound Not Detected.					

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

G9LCS

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: G9LCS

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: BDJ10KQ

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/10/05

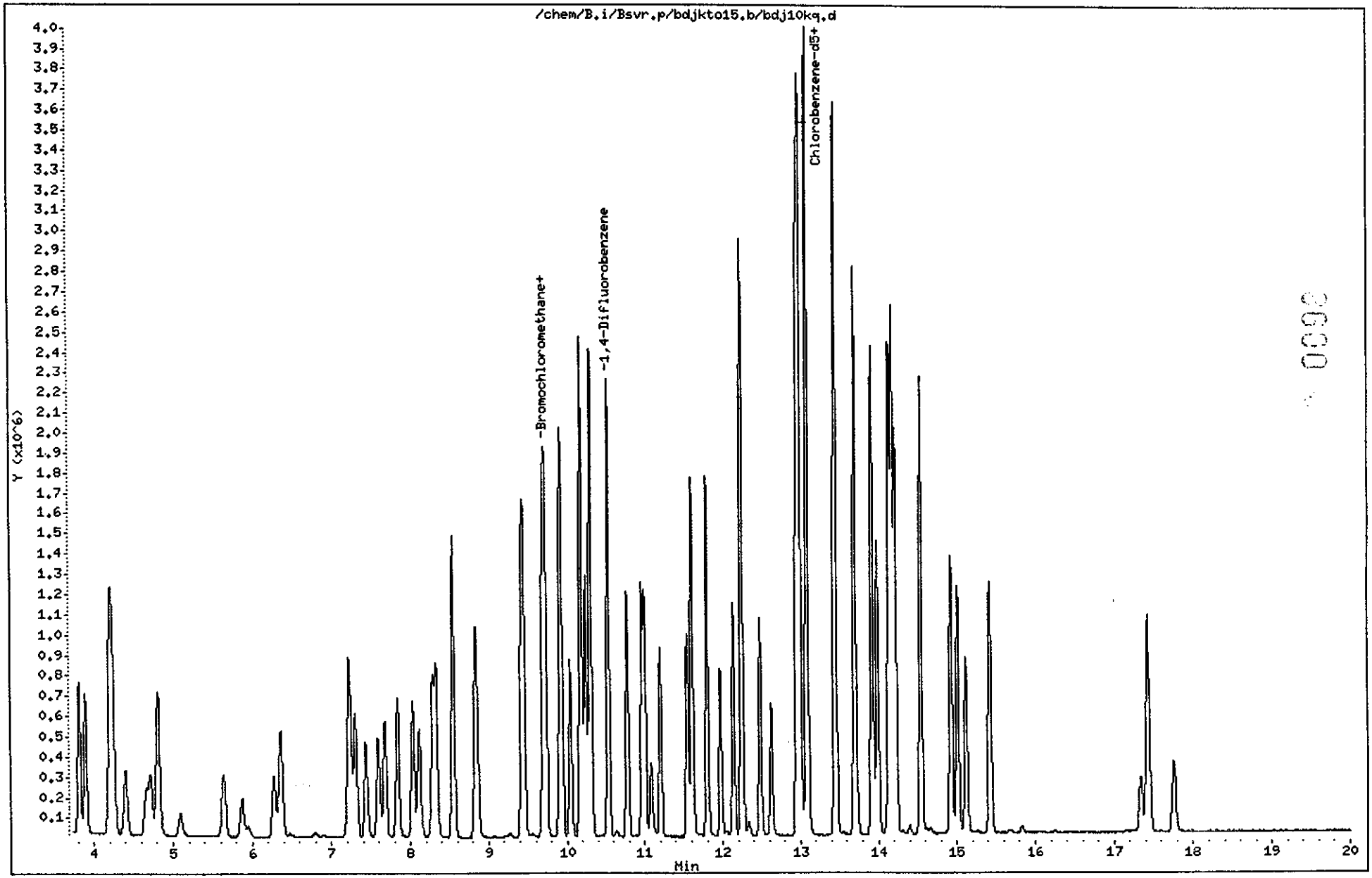
GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	10	
79-01-6	Trichloroethene	10	
100-41-4	Ethylbenzene	9.9	

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdj10kq.d
Date : 10-MAY-2005 10:25
Client ID: C9LCS
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjkto15.b/bdj10kq.d
Lab Smp Id: G9LCS Client Smp ID: G9LCS
Inj Date : 10-MAY-2005 10:25
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : G9LCS;0510G9;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Meth Date : 12-May-2005 09:57 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	4 Vinyl Chloride	62	4.717	4.717	(0.486)	596161	10.4587	10
*	25 Bromochloromethane	128	9.702	9.697	(1.000)	389112	10.0000	
*	35 1,4-Difluorobenzene	114	10.534	10.529	(1.000)	2107364	10.0000	
	36 Trichloroethene	95	10.774	10.775	(1.023)	442633	10.0123	10
*	50 Chlorobenzene-d5	117	12.963	12.957	(1.000)	2015957	10.0000	
	52 Ethylbenzene	91	12.995	12.995	(1.002)	1846071	9.94026	9.9

STL Burlington

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: G9LCS
Level: LOW
Data Type: MS DATA
SpikeList File: TCEETHVY_2.spk
Sublist File: TCEETHVY_2.sub
Method File: /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Misc Info: G9LCS;0510G9;1;200

Client SDG: bdjkto15
Fraction: VOA
Client Smp ID: G9LCS
Operator: wrd
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
4 Vinyl Chloride	10	10	104.59	70-130
36 Trichloroethene	10	10	100.12	70-130
52 Ethylbenzene	10	9.9	99.40	70-130

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

G9LCSD

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: G9LCSD

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: BDJ10KQD

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/10/05

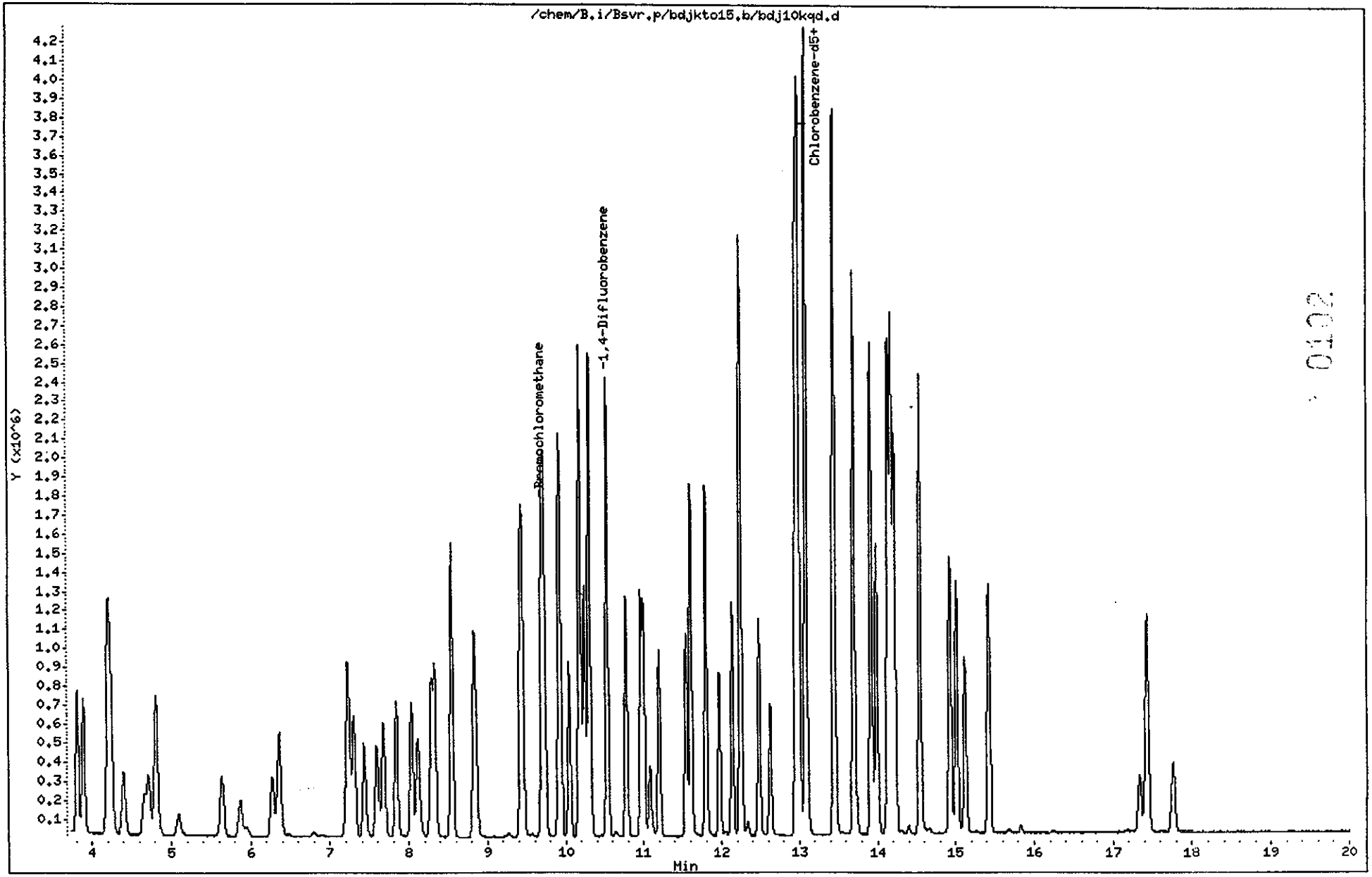
GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	10	
79-01-6	Trichloroethene	10	
100-41-4	Ethylbenzene	9.8	

Data File: /chem/B.i/Bsvr.p/bdjkto15.b/bdj10kqd.d
Date : 10-MAY-2005 11:11
Client ID: G9LCSD
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjkto15.b/bdj10kqd.d
Lab Smp Id: G9LCSD Client Smp ID: G9LCSD
Inj Date : 10-MAY-2005 11:11
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : G9LCSD;0510G9;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Meth Date : 12-May-2005 09:57 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 10 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	4 Vinyl Chloride	62	4.712	4.717	(0.486)	623247	10.1975	10
*	25 Bromochloromethane	128	9.696	9.697	(1.000)	417210	10.0000	
*	35 1,4-Difluorobenzene	114	10.534	10.529	(1.000)	2249517	10.0000	
	36 Trichloroethene	95	10.774	10.775	(1.023)	476806	10.1038	10
*	50 Chlorobenzene-d5	117	12.963	12.957	(1.000)	2188240	10.0000	
	52 Ethylbenzene	91	12.995	12.995	(1.002)	1979209	9.81809	9.8

STL Burlington

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: G9LCSD
Level: LOW
Data Type: MS DATA
SpikeList File: TCEETHVY_2.spk
Sublist File: TCEETHVY_2.sub
Method File: /chem/B.i/Bsvr.p/bdjkto15.b/nto15.m
Misc Info: G9LCSD;0510G9;1;200

Client SDG: bdjkto15
Fraction: VOA
Client Smp ID: G9LCSD
Operator: wrd
SampleType: LCSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
4 Vinyl Chloride	10	10	101.98	70-130
36 Trichloroethene	10	10	101.04	70-130
52 Ethylbenzene	10	9.8	98.18	70-130

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

H3LCS

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: H3LCS

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: BDJ10LQ

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/11/05

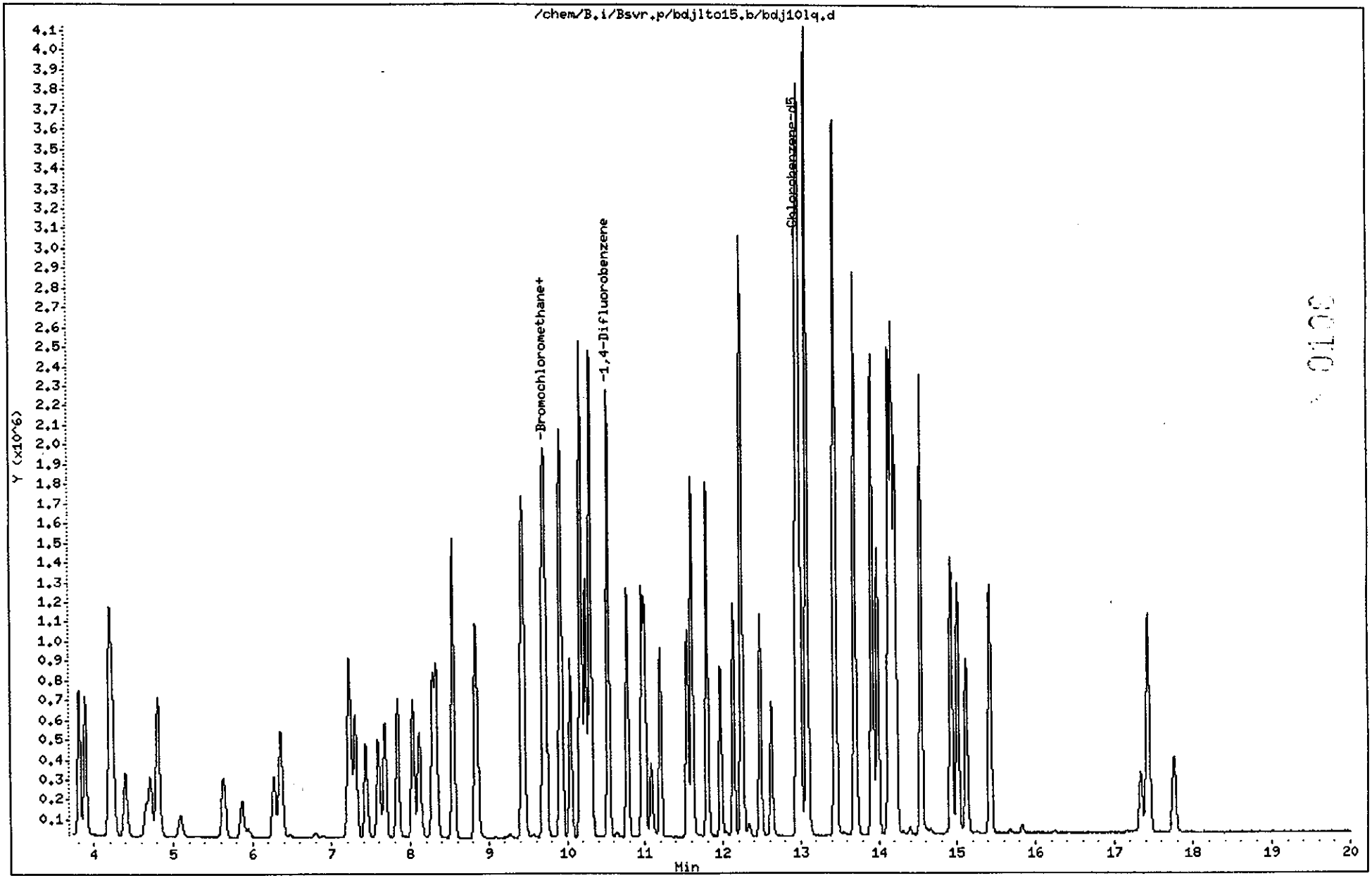
GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	10	
79-01-6	Trichloroethene	10	
100-41-4	Ethylbenzene	9.9	

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/bdj101q.d
Date : 11-MAY-2005 10:02
Client ID: H3LCS
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjlto15.b/bdj10lq.d
Lab Smp Id: H3LCS Client Smp ID: H3LCS
Inj Date : 11-MAY-2005 10:02
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : H3LCS;0511H3;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Meth Date : 12-May-2005 10:13 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	4 Vinyl Chloride	62	4.712	4.712	(0.486)	586730	9.96333	10
*	25 Bromochloromethane	128	9.697	9.696	(1.000)	401998	10.0000	
*	35 1,4-Difluorobenzene	114	10.534	10.529	(1.000)	2136384	10.0000	
	36 Trichloroethene	95	10.775	10.775	(1.023)	462692	10.3239	10
*	50 Chlorobenzene-d5	117	12.957	12.957	(1.000)	2072453	10.0000	
	52 Ethylbenzene	91	12.995	12.995	(1.003)	1896826	9.93512	9.9

STL Burlington

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: H3LCS
Level: LOW
Data Type: MS DATA
SpikeList File: TCEETHVY_2.spk
Sublist File: TCEETHVY_2.sub
Method File: /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Misc Info: H3LCS;0511H3;1;200

Client SDG: bdjlto15
Fraction: VOA
Client Smp ID: H3LCS
Operator: wrd
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
4 Vinyl Chloride	10	10	99.63	70-130
36 Trichloroethene	10	10	103.24	70-130
52 Ethylbenzene	10	9.9	99.35	70-130

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

H3LCSD

Lab Name: STL BURLINGTON Contract: 25000

Lab Code: STLVT Case No.: 25000 SAS No.: SDG No.: 107092

Matrix: (soil/water) AIR Lab Sample ID: H3LCSD

Sample wt/vol: 200.0 (g/mL) ML Lab File ID: BDJ10LQD

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 05/11/05

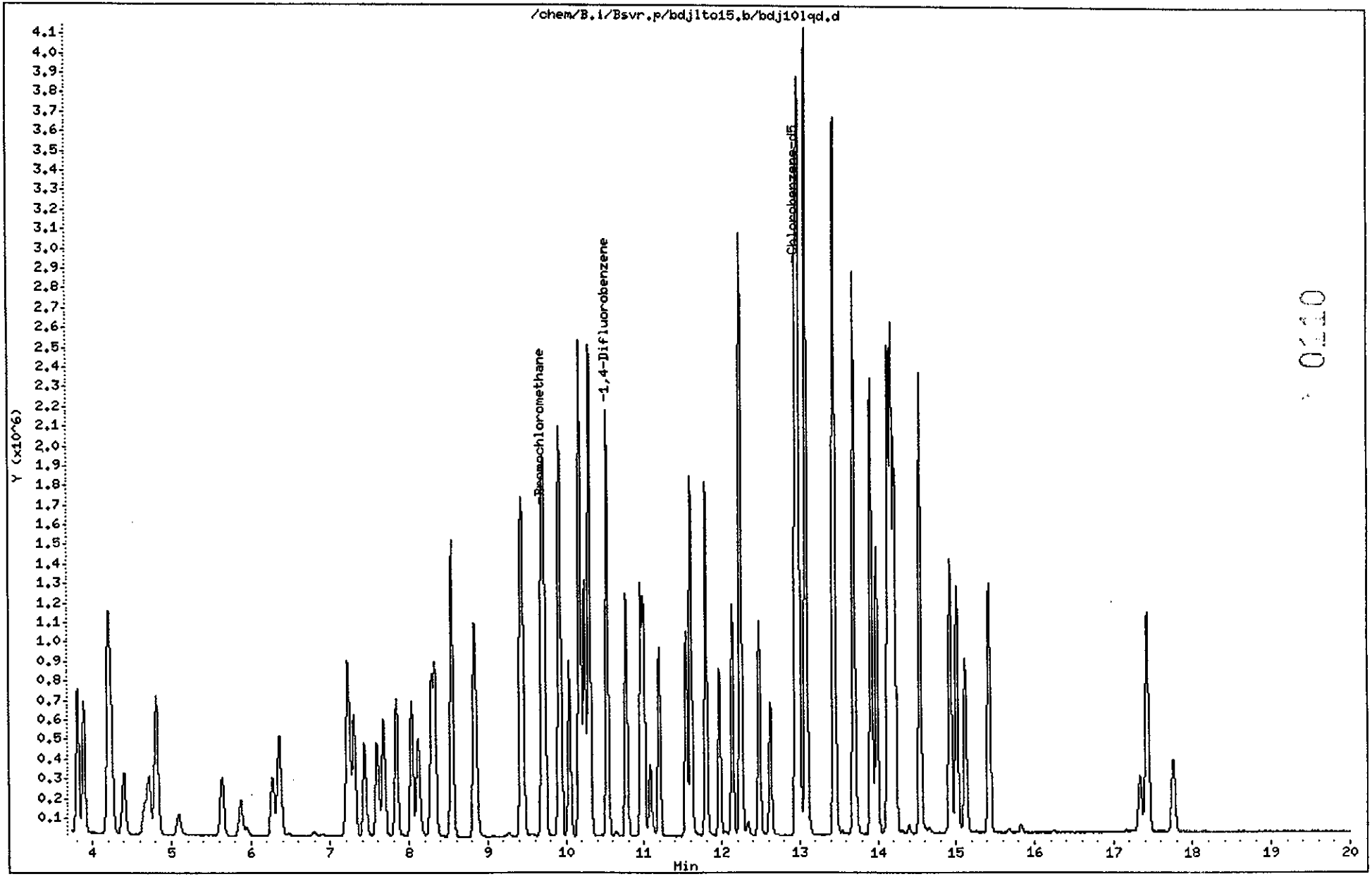
GC Column: RTX-624 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) PPBV	Q
75-01-4	Vinyl Chloride	11	
79-01-6	Trichloroethene	11	
100-41-4	Ethylbenzene	11	

Data File: /chem/B.i/Bsvr.p/bdjlto15.b/bdj101qd.d
Date : 11-MAY-2005 10:47
Client ID: H3LCSD
Sample Info:
Purge Volume: 200.0
Column phase: RTX-624

Instrument: B.i
Operator: wrd
Column diameter: 0.32



STL Burlington

AIR TOXICS QUANTITATION REPORT

Data file : /chem/B.i/Bsvr.p/bdjlto15.b/bdj10lqd.d
Lab Smp Id: H3LCSD Client Smp ID: H3LCSD
Inj Date : 11-MAY-2005 10:47
Operator : wrd Inst ID: B.i
Smp Info :
Misc Info : H3LCSD;0511H3;1;200
Comment :
Method : /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Meth Date : 12-May-2005 10:13 cmp Quant Type: ISTD
Cal Date : 26-APR-2005 16:24 Cal File: dj010i2.d
Als bottle: 10 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TCEETHVY_2.sub
Target Version: 3.50
Processing Host: chemsvr4

Concentration Formula: Amt * DF * Uf*(Vo/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vo	200.00000	Sample Volume purged (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	4 Vinyl Chloride	62	4.717	4.712	(0.486)	597432	10.5947	11
*	25 Bromochloromethane	128	9.696	9.696	(1.000)	384938	10.0000	
*	35 1,4-Difluorobenzene	114	10.534	10.529	(1.000)	2026527	10.0000	
	36 Trichloroethene	95	10.774	10.775	(1.023)	459754	10.8145	11
*	50 Chlorobenzene-d5	117	12.957	12.957	(1.000)	1965189	10.0000	
	52 Ethylbenzene	91	12.995	12.995	(1.003)	1923196	10.6231	11

STL Burlington

RECOVERY REPORT

Client Name:
Client SDG: bdjlto15
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: H3LCSD
Client Smp ID: H3LCSD
Level: LOW
Operator: wrd
Data Type: MS DATA
SampleType: LCSD
SpikeList File: TCEETHVY_2.spk
Quant Type: ISTD
Sublist File: TCEETHVY_2.sub
Method File: /chem/B.i/Bsvr.p/bdjlto15.b/nto15.m
Misc Info: H3LCSD;0511H3;1;200

SPIKE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
4 Vinyl Chloride	10	11	105.95	70-130
36 Trichloroethene	10	11	108.14	70-130
52 Ethylbenzene	10	11	106.23	70-130

SEVERN TRENT STL

ORGANIC
SAMPLE PREPARATION

STL Burlington

Summa Canister Pressure Record

Date: 5/10/05
Analyst: DMW
Client: BERGER
ETR: 107092

	Lab ID	Canister SN#	Initial Pressure " Hg	Final Pressure " Hg	Cleaning Batch ID
1	619705	6828	-30.1	-23.2/8.6	7105BDJA
2	619706	6969	-30.1	-4.3	7105BDJA
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

STL Burlington
Canister Dilution Calculations

DATE: 5/10/05

ANALYST: [signature]

Lab ID	Initial Pressure ("Hg)	=	Initial Pressure (atm)	Initial Vol. of Can (6 L)	Final Pressure (psig)	=	Final Pressure (atm)	Final Vol. of Can (6 L)	Dilution factor
619705	-23.2	=	0.22	1.35	8.6	=	1.59	9.51	7.06

EXAMPLE CALCULATION:

$$\frac{\text{Initial Pressure ("Hg) + 29.92}}{29.92} \times 6 = \text{Initial Volume Can (6 L)}$$

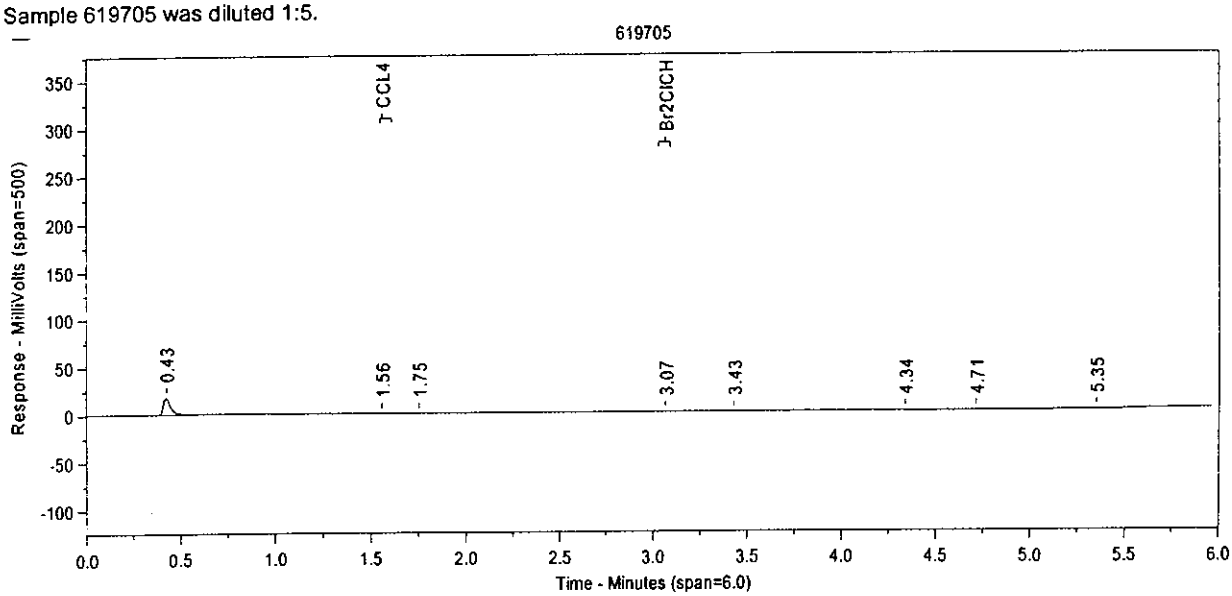
$$\frac{\text{Final Pressure (psig) + 14.7}}{14.7} \times 6 = \text{Final Volume Can (6 L)}$$

$$\frac{\text{Final Volume Can (6 L)}}{\text{Initial Volume Can (6 L)}} = \text{Dilution Factor}$$

010

Sample Name: 619705

Data File: C:\CPSpirit5\Data2\VOAE0510.0007.RAW
Acquired from Instrument 1 on 5/10/05 1:55:06 PM by
Sample 619705 was diluted 1:5.

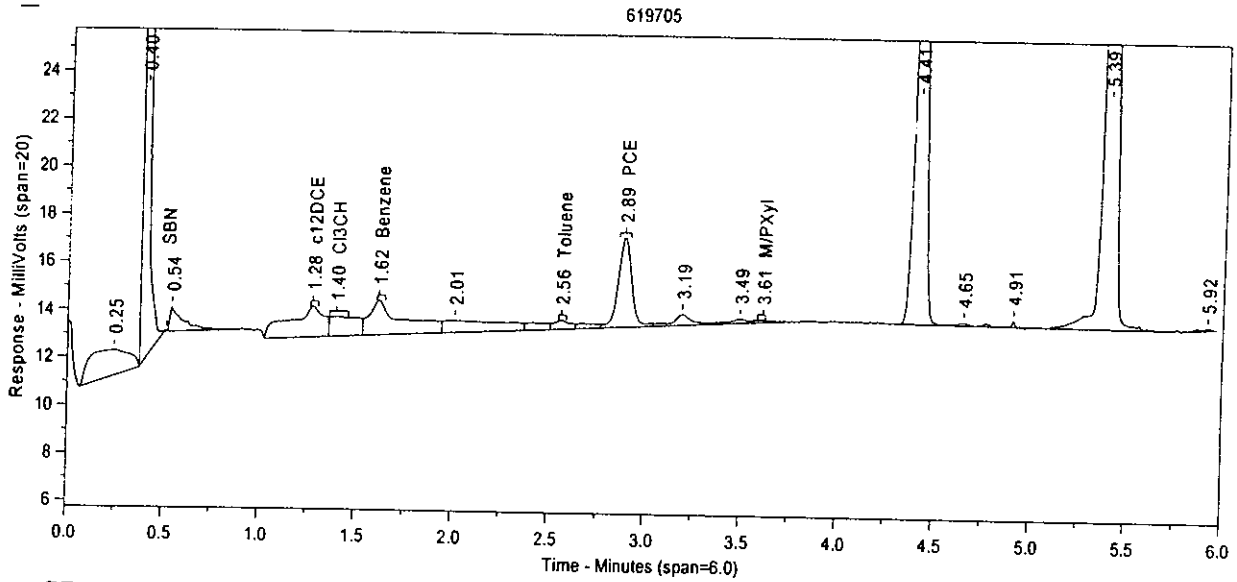


RT	Name	Amount	Height	RT	Name	Amount	Height
.43		401	18173.02	.43		0	37.11
.56	CCL4	0	61.09	.34		1	128.01
.75		0	36.97	.71		3	283.00
.07	Br2ClCH	1	98.10	.35		2	239.72

Surrogate BFB recovery is .%

Sample Name: 619705

Data File: C:\CPSpirit5\Data2\VOAF0510.0007.RAW
Acquired from Instrument 1 on 5/10/05 1:55:06 PM by
Sample 619705 was diluted 1:5.

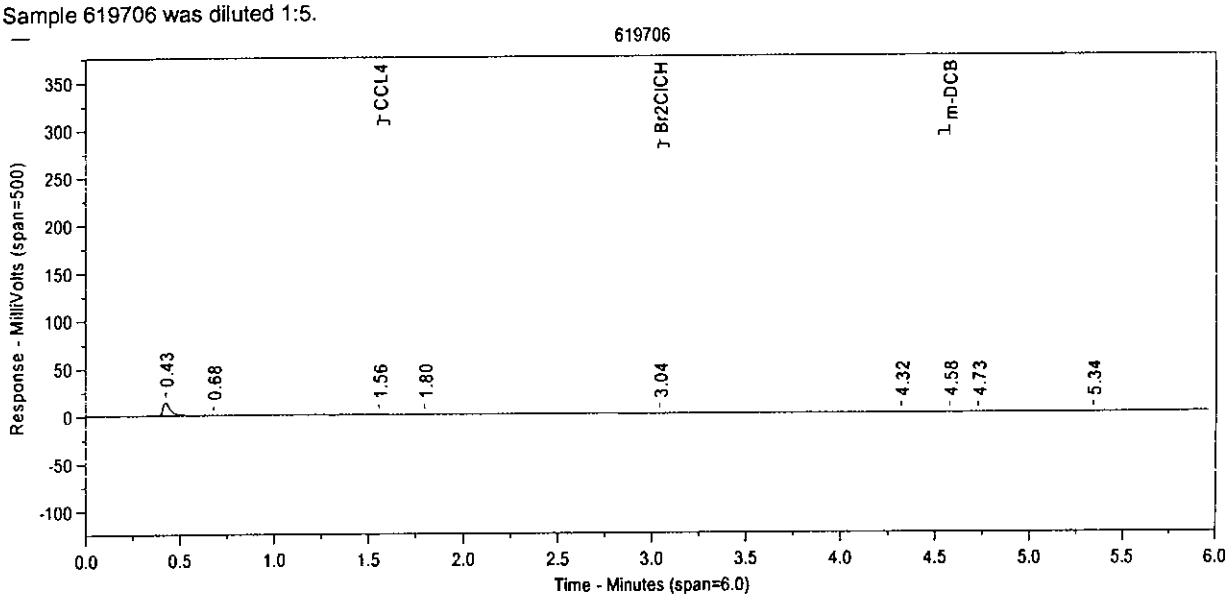


RT	Name	Amount	Height	RT	Name	Amount	Height
0.25		0	1042.96	3.19		0	443.80
0.40		0	189365.53	3.49		0	174.32
0.54		0	1019.88	3.61	M/PXyl	-4	113.84
1.28	c12DCE	111	1290.27	4.41		0	27021.33
1.40	Cl3CH	175	825.50	4.65		0	118.91
1.62	Benzene	36	1442.26	4.91		0	266.17
2.01		0	507.13	5.39		0	57297.87
2.56	Toluene	8	375.58	5.92		0	88.18
2.89	PCE	539	3773.15				

Surrogate aaaTFT recovery is .%
Surrogate BFB recovery is .%

Sample Name: 619706

Data File: C:\CPSpirit5\Data2\VOAE0510.0008.RAW
Acquired from Instrument 1 on 5/10/05 2:05:09 PM by
Sample 619706 was diluted 1:5.

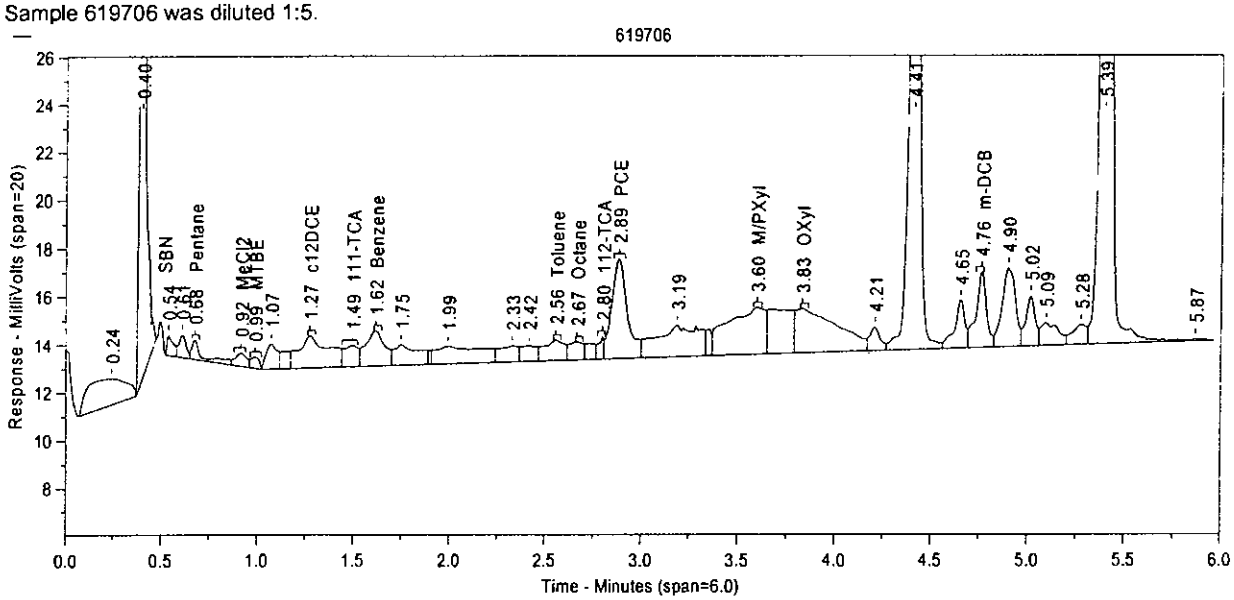


RT	Name	Amount	Height	RT	Name	Amount	Height
0.43		305	14419.59	4.32		2	181.52
0.68		1	98.89	4.58	m-DCB	237	152.12
1.56	CCL4	0	67.06	4.73		1	73.28
1.80		0	29.61	5.34		1	123.51
3.04	Br2ClCH	0	73.71				

Surrogate BFB recovery is .%

Sample Name: 619706

Data File: C:\CPSpirit5\Data2\VOAF0510.0008.RAW
Acquired from Instrument 1 on 5/10/05 2:05:09 PM by
Sample 619706 was diluted 1:5.



RT	Name	Amount	Height	RT	Name	Amount	Height
0.24		0	1084.25	2.67	Octane	21	754.93
0.40		0	70214.30	2.80	112-TCA	209	956.99
0.54		0	839.94	2.89	PCE	595	4159.69
0.61		0	965.36	3.19		0	1306.21
0.68	Pentane	221	805.43	3.60	M/PXyl	45	1939.47
0.92	MeCl2	-73	563.55	3.83	OXyl	44	1830.60
0.99	MTBE	18	464.65	4.21		0	967.15
1.07		0	1055.54	4.41		0	26643.20
1.27	c12DCE	117	1349.54	4.65		0	2019.92
1.49	111-TCA	112	875.23	4.76	m-DCB	130	3193.61
1.62	Benzene	36	1460.16	4.90		0	3264.52
1.75		0	841.70	5.02		0	2073.98
1.99		0	716.35	5.09		0	936.34
2.33		0	658.31	5.28		0	815.79
2.42		0	628.73	5.39		0	59516.67
2.56	Toluene	22	846.20	5.87		0	91.20

Surrogate aaaTFT recovery is .%
Surrogate BFB recovery is .%

GC/MS INSTRUMENT RUN LOG
Air Lab Instrument ID: B

Batch / Method ID: BOJT015		Calibration Std. Lot # AT042504O1, 03	Instrument Performance Check (ICAL or CCAL)		
Start Date: 04/26/05	Time: 0715	Internal Std. Lot # AT020413	✓ Tune Standard	✓ RT & Ratios Updated	
Close Date: 04/27/05	Time: 0715	ICV/LCS Lot # AT042505O9	✓ RF Summary	✓ Internal Std. Response	
			Room Temp 24.0 °C	Barometric Pressure 29.9 "Hg	

Injection Time	File Name	Summa Can ID	Client ID	ETR	Inlet #	Volume (mL)	Dilution Factor	Internal Std.	Result Conc.	Analyst	Comments
0715	DJ001P	NA	BFB	NA	1		NA		✓	BES	
0823	DJ005	6732	AST0005		1	100		✓	✓	BES	AT042505O3
0908	DJ010	8732			1	200		✓	✓		↓
0953	DJ015	1096	AST015		1	25		✓	✓		AT042505O1
1038	DJ020	1096	AST020		1	100		✓	✓		↓
1124	DJ040	1096	AST040		1	200		✓	✓		↓
1209	DJ001HK	6355	IBLK		1	200		✓	✓		AT042605O3
1254	DJ002S	6355	IBLK		1	200		✓	✓		↓
1343	DJB003	6355	IBLK		1	200		✓	✓		↓
1428	DJ0005	6899	AST0005		1	200		✓	✓		AT042605O1
1513	DJ002	6899	AST002		1	80		✓	✓		↓
1624	DJ010D2	6899	AST010		1	200		✓	✓		
1726	DJ010Q	5614			1	200		✓	✓		
1811	DJ010Q	5614			1	200		✓	✓		
1856	DJB004	6625	IBLK		2	200		✓			
1941	DJ010Q2	5614			1	200		✓	✓		
2026	DJB005	6625	IBLK		2	200		✓	↑		
2112	DJB006	6625			2	200		✓	✓		
2152	6625	6625	Batch Cert	NA	2	500	0.4	✓	↑		↓ PCE 0.4
2273	6479		↓	↓	3	500	0.4	✓	↑		1,2 DCP 1.2 / CS2 0.6
2331	6729				4	500	0.4	✓	✓		
2022	6/6569Q3	Bag	I/MW-1-69	106672	5	40	100	✓	✓		C 120.dl
2118	6/3961D	6495	AS-14-2	106399	6	100	2	✓	✓		C
2212	6/4157	6469	EQHST-0604	106423	7	200	1	✓	✓		C
2304	6/4157	6358	EQLST-0605	↓	8	200	1	✓	✓		C
2355	6/4159	6579	EQHST-061	↓	9	200	1	✓	✓		C
0443	6/4160	6835	EQLST-002	↓	10	200	1	✓	✓		C
0534	6/6188D	6530	AS-SG-01	106639	11	100	2	✓	✓		C TCE 30

GC/MS INSTRUMENT RUN LOG
Air Lab Instrument ID: B

atch / Method ID: BDJT015		Calibration Std. Lot #	Instrument Performance Check (ICAL or CCAL)
tart Date: 4/26/05	Time: 0715	Internal Std. Lot #	___ Tune Standard / ___ RT & Ratios Updated
lose Date: 4/27/05	Time: 0715	ICV/LCS Lot #	___ RF Summary / ___ Internal Std. Response
			Room Temp °C / Barometric Pressure "Hg

njection Time	File Name	Summa Can ID	Client ID	ETR	Inlet #	Volume (mL)	Dilution Factor	Internal Std.	Result Conc.	Analyst	Comments
1634	616189	6349	AS-SG-02	106639	12	200	1	✓	✓	Mun	
1715	616190	6324	AS-SG-03	↓	13	200	1	✓	q	↓	TCFM 41, rr 1:2
Not Run	616191D	2059	AS-SG-04		14	50	200				1:50 dil
↓	616192D	6584	AS-SG-05		15	100	2				
↓	616193D	6637	AS-SG-06	↓	16	80	50				1:20 dil

MTP 4/27/05

FAI002:09.23.04:1
STL Burlington

Legend: C=Complete ▪ R=Reanalyze ▪ RE= Re-Extract ▪ ↑ = High ▪ ↓= Low ▪ ✓=Reviewed and Acceptable

GC/MS INSTRUMENT RUN LOG
Air Lab Instrument ID: B

Batch / Method ID: BDJKT015		Calibration Std. Lot # AT042505C3	Instrument Performance Check (ICAL or CCAL)		
Start Date: 05/10/05	Time: 0845	Internal Std. Lot # AT020412	✓ Tune Standard	___ RT & Ratios Updated	
Close Date: 05/11/05	Time: 0845	ICV/LCS Lot # AT042505C9	___ RF Summary	___ Internal Std. Response	
			Room Temp 24.0 °C	Barometric Pressure	"Hg

Injection Time	File Name	Summa Can ID	Client ID	ETR	Inlet #	Volume (mL)	Dilution Factor	Internal Std.	Result Conc.	Analyst	Comments
0845	BDJ11PV		BFB	NA			NA			WMD	
0931	BDJ10KV		ASTD010		1	200		✓	✓		
1025	BDJ10KQ		GSLCS		1	200		✓	✓		
1111	BDJ10KQD		GSLCSD		1	200		✓	✓		
1211	BDJB01K		ABLKGS		1	400	0.5	✓	✓		
1257	618316	6563	EQB-042405	106925	3	400	0.5	✓	✓		C
1343	618310	6582	13-2-44-SS		4	300	0.67	✓	✓		
1428	617377	6488	13-1-9-SS	106803	5	400	0.5	✓	✓		C
1513	617381	6836	13-2-17-SS		6	250	0.8	✓	✓		C
1558	617385	6792	13-1-12-SS		7	250	0.8	✓	✓		C
1636	617577	6983	13-1-5-SS	106835	8	400	0.5	✓	✓		C
1742	617581	6933	09-2-3-SS		9	400	0.5	✓	✓		C
1828	618081	6934	13-2-32-SS	106894	10	400	0.5	✓	✓		C
1914	618090	6992	13-2-65-SS		11	400	0.5	✓	✓		C
2000	618156	6882	13-2-64-SS	106902	12	400	0.5	✓	✓		C
2046	618160	6438	13-2-61-SS		13	400	0.5	✓	✓		C
2131	618166	6931	13-2-27-SS		14	250	0.8	✓	✓		C
2218	619205	6828	GM-SS-1	107092	15	600	2.35	✓	✓		COF 7.06C
2303	619206	6967	GM-SS-2		16	200	1	↑	✓		
2349	618310 DL	6782	13-2-44-SS	106925	1	400	0.5	↑	✓		
0034	619315	6297	BTEX-ST1-050405	107053	2	200	1	↑	✓		
0119	619316	6223	-ST3-		3	200	1	↑	✓		
0204	619317	6554	-ST4-		4	200	1	✓	✓		C
0249	619318	6920	-ST5-		5	200	1	✓	✓		C
0334	619329126	6978	-ST1- 050505	107022	6	200	1	✓	✓		C
0419	619225125	6646	-ST3-		7	200	1	✓	✓		C
0504	619326124	6651	-ST4-		8	200	1	✓	✓		C
0549	619327127	6369	-ST5-		9	200	1	✓	✓		C

Legend: C=Complete ▪ R=Reanalyze ▪ RE= Re-Extract ▪ ↑= High ▪ ↓= Low ▪ ✓=Reviewed and Acceptable

GC/MS INSTRUMENT RUN LOG
Air Lab Instrument ID: B

Batch / Method ID: BOJLT015		Calibration Std. Lot # AT042505 03	Instrument Performance Check (ICAL or CCAL)		
Start Date: 05/11/05	Time: 0821	Internal Std. Lot # AT020412	✓ Tune Standard	___ RT & Ratios Updated	
Close Date: 05/12/05	Time: 0824	ICV/LCS Lot # AT042505 09	___ RF Summary	___ Internal Std. Response	
			Room Temp 24 °C	Barometric Pressure	"Hg

Injection Time	File Name	Summa Can ID	Client ID	ETR	Inlet #	Volume (mL)	Dilution Factor	Internal Std.	Result Conc.	Analyst	Comments
~~0821~~	~~BOJLT015~~									WW	
0821	BOJ12PV		BFB	NA			NA			↓	
0915	BOJ10LV		ASTD010		1	200		✓	✓		
1002	BOJ10LQ		H3LCS		1	200		✓	✓		
1047	BOJ10LQD		H3LCSD		1	200		✓	✓		
1116	BOJB01L	6343	ABLKH3		2	400		✓	✓		
1233	618310I3	6782	13-2-44-SS	106925	3	400	0.5	✓	✓		
1319	619706I2	6969	GM-SS-2	107092	4	200	1	✓	✓	↓	
	BOJB02L		IBLK		2	200	1				
	BOJB03L		IBLK		2	200	1				
	BOJB04L		IBLK		2	200	1				
	619315I2	6797	BTEX-ST1-050405	107253	5	200	1				
	619316I2	6723	↓ ST3 ↓	↓	6	200	1				
	619324	6978	BTEX-ST1-050505		7	200	1				
	619325	6640	-ST3-		8	200	1				
	619326	6651	-ST4-		9	200	1				
	619327	6369	↓ -ST5- ↓	↓	10	200	1				
	619846	Bag	SVE 4D	107111	11	200	1				
	619847	↓	SS	↓	12	200	1				
	619848		SD		13	200	1				
	619849		6S		14	200	1				
	619900		6D		15	200	1				
	619901		↓ MANIFOLD		16	200	1				
	619902	↓	CARBON DISCHARGE	↓	1	200	1				

Legend: C=Complete ▪ R=Reanalyze ▪ RE= Re-Extract ▪ ↑ = High ▪ ↓= Low ▪ ✓=Reviewed and Acceptable

SEVERN TRENT STL

SAMPLE HANDLING

FedEx. PRIORITY OVERNIGHT MON

emp: 507958 06MAY05

TRK# 8524 1826 8416 FORM 0215

Deliver By: 09MAY05 AA

BTV

05446 -VT-US XH BTVA

[redacted]

...(1) This portion can be removed for recipient's records.

Date 5/5/05 FedEx Tracking Number 852418268427

Sender's Name [redacted] Phone 315 437-6100

Company OBRIEN & GERE ENGINEERS INC

Address 5000 BRITTONFIELD PKWY STE 1

Dept/Floor/Suite/Room

EAST SYRACUSE State NY ZIP 13057-9203

Your Internal Billing Reference 34127.007.222

Angela Patnoad
05.09.05 0910

SEVERN TRENT LABORATORIES LOG-IN SHEET - Form DC-1

Lab Name: STL Burlington

Received By (Print or Type Name): Angela Patmond

Received By (Signature): Angela Patmond

Log-in Date: 05/10/05

Case Number:	25000
Sample Delivery Group No.:	107092
ETR Number:	107092
REMARKS:	
1. Custody Seal	Absent*
2. Custody Seal Nos:	NA
3. Chain-of-Custody Records	Present
4. Sample Information Sheets	Absent*
5. Airbill Present	As Sticker
6. Airbill Number(s):	852418268416
	852418268427
7. Sample Tags	Absent*
8. Tag Nos. Listed on COC	N/A
9. Sample Condition:	Intact
10. VOA Vial Bubbles	N/A
11. Does info on the custody records, sample info sheets, sample tags and labels agree?	Yes
12. Date Received at Lab:	05/09/05
13. Time Received at Lab:	0910
14. Cooler Temperature(s):	NA C
SAMPLE TRANSFER:	
Fraction(s):	ALL
Area Number:	Air Toxic Lab
Transferred By:	AP
Transferred On:	05/10/05

CORRESPONDING			
CLIENT SAMPLE #	SAMPLE TAG #	ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT ETC.
GM-SS-1	NA	619705	
GM-SS-2	NA	619706	

AP
05.10.05

0126

*Contact Project Director

Reviewed By:_____ Date:_____

STL Burlington
COOLER RECEIPT CHECKLIST

Date Received: 5/9/05 Sample Custodian: AP

Time Received: 0910 ETR/SDG: 107092 / 107092

RADIATION SCREEN: <0.05 MR/HR (YES) NO
If no, stop work and alert the Supervisor and the PM.

CUSTODY SEALS PRESENT: YES (NO)

If yes, were the custody seals signed? YES (NO)

If yes; are custody seal numbers present? YES (NO)

List custody seal numbers: _____

TEMPERATURE CHECK: A/√ (°C)

Acceptance Criteria (0-6°C) except air samples, which should be shipped at ambient temperature and/or biota/tissue samples, which may be frozen on receipt. The thermal preservation of samples that are hand delivered immediately following collection is considered acceptable if there is evidence that the chilling process has begun.

Thermal Preservation Type: ICE ICE PACK (NONE)

CONDITION OF SAMPLE CONTAINERS: (INTACT) BROKEN

If broken, list the client ID for each broken container:

_____

_____

Were any samples received with a short hold time* remaining?
** <7 Days*

WET CHEMISTRY	**YES**	**(NO)**
METALS	**YES**	**(NO)**
ORGANIC EXTRACTABLES	**YES**	**(NO)**
VOLATILE (received unpreserved)	**YES**	**(NO)**

If yes, expedite sample log in procedure and alert the appropriate Department Manager.

STL Burlington
COOLER RECEIPT CHECKLIST

Date Received: 5/9/05 Sample Custodian: AP

Time Received: 0910 ETR/SDG: 107092 / 107092

RADIATION SCREEN: <0.05 MR/HR (YES) NO

If no, stop work and alert the Supervisor and the PM.

CUSTODY SEALS PRESENT: YES (NO)

If yes, were the custody seals signed? YES (NO)

If yes; are custody seal numbers present? YES (NO)

List custody seal numbers: _____

TEMPERATURE CHECK: 4.1 (°C)

Acceptance Criteria (0-6°C) except air samples, which should be shipped at ambient temperature and/or biota/tissue samples, which may be frozen on receipt. The thermal preservation of samples that are hand delivered immediately following collection is considered acceptable if there is evidence that the chilling process has begun.

Thermal Preservation Type: ICE ICE PACK (NONE)

CONDITION OF SAMPLE CONTAINERS: (INTACT) BROKEN

If broken, list the client ID for each broken container:

_____

_____

Were any samples received with a short hold time* remaining?

* *<7 Days*

WET CHEMISTRY	**YES**	**(NO)**
METALS	**YES**	**(NO)**
ORGANIC EXTRACTABLES	**YES**	**(NO)**
VOLATILE (received unpreserved)	**YES**	**(NO)**

If yes, expedite sample log in procedure and alert the appropriate Department Manager.

EXHIBIT A

Example of a Air/Soil Gas Sampling Form

O'BRIEN & GERE

Vapor Intrusion Sampling Form

Project # _____ Date _____

Project Name _____ Collector _____

Type of sample: (Circle one) Indoor air Substructure soil gas Ambient air Soil gas

Sample Location

_____

_____

_____

_____

Canister Record

Canister ID _____

Flow controller ID _____

Sample duration _____

Sampling rate _____

Sample ID _____

Date/Time start _____ Start pressure _____

Date/Time end _____ End pressure _____

Complete all that apply:

Air temperature (°F)	_____	PID meter ID	_____	% O_2	_____
Barometric pressure	_____	FID meter ID	_____	% CO_2	_____
PID reading (ppmv)	_____	Gas analyzer ID	_____	% CH_4	_____
FID reading (ppmv)	_____	Ft. tubing used	_____	Purge Volume	_____

For indoor location:

Noticeable odor _____

Floor slab depth _____

Intake height above floor (ft) _____

Intake depth below floor (ft) _____

Floor surface type _____

Room _____

Story/level _____

For outdoor location:

Noticeable odor _____

Distance to road (ft) _____

Direction to closest building (degrees) _____

Distance to closest building (ft) _____

Intake height above ground level (ft) _____

Intake depth below ground level (ft) _____

Soil type _____

Comments: _____

_____

_____

_____

_____

Analytical method required _____

Laboratory used _____

EXHIBIT B

Example of a Indoor Air Quality Building Survey

O'BRIEN & GERE

Indoor Air Quality Building Survey

Date: _____
Collector: _____
Affiliation: O'Brien & Gere

Access Contact: _____ Address: _____
Phone: _____
Best time to contact: _____ Tax ID: _____

Owner ☐ Renter ☐ Other ☐ Access Agreement Signed?: _____

Date built _____ Building type:
Yrs. of residence _____ Residential ☐ School ☐ Industrial ☐
No. of occupants _____ Commercial ☐ Church ☐ Other _____

Check all that apply:

Ranch ☐ Raised Ranch ☐ 2-Family ☐ Apartments ☐
Cape ☐ Colonial ☐ Duplex ☐ Condominium ☐
3-Family ☐ Mobile Home ☐ Other (specify) _____

Above grade building construction

Wood frame ☐ Poured concrete ☐ Stone ☐
Brick ☐ Concrete block ☐ Other _____

Foundation construction

Fieldstone ☐ Solid top concrete block ☐ Slab on grade ☐
Poured concrete ☐ Open top concrete block ☐ Other _____

Is the owner aware of any additions made to the original design of the structure? (please specify)

_____

_____

Utilities

Sewer:
Public ☐
Private ☐
Other _____

Water:
Public ☐
Private ☐
Other _____

Spring ☐
Well ☐

Hot water heater type:
Gas ☐ Electric ☐
Oil ☐ Other _____

Heating, ventilation, and air conditioning systems

Primary heat type:
Hot air ☐
Hot water ☐
Steam radiator ☐
Electric ☐
Other _____

Fuel type (heat):
Natural gas ☐
Fuel oil ☐
Electric ☐
Wood ☐
Other _____

Secondary heat type:
Kerosene ☐
Wood stove ☐
Electric ☐
Propane ☐
Other _____

Ventilation types:
Attic fan ☐
Kitchen hood ☐
Bathroom fan ☐
Other _____

Whole house fan ☐
Air filtration ☐
Induced fireplace ☐
Other _____

Air conditioning:
Window units ☐
Furnance unit ☐
Electric ☐
Other _____

Basement type

None ☐ Half ☐ Vented crawlspace ☐ Other _____
Full ☐ Slab on grade ☐ Unvented crawlspace ☐ _____

If slab on grade, is there a garage with occupied space above? _____

Basement depth below grade (feet)

Front _____ Rear _____ Side 1 _____ Side 2 _____

Basement characteristics

General:		Floor:		Walls:			
No. of rooms	☐	Earth	☐	Finished	☐	Paneling	☐
Bathroom	☐	Concrete	☐	Unfinished	☐	Tile	☐
Basement use _____		Tile	☐	Painted	☐	Insulated	☐
_____		Carpet	☐	Sheetrock	☐	Uninsulated	☐
_____		Other _____		Other _____			

Check if present:

Fireplace	☐	Elevator	☐	French drain	☐
Sump pump	☐	Ash cleanout	☐	Floor cracks	☐
Floor drains	☐	Water damage	☐	Wall cracks	☐
Interior walls	☐	Jacuzzi/hot tub	☐	Other _____	

Does the basement have a moisture problem? _____
Does the basement ever flood? (specify frequency) _____
Is there water in the sump or drains? _____
Is there evidence of possible mold? _____
Does the basement have a radon system installed? _____
Has there been recent purchases of furnishings (carpets, rugs, linoleum, tile, or funiture) or remodeling (new construction,roofing, or floor stripping? (please specify) _____
_____

Chemical usage, exposure and storage

Identify occupant hobbies:

Painting	☐	Electronics	☐	Model making	☐
Stained glass	☐	Woodworking	☐	Auto repair	☐
Jewelry making	☐	Furniture refinishing	☐	Other _____	

Where in the structure are these hobbies conducted? _____
Does the occupants' job require chemical exposure? _____
If so, where are the occupants clothes cleaned? _____

Has the structure been fumigated in the last year? _____
If so, is fumigation regularly performed? (how often) _____
Are pesticides frequently applied to lawn or garden? _____
If so, are they stored on the property? _____

Are dry-cleaned clothes kept in vicinity of sampling? _____
Is there smoking in the building? _____
Have cleaning products been used recently? (when & type) _____
Has painting/staining been done recently? (when & where) _____

Identify chemicals stored in the basement, or garage if structure is slab on grade (include fuels, solvents, cleaners, etc.)

Brand	Product	Amount stored

Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources for chemical contaminents to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

Sampling Locations (sketch plan views)

Basement | First Floor | Outdoor (indicate wind direction)

EXHIBIT C

Instructions for Owners/Occupants

Exhibit C – Instructions for Owners/Occupants

Representatives of an environmental consulting firm, working in conjunction with the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), will be collecting one or more indoor air samples from your building in the near future. In order to collect an indoor air sample in your structure that is both representative of indoor conditions and avoids some common sources of background air contamination associated with industrial and commercial operations, NYSDEC/NYSDOH are requesting your assistance.

Please follow the instructions below, starting at least 48 hours prior to and during the indoor air sampling event:

- ❑ Operate your furnace as appropriate for the weather conditions
- ❑ Do no use wood stoves, fireplaces or auxiliary heating equipment
- ❑ Do not open windows or keep doors open.
- ❑ Avoid using window air conditioners, fans or vents.
- ❑ Do not smoke in the building.
- ❑ Do not use air fresheners or odor eliminators.
- ❑ Do not use paints or varnishes (up to one week in advance, if possible).
- ❑ Do not use cleaning products.
- ❑ Do not apply pesticides.
- ❑ Do not store containers of gasoline, oil or other solvents within the building.
- ❑ Do not operate gasoline, fuel oil, or petroleum-powered equipment within the building or around the immediate perimeter of the building.

You will be asked a series of questions about the structure, products you store/use in your building, and activities that typically occur within the building. These questions are designed to identify "background" sources of indoor air contamination. While this investigation is looking for a select number of chemicals related to subsurface contamination, the laboratory will be analyzing the indoor air samples for a wide variety of chemicals.

Your cooperation is greatly appreciated.

If you have any questions about these instructions, please feel free to contact NYSDEC at _____.