On-Base Groundwater AOCs
Monitoring Program
Former Griffiss Air Force Base
Rome, New York

MONITORING REPORT (FALL 2006)

Contract No. F41624-03-D-8601
Delivery Order No. 0027

Revision 0.0
July 2007

FPM group

MONITORING REPORT
(Fall 2006)

Prepared for:

On-Base Groundwater AOCs
Former Griffiss Air Force Base
Rome, NY

through

Air Force Center for Engineering and the Environment
3300 Sydney Brooks
Brooks City Base, TX 78235-5112

Prepared by:

FPM Group, Ltd.
153 Brooks Road
Rome, NY 13441

Contract No. F41624-03-D-8601
Delivery Order No. 0027

Revision 0.0
July 2007

This page is intentionally left blank.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES
(Electronic copies are provided on attached CD)

LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEE	Air Force Center for Engineering and the Environment
AFRPA	Air Force Real Property Agency
AOC	Area of Concern
BADP	Battery Acid Disposal Pit
BADrP	Battery Acid Drainage Pit
bgs	below ground surface
BTOIC	below top of inner casing
COC	Contaminant of Concern
CQCR	Chemical Quality Control Report
CSM	Conceptual site model
DCE	dichloroethylene/dichloroethene
DO	Delivery Order
E&E	Ecology and Environment, Inc.
EPA	Environmental Protection Agency
FPM	FPM Group, Ltd.
FPTA	Fire Protection Training Area
FSP	Field Sampling Plan
ft	feet
HRC®	Hydrogen Release Compound
LAW	LAW engineering and environmental services, Inc.
LTM	long term monitoring
MSL	mean sea level
NFS	No Further Sampling
NYSBC	New York State Barge Canal
NYSDEC	New York State Department of Environmental Conservation
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene/perchloroethylene/tetrachloroethene/perchloroethene
POC	Point of compliance

LIST OF ACRONYMS AND ABBREVIATIONS (cont'd.)

QAPP	Quality Assurance Project Plan
RI	Remedial Investigation
SAP	Sampling and Analysis Plan
SI	Supplemental Investigation
SVOC	semi-volatile organic compound
TCE	trichloroethylene/trichloroethene
TOC	total organic carbon
UST	Underground Storage Tank
VOC	volatile organic compound
µg/L	micrograms per liter

1 INTRODUCTION

FPM Group, Ltd. (FPM), under contract with the Air Force Center for Engineering and the Environment (AFCEE), is conducting a groundwater monitoring program at several sites associated with the On-Base Groundwater Contamination Area of Concern (AOC) at the former Griffiss Air Force Base (AFB), New York (see Figure 1-1). The monitoring program will be conducted in accordance with provisions of the Basic Contract # F41624-03-D-8601 and Delivery Order (DO) #0027.

The purpose of the program is to monitor (quarterly) the presence of contaminants of concern (COCs), assess the potential for migration of the COCs, identify statistically valid groundwater trends, and establish an early warning, monitoring well system for assuring compliance with potential COC receptors.

Data evaluation and report preparation for the groundwater monitoring program includes semi-annual summary updates and a more detailed annual report. The monitoring program will also be reviewed periodically to revise sampling location and/or sampling frequencies for optimal functioning. This semi-annual groundwater monitoring report includes collection, analysis, and reporting of COCs for the following On-Base Groundwater Areas of Concern:

- FT-30: Fire Protection Training Area (FPTA)
- ST-06: Building 101
- SS-60: Building 35

As part of the performance based contract, it should be noted that the following sites were previously sampled under long-term monitoring (LTM), and No Further Sampling (NFS) was proposed or sampling was suspended until the feasibility study is approved.

- SD-52: Nosedocks / Apron 2 Chlorinated Plume
- SS-23: Building 20
- DP-12: Building 301
- SS-17: Lot 69

The locations of the On-Base Groundwater AOCs can be viewed in Figure 1-2.

Groundwater samples were collected from each of the sites listed and analyzed for the respective COCs as identified during previous investigations. Groundwater elevations were measured at well sampling locations to ascertain groundwater flow pattern. Both existing data and the information from new sampling are utilized for overall performance evaluation.

Groundwater samples were collected and analyzed at existing monitoring wells located to sufficiently track the migration and/or attenuation of the COC plume(s).

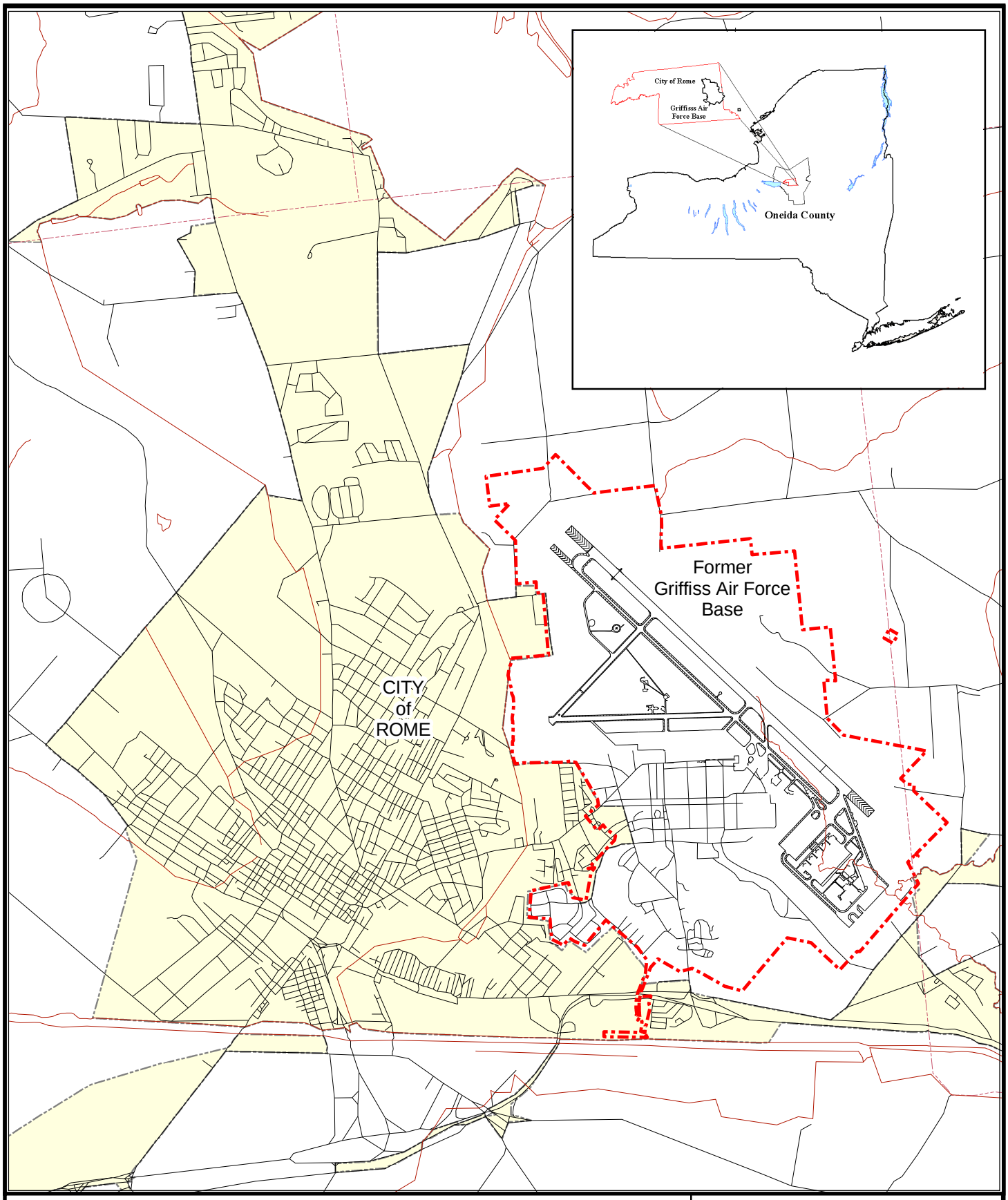


FIGURE 1-1
Base Location Map

N

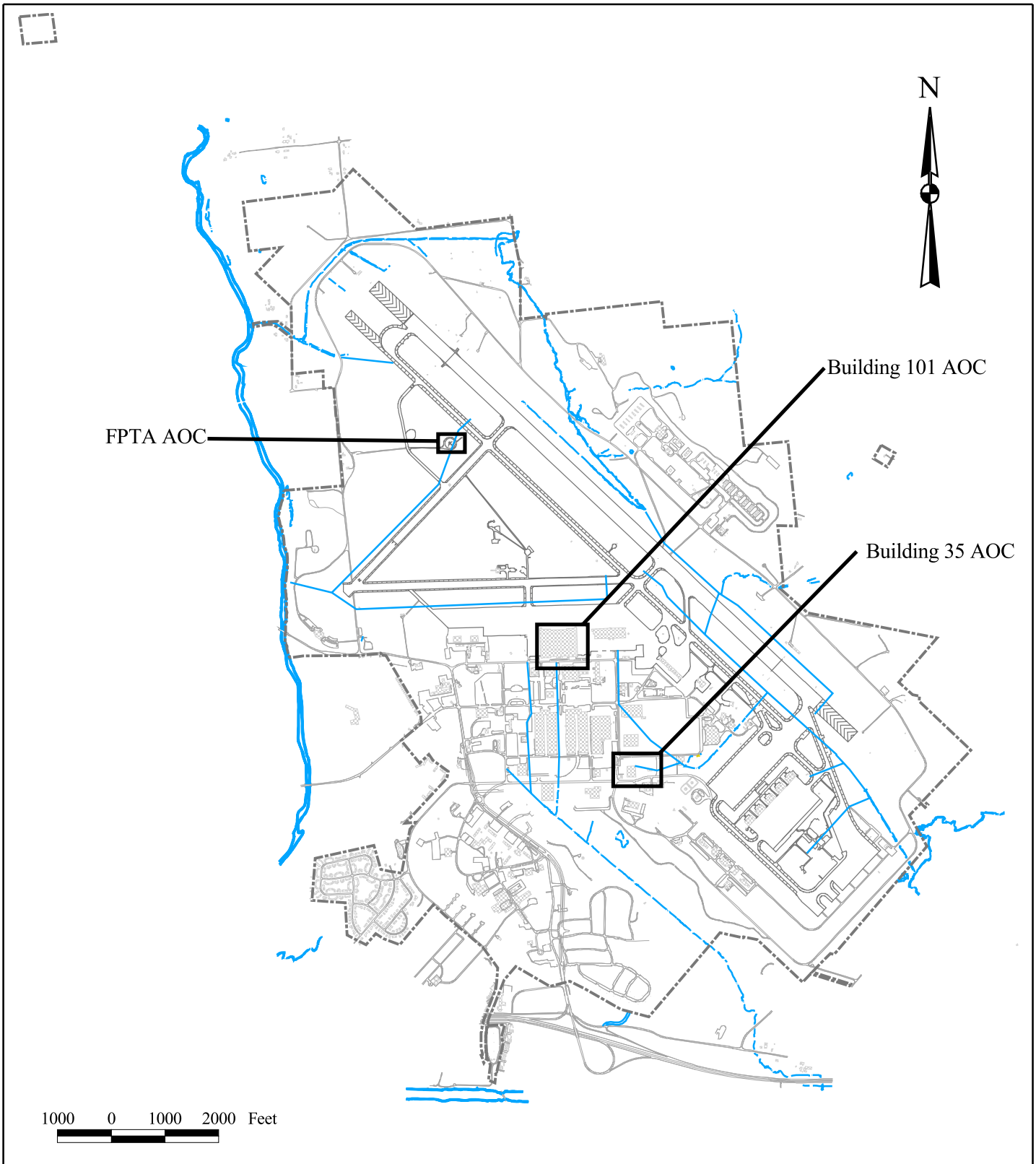
4,800 2,400 0 4,800 9,600

Feet

UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME,NEW YORK

FPM group

Y:\GIS_Projects\Griffiss\Projects\Misc\Base_Location_Map\fig1-1_Base_Location_Map-Holes_Left.mxd



Legend

- Base Boundary
- Stream/Culvert
- Airfield/Road
- Existing Building

United States Air Force
Former Griffiss Air Force Base
Rome, New York

Figure 1-2
On-Base Groundwater AOC
Location Map

FPM group

Y:\GIS_Projects\Griffiss\Projects\40-05-27\on-base groundwater\fig1-2_on_base_gw_aoc_loc_map

New monitoring wells were installed according to the protocol described in the Field Sampling Plan (FSP) (FPM, March 2005). Reference is also made to the AFCEE Quality Assurance Project Plan (QAPP), Version 3.1 or later, with project-specific variances. The QAPP, together with the FSP, form the Sampling and Analysis Plan (SAP).

1.1 GROUNDWATER MONITORING APPROACH

1.1.1 Groundwater Monitoring Background

To illustrate how this groundwater monitoring program will operate, the following highlights the overall objectives, components, and constraints of the groundwater monitoring program.

The objectives of groundwater monitoring are:

1. To continue refining the conceptual site model (CSM) for groundwater flow so that the predictions regarding the fate and transport of COCs are accurate;
2. To provide data regarding groundwater and surface water elevations needed to evaluate groundwater flow and surface water/groundwater interactions which control the fate and transport of COCs;
3. To establish an early warning monitoring system for the protection of potential receptors prior to completion of exposure pathways;
4. To evaluate COC degradation due to remedial action or natural attenuation processes; and
5. To collect data that support attainment of regulatory requirements and site closure.

Typical components of a groundwater monitoring system include:

1. One or more upgradient well(s) representative of background conditions;
2. Monitoring wells that track the COC migration or degradation trend; and
3. Point-of-compliance (POC) well(s) located downgradient of the plume or contaminated area in unimpacted groundwater (downgradient background).

Constraints associated with a groundwater monitoring system include:

1. All monitoring wells must be screened in the same hydrogeologic unit as the COC plume or known/probable groundwater pathway from a potential source;
2. Downgradient monitoring wells must be located to detect unexpected variations in groundwater quality as efficiently as possible (i.e., with respect to groundwater migration rates and downgradient flow direction);
3. POC wells must be located upgradient from the potential receptors to provide sufficiently early warning; and
4. Regulatory requirements must be taken into account.

Given the above objectives and constraints, the design of a monitoring system considers the following tasks:

1. Selecting water-level observation wells and water quality monitoring wells from existing monitoring wells and piezometers, or selecting locations for new wells, depending on the evaluation of existing data (i.e., well logs, water-level measurements, proximity to natural flow boundaries, trends and uncertainties in the existing data) and the specific intended and distinct role of that monitoring point;
2. Providing a statistical evaluation of water-level elevation data for groundwater flow direction, existing COC concentrations, and groundwater chemistry to predict long-term trends;
3. Identifying performance evaluation criteria (e.g., statistical tests), including appropriate analysis methods for evaluating data variations or closure attainment;
4. Identifying water quality sampling frequency at each monitoring point both for
    a. understanding the trends of COCs and/or their indicator analytes, and
    b. minimizing the costs and maximizing the benefits of the program;
5. Identify physical and chemical parameters (e.g., transport and attenuation properties) for the COCs; and
6. Periodically assessing the groundwater monitoring well network for possible decommissioning of monitoring wells from the program.

1.1.2 Purpose of Groundwater Monitoring Program

The respective groundwater monitoring plans have identified sampling locations that will best detect groundwater COCs that are known to exist at the On-Base Groundwater AOCs, and track their transport over time to support a decision for either continued monitoring, remedial measures, or site closure. The monitoring program will use historic data and new information from annual and quarterly sampling rounds at specified existing and new monitoring wells, and surface water sampling sites.

This page is intentionally left blank.

2 ENVIRONMENTAL SETTING

2.1 PHYSIOGRAPHY AND TOPOGRAPHY

The former Griffiss AFB is located in the city of Rome in Oneida County, New York (refer to Figure 1-1). The former Base lies within the Mohawk Valley between the Appalachian plateau and the Adirondack Mountains. A rolling plateau northeast of the former Base reaches an elevation of 1300 feet above mean sea level (MSL). The New York State Barge Canal (NYSBC) and the Mohawk River valley south of the former Base lie below 430 feet above MSL. The topography across the former Base is relatively flat with elevations ranging from 435 feet above MSL in the southwest portion to 595 feet above MSL in the northwest portion of the former Base.

2.2 GEOLOGY

Unconsolidated sediments at the former Griffiss AFB consist primarily of glacial till with minor quantities of clay and sand and significant quantities of silt and gravel. The thickness of these sediments range from 0 feet in the northeast portion to more than 130 feet in the southern portion of the former Base. The average thickness of the unconsolidated sediments is 25 to 50 feet in the central portion and 100 to 130 feet in the south and southwest portions of the former Base. The bedrock beneath the former AFB generally dips from the northeast to the southwest and consists of Utica Shale, a gray and black carbonaceous unit with a high/medium organic content (LAW engineering and environmental services, Inc. [LAW], December 1996).

2.3 HYDROLOGY

The shallow water table aquifer lies within the unconsolidated sediments, where depth to groundwater ranged from just below ground surface to 59 feet below ground surface (bgs) during the June 2003 synoptic Basewide water-level measurement of wells. Groundwater across the former Base generally flows from the topographic high in the northeast to the Mohawk River and the New York State Barge Canal to the south. Several creeks, drainage culverts, and sewers (mostly acting as drains for shallow groundwater), intercept surface water runoff. Please refer to the On-Base Groundwater AOCs Monitoring Report (FPM, November 2004) for the groundwater elevation contour map of the former Griffiss Air Force Base along with monitoring well identifications and respective groundwater elevations.

A comprehensive description of regional and local geology, hydrogeology, lithology, and hydrology for the former Griffiss AFB was given in section 4 of the Baseline Study (FPM, July 2000), and in the Remedial Investigation (RI) (LAW, December 1996), and in the Supplemental Investigation (SI) prepared by Ecology and Environment, Inc. (E&E, November 1998). Detailed site descriptions and the hydrology for AOCs are presented with each site-specific section.

2.4 CLIMATE

The former Griffiss AFB experiences a continental climate characterized by warm, humid, moderately wet summers and cold winters with moderately heavy snowfalls. The mean annual precipitation is 45.6 inches, which includes the mean annual snowfall of 107 inches. The annual evapotranspiration rate is 23 inches. The average temperature during the winter season is 20 degrees Fahrenheit; temperatures during the spring, summer, and fall vary from 31 to 81 degrees Fahrenheit. The prevailing winds are from the southwest, with an average wind speed of 5 knots.

The former Griffiss AFB is located in a region prone to acid precipitation; the annual average pH of precipitation recorded for 1992 at the three closest stations ranged from 4.25 to 4.28. Fluctuations in pH have an inverse correlation to precipitation, such that lower pH levels correlate with higher amounts of precipitation (LAW, December 1996).

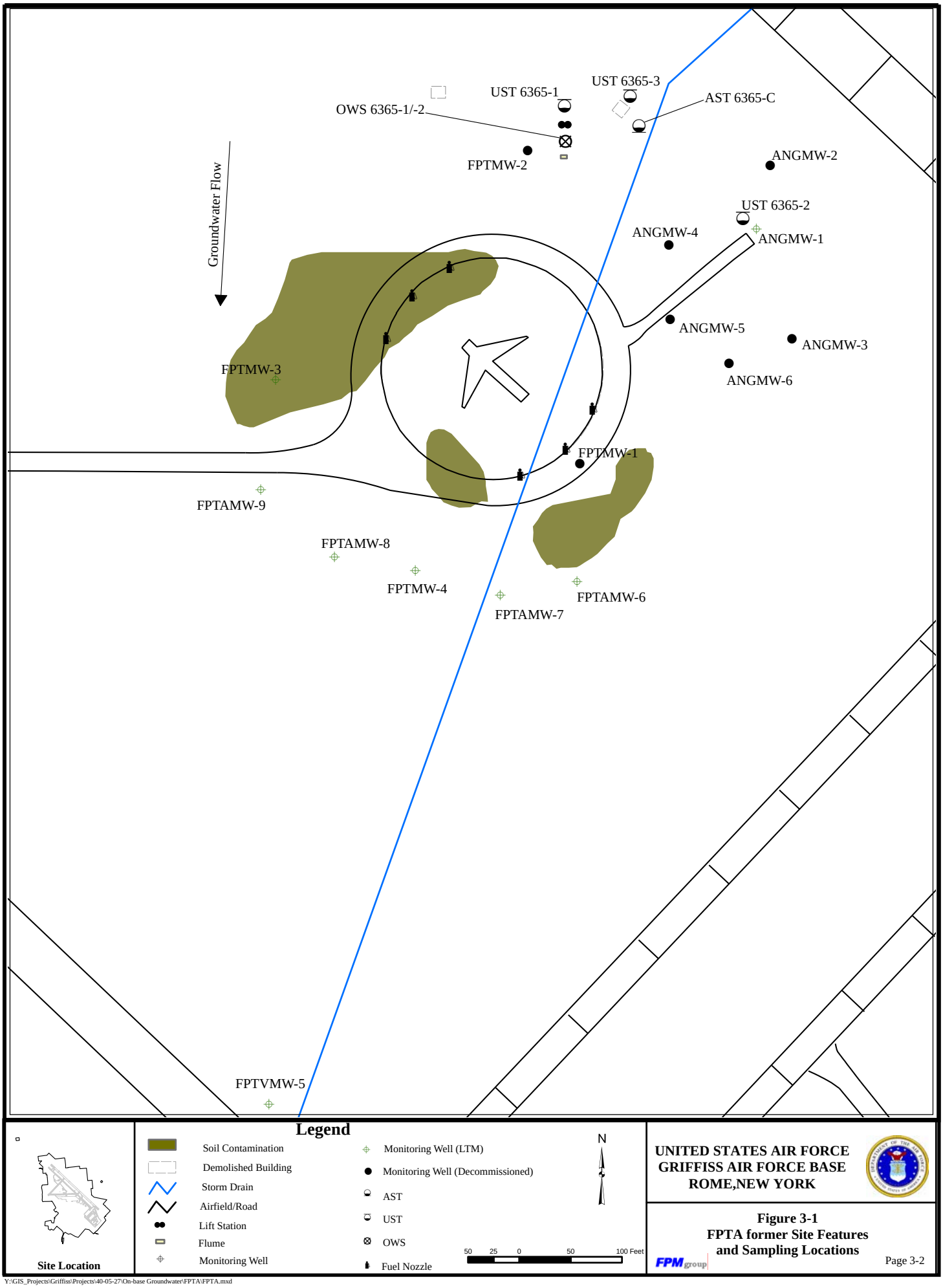
3 FIRE PROTECTION TRAINING AREA (FT-30)

No new samples have been collected between the results reported in the last report (FPM, August 2006) and this report. The FPTA AOC site features and sampling locations are provided in Figure 3-1. This field activities summary table is shown in Table 3-1.

In well ORC® treatment was conducted at monitoring well ANGMW-1 in lieu of semi-annual groundwater monitoring for the Fall 2006 round. Six Feet of ORC® socks were placed in monitoring well ANGMW-1 on November 2nd, 2006. The socks will be removed two weeks prior to sampling in the Spring 2007 sampling round. Groundwater monitoring will resume in the Spring 2007 sampling round as shown in the FTPA Proposed Groundwater Sampling and Analysis Plan in Table 3-2. The LTM network will be re-evaluated following review of the Spring 2007 sampling data.

Table 3-1
FPTA AOC Site Field Activity Summary

Activity	Rationale	Analytical Parameters
Sample existing monitoring wells ANGMW-1, FPTMW-3, -4 and FPTVMW-5 and new monitoring wells FPTAMW-6, -7, -8, and -9 installed by FPM in November 2003.	Sampling of four new and four existing monitoring wells to accurately delineate and assess groundwater contamination at the FPTA AOC.	VOCs – (STARS List/ SW8260)
Sample the water in the storm sewer upstream, adjacent, and downstream of the site.	Sampling the storm sewer at the upstream, downstream and adjacent locations of FPTA AOC to assess if the petroleum contamination is entering the water system.	VOCs – (STARS List/ SW8260)
Perform ORC® treatment at site in lieu of groundwater sampling in the fall 2005 sampling round. Install ORC® socks at ANGMW-1 in August 2005. The ORC® socks were removed in February 2006.	ORC® socks were installed at this well to remediate contaminated groundwater in the vicinity of the former UST 6365-2.	--
Additional ORC® treatment was performed in fall 2006 and winter 2007 at ANGMW-1.		



UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME,NEW YORK

Figure 3-1
FPTA former Site Features and Sampling Locations

FPM group

Y:\GIS_Projects\Griffiss\Projects\40-05-27\On-base Groundwater\FPTA\FPTA.mxd

Table 3-2
FPTA Proposed Groundwater Sampling and Analysis Plan

Sampling Locations	Sampling Rationale	Target Analytes / Method Numbers	Sampling Frequency	Evaluation Criteria / Modification Justification
ANGMW-1	Upgradient of FPTA – located in the vicinity of UST 6365-2	**Groundwater** VOCs – (8260 STARS List) / SW8260	Semi-annually (spring and fall)	Continue in groundwater monitoring network semi-annually. Re-evaluation will take place following ORC treatment and once Spring 2007 groundwater results are assessed.
Recommended LTM Network Changes				
Analysis/Frequency Changes				
ANGMW-1	Upgradient of FPTA – located in the vicinity of UST 6365-2	**Groundwater** VOCs – (8260 STARS List) / SW8260	Semi-annually (spring and fall)	Change sampling frequency from annual to semi-annual to confirm absence of residual petroleum contamination.
Historical LTM Network Changes				
August 2005				
Analysis/ Frequency Changes				
ANGMW-1	Upgradient of FPTA – located in the vicinity of UST 6365-2	**Groundwater** VOCs – (8260 STARS List) / SW8260	Annually	Install ORC® socks at ANGMW-1 in lieu of groundwater sampling in the Fall 2005 sampling round, sampling will take place in Spring 2006. Re-evaluation will take place once Spring 2006 groundwater results are assessed.

Table 3-2 (cont'd.)
FPTA Proposed Groundwater Sampling and Analysis Plan

January 2005				
Analysis/ Frequency Changes				
ANGMW-1	Upgradient of FPTA	**Groundwater** VOCs – (8260 STARS List) / SW8260	Semi-Annually	Continue in groundwater monitoring network semi-annually, with semi-annual evaluations.
Removed Sampling Locations				
FPTMW-3	Downgradient of FPTA	Same as above	Discontinued from quarterly basis.	No VOC detections were reported for four consecutive sampling rounds.
FPTMW-4	Downgradient of FPTA			
FPTVMW-5	Downgradient of FPTA			
FPTMW-6	Adjacent to FPTA			
FPTMW-7	Downgradient of FPTA			
FPTMW-8	Downgradient of FPTA			
FPTMW-9	Downgradient of FPTA			
FPTA Manhole	----------			Sampling results from June and September 2004 sampling rounds confirmed that VOC contamination from the site is not seeping into the storm drain.
FPTMH-1W	Upgradient of FPTA			
FPTMH-2W	Crossgradient of FPTA			
FPTMH-3W	Downgradient of FPTA			

4 BUILDING 101 (ST-06)

4.1 SITE LOCATION AND HISTORY

Building 101 Battery Acid Disposal Pit/Battery Acid Drainage Pit/Yellow Submarine Underground Storage Tank (BADP/BADrP/UST) is located south of Apron 3, in the central portion of the former Base. Figure 4-1 illustrates the building, together with the location of the existing monitoring wells, temporary well, and March 2004 groundwater contours.

The former BADP was located in the central portion of the building in an area designated as the Lead Battery Room. The BADP was in use from the early 1940s until 1985, when it was excavated. The BADP consisted of a pit beneath the concrete floor and was covered with a steel grate. Acids from spent batteries were neutralized with baking soda and poured into the BADP, where the neutralized liquid was allowed to percolate into the underlying soils. A 4-inch overflow pipe ran west from the BADP to the BADrP which was located beyond the west wall of the Lead Battery Room. Following the removal of the BADP, a new 4-inch floor drain was installed and piped to the BADrP. Investigation and remedial activity of the drainage pit was completed during closure activities from June 1997 through January 1998. Remedial activities consisted of the removal of residual sludge from the BADrP with subsequent removal of the concrete pit floor and underlying soils. Following the removal and endpoint sampling, the drainage pit was backfilled and sealed with concrete (OHM, July 1998).

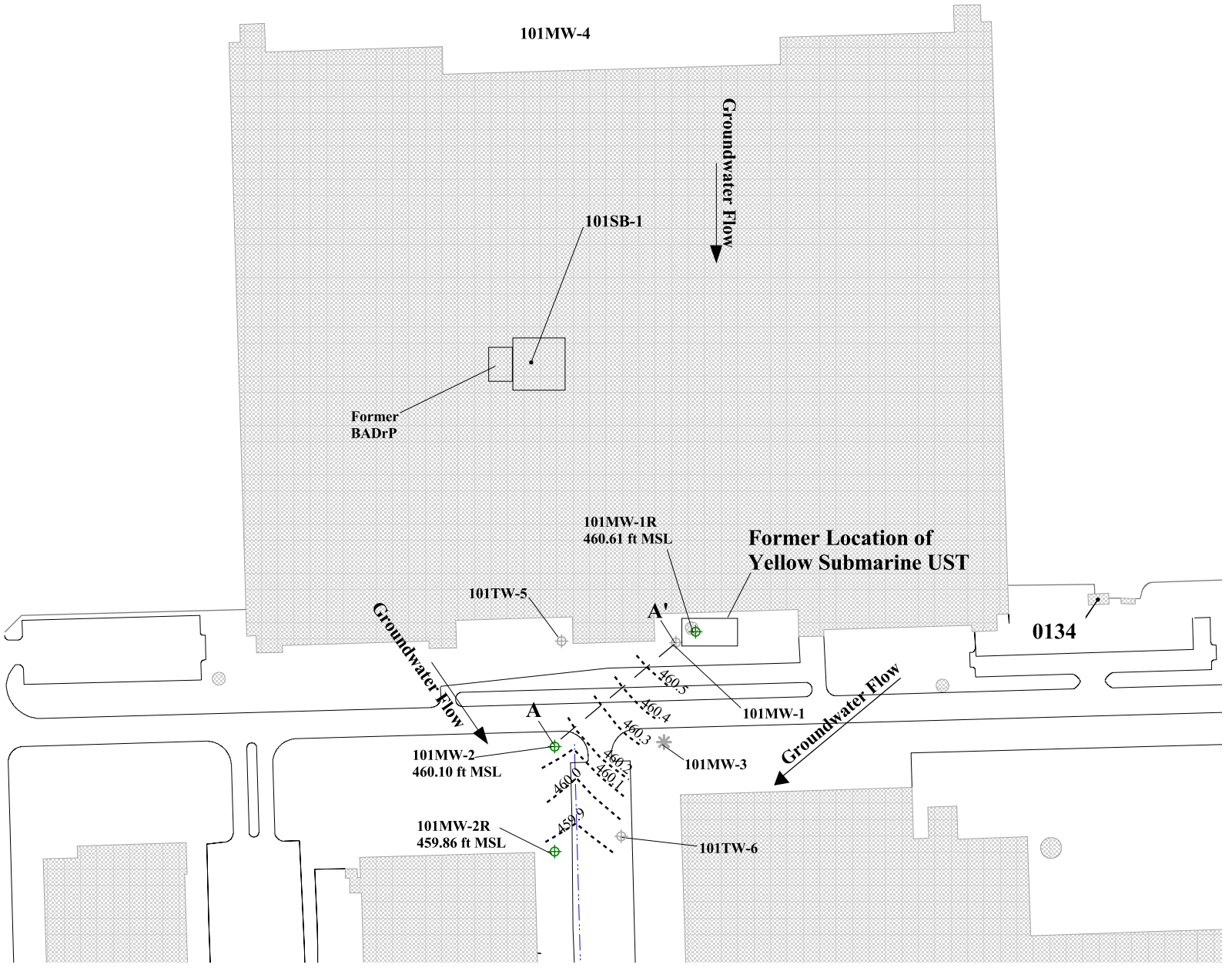
The Yellow Submarine UST, which was located 15 feet from the south edge of Building 101, was used as a holding and dilution tank for plating wastes from a metal plating shop housed in Building 101, until June 1993 when it was excavated (LAW, December 1996).

The Baseline Study (FPM, July 2000) found that the COCs reported in earlier investigations for this site (i.e., chlorinated ethenes and chloroform) had substantially stabilized at levels close to or below NYS Groundwater Standards.

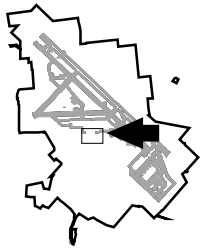
4.2 HYDROGEOLOGICAL SETTING

Building 101, approximately 1,440,000 square feet (ft^2) in area, has a topographic relief of less than 1 foot across the site. The soils below 0.5 feet of asphalt and concrete are characterized by borings as predominantly brown to gray, fine to medium sand with silt and gravel. Subsurface soils encountered range from predominantly gray to brown gravelly sand to gray and brown, fine to coarse sand with variable silt and gravel. Figure 4-2 illustrates the geological cross section A-A' (LAW, December 1996).

APRON 3



N



Legend

- GW contour March 2004
- Well inventory
  - Existing
  - Decommissioned
  - Destroyed
- Stormdrain
- Road/Airfield
- Building

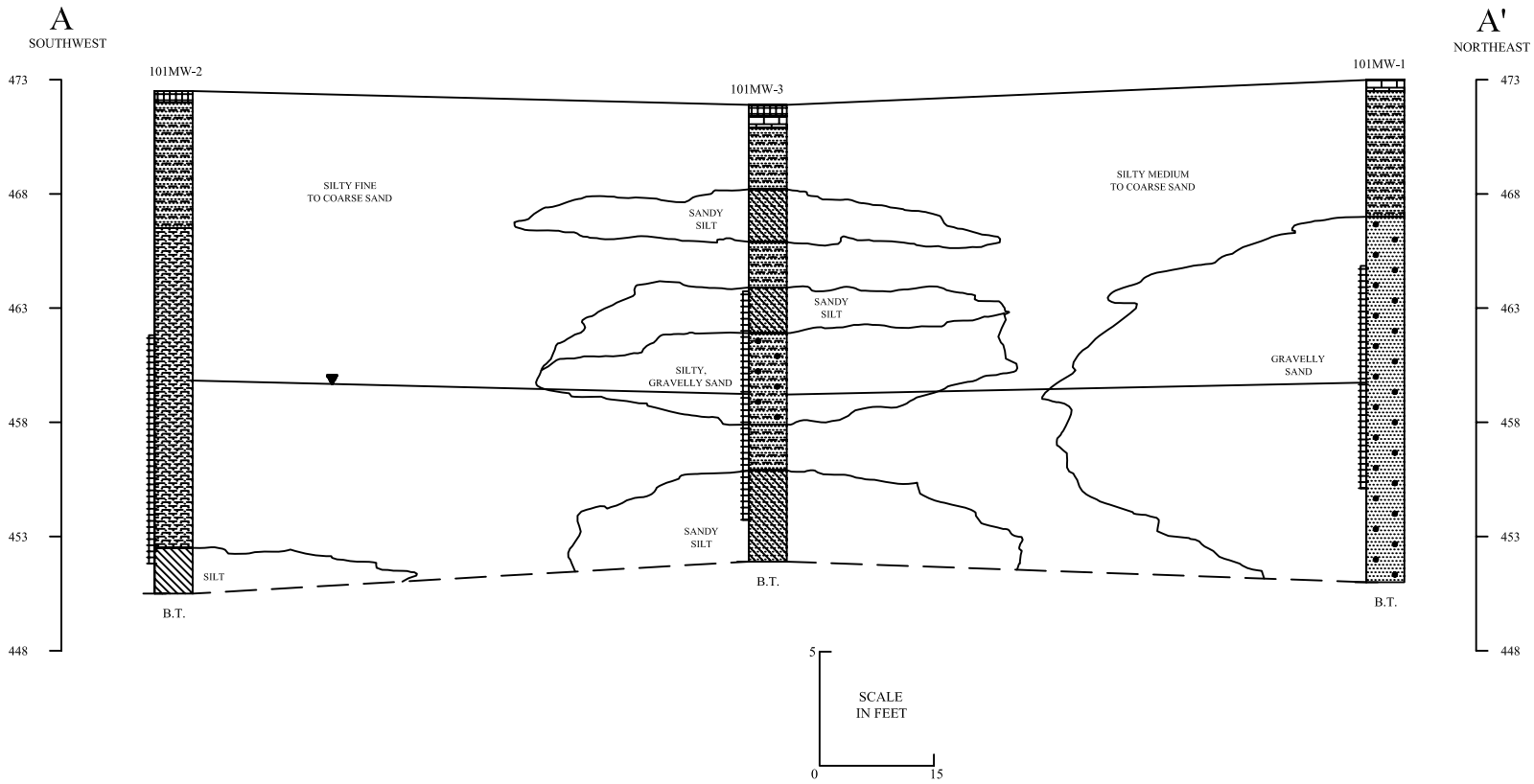
50 0 50 100 Feet

United States Air Force
Former Griffiss Air Force Base
Rome, New York

Figure 4-1
Building 101
Site Location Map

FPM group

Y:\GIS_Projects\Griffiss\Projects\40-05-27\On-base Groundwater\Buidling 101 Site Location Map.apr



LEGEND:

WATER TABLE

MONITORING WELL SCREEN INTERVAL

NOTES:

1. THE CORRELATIONS SHOWN ARE INTERPRETED FROM FIELD DESCRIPTIONS OF STRATA ENCOUNTERED IN THE DEPICTED BORINGS. IN SOME CASES, CORRELATIONS EXTEND BETWEEN STRATA WHICH WERE NOT FULLY PENETRATED, FOR WHICH SAMPLE RECOVERIES WERE INSUFFICIENT FOR SOIL DESCRIPTION OR FOR WHICH SAMPLES WERE NOT COLLECTED. THE DEPTHS TO STATIC GROUNDWATER ARE SHOWN FOR EACH WELL. THE WATER TABLE IS INTERPRETED BETWEEN THESE POINTS.

2. TAKEN FROM RI REPORT
(LAW ENVIRONMENTAL, INC., 1996)

UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME, NEW YORK

FIGURE 4-2

GEOLOGIC CROSS-SECTION A-A'

BUILDING 101, BADP AND YELLOW SUBMARINE UST

Building 101 is located approximately 3,200 feet north of Three Mile Creek (LAW, December 1996). Runoff from the site is intercepted at the site and conveyed by the storm drains running north-south to Three Mile Creek.

As reported in the Baseline Study (FPM, July 2000), the storm drains intercept the water table along their north-south course. Groundwater contouring in this area (Figure 4-1) reflects groundwater drainage to the storm drain system. The influence of the storm drains on groundwater flow is as a constant-head line sink. This causes an acute shape to the contour lines in the vicinity of the storm drains. Groundwater discharge to the storm drains may be intermittent and varies in extent because of fluctuations of the water table in relation to the storm drain invert elevation (458.6 ft MSL).

Measurements in the December 1998 Base-wide synoptic indicated groundwater depths adjacent to Building 101 were fairly level, varying from 14.14 ft bgs in monitoring well 101MW-4 located on the north to 13.63 ft bgs to the south (FPM, July 2000). A groundwater gradient indicates that the groundwater flow in the general Building 101 area is southwesterly. Water level measurements collected during the March 2005 sampling round indicate the same flow direction (see Figure 4-1).

The reported average site-specific hydraulic conductivity (K) for the Building 101 area was 18.4 feet per day, with a hydraulic gradient of 0.0028 feet per foot. Estimating the porosity to be 20 percent, the groundwater flow was calculated to be 94 feet per year (LAW, December 1996).

4.3 SUMMARY OF PREVIOUS INVESTIGATIONS

BADP Sampling

Soil sampling of the BADP conducted in 1985 by Roy F. Weston Inc. found high concentrations of antimony (193 mg/kg), lead (83,000 mg/kg), copper (784 mg/kg), and zinc (262 mg/kg) (101SB-1) (Figure 4-1). A 1994 analysis at soil sample location 101SB-1 detected various metals as well as tetrachloroethylene (also known as perchloroethylene or tetrachloroethene) (PCE) (0.8 µg/kg), toluene (3 µg/kg), and polynuclear aromatic hydrocarbon (PAH) compounds; of these, benzo(a)pyrene, phenol, and six metals (including antimony, arsenic, lead, and mercury) exceeded soil to-be-considereds (TBCs) (LAW, December 1996).

BADrP Closure

During 1997 closure activities of the adjacent BADrP, soil sampling results indicated the presence of several semi-volatile organic compounds (SVOCs) and metals. All of the constituents detected were below their respective New York State Department of Environmental Conservation (NYSDEC) guidance level (according to the Technical and Administrative Guidance Memorandum [TAGM] 3028), with the exception of 1,4-dichlorobenzene at 100 mg/kg. Following further soil removal, 1,4-dichlorobenzene was also reported below its respective TAGM level of 8.5 mg/kg (OHM, July 1998).

In June 2002, soil and groundwater confirmatory sampling was conducted at the Building 101 BADrP (located inside Building 101; see Figure 4-1). Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), SVOCs, metals and polychlorinated biphenyls (PCBs). No VOC or PCB exceedances were reported at the seven soil sampling locations. The only SVOC reported at levels exceeding TAGM Recommended Soil Cleanup Objectives (RSCO) was phenol, reported at 310 F micrograms per kilogram (µg/kg) (F indicating the detection was below the reporting limit [RL]) detected at 101SB-10 (located in the southeast corner of the former BADrP; not shown on map) at the 4 to 6 ft interval. The detected concentration is within one order of magnitude of the RSCO (30 µg/kg) and is below the laboratory reporting limit (330 µg/kg) (FPM, August 2002).

Three metals were reported at levels exceeding RSCO and/or Background Soil Screening Levels (from the RI, LAW, December 1996) at two sampling locations: cadmium, mercury and silver were reported in the 4 to 8 ft interval. Each of the five metals exceedances was within one order of magnitude or less of the respective RSCO or site background level. While cadmium and silver were found at levels exceeding their respective RSCO's, the levels measured at the two sample locations are below Environmental Protection Agency (EPA) Region III Residential Risk-Based Concentrations (39 mg/kg and 390 mg/kg, respectively). Mercury slightly exceeds the RSCO, but the mercury level in the deeper sample was below the RSCO (0.03 mg/kg) (FPM, August 2002).

Neither VOCs, SVOCs, nor PCBs were reported above NYSDEC Groundwater Standards in the single temporary well (located approximately 100' south of the BADP - not shown on map). The amount of suspended solids observed during groundwater sample collection is believed to have compromised the integrity of the sample for metals evaluation (FPM, August 2002).

Based on this 2002 confirmation sampling, the 1997 removal action was successful at eliminating the presence of residual soil contamination at levels posing a threat to the human health and the environment.

Yellow Submarine UST

Monitoring well 101MW-1, located near the Yellow Submarine UST, was analyzed three times during the 1992-1993 quarterly groundwater sampling program; PCE, trichloroethylene (TCE), manganese, and zinc were detected at concentrations up to 290 micrograms per liter (µg/L), 270 µg/L, 2.44 mg/L, and 0.363 mg/L, respectively. Soil samples from the site of the UST excavation collected in 1993 showed metal and PCE (10 µg/kg) contamination. The results of the RI (from samples collected in June 1994) reported the PCE concentration in monitoring well 101MW-1 at 7.7 µg/L, a marked decline from 290 µg/L (measured in June 1993). Groundwater samples from monitoring well 101MW-2 (also collected in June 1994), located south and downgradient of Building 101, had concentrations of 130 µg/L of chlorinated solvents, comprised mostly of cis-1,2- dichloroethylene (DCE) (120 µg/L).

Groundwater Sampling

Groundwater sampling during the SI (E&E, November 1998) reported chloroform concentrations in both wells 101MW-1 and 101MW-3 at 19 µg/L. TCE was also detected in wells 101MW-1 (where PCE was also found), 101MW-2, 101MW-3, 101TW-5, and 101TW-6, although all levels were below cleanup criteria.

Due to construction activities related to the widening of Hangar Road in 1998, monitoring wells 101MW-1 and 101MW-2 were replaced by newly installed wells 101MW-1R and 101MW-2R, respectively. 101MW-2 was rediscovered in 2001 and added to the well sampling list. During the Baseline Study (FPM, July 2000), PCE and TCE were detected in all four rounds in well 101MW-1R below the reporting limit of 1.4 µg/L and 1 µg/L, respectively. The PCE results were lower than the 7.7 µg/L detected in well 101MW-1 during the RI (LAW, December 1996). cis-1,2-DCE was reported at 0.2 F µg/L in the January 1999 sampling round and was undetected in the following three sampling rounds. TCE was also detected in wells 101MW-2R and 101MW-3, but no samples exceeded the NYS Groundwater Standard or the reporting limit of 1.0 µg/L.

Samples collected from monitoring wells 101MW-1R and 101MW-3 in January 1999 during the Baseline Study, showed decreases in chloroform concentrations from the 19 µg/L reported during the SI to 4.72 µg/L and 6.33 µg/L, respectively. Subsequent sampling for chloroform showed an increase in concentration to 11.4 µg/L in well 101MW-3 in August 1999.

Concentrations of chloroform in well 101MW-1R generally showed a decrease to a level of about 2 µg/L for the remainder of 1999 (FPM, July 2000). The chloroform detections are likely to be associated with potable water leaks from a nearby water supply main; potable water commonly contains chloroform (E&E, November 1998).

No VOCs were detected above ARARs in monitoring well 101MW-2R. This result suggests that the TCE plume does not migrate beyond the 42-inch storm drain from the direction of the UST. Chloroform was also detected in well 101MW-2R below the NYS Groundwater Standards. No exceedances were reported for upgradient monitoring well 101MW-4 in any of the Baseline Study sampling rounds.

4.4 BUILDING 101 GROUNDWATER SAMPLING PLAN

The purpose of the sampling at the Building 101 Site is to monitor the presence and movement of chlorinated hydrocarbon COCs. Sampling is performed quarterly, and one monitoring well (101MW-2) is currently sampled on the site. The sample is analyzed for VOCs (EPA Method SW8260) for the specified short list (see Table 4-1). The original sample analysis summary, which has since been updated / modified, is provided in Table 4-1.

Table 4-1
Building 101 Groundwater Monitoring Sample Analysis Summary

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ EPA Method Numbers	# of Samples[1]	Sampling Frequency	Evaluation Criteria
101MW-1R[2] 101MW-2 101MW-2R[2] 101MW-3[3]	463.14' – 453.14' 464.75' – 454.75' 461.87' – 451.87' 463.20' – 453.20'	Downgradient from source Downgradient from plume Downgradient from plume Downgradient from plume	VOCs – (Specified COC Short List)[4] / SW8260 COCs - PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, chloroform.	1	Quarterly	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells.

Notes:

[1] Please refer to the FSP for details concerning the number of QA/QC samples and their locations. At least one MS/MSD and two field duplicates were collected per SDG; one equipment blank per day and one ambient blank per day; one trip blank per cooler containing VOCs.

[2] Sampling of monitoring wells 101MW-1R and 101MW-2R was discontinued in the July 2004 sampling round as recommended in the Draft Monitoring Report (FPM, July 2004).

[3] Monitoring well 101MW-3 was decommissioned and removed in November 2002 due to construction work at the site.

[4] During March 2002, samples were analyzed for the complete AFCEE QAPP 3.1 List. In addition, samples were submitted for SVOCs (SW8270, AFCEE QAPP 3.1 List) and Metals (SW6010).

4.5 GROUNDWATER SAMPLING RESULTS 2001 THROUGH 2006

FPM performed quarterly groundwater sampling from September 2001 through September 2006 (in total, 20 sampling rounds). Monitoring wells 101MW-1R, 101MW-2, and 101MW-2R were sampled in September and December 2001, March, June, September, and December 2002, March, June, September, and December 2003 and March 2004 for the target VOCs. Monitoring Well 101MW-2 was also sampled in June, September and December 2004, and March, June, September, and December 2005, and May 2006. Well 101MW-3 was sampled only during the first five sampling rounds (September 2001 through September 2002). This monitoring well was decommissioned in November 2002 during the removal of the asphalt parking lot where it was located.

The field activities summary table is provided in Table 4-2. The analytical results are given in Table 4-3. The daily Chemical Quality Control Reports (CQCRs) are attached in Appendix A. The validated lab data are attached in Appendix B and the raw lab data are attached in Appendix C.

Table 4-2
Building 101 Site Field Activity Summary

Activity	Rationale	Analytical Parameters
Confirmation of groundwater flow direction.	The groundwater flow direction and elevation was confirmed using existing monitoring wells.	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, VC, and chloroform.
Sampling of four on-site monitoring wells.	Annual sampling was started in September 2001 for VOCs. Sampling was discontinued at monitoring well 101MW-3 due to well destruction during parking lot repaving. Sampling was discontinued in April 2004 at monitoring wells 101MW-1R and -2R due to the lack of detections/exceedances related to the site.	
HRC® injection at the Building 101 AOC.	Hydrogen Release Compound (HRC®) was injected in December 2005 at the Building 101 AOC in a 50-ft wall with 5 injection points (see Figure 4-3). HRC® was injected from 20 to 10 ft bgs at a rate of 8 pounds of product per foot.	
2nd HRC® injection at the Building 101 AOC.	HRC® was injected in August 2006 at the Building 101 AOC in a 50-ft wall with 5 injection points (see Figure 4-3). HRC® was injected from 20 to 10 ft bgs at a rate of 8 pounds of product per foot.	

Table 4-3
Building 101 Detected Groundwater Results

Sample Location	**NYSDEC GW Standards (µg/L)**	**Results Baseline Study (FPM, 2000)**	**101MW-1R**											
Sample ID			**101M1R14 EA**	**101M113 BA**	**101M01R18 CA**	**101M01R12 DA**	**101M01R14 EA**	**101M0112 DA**	**101M01R13 EA**	**101M0113 FA**	**101M0113 GA**	**101M01R12 HA**	**101M01R12 IA**	Sampling was discontinued after April 2004 due to lack of exceedances of the NYSDEC Groundwater Standards.
Date of Collection			**9/27/01**	**12/21/01**	**3/13/02**	**6/14/02**	**9/10/02**	**12/20/02**	**3/6/03**	**6/24/03**	**9/16/03**	**11/26/03**	**4/5/04**	
Water Depth (ft BTOIC)			**13.58**	**13.27**	**12.24**	**12.40**	**13.75**	**12.47**	**12.79**	**12.65**	**13.18**	**12.35**	**11.93**	
Chlorinated VOCs (µg/L)														
PCE	5*	0.21 F-0.54 F	0.54	0.96	0.33 F	0.50	0.44 F	0.40 F	0.32 F	U	0.8	U	0.65	
TCE	5*	0.42 F-0.7 F	0.64	0.79	0.31 F	0.34 F	0.56	0.31 F	0.31 F	U	0.64	3.4	0.32 F	
chloroform	7	0.24 F - 11.4	1.7 B	1.1 B	1.3	2.0	1.8	1.2	0.96	1.2	1.2	U	1.9	
SVOCs (µg/L)														
All SVOCs			N/A	N/A	U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Metals (µg/L)														
aluminum	--	**	N/A	N/A	116 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
barium	1,000	**	N/A	N/A	26.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
calcium	--	**	N/A	N/A	60,800	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
chromium	50	**	N/A	N/A	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
iron	300	**	N/A	N/A	415	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
magnesium	35,000	**	N/A	N/A	6,460	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
manganese	300	**	N/A	N/A	31.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
molybdenum	--	**	N/A	N/A	2.7 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
nickel	100	**	N/A	N/A	12.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
potassium	--	**	N/A	N/A	3,010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
sodium	20,000	**	N/A	N/A	18,800	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Notes:
B - The analyte was detected in a blank.
F - The analyte was detected above the MDL, but below the RL.
N/A - The analyte was not analyzed during sampling.
U - The analyte was undetected.
* - The principal organic contaminant standard for groundwater applies to this substance.
** Analysis was not included in the Baseline Study.
-- No NYS Groundwater Standard is available for this compound.

Table 4-3 (continued)
Building 101 Detected Groundwater Results

Sample Location	**NYSDEC GW Standards (µg/L)**	**Results Baseline Study (FPM, 2000)**	**101MW-2**																		
Sample ID			**101M02 17EA**	**101M02 16BA**	**101M02 22CA**	**101M02 16DA**	**101M02 17EA**	**101M02 15DA**	**101M02 16EA**	**101M02 16FA**	**101M02 16GA**	**101M02 16HA**	**101M02 15IA**	**101M02 15JA**	**101M02 15KA**	**101M02 15LA**	**101M02 16MA**	**101M02 16NA**	**101M02 17OA**	**101M02 16PA**	**101M02 16PA**	**101M02 16RA**
Date of Collection			**9/27/01**	**12/21/01**	**3/13/02**	**6/14/02**	**9/10/02**	**12/20/02**	**3/6/03**	**6/24/03**	**9/16/03**	**11/26/03**	**4/5/04**	**6/16/04**	**9/10/04**	**12/29/04**	**3/29/05**	**6/23/05**	**9/9/05**	**12/30/05**	**5/22/06**	**9/21/06**
Water Depth (ft BTOIC)			**16.52**	**16.34**	**15.81**	**15.76**	**16.77**	**15.75**	**15.95**	**15.85**	**16.21**	**15.64**	**15.33**	**15.83**	**15.84**	**15.35**	**16.02**	**16.37**	**16.74**	**15.61**	**16.22**	**16.22**
Chlorinated VOCs (µg/L)																						
TCE	5*	0.38F-0.43 F	1.6	1.3	1.1	0.73	0.39 F	1.0	1.1	0.58	1.1 ♦	0.93	0.82	0.95	U	0.91	0.85	0.88	0.79	1.2	1.7	0.73
cis-1,2-DCE	5*	0.12U-0.23	20	26 ♦	14	19	U	14	16	12	15	U	8.3	11	U	9.9	7.5	8.5	12	8.1	11	15.5
vinyl chloride	2	U	U	0.11M	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.33
chloroform	7	0.24 F - 11.4	U	0.15 M	U	U	U	U	U	U	U	U	1.1	0.56	2 B	0.97	1.8	0.96	0.61	0.73	0.58	U
1,2-dichlorobenzene	3	--	N/A	N/A	0.28 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
toluene	5*	--	N/A	N/A	0.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVOCs (µg/L)																						
All SVOCs			N/A	N/A	U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Metals (µg/L)																						
aluminum	--	**	N/A	N/A	556	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
barium	1,000	**	N/A	N/A	119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
calcium	--	**	N/A	N/A	72,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
iron	300	**	N/A	N/A	932	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
magnesium	35,000	**	N/A	N/A	13,900	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
manganese	300	**	N/A	N/A	523	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
potassium	--	**	N/A	N/A	1,330	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sodium	20,000	**	N/A	N/A	58,500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
vanadium	--	**	N/A	N/A	1.8 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
zinc	2,000	**	N/A	N/A	5.7 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
F - Analyte was detected above the MDL, but below the RL.
M - A matrix effect present.
N/A - Analyte was not analyzed during sampling.
U - Analyte analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
* - The principal organic contaminant standard for groundwater applies to this substance.
♦ - Concentration from the duplicate sample is reported since it is greater than the parent sample concentration.
** Analysis was not included in the Baseline Study.
-- No NYS Groundwater Standard is available for this compound.

Table 4-3 (continued)
Building 101 Detected Groundwater Results

Sample Location			**101MW-2R**											
Sample ID	**NYSDEC GW Standards (µg/L)**	**Results Baseline Study (FPM, 2000)**	**101M2R17 EA**	**101M02R16 BA**	**101M02R22 CA**	**101M02R16 DA**	**101M02R17 EA**	**101M02R16 DA**	**101M02R16 EA**	**101M02R16 FA**	**101M02R17 GA**	**101M02R16 HA**	**101M02R16 IA**	Sampling was discontinued after April 2004 due to lack of exceedances of the NYSDEC Groundwater Standards.
Date of Collection			**9/27/01**	**12/21/01**	**3/13/02**	**6/14/02**	**9/10/02**	**12/20/02**	**3/6/03**	**6/24/03**	**9/16/03**	**11/26/03**	**4/5/04**	
Water Depth (ft BTOIC)			**16.87**	**16.34**	**16.25**	**16.23**	**17.10**	**16.17**	**16.34**	**16.22**	**16.56**	**16.05**	**15.81**	
Chlorinated VOCs (µg/L)														
PCE	5*	0.21F-0.54F	0.33 F	U	U	U	U	U	U	U	U	U	U	
TCE	5*	0.38F-0.60F	0.31 F	0.51	0.35 F	0.32 F	0.37 F	0.36 F	0.35 F	0.25 F	0.38 F	1.2	0.28 F	
chloroform	7	0.24 F-11.4	1.3	U	U	U	U	U	U	U	U	U	U	
toluene	5*	--	N/A	N/A	0.89	N/A	N/A	U	U	U	U	U	U	
SVOCs (µg/L)														
All SVOCs			N/A	N/A	U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Metals (µg/L)														
aluminum	--	**	N/A	N/A	1010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
barium	1,000	**	N/A	N/A	26.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
cadmium	5	**	N/A	N/A	0.80 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
calcium	--	**	N/A	N/A	65,700 M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
iron	300	**	N/A	N/A	1,320 M	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
magnesium	35,000	**	N/A	N/A	8,220	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
manganese	300	**	N/A	N/A	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
molybdenum	--	**	N/A	N/A	3.6 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
nickel	100	**	N/A	N/A	5.1 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
potassium	--	**	N/A	N/A	1,840	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
sodium	20,000	**	N/A	N/A	14,600	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
vanadium	--	**	N/A	N/A	2.0 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
zinc	2,000	**	N/A	N/A	8.2 F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Notes:
F - Analyte was detected above the MDL, but below the RL.
M - A matrix effect present.
N/A - Analyte was not analyzed during sampling.
U - Analyte analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
* - The principal organic contaminant standard for groundwater applies to this substance.
** Analysis was not included in the Baseline Study.
-- No NYS Groundwater Standard is available for this compound.

Table 4-3 (Continued)
Building 101 Detected Groundwater Results

Sample Location	NYSDEC GW Standards (µg/L)	Results Baseline Study (FPM, 2000)	101MW-3					
Sample ID			**101M0313EA**	**101M0312BA**	**101M0317CA**	**101M0312DA**	**101MW0313EA**	Sampling was discontinued because the well was decommissioned in November 2002.
Date of Collection			**9/27/01**	**12/21/01**	**03/13/02**	**06/14/02**	**9/10/02**	
Water Depth (ft BTOIC)			**12.90**	**12.76**	**12.52**	**12.12**	**13.12**	
Chlorinated VOCs (µg/L)								
TCE	5*	0.38 F-0.92 F	0.68	0.70	0.59	0.45 F	0.68	
chloroform	7	0.24 F-11.4	3.4 B	4.3 B	3.4	2.2	3.2	
toluene	5*	--	N/A	N/A	0.31 F	N/A	N/A	
bromodichloromethane	50	--	N/A	N/A	0.21 F	N/A	N/A	
SVOCs (µg/L)								
All SVOCs			N/A	N/A	U	N/A	N/A	
Metals (µg/L)								
aluminum	--	**	N/A	N/A	634	N/A	N/A	
barium	1,000	**	N/A	N/A	14.8	N/A	N/A	
cadmium	5	**	N/A	N/A	0.70 F	N/A	N/A	
calcium	--	**	N/A	N/A	48,800	N/A	N/A	
chromium	50	**	N/A	N/A	1.9 F	N/A	N/A	
iron	300	**	N/A	N/A	921	N/A	N/A	
magnesium	35,000	**	N/A	N/A	6,260	N/A	N/A	
manganese	300	**	N/A	N/A	131	N/A	N/A	
potassium	--	**	N/A	N/A	1,190	N/A	N/A	
sodium	20,000	**	N/A	N/A	14,400	N/A	N/A	

Notes:
B - Result is a positive value; however analyte was detected in associated blank at concentration above the RL.
F - Analyte was detected above the MDL, but below the RL.
N/A - Analyte was not analyzed during sampling.
U - Analyte analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
* - The principal organic contaminant standard for groundwater applies to this substance.
** Analysis was not included in the Baseline Study.
-- No NYS Groundwater Standard is available for this compound.

September 2001:
Several detections of PCE and/or its daughter compounds were reported in all monitoring wells sampled. Only one VOC exceedance was reported for cis-1,2-DCE in monitoring well 101MW-2. Chloroform was also detected in monitoring wells 101MW-1R, -2R, and -3.

- VOC exceedance concentration: cis-1,2-DCE at 20 µg/L at 101MW-2.

December 2001:
Several detections of PCE and its daughter compounds were reported in all monitoring wells sampled. Two exceedances were reported for cis-1,2-DCE in the normal and duplicate sample collected at monitoring well 101MW-2. Chloroform was also detected in monitoring wells 101MW-1R, -2, and -3.

- Maximum VOC exceedance concentration: cis-1,2-DCE at 26 µg/L in the duplicate sample at 101MW-2.

March 2002:
During the March 2002 sampling round, full analyses were performed at all four sampling locations for VOCs (AFCEE QAPP 3.1 List), SVOCs (AFCEE QAPP 3.1 List), and metals (AFCEE QAPP 3.1 List), as requested by the Air Force Real Property Agency (AFRPA). During this round, the samples from the routine sampling locations were collected using low-flow technique and bladder pumps.

- Three VOCs (toluene, 1,2-dichlorobenzene and bromodichloromethane) besides chloroform and the chlorinated ethenes were detected in samples during this sampling round. Only one VOC exceedance was reported, for cis-1,2-DCE at monitoring well 101MW-2.
- Maximum VOC exceedance concentration: cis-1,2-DCE at 14 µg/L at 101MW-2

Results show from one to three exceedances of the NYS Groundwater Standards per well for metals; iron exceedances were reported in all four sampling locations. At sampling location 101MW-1R, one additional chromium exceedance was reported. At sampling location 101MW-2, two additional exceedances for metals were reported for manganese and sodium.

- Minimum metals exceedance: 65 µg/L for chromium at monitoring well 101MW-1R.
- Maximum metals exceedance: 58,500 µg/L of sodium in monitoring well 101MW-2.

Iron and manganese exceedances have been reported in numerous investigations for samples collected throughout the Base and can therefore be contributed to background conditions. The slight chromium exceedance in sampling location 101MW-1R can be considered an anomaly, because no chromium was detected in any other sampling location. The sodium exceedance in

sampling location 101MW-2 is likely attributable to road salt use on Hangar Road during the winter: the well is located fairly close to Hangar Road in a grassy area.

June 2002:
Several detections of PCE and/or its daughter compounds were reported in all monitoring wells sampled. One exceedance was reported for cis-1,2-DCE in the sample collected at monitoring well 101MW-2. Chloroform was also detected in monitoring wells 101MW-1R and -3.

- VOC exceedance concentration: cis-1,2-DCE at 19 µg/L at monitoring well 101MW-2.

September 2002:
Several detections of PCE and its daughter compound TCE were reported in all monitoring wells sampled. No VOC exceedances were reported. Chloroform was also detected in monitoring wells 101MW-1R and -3.

December 2002:
Monitoring wells 101MW-1R, -2, and -2R were sampled during this sampling round (monitoring well 101MW-3 was decommissioned in November 2002 due to construction work at the site). Several detections of PCE and/or its daughter compounds were reported in all monitoring wells. One exceedance was reported for cis-1,2-DCE in the sample collected at monitoring well 101MW-2. Chloroform was also detected in monitoring wells 101MW-1R.

- VOC exceedance concentration: cis-1,2 DCE at 14 µg/L at monitoring well 101MW-2.

March 2003:
Monitoring wells 101MW-1R, -2, and -2R were sampled during this sampling round. Several detections of PCE and/or its daughter compounds were reported in all monitoring wells. One exceedance was reported for cis-1,2-DCE in the sample collected at monitoring well 101MW-2. Chloroform was also detected in monitoring well 101MW-1R.

- VOC exceedance concentration: cis-1,2-DCE at 16 µg/L at monitoring well 101MW-2.

June 2003:
Monitoring wells 101MW-1R, -2, and -2R were sampled during this sampling round. Several detections of PCE and/or its daughter compounds were reported in all monitoring wells. One exceedance was reported for cis-1,2-DCE in the sample collected at monitoring well 101MW-2. Chloroform was also detected in monitoring well 101MW-1R.

- VOC exceedance concentration: cis-1,2-DCE at 12 µg/L at monitoring well 101MW-2.

September 2003:
Monitoring wells 101MW-1R, -2, and -2R were sampled during this sampling round. Several detections of PCE and/or its daughter compounds were reported in all monitoring wells. One exceedance was reported for cis-1,2-DCE in the sample collected at monitoring well 101MW-2. Chloroform was also detected in monitoring well 101MW-1R.

- VOC exceedance concentration: cis-1,2-DCE at 15 µg/L at monitoring well 101MW-2.

December 2003:
Monitoring wells 101MW-1R, -2, and -2R were sampled during this sampling round. Several detections of TCE were reported in all monitoring wells. No VOC exceedances were reported.

March 2004:
Monitoring wells 101MW-1R, -2, and -2R were sampled during this sampling round. Several detections of PCE and/or its daughter compounds were reported in all monitoring wells. One exceedance was reported for cis-1,2-DCE in monitoring well 101MW-2. Chloroform was reported in monitoring wells 101MW-1R and -2.

- VOC exceedance concentration: cis-1,2-DCE at 8.3 µg/L at monitoring well 101MW-2.

June 2004:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE at 11 µg/L. VOC detections were reported for TCE and chloroform, but none exceeded their respective NYS groundwater standards.

September 2004:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC detection was reported for chloroform, but it did not exceed the NYS groundwater standard.

December 2004:
Monitoring well 101MW-2 was the only well sampled and analyzed in this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for chloroform and TCE.

- VOC exceedance concentration: cis-1,2-DCE at 9.9 µg/L at monitoring well 101MW-2.

March 2005:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for chloroform and TCE.

- VOC exceedance concentration: cis-1,2-DCE at 7.5 µg/L at monitoring well 101MW-2.

June 2005:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for chloroform and TCE.

- VOC exceedance concentration: cis-1,2-DCE at 8.5 µg/L at monitoring well 101MW-2.

September 2005:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for chloroform and TCE.

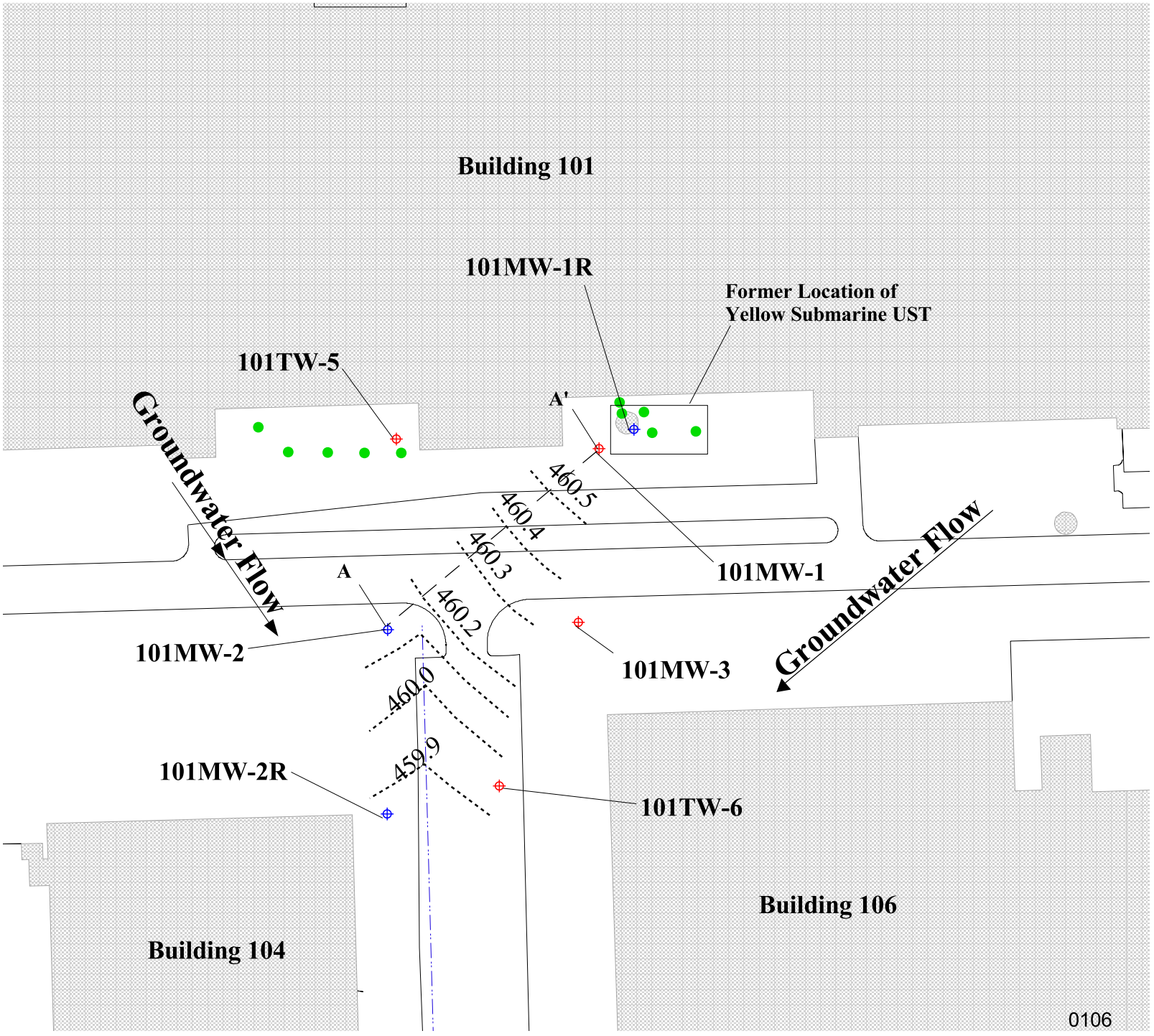
- VOC exceedance concentration: cis-1,2-DCE at 12 µg/L at monitoring well 101MW-2.

December 2005:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for chloroform and TCE.

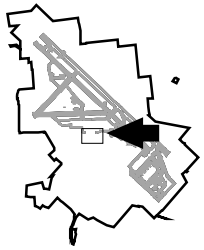
- VOC exceedance concentration: cis-1,2-DCE at 8.1 µg/L at monitoring well 101MW-2.

As recommended in the August 2005 monitoring report (FPM, August 2005), Hydrogen Release Compound (HRC) Advanced™ was injected at Site Building 101 in December 2005. HRC Advanced™ is "a product designed specifically for the in-situ treatment of chlorinated solvent based contamination or any anaerobically degradable substance in the groundwater environment. HRC is a viscous liquid that is pressure injected directly into the subsurface. Upon contact with water, HRC Advanced™ slowly hydrolizes and is broken down by microbial action. During this process, lactic acid is released and utilized by microbes to produce hydrogen. The resulting hydrogen is then used in a microbially mediated process known as reductive dechlorination. This step-by-step biodegradation process (reductive dechlorination) reduces harmful contaminants into harmless end products." (Regenesis website, 9 January 2006). Five injection points were planned in a 50-ft wide injection wall. True locations were spaced differently due to utility interference, as can be seen in Figure 4-3. HRC Advanced™ was injected from 20 to 10 ft bgs with an application rate of 8 pounds of product per ft of depth.

HRC Advanced™ was also applied in monitoring well 101MW-2 in February 2006. The light-brown syrupy HRC Advanced™ turned solid and opaque after contact with the groundwater and fouled up the monitoring well screen. Monitoring well maintenance activities performed in March and April 2006 included adding hot water to solubilize the HRC Advanced™ and surging the water column to mobilize the solidified HRC Advanced™. Additional well development was conducted in May 2006. A total of 170 gallons of water containing HRC Advanced™ was



N



Legend

- HRC injection point

Well inventory
- AOC LTM
- Decommissioned
- Destroyed
- GW contour March 2004

Hydro
- Storm Drain
- Airfield

Facilities
- Existing

Road
- Existing

25 0 25 50 Feet

United States Air Force
Former Griffiss Air Force Base
Rome, New York

Figure 4-3
Building 101
HRC Injection Points

Y:\GIS_Projects\Griffiss\Projects\40-05-27\On-base Groundwater\ Building 101 HRC

removed from the well during redevelopment. The well was left to stabilize and was sampled a week after redevelopment.

May 2006:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for chloroform and TCE.

- VOC exceedance concentration: cis-1,2-DCE at 11 µg/L at monitoring well 101MW-2.

As proposed in the August 2006 On-Base Groundwater AOC Monitoring Report (FPM, August 2006), additional HRC Advanced™ injections were performed at Site Building 101. The injections were performed at identical depth and volume as the December 2005 injections. The injection points are shown on Figure 4-3.

September 2006:
Only monitoring well 101MW-2 was sampled during this sampling round. One VOC exceedance was reported for cis-1,2-DCE, and two additional detections were reported for TCE and vinyl chloride.

- VOC exceedance concentration: cis-1,2-DCE at 15.5 µg/L at monitoring well 101MW-2.

The groundwater contours for the March 2004 sampling round are depicted in Figure 4-1. The groundwater flow is in a similar direction as reported in earlier sampling events (southwesterly). The groundwater elevations are reported higher (459.45 - 459.89 ft MSL) than the invert of the storm drain (458.6 ft MSL). This indicates that the storm drain acts as a groundwater drain, which was also reported by E&E in 1998 (E&E, July 1998).

4.5.1 2001 - 2006 Results Summary

In the March 2002 sampling round, all monitoring wells at Site Building 101 were sampled for SVOCs and metals, in addition to the usual VOC analysis. No SVOCs were detected and a few metals exceedances were reported for iron, manganese, sodium and chromium.

Few changes have been reported in the number of exceedances in the 20 sampling rounds; cis-1,2-TCE is reported consistently at 2 to 3 times the NYSDEC groundwater standard of 5 µg/L. Several other detections are reported, but all are significantly below their respective groundwater standards.

4.6 CONCLUSIONS AND MONITORING RECOMMENDATIONS

The results of the last two quarterly sampling rounds are similar to the results reported for earlier sampling rounds (FPM, August 2006); cis-1,2-DCE remains at levels slightly exceeding its NYS Groundwater Standard. Several other COCs are detected at low concentrations below their corresponding standards. In these detections, several changes have occurred: chloroform decreased to non detect and vinyl chloride was reported for the first time in 5 years.

HRC Advanced™ was applied at the site at two different locations in December 2005 and August 2006. HRC Advanced was used to degrade residual chlorinated compounds. It appears that the HRC Advanced™ injected in monitoring well 101MW-2, has had a decreasing effect on the chloroform concentrations and an increasing effect on the vinyl chloride concentrations as a result of degrading chlorinated ethenes. It appears that enhanced reductive dechlorination is occurring at the site.

Additional HRC Advanced™ injections in close vicinity of monitoring well 101MW-2 will be evaluated. Injection completion will depend on obtaining utility clearance. Utilities are in close proximity to this monitoring well.

Annual sampling will be performed in the spring (March) 2008 sampling round. Table 4-4 shows the historical and proposed groundwater sampling and analysis plan.

Table 4-4
Building 101 Proposed Groundwater Sampling and Analysis Plan

Sampling Locations	Sampling Rationale	Target Analytes / Method Numbers	Sampling Frequency	Evaluation Criteria / Modification Justification
101MW-2	Downgradient from plume	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, vinyl chloride, and chloroform.	Annually	Slight exceedance for cis-1,2-DCE at this sampling location.
Recommended LTM Network Changes				
None				

Historical LTM Network Changes				
May 2006				
Analysis/ Frequency changes				
101MW-2	Downgradient from plume	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, vinyl chloride, and chloroform.	Annually	The sampling frequency is changed from quarterly to annual because no significant changes to the detections/ exceedances in the last 6 sampling rounds.
November 2004				
Removed Sampling Locations				
101MW-1R 101MW-2R	Downgradient from source Downgradient from plume	Same as above.	Discontinued from quarterly basis.	Discontinued sampling after April 2004 based on no reported exceedances.
101MW-3	Downgradient from plume	Same as above.		Decommissioned and removed from groundwater monitoring network in November 2002 due to construction work at the site.

5 BUILDING 35 (SS-60)

No new samples have been collected between the results reported in the last report (FPM, August 2006) and this report. The site layout map is shown in Figure 5-1. The field activities summary table is shown in Table 5-1.

In the last monitoring report (FPM, August 2006), it was proposed to install two rows of 5 injection points each of HRC Advanced™ at 100 and 200 ft distance downgradient from monitoring well B035MW-2. This second injection round increases the HRC Advanced™ area of influence, which should result in an earlier detectable decrease of chlorinated ethenes at the site. The second injection event was performed in August 2006 with identical depths (20 to 10 ft bgs) and application rates (8 pound of product per ft of depth) as the first injection event. Figure 5-2 shows the injection rows.

Table 5-1
Building 35 Site Field Activity Summary

Activity	Rationale	Analytical Parameters
Confirmation of groundwater flow direction.	The groundwater flow direction and elevation was confirmed using the existing and newly installed monitoring wells.	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC.
Sampling of four on-site monitoring wells.	Annual sampling was started in March 2002 for VOCs, SVOCs and total and dissolved metals. SVOC and metals sampling was discontinued after July 2004. Three sampling locations (B035MW-01, -02, and -03) were discontinued also due to the lack of detections/exceedances related to the site.	
HRC® injection at the Building 35 AOC.	HRC® was injected in December 2005 at the Building 35 AOC in a 50-ft wall with 5 injection points (see Figure 5-2). HRC® was injected from 20 to 10 ft bgs at a rate of 8 pounds of product per foot.	
2nd HRC® injection at the Building 35 AOC.	HRC® was injected in August 2006 at the Building 35 AOC in two 50-ft walls with 5 injection points (see Figure 5-2). HRC® was injected from 20 to 10 ft bgs at a rate of 8 pounds of product per foot.	

Annual groundwater monitoring will resume in March 2007 to monitor the effect of the HRC® injections on the COCs at the site. Sampling will be performed as shown in the Building 35 Proposed Groundwater Sampling and Analysis Plan in Table 5-2. The LTM network will be re-evaluated following review of the March 2007 sampling data.

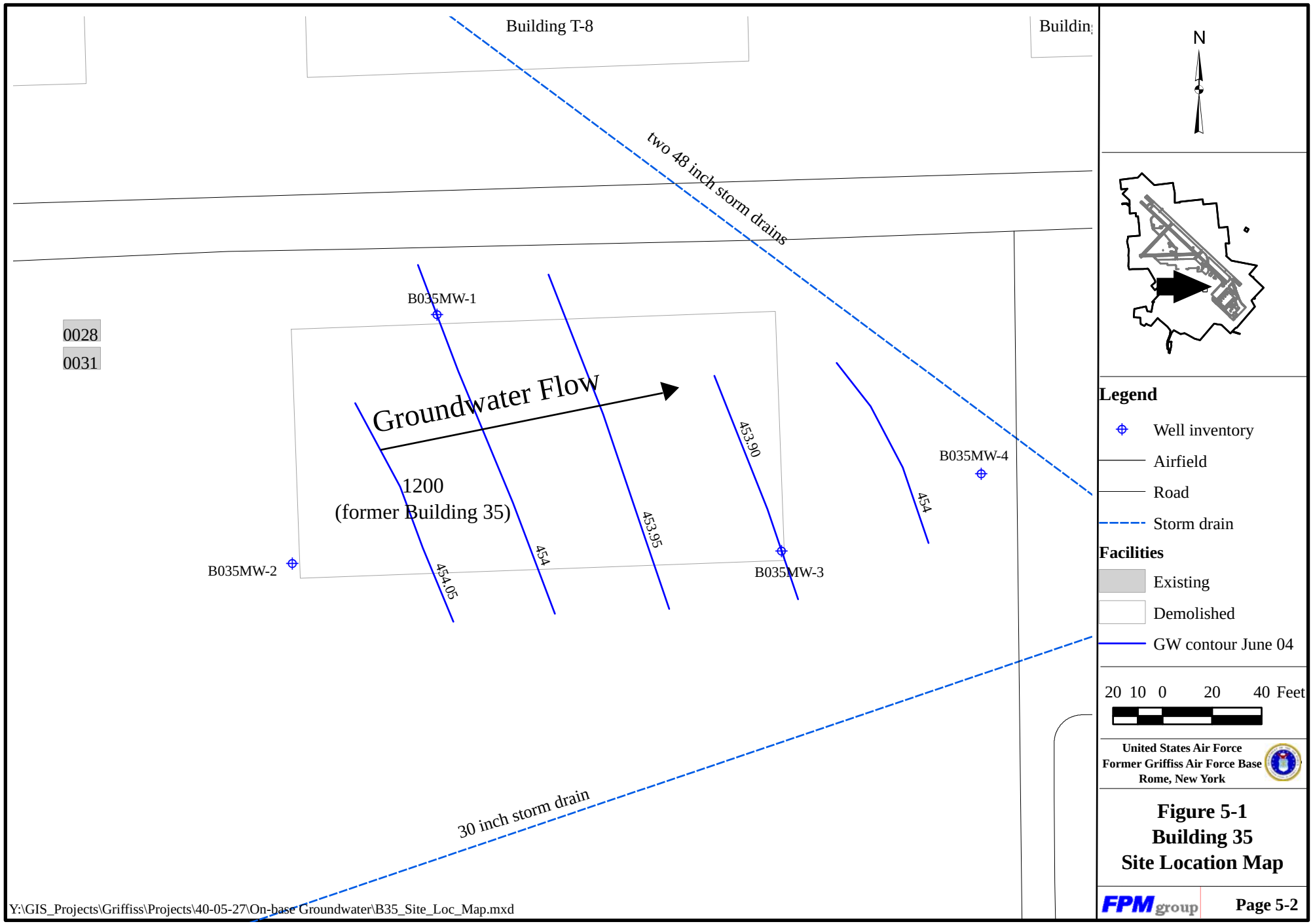
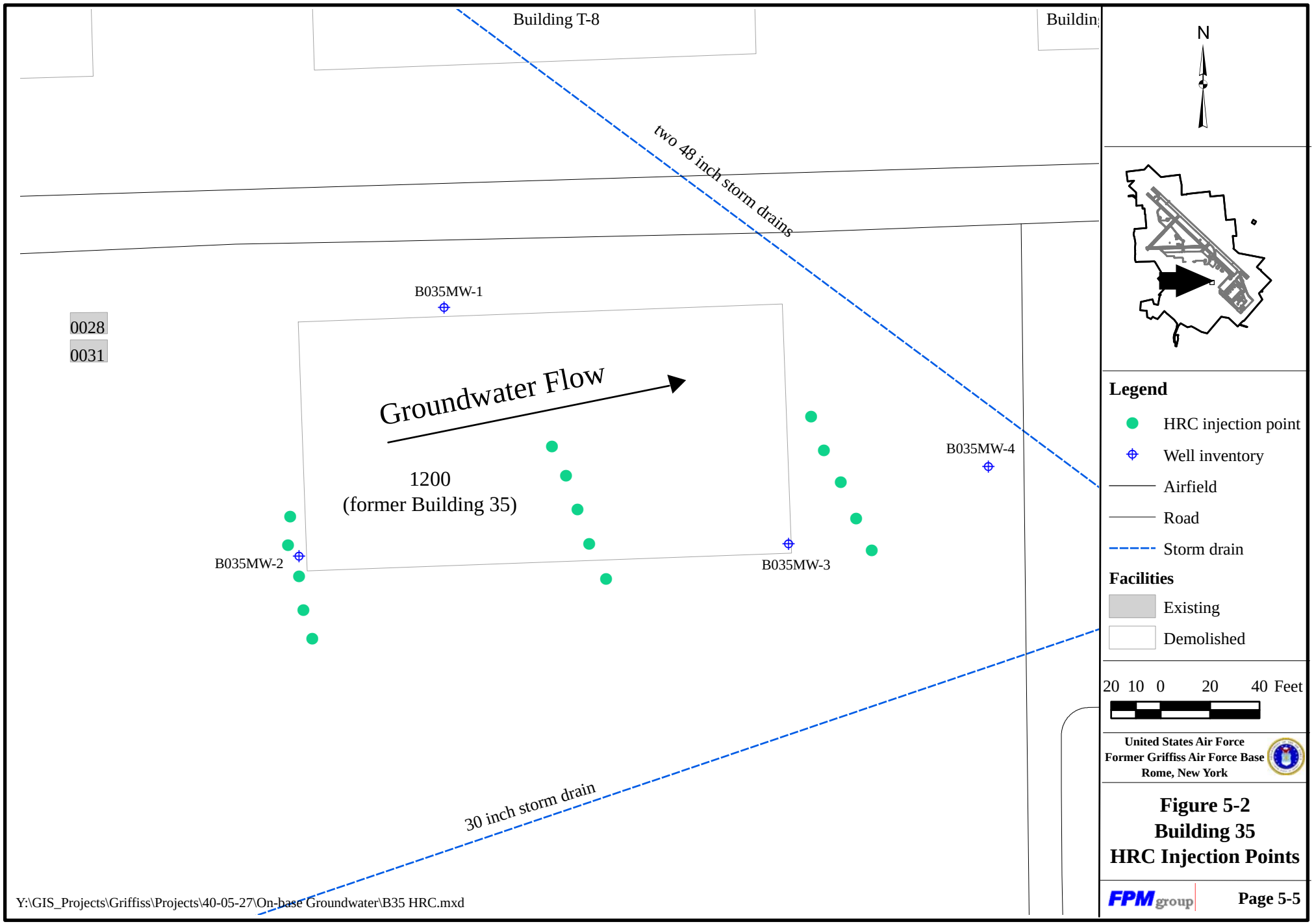

Building T-8
Buildin
two 48 inch storm drains
B035MW-1
0028
0031
Groundwater Flow
1200
(former Building 35)
B035MW-2
B035MW-3
B035MW-4
454.05
454
453.95
453.90
454
30 inch storm drain
Y:\GIS_Projects\Griffiss\Projects\40-05-27\On-base Groundwater\B35_Site_Loc_Map.mxd
N
Legend
Well inventory
Airfield
Road
Storm drain
Facilities
Existing
Demolished
GW contour June 04
20 10 0 20 40 Feet
United States Air Force
Former Griffiss Air Force Base
Rome, New York
Figure 5-1
Building 35
Site Location Map
FPM group
Page 5-2

Table 5-2
Building 35 Proposed Groundwater Sampling and Analysis Plan

Sampling Locations	Sampling Rationale	Target Analytes / Method Numbers	Sampling Frequency	Evaluation Criteria / Modification Justification
B035MW-4	Downgradient of potential source	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC.	Annual	Continue in the monitoring network to verify the attenuation of cis-1,2-DCE. Analysis for VOCs (chlorinated ethenes short list only) will occur for four rounds, after which the results will be evaluated to assess future monitoring frequency.

Table 5-2 (continued)
Building 35 Proposed Groundwater Sampling and Analysis Plan

Historical LTM Network Changes				
July 2004				
Analysis / Frequency Changes				
B035MW-4	Downgradient of potential source	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC.	Annual	Continue in the monitoring network to verify the attenuation of cis-1,2-DCE but at a lower frequency due to low groundwater velocities Discontinue sampling for SVOCs since no detections have been reported in any sampling round. Discontinue metals sampling at the Building 35 Site since none of the reported exceedances can be attributed specifically to the site.
Removed Sampling Location				
B035MW-1 B035MW-2 B035MW-3	Upgradient Crossgradient Potential Source Area		Discontinued	Discontinue sampling based on no reported exceedances.


Building T-8
Buildin
two 48 inch storm drains
B035MW-1
0028
0031
Groundwater Flow
1200
(former Building 35)
B035MW-2
B035MW-3
B035MW-4
30 inch storm drain
N
Legend
HRC injection point
Well inventory
Airfield
Road
Storm drain
Facilities
Existing
Demolished
20 10 0 20 40 Feet
United States Air Force
Former Griffiss Air Force Base
Rome, New York
Figure 5-2
Building 35
HRC Injection Points
Y:\GIS_Projects\Griffiss\Projects\40-05-27\On-base Groundwater\B35 HRC.mxd

This page is intentionally left blank.

6 REFERENCES

Air Force Center for Environmental Excellence, Quality Assurance Project Plan, Version 3.1, August 2001.

Ecology and Environment, Inc., Final Report for Supplemental Investigation of Areas of Concern, Former Griffiss Air Force Base, July 1998 (G-103A).

FPM Group Ltd., Draft Confirmation Sampling Report, Building 101 Battery Acid Drainage Pit Area of Concern, former Griffiss Air Force Base, Rome, New York, Revision 0.0, August 2002 (G-267).

FPM Group Ltd., Draft Monitoring Report, On-Base Groundwater AOCs, Revision 1.0, November 2004 (G-353).

FPM Group, Ltd., Draft Report, AOC Long-Term Monitoring Baseline Study, Griffiss Air Force Base, Revision 1.0, July 2000 (G-208).

FPM Group Ltd., Field Sampling Plan, Long-Term Monitoring Program, Revision 3.0, March 2005 (G-435).

FPM Group, Ltd., Monitoring Report, On--Base Groundwater AOCs Monitoring Program, Former Griffiss Air Force Base, Rome, New York, Revision 0.0, August 2005 (G-446).

FPM Group, Ltd., Monitoring Report, On--Base Groundwater AOCs Monitoring Program, Former Griffiss Air Force Base, Rome, New York, Revision 0.0, August 2006.

LAW Engineering and Environmental Services, Inc., Draft Final Primary Report, Remedial Investigation at Griffiss Air Force Base, December 1996 (G-018).

OHM Remediation Services Corp., Closure of Building 101 Battery Acid Drainage Pit: Revised Results and Recommendations Report, July 1998 (G-105).

This page is intentionally left blank.

All appendices are included on the attached CD.

Appendix A
Field Sampling Forms

Daily Chemical Quality Control Report

Project/Delivery Order Number: F41624-03-D-8601-0027 Date: 5/22/06

Project Name/Site Number: Griffiss AOC LTM sampling (Building 101).

Weather conditions: Temperature: 45 Barometric reading: 29.94
Wind direction and speed: west 15 gusting 22 mph.
Significant wind changes: none.

General description of tasks completed: Bailer sampling at Site Building 101 (101MW-2).

Explain any departures from the SAP or deviations from approved procedures during the day's field activities: No stabilization measurements were collected due to presence of HRC is the well. Six well volumes were evacuated from the well in order to provide representative groundwater for sampling. This was based on stabilization being obtained within 3 well volumes at this sampling location in many of the past sampling rounds. A clean bailer (i.e. never been in contact with HRC) was used to collect the sample water and some water for one water quality measurement.

Explain any technical problems encountered in the field or field equipment/field analytical instrument malfunction: none.

Corrective actions taken or instructions obtained from AFCEE personnel: No corrective actions necessary.

Sampling shipment completed: √Yes □ No Fedex 8533 3162 2725.

DCQCR Prepared by: Niels van Hoesel, FOM Date: 13 March 2006

CQCC Signature: _____ Date: _____

ATTACHMENTS:

Checklist	Daily Chemical Quality Control Report Attachments
√	✓ Field sampling forms
√	✓ Equipment Calibration Log
√	✓ Copies of COCs
	✓ SDG Table (See accompanying COCs)
√	✓ Daily Health and Safety Meeting Form

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: JP/PC

Location and Site Code (**SITEID**): B101

Well No. (**LOCID**): 101MW-2 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 5-22-06 Weather: Overcast / 50°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

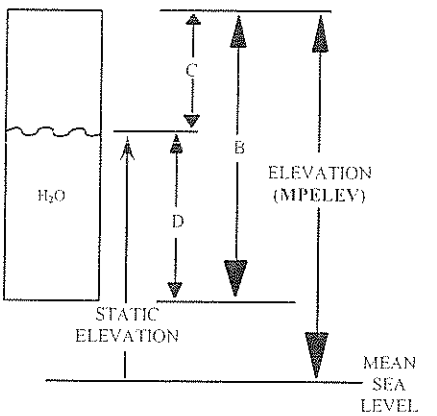
Measured Well Depth (B) (**TOTDEPTH**) ~23.91 ft.

Measured Water Level Depth (C) (**STATDEP**) 16.22 ft.

Length of Static Water Column (D) = (B) ____ - (C) ____ = 7.69 (D) ft.

Casing Water Volume (E) = (A) ____ x (D) ____ = 1.23 gal

Total Purge Volume = 3.7 gal (min. of 3 well volumes)



Purge Date and Method: Bailer

Physical Appearance/Comments: ____

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1355	7.5	2.03	.0915/m	14.0	804.0	4.76	167

Sample Time: 1400 Sample ID: 101M0216PA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

Equipment Calibration Log

Instrument Name: FPM #1

Model Number: U-22 Horiba

Date	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
3/9	4.00	3.98	4.00	4.00	Cond. out. changed Solution.
3-10	4.00	3.87	4.00	4.00	
3-13	4.00	4.06			
3/14	4.00	4.01	4	4.01	✓
3/15	4.00	3.99			
3/16	4.00	3.99			
3/17	4.00	4.00			
3-20	4.00	3.99			
3/21	4.00	4.00			
3-22	4.00	4.00			
3-23	4.00	3.96	4	3.99	
3-24	4.00	3.95	4.00	4.00	
3-27	4.00	3.91	4.00		
3-28	4.00	4.00			
4/11	4.00	4.00			
4-13	4.00	3.94	4.00	4.00	
5-22	4.00	3.99			

AFCEE
CHAIN OF CUSTODY RECORD (AC 61815)

COC#: _2_ SDG#: _124_ Cooler ID: _A_

Ship to: Mark Nemec Severn Trent Laboratories 10 Hazelwood Drive, Suite 106 Amherst, NY 14228-2298 Tel: (716) 691-2600	Project Name: Griffiss AFB Site Building 101 sampling Sampler Name: Niels van Hoesel	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441
Carrier: STL courier.	Sampler Signature:	Phone: (315) 336-7721 Ext 205

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)		Comments
101M02~~16~~PA	101MW-2	5/22	1400	WG	B	0/0	N	HCl	Unf.	3	3		
052206PR	FIELDQC	5/22	1330	WQ	NA	0/0	TB	HCl	Unf.	3	3		

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 3.1

Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 5/22/06	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Group Ltd	Time:	Company Name:	Time:
#1 Received by: (Sig) Niels van Hoesel	Date: 3/15/06	#2 Received by: (Sig)	Date:	#3 Received by: (Sig)	Date:
Company Name: FPM Group Ltd	Time: 10200	Company Name:	Time:	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Daily Health and Safety Meeting Form

Date: 5/22/06 *Time :* 13.00

Location: FPM office (garage)

Weather Conditions: cold windy 50°

Meeting Type: Daily Health and Safety

Personnel Present:

John Pratt Peter Creighton III

Visitors Present: —

Visitor Training: —

PPE Required: Modified D

Possible risks, injuries, concerns:

slip trip fall

Anticipated Releases to Environment (if so, describe and detail response action/control measures implemented):

none

Property Damage:

none

Description (include sequence of events describing step by step how incident happened):

—

Analysis for, and Implementation of Corrective/Preventative Procedure to Prevent Future Occurrences (to be formulated by SSHO + FOM, approved by PM, and SSHO implemented):

—

Report made by (Name): Nico van Meerd

SSHP Organization Title: Site Safety and Health Officer

Daily Chemical Quality Control Report

Project/Delivery Order Number: F41624-03-D-8601-0027 Date: 09/21/06

Project Name/Site Number: Griffiss Petroleum Spills Sites sampling (Building 15, 101, Bulk Fuel Storage Area (BFSA) and Apron 2).

Weather conditions: Temperature: 56 Barometric reading: 29.73
Wind direction and speed: northeast 3 mph.
Significant wind changes: none.

General description of tasks completed: Bailer sampling at Site Building 15 (B15MW-5, -6, -10, -11 and -12), Site Building 101 (101MW-2), Site Apron 2 (AP2MW-B4S, and -B4N), and Site BFSA (BFSAMW-3, 7, -8, -11, -15, BFSRWT-1, -2, -3, BFSAVMP-2M, -3M, and MWBCF-3).

Explain any departures from the SAP or deviations from approved procedures during the day's field activities: none.

Explain any technical problems encountered in the field or field equipment/field analytical instrument malfunction: none.

Corrective actions taken or instructions obtained from AFCEE personnel: No corrective actions necessary.

Sampling shipment completed: √Yes □ No LSL courier.

DCQCR Prepared by: Niels van Hoesel, FOM Date: 22 September 2005

CQCC Signature: _____ Date: _____

ATTACHMENTS:

Checklist	Daily Chemical Quality Control Report Attachments
√	✓ Field sampling forms
√	✓ Equipment Calibration Log
√	✓ Copies of COCs
	✓ SDG Table (See accompanying COCs)
√	✓ Daily Health and Safety Meeting Form

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / JD

Location and Site Code (**SITEID**): B15

Well No. (**LOCID**): WL-B15MW-5 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: Sun / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

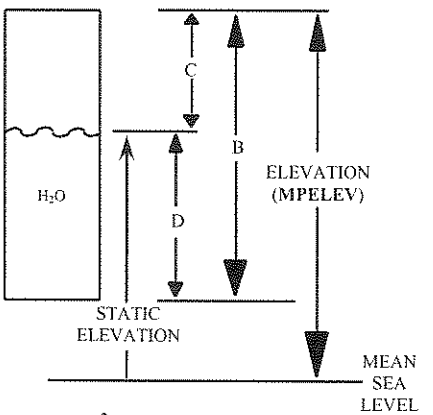
Measured Well Depth (B) (**TOTDEPTH**) 14.67 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.02 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 6.65 ft. (D)

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.0 gal

Minimum Purge Volume = 3.0 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty brown / no odor
slow recharge

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1436	0.75	7.29	0.29	18.8	>999	6.08	-98
1437	1.5	7.28	0.29	18.4	580	8.31	-104
1439	2.25	7.29	0.29	18.0	180	6.43	-112
1442	3.0	7.27	0.29	17.8	150	6.11	-111

Sample Time: 1445 Sample ID: B15M0508LA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / JD

Location and Site Code (**SITEID**): Building 15

Well No. (**LOCID**): WL-B15MW-6 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: Sun / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

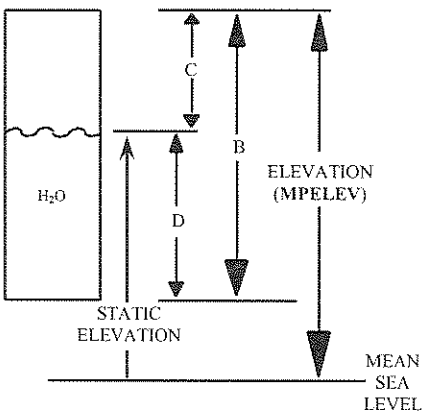
Measured Well Depth (B) (**TOTDEPTH**) 13.46 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.13 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 5.33 ft. (D)

Casing Water Volume (E) = ____ (A) x ____ (D) = 0.85 gal

Minimum Purge Volume = 2.5 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty brown / no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1459	0.75	7.67	0.12	18.1	300	7.20	-35
1500	1.5	7.43	94	18.2	280	7.76	-15
1501	2.25	7.34	94	18.2	270	6.64	-10
1502	3.0	7.28	94	18.0	230	7.24	1
1503	3.75	7.29	93	18.2	140	7.87	4

Sample Time: 1505 Sample ID: B15M0608LA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / JD

Location and Site Code (**SITEID**): B 15

Well No. (**LOCID**): WL-BISMW-10 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: Sun / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

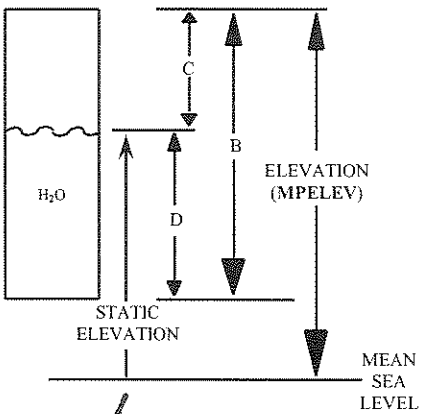
Measured Well Depth (B) (**TOTDEPTH**) 16.69 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.62 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 8.07 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.29 gal

Minimum Purge Volume = 3.8 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty brown / no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1551	1	7.54	0.12	17.2	280	8.72	-74
1552	2	7.22	0.14	17.0	150	7.48	-61
1554	3	7.19	0.14	17.2	270	6.92	-71
1556	4	7.19	0.13	17.1	160	5.98	-80

Sample Time: 1559 Sample ID: B15M1009LA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB/JD

Location and Site Code (**SITEID**): Building 15

Well No. (**LOCID**): WL-B15MW-11 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: sun / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

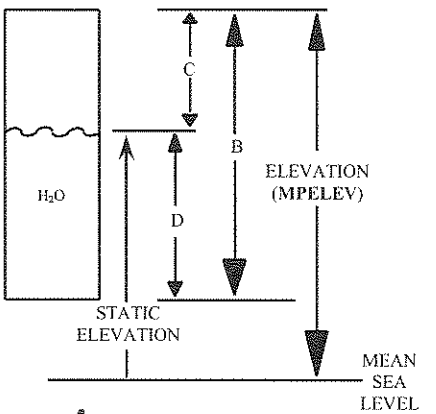
Measured Well Depth (B) (**TOTDEPTH**) 15.92 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.64 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 7.28 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.1 gal

Minimum Purge Volume = 3.5 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: water is silty brown with no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1611	0.75	7.93	0.16	18.8	490	9.24	-34
1613	1.5	9.56	0.16	19.2	>999	8.32	-18
1615	2.25	7.64	0.16	18.4	860	8.43	-14
1616	3.0	7.58	0.16	18.4	870	7.11	-9
1617	3.75	7.44	0.17	18.6	>999	8.00	-3
1619	4.5	7.46	0.17	18.7	680	6.83	1
1620	5.25	7.48	0.17	18.9	>999	9.65	2

Sample Time: 1625 Sample ID: B15M1109LA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB IJD

Location and Site Code (**SITEID**): Building 15

Well No. (**LOCID**): WL-B15MW-12 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-28-06 Weather: sun 150

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

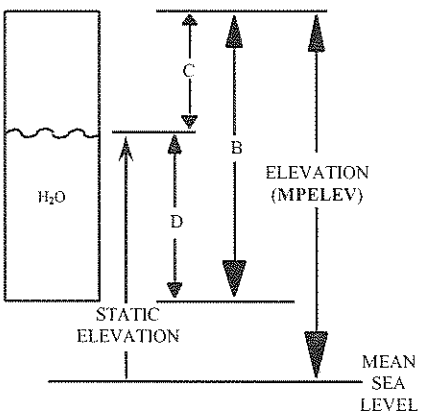
Measured Well Depth (B) (**TOTDEPTH**) 15.53 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.00 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 7.53 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.2 gal

Minimum Purge Volume = 3.6 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty grey / sheen / petro odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1516	1	7.40	0.13	17.2	67	7.09	-116
1517	2	7.24	0.14	17.0	130	8.34	-113
1519	3	7.17	0.14	16.9	150	7.47	-112
1520	4	7.18	0.14	16.8	160	7.41	-110
1522	5	7.19	0.14	16.8	210	6.57	-113

Sample Time: 1525 Sample ID: B15M1208LA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: JD / PZ

Location and Site Code (**SITEID**): B101

Well No. (**LOCID**): 101mw-2 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 5.21.06 Weather: Sunny / Cool

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

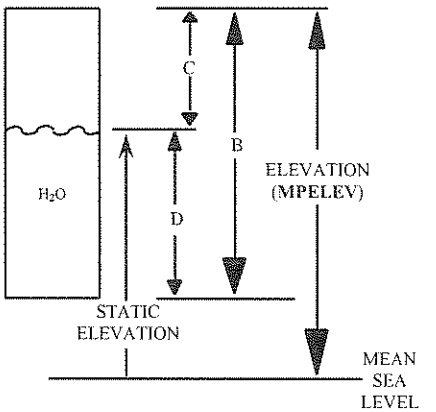
Measured Well Depth (B) (**TOTDEPTH**) 23.91 ft.

Measured Water Level Depth (C) (**STATDEP**) 16.27 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 7.64 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.22 gal

Minimum Purge Volume = 3.66 gal (3 well volumes)



Purge Date and Method: Bailer

Physical Appearance/Comments: Smells like HRC / clear

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1439	.75	6.68	0.153	17.9	329	8.01	302
1441	1.5	6.33	0.154	18.3	384	5.91	254
1442	2.25	6.22	0.154	18.1	490	4.31	133
1444	3.0	6.21	0.151	17.9	>999	4.69	89
1446	3.75	6.23	0.151	17.8	540	5.05	54

Sample Time: 1450 Sample ID: 101m021GRA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: JP / DB

Location and Site Code (**SITEID**): AP2

Well No. (**LOCID**): WC-AP2MW-B4R Well Diameter (**SDIAM**): 2

Date (**LOGDATE**): 9-21-06 Weather: Sun 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

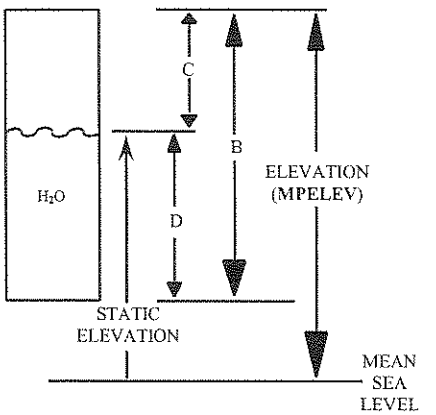
Measured Well Depth (B) (**TOTDEPTH**) 23.69 ft.

Measured Water Level Depth (C) (**STATDEP**) 18.14 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 5.55 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = .888 gal

Minimum Purge Volume = 2.664 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty grey / no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
0918	0.75	6.86	0.11	15.7	310	5.30	-102
0919	1.50	6.93	0.11	15.7	25	7.21	-105
0920	2.25	6.88	0.11	15.6	37	7.06	-103
0922	3.0	6.87	0.11	15.5	28	6.10	-108

Sample Time: 0925 Sample ID: AP2MB4R/18R/A

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: SD/DB

Location and Site Code (**SITEID**): AP2

Well No. (**LOCID**): WL-AP2MB45 Well Diameter (**SDIAM**): 2

Date (**LOGDATE**): 9-21-06 Weather: sun / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

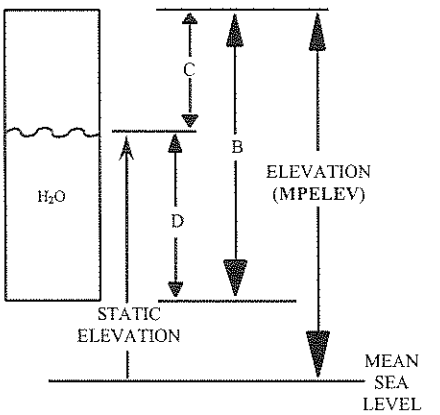
Measured Well Depth (B) (**TOTDEPTH**) 23.51 ft.

Measured Water Level Depth (C) (**STATDEP**) 16.67 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 6.84 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.0944 gal

Minimum Purge Volume = 3.2832 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty orange with no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
0900	1	6.19	0.13	15.7	450	10.05	-16
0901	2	6.48	0.13	15.6	170	10.09	-84
0903	3	6.61	0.13	15.5	130	10.66	-105
0904	4	6.71	0.12	15.3	150	10.94	-111
0906	5	6.72	0.12	15.4	150	11.16	-109
0908	6	6.75	0.12	15.3	130	8.31	-111

Sample Time: 0915 Sample ID: AP2MB45 17RA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB JD

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSAmw-3 Well Diameter (**SDIAM**): ____

Date (**LOGDATE**): 9-21-06 Weather: rain / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

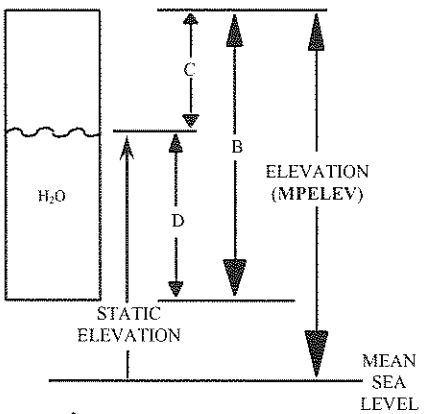
Measured Well Depth (B) (**TOTDEPTH**) 20.9 ft.

Measured Water Level Depth (C) (**STATDEP**) 5.19 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 15.71 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 2.5 gal

Minimum Purge Volume = 7.5 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: clear to silty / no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1048	1	7.29	58	16.5	160	10.70	-44
1049	2	6.91	58	16.7	85	8.28	4
1051	3	6.74	55	16.8	73	6.38	22
1052	4	6.70	55	16.8	42	6.78	37
1054	5	6.69	55	16.8	48	6.27	47
1055	6	6.65	55	16.8	49	5.53	58
1057	7	6.64	55	16.8	53	5.59	66
1059	8	6.63	55	16.8	24	6.18	74

Sample Time: 1100 Sample ID: BFSMD305NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / JD

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): BFSA MW-7 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: sun / 50°F

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

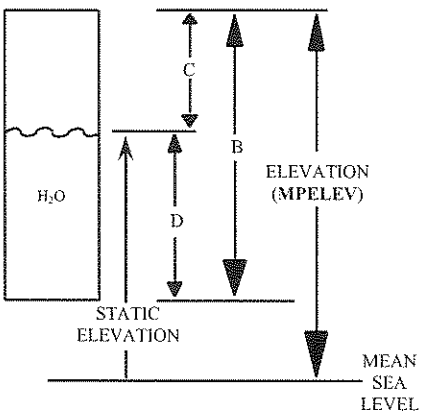
Measured Well Depth (B) (**TOTDEPTH**) 17.91 ft.

Measured Water Level Depth (C) (**STATDEP**) 11.28 ft.

Length of Static Water Column (D) = (B) 17.91 - (C) 11.28 = 6.63 (D) ft.

Casing Water Volume (E) = (A) ___ x (D) 6.63 = 1.06 gal

Minimum Purge Volume = 3.2 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty / petro odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1329	0.75	6.87	71	16.3	39	7.53	-85
1338	1.50	6.89	63	15.5	96	13.95	-87
		Bailed dry after 1.5 gallons					

Sample Time: 1405 Sample ID: BFSMO711NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB/JD

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSAMW-8 Well Diameter (**SDIAM**): 2

Date (**LOGDATE**): 9-21-06 Weather: rain / 60°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

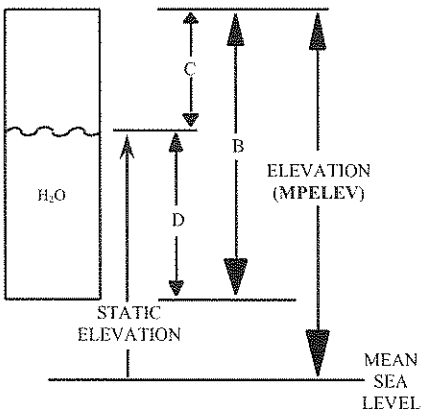
Measured Well Depth (B) (**TOTDEPTH**) 16.09 ft.

Measured Water Level Depth (C) (**STATDEP**) 7.86 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 8.23 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.3 gal

Minimum Purge Volume = 4.0 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: silty brown / petro odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1024	1	6.86	0.11	16.2	180	7.57	-102
1025	2	6.98	0.12	15.7	47	8.46	-105
1027	3	7.00	0.12	15.1	60	7.86	-106
1029	4	6.99	0.13	14.7	760	8.23	-103

Sample Time: 1035 Sample ID: BFSAMO808NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: JD DB

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSAMW-11 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9/21/06 Weather: Sunny, 60°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

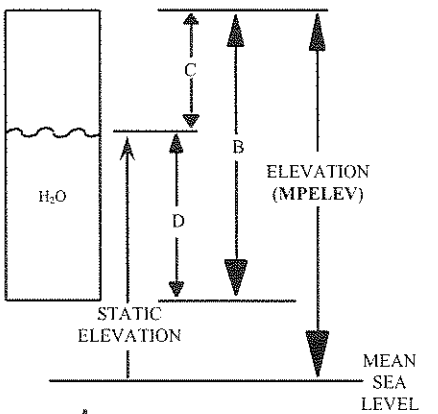
Measured Well Depth (B) (**TOTDEPTH**) 14.94 ft.

Measured Water Level Depth (C) (**STATDEP**) 7.75 ft.

Length of Static Water Column (D) = (B) 14.94 - (C) 7.75 = (D) 7.19 ft.

Casing Water Volume (E) = (A) 0.16 x (D) 7.19 = 1.15 gal

Minimum Purge Volume = 3.45 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: cloudy / no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1119	0.75	7.11	88	16.3	60	8.13	-17
1120	1.5	6.96	94	16.2	88	8.04	-16
1121	2.25	6.97	93	15.8	56	10.31	-19
1122	3.0	6.93	95	15.6	160	6.11	-23
1123	3.75	6.96	94	15.8	390	8.23	-31

Sample Time: 1125 Sample ID: BFSAMW11080NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / JD

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSAMW-15 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: rain / 50°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

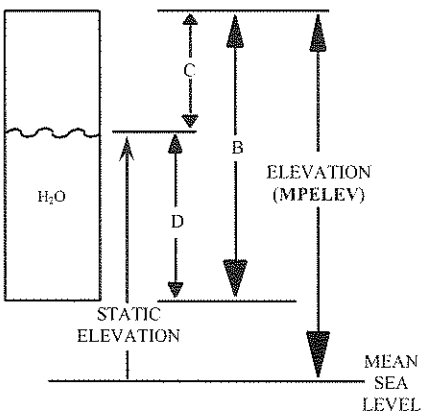
Measured Well Depth (B) (**TOTDEPTH**) 16.51 ft.

Measured Water Level Depth (C) (**STATDEP**) 10.03 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 6.48 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 1.03 gal

Minimum Purge Volume = 3.11 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: cloudy / petro odor / poor recharge

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1138	0.75	6.87	0.11	17.4	310	7.93	-57
1139	1.5	7.09	0.11	17.2	200	8.10	-83
1141	2.25	7.22	0.11	17.0	480	7.02	-95
1144	3.0	7.26	0.11	16.8	260	9.86	-99
1147	3.75	7.30	0.11	16.8	230	9.44	-100

Sample Time: 1155 Sample ID: BFSAM1510NA/NC/NS/ND

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / JD

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSARWT-1 Well Diameter (**SDIAM**): 4"

Date (**LOGDATE**): 9-21-06 Weather: sun / 50

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

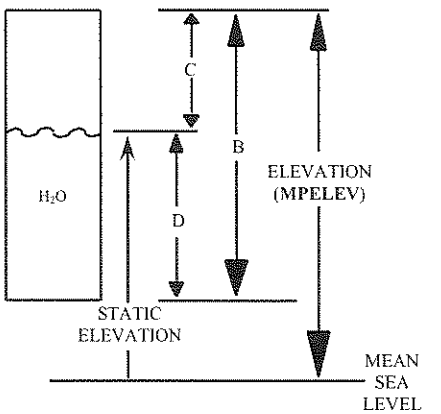
Measured Well Depth (B) (**TOTDEPTH**) 13.94 ft.

Measured Water Level Depth (C) (**STATDEP**) 7.73 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 6.21 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 4.03 gal

Minimum Purge Volume = 12 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: cloudy / petro odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1006	2.0	6.79	0.09	16.2	330	5.87	-99
1011	4.0	6.83	84	16.1	91	11.87	-104
		bailed	dry	after	5.25	gallons	

Sample Time: 1215 Sample ID: BFSRWT0108NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: RC JP

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSA-RWT2 Well Diameter (**SDIAM**): 4

Date (**LOGDATE**): 9-21-06 Weather: 70

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

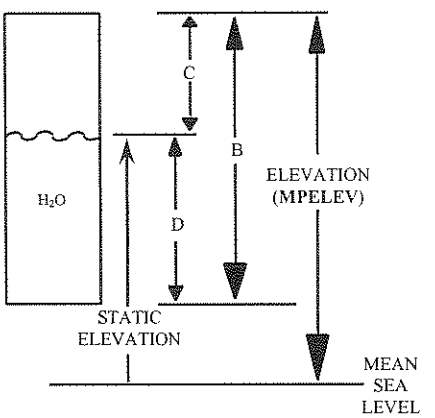
Measured Well Depth (B) (**TOTDEPTH**) 14.64 ft.

Measured Water Level Depth (C) (**STATDEP**) 9.13 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 5.51 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 3.5814 gal

Minimum Purge Volume = 10.744 gal (3 well volumes)



Purge Date and Method: Bailer

Physical Appearance/Comments: petro odor no sheen silty Brown

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1337	4	5.40	.135	16.4	>999	9.19	296
	Bailed	dry	@	4.5 gal			

Sample Time: 1418 Sample ID: BFSRWT0209NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: JD DB

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-BFSARWT-3 Well Diameter (**SDIAM**): 4"

Date (**LOGDATE**): 9/21/06 Weather: Sunny, 60's

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

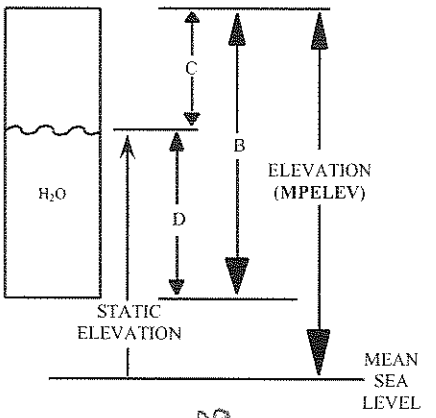
Measured Well Depth (B) (**TOTDEPTH**) 16.75 ft.

Measured Water Level Depth (C) (**STATDEP**) 10.80 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 5.95 (D) ft.

Casing Water Volume (E) = 0.65 (A) x 5.95 (D) = 3.87 gal

Minimum Purge Volume = 11.61 gal (3 well volumes)



Purge Date and Method: Bailer / Stainless DB 9-21-06

Physical Appearance/Comments: cloudy with no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1321	3	7.88	41	15.8	75	6.79	-66
1324	5	7.04	44	15.5	440	10.23	-44
	bailed dry @	after	5	20	gallons		

Sample Time: 1355 Sample ID: BFSARWT0311 NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: DB / SD

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): WL-MWBCF-3 Well Diameter (**SDIAM**): 2"

Date (**LOGDATE**): 9-21-06 Weather: Sun / 50s°F

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

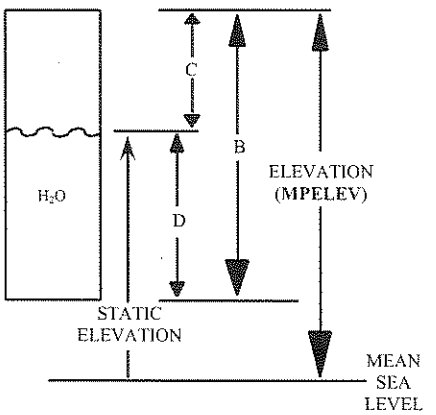
Measured Well Depth (B) (**TOTDEPTH**) 16.04 ft.

Measured Water Level Depth (C) (**STATDEP**) 9.82 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 6.22 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = 0.99 gal

Minimum Purge Volume = 2.98 gal (3 well volumes)



Purge Date and Method: Bailer / 9-21-06

Physical Appearance/Comments: clear to cloudy - no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (µS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1346	0.75	7.35	0.20	15.3	61	9.71	-77
1348	1.5	7.40	0.25	14.5	7999	11.43	-65
		bailed dry	after	1.75	gallons		

Sample Time: 1415 Sample ID: MWBCFD310NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: PC JP

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): wl-BFSAvmp-2m1 Well Diameter (**SDIAM**): 1

Date (**LOGDATE**): 9-21-06 Weather: 65

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

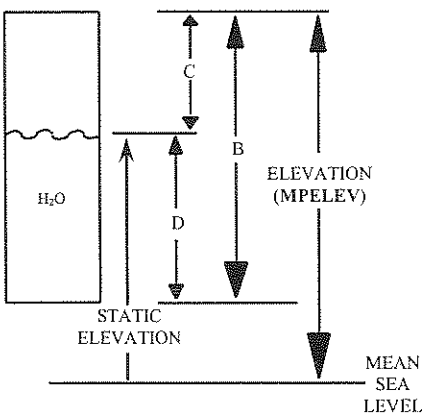
Measured Well Depth (B) (**TOTDEPTH**) 10.37 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.63 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 1.74 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = .0696 gal

Minimum Purge Volume = .2088 gal (3 well volumes)



Purge Date and Method: Bailer

Physical Appearance/Comments: S.I/by Brown petro odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1402	.05	6.27	.120	17.0	>999	9.08	173
1403	.10	6.59	.133	16.9	>999	5.56	141
1404	.15	6.60	.152	16.8	>999	5.67	141
1405	.20	6.70	.161	16.8	>999	5.20	141
1406	.25	6.77	.166	16.8	>999	5.08	140
1407	.30	6.70	.167	16.8	>999	5.60	143

Sample Time: 1410 Sample ID: BFSAvmp02m09 NA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 40-05-27 Sampled by: RC JP

Location and Site Code (**SITEID**): BFSA

Well No. (**LOCID**): w-BFSAUMP-3M Well Diameter (**SDIAM**): 1

Date (**LOGDATE**): 9-21-06 Weather: 65

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

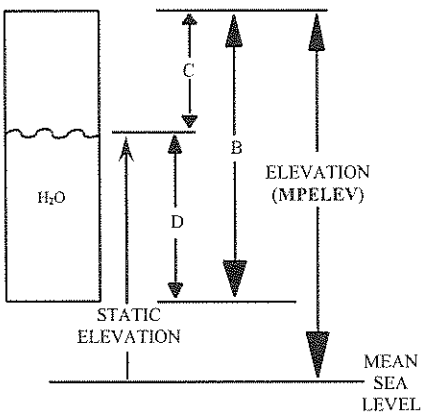
Measured Well Depth (B) (**TOTDEPTH**) 10.25 ft.

Measured Water Level Depth (C) (**STATDEP**) 8.07 ft.

Length of Static Water Column (D) = ____ (B) - ____ (C) = 2.18 (D) ft.

Casing Water Volume (E) = ____ (A) x ____ (D) = .6872 gal

Minimum Purge Volume = .261 gal (3 well volumes)



Purge Date and Method: Bailer

Physical Appearance/Comments: petro odor silty/ Brown

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1347	.05	6.10	71.7	17.3	767	7.37	260
1348	.10	6.32	69.3	17.0	>999	5.53	209
1349	.15	6.41	70.8	16.9	>999	6.06	179
	.20						
	.25						
	.30	Bailed	Dry	@ .17 gal			

Sample Time: 1424 Sample ID: BFSAUMP03M08 N/A

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

EQUIPMENT CALIBRATION LOG

Instrument Name: FPM #1

Model No.: Horiba U-22

Date and Time	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
9-12	4.00	4.00			
9-13	4.00	3.96	4.00	3.97	
9-14	4.00	3.95	4.00	4.00	
9-15	4.00	3.95	4.00	4.00	
9/18/06	4.00	3.94	4.00	3.98	Error 7, Recalibrate
9-18-06	4.00	4.00			
9/20/06	4.00	3.99			
9/21/06	4.00	3.97			
					!

FPM

EQUIPMENT CALIBRATION LOG

Instrument Name: FPM #2

Model No.: Horiba U-22

Date and Time	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
9-12	4.00	4.00			
9-13	4.00	4.00			
9-14	4.00	3.95	4.00	4.00	
9-15	4.00	3.99			
9/18/06	4.00	394	4.00	4.00	Std 7, Ran again.
9-19-06	4.00	4.00			
9/20/06	4.00	3.98	4.00	4.00	
9/21/06	4.00	3.98			

FPM

AFCEE
CHAIN OF CUSTODY RECORD (WO 0609016)

COC#: _1_ SDG#: _138_ Cooler ID: _A_

Ship to: Monika Santucci Life Science Laboratories, Inc. 5000 Brittonfield Pkwy, Suite 200 East Syracuse, NY 13057 Tel: (315)437-0200	Project Name: Griffiss AFB Building 15 Sampling Sampler Name: David Forse	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441
Carrier: LSL courier.	Sampler Signature: David Forse	Phone: (315) 336-7721 ext. 205

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL Vials (HCl)	SVOC Note 2 1 L Ambers	Comments
B15M0508LA	WL-B15MW-5	9/21	1445	WG	B	0/0	N	HCl	Unf.	3	3	-	
B15M0608LA	WL-B15MW-6	9/21	1505	WG	B	0/0	N	HCl	Unf.	3	3	-	
B15M1009LA	WL-B15MW-10	9/21	1559	WG	B	0/0	N	HCl	Unf.	3	3	-	
B15M1109LA	WL-B15MW-11	9/21	1625	WG	B	0/0	N	HCl	Unf.	3	3	-	
B15M1208LA	WL-B15MW-12	9/21	1525	WG	B	0/0	N	HCl	Unf.	3	3	-	

Sample Condition Upon Receipt at Laboratory: Cooler temperature:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 3.1
Note 1: VOCs: SW 8260 analysis for STARS List including MTBE.
Note 2: SVOCs: SW 8270 analysis for STARS List.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig) David Forse	Date: 9/21/06	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Group Ltd	Time: 16:40	Company Name:	Time:
#1 Received by: (Sig) Niels van Hoesel	Date: 9/21/06	#2 Received by: (Sig)	Date: 9/21/06	#3 Received by: (Sig)	Date:
Company Name: FPM Group Ltd	Time: 1000	Company Name: LSL	Time: 1659	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil
WS = Surface water

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split Spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

AFCEE
CHAIN OF CUSTODY RECORD (WO 0609014)

COC#: _2_ SDG#: _138_ Cooler ID: _A_

Ship to: Monika Santucci Life Science Laboratories, Inc. 5000 Brittonfield Pkwy, Suite 200 East Syracuse, NY 13057 Tel: (315)437-0200	Project Name: Griffiss AFB Site Building 101 sampling Sampler Name: Niels van Hoesel	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441
Carrier: LSL courier.	Sampler Signature:	Phone: (315) 336-7721 Ext 205

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)		Comments
101M0216RA	101MW-2	9/21	1450	WG	B	0/0	N	HCl	Unf.	3	3		

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 3.1

Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 9/21/06	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Group Ltd	Time: 16:50	Company Name:	Time:
#1 Received by: (Sig) Niels van Hoesel	Date: 9/21/06	#2 Received by: (Sig)	Date: 9/21/06	#3 Received by: (Sig)	Date:
Company Name: FPM Group Ltd	Time: 10200	Company Name: LSL	Time: 1650	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

AFCEE
CHAIN OF CUSTODY RECORD (WO 0609012)

COC#: _1_ SDG#: _137_ Cooler ID: _A_

Ship to: Monika Santucci Life Science Laboratories, Inc. 5000 Brittonfield Pkwy, Suite 200 East Syracuse, NY 13057 Tel: (315)437-0200	Project Name: Griffiss AFB Apron 2 Sampling Sampler Name: Daniel Baldyga	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441
Carrier: LSL courier.	Sampler Signature:	Phone: (315) 336-7721 ext. 205

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl	Comments
AP2MB4S17RA	WL-AP2MW-B4S	9/21	0915	WG	B	0/0	N	HCl	Unf.	3	3	
AP2MB4N18RA	WL-AP2MW-B4N	9/21	0925	WG	B	0/0	N	HCl	Unf.	3	3	

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:

Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 3.1
Note 1: VOCs: method SW 8260 (STARS List).
Note 2: SVOCs: method SW 8270 (STARS List).

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 9/21/06	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Group Ltd.	Time: 1649	Company Name:	Time:
#1 Received by: (Sig) Niels van Hoesel	Date: 9/21/06	#2 Received by: (Sig)	Date: 9/21/06	#3 Received by: (Sig)	Date:
Company Name: FPM Group Ltd.	Time: 1000	Company Name: LSL	Time: 1650	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil
WS - Surface water

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split Spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

AFCEE
CHAIN OF CUSTODY RECORD (WO 0609015)

COC#: _1_ SDG#: _138_ Cooler ID: _A_

Ship to: Monika Santucci Life Science Laboratories, Inc. 5000 Brittonfield Pkwy, Suite 200 East Syracuse, NY 13057 Tel: (315)437-0200	Project Name: Griffiss AFB BFSA Sampling Sampler Name: Peter Corigliano III Sampler Signature:	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441 Phone: (315) 336-7721 ext. 205
Carrier: LSL courier.		

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL Vial (HCl)	SVOCs Note 2 1L Amber	Comments
BFSM0305NA	WL-654-MW3	3/21	1100	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSM0711NA	WL-654-MW7	3/21	1405	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSM0808NA	WL-654-MW8	3/21	1035	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSAM1108NA	WL-BFSAMW-11	3/21	1125	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSAM1510NA	WL-BFSAMW-15	3/21	1155	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSAM1510NC	WL-BFSAMW-15	3/21	1155	WG	B	0/0	FD	HCl	Unf.	3	3	-	
BFSAM1510NS	WL-BFSAMW-15	3/21	1155	WG	B	0/0	MS	HCl	Unf.	3	3	-	
BFSAM1510ND	WL-BFSAMW-15	3/21	1155	WG	B	0/0	SD	HCl	Unf.	3	3	-	
BFSRWT0108NA	WL-BFSARWT-1	3/21	1215	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSRWT0209NA	WL-BFSARWT-2	3/21	1418	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSRWT0311NA	WL-BFSARWT-3	3/21	1355	WG	B	0/0	N	HCl	Unf.	3	3	-	
MWBCF0310NA	WL-MWBCF-3	3/21	1415	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSAVMP02M09NA	WL-BFSAVMP-2	3/21	1410	WG	B	0/0	N	HCl	Unf.	3	3	-	
BFSAVMP03M08NA	WL-BFSAVMP-3	3/21	1424	WG	B	0/0	N	HCl	Unf.	3	3	-	
092106NE	FIELDQC	3/21	0800	WQ	NA	0/0	EB	HCl	Unf.	3	3	-	SampleID was changed from 0925... to 0921...
092106NF	FIELDQC	3/21	1220	WQ	NA	0/0	AB	HCl	Unf.	3	3	-	SampleID was changed from 0925... to 0921...
092106NR	FIELDQC	3/21	0805	WQ	NA	0/0	TB	HCl	Unf.	3	3	-	SampleID was changed from 0925... to 0921...

Sample Condition Upon Receipt at Laboratory:	Cooler temperature:
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0 Note 1: VOCs: SW 8260 analysis for STARS List including MTBE. Note 2: SVOCs: SW 8270 analysis for STARS List including MTBE.	

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 9/21/06	#3 Released by: (Sig)	Date:
Company Name:	Time	Company Name: FPM Group Ltd	Time: 1650	Company Name:	Time:
#1 Received by: (Sig) Niels van Hoesel	Date: 9/21/06	#2 Received by: (Sig)	Date: 9/21/06	#3 Received by: (Sig)	Date:
Company Name: FPM Group Ltd	Time: 1000	Company Name:	Time: 16 [illegible]	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil
WS = Surface water

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split Spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Daily Health and Safety Meeting Form

Date: 9/21/06 *Time :* 0820

Location: FPM office (garage)

Weather Conditions: Overcast, 40's

Meeting Type: Daily Health and Safety

Personnel Present:
Justin Damann, Dan Baldwin, Jake Pratt

Visitors Present: —

Visitor Training:

PPE Required: Modified D

Possible risks, injuries, concerns:
Slip / Trip / fall, Heavy equipment.

Anticipated Releases to Environment (if so, describe and detail response action/control measures implemented):
None

Property Damage:

Description (include sequence of events describing step by step how incident happened):

Analysis for, and Implementation of Corrective/Preventative Procedure to Prevent Future Occurrences (to be formulated by SSHO + FOM, approved by PM, and SSHO implemented):

Report made by (Name): Justin Damann

SSHP Organization Title: Site Safety and Health Officer

Appendix B
Validated Data

FPM-GROUP
Data Verification and Usability Report
GRIFFISS AIR FORCE BASE
Site Griffiss AFB Building 101
Water Sampling
Contract No. DACW41-02-D-0020

FPM Project No. 40-05-27

STL Job # A06-5794

Laboratory:	STL Buffalo
Sample Matrix:	Water
Number of Samples:	2
Analytical Protocol:	AFCEE QAPP, Version 3.1, with AFCEE-approved lab variances
Data Reviewer:	Connie van Hoesel
Sample Date:	May 22, 2006

LIST OF DATA VERIFICATION SAMPLES

This verification report pertains to the following environmental samples and corresponding QC samples:

Sample ID	*Date*	*QC Samples*	*Date*
101M0216PA	5/22/06	052206PR	5/22/06

Notes:

Refer to attached chain-of-custody for detailed sampling information and sample specific analyses requested.

PA – Primary environmental samples

PR – Trip blank

DELIVERABLES

The data deliverable report was per requirements of the AFCEE QAPP 3.1 and approved variances. The report consisted of the following major sections: lab attachment letter, case narrative, chain-of-custody, lab qualifier definitions, analytical results (sheet 2) based on analytical batch, calibration summaries, method blank summaries, laboratory control sample summaries, matrix spike/matrix spike duplicate summaries, holding time forms, performance checks, surrogate and internal standard recoveries, as applicable.

ANALYTICAL METHODS

The analytical test methods and QA/QC requirements used for the soil sample analysis was per methods as specified in the AFCEE Quality Assurance Project Plan, Version 3.1 and AFCEE approved laboratory variances. The analytical methods employed included SW-846: Volatile Organic Compounds (VOC) by Method SW8260B (short list).

VERIFICATION GUIDANCE

The analytical work was performed by Severn Trent Laboratory in accordance with the Air Force Center for Environmental Excellence (AFCEE), Quality Assurance Project Plan (QAPP), Version 3.1, with AFCEE-approved laboratory variances. The data was verified according to the protocols and QC requirements of the respective analytical methods and of the QAPP Version 3.1. For data usability purposes all values were further evaluated, including positive and non-detect results that were qualified "R" (Rejected) according to QAPP. The data usability analysis was based on the reviewer's professional judgment and on an assessment of how this data would fare with respect to the U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic (and Inorganic) Data Review (February 1994), and the AFCEE QAPP, Version 3.1.

QA/QC CRITERIA

The following QA/QC criteria were reviewed, as applicable and available:

- Method detection limits and reporting limits (MDL, RL)
- Holding times, sample preservation and storage
- MS tune performance
- Initial and Continuing calibration summaries
- Second source calibration verification summary
- Method blanks
- Ambient, equipment, and trip blanks (as applicable)
- Field duplicate results
- Surrogate spike recoveries
- Internal standard areas counts and retention times

- Laboratory control samples (LCS)
- Results reported between MDL and RL (F-flag)
- Sample storage and preservation
- Data system printouts
- Qualitative and quantitative compound identification
- Chain-of-custody (COC)
- Case narrative and deliverables compliance

The items listed above were in compliance with AFCEE QAPP and USEPA criteria and protocols with exceptions discussed in the text below. The data have been verified according to the procedures outlined above and qualified accordingly.

GENERAL NOTES:

MISSING SAMPLES

None. All samples documented on the chain of custody were received by the laboratory.

SAMPLE LABELING

No problems were encountered with sample labeling and transcription to laboratory forms.

BLANKS

Whenever blanks, including method, ambient, equipment, and trip, contained low levels of contaminants (between MDL and RL), the laboratory and/or data verifier qualified the subject results with an "F" flag. Since no qualification of associated field samples are required for blanks less than the RL, no further action was taken in such instances.

VOLATILE ORGANIC COMPOUNDS (VOCs)

- There were no exceedances for VOCs.

DATA USABILITY RESULTS

VOCs

Based on the evaluation of all information in the analytical data groups, the results of the samples for VOCs are highly usable with the data qualifiers as noted. Using the verification approach as presented above, the results for all above samples are 100% usable.

AFCEE SUMMARY

All data in Job # A06-5794 are valid and usable with qualifications as noted in the data review.

Signed: Concordia van Hoesel Date: 5/30/06

ATTACHMENTS

- Chain-of-Custody
- Laboratory's Case Narrative
- Definition of AFCEE Data Qualifiers
- Definition of USEPA Data Qualifiers
- Qualified final data verification results on annotated Lab Sheet 2s

AFCEE
ORGANIC ANALYSES DATA PACKAGE

Analytical Method: 8260-A98

AAB #: A6B19728

Lab Name: STL Buffalo

Contract #: _____

Base/Command: Griffiss Airforce Base

Prime Contractor: Fanning, Phillips & Molna

Field Sample ID	Lab Sample ID
052206PR	A6579402
101M0216PA	A6579401

Comments:

See Case Narrative

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: John Schove

Date: 5/25/06

Title: Operations Manager

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: 8260-A98 Preparatory Method: SW5030 AAB #: A6B19728

Lab Name: STL Buffalo Contract #: _____

Field Sample ID: 052206PR Lab Sample ID: A6579402 Matrix: WATER

% Solids: _____ Initial Calibration ID: A6I0001539

Date Received: 23-May-2006 Date Prepared: 24-May-2006 Date Analyzed: 24-May-2006

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
TETRACHLOROETHYLENE(PCE)	0.19	0.50	0.19	1.00	N/A	U
TRICHLOROETHYLENE (TCE)	0.23	0.50	0.23	1.00	N/A	U
VINYL CHLORIDE	0.26	0.50	0.26	1.00	N/A	U
CHLOROFORM	0.26	0.50	0.26	1.00	N/A	U
cis-1,2-DICHLOROETHYLENE	0.32	1.0	0.32	1.00	N/A	U
trans-1,2-DICHLOROETHENE	0.38	1.0	0.38	1.00	N/A	U

Surrogate	Recovery	Control Limits	Qualifier
TOLUENE-D8	102	81 - 120	
1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE	103	76 - 119	
1,2-DICHLOROETHANE-d4	110	72 - 119	
DIBROMOFLUOROMETHANE	105	85 - 115	

OK
5/30/06

Internal Std	Area Counts	Area Count Limits	Qualifier
FLUOROBENZENE	1822073	899311 - 3597244	
CHLOROBENZENE-d5	746946	356477 - 1425906	
1,4-DICHLOROBENZENE-d4	597661	286499 - 1145996	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: 8260-A98 Preparatory Method: SW5030 AAB #: A6B19728

Lab Name: STL Buffalo Contract #: _____

Field Sample ID: 101M0216PA Lab Sample ID: A6579401 Matrix: WATER

% Solids: _____ Initial Calibration ID: A610001539

Date Received: 23-May-2006 Date Prepared: 24-May-2006 Date Analyzed: 24-May-2006

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
TETRACHLOROETHYLENE(PCE)	0.19	0.50	0.19	1.00	N/A	U
TRICHLOROETHYLENE (TCE)	0.23	0.50	1.7	1.00	N/A	
VINYL CHLORIDE	0.26	0.50	0.26	1.00	N/A	U
CHLOROFORM	0.26	0.50	0.58	1.00	N/A	
cis-1,2-DICHLOROETHYLENE	0.32	1.0	11	1.00	N/A	
trans-1,2-DICHLOROETHENE	0.38	1.0	0.38	1.00	N/A	U

Surrogate	Recovery	Control Limits	Qualifier
TOLUENE-D8	101	81 - 120	
1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE	104	76 - 119	
1,2-DICHLOROETHANE-d4	108	72 - 119	
DIBROMOFLUOROMETHANE	104	85 - 115	

CWS 5/30/06

Internal Std	Area Counts	Area Count Limits	Qualifier
FLUOROBENZENE	1784795	899311 - 3597244	
CHLOROBENZENE-d5	732038	356477 - 1425906	
1,4-DICHLOROBENZENE-d4	608472	286499 - 1145996	

Comments:

FPM-GROUP
Data Verification and Usability Report
GRIFFISS AIR FORCE BASE
Site Griffiss AFB Building 101
Water Sampling
Contract No. F41624-03-D-8601

FPM Project No. 40-05-27

LSL Job # 0609014

Laboratory:	Life Sciences Laboratories, Inc.
Sample Matrix:	Water
Number of Samples:	1
Analytical Protocol:	AFCEE QAPP, Version 4.0, with AFCEE-approved lab variances
Data Reviewer:	Connie van Hoesel
Sample Date:	September 21, 2006

LIST OF DATA VERIFICATION SAMPLES

This verification report pertains to the following environmental samples and corresponding QC samples:

Sample ID	*Date*	*QC Samples*	*Date*
101M0216RA	9/21/06		

Notes:

Refer to attached chain-of-custody for detailed sampling information and sample specific analyses requested.

RA – Primary environmental samples

DELIVERABLES

The data deliverable report was per requirements of the AFCEE QAPP 4.0 and approved variances. The report consisted of the following major sections: lab attachment letter, case narrative, chain-of-custody, lab qualifier definitions, analytical results (sheet 2) based on analytical batch, calibration summaries, method blank summaries, laboratory control sample summaries, matrix spike/matrix spike duplicate summaries, holding time forms, performance checks, surrogate and internal standard recoveries, as applicable.

ANALYTICAL METHODS

The analytical test methods and QA/QC requirements used for the soil sample analysis was per methods as specified in the AFCEE Quality Assurance Project Plan, Version 4.0 and AFCEE approved laboratory variances. The analytical methods employed included SW-846: Volatile Organic Compounds (VOC) by Method SW8260B (short list).

VERIFICATION GUIDANCE

The analytical work was performed by Life Sciences Laboratories, Inc. in accordance with the Air Force Center for Environmental Excellence (AFCEE), Quality Assurance Project Plan (QAPP), Version 4.0, with AFCEE-approved laboratory variances. The data was verified according to the protocols and QC requirements of the respective analytical methods and of the QAPP Version 4.0. For data usability purposes all values were further evaluated, including positive and non-detect results that were qualified "R" (Rejected) according to QAPP. The data usability analysis was based on the reviewer's professional judgment and on an assessment of how this data would fare with respect to the U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for Organic (and Inorganic) Data Review (February 1994), and the AFCEE QAPP, Version 4.0.

QA/QC CRITERIA

The following QA/QC criteria were reviewed, as applicable and available:

- Method detection limits and reporting limits (MDL, RL)
- Holding times, sample preservation and storage
- MS tune performance
- Initial and Continuing calibration summaries
- Second source calibration verification summary
- Method blanks
- Ambient, equipment, and trip blanks (as applicable)
- Field duplicate results
- Surrogate spike recoveries
- Internal standard areas counts and retention times

- Laboratory control samples (LCS)
- Results reported between MDL and RL (F-flag)
- Sample storage and preservation
- Data system printouts
- Qualitative and quantitative compound identification
- Chain-of-custody (COC)
- Case narrative and deliverables compliance

The items listed above were in compliance with AFCEE QAPP and USEPA criteria and protocols with exceptions discussed in the text below. The data have been verified according to the procedures outlined above and qualified accordingly.

GENERAL NOTES:

MISSING SAMPLES

None. All samples documented on the chain of custody were received by the laboratory.

SAMPLE LABELING

No problems were encountered with sample labeling and transcription to laboratory forms.

BLANKS

Whenever blanks, including method, ambient, equipment, and trip, contained low levels of contaminants (between MDL and RL), the laboratory and/or data verifier qualified the subject results with an "F" flag. Since no qualification of associated field samples are required for blanks less than the RL, no further action was taken in such instances.

VOLATILE ORGANIC COMPOUNDS (VOCs)

- There were no exceedances for VOCs.

DATA USABILITY RESULTS

VOCs

Based on the evaluation of all information in the analytical data groups, the results of the samples for VOCs are highly usable with the data qualifiers as noted. Using the verification approach as presented above, the results for all above samples are 100% usable.

AFCEE SUMMARY

All data in Job # 0609014 are valid and usable with qualifications as noted in the data review.

Signed: Concordia van Hoesel Date: 11/2/06

ATTACHMENTS

- Chain-of-Custody
- Laboratory's Case Narrative
- Definition of AFCEE Data Qualifiers
- Definition of USEPA Data Qualifiers
- Qualified final data verification results on annotated Lab Sheet 2s

Analytical Results

AFCEE
ORGANIC ANALYSES DATA PACKAGE

Analytical Method: SW8260B

AAB #: R6723

Lab Name: Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor: FPM Group

Field Sample ID	Lab Sample ID
101M0216RA	0609014-001A

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager's designee, as verified by the following signature.

Signature: Monika Santucci Name: Monika Santucci

Date: 10/25/06 Title: Project Manager

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: SW8260B **Preparatory Method:** **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Field Sample ID: 101M0216RA **Lab Sample ID:** 0609014-001A **Matrix:** Groundwater

% Solids: 0 **Initial Calibration ID:** 664 **File ID:** T4804.D

Date Received: 22-Sep-06 **Date Extracted:** **Date Analyzed:** 25-Sep-06

Concentration Units (ug/L or mg/Kg dry weight): ug/L **Sample Size:** 10 mL

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Chloroform	0.0290	0.50	0.0290	1	U
cis-1,2-Dichloroethene	0.0320	1.0	15.5	1	
Tetrachloroethene	0.0300	1.0	0.0300	1	U
trans-1,2-Dichloroethene	0.0270	1.0	0.0270	1	U
Trichloroethene	0.0270	1.0	0.730	1	F
Vinyl chloride	0.0380	1.0	0.330	1	F

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	107	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	106	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	415710	235363 - 941452	
Chlorobenzene-d5	542358	278570 - 1114278	
Fluorobenzene	1176989	589584 - 2358336	

Comments:

Appendix C
Raw Lab Data

SEVERN TRENT STL

RECEIVED
5/30/06

STL Buffalo
10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A06-5794

STL Project#: NY8A786710
Site Name: Griffiss Air Force Base
Task: Griffiss AFB Site Building 101 Sampling

Mr. Gaby A. Atik
FPM Engineering Group, PC
153 Brooks Road
Rome, NY 13441

STL Buffalo

Mark A. Nemec
Project Manager

05/25/2006

Case Narrative

SAMPLE SUMMARY

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	SAMPLED DATE	SAMPLED TIME	RECEIVED DATE	RECEIVED TIME
A6579402	052206PR	WATER	05/22/2006	13:30	05/23/2006	09:10
A6579401	101M0216PA	WATER	05/22/2006	14:00	05/23/2006	09:10

METHODS SUMMARY

Job#: A06-5794

STL Project#: NY8A786710
Site Name: Griffiss Air Force Base

PARAMETER	ANALYTICAL METHOD
AFCEE - METHOD 8260 - Modified List	SW8463 8260-A98

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

NON-CONFORMANCE SUMMARY

Job#: A06-5794

STL Project#: NY8A786710
Site Name: Griffiss Air Force Base

General Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-5794
Sample Cooler(s) were received at the following temperature(s); 2.0 °C
All samples were received in good condition.

GC/MS Volatile Data

Initial calibration standard curve A6I0001539 exhibited the %RSD of the compound Tetrachloroethylene (PCE) as greater than 15%. However, the mean RSD of all compounds is 11.65%.

All samples were preserved to a pH less than 2.

****

Chain Of Custody Documentation

AFCEE
CHAIN OF CUSTODY RECORD (AC 61815)

COC#: _2_ SDG#: _124_ Cooler ID: _A_

Ship to: Mark Nemec Severn Trent Laboratories 10 Hazelwood Drive, Suite 106 Amherst, NY 14228-2298 Tel: (716) 691-2600	Project Name: Griffiss AFB Site Building 101 sampling Sampler Name: Niels van Hoesel	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441 Phone: (315) 336-7721 Ext 205
Carrier: STL courier.	Sampler Signature:	

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)		Comments
101M02~~16~~PA	101MW-2	5/22	1400	WG	B	0/0	N	HCl	Unf.	3	3		
052206PR	FIELDQC	5/22	1330	WQ	NA	0/0	TB	HCl	Unf.	3	3		

Sample Condition Upon Receipt at Laboratory:	Cooler Temperature: 2.0°C
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 3.1	
Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.	

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 5/22/06	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Group Ltd	Time: 1700	Company Name:	Time:
#1 Received by: (Sig) Niels van Hoesel	Date: 3/15/06	#2 Received by: (Sig)	Date: 5/23/06	#3 Received by: (Sig)	Date:
Company Name: FPM Group Ltd	Time: 10200	Company Name: STL Buffalo	Time: 0910	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Job No: A06-5794
Client: F P M Engineering Group, PC
Project: NY8A786710
SDG:
Case:
SMO No:
No. Samps: 2

Radiation Check: YES
Custody Seal: YES
Chain of Custody: YES
Sample Tags: NO
Sample Tag Numbers: NO
SMO Forms: NO
CLSIS: NO

Cooler Temperature: 2.0°C

Sample	Receive	Client Sample ID	Lab ID	Condition	Bottles	Parameters	Lab	Pres log Code	Pres log PH
05/22/2006 14:00	05/23/2006 09:10	101M0216PA	A6579401	Good	3-40mlV	8260	RECNY	0103	<2
05/22/2006 13:30	05/23/2006 09:10	052206PR	A6579402	Good	3-40mlV	8260	RECNY	0103	<2

ample Custodian: 05/23/2006

Analytical Services Coordinator: _____ /20

Preservation Code References:

First Digit: Sample Filtration; 1=Filtered, 0=Unfiltered
Second Digit: Sample Requires Cooling; (4°) 1=Cooled, 0=Not Cooled

Third, Fourth Digits - Preservation Types:
00=Nothing added, 01=HNO3, 02=H2SO4, 03=HCl, 04=Sodium Thiosulfate
05=NaOH, 06=NaOH+Zinc Acetate, 07=Sodium Thiosulfate+HCl, 08=MeOH
09=MCAA (Mono chloroacetic acid)

8/29

Method 8260 Data

AFCEE
ORGANIC ANALYSES DATA PACKAGE

Analytical Method: 8260-A98

AAB #: A6B19728

Lab Name: STL Buffalo

Contract #: _____

Base/Command: Griffiss Airforce Base

Prime Contractor: Fanning, Phillips & Molna

Field Sample ID	Lab Sample ID
052206PR	A6579402
101M0216PA	A6579401

Comments:

See Case Narrative

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: John Schove

Date: 5/25/06

Title: Operations Manager

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: 8260-A98 Preparatory Method: SW5030 AAB #: A6B19728

Lab Name: STL Buffalo Contract #: _____

Field Sample ID: 052206PR Lab Sample ID: A6579402 Matrix: WATER

% Solids: _____ Initial Calibration ID: A6I0001539

Date Received: 23-May-2006 Date Prepared: 24-May-2006 Date Analyzed: 24-May-2006

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
TETRACHLOROETHYLENE(PCE)	0.19	0.50	0.19	1.00	N/A	U
TRICHLOROETHYLENE (TCE)	0.23	0.50	0.23	1.00	N/A	U
VINYL CHLORIDE	0.26	0.50	0.26	1.00	N/A	U
CHLOROFORM	0.26	0.50	0.26	1.00	N/A	U
cis-1,2-DICHLOROETHYLENE	0.32	1.0	0.32	1.00	N/A	U
trans-1,2-DICHLOROETHENE	0.38	1.0	0.38	1.00	N/A	U

Surrogate	Recovery	Control Limits	Qualifier
TOLUENE-D8	102	81 - 120	
1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE	103	76 - 119	
1,2-DICHLOROETHANE-d4	110	72 - 119	
DIBROMOFLUOROMETHANE	105	85 - 115	

OK
5/30/06

Internal Std	Area Counts	Area Count Limits	Qualifier
FLUOROBENZENE	1822073	899311 - 3597244	
CHLOROBENZENE-d5	746946	356477 - 1425906	
1,4-DICHLOROBENZENE-d4	597661	286499 - 1145996	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: 8260-A98 Preparatory Method: SW5030 AAB #: A6B19728

Lab Name: STL Buffalo Contract #: _____

Field Sample ID: 101M0216PA Lab Sample ID: A6579401 Matrix: WATER

% Solids: _____ Initial Calibration ID: A610001539

Date Received: 23-May-2006 Date Prepared: 24-May-2006 Date Analyzed: 24-May-2006

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	MDL	RL	Concentration	Dilution	Confirm	Qualifier
TETRACHLOROETHYLENE(PCE)	0.19	0.50	0.19	1.00	N/A	U
TRICHLOROETHYLENE (TCE)	0.23	0.50	1.7	1.00	N/A	
VINYL CHLORIDE	0.26	0.50	0.26	1.00	N/A	U
CHLOROFORM	0.26	0.50	0.58	1.00	N/A	
cis-1,2-DICHLOROETHYLENE	0.32	1.0	11	1.00	N/A	
trans-1,2-DICHLOROETHENE	0.38	1.0	0.38	1.00	N/A	U

Surrogate	Recovery	Control Limits	Qualifier
TOLUENE-D8	101	81 - 120	
1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE	104	76 - 119	
1,2-DICHLOROETHANE-d4	108	72 - 119	
DIBROMOFLUOROMETHANE	104	85 - 115	

CWS 5/30/06

Internal Std	Area Counts	Area Count Limits	Qualifier
FLUOROBENZENE	1784795	899311 - 3597244	
CHLOROBENZENE-d5	732038	356477 - 1425906	
1,4-DICHLOROBENZENE-d4	608472	286499 - 1145996	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION

Analytical Method: 8260-A98 AAB #: A6B19728

Lab Name: STL Buffalo Contract: _____

Instrument ID: HP5973P Date of Calibration: 24-May-2006

Calibration ID: A610001539 Concentration Units: ng

Analyte	Std 1	RF 1	Std 2	RF 2	Std 3	RF 3	Std 4	RF 4	Std 5	RF 5	% RSD	Q
VINYL CHLORIDE	12.5	0.255	100.0	0.248	250.0	0.300	500.0	0.280	1000.0	0.277	7.600	
cis-1,2-DICHLOROETHYLENE	12.5	0.210	100.0	0.283	250.0	0.295	500.0	0.278	1000.0	0.264	12.500	
trans-1,2-DICHLOROETHENE	12.5	0.201	100.0	0.273	250.0	0.285	500.0	0.264	1000.0	0.258	12.600	
CHLOROFORM	12.5	0.384	100.0	0.462	250.0	0.485	500.0	0.462	1000.0	0.451	8.500	
TRICHLOROETHYLENE (TCE)	12.5	0.199	100.0	0.281	250.0	0.302	500.0	0.285	1000.0	0.275	15.000	
TETRACHLOROETHYLENE(PCE)	12.5	0.412	100.0	0.646	250.0	0.699	500.0	0.633	1000.0	0.614	18.300	

Comments:

Response Factor Report HP5973 P

Method : C:\MSDCHEM\1\METHODS\AFCEE\A6I001539.M (RTE Integrator)
Title : 8260 25ML AFCEE
Last Update : Wed May 24 07:53:35 2006
Response via : Initial Calibration

(A6I..1539) AFCEE 25mL

Calibration Files
1 =P1111.D 2 =P1110.D 3 =P1109.D
4 =P1108.D 5 =P1107.D

			Compound	1	2	3	4	5	Avg	%RSD
1)	I	CI99	Fluorobenzene	----------ISTD----------						
2)	M	C290	Dichlorodifluor	0.108	0.112	0.135	0.132	0.133	0.124	10.37
3)	M	C010	Chloromethane	0.292	0.230	0.263	0.242	0.256	0.257	9.12
4)	M	C020	Vinyl chloride	0.255	0.248	0.300	0.280	0.277	0.272	7.65
5)	M	C015	Bromomethane	0.149	0.160	0.177	0.158	0.144	0.158	8.08
6)	M	C025	Chloroethane	0.218	0.210	0.236	0.213	0.192	0.214	7.47
7)	M	C275	Trichlorofluoro	0.342	0.347	0.415	0.394	0.396	0.379	8.53
8)	T	C291	1,1,2-Trichloro	0.134	0.198	0.235	0.211	0.206	0.197	19.19
9)	M	C045	1,1-Dichloroeth	0.140	0.221	0.240	0.219	0.212	0.206	18.64
10)	T	C255	Methyl Acetate	0.095	0.100	0.105	0.104	0.101	0.101	3.72
11)	M	C030	Methylene chlor	0.236	0.226	0.232	0.223	0.214	0.226	3.81
12)	T	C040	Carbon disulfid	0.548	0.733	0.885	0.810	0.806	0.756	16.97
13)	T	C036	Acrolein	0.014	0.018	0.021	0.021	0.021	0.019	15.54
14)	T	C038	Acrylonitrile	0.046	0.048	0.052	0.052	0.049	0.049	5.05
15)	M	C035	Acetone	0.027	0.026	0.027	0.028	0.027	0.027	3.45
16)	T	C300	Acetonitrile	0.010	0.009	0.010	0.012	0.011	0.010	8.76
17)	T	C276	Iodomethane	0.303	0.383	0.449	0.429	0.423	0.397	14.55
18)	M	C962	T-butyl Methyl	0.352	0.379	0.419	0.418	0.386	0.391	7.22
19)	M	C057	trans-1,2-Dichl	0.201	0.273	0.284	0.264	0.258	0.256	12.56
20)	M	C050	1,1-Dichloroeth	0.476	0.657	0.687	0.645	0.632	0.619	13.33
21)	T	C125	Vinyl Acetate	0.262	0.291	0.318	0.318	0.297	0.297	7.79
22)	M	C051	2,2-Dichloropro	0.246	0.369	0.405	0.384	0.381	0.357	17.69
23)	M	C056	cis-1,2-Dichlor	0.210	0.283	0.295	0.278	0.264	0.266	12.50
24)	T	C272	Tetrahydrofuran	0.032	0.033	0.036	0.037	0.034	0.034	5.87
25)	M	C222	Bromochlorometh	0.073	0.088	0.089	0.090	0.086	0.085	8.25
26)	M	C060	Chloroform	0.384	0.462	0.485	0.462	0.451	0.449	8.47
27)	T	C256	Cyclohexane	0.467	0.695	0.825	0.747	0.740	0.695	19.55
28)	S	CS87	Dibromofluoromt	0.253	0.249	0.254	0.265	0.257	0.256	2.24
29)	M	C115	1,1,1-Trichloro	0.256	0.403	0.442	0.418	0.415	0.387	19.21
30)	M	C120	Carbon tetrachl	0.187	0.310	0.346	0.333	0.334	0.302	21.66
31)	M	C116	1,1-Dichloropro	0.183	0.234	0.250	0.255	0.245	0.234	12.44
32)	S	CS15	1,2-Dichloroeth	0.243	0.237	0.247	0.256	0.249	0.246	2.89
33)	M	C165	Benzene	0.774	1.035	1.089	1.021	0.963	0.977	12.45
34)	M	C065	1,2-Dichloroeth	0.245	0.280	0.294	0.288	0.278	0.277	6.95
35)	M	C110	2-Butanone	0.044	0.049	0.052	0.054	0.053	0.050	7.92
36)	M	C150	Trichloroethene	0.198	0.281	0.302	0.285	0.275	0.268	15.05
37)	M	C140	1,2-Dichloropro	0.249	0.320	0.330	0.313	0.284	0.299	10.93
38)	M	C278	Dibromomethane	0.075	0.082	0.088	0.089	0.087	0.084	7.09
39)	T	C012	Methylcyclohexa	0.276	0.399	0.457	0.406	0.377	0.383	17.36
40)	M	C130	Bromodichlorome	0.205	0.270	0.287	0.290	0.286	0.268	13.48
41)	T	C161	2-Chloroethylvi	0.086	0.101	0.112	0.111	0.100	0.102	10.00
42)	M	C230	Toluene	0.536	0.686	0.713	0.665	0.627	0.645	10.64
43)	M	C170	trans-1,3-Dichl	0.183	0.234	0.250	0.255	0.245	0.234	12.44
44)	M	C160	1,1,2-Trichloro	0.084	0.102	0.106	0.107	0.102	0.100	9.58
45)	M	C145	cis-1,3-Dichlor	0.233	0.309	0.341	0.338	0.325	0.309	14.31
46)	I	CI20	Chlorobenzene-D	----------ISTD----------						
47)	S	CS05	Toluene-D8	2.654	2.577	2.712	2.701	2.556	2.640	2.69
48)	T	C284	Ethyl Methacryl	0.273	0.354	0.408	0.419	0.402	0.371	16.18
49)	M	C220	Tetrachloroethe	0.412	0.646	0.699	0.633	0.614	0.601	18.32
50)	M	C221	1,3-Dichloropro	0.476	0.529	0.554	0.543	0.504	0.521	6.01
51)	M	C155	Dibromochlorome	0.258	0.329	0.379	0.393	0.399	0.351	16.74

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

Response Factor Report HP5973 P

Method : C:\MSDCHEM\1\METHODS\AFCEE\A6I001539.M (RTE Integrator)
Title : 8260 25ML AFCEE
Last Update : Wed May 24 07:53:35 2006
Response via : Initial Calibration

Calibration Files
1 =P1111.D 2 =P1110.D 3 =P1109.D
4 =P1108.D 5 =P1107.D

		Compound		1	2	3	4	5	Avg	%RSD
52)	M	C163	1,2-Dibromoetha	0.246	0.288	0.311	0.318	0.314	0.295	10.20
53)	T	C215	2-Hexanone	0.171	0.191	0.209	0.203	0.174	0.190	8.99
54)	M	C235	Chlorobenzene	1.292	1.634	1.761	1.681	1.624	1.598	11.25
55)	M	D001	1-Chlorohexane	0.612	0.695	0.963	0.956	0.887	0.822	19.48
56)	M	C281	1,1,1,2-Tetrach	0.366	0.511	0.564	0.546	0.524	0.502	15.69
57)	M	C240	Ethylbenzene	2.239	3.140	3.400	3.139	2.993	2.982	14.77
58)	M	C246	m,p-Xylene	0.888	1.216	1.294	1.168	1.077	1.129	13.79
59)	M	C247	o-Xylene	0.888	1.151	1.229	1.114	1.024	1.081	12.11
60)	M	C245	Styrene	1.304	1.778	1.881	1.737	1.599	1.660	13.44
61)	M	C180	Bromoform	0.101	0.139	0.167	0.179	0.187	0.155	22.67
62)	S	CS10	p-Bromofluorobe	0.640	0.625	0.685	0.681	0.651	0.656	3.99
63)	I	CI30	1,4-Dichloroben	----------	ISTD	----------				
64)	M	C210	4-Methyl-2-pent	0.338	0.364	0.403	0.403	0.388	0.379	7.39
65)	M	C966	Isopropylbenzen	2.654	3.901	4.264	3.838	3.707	3.673	16.49
66)	M	C301	Bromobenzene	0.622	0.762	0.820	0.780	0.755	0.748	9.98
67)	M	C225	1,1,2,2-Tetrach	0.316	0.382	0.408	0.420	0.405	0.386	10.75
68)	M	C282	1,2,3-Trichloro	0.099	0.106	0.113	0.111	0.107	0.107	5.05
69)	T	C283	t-1,4-Dichloro-	0.104	0.123	0.147	0.151	0.146	0.134	14.79
70)	M	C302	n-Propylbenzene	3.316	4.690	5.121	4.672	4.512	4.462	15.23
71)	M	C303	2-Chlorotoluene	0.673	0.878	0.945	0.876	0.834	0.841	12.13
72)	M	C289	4-Chlorotoluene	0.680	0.887	0.959	0.882	0.870	0.856	12.16
73)	M	C304	1,3,5-Trimethyl	2.404	3.221	3.528	3.217	3.083	3.090	13.49
74)	M	C306	tert-Butylbenze	0.469	0.673	0.737	0.653	0.623	0.631	15.81
75)	M	C307	1,2,4-Trimethyl	2.391	3.219	3.507	3.216	3.084	3.083	13.52
76)	M	C308	sec-Butylbenzen	2.767	3.907	4.307	3.886	3.708	3.715	15.43
77)	M	C260	1,3-Dichloroben	1.309	1.602	1.750	1.640	1.573	1.575	10.36
78)	M	C309	4-Isopropyltolu	2.411	3.332	3.669	3.294	3.111	3.164	14.74
79)	M	C267	1,4-Dichloroben	1.328	1.557	1.690	1.611	1.541	1.545	8.71
80)	M	C249	1,2-Dichloroben	1.062	1.315	1.425	1.366	1.305	1.295	10.69
81)	M	C310	n-Butylbenzene	2.344	3.195	3.557	3.211	3.045	3.071	14.56
82)	M	C286	1,2-Dibromo-3-C	0.044	0.056	0.064	0.069	0.069	0.060	17.90
83)	M	C313	1,2,4-Trichloro	0.693	0.842	0.930	0.891	0.828	0.837	10.77
84)	M	C316	Hexachlorobutad	0.494	0.442	0.471	0.407	0.357	0.434	12.43
85)	M	C314	Naphthalene	1.114	1.259	1.405	1.419	1.352	1.310	9.64
86)	M	C934	1,2,3-Trichloro	0.579	0.649	0.722	0.690	0.645	0.657	8.20

Total Average %RSD 11.65

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

AFCEE
ORGANIC ANALYSES DATA SHEET 4
CALIBRATION VERIFICATION

Analytical Method: 8260-A98 AAB #: A6B19728

Lab Name: STL Buffalo Contract: _____

Instrument ID: HP5973P Date of Calibration: 24-May-2006 Calibration ID: A6I0001539

2nd Source ID: A6S0000047 CCV #1 ID: A6C0004740 CCV #2 ID: _____

Concentration Units: ng

Analyte	2nd Source Calibration			Continuing Calibration Verification					Q
	Expected	Found	% D	Expected 1	Found 1	% D	Found 2	% D	
VINYL CHLORIDE	250.00	243	-2.8	250.00	276	10.4			
cis-1,2-DICHLOROETHYLENE	250.00	235	-6.0	250.00	277	10.8			
trans-1,2-DICHLOROETHENE	250.00	244	-2.4	250.00	278	11.2			
CHLOROFORM	250.00	230	-8.0	250.00	270	8.0			
TRICHLOROETHYLENE (TCE)	250.00	237	-5.2	250.00	282	12.8			
TETRACHLOROETHYLENE(PCE)	250.00	236	-5.6	250.00	291	16.4			

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 5
SPCC AND CCC CALIBRATION

Analytical Method: 8260-A98 AAB #: A6B19728

Lab Name: STL Buffalo Contract: _____

Instrument ID: HP5973P Date of Calibration: 18-May-2006

SPCC #1 ID: A6I0001518 SPCC #2 ID: A6C0004740 SPCC #3 ID: _____

CCC #1 ID: A6C0004740 CCC #2 ID: _____ Concentration Units: ng

Analyte	SPCC #1		SPCC #2		SPCC #3		CCC #1			CCC #2			Q
	RF	Min RF	RF	Min RF	RF	Min RF	Expected	Found	% D	Expected	Found	% D	
CHLOROMETHANE	0.3190	0.1000	0.2635	0.1000									
VINYL CHLORIDE							250.00	276	10.4				
1,1-DICHLOROETHENE							250.00	291	16.4				
1,1-DICHLOROETHANE	0.5800	0.1000	0.6866	0.1000									
CHLOROFORM							250.00	270	8.0				
1,2-DICHLOROPROPANE							250.00	276	10.4				
BROMOFORM	0.1310	0.1000	0.1666	0.1000									
1,1,2,2-TETRACHLOROETHANE	0.3710	0.3000	0.4082	0.3000									
TOLUENE							250.00	276	10.4				
CHLOROBENZENE	1.5280	0.3000	1.7614	0.3000									
ETHYLBENZENE							250.00	285	14.0				

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 7
BLANKS

Analytical Method: 8260-A98 AAB #: A6B19728

Lab Name: STL Buffalo Contract #: _____

Concentration Units (ug/L or mg/kg): UG/L Method Blank ID: A6B1972802

Initial Calibration ID: A6I0001539

Analyte	Method Blank	RL	Q
TETRACHLOROETHYLENE (PCE)	0.19	0.50	
TRICHLOROETHYLENE (TCE)	0.23	0.50	
VINYL CHLORIDE	0.26	0.50	
CHLOROFORM	0.26	0.50	
cis-1,2-DICHLOROETHYLENE	0.32	1.0	
trans-1,2-DICHLOROETHENE	0.38	1.0	

Surrogate	Recovery	Control Limits	Qualifier
TOLUENE-D8	102	81 - 120	
1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE	102	76 - 119	
1,2-DICHLOROETHANE-d4	107	72 - 119	
DIBROMOFLUOROMETHANE	103	85 - 115	

Internal Std	Area Counts	Area Count Limits	Qualifier
FLUOROBENZENE	1816891	899311 - 3597244	
CHLOROBENZENE-d5	734125	356477 - 1425906	
1,4-DICHLOROBENZENE-d4	580361	286499 - 1145996	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 8
LABORATORY CONTROL SAMPLE

Analytical Method: 8260-A98 AAB #: A6B19728

Lab Name: STL Buffalo Contract #: _____

LCS ID: A6B1972801 Units: UG/L

Initial Calibration ID: A6I0001539

Analyte	Expected	Found	%R	Control Limits	Q
CHLOROFORM	10.0	9.21	92	69 - 128	
cis-1,2-DICHLOROETHYLENE	10.0	9.38	94	72 - 126	
trans-1,2-DICHLOROETHENE	10.0	9.78	98	63 - 137	
TETRACHLOROETHYLENE(PCE)	10.0	9.46	95	66 - 128	
TRICHLOROETHYLENE (TCE)	10.0	9.47	95	70 - 127	
VINYL CHLORIDE	10.0	9.70	97	50 - 134	

Surrogate	Recovery	Control Limits	Qualifier
TOLUENE-D8	102	81 - 120	
1-BROMO-4-FLUOROBENZENE (4-BROMOFLUOROBENZENE	105	76 - 119	
1,2-DICHLOROETHANE-d4	104	72 - 119	
DIBROMOFLUOROMETHANE	102	85 - 115	

Internal Std	Area Counts	Area Count Limits	Qualifier
FLUOROBENZENE	1838525	899311 - 3597244	
CHLOROBENZENE-d5	737576	356477 - 1425906	
1,4-DICHLOROBENZENE-d4	597390	286499 - 1145996	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 10
HOLDING TIMES

Analytical Method: 8260-A98

AAB#: A6B19728

Lab Name: STL Buffalo

Contract #: _____

Field Sample ID	Date Collected	Date Received	Date Extracted	Max. Holding Time E	Time Held Ext.	Date Analyzed	Max. Holding Time A	Time Held Anal.	Q
052206PR	22-May-2006	23-May-2006	24-May-2006	14.00	2.00	24-May-2006	14.00	2.00	
101M0216PA	22-May-2006	23-May-2006	24-May-2006	14.00	2.00	24-May-2006	14.00	2.00	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 11
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: 8260-A98 AAB#: A6B19728

Lab Name: STL Buffalo Contract #:

Instrument ID#: HP5973P

Field Sample ID/Std ID Blank ID/QC Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
A6C0004740	24-May-2006	0342	24-May-2006	0419
ZZZZZZZZZZZZZZZZZZZZZ	24-May-2006	0420	24-May-2006	0457
ZZZZZZZZZZZZZZZZZZZZZ	24-May-2006	0458	24-May-2006	0751
MSB83	24-May-2006	0752	24-May-2006	0829
VBLK83	24-May-2006	0830	24-May-2006	0923
052206PR	24-May-2006	0924	24-May-2006	1001
101M0216PA	24-May-2006	1002	24-May-2006	1039

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 12
INSTRUMENT PERFORMANCE CHECK
(BFB or DFTPP)

Analytical Method: 8260-A98 AAB #: A6B19728

Lab Name: STL Buffalo Contract: _____

Instrument ID: HP5973P Compound: BFB Injection Date/Time: 24-May-2006 01:12

Mass	ION Abundance Criteria	% Relative Abundance	Q
50	15.0 - 40.0% of mass 95	23.0	
75	30.0 - 60.0% of mass 95	43.6	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.2	
173	Less than 2.0% of mass 174	0.5 (0.7) 1	
174	50 - 120 % of mass 95	69.3	
175	5.0 - 9.0% of mass 174	5.1 (7.3) 1	
176	95.0 - 101.0% of mass 174	67.5 (97.4) 1	
177	5.0 - 9.0% of mass 176	4.5 (6.7) 2	

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

Field Sample #/ Std ID/ Blank ID/ QC Sample ID	Date Analyzed	Time Analyzed
VSID040	24-May-2006	0226
VSID020	24-May-2006	0304
VSID010	24-May-2006	0342
VSID010	24-May-2006	0342
VSID004	24-May-2006	0420
VSID0.5	24-May-2006	0458
MSB83	24-May-2006	0752
VSID010	24-May-2006	0752
VBLK83	24-May-2006	0830
052206PR	24-May-2006	0924
101M0216PA	24-May-2006	1002

AFCEE - METHOD 8260 - MODIFIED LIST
WATER SURROGATE RECOVERY

Laboratory: STL Buffalo
Lab Job No: A06-5794

Client Sample ID	Lab Sample ID	S1 BFB	#	S2 DBF	#	S3 DCE	#	S4 TOL	#
052206PR	A6579402	103		105		110		102	
101M0216PA	A6579401	104		104		108		101	
MSB83	A6B1972801	105		102		104		102	
VBLK83	A6B1972802	102		103		107		102	

				QC Limits
S1	BFB	=	p-Bromofluorobenzene	(76 - 119)
S2	DBF	=	Dibromofluoromethane	(85 - 115)
S3	DCE	=	1,2-Dichloroethane-D4	(72 - 119)
S4	TOL	=	Toluene-D8	(81 - 120)

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

AFCEE - METHOD 8260 - MODIFIED LIST
WATER INTERNAL STANDARDS RECOVERY

Laboratory: STL Buffalo
Lab Job No: A06-5794

Client Sample ID	Lab Sample ID	IS1 CBZ	#	IS2 DCB	#	IS3 FB	#
052206PR	A6579402	105		104		101	
101M0216PA	A6579401	103		106		99	
MSB83	A6B1972801	103		104		102	
VBLK83	A6B1972802	103		101		101	

				QC Limits
IS1	CBZ	=	Chlorobenzene-D5	(50 - 200)
IS2	DCB	=	1,4-Dichlorobenzene-D4	(50 - 200)
IS3	FB	=	Fluorobenzene	(50 - 200)

\# Column to be used to flag recovery values
* Values outside of contract required QC limits

AFCEE - METHOD 8260 - MODIFIED LIST
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL Buffalo Contract: _____ Labsampid: A6C0004740

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

Lab File ID (Standard): P1109.RR Date Analyzed: 05/24/2006

Instrument ID: HP5973P Time Analyzed: 03:42

GC Column(1): DB-624 ID: 0.250(mm) Heated Purge: (Y/N) N

		IS1 (CBZ) AREA	#	RT	#	IS2 (DCB) AREA	#	RT	#	IS3 (FB) AREA	#	RT	#
	12 HOUR STD	712953		13.74		572998		17.12		1798622		9.77	
	UPPER LIMIT	1425906		14.24		1145996		17.62		3597244		10.27	
	LOWER LIMIT	356477		13.24		286499		16.62		899311		9.27	
	CLIENT SAMPLE	Lab Sample ID											
1	052206PR	A6579402		746946		13.74		597661		17.12		1822073	9.77
2	101M0216PA	A6579401		732038		13.74		608472		17.12		1784795	9.77
3	MSB83	A6B1972801		737576		13.74		597390		17.12		1838525	9.77
4	VBLK83	A6B1972802		734125		13.74		580361		17.12		1816891	9.77

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (CBZ) = CHLOROBENZENE-d5	(50-200)	-0.50 / +0.50 min
IS2 (DCB) = 1,4-DICHLOROBENZENE-d4	(50-200)	-0.50 / +0.50 min
IS3 (FB) = FLUOROBENZENE	(50-200)	-0.50 / +0.50 min

\# Column to be used to flag recovery values
* Values outside of contract required QC limits

GCMS VOLATILE INJECTION LOG

DATE	TIME	ANALYST	FILE #	SAMPLE ID	JOB #	INJ. VOL.	EXT. WHT.	D.F.	STANDARD MIX #	I.S. / SS MIX #
05/24/06	0112	JH	P1106	0524BFBP1	BC	1µl	—	—	WS14E-4	—
	0226		P1107	VSTD040		25mL			WS7a BV-1, WS6 CC-7, WS12 CK-11, WS13GE-4	SS14TF / IZ.EB
	0304		P1108	VSTD020						
	0342		P1109	VSTD010						
	0420		P1110	VSTD004						
	0458		P1111	VSTD00.5						
		BJ	~~P1112~~	~~0524BFB-P1~~	~~BC~~	~~1µl~~	~~—~~	~~—~~		
			P1113 5/24	VSTD010		25mL				
	0752	BJ	P1114 12	MSB/SS Cal		25mL			WS19CF-4, WS19CD-9	
	0830		P1115 13	VBLK 83						
	0924		P1116 14	A6579402	5794			1		
	1002		P1115	↓ 01	↓			1		

STL BUFFALO

Reviewed By _____ NO: _____ Page 26/29

000088

GCMS VOLATILE INJECTION LOG

TO #	I.S. #1 % REC.	I.S. #2 % REC.	I.S. #3 % REC.	S.S. #1 % REC.	S.S. #2 % REC.	S.S. #3 % REC.	S.S. #4 % REC.	REANALYSIS?	pH<2	COMMENTS
										PAD
										(AGI. 1539) AFCER 25ml
										~~(Pass)~~ Limit Not met 9/5/24/25
										~~(AGI. 1539) AFCER 25ml~~
	102	103	104	103	104	102	103		—	
	101	103	101	103	107	102	102		—	
	101	105	104	105	110	102	103		<2	
	99	103	106	104	105	101	103		✓	

Date _____

NO. 000089

****
****

AIMS DATA VALIDATION TESTS

Run Date: 05/24/2006
by: SCHOVEJ

Validation Filter:
Job: A06-5794
Fraction(s): MV

****
****

Out-of-Sequence Sample and Received Date/Time : No exceptions found

Out-of-Sequence S/R and Prep Date/Time : No exceptions found

Out-of-Sequence S/R and TCLP Date/time : No exceptions found

Out-of-Sequence S/R and Analysis Date/Time : No exceptions found

Out-of-Sequence Prep and TCLP Date/time : No exceptions found

Out-of-Sequence Prep and Analysis Date/Time : No exceptions found

Out-of-Sequence TCLP and Analysis Date/Time : No exceptions found

Date Entered Exceeds Current Date : No exceptions found

Missed Analysis Holding Times : No exceptions found

Missed Prep Holding Times : No exceptions found

Missed TCLP Holding Times : No exceptions found

Analysis Dates Not Entered : No exceptions found

Calculation Dates Not Set : No exceptions found

Invalid Calculation Date : No exceptions found

Sample/Tests with No Results : No exceptions found

Sample Weights and Volumes Not Entered : No exceptions found

% Dry Weights Not Entered : No exceptions found

pH Not Entered : No exceptions found

Missing TIC Results : No exceptions found

Tests Not Closed : No exceptions found

Method Blank Hits (or errors) : No exceptions found

Vol Anal Exceeds 12hrs after Method Blank Analysis: No exceptions found

Vol Anal Exceeds 24hrs after Method Blank Analysis: No exceptions found

Dilutable Sample/Test with No Dilution : No exceptions found

Sample/Test w/No Dilution and Secondary Not Set : No exceptions found

Diluted Base Sample, Missing Initial Hit /Organic: No exceptions found

Dilution missing for "E" flagged Compound /Organic: No exceptions found

TDL / Concentration with unexpected Result Flag : No exceptions found

Unexpected Adj. Detection Limits / CRDL < IDL/MDL : No exceptions found

Adj. PDL/IDL > Requested Detection Limit("Y" flag): No exceptions found

Missing or invalid method : No exceptions found

Sample/Tests Processed Manually : No exceptions found

****
Job Comments Approval : Exception list

Job	Fraction	Status	Exception (*)
A06-5794	MV	Not approved	*

****

Total Vs. Soluble Metals : No exceptions found

Diluted Sample/Test Secondary Not Set : No exceptions found

Field Blank Hits : No exceptions found

Surrogate Results = 0 : No exceptions found

Surrogates with QC Limits = 0 : No exceptions found

Surrogate Results Outside of QC Limits : No exceptions found

Surrogate Results > 0 for Diluted Samples : No exceptions found

Missing Surrogate Code in Results : No exceptions found

Surrogate Limits Differing from Requested Limits : No exceptions found

Internal Standards Results = 0 : No exceptions found

Internal Standards QC Limits = 0 : No exceptions found

Internal Standards Results Outside of QC Limits : No exceptions found

Internal Standard Results > 0 for Dilutions : No exceptions found

Missing Internal Standards Code in Results : No exceptions found

Internal Std Limits Differing from Requested Limit: No exceptions found

Sample Spikes with No Results : No exceptions found

Spike Calculation Dates Not Set : No exceptions found

Spike Invalid Calculation Date : No exceptions found

Sample Spikes with % Recovery = 0 : No exceptions found

Spike Samples with QC Limits = 0 : No exceptions found

Matrix Spike Results Exceeding QC Limits : No exceptions found

Matrix Spike Duplicate Results Exceeding QC Limits: No exceptions found

Matrix Spike Duplicate RPDs Exceeding QC Limits : No exceptions found

Spike Limits Differing from Requested Limits : No exceptions found

MS Sample/Test with No Standard : No exceptions found

MS Continuing Std with Missing or Invalid Initial : No exceptions found

MS Standard Calibration Date/Time Not Set : No exceptions found

MS Standard Calculation Date Not Set : No exceptions found

MS Invalid Calculation Date : No exceptions found

MS Anal Date/Time Exceeds 12hrs after Calibration : No exceptions found

MS RRF out of QC Limits : No exceptions found

MS % RSD out of QC Limits : No exceptions found

MS % Difference out of QC Limits : No exceptions found

MS Test Params with missing Lv3/Lv4 Std. Params : No exceptions found

MS Standards Not Closed : No exceptions found

MS Tune Not Linked for Standard : No exceptions found

MS Tune Calculation Date/Time Not Set : No exceptions found

MS Tune Not Closed : No exceptions found

MS Tune Invalid Calculation Date : No exceptions found

MS Tune Injection Date/Time Not Set : No exceptions found

MS Tune Error : No exceptions found

MS Tune Heated Purge Not Matching its Standard : No exceptions found

MS Analysis Date/Time Exceeds 12hrs after Tune : No exceptions found

MS Calibration exeeds 12 hrs after Tune : No exceptions found

MS Tune/Std/Analysis Date-Time out of Sequence : No exceptions found

Sample/Test and Method Blank Matching Prep Batch : No exceptions found

Sample/Test and Method Blank Matching Anal Batch : No exceptions found

GC Sample/Test with No Standard : No exceptions found

GC Continuing Std with Missing or Invalid Initial : No exceptions found

GC Standard Calibration Date/Time Not Set : No exceptions found

GC Standard Calculation Date Not Set : No exceptions found

GC Invalid Calculation Date : No exceptions found

GC Correlation Coefficient out of QC Limits : No exceptions found

GC % RSD out of QC Limits : No exceptions found

GC % Difference out of QC Limits : No exceptions found

GC missing Ref ICC point : No exceptions found

GC Test Params with missing Lv3/Lv4 Std. Params : No exceptions found

GC Standards Not Closed : No exceptions found

AFCEE Contact found, all AFCEE tests will be run

Sample/Tests with No Sample Time : No exceptions found

Sample/Tests with No Received Time : No exceptions found

Sample/Tests with No Prep Time : No exceptions found

Sample/Tests with No Analysis Time : No exceptions found

Sample/Tests with No Analysis Batch Assigned : No exceptions found

Sample/Tests Assigned Batches with Missing Master : No exceptions found

Batches Not Closed : No exceptions found

Sample/Tests with No Prep Batch Assigned : No exceptions found

Sample/Tests with No Prep Batch Details : No exceptions found

Sample/Tests with No Organic Prep Details : No exceptions found

Sample/Tests with No Analysis Batch Details : No exceptions found

Sample/Tests with No Analysis Metals Batch Results: Test not run

Matrix Spike Amt Added <> MS Duplicate Amt Added : No exceptions found

****

Result NOT Consistent with Historical/No History : Exception list

	Current				Historical Results
Lab Sample	Test	Parameter	UM	Result	
A6579401	CTA16581	156-59-2	UG/L	11	8.1
A6579401	CTA16581	156-60-5	UG/L	0.38U	0.45F
A6579401	CTA16581	67-66-3	UG/L	0.58	0.73
A6579401	CTA16581	79-01-6	UG/L	1.7	1.2
A6579402	CTA16581	127-18-4	UG/L	0.19U	Not Found
A6579402	CTA16581	156-59-2	UG/L	0.32U	Not Found
A6579402	CTA16581	156-60-5	UG/L	0.38U	Not Found
A6579402	CTA16581	67-66-3	UG/L	0.26U	Not Found
A6579402	CTA16581	75-01-4	UG/L	0.26U	Not Found
A6579402	CTA16581	79-01-6	UG/L	0.23U	Not Found

****

Vol 1 of 1

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, Suite 200
East Syracuse, NY 13057 **(315) 437-0200**

Thursday, October 26, 2006

Niels van Hoesel
FPM Group
153 Brooks Road
Rome, NY 13441

TEL:

Project: GRIFFISS AFB - BUILDING 101
RE: Analytical Results Order No.: 0609014

Dear Niels van Hoesel:

Life Science Laboratories, Inc. received 1 sample(s) on 9/22/2006 for the analyses presented in the following report.

Very truly yours,
Life Science Laboratories, Inc.

Monika Santucci

Monika Santucci
Project Manager

Laboratory Report

Project Management Case Narrative

INTRODUCTION/ANALYTICAL RESULTS
This report summarizes the laboratory results for samples from FPM, for the Griffiss AFB-Building 101 - Rome, NY project.

CONDITION UPON RECEIPT/CHAIN OF CUSTODY
The cooler(s) were received intact. When the cooler(s) were received by the laboratory, the sample custodian(s) opened and inspected the shipment(s) for damage and custody inconsistencies. Chains of custody documenting receipt are presented in the chain of custody section. Each sample was assigned a unique laboratory number and a custody file created. The samples were placed in a secured walk-in cooler and signed in and out by the chemists performing the tests. The sign out record, or lab chronicle, is presented in the chain of custody section.

No discrepancies were noted upon receipt. The temperatures of the iced coolers were 1.2°Cand -2°C.

METHODOLOGY
The following methods were used to perform the analyses:

PARAMETER	METHOD	REFERENCE
Volatile Organics	SW8260B	1

1) Test Methods for Evaluating Solid Wastes, SW-846 Third Edition, Final Update III, December 1996 (including the QC requirements specified in AFCEE 4.0 + variances).

QUALITY CONTROL
QA/QC results are summarized in the Laboratory Report and are also included in the raw data.

RAW DATA
The raw data is included in the raw data section.

Total # of pages in this report: _____

GC/MS Volatile Organics Case Narrative

Client:	FPM
Project/Order:	Griffiss AFB- Building 101
Work Order #:	0609014
Methodology:	8260B

Analyzed/Reviewed by (Initials/Date): 10-4-06

Supervisor/Reviewed by (Initials/Date): 10-4-06

QA/QC Review (Initials/Date): 10/4/06

File Name: G:\Narratives\MSVoa\0609014msvnar.doc

GC/MS Volatile Organics
The GC/MS Volatile instruments used a Restek Rtx-VMS, 40 m x 0.18 mm ID capillary column and a Vocarb 3000 trap.

There were no excursions to note. All QC results were within established control limits.

Holding Times and Sample Preservation
All samples were prepared and analyzed within the method and/or QAPP specified holding time requirements. Samples had a pH of < 2.

Laboratory Control Sample
All spike recoveries met method and/or project specific QC criteria.

Surrogate Standards
All surrogate standard recoveries met method and/or project specific QC criteria.

Internal Standards
All internal standard areas met method and/or project specific QC criteria.

Calibrations
All initial calibrations and calibration verifications met method and/or project specific QC criteria.

Preparation Blanks
All preparation blanks met method and/or project specific QC criteria.

Life Science Laboratories, Inc.

Date: *26-Oct-06*

CLIENT: FPM Group
Project: Griffiss AFB - Building 101
Lab Order: 0609014

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
0609014-001A	101M0216RA	101MW-2	9/21/2006 2:50:00 PM	9/22/2006

Life Science Laboratories, Inc.

26-Oct-06

Lab Order: 0609014
Client: FPM Group
Project: Griffiss AFB - Building 101

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
0609014-001A	101M0216RA	9/21/2006 2:50:00 PM	Groundwater	Volatile Organic Compounds by GC/MS			9/25/2006

Chain of Custody

External Chain of Custody

AFCEE
CHAIN OF CUSTODY RECORD (WO 0609014)

COC#: _2_ SDG#: _138_ Cooler ID: _A_

Ship to: Monika Santucci Life Science Laboratories, Inc. 5000 Brittonfield Pkwy, Suite 200 East Syracuse, NY 13057 Tel: (315)437-0200	Project Name: Griffiss AFB Site Building 101 sampling Sampler Name: Niels van Hoesel	Send Results to: Niels van Hoesel FPM Group 153 Brooks Road Rome, NY 13441
Carrier: LSL courier.	Sampler Signature:	Phone: (315) 336-7721 Ext 205

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2006	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)		Comments
101M0216RA	101MW-2	9/21	1450	WG	B	0/0	N	HCl	Unf.	3	3		

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 3.1
Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 9/21/06	#3 Released by: (Sig)	Date: 9/22/06
Company Name:	Time:	Company Name: FPM Group Ltd	Time: 16:50	Company Name: LSL	Time: 7:55
#1 Received by: (Sig) Niels van Hoesel	Date: 9/21/06	#2 Received by: (Sig)	Date: 9/21/06	#3 Received by: (Sig)	Date: 9/22/06
Company Name: FPM Group Ltd	Time: 10200	Company Name: LSL	Time: 1650	Company Name: LSL	Time: 07:52

cooler temp. 1.2°C-2°C
ice present, custody seal present

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **FPM** Date and Time Received: **9/22/2006 7:52:00 AM**

Work Order Number **0609014** Received by: mjp

Checklist completed by: M.J.P. Initials 9/22/2006 Date Reviewed by: MS Initials 9/22/06 Date

Matrix: Carrier name: Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Comments:

Corrective Action::

Client/Project FPM 0609014

Sample Control Record

Sample ID	Frac	Client Sample ID	Removed By	Date and Time Removed	Analysis	Date and Time Returned
0609014-001	A		JK	9/25/06 7:45	8260	NR

C\forms\GeneralLaboratory\Sign out.xls

Analytical Results

AFCEE
ORGANIC ANALYSES DATA PACKAGE

Analytical Method: SW8260B

AAB #: R6723

Lab Name: Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor: FPM Group

Field Sample ID	Lab Sample ID
101M0216RA	0609014-001A

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager's designee, as verified by the following signature.

Signature: Monika Santucci

Name: Monika Santucci

Date: 10/25/06

Title: Project Manager

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: SW8260B **Preparatory Method:** **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Field Sample ID: 101M0216RA **Lab Sample ID:** 0609014-001A **Matrix:** Groundwater

% Solids: 0 **Initial Calibration ID:** 664 **File ID:** T4804.D

Date Received: 22-Sep-06 **Date Extracted:** **Date Analyzed:** 25-Sep-06

Concentration Units (ug/L or mg/Kg dry weight): µg/L **Sample Size:** 10 mL

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Chloroform	0.0290	0.50	0.0290	1	U
cis-1,2-Dichloroethene	0.0320	1.0	15.5	1	
Tetrachloroethene	0.0300	1.0	0.0300	1	U
trans-1,2-Dichloroethene	0.0270	1.0	0.0270	1	U
Trichloroethene	0.0270	1.0	0.730	1	F
Vinyl chloride	0.0380	1.0	0.330	1	F

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	107	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	106	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	415710	235363 - 941452	
Chlorobenzene-d5	542358	278570 - 1114278	
Fluorobenzene	1176989	589584 - 2358336	

Comments:

Quality Control Results

GC/MS Volatile Organics Data

AFCEE
ORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION-GC/MS ANALYSIS

Analytical Method: 8260B

AAB #:

Lab Name: Life Science Laboratories, Inc.

Contract #:

Instrument ID: HP5973 GCMS#1

Date of Initial Calibration: 13SEP06

Initial Calibration ID: 664

Concentration Units (ug/L or mg/kg): ug/L

SEE ATTACHED

Comments:

AFCEE FORM O-3

Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 06:59:51 2006
Response via : Continuing Calibration

ICAL #664

Calibration Files
0.3 =T4597.D 0.5 =T4598.D 2.0 =T4599.D
10 =T4600.D 20 =T4601.D 30 =T4602.D

		Compound	0.3	0.5	2.0	10	20	30	Avg	%RSD
			ISTD							
1)	I	Fluorobenzene								
2)		Dichlorodifluoromet	0.251	0.338	0.340	0.363	0.376	0.356	0.339	12.18
3)	P	Chloromethane	0.537	0.477	0.478	0.468	0.487	0.468	0.483	5.21
4)	CP	Vinyl chloride	0.320	0.366	0.369	0.393	0.414	0.401	0.382	8.73
5)		Bromomethane	0.196	0.233	0.186	0.187	0.195	0.195	0.199	8.07
6)		Chloroethane	0.249	0.265	0.273	0.285	0.290	0.279	0.274	4.97
7)		Trichlorofluorometh	0.467	0.441	0.495	0.534	0.548	0.518	0.505	7.70
8)		Acetone	0.084	0.077	0.062	0.065	0.065	0.065	0.069	11.71
9)		Acrolein	0.019	0.019	0.020	0.021	0.023	0.024	0.021	10.51
10)	CPM	1,1-Dichloroethene	0.181	0.181	0.195	0.213	0.220	0.217	0.204	8.82
11)		Methyl iodide		0.065	0.092	0.183	0.225	0.233	0.174	44.88
12)		1,1,2-Trichloro-1,2	0.225	0.208	0.243	0.262	0.263	0.256	0.245	8.66
13)		Methyl acetate	0.224	0.236	0.229	0.218	0.223	0.224	0.226	2.57
14)		Acrylonitrile	0.063	0.060	0.067	0.071	0.072	0.074	0.068	8.13
15)		Methylene chloride	0.300	0.290	0.273	0.273	0.272	0.267	0.278	4.55
16)		Carbon disulfide	0.813	0.776	0.796	0.874	0.877	0.855	0.835	4.76
')		trans-1,2-Dichloroe	0.238	0.230	0.236	0.259	0.261	0.259	0.249	5.67
18)		Methyl tert-Butyl e	0.530	0.517	0.548	0.601	0.623	0.622	0.581	8.30
19)	P	1,1-Dichloroethane	0.499	0.476	0.510	0.530	0.523	0.516	0.510	3.55
20)		Vinyl acetate	0.228	0.218	0.227	0.259	0.287	0.295	0.259	13.35
21)		2-Butanone	0.075	0.092	0.090	0.095	0.101	0.102	0.094	10.14
22)		cis-1,2-Dichloroeth	0.242	0.248	0.268	0.280	0.285	0.282	0.270	6.70
23)		Bromochloromethane	0.115	0.113	0.126	0.130	0.130	0.130	0.125	6.16
24)	CP	Chloroform	0.481	0.472	0.491	0.526	0.519	0.511	0.502	4.03
25)		2,2-Dichloropropane	0.393	0.383	0.402	0.444	0.458	0.459	0.427	7.77
26)		Cyclohexane		0.441	0.477	0.579	0.594	0.582	0.543	12.24
27)	S	Dibromofluoromethan	0.213	0.188	0.215	0.228	0.232	0.231	0.220	7.41
28)	S	1,2-Dichloroethane-	0.321	0.288	0.297	0.302	0.307	0.301	0.302	3.32
29)		1,2-Dichloroethane	0.341	0.343	0.359	0.369	0.367	0.361	0.357	3.07
30)		1,1,1-Trichloroetha	0.401	0.382	0.410	0.456	0.455	0.450	0.429	7.19
31)		1,1-Dichloropropene		0.287	0.326	0.390	0.390	0.391	0.363	12.44
32)		Carbon tetrachlorid	0.311	0.287	0.333	0.369	0.383	0.382	0.350	11.43
33)	M	Benzene	1.104	1.024	1.134	1.242	1.210	1.171	1.144	6.31
34)	M	Trichloroethene	0.252	0.260	0.269	0.299	0.294	0.295	0.281	7.02
35)		Dibromomethane	0.134	0.132	0.139	0.146	0.147	0.147	0.142	4.67
36)		Methylcyclohexane		0.366	0.406	0.503	0.515	0.507	0.468	13.87
37)	CP	1,2-Dichloropropane	0.299	0.254	0.275	0.291	0.300	0.299	0.288	6.16
38)		Bromodichloromethan	0.280	0.276	0.300	0.349	0.353	0.357	0.325	11.67
39)		2-Chloroethylvinyl	0.071	0.065	0.077	0.070	0.051		0.067	14.60
40)		4-Methyl-2-pentanon			0.172	0.207	0.230	0.235	0.216	12.67
41)		cis-1,3-Dichloropro		0.327	0.364	0.440	0.454	0.455	0.416	13.51
?)	S	Toluene-d8	0.804	0.785	0.906	1.022	1.038	1.000	0.934	11.14
3)	CPM	Toluene		0.558	0.701	0.803	0.817	0.791	0.743	13.34

(#) = Out of Range ### Number of calibration levels exceeded format ###

9/14/06

Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 06:59:51 2006
Response via : Continuing Calibration

Calibration Files
0.3 =T4597.D 0.5 =T4598.D 2.0 =T4599.D
10 =T4600.D 20 =T4601.D 30 =T4602.D

		Compound	0.3	0.5	2.0	10	20	30	Avg	%RSD
44)		trans-1,3-Dichlorop		0.276	0.321	0.386	0.407	0.415	0.371	15.85
45)		1,1,2-Trichloroetha	0.160	0.161	0.174	0.179	0.181	0.180	0.174	5.51
46)		2-Hexanone	0.116	0.093	0.107	0.140	0.158	0.163	0.135	21.96
47)		1,2-Dibromoethane	0.153	0.155	0.173	0.193	0.195	0.196	0.181	11.06
48)	I	Chlorobenzene-d5	ISTD							
49)		1,3-Dichloropropane	0.852	0.779	0.801	0.821	0.791	0.819	0.812	2.95
50)		Dibromochloromethan	0.388	0.380	0.408	0.474	0.479	0.517	0.453	13.26
51)		Tetrachloroethene	0.605	0.580	0.630	0.664	0.645	0.654	0.635	5.06
52)		1-Chlorohexane	0.662	0.643	0.636	0.798	0.810	0.827	0.744	12.29
53)		1,1,1,2-Tetrachloro	0.438	0.457	0.480	0.547	0.537	0.562	0.513	10.43
54)	PM	Chlorobenzene	1.685	1.663	1.703	1.758	1.706	1.692	1.698	1.81
55)	CP	Ethylbenzene	2.841	2.711	3.062	3.347	3.259	3.146	3.056	7.32
56)		(m+p)-Xylene	0.939	0.927	1.092	1.212	1.218	1.205	1.112	11.69
57)		o-Xylene	0.893	0.868	1.005	1.155	1.184	1.178	1.067	13.30
58)		Styrene	1.035	1.052	1.373	1.831	1.922	1.935	1.583	26.41
59)	P	Bromoform	0.209	0.201	0.237	0.301	0.313	0.346	0.280	22.82
)	S	Bromofluorobenzene	0.797	0.616	0.716	0.803	0.801	0.803	0.764	9.59
61)	I	1,4-Dichlorobenzene-d	ISTD							
62)		trans-1,4-Dichloro-	0.070	0.062	0.085	0.101	0.107	0.116	0.095	24.81
63)	P	1,1,2,2-Tetrachloro	0.620	0.638	0.646	0.674	0.654	0.674	0.655	3.25
64)		Isopropylbenzene	2.820	2.664	3.261	3.758	3.664	3.524	3.294	12.59
65)		1,2,3-Trichloroprop	0.551	0.517	0.541	0.555	0.542	0.565	0.550	3.59
66)		Bromobenzene	0.719	0.798	0.832	0.905	0.885	0.887	0.845	8.00
67)		n-Propylbenzene		3.145	3.952	4.576	4.437	4.211	4.046	12.56
68)		2-Chlorotoluene	2.418	2.278	2.677	3.003	2.952	2.903	2.726	10.29
69)		4-Chlorotoluene	1.966	1.989	2.342	2.602	2.545	2.492	2.339	11.12
70)		1,3,5-Trimethylbenz	1.899	1.770	2.362	2.810	2.810	2.804	2.456	18.51
71)		tert-Butylbenzene		1.734	2.152	2.605	2.583	2.535	2.348	14.61
72)		1,2,4-Trimethylbenz	1.550	1.533	2.078	2.517	2.522	2.521	2.170	21.09
73)		sec-Butylbenzene	2.574	2.662	3.366	3.966	3.864	3.681	3.371	16.45
74)		1,3-Dichlorobenzene	1.444	1.443	1.637	1.721	1.681	1.646	1.600	6.95
75)		p-Isopropyltoluene	1.764	1.664	2.295	2.923	2.946	2.903	2.474	22.88
76)		1,4-Dichlorobenzene	1.709	1.607	1.615	1.663	1.638	1.607	1.632	2.63
77)		n-Butylbenzene	1.541	1.520	1.835	2.406	2.470	2.466	2.090	21.13
78)		1,2-Dichlorobenzene	1.369	1.342	1.500	1.580	1.556	1.530	1.485	6.24
79)		1,2-Dibromo-3-chlor	0.092	0.121	0.090	0.102	0.099	0.105	0.103	10.32
80)		1,2,4-Trichlorobenz	0.650	0.641	0.679	0.779	0.800	0.815	0.741	10.86
81)		Hexachlorobutadiene	0.446	0.454	0.482	0.552	0.561	0.555	0.517	10.46
82)		Naphthalene	1.250	1.115	1.157	1.264	1.318	1.326	1.250	6.72
83)		1,2,3-Trichlorobenz	0.724	0.671	0.706	0.780	0.791	0.804	0.754	7.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:08:11 2006
Response via : Continuing Calibration

Calibration Files
40 =T4603.D = =
= = =

		Compound	40	Avg	%RSD
			ISTD		
1)	I	Fluorobenzene			0.00
2)		Dichlorodifluoromet	0.352		0.00
3)	P	Chloromethane	0.464		0.00
4)	CP	Vinyl chloride	0.412		0.00
5)		Bromomethane	0.204		0.00
6)		Chloroethane	0.279		0.00
7)		Trichlorofluorometh	0.531		0.00
8)		Acetone	0.066		0.00
9)		Acrolein	0.024		0.00
10)	CPM	1,1-Dichloroethene	0.221		0.00
11)		Methyl iodide	0.250		0.00
12)		1,1,2-Trichloro-1,2	0.258		0.00
13)		Methyl acetate	0.226		0.00
14)		Acrylonitrile	0.074		0.00
15)		Methylene chloride	0.267		0.00
16)		Carbon disulfide	0.853		0.00
)		trans-1,2-Dichloroe	0.262		0.00
)		Methyl tert-Butyl e	0.629		0.00
19)	P	1,1-Dichloroethane	0.519		0.00
20)		Vinyl acetate	0.297		0.00
21)		2-Butanone	0.103		0.00
22)		cis-1,2-Dichloroeth	0.285		0.00
23)		Bromochloromethane	0.128		0.00
24)	CP	Chloroform	0.511		0.00
25)		2,2-Dichloropropane	0.453		0.00
26)		Cyclohexane	0.586		0.00
27)	S	Dibromofluoromethan	0.233		0.00
28)	S	1,2-Dichloroethane-	0.300		0.00
29)		1,2-Dichloroethane	0.360		0.00
30)		1,1,1-Trichloroetha	0.451		0.00
31)		1,1-Dichloropropene	0.391		0.00
32)		Carbon tetrachlorid	0.387		0.00
33)	M	Benzene	1.125		0.00
34)	M	Trichloroethene	0.297		0.00
35)		Dibromomethane	0.147		0.00
36)		Methylcyclohexane	0.512		0.00
37)	CP	1,2-Dichloropropane	0.300		0.00
38)		Bromodichloromethan	0.360		-1.00
39)		2-Chloroethylvinyl			0.00
40)		4-Methyl-2-pentanon	0.237		0.00
41)		cis-1,3-Dichloropro	0.455		0.00
)	S	Toluene-d8	0.980		0.00
)	CPM	Toluene	0.785		

(#) = Out of Range ### Number of calibration levels exceeded format ###

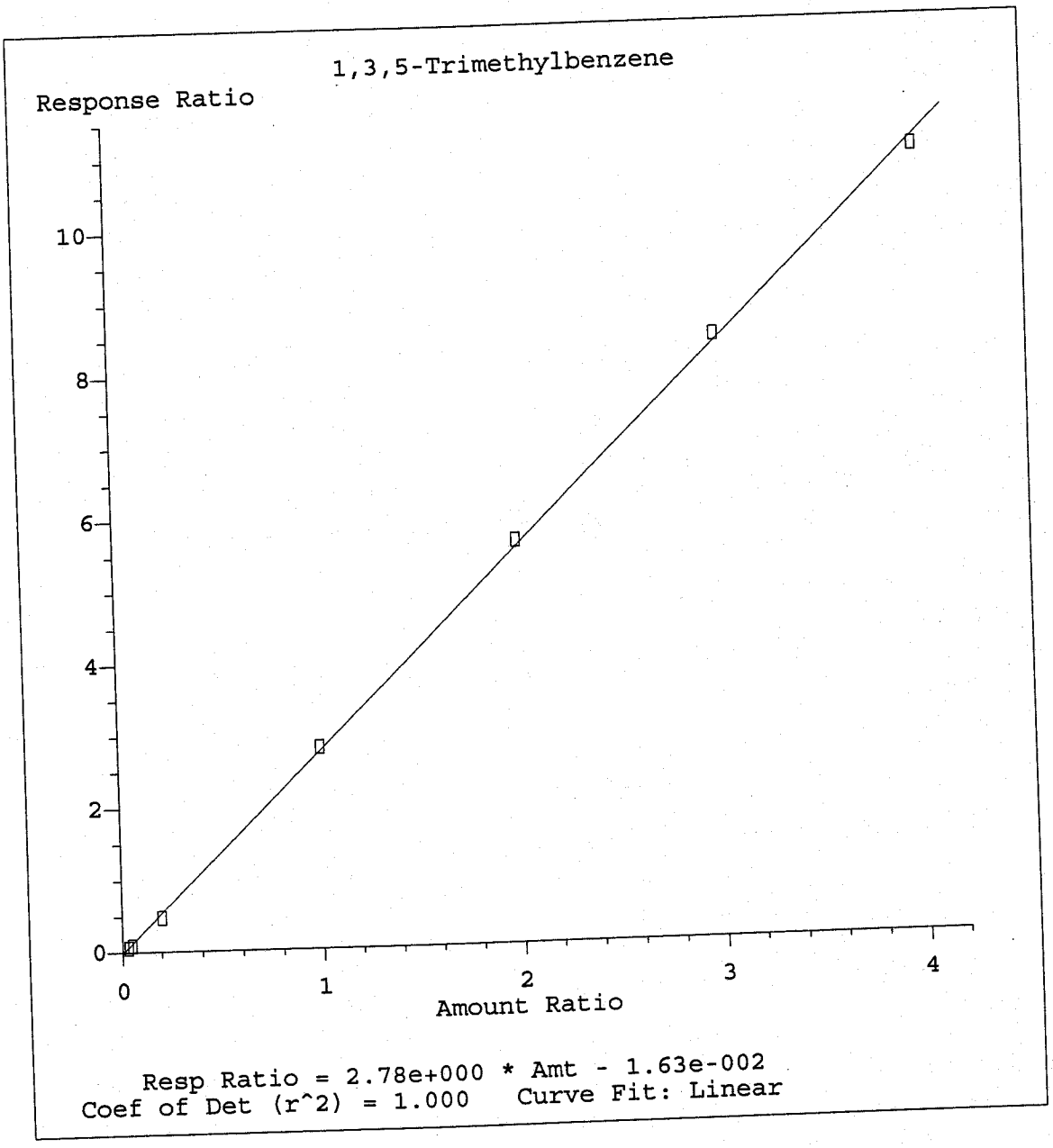
Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:08:11 2006
Response via : Continuing Calibration

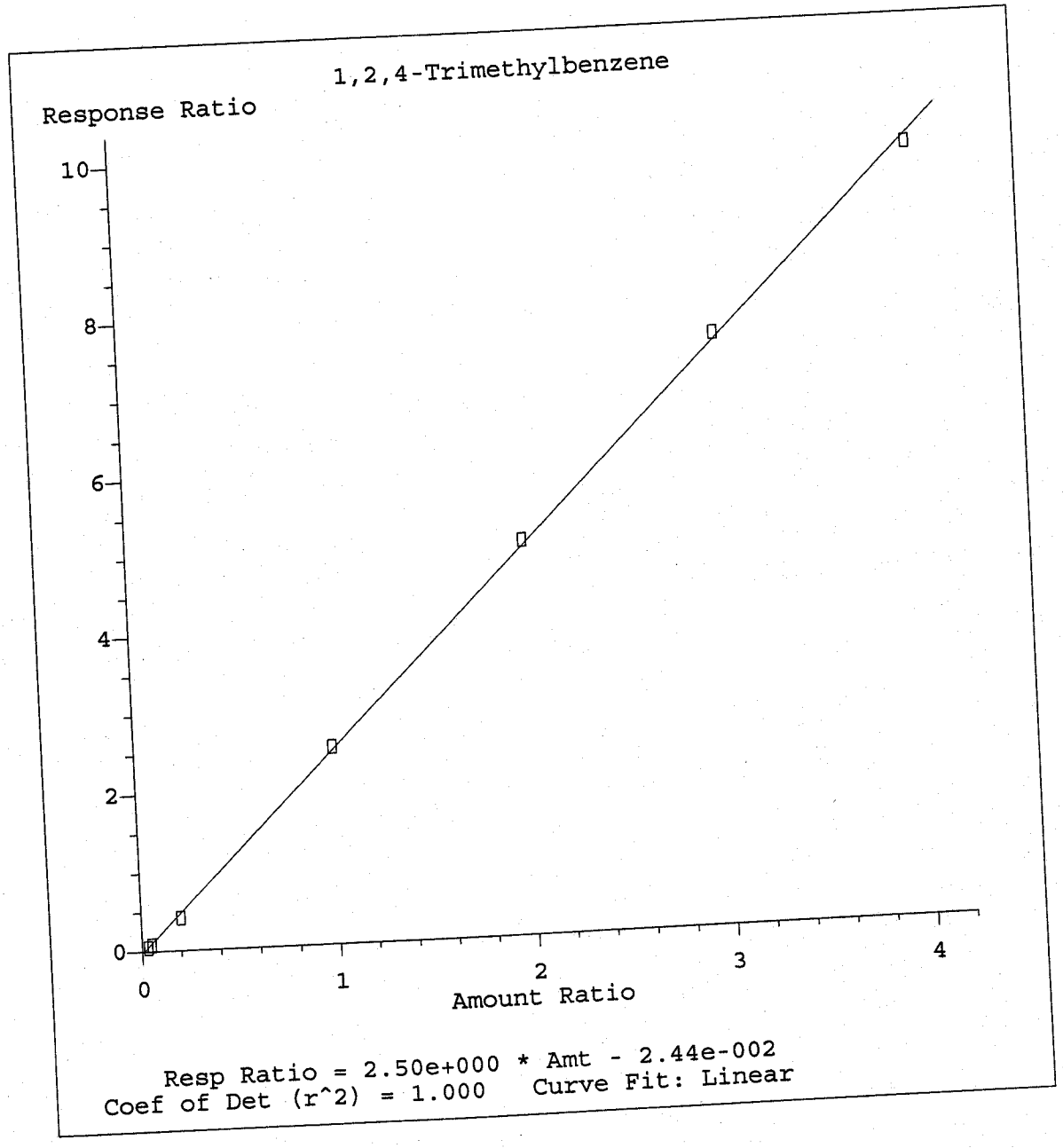
Calibration Files
40 =T4603.D = =
= = =

		Compound	40	Avg	%RSD
					0.00
44)		trans-1,3-Dichlorop	0.418		0.00
45)		1,1,2-Trichloroetha	0.182		0.00
46)		2-Hexanone	0.167		0.00
47)		1,2-Dibromoethane	0.198		
			----------ISTD----------		
48)	I	Chlorobenzene-d5			0.00
49)		1,3-Dichloropropane	0.818		0.00
50)		Dibromochloromethan	0.523		0.00
51)		Tetrachloroethene	0.666		0.00
52)		1-Chlorohexane	0.830		0.00
53)		1,1,1,2-Tetrachloro	0.569		0.00
54)	PM	Chlorobenzene	1.676		0.00
55)	CP	Ethylbenzene	3.029		0.00
56)		(m+p)-Xylene	1.195		0.00
57)		o-Xylene	1.182		0.00
58)		Styrene	1.932		0.00
59)	P	Bromoform	0.355		0.00
)	S	Bromofluorobenzene	0.815		
			----------ISTD----------		
61)	I	1,4-Dichlorobenzene-d			0.00
62)		trans-1,4-Dichloro-	0.125		0.00
63)	P	1,1,2,2-Tetrachloro	0.675		0.00
64)		Isopropylbenzene	3.367		0.00
65)		1,2,3-Trichloroprop	0.579		0.00
66)		Bromobenzene	0.891		0.00
67)		n-Propylbenzene	3.954		0.00
68)		2-Chlorotoluene	2.850		0.00
69)		4-Chlorotoluene	2.437		0.00
70)		1,3,5-Trimethylbenz	2.739		0.00
71)		tert-Butylbenzene	2.480		0.00
72)		1,2,4-Trimethylbenz	2.469		0.00
73)		sec-Butylbenzene	3.487		0.00
74)		1,3-Dichlorobenzene	1.626		0.00
75)		p-Isopropyltoluene	2.824		0.00
76)		1,4-Dichlorobenzene	1.582		0.00
77)		n-Butylbenzene	2.394		0.00
78)		1,2-Dichlorobenzene	1.519		0.00
79)		1,2-Dibromo-3-chlor	0.109		0.00
80)		1,2,4-Trichlorobenz	0.821		0.00
81)		Hexachlorobutadiene	0.568		0.00
82)		Naphthalene	1.320		0.00
83)		1,2,3-Trichlorobenz	0.800		

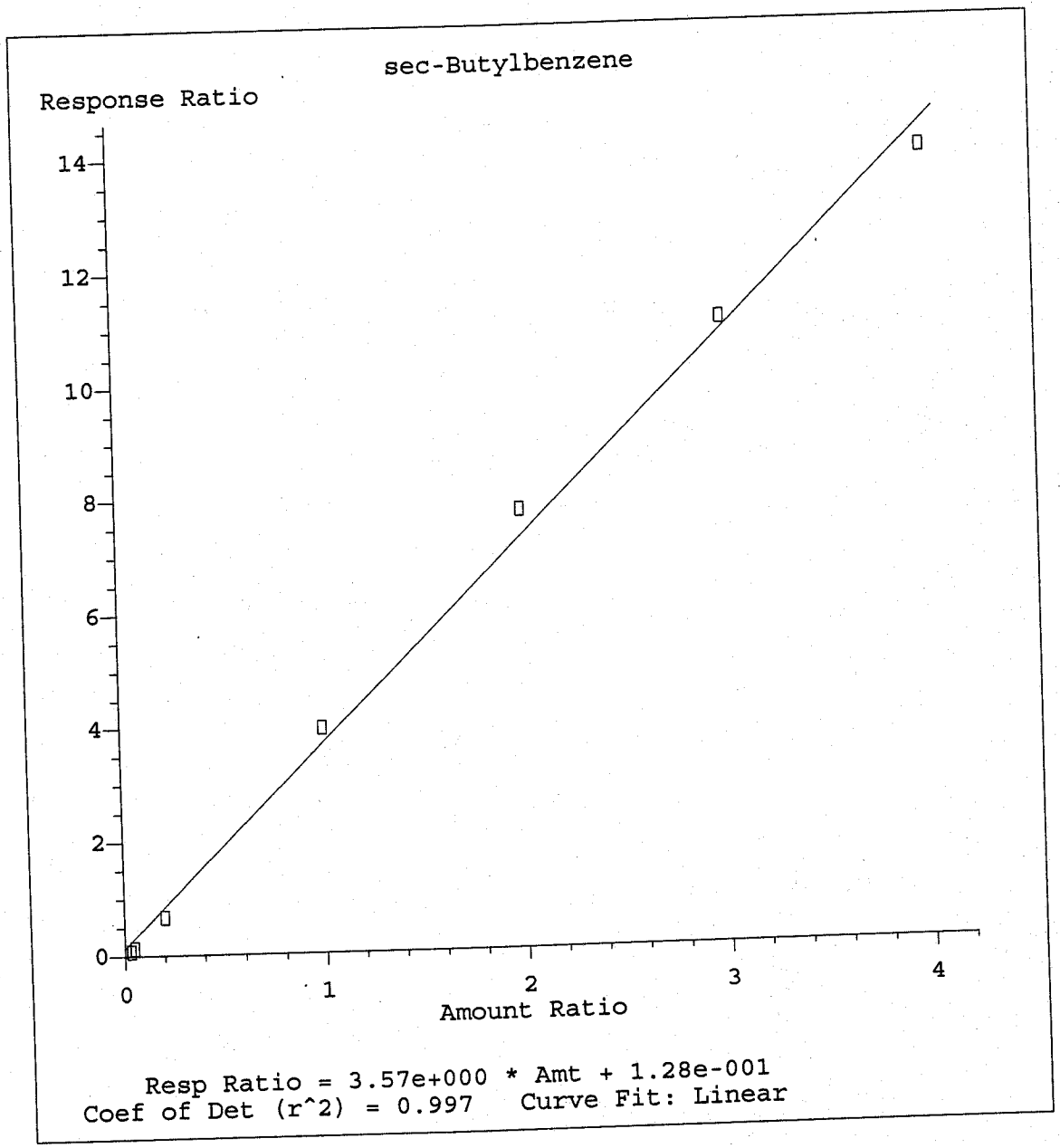
(#) = Out of Range ### Number of calibration levels exceeded format ###



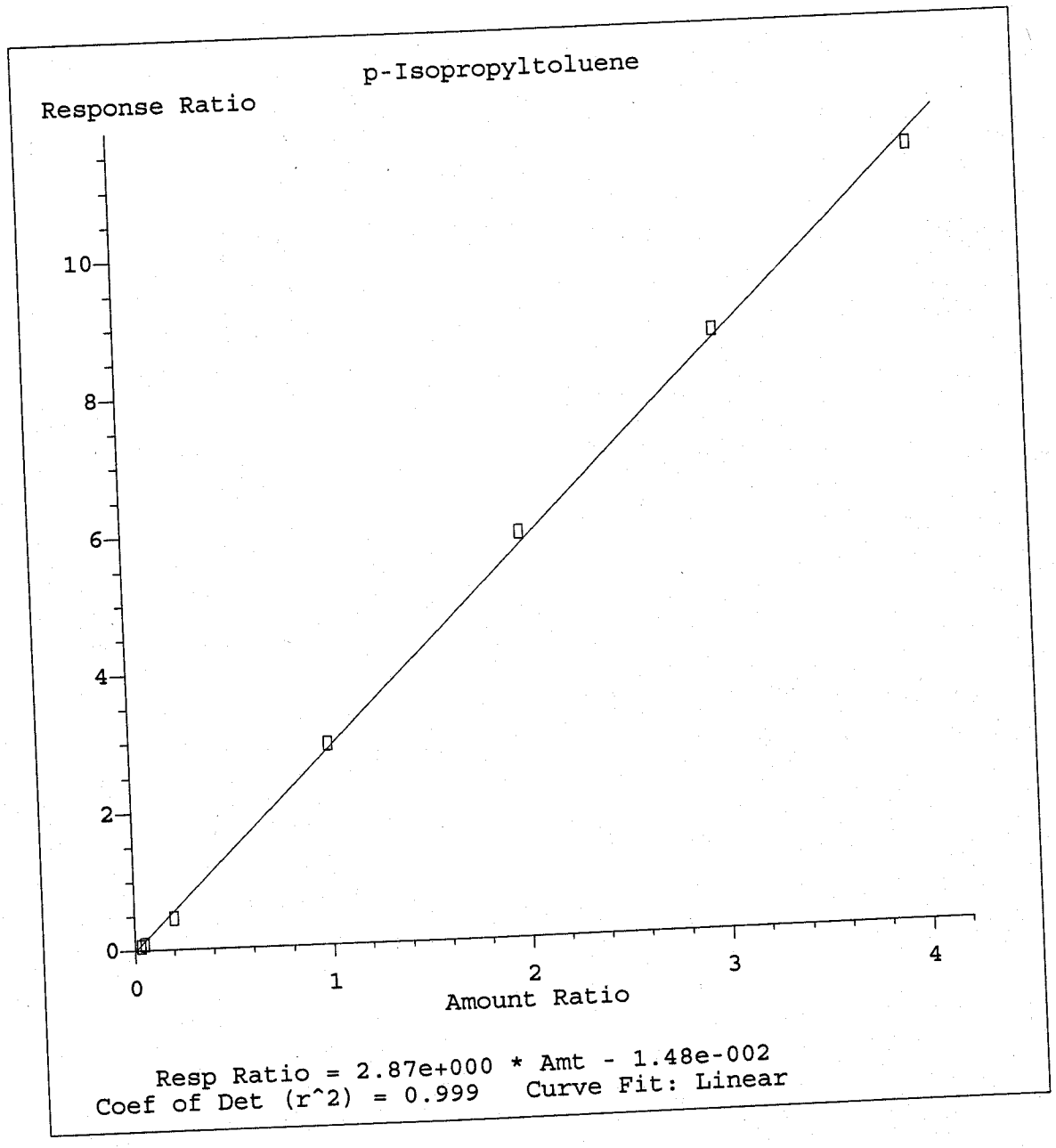
Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:50:45 2006



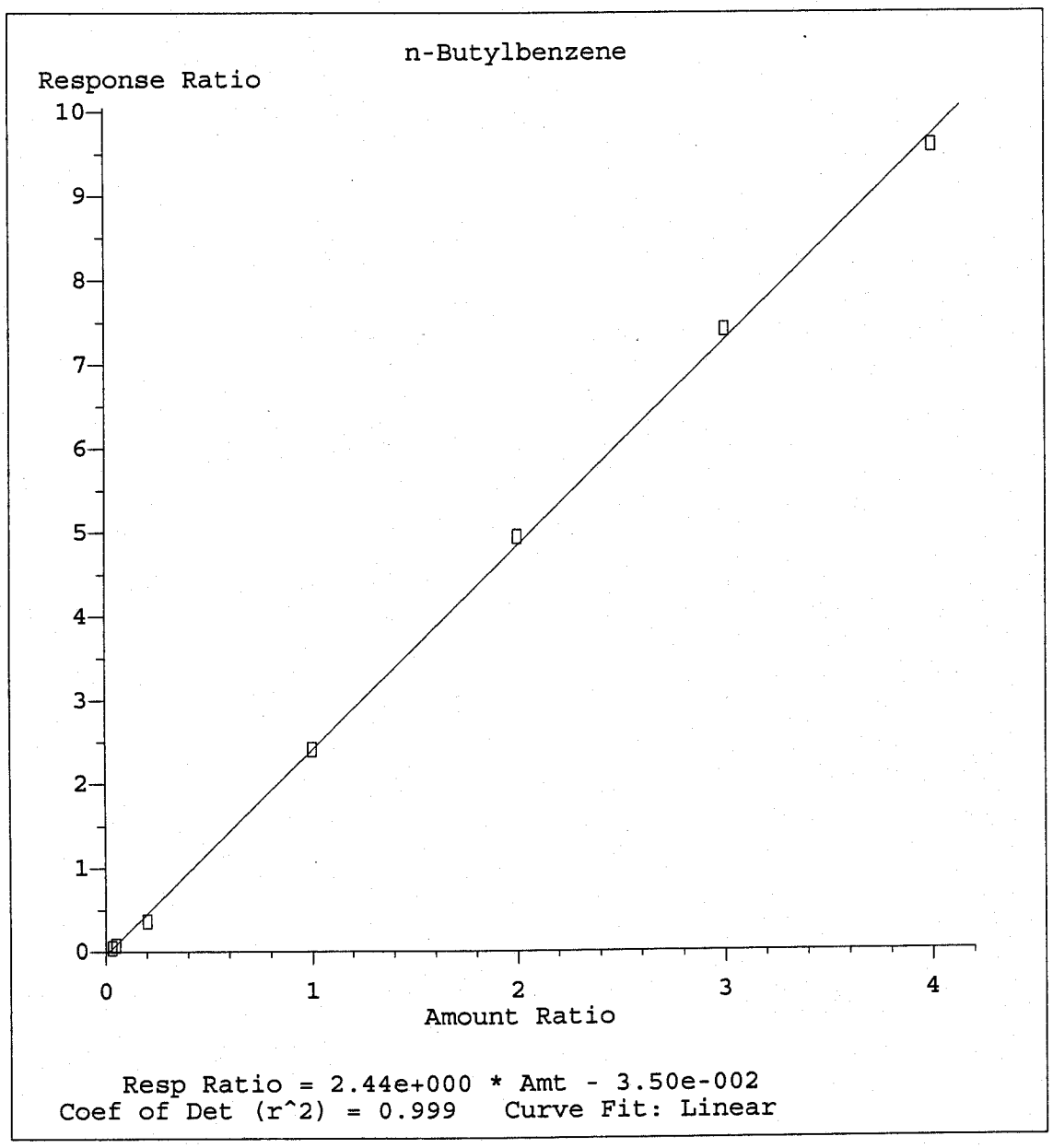
Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:51:38 2006



Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:51:38 2006



Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:50:45 2006



Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:51:38 2006

AFCEE
ORGANIC ANALYSES DATA SHEET 4
SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method: SW8260B **AAB #:** R6574

Lab Name: Life Science Laboratories, In **Contract Number:**

Instrument ID: MS01_11 **Initial Calibration ID:** 664

Second Source ID: ICV-6574 **Concentration Units (mg/L or mg/kg):** µg/L

Analyte	Expected	Found	%D	Q
Chloroform	10	10.7	7.1	
cis-1,2-Dichloroethene	10	11.0	9.8	
Tetrachloroethene	10	10.9	9.3	
trans-1,2-Dichloroethene	10	11.1	11.0	
Trichloroethene	10	10.8	8.4	
Vinyl chloride	10	9.91	0.9	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 5
CALIBRATION VERIFICATION

Analytical Method: 8260 AAB #: R6724

Lab Name: Life Science Laboratories, Inc. Contract #:

Instrument ID: HP5973 GCMS#1 Initial Calibration ID: 664

ICV ID: ICV-6574 CCV #1 ID: CCV-6724 CCV #2 ID:

SEE ATTACHED

Comments:

AFCEE FORM O-5

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\T4798.D
Acq On : 25 Sep 2006 8:41
Sample : CCV-6724
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\T913TAGM.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Mon Sep 25 09:17:47 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	109	0.00
2		Methyl tert-Butyl ether	0.581	0.581	0.0	106	0.00
3	S	Dibromofluoromethane	0.220	0.234	-6.4	112	0.00
4	S	1,2-Dichloroethane-d4	0.302	0.328	-8.6	119	0.00
5	M	Benzene	1.144	1.277	-11.6	112	0.00
6	S	Toluene-d8	0.934	1.013	-8.5	108	0.00
7	CPM	Toluene	0.743	0.814	-9.6	111	0.00
8	I	Chlorobenzene-d5	1.000	1.000	0.0	112	0.00
9	CP	Ethylbenzene	3.056	3.336	-9.2	111	0.00
10		(m+p)-Xylene	1.112	1.187	-6.7	109	0.00
11		o-Xylene	1.066	1.097	-2.9	106	0.00
12	S	Bromofluorobenzene	0.764	0.739	3.3	103	0.00
	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00
14		Isopropylbenzene	3.294	3.766	-14.3	107	0.00
15		n-Propylbenzene	4.046	4.715	-16.5	110	0.00
16		1,3,5-Trimethylbenzene	2.456	2.805	-14.2	106	0.00
17		tert-Butylbenzene	2.348	2.562	-9.1	105	0.00
18		1,2,4-Trimethylbenzene	2.170	2.487	-14.6	105	0.00
19		sec-Butylbenzene	3.371	4.050	-20.1#	109	0.00
20		p-Isopropyltoluene	2.474	2.880	-16.4	105	0.00
21		n-Butylbenzene	2.090	2.445	-17.0	108	0.00
22		Naphthalene	1.250	1.121	10.3	95	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\T4798.D
Acq On : 25 Sep 2006 8:41
Sample : CCV-6724
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\T913TAGM.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Mon Sep 25 09:17:47 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	10.000	10.000	0.0	109	0.00
2		Methyl tert-Butyl ether	10.000	9.993	0.1	106	0.00
3	S	Dibromofluoromethane	10.000	10.625	-6.3	112	0.00
4	S	1,2-Dichloroethane-d4	10.000	10.862	-8.6	119	0.00
5	M	Benzene	10.000	11.161	-11.6	112	0.00
6	S	Toluene-d8	10.000	10.854	-8.5	108	0.00
7	CPM	Toluene	10.000	10.957	-9.6	111	0.00
8	I	Chlorobenzene-d5	10.000	10.000	0.0	112	0.00
9	CP	Ethylbenzene	10.000	10.917	-9.2	111	0.00
10		(m+p)-Xylene	20.000	21.345	-6.7	109	0.00
11		o-Xylene	10.000	10.286	-2.9	106	0.00
12	S	Bromofluorobenzene	10.000	9.661	3.4	103	0.00
	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	107	0.00
14		Isopropylbenzene	10.000	11.432	-14.3	107	0.00
15		n-Propylbenzene	10.000	11.654	-16.5	110	0.00
16		1,3,5-Trimethylbenzene	10.000	10.165	-1.6	106	0.00
17		tert-Butylbenzene	10.000	10.909	-9.1	105	0.00
18		1,2,4-Trimethylbenzene	10.000	10.042	-0.4	105	0.00
19		sec-Butylbenzene	10.000	10.995	-9.9	109	0.00
20		p-Isopropyltoluene	10.000	10.080	-0.8	105	0.00
21		n-Butylbenzene	10.000	10.176	-1.8	108	0.00
22		Naphthalene	10.000	8.972	10.3	95	0.00

AFCEE
ORGANIC ANALYSES DATA SHEET 7
BLANKS

Analytical Method:	SW8260B	**AAB #:**	R6723
Lab Name:	Life Science Laboratories, In	**Contract Number:**	
Units:	µg/L	**Method Blank ID:**	MB-6723
Initial Calibration ID:	664	**File ID:**	T4802.D

Analyte	Method Blank	RL	Q
Chloroform	0.0290	0.50	U
cis-1,2-Dichloroethene	0.0320	1.0	U
Tetrachloroethene	0.0300	1.0	U
trans-1,2-Dichloroethene	0.0270	1.0	U
Trichloroethene	0.0270	1.0	U
Vinyl chloride	0.0380	1.0	U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	108	72 - 119	
4-Bromofluorobenzene	94	76 - 119	
Dibromofluoromethane	104	85 - 115	
Toluene-d8	104	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	376293	235363 - 941452	
Chlorobenzene-d5	500609	278570 - 1114278	
Fluorobenzene	1125840	589584 - 2358336	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 8
LABORATORY CONTROL SAMPLE

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

LCS ID: LCS-6723 **Initial Calibration ID:** 664

Concentration Units (mg/L or mg/kg): µg/L **File ID:** T4799.D

Analyte	Expected	Found	%R	Control Limits	Q
Chloroform	10	10.7	107	69 - 128	
cis-1,2-Dichloroethene	10	10.2	102	72 - 126	
Tetrachloroethene	10	9.78	98	66 - 128	
trans-1,2-Dichloroethene	10	10.3	103	63 - 137	
Trichloroethene	10	10.5	105	70 - 127	
Vinyl chloride	10	10.4	104	50 - 134	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	105	72 - 119	
4-Bromofluorobenzene	95	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	110	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	535172	235363 - 941452	
Chlorobenzene-d5	641102	278570 - 1114278	
Fluorobenzene	1301187	589584 - 2358336	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 8
LABORATORY CONTROL SAMPLE

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

LCS ID: LCSD-6723 **Initial Calibration ID:** 664

Concentration Units (mg/L or mg/kg): µg/L **File ID:** T4800.D

Analyte	Expected	Found	%R	Control Limits	Q
Chloroform	10	10.6	106	69 - 128	
cis-1,2-Dichloroethene	10	10.2	102	72 - 126	
Tetrachloroethene	10	9.52	95	66 - 128	
trans-1,2-Dichloroethene	10	10.4	104	63 - 137	
Trichloroethene	10	10.5	105	70 - 127	
Vinyl chloride	10	10.2	102	50 - 134	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	105	72 - 119	
4-Bromofluorobenzene	97	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	108	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	535383	235363 - 941452	
Chlorobenzene-d5	658610	278570 - 1114278	
Fluorobenzene	1342068	589584 - 2358336	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 9
MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Concentration Units (mg/L or mg/kg): µg/L **% Solids:** 0

Parent Field Sample ID: LCSD-6723 **MS ID:** LCS-6723 **MSD ID:** LCSD-6723

Analyte	Parent Sample Result	Spike Added	Spiked Sample Result	%R	Duplicate Spiked Sample Result	%R	%RPD	Control Limits %R	Control Limits %RPD	Q
Chloroform	0	10.0	10.7	107	10.6	106	1	69 - 128	20	
cis-1,2-Dichloroethene	0	10.0	10.2	102	10.2	102	0	72 - 126	20	
Tetrachloroethene	0	10.0	9.78	98	9.52	95	3	66 - 128	20	
trans-1,2-Dichloroethene	0	10.0	10.3	103	10.4	104	0	63 - 137	20	
Trichloroethene	0	10.0	10.5	105	10.5	105	0	70 - 127	20	
Vinyl chloride	0	10.0	10.4	104	10.2	102	2	50 - 134	20	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 10
HOLDING TIMES

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Field Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Max. Holding Time E	Time Held Ext.	Date Analyzed	Max. Holding Time A	Time Held Anal.	Q
101M0216RA	0609014-001A	21-Sep-06	22-Sep-06				25-Sep-06	14	3.9	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 11
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: SW8260B **AAB#:**

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Instrument ID #: MS01_11

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Lab Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
TB091306A1	TB091306A1	13-Sep-06	11:03	13-Sep-06	11:32
ICAL 0.3 PPB	ICAL 0.3 PPB	13-Sep-06	11:32	13-Sep-06	12:05
ICAL 0.5 PPB	ICAL 0.5 PPB	13-Sep-06	12:05	13-Sep-06	12:38
ICAL 2.0 PPB	ICAL 2.0 PPB	13-Sep-06	12:38	13-Sep-06	13:11
ICAL 10 PPB	ICAL 10 PPB	13-Sep-06	13:11	13-Sep-06	13:44
ICAL 20 PPB	ICAL 20 PPB	13-Sep-06	13:44	13-Sep-06	14:17
ICAL 30 PPB	ICAL 30 PPB	13-Sep-06	14:17	13-Sep-06	14:49
ICAL 40 PPB	ICAL 40 PPB	13-Sep-06	14:49	13-Sep-06	18:02
ICV-6574	ICV-6574	13-Sep-06	18:02	13-Sep-06	18:02
TB092506A1	TB092506A1	25-Sep-06	8:13	25-Sep-06	8:41
CCV-6723	CCV-6723	25-Sep-06	8:41	25-Sep-06	9:14
LCS-6723	LCS-6723	25-Sep-06	9:14	25-Sep-06	9:46
LCSD-6723	LCSD-6723	25-Sep-06	9:46	25-Sep-06	10:52
MB-6723	MB-6723	25-Sep-06	10:52	25-Sep-06	11:58
101M0216RA	0609014-001A	25-Sep-06	11:58	25-Sep-06	11:58

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 12
INSTRUMENT PERFORMANCE CHECK
(BFB or DFTPP)

Analytical Method:	SW8260B	**AAB #:**	MS01_11_060913A
Lab Name:	Life Science Laboratories, Inc.	**Contract #:**	
Instrument ID:	MS01_11	**Injection Date/Time:**	9/13/2006 11:03:00 AM
Initial Calibration ID:	664	**File ID:**	C:\HPCHEM\1\DATA\T4596.D
Compound:	SW8260B	**Sample ID:**	TB091306A1

Mass	Ion Abundance Criteria	% Relative Abundance	Q
50	15 - 40% of m/z 95	26.3	
75	30 - 60% of m/z 95	58.4	
95	Base peak, 100% relative abundance	100	
96	5 - 9% of m/z 95	6.8	
173	Less than 2% of m/z 174	0.5	
174	Greater than 50% of m/z 95	75.5	
175	5 - 9% of m/z 174	7.2	
176	Greater than 95% but less than 101% of m/z 174	96.4	
177	5 - 9% of m/z 176	6.8	

AFCEE
ORGANIC ANALYSES DATA SHEET 12
INSTRUMENT PERFORMANCE CHECK
(BFB or DFTPP)

Analytical Method:	SW8260B	**AAB #:**	MS01_11_060925C
Lab Name:	Life Science Laboratories, Inc.	**Contract #:**	
Instrument ID:	MS01_11	**Injection Date/Time:**	9/25/2006 8:13:00 AM
Initial Calibration ID:	664	**File ID:**	C:\HPCHEM\1\DATA\T4797.D
Compound:	SW8260B	**Sample ID:**	TB092506A1

Mass	Ion Abundance Criteria	% Relative Abundance	Q
50	15 - 40% of m/z 95	27.0	
75	30 - 60% of m/z 95	58.2	
95	Base peak, 100% relative abundance	100	
96	5 - 9% of m/z 95	6.8	
173	Less than 2% of m/z 174	0.5	
174	Greater than 50% of m/z 95	73.8	
175	5 - 9% of m/z 174	8.0	
176	Greater than 95% but less than 101% of m/z 174	96.8	
177	5 - 9% of m/z 176	6.6	

Raw Data

GC/MS Volatile Organics Data

GC/MS Volatile Combined MDL Study Summary

Instrument ID(s): MS1/HP5973,MS2/HP5970,MS3/HP5973 **Column ID(s)**: Rtx-VMS, 0.18mm x 40m, 3.0 df, Rtx-502.2, 0.53 mm x 105m, 3.0 df MDL Sample Size = 10 & 25 mL

Analytical Method	Purge Method	Matrix	Analyte	Date Analyzed	MDL #1	MDL #2	MDL #3	MDL #4	MDL #5	MDL #6	MDL #7	Test Conc. (ng/L)	Std Dev	MDL (ng/L)	MDL (ug/L)
8260B/624/524.2	5030B	Water	Dichlorodifluoromethane	01/25/06	88.67	22.53	33.99	47.24	48.96	37.05	56.51	50.00	21.185	66.58	0.067
8260B/624/524.2	5030B	Water	Chloromethane	01/25/06	131.16	35.17	17.78	19.89	77.01	63.64	36.35	150.00	40.241	126.48	0.126
8260B/624/524.2	5030B	Water	Vinyl chloride	01/25/06	81.90	88.31	61.91	68.52	76.96	61.95	91.59	50.00	12.125	38.11	0.038
8260B/624/524.2	5030B	Water	Bromomethane	01/25/06	188.59	174.65	170.84	163.15	190.64	184.56	220.40	50.00	18.630	58.55	0.059
8260B/624/524.2	5030B	Water	Chloroethane	02/02/06	1334.01	1435.58	1450.68	1413.36	1401.82	1412.77	1411.37	2000.00	36.869	115.88	0.116
8260B/624/524.2	5030B	Water	Trichlorofluoromethane	01/24/06	44.67	55.99	44.43	40.48	55.39	41.88	51.02	50.00	6.387	20.07	0.020
8260B/624/524.2	5030B	Water	Acetone	02/02/06	3622.29	4110.57	4398.53	4315.36	4168.47	4219.44	3927.93	4000.00	261.986	823.42	0.823
8260B/624/524.2	5030B	Water	Acrolein	02/02/06	13444.17	15063.64	15687.09	15045.86	15431.19	15324.60	15365.64	25000.00	742.192	2332.71	2.333
8260B/624/524.2	5030B	Water	1,1-Dichloroethene	01/25/06	92.96	109.13	103.60	112.37	110.04	92.93	70.99	150.00	14.618	45.95	0.046
8260B/624/524.2	5030B	Water	Methyl iodide	01/25/06	100.21	77.93	104.34	68.45	77.62	60.70	83.16	50.00	15.836	49.77	0.050
8260B/624/524.2	5030B	Water	1,1,2-Trichloro-1,2,2-trifluoroethane	01/25/06	117.60	110.28	117.08	108.44	109.38	79.26	94.71	150.00	13.733	43.16	0.043
8260B/624/524.2	5030B	Water	Methyl acetate	02/02/06	1763.96	1774.21	2022.26	1831.82	1842.17	1966.77	1907.58	2000.00	97.093	305.16	0.305
8260B/624/524.2	5030B	Water	Acrylonitrile	02/02/06	8088.76	8539.66	8860.54	8378.87	8180.94	8233.37	8550.16	10000.00	266.793	838.53	0.839
8260B/624/524.2	5030B	Water	Methylene chloride	01/25/06	138.51	161.44	134.05	130.92	128.95	134.03	135.86	50.00	10.931	34.36	0.034
8260B/624/524.2	5030B	Water	Carbon disulfide	01/24/06	42.76	32.19	45.45	41.67	30.86	31.57	31.62	50.00	6.383	20.06	0.020
8260B/624/524.2	5030B	Water	trans-1,2-Dichloroethene	01/24/06	30.31	26.04	9.13	9.80	8.75	19.66	18.80	50.00	8.653	27.20	0.027
8260B/624/524.2	5030B	Water	Methyl tert-Butyl ether	01/25/06	108.61	106.25	104.36	87.94	91.43	105.73	96.76	150.00	8.106	25.48	0.025
8260B/624/524.2	5030B	Water	1,1-Dichloroethane	01/24/06	27.83	10.54	0.00	12.11	0.00	12.98	22.81	50.00	10.471	32.91	0.033
8260B/624/524.2	5030B	Water	Vinyl acetate	02/02/06	1122.90	890.72	1071.91	1020.14	922.71	719.67	967.82	2000.00	133.345	419.10	0.419
8260B/624/524.2	5030B	Water	2-Butanone	02/02/06	3112.51	3775.95	3327.22	3468.67	3542.45	3471.31	3333.68	4000.00	206.600	649.34	0.649
8260B/624/524.2	5030B	Water	cis-1,2-Dichloroethene	01/25/06	117.11	111.87	91.07	120.62	114.16	108.97	101.27	150.00	10.135	31.85	0.032
8260B/624/524.2	5030B	Water	Bromochloromethane	01/25/06	36.59	40.21	64.75	49.87	69.08	12.92	46.56	50.00	18.776	59.01	0.059
8260B/624/524.2	5030B	Water	Chloroform	01/25/06	77.91	93.45	81.36	95.87	104.85	88.45	94.66	50.00	9.180	28.85	0.029
8260B/624/524.2	5030B	Water	2,2-Dichloropropane	01/25/06	111.59	103.71	66.32	64.97	55.85	50.10	45.87	150.00	26.055	81.89	0.082
8260B/624/524.2	5030B	Water	Cyclohexane	01/25/06	114.25	107.55	90.92	92.43	93.87	58.72	79.81	150.00	18.221	57.27	0.057
8260B/624/524.2	5030B	Water	Dibromofluoromethane	01/25/06	74.18	69.81	58.38	61.55	80.73	77.19	67.79	50.00	8.120	25.52	0.026
8260B/624/524.2	5030B	Water	1,2-Dichloroethane-d4	01/25/06	93.21	91.50	92.62	72.75	62.23	84.71	85.54	50.00	11.651	36.62	0.037
8260B/624/524.2	5030B	Water	1,2-Dichloroethane	01/25/06	50.54	59.35	58.37	58.15	67.75	73.60	56.47	50.00	7.648	24.04	0.024
8260B/624/524.2	5030B	Water	1,1,1-Trichloroethane	01/24/06	19.37	22.78	9.81	19.01	20.03	25.22	18.71	50.00	4.799	15.08	0.015
8260B/624/524.2	5030B	Water	1,1-Dichloropropene	01/24/06	42.88	60.93	44.16	58.42	60.67	48.80	50.93	50.00	7.649	24.04	0.024
8260B/624/524.2	5030B	Water	Carbon tetrachloride	01/25/06	93.74	85.94	110.61	92.32	92.63	77.70	87.86	150.00	10.056	31.61	0.032

9-28-06

GC/MS Volatile Combined MDL Study Summary

Analytical Method	Purge Method	Matrix	Analyte	Date Analyzed	MDL #1	MDL #2	MDL #3	MDL #4	MDL #5	MDL #6	MDL #7	Test Conc. (ng/L)	Std Dev	MDL (ng/L)	MDL (ug/L)
8260B/624/524.2	5030B	Water	Benzene	01/24/06	37.93	43.59	42.43	35.96	39.16	40.61	34.97	50.00	3.206	10.08	0.010
8260B/624/524.2	5030B	Water	Trichloroethene	01/25/06	83.10	65.73	67.67	66.57	67.75	61.54	54.08	50.00	8.735	27.45	0.027
8260B/624/524.2	5030B	Water	Dibromomethane	01/24/06	47.79	35.23	52.50	33.84	40.96	14.80	34.96	50.00	12.126	38.11	0.038
8260B/624/524.2	5030B	Water	Methylcyclohexane	01/25/06	98.21	80.48	80.37	87.75	85.38	62.19	82.24	150.00	10.830	34.04	0.034
8260B/624/524.2	5030B	Water	1,2-Dichloropropane	01/25/06	102.32	80.06	82.49	98.58	94.99	90.63	97.65	150.00	8.411	26.44	0.026
8260B/624/524.2	5030B	Water	Bromodichloromethane	01/25/06	57.77	61.02	72.46	74.78	51.66	61.84	78.69	50.00	9.944	31.25	0.031
8260B/624/524.2	5030B	Water	2-Chloroethylvinyl ether	02/02/06	2410.17	2886.41	2932.47	3004.78	3050.47	2842.45	3018.27	2000.00	219.340	689.39	0.689
8260B/624/524.2	5030B	Water	4-Methyl-2-pentanone	02/02/06	3072.77	3394.51	3381.85	3308.72	3298.16	3263.77	3431.02	4000.00	119.342	375.09	0.375
8260B/624/524.2	5030B	Water	cis-1,3-Dichloropropene	01/25/06	91.42	90.97	89.52	78.16	80.12	82.37	74.34	150.00	6.820	21.43	0.021
8260B/624/524.2	5030B	Water	Toluene-d8	01/24/06	55.34	52.51	48.28	47.46	53.24	44.15	52.29	50.00	3.930	12.35	0.012
8260B/624/524.2	5030B	Water	Toluene	01/25/06	36.36	33.60	25.63	24.80	28.99	40.24	31.24	50.00	5.629	17.69	0.018
8260B/624/524.2	5030B	Water	trans-1,3-Dichloropropene	01/25/06	30.30	48.86	32.58	32.98	45.86	33.01	22.46	50.00	9.157	28.78	0.029
8260B/624/524.2	5030B	Water	1,1,2-Trichloroethane	01/24/06	29.47	40.04	36.80	32.19	53.34	50.14	35.82	50.00	8.941	28.10	0.028
8260B/624/524.2	5030B	Water	2-Hexanone	02/02/06	2496.97	2892.23	3038.73	2673.97	2804.55	2977.37	2790.57	4000.00	184.386	579.52	0.580
8260B/624/524.2	5030B	Water	1,2-Dibromoethane	01/25/06	108.85	93.59	98.33	89.43	95.46	109.03	77.66	150.00	11.000	34.57	0.035
8260B/624/524.2	5030B	Water	1,3-Dichloropropane	01/25/06	110.55	107.96	108.81	88.91	105.59	107.17	101.35	150.00	7.396	23.25	0.023
8260B/624/524.2	5030B	Water	Dibromochloromethane	01/25/06	39.88	77.64	73.94	56.94	69.23	56.69	68.01	50.00	12.966	40.75	0.041
8260B/624/524.2	5030B	Water	Tetrachloroethene	01/25/06	82.06	81.78	78.32	59.51	78.33	61.76	76.81	50.00	9.403	29.55	0.030
8260B/624/524.2	5030B	Water	1-Chlorohexane	01/25/06	106.83	97.49	108.89	90.44	90.99	63.56	90.45	150.00	14.983	47.09	0.047
8260B/624/524.2	5030B	Water	1,1,1,2-Tetrachloroethane	01/25/06	65.98	62.13	39.07	81.72	90.31	73.57	82.42	50.00	17.067	53.64	0.054
8260B/624/524.2	5030B	Water	Chlorobenzene	01/24/06	40.53	37.21	39.17	44.54	39.90	33.39	39.66	50.00	3.384	10.64	0.011
8260B/624/524.2	5030B	Water	Ethylbenzene	01/25/06	41.68	60.31	64.32	57.82	60.72	63.46	60.80	50.00	7.695	24.19	0.024
8260B/624/524.2	5030B	Water	(m+p)-Xylene	01/26/06	179.97	185.16	171.38	170.87	188.93	192.83	173.78	200.00	8.814	27.70	0.028
8260B/624/524.2	5030B	Water	o-Xylene	01/25/06	99.58	95.02	106.72	98.43	94.96	97.75	93.00	150.00	4.507	14.16	0.014
8260B/624/524.2	5030B	Water	Styrene	01/25/06	23.81	23.40	34.65	26.68	12.72	24.65	25.54	50.00	6.446	20.26	0.020
8260B/624/524.2	5030B	Water	Bromoform	01/27/06	164.36	157.47	168.08	189.50	179.09	165.41	198.69	150.00	14.987	47.11	0.047
8260B/624/524.2	5030B	Water	Bromofluorobenzene	01/25/06	74.85	79.70	50.53	65.68	66.53	82.02	62.08	50.00	10.985	34.53	0.035
8260B/624/524.2	5030B	Water	trans-1,4-Dichloro-2-butene	02/07/06	1375.94	1270.01	1174.42	1244.06	1060.29	809.85	1192.92	1000.00	182.405	573.30	0.573
8260B/624/524.2	5030B	Water	1,1,2,2-Tetrachloroethane	01/25/06	113.79	113.22	71.69	71.15	47.87	67.54	59.69	150.00	25.692	80.75	0.081
8260B/624/524.2	5030B	Water	Isopropylbenzene	01/25/06	32.07	33.16	19.88	36.45	40.51	30.69	36.48	50.00	6.562	20.62	0.021
8260B/624/524.2	5030B	Water	1,2,3-Trichloropropane	01/25/06	80.61	48.41	74.81	94.05	69.11	58.85	74.00	50.00	14.762	46.40	0.046
8260B/624/524.2	5030B	Water	Bromobenzene	01/25/06	24.28	39.94	19.48	30.07	33.32	35.33	45.63	50.00	8.939	28.09	0.028
60B/624/524.2	5030B	Water	n-Propylbenzene	01/24/06	50.73	45.79	45.54	50.47	43.33	47.61	44.47	50.00	2.876	9.04	0.009

GC/MS Volatile Combined MDL Study Summary

Analytical Method	Purge Method	Matrix	Analyte	Date Analyzed	MDL #1	MDL #2	MDL #3	MDL #4	MDL #5	MDL #6	MDL #7	Test Conc. (ng/L)	Std Dev	MDL (ng/L)	MDL (ug/L)
8260B/624/524.2	5030B	Water	2-Chlorotoluene	01/24/06	29.36	33.71	40.16	37.23	33.23	34.43	40.14	50.00	3.946	12.40	0.012
8260B/624/524.2	5030B	Water	4-Chlorotoluene	01/25/06	33.22	31.01	30.84	33.96	35.47	22.59	21.56	50.00	5.531	17.39	0.017
8260B/624/524.2	5030B	Water	1,3,5-Trimethylbenzene	01/24/06	30.63	27.96	36.71	25.61	24.17	31.88	30.94	50.00	4.216	13.25	0.013
8260B/624/524.2	5030B	Water	tert-Butylbenzene	01/25/06	28.97	22.53	30.03	23.18	36.01	26.24	33.57	50.00	5.059	15.90	0.016
8260B/624/524.2	5030B	Water	1,2,4-Trimethylbenzene	01/24/06	28.14	28.48	29.68	20.57	21.08	22.40	28.15	50.00	3.954	12.43	0.012
8260B/624/524.2	5030B	Water	sec-Butylbenzene	01/25/06	109.56	113.11	113.82	112.30	104.70	99.58	104.70	150.00	5.372	16.88	0.017
8260B/624/524.2	5030B	Water	1,3-Dichlorobenzene	01/25/06	58.83	44.51	52.46	56.00	54.15	42.77	45.27	50.00	6.321	19.87	0.020
8260B/624/524.2	5030B	Water	p-Isopropyltoluene	01/25/06	16.28	19.52	23.95	28.12	16.39	23.75	22.26	50.00	4.335	13.62	0.014
8260B/624/524.2	5030B	Water	1,4-Dichlorobenzene	01/25/06	72.21	64.67	74.17	61.30	63.86	59.90	67.71	50.00	5.376	16.90	0.017
8260B/624/524.2	5030B	Water	n-Butylbenzene	01/24/06	31.05	36.01	33.18	23.82	28.66	31.63	25.78	50.00	4.238	13.32	0.013
8260B/624/524.2	5030B	Water	1,2-Dichlorobenzene	01/25/06	51.33	62.17	53.71	67.26	53.09	57.74	64.31	50.00	6.167	19.38	0.019
8260B/624/524.2	5030B	Water	1,2-Dibromo-3-chloropropane	02/02/06	1775.69	1781.33	1849.51	1743.60	1759.14	1849.17	1983.15	2000.00	83.005	260.88	0.261
8260B/624/524.2	5030B	Water	1,2,4-Trichlorobenzene	01/24/06	29.39	31.85	29.37	9.32	26.51	29.03	20.28	50.00	7.873	24.74	0.025
8260B/624/524.2	5030B	Water	Hexachlorobutadiene	01/27/06	173.34	143.90	192.35	185.84	162.89	174.09	142.02	150.00	19.401	60.98	0.061
8260B/624/524.2	5030B	Water	Naphthalene	01/24/06	45.18	29.04	26.89	32.82	24.46	22.66	35.10	50.00	7.683	24.15	0.024
8260B/624/524.2	5030B	Water	1,2,3-Trichlorobenzene	01/27/06	91.41	103.94	101.72	113.42	114.15	96.55	124.60	150.00	11.475	36.07	0.036

MDLs are calculated using the method in Appendix B, Part 136, Revision 1.11 of the Federal Register, Volume 49, No. 209, October 1984.

MDL=(S.Dev) x (t-value)

The MDL is a statistical measurement which defines the theoretical minimum concentration of a substance which can be measured and reported with 99% confidence that the analyte concentration is greater than zero.

MDL Verification: 7/27/06

Sample Data

AFCEE
ORGANIC ANALYSES DATA PACKAGE

Analytical Method: SW8260B

AAB #: R6723

Lab Name: Life Science Laboratories, Inc.

Contract Number:

Base/Command:

Prime Contractor: FPM Group

Field Sample ID	Lab Sample ID
101M0216RA	0609014-001A

Comments:

I certify this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager's designee, as verified by the following signature.

Signature: _____ Name: Monika Santucci

Date: _____ Title: Project Manager

AFCEE
ORGANIC ANALYSES DATA SHEET 10
HOLDING TIMES

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Field Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Max. Holding Time E	Time Held Ext.	Date Analyzed	Max. Holding Time A	Time Held Anal.	Q
101M0216RA	0609014-001A	21-Sep-06	22-Sep-06				25-Sep-06	14	3.9	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 2
RESULTS

Analytical Method: SW8260B **Preparatory Method:** **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Field Sample ID: 101M0216RA **Lab Sample ID:** 0609014-001A **Matrix:** Groundwater

% Solids: 0 **Initial Calibration ID:** 664 **File ID:** T4804.D

Date Received: 22-Sep-06 **Date Extracted:** **Date Analyzed:** 25-Sep-06

Concentration Units (ug/L or mg/Kg dry weight): µg/L **Sample Size:** 10 mL

Analyte	MDL	RL	Concentration	Dilution	Qualifier
Chloroform	0.0290	0.50	0.0290	1	U
cis-1,2-Dichloroethene	0.0320	1.0	15.5	1	
Tetrachloroethene	0.0300	1.0	0.0300	1	U
trans-1,2-Dichloroethene	0.0270	1.0	0.0270	1	U
Trichloroethene	0.0270	1.0	0.730	1	F
Vinyl chloride	0.0380	1.0	0.330	1	F

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	106	72 - 119	
4-Bromofluorobenzene	107	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	106	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	415710	235363 - 941452	
Chlorobenzene-d5	542358	278570 - 1114278	
Fluorobenzene	1176989	589584 - 2358336	

Comments:

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4804.D
Acq On : 25 Sep 2006 11:58
Sample : 0609014-001A
Misc : SAMP,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:13 2006

Vial: 22
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913FPM2.RES

Quant Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1176989	10.00	ug/L	0.00
10) Chlorobenzene-d5	13.76	82	542358	10.00	ug/L	0.00
13) 1,4-Dichlorobenzene-d4	17.08	152	415710	10.00	ug/L	0.00
System Monitoring Compounds						
6) Dibromofluoromethane	8.59	113	266550	10.30	ug/L	0.00
Spiked Amount 10.000			Recovery =	103.00%		
7) 1,2-Dichloroethane-d4	9.27	65	376176	10.57	ug/L	0.00
Spiked Amount 10.000			Recovery =	105.70%		
9) Toluene-d8	11.68	98	1165476	10.61	ug/L	0.00
Spiked Amount 10.000			Recovery =	106.10%		
12) Bromofluorobenzene	15.44	95	442010	10.66	ug/L	0.00
Spiked Amount 10.000			Recovery =	106.60%		
Target Compounds						Qvalue
2) Vinyl chloride	3.39	62	15051	0.33	ug/L	87
4) cis-1,2-Dichloroethene	8.00	96	491906	15.48	ug/L	97
8) Trichloroethene	9.87	95	24146	0.73	ug/L	96

(#) = qualifier out of range (m) = manual integration

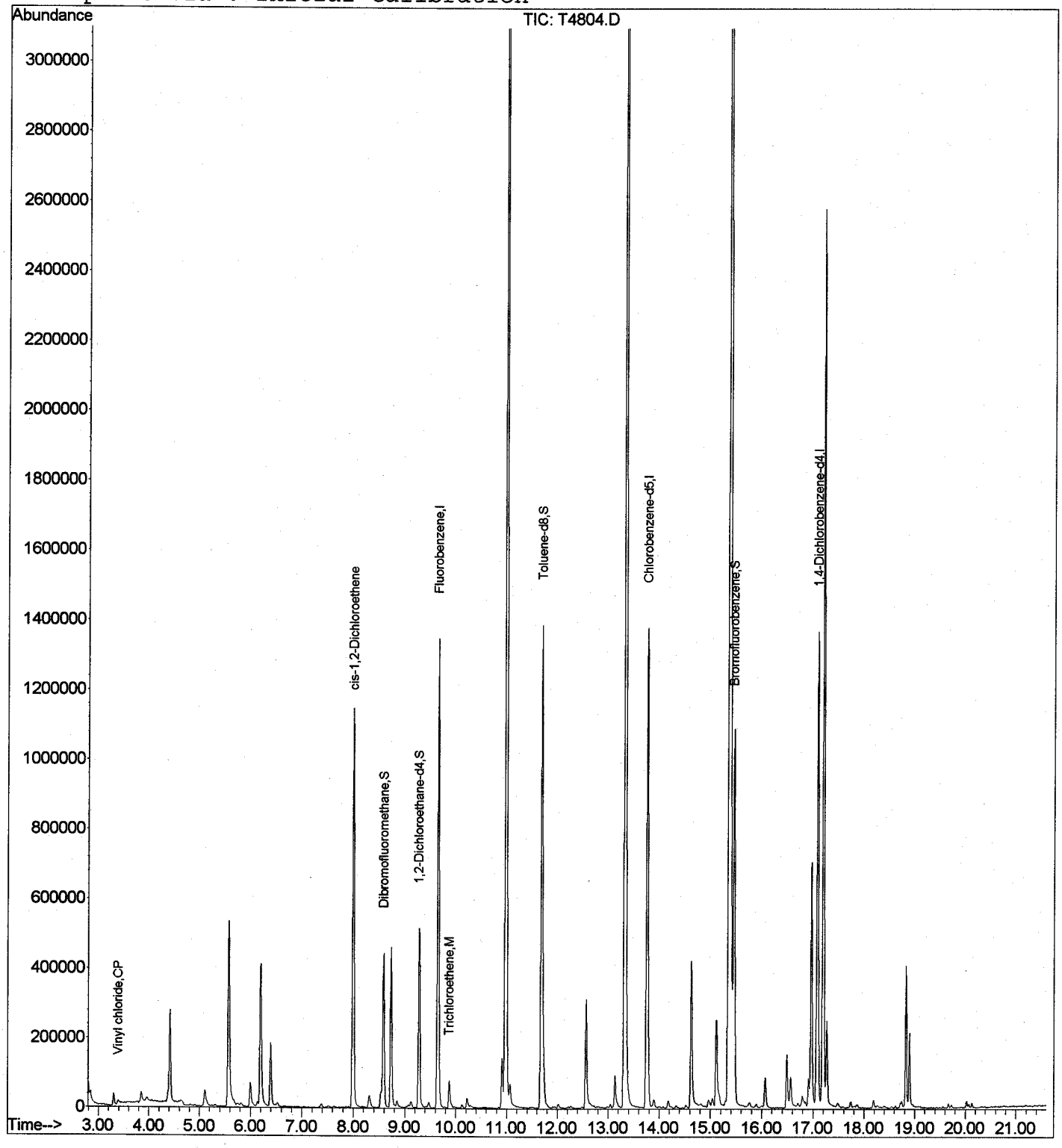
Quantitation Report

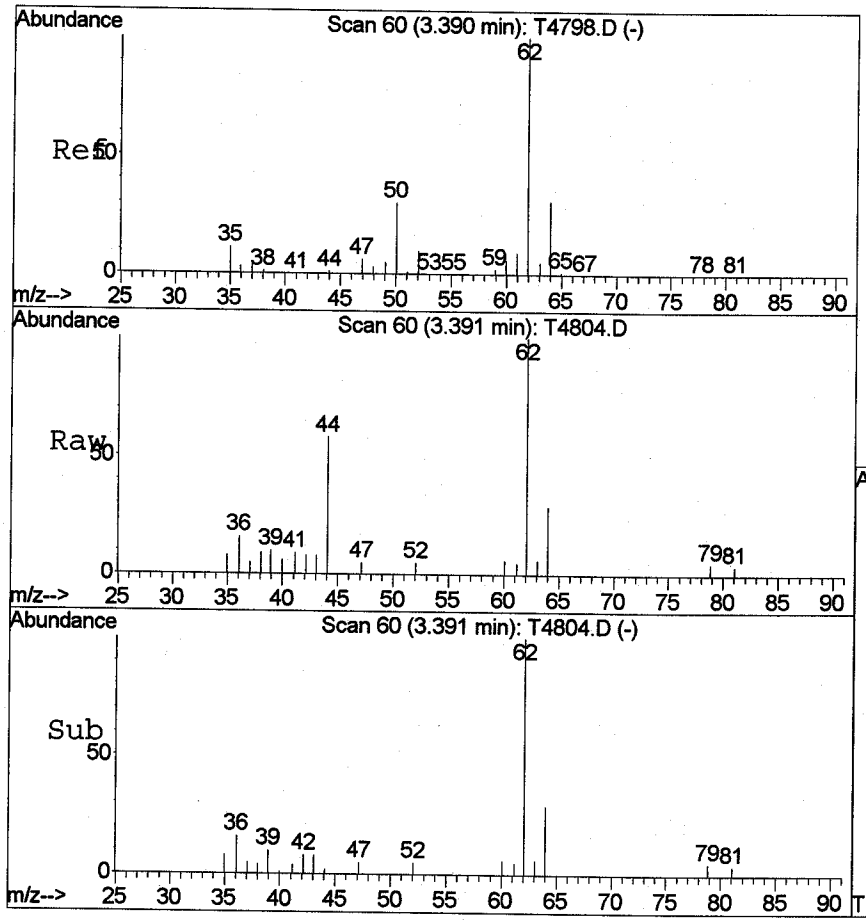
Data File : C:\HPCHEM\1\DATA\T4804.D
Acq On : 25 Sep 2006 11:58
Sample : 0609014-001A
Misc : SAMP,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:13 2006

Vial: 22
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913FPM2.RES

Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration

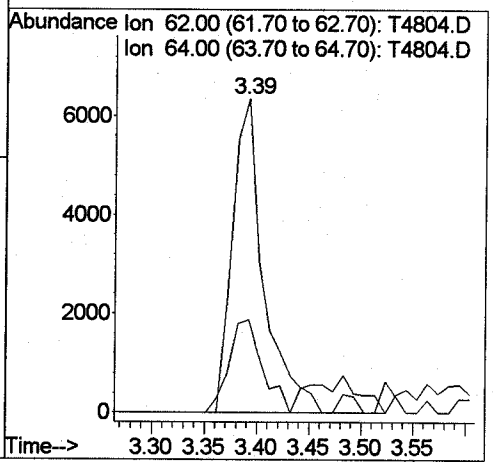


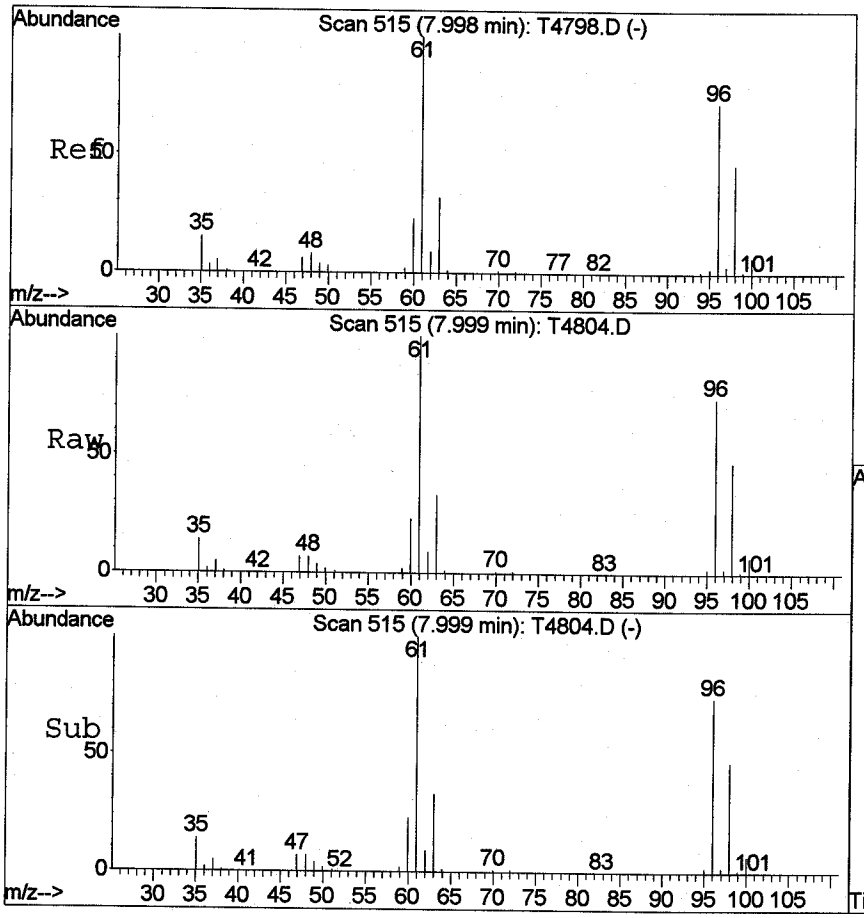


#2
Vinyl chloride
Concen: 0.33 ug/L
RT: 3.39 min Scan# 60
Delta R.T. 0.00 min
Lab File: T4804.D
Acq: 25 Sep 2006 11:58

Tgt Ion: 62 Resp: 15051

Ion	Ratio	Lower	Upper
62	100		
64	27.8	0.0	51.7

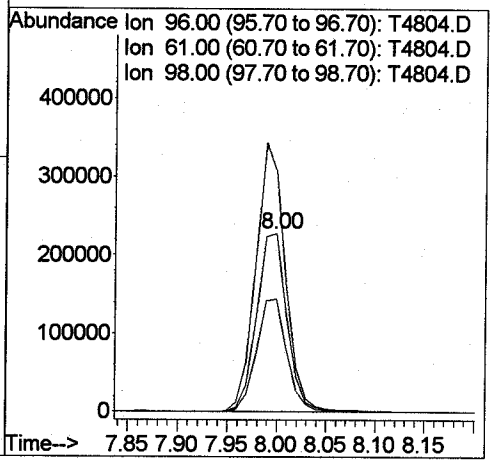


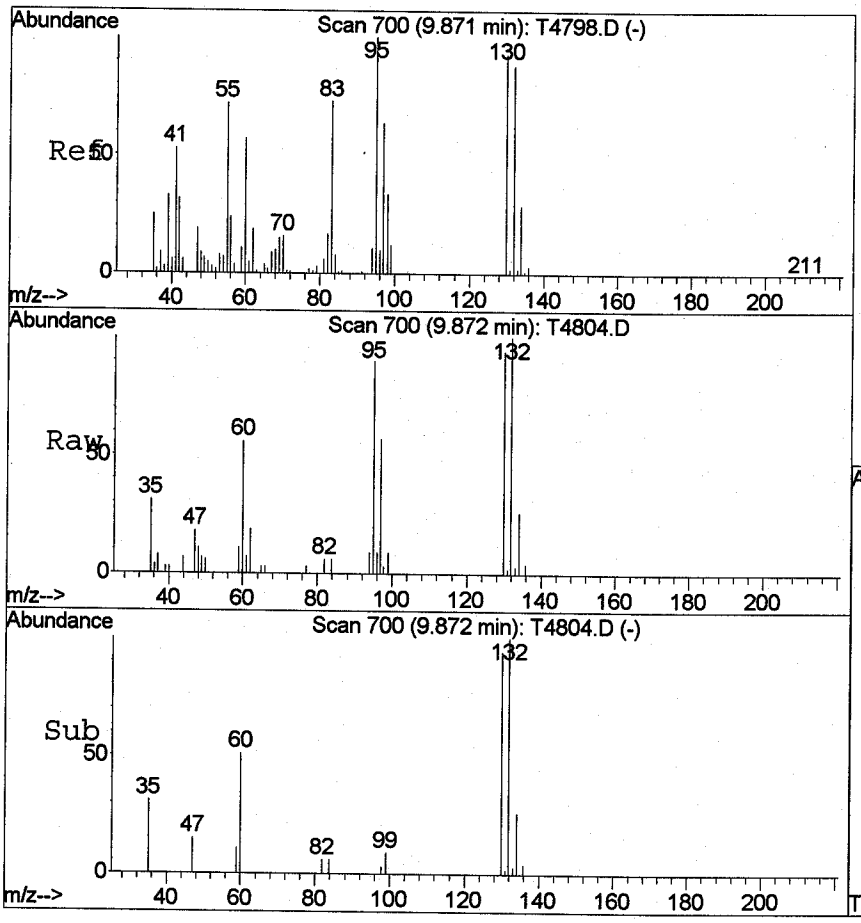


#4
cis-1,2-Dichloroethene
Concen: 15.48 ug/L
RT: 8.00 min Scan# 515
Delta R.T. 0.00 min
Lab File: T4804.D
Acq: 25 Sep 2006 11:58

Tgt Ion: 96 Resp: 491906

Ion	Ratio	Lower	Upper
96	100		
61	146.0	111.7	171.7
98	63.7	34.6	94.6

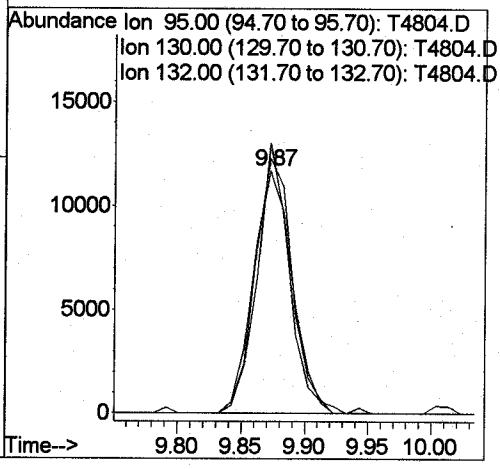




#8
Trichloroethene
Concen: 0.73 ug/L
RT: 9.87 min Scan# 700
Delta R.T. 0.00 min
Lab File: T4804.D
Acq: 25 Sep 2006 11:58

Tgt Ion: 95 Resp: 24146

Ion	Ratio	Lower	Upper
95	100		
130	104.2	70.5	130.5
132	99.3	66.1	126.1



Standards Data

AFCEE
ORGANIC ANALYSES DATA SHEET 3
INITIAL MULTIPOINT CALIBRATION-GC/MS ANALYSIS

Analytical Method: 8260B

AAB #:

Lab Name: Life Science Laboratories, Inc.

Contract #:

Instrument ID: HP5973 GCMS#1

Date of Initial Calibration: 13SEP06

Initial Calibration ID: 664

Concentration Units (ug/L or mg/kg): ug/L

SEE ATTACHED

Comments:

AFCEE FORM O-3

Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 06:59:51 2006
Response via : Continuing Calibration

ICAL #664

Calibration Files
0.3 =T4597.D 0.5 =T4598.D 2.0 =T4599.D
10 =T4600.D 20 =T4601.D 30 =T4602.D

		Compound	0.3	0.5	2.0	10	20	30	Avg	%RSD
			ISTD							
1)	I	Fluorobenzene								
2)		Dichlorodifluoromet	0.251	0.338	0.340	0.363	0.376	0.356	0.339	12.18
3)	P	Chloromethane	0.537	0.477	0.478	0.468	0.487	0.468	0.483	5.21
4)	CP	Vinyl chloride	0.320	0.366	0.369	0.393	0.414	0.401	0.382	8.73
5)		Bromomethane	0.196	0.233	0.186	0.187	0.195	0.195	0.199	8.07
6)		Chloroethane	0.249	0.265	0.273	0.285	0.290	0.279	0.274	4.97
7)		Trichlorofluorometh	0.467	0.441	0.495	0.534	0.548	0.518	0.505	7.70
8)		Acetone	0.084	0.077	0.062	0.065	0.065	0.065	0.069	11.71
9)		Acrolein	0.019	0.019	0.020	0.021	0.023	0.024	0.021	10.51
10)	CPM	1,1-Dichloroethene	0.181	0.181	0.195	0.213	0.220	0.217	0.204	8.82
11)		Methyl iodide		0.065	0.092	0.183	0.225	0.233	0.174	44.88
12)		1,1,2-Trichloro-1,2	0.225	0.208	0.243	0.262	0.263	0.256	0.245	8.66
13)		Methyl acetate	0.224	0.236	0.229	0.218	0.223	0.224	0.226	2.57
14)		Acrylonitrile	0.063	0.060	0.067	0.071	0.072	0.074	0.068	8.13
15)		Methylene chloride	0.300	0.290	0.273	0.273	0.272	0.267	0.278	4.55
16)		Carbon disulfide	0.813	0.776	0.796	0.874	0.877	0.855	0.835	4.76
')		trans-1,2-Dichloroe	0.238	0.230	0.236	0.259	0.261	0.259	0.249	5.67
18)		Methyl tert-Butyl e	0.530	0.517	0.548	0.601	0.623	0.622	0.581	8.30
19)	P	1,1-Dichloroethane	0.499	0.476	0.510	0.530	0.523	0.516	0.510	3.55
20)		Vinyl acetate	0.228	0.218	0.227	0.259	0.287	0.295	0.259	13.35
21)		2-Butanone	0.075	0.092	0.090	0.095	0.101	0.102	0.094	10.14
22)		cis-1,2-Dichloroeth	0.242	0.248	0.268	0.280	0.285	0.282	0.270	6.70
23)		Bromochloromethane	0.115	0.113	0.126	0.130	0.130	0.130	0.125	6.16
24)	CP	Chloroform	0.481	0.472	0.491	0.526	0.519	0.511	0.502	4.03
25)		2,2-Dichloropropane	0.393	0.383	0.402	0.444	0.458	0.459	0.427	7.77
26)		Cyclohexane		0.441	0.477	0.579	0.594	0.582	0.543	12.24
27)	S	Dibromofluoromethan	0.213	0.188	0.215	0.228	0.232	0.231	0.220	7.41
28)	S	1,2-Dichloroethane-	0.321	0.288	0.297	0.302	0.307	0.301	0.302	3.32
29)		1,2-Dichloroethane	0.341	0.343	0.359	0.369	0.367	0.361	0.357	3.07
30)		1,1,1-Trichloroetha	0.401	0.382	0.410	0.456	0.455	0.450	0.429	7.19
31)		1,1-Dichloropropene		0.287	0.326	0.390	0.390	0.391	0.363	12.44
32)		Carbon tetrachlorid	0.311	0.287	0.333	0.369	0.383	0.382	0.350	11.43
33)	M	Benzene	1.104	1.024	1.134	1.242	1.210	1.171	1.144	6.31
34)	M	Trichloroethene	0.252	0.260	0.269	0.299	0.294	0.295	0.281	7.02
35)		Dibromomethane	0.134	0.132	0.139	0.146	0.147	0.147	0.142	4.67
36)		Methylcyclohexane		0.366	0.406	0.503	0.515	0.507	0.468	13.87
37)	CP	1,2-Dichloropropane	0.299	0.254	0.275	0.291	0.300	0.299	0.288	6.16
38)		Bromodichloromethan	0.280	0.276	0.300	0.349	0.353	0.357	0.325	11.67
39)		2-Chloroethylvinyl	0.071	0.065	0.077	0.070	0.051		0.067	14.60
40)		4-Methyl-2-pentanon			0.172	0.207	0.230	0.235	0.216	12.67
41)		cis-1,3-Dichloropro		0.327	0.364	0.440	0.454	0.455	0.416	13.51
?)	S	Toluene-d8	0.804	0.785	0.906	1.022	1.038	1.000	0.934	11.14
3)	CPM	Toluene		0.558	0.701	0.803	0.817	0.791	0.743	13.34

(#) = Out of Range ### Number of calibration levels exceeded format ###

9/14/06

Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 06:59:51 2006
Response via : Continuing Calibration

Calibration Files
0.3 =T4597.D 0.5 =T4598.D 2.0 =T4599.D
10 =T4600.D 20 =T4601.D 30 =T4602.D

		Compound	0.3	0.5	2.0	10	20	30	Avg	%RSD
44)		trans-1,3-Dichlorop		0.276	0.321	0.386	0.407	0.415	0.371	15.85
45)		1,1,2-Trichloroetha	0.160	0.161	0.174	0.179	0.181	0.180	0.174	5.51
46)		2-Hexanone		0.116	0.093	0.107	0.140	0.158	0.163	0.135	21.96
47)		1,2-Dibromoethane	0.153	0.155	0.173	0.193	0.195	0.196	0.181	11.06
		ISTD								
48)	I	Chlorobenzene-d5								
49)		1,3-Dichloropropane	0.852	0.779	0.801	0.821	0.791	0.819	0.812	2.95
50)		Dibromochloromethan	0.388	0.380	0.408	0.474	0.479	0.517	0.453	13.26
51)		Tetrachloroethene	0.605	0.580	0.630	0.664	0.645	0.654	0.635	5.06
52)		1-Chlorohexane	0.662	0.643	0.636	0.798	0.810	0.827	0.744	12.29
53)		1,1,1,2-Tetrachloro	0.438	0.457	0.480	0.547	0.537	0.562	0.513	10.43
54)	PM	Chlorobenzene	1.685	1.663	1.703	1.758	1.706	1.692	1.698	1.81
55)	CP	Ethylbenzene	2.841	2.711	3.062	3.347	3.259	3.146	3.056	7.32
56)		(m+p)-Xylene	0.939	0.927	1.092	1.212	1.218	1.205	1.112	11.69
57)		o-Xylene	0.893	0.868	1.005	1.155	1.184	1.178	1.067	13.30
58)		Styrene	1.035	1.052	1.373	1.831	1.922	1.935	1.583	26.41
59)	P	Bromoform	0.209	0.201	0.237	0.301	0.313	0.346	0.280	22.82
)	S	Bromofluorobenzene	0.797	0.616	0.716	0.803	0.801	0.803	0.764	9.59
		ISTD								
61)	I	1,4-Dichlorobenzene-d								
62)		trans-1,4-Dichloro-	0.070	0.062	0.085	0.101	0.107	0.116	0.095	24.81
63)	P	1,1,2,2-Tetrachloro	0.620	0.638	0.646	0.674	0.654	0.674	0.655	3.25
64)		Isopropylbenzene	2.820	2.664	3.261	3.758	3.664	3.524	3.294	12.59
65)		1,2,3-Trichloroprop	0.551	0.517	0.541	0.555	0.542	0.565	0.550	3.59
66)		Bromobenzene	0.719	0.798	0.832	0.905	0.885	0.887	0.845	8.00
67)		n-Propylbenzene		3.145	3.952	4.576	4.437	4.211	4.046	12.56
68)		2-Chlorotoluene	2.418	2.278	2.677	3.003	2.952	2.903	2.726	10.29
69)		4-Chlorotoluene	1.966	1.989	2.342	2.602	2.545	2.492	2.339	11.12
70)		1,3,5-Trimethylbenz	1.899	1.770	2.362	2.810	2.810	2.804	2.456	18.51
71)		tert-Butylbenzene		1.734	2.152	2.605	2.583	2.535	2.348	14.61
72)		1,2,4-Trimethylbenz	1.550	1.533	2.078	2.517	2.522	2.521	2.170	21.09
73)		sec-Butylbenzene	2.574	2.662	3.366	3.966	3.864	3.681	3.371	16.45
74)		1,3-Dichlorobenzene	1.444	1.443	1.637	1.721	1.681	1.646	1.600	6.95
75)		p-Isopropyltoluene	1.764	1.664	2.295	2.923	2.946	2.903	2.474	22.88
76)		1,4-Dichlorobenzene	1.709	1.607	1.615	1.663	1.638	1.607	1.632	2.63
77)		n-Butylbenzene		1.541	1.520	1.835	2.406	2.470	2.466	2.090	21.13
78)		1,2-Dichlorobenzene	1.369	1.342	1.500	1.580	1.556	1.530	1.485	6.24
79)		1,2-Dibromo-3-chlor	0.092	0.121	0.090	0.102	0.099	0.105	0.103	10.32
80)		1,2,4-Trichlorobenz	0.650	0.641	0.679	0.779	0.800	0.815	0.741	10.86
81)		Hexachlorobutadiene	0.446	0.454	0.482	0.552	0.561	0.555	0.517	10.46
82)		Naphthalene		1.250	1.115	1.157	1.264	1.318	1.326	1.250	6.72
83)		1,2,3-Trichlorobenz	0.724	0.671	0.706	0.780	0.791	0.804	0.754	7.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:08:11 2006
Response via : Continuing Calibration

Calibration Files
40 =T4603.D

		Compound	40	Avg	%RSD
			ISTD		
1)	I	Fluorobenzene			0.00
2)		Dichlorodifluoromet	0.352		0.00
3)	P	Chloromethane	0.464		0.00
4)	CP	Vinyl chloride	0.412		0.00
5)		Bromomethane	0.204		0.00
6)		Chloroethane	0.279		0.00
7)		Trichlorofluorometh	0.531		0.00
8)		Acetone	0.066		0.00
9)		Acrolein	0.024		0.00
10)	CPM	1,1-Dichloroethene	0.221		0.00
11)		Methyl iodide	0.250		0.00
12)		1,1,2-Trichloro-1,2	0.258		0.00
13)		Methyl acetate	0.226		0.00
14)		Acrylonitrile	0.074		0.00
15)		Methylene chloride	0.267		0.00
16)		Carbon disulfide	0.853		0.00
·)		trans-1,2-Dichloroe	0.262		0.00
-3)		Methyl tert-Butyl e	0.629		0.00
19)	P	1,1-Dichloroethane	0.519		0.00
20)		Vinyl acetate	0.297		0.00
21)		2-Butanone	0.103		0.00
22)		cis-1,2-Dichloroeth	0.285		0.00
23)		Bromochloromethane	0.128		0.00
24)	CP	Chloroform	0.511		0.00
25)		2,2-Dichloropropane	0.453		0.00
26)		Cyclohexane	0.586		0.00
27)	S	Dibromofluoromethan	0.233		0.00
28)	S	1,2-Dichloroethane-	0.300		0.00
29)		1,2-Dichloroethane	0.360		0.00
30)		1,1,1-Trichloroetha	0.451		0.00
31)		1,1-Dichloropropene	0.391		0.00
32)		Carbon tetrachlorid	0.387		0.00
33)	M	Benzene	1.125		0.00
34)	M	Trichloroethene	0.297		0.00
35)		Dibromomethane	0.147		0.00
36)		Methylcyclohexane	0.512		0.00
37)	CP	1,2-Dichloropropane	0.300		0.00
38)		Bromodichloromethan	0.360		-1.00
39)		2-Chloroethylvinyl			0.00
40)		4-Methyl-2-pentanon	0.237		0.00
41)		cis-1,3-Dichloropro	0.455		0.00
42)	S	Toluene-d8	0.980		0.00
)	CPM	Toluene	0.785		

(#) = Out of Range ### Number of calibration levels exceeded format ###
T913VOCW.M Thu Sep 14 07:08:16 2006 MS1 Page 1

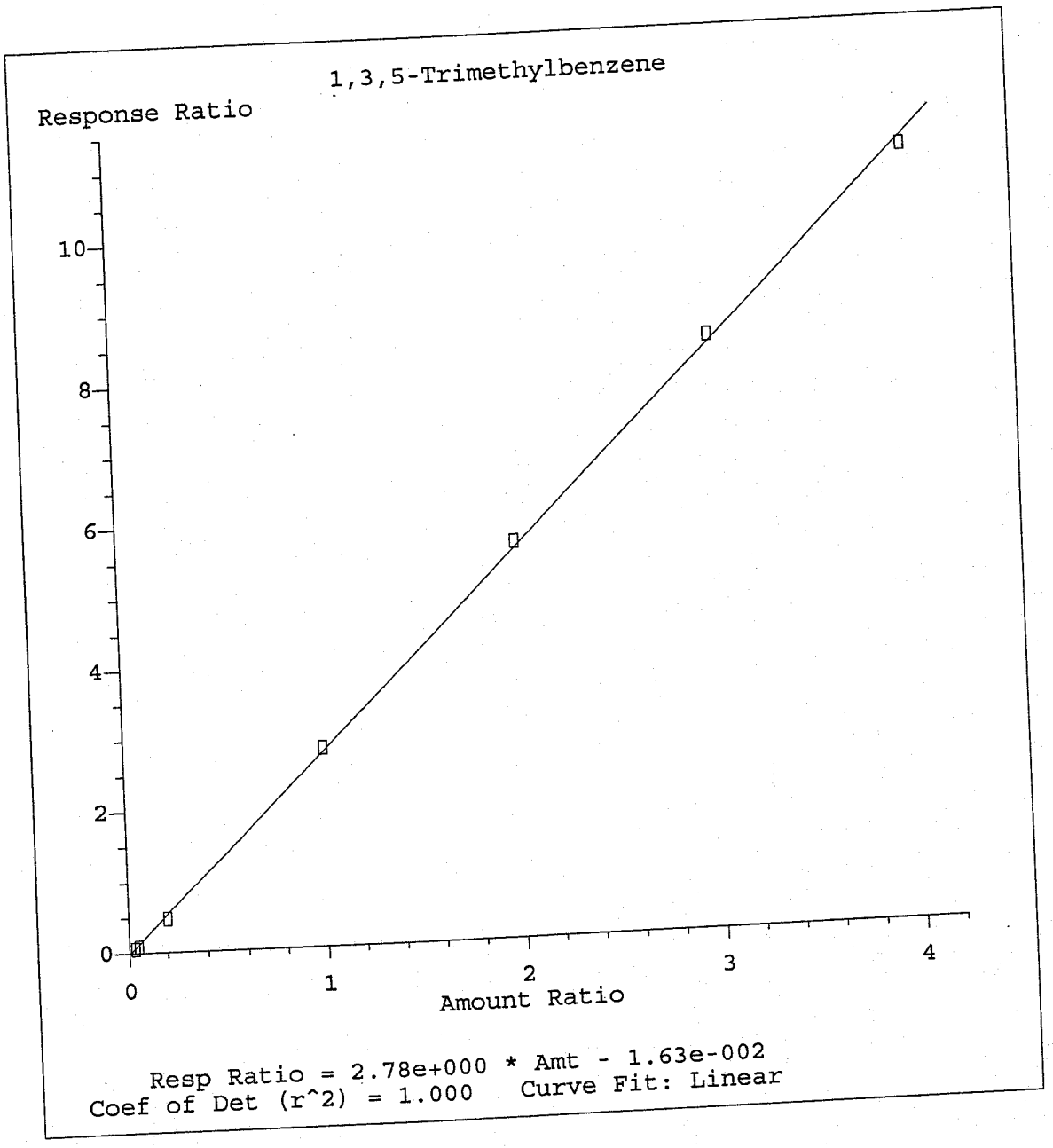
Response Factor Report #1MS11

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:08:11 2006
Response via : Continuing Calibration

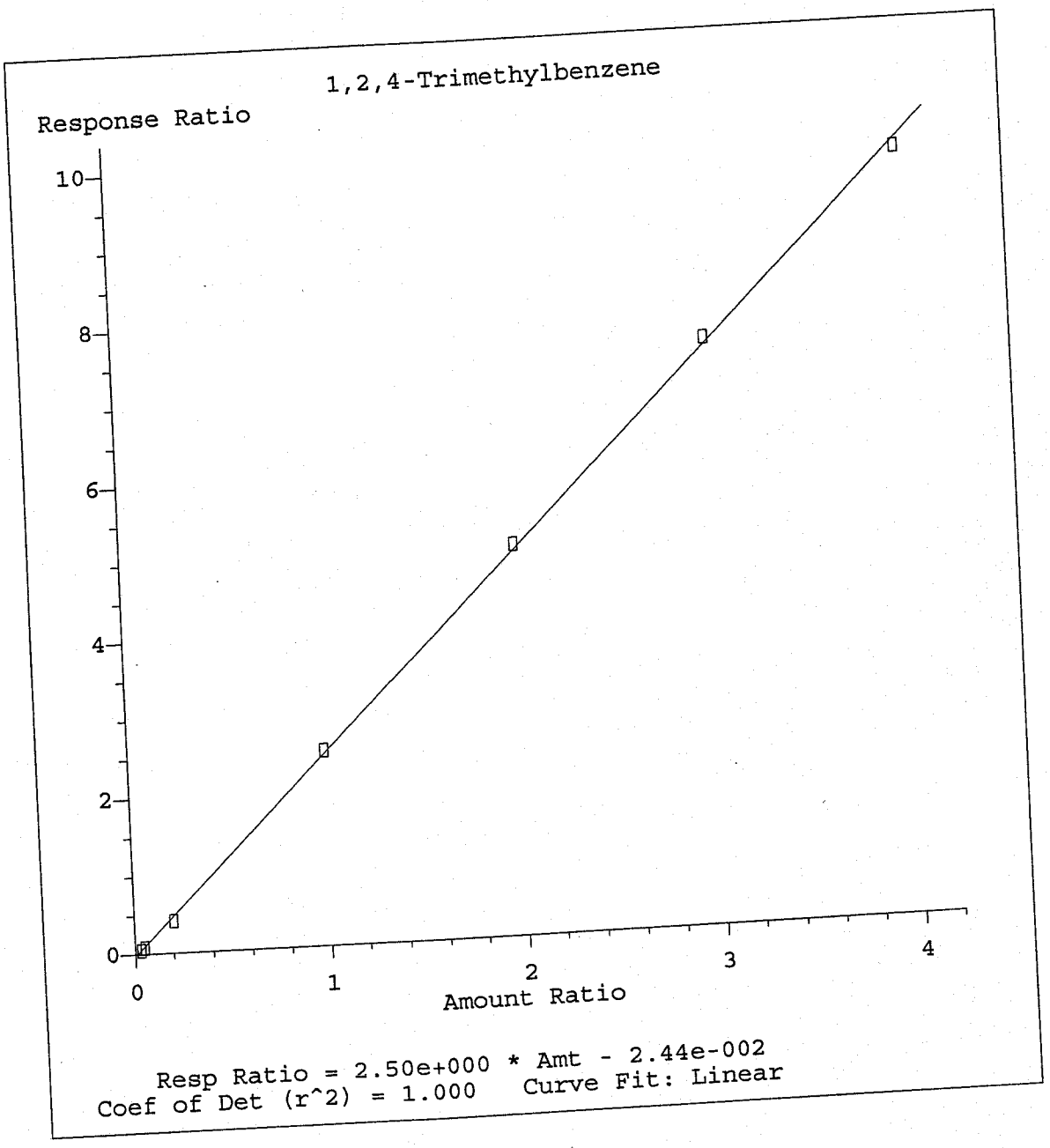
Calibration Files
40 =T4603.D

		Compound	40	Avg	%RSD
44)		trans-1,3-Dichlorop	0.418		0.00
45)		1,1,2-Trichloroetha	0.182		0.00
46)		2-Hexanone	0.167		0.00
47)		1,2-Dibromoethane	0.198		0.00
		ISTD			
48)	I	Chlorobenzene-d5			0.00
49)		1,3-Dichloropropane	0.818		0.00
50)		Dibromochloromethan	0.523		0.00
51)		Tetrachloroethene	0.666		0.00
52)		1-Chlorohexane	0.830		0.00
53)		1,1,1,2-Tetrachloro	0.569		0.00
54)	PM	Chlorobenzene	1.676		0.00
55)	CP	Ethylbenzene	3.029		0.00
56)		(m+p)-Xylene	1.195		0.00
57)		o-Xylene	1.182		0.00
58)		Styrene	1.932		0.00
59)	P	Bromoform	0.355		0.00
`)	S	Bromofluorobenzene	0.815		
		ISTD			
61)	I	1,4-Dichlorobenzene-d			0.00
62)		trans-1,4-Dichloro-	0.125		0.00
63)	P	1,1,2,2-Tetrachloro	0.675		0.00
64)		Isopropylbenzene	3.367		0.00
65)		1,2,3-Trichloroprop	0.579		0.00
66)		Bromobenzene	0.891		0.00
67)		n-Propylbenzene	3.954		0.00
68)		2-Chlorotoluene	2.850		0.00
69)		4-Chlorotoluene	2.437		0.00
70)		1,3,5-Trimethylbenz	2.739		0.00
71)		tert-Butylbenzene	2.480		0.00
72)		1,2,4-Trimethylbenz	2.469		0.00
73)		sec-Butylbenzene	3.487		0.00
74)		1,3-Dichlorobenzene	1.626		0.00
75)		p-Isopropyltoluene	2.824		0.00
76)		1,4-Dichlorobenzene	1.582		0.00
77)		n-Butylbenzene	2.394		0.00
78)		1,2-Dichlorobenzene	1.519		0.00
79)		1,2-Dibromo-3-chlor	0.109		0.00
80)		1,2,4-Trichlorobenz	0.821		0.00
81)		Hexachlorobutadiene	0.568		0.00
82)		Naphthalene	1.320		0.00
83)		1,2,3-Trichlorobenz	0.800		

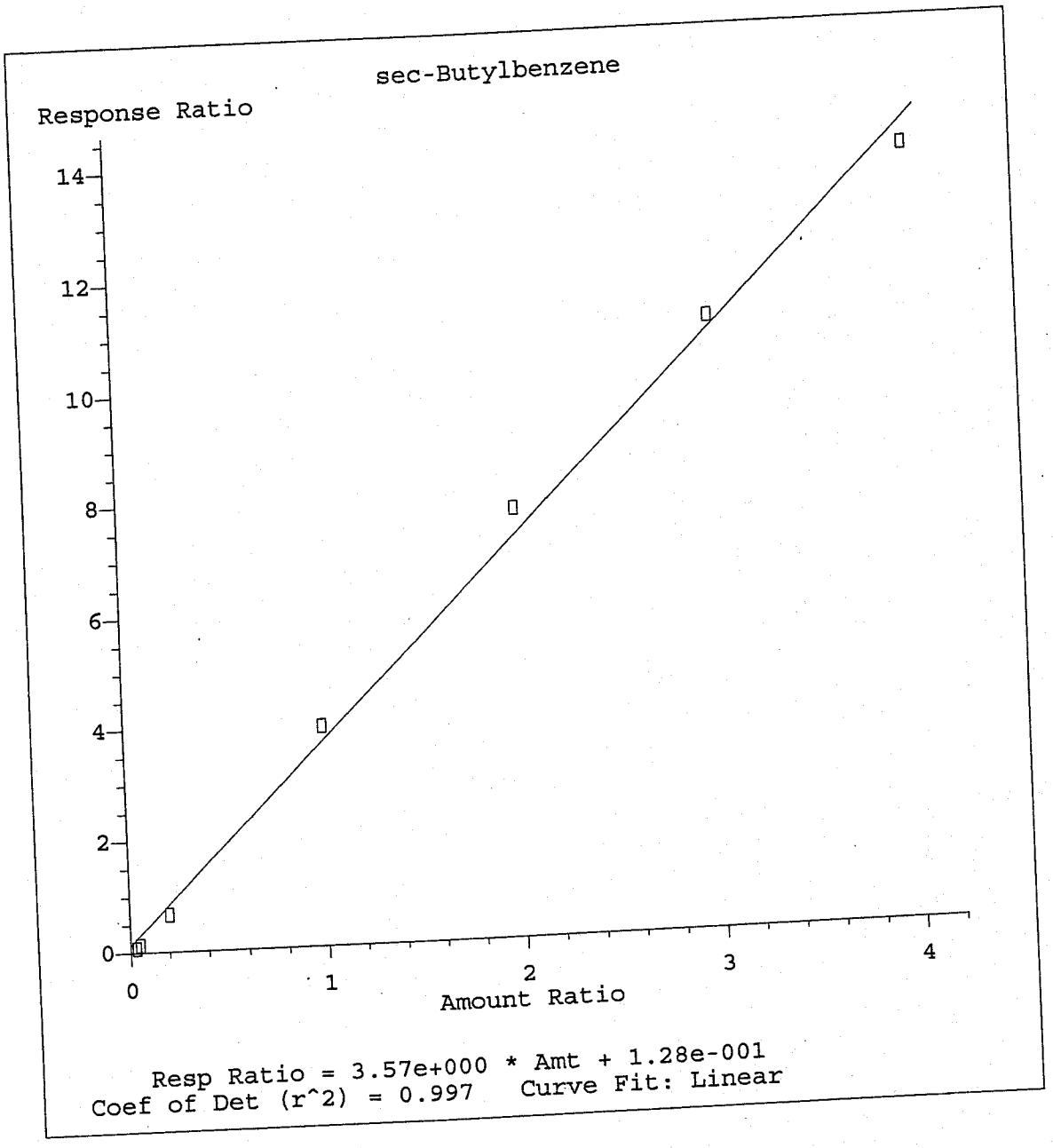
(#) = Out of Range ### Number of calibration levels exceeded format ###



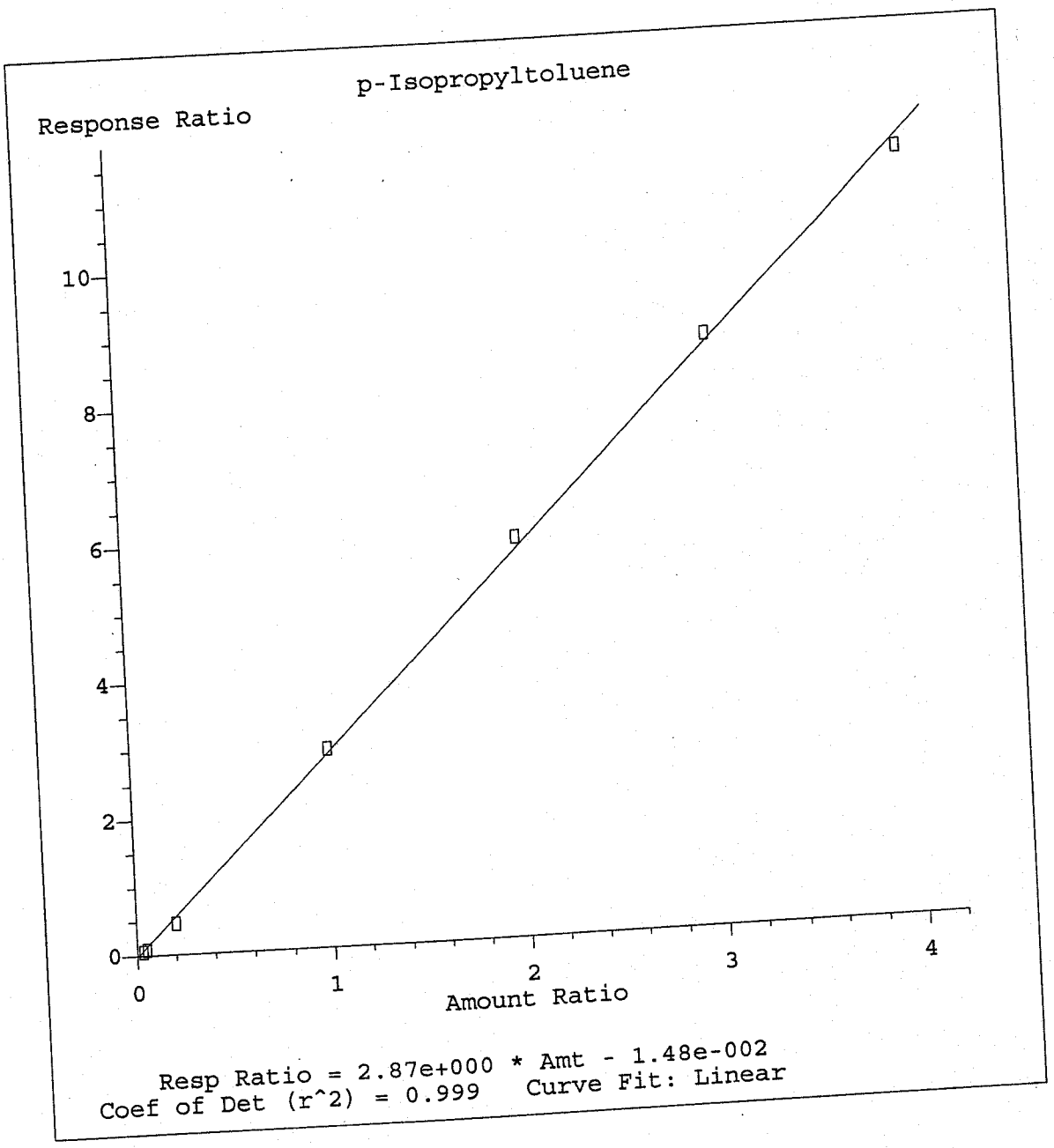
Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:50:45 2006



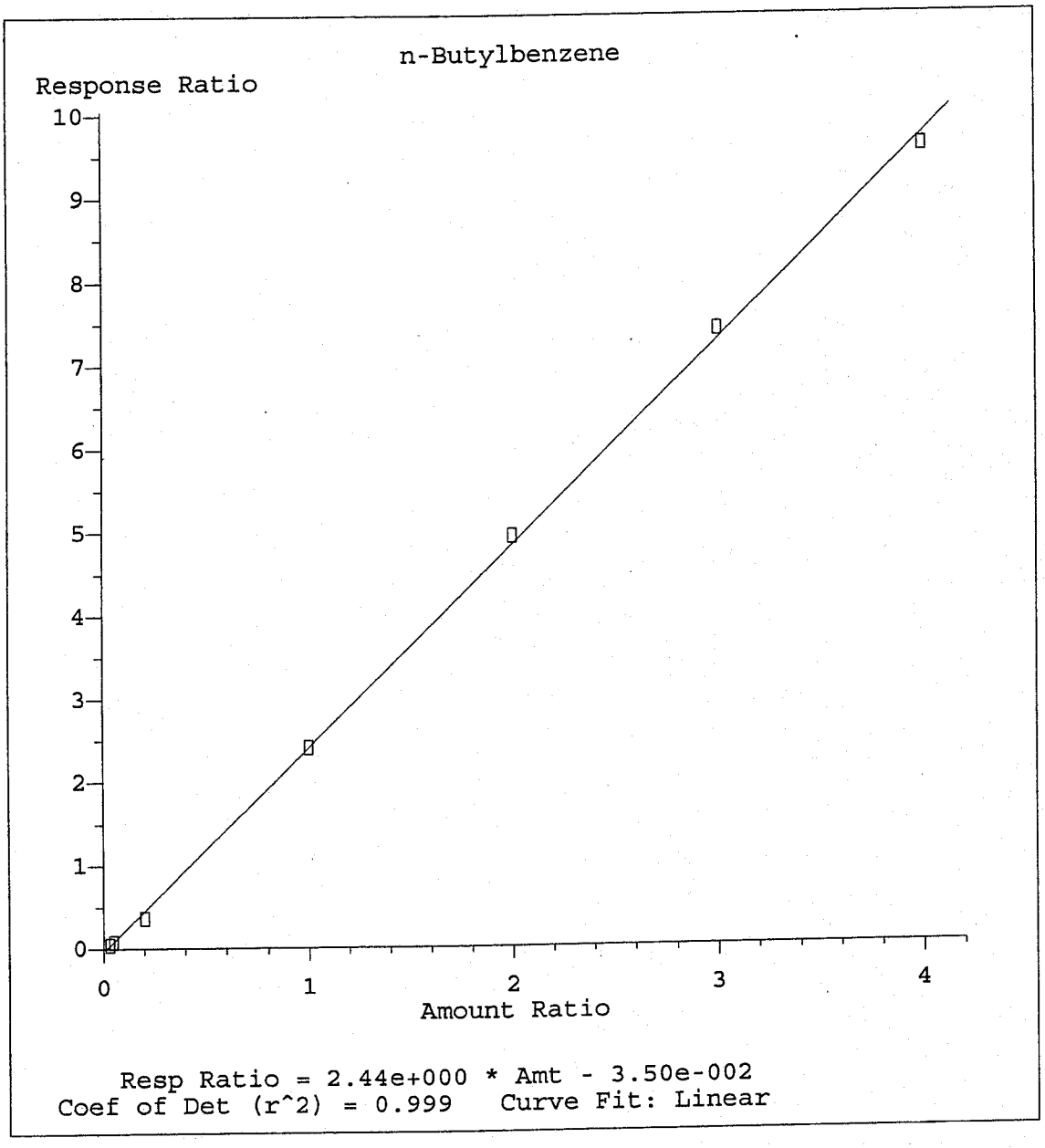
Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:51:38 2006



Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:51:38 2006



Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:50:45 2006



Method Name: C:\HPCHEM\1\METHODS\T913VOCW.M
Calibration Table Last Updated: Wed Sep 13 15:51:38 2006

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4597.D
Acq On : 13 Sep 2006 11:32
Sample : ICAL 0.3 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 13:59 2006

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:57:20 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	9.65	96	1167100	10.00 ug/L	0.00
48) Chlorobenzene-d5	13.76	82	514630	10.00 ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	409711	10.00 ug/L	0.00
System Monitoring Compounds					
27) Dibromofluoromethane	8.58	113	7447	0.28 ug/L	-0.01
Spiked Amount 10.000			Recovery	= 2.80%	
28) 1,2-Dichloroethane-d4	9.28	65	11224	0.32 ug/L	0.00
Spiked Amount 10.000			Recovery	= 3.20%	
42) Toluene-d8	11.69	98	28148	0.24 ug/L	0.00
Spiked Amount 10.000			Recovery	= 2.40%	
60) Bromofluorobenzene	15.45	95	12308	0.30 ug/L	0.00
Spiked Amount 10.000			Recovery	= 3.00%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	2.92	85	8776	0.21 ug/L	86
3) Chloromethane	3.38	50	18806	0.34 ug/L #	100
4) Vinyl chloride	3.38	62	11190	0.24 ug/L	88
5) Bromomethane	3.94	94	6853	0.31 ug/L	82
6) Chloroethane	4.16	64	8727	0.26 ug/L	87
7) Trichlorofluoromethane	4.41	101	16354	0.26 ug/L	97
8) Acetone	6.21	43	5891	0.78 ug/L	85
9) Acrolein	5.77	56	3305	1.32 ug/L #	98
10) 1,1-Dichloroethene	5.26	96	6341	0.26 ug/L	95
12) 1,1,2-Trichloro-1,2,2-trif	5.32	101	7869	0.26 ug/L	92
13) Methyl acetate	6.40	43	7841	0.31 ug/L	97
14) Acrylonitrile	7.31	53	10945	1.33 ug/L	96
15) Methylene chloride	6.14	84	10507	0.33 ug/L	92
16) Carbon disulfide	5.31	76	28454	0.28 ug/L	99
17) trans-1,2-Dichloroethene	6.39	96	8320	0.28 ug/L	94
18) Methyl tert-Butyl ether	6.54	73	18553	0.26 ug/L	91
19) 1,1-Dichloroethane	7.26	63	17469	0.28 ug/L	99
20) Vinyl acetate	7.59	43	7987	0.26 ug/L	84
21) 2-Butanone	8.74	43	5285	0.47 ug/L #	56
22) cis-1,2-Dichloroethene	7.99	96	8483	0.26 ug/L	98
23) Bromochloromethane	8.26	128	4016	0.26 ug/L	90
24) Chloroform	8.34	83	16844	0.27 ug/L	97
25) 2,2-Dichloropropane	8.15	77	13769	0.27 ug/L	98
26) Cyclohexane	8.29	56	15298	0.23 ug/L	91
29) 1,2-Dichloroethane	9.37	62	11943	0.28 ug/L	98
30) 1,1,1-Trichloroethane	8.64	97	14025	0.26 ug/L	94
31) 1,1-Dichloropropene	8.80	75	10465	0.23 ug/L	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4597.D
Acq On : 13 Sep 2006 11:32
Sample : ICAL 0.3 PPB
Misc : ICAL,8260W_CAL,
3 Integration Params: RTEINT.P
Quant Time: Sep 13 13:59 2006

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:57:20 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
32) Carbon tetrachloride	8.56	117	10875	0.25 ug/L	95
33) Benzene	9.12	78	38640	0.27 ug/L	100
34) Trichloroethene	9.87	95	8835	0.25 ug/L	97
35) Dibromomethane	10.41	93	4708	0.28 ug/L	93
36) Methylcyclohexane	9.88	83	14218	0.24 ug/L	90
37) 1,2-Dichloropropane	10.54	63	10452	0.31 ug/L #	87
38) Bromodichloromethane	10.61	83	9811	0.24 ug/L	93
39) 2-Chloroethylvinyl ether	11.33	63	2471	0.30 ug/L #	59
40) 4-Methyl-2-pentanone	12.21	43	10733	0.44 ug/L	95
41) cis-1,3-Dichloropropene	11.42	75	11822	0.23 ug/L	87
43) Toluene	11.75	92	19977	0.21 ug/L	89
44) trans-1,3-Dichloropropene	12.27	75	10489	0.23 ug/L	94
45) 1,1,2-Trichloroethane	12.49	83	5592	0.27 ug/L	97
46) 2-Hexanone	13.33	43	8146	0.50 ug/L	84
47) 1,2-Dibromoethane	13.07	107	5366	0.24 ug/L #	91
49) 1,3-Dichloropropane	12.86	76	13158	0.31 ug/L	95
50) Dibromochloromethane	12.74	129	5985	0.25 ug/L	92
51) Tetrachloroethene	12.27	166	9341	0.27 ug/L	97
52) 1-Chlorohexane	13.73	91	10222	0.25 ug/L #	30
53) 1,1,1,2-Tetrachloroethane	13.86	131	6756	0.24 ug/L #	64
54) Chlorobenzene	13.78	112	26017	0.29 ug/L #	68
55) Ethylbenzene	13.80	91	43858	0.25 ug/L	98
56) (m+p)-Xylene	14.00	106	28990	0.46 ug/L	97
57) o-Xylene	14.60	106	13791	0.23 ug/L	93
58) Styrene	14.67	104	15985	0.17 ug/L	90
59) Bromoform	14.72	173	3228	0.21 ug/L #	90
62) trans-1,4-Dichloro-2-buten	15.96	89	856	0.21 ug/L #	48
63) 1,1,2,2-Tetrachloroethane	15.70	83	7622	0.28 ug/L	91
64) Isopropylbenzene	15.04	105	34666 JK	0.23 ug/L	97
65) 1,2,3-Trichloropropane	15.91	75	6778m	0.30 ug/L	
66) Bromobenzene	15.61	156	8835 9/13/06	0.24 ug/L	82
67) n-Propylbenzene	15.62	91	38930	0.21 ug/L	98
68) 2-Chlorotoluene	15.87	91	29718	0.24 ug/L	96
69) 4-Chlorotoluene	16.11	91	24168	0.23 ug/L	100
70) 1,3,5-Trimethylbenzene	15.91	105	23347	0.20 ug/L	95
71) tert-Butylbenzene	16.37	119	22836	0.21 ug/L	98
72) 1,2,4-Trimethylbenzene	16.47	105	19047	0.18 ug/L	100
73) sec-Butylbenzene	16.64	105	31638	0.19 ug/L	100
74) 1,3-Dichlorobenzene	16.98	146	17752	0.25 ug/L	92
75) p-Isopropyltoluene	16.84	119	21685	0.18 ug/L	99
76) 1,4-Dichlorobenzene	17.10	146	21010	0.31 ug/L	83

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4597.D
Acq On : 13 Sep 2006 11:32
Sample : ICAL 0.3 PPB
Misc : ICAL,8260W_CAL,
3 Integration Params: RTEINT.P
Quant Time: Sep 13 13:59 2006

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:57:20 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

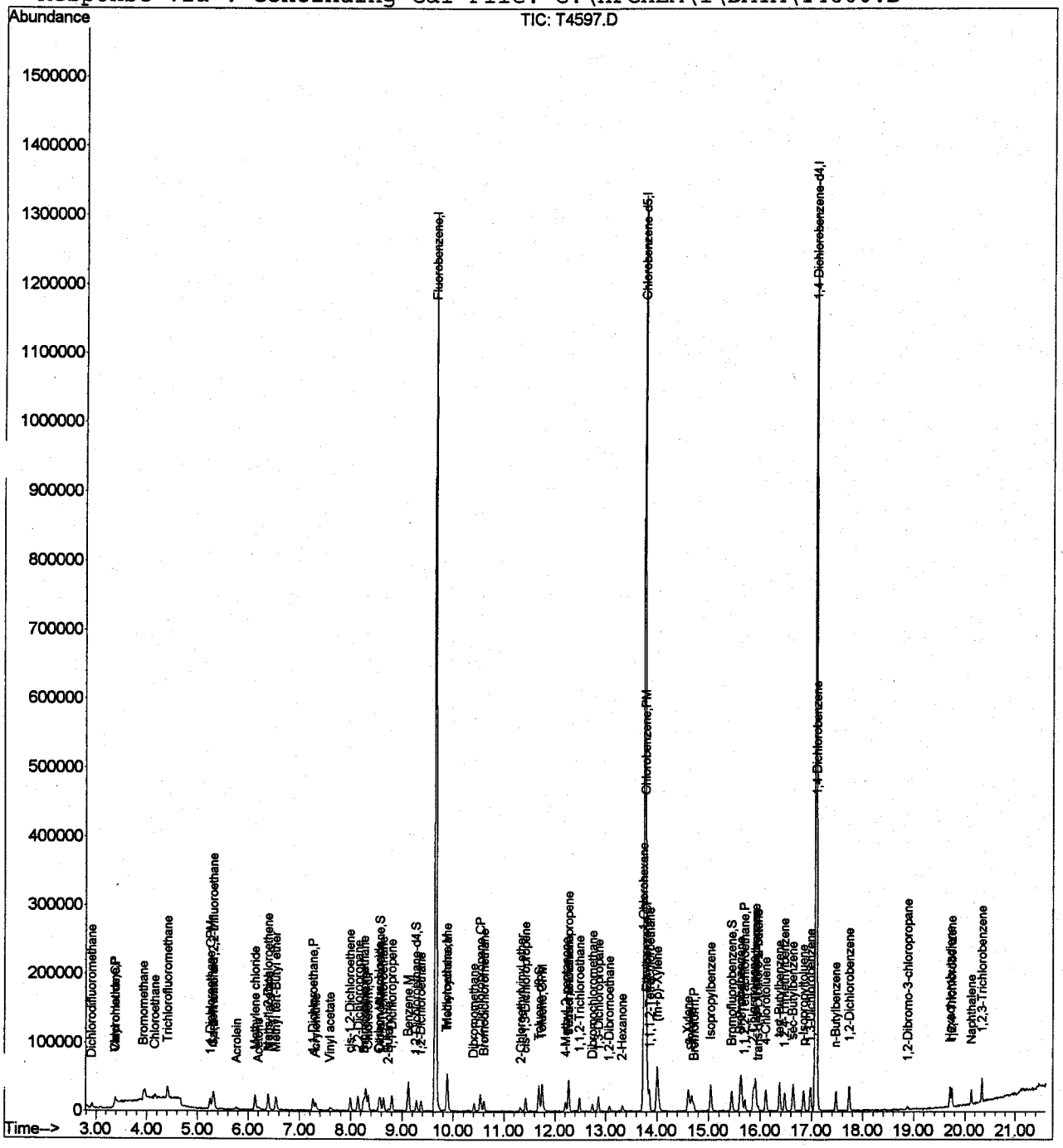
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
77) n-Butylbenzene	17.47	91	18941	0.19 ug/L	97
78) 1,2-Dichlorobenzene	17.74	146	16822	0.26 ug/L	94
79) 1,2-Dibromo-3-chloropropan	18.88	75	1133	0.27 ug/L #	23
80) 1,2,4-Trichlorobenzene	19.75	180	7993	0.25 ug/L	93
81) Hexachlorobutadiene	19.72	225	5477	0.24 ug/L	93
82) Naphthalene	20.13	128	15370	0.30 ug/L	100
83) 1,2,3-Trichlorobenzene	20.34	180	8904	0.28 ug/L	97

(#) = qualifier out of range (m) = manual integration
T4597.D T913VOCW.M Wed Sep 13 13:59:30 2006 MS1 Page 3

Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4597.D Vial: 16
Acq On : 13 Sep 2006 11:32 Operator: JK
Sample : ICAL 0.3 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 13 13:59 2006 Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:57:20 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4598.D
Acq On : 13 Sep 2006 12:05
Sample : ICAL 0.5 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 17
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:59:37 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	9.65	96	1158837	10.00 ug/L	0.00
48) Chlorobenzene-d5	13.76	82	510186	10.00 ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	411745	10.00 ug/L	0.00
System Monitoring Compounds					
27) Dibromofluoromethane	8.59	113	10887	0.41 ug/L	0.00
Spiked Amount 10.000			Recovery =	4.10%	
28) 1,2-Dichloroethane-d4	9.27	65	16688	0.48 ug/L	0.00
Spiked Amount 10.000			Recovery =	4.80%	
42) Toluene-d8	11.68	98	45497	0.38 ug/L	0.00
Spiked Amount 10.000			Recovery =	3.80%	
60) Bromofluorobenzene	15.44	95	15718	0.38 ug/L	-0.01
Spiked Amount 10.000			Recovery =	3.80%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	2.92	85	19612	0.47 ug/L	96
3) Chloromethane	3.38	50	27659	0.51 ug/L	100
4) Vinyl chloride	3.39	62	21193	0.47 ug/L	97
5) Bromomethane	3.94	94	13514	0.62 ug/L	83
6) Chloroethane	4.16	64	15372	0.46 ug/L	96
7) Trichlorofluoromethane	4.41	101	25580	0.41 ug/L	99
8) Acetone	6.21	43	8900	1.18 ug/L	98
9) Acrolein	5.77	56	5373	2.16 ug/L #	85
10) 1,1-Dichloroethene	5.25	96	10475	0.43 ug/L	98
11) Methyl iodide	5.48	142	3746	0.18 ug/L	92
12) 1,1,2-Trichloro-1,2,2-trif	5.33	101	12026	0.40 ug/L	90
13) Methyl acetate	6.40	43	13700	0.54 ug/L	93
14) Acrylonitrile	7.31	53	17275	2.11 ug/L	93
15) Methylene chloride	6.14	84	16821	0.53 ug/L	98
16) Carbon disulfide	5.31	76	44984	0.44 ug/L	99
17) trans-1,2-Dichloroethene	6.39	96	13302	0.44 ug/L	96
18) Methyl tert-Butyl ether	6.54	73	29937	0.43 ug/L	97
19) 1,1-Dichloroethane	7.26	63	27559	0.45 ug/L	99
20) Vinyl acetate	7.60	43	12636	0.42 ug/L	95
21) 2-Butanone	8.74	43	10655	0.96 ug/L	93
22) cis-1,2-Dichloroethene	7.99	96	14353	0.44 ug/L	91
23) Bromochloromethane	8.26	128	6526	0.43 ug/L	94
24) Chloroform	8.34	83	27375	0.45 ug/L	99
25) 2,2-Dichloropropane	8.15	77	22208	0.43 ug/L	98
26) Cyclohexane	8.29	56	25540	0.38 ug/L	97
29) 1,2-Dichloroethane	9.37	62	19876	0.46 ug/L	99
30) 1,1,1-Trichloroethane	8.65	97	22135	0.42 ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4598.D
Acq On : 13 Sep 2006 12:05
Sample : ICAL 0.5 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 17
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:59:37 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	8.80	75	16639	0.37 ug/L	97
32) Carbon tetrachloride	8.57	117	16635	0.39 ug/L	100
33) Benzene	9.12	78	59307	0.41 ug/L	100
34) Trichloroethene	9.87	95	15093	0.44 ug/L	95
35) Dibromomethane	10.41	93	7621	0.45 ug/L	98
36) Methylcyclohexane	9.89	83	21232	0.36 ug/L	96
37) 1,2-Dichloropropane	10.54	63	14704	0.44 ug/L #	87
38) Bromodichloromethane	10.61	83	15988	0.40 ug/L	99
39) 2-Chloroethylvinyl ether	11.32	63	3764	0.46 ug/L	95
40) 4-Methyl-2-pentanone	12.21	43	16857	0.70 ug/L	90
41) cis-1,3-Dichloropropene	11.42	75	18932	0.37 ug/L	94
43) Toluene	11.76	92	32359	0.35 ug/L	91
44) trans-1,3-Dichloropropene	12.27	75	15994	0.36 ug/L	93
45) 1,1,2-Trichloroethane	12.48	83	9340	0.45 ug/L	96
46) 2-Hexanone	13.33	43	10786	0.67 ug/L	95
47) 1,2-Dibromoethane	13.07	107	8968	0.40 ug/L	92
49) 1,3-Dichloropropane	12.86	76	19876	0.47 ug/L	98
50) Dibromochloromethane	12.74	129	9700	0.40 ug/L	99
51) Tetrachloroethene	12.28	166	14796	0.44 ug/L	95
52) 1-Chlorohexane	13.73	91	16390	0.40 ug/L #	34
53) 1,1,1,2-Tetrachloroethane	13.85	131	11653	0.42 ug/L #	68
54) Chlorobenzene	13.78	112	42415	0.47 ug/L	85
55) Ethylbenzene	13.80	91	69156	0.40 ug/L	99
56) (m+p)-Xylene	14.00	106	47284	0.76 ug/L	100
57) o-Xylene	14.60	106	22134	0.38 ug/L	95
58) Styrene	14.67	104	26839	0.29 ug/L	95
59) Bromoform	14.71	173	5134	0.33 ug/L	91
62) trans-1,4-Dichloro-2-buten	15.96	89	1276	0.31 ug/L #	62
63) 1,1,2,2-Tetrachloroethane	15.69	83	13131	0.47 ug/L	96
64) Isopropylbenzene	15.04	105	54839	0.35 ug/L	95
65) 1,2,3-Trichloropropane	15.92	75	10634m	0.47 ug/L	
66) Bromobenzene	15.61	156	16420	0.44 ug/L	95
67) n-Propylbenzene	15.63	91	64743	0.34 ug/L	100
68) 2-Chlorotoluene	15.87	91	46900	0.38 ug/L	97
69) 4-Chlorotoluene	16.11	91	40944	0.38 ug/L	97
70) 1,3,5-Trimethylbenzene	15.91	105	36445	0.31 ug/L	98
71) tert-Butylbenzene	16.37	119	35706	0.33 ug/L	96
72) 1,2,4-Trimethylbenzene	16.47	105	31556	0.30 ug/L	99
73) sec-Butylbenzene	16.64	105	54793	0.34 ug/L	99
74) 1,3-Dichlorobenzene	16.98	146	29705	0.42 ug/L	99
75) p-Isopropyltoluene	16.84	119	34253	0.28 ug/L	99

9/13/06

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4598.D
Acq On : 13 Sep 2006 12:05
Sample : ICAL 0.5 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 17
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:59:37 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76)	1,4-Dichlorobenzene	17.10	146	33088	0.48	ug/L	92
77)	n-Butylbenzene	17.48	91	31287	0.32	ug/L	95
78)	1,2-Dichlorobenzene	17.74	146	27628	0.42	ug/L	99
79)	1,2-Dibromo-3-chloropropan	18.87	75	2492	0.59	ug/L	76
80)	1,2,4-Trichlorobenzene	19.75	180	13200	0.41	ug/L	99
81)	Hexachlorobutadiene	19.71	225	9338	0.41	ug/L	96
82)	Naphthalene	20.13	128	22949	0.44	ug/L	100
83)	1,2,3-Trichlorobenzene	20.34	180	13810	0.43	ug/L	97

(#) = qualifier out of range (m) = manual integration

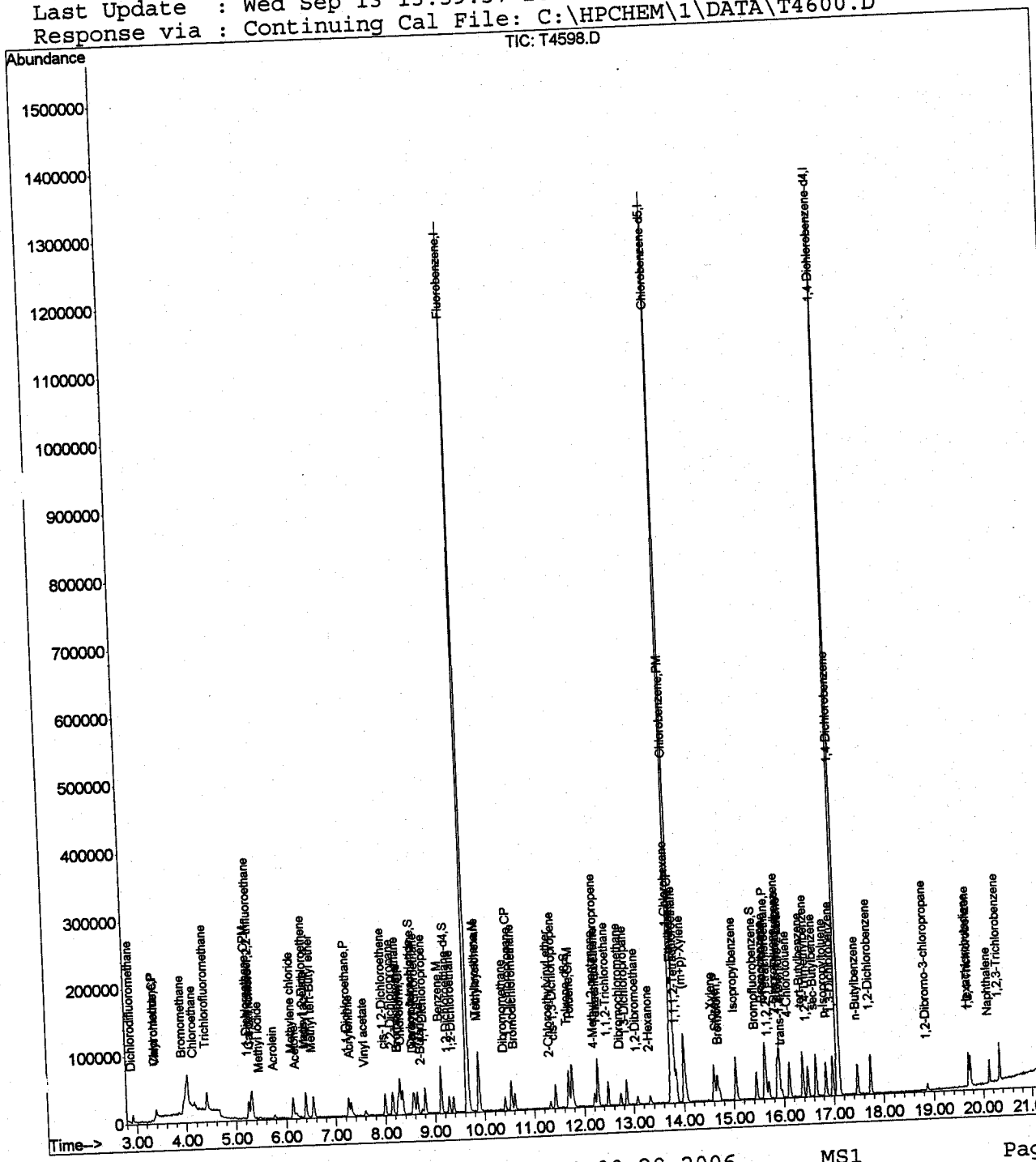
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4598.D
Acq On : 13 Sep 2006 12:05
Sample : ICAL 0.5 PPB
Misc : ICAL,8260W_CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 17
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:59:37 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4599.D
Acq On : 13 Sep 2006 12:38
Sample : ICAL 2.0 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 18
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1109895	10.00	ug/L	0.00
48) Chlorobenzene-d5	13.75	82	508548	10.00	ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	419033	10.00	ug/L	0.00
System Monitoring Compounds						
27) Dibromofluoromethane	8.58	113	47770	1.89	ug/L	0.00
Spiked Amount 10.000			Recovery =	18.90%		
28) 1,2-Dichloroethane-d4	9.28	65	65834	1.96	ug/L	0.00
Spiked Amount 10.000			Recovery =	19.60%		
42) Toluene-d8	11.68	98	201048	1.77	ug/L	0.00
Spiked Amount 10.000			Recovery =	17.70%		
60) Bromofluorobenzene	15.44	95	72845	1.78	ug/L	0.00
Spiked Amount 10.000			Recovery =	17.80%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.92	85	75385	1.87	ug/L	99
3) Chloromethane	3.36	50	106132	2.04	ug/L	100
4) Vinyl chloride	3.38	62	81909	1.88	ug/L	98
5) Bromomethane	3.93	94	41240	1.99	ug/L	84
6) Chloroethane	4.15	64	60497	1.91	ug/L	99
7) Trichlorofluoromethane	4.41	101	109881	1.85	ug/L	97
8) Acetone	6.20	43	27653	3.84	ug/L	99
9) Acrolein	5.75	56	22518	9.47	ug/L #	99
10) 1,1-Dichloroethene	5.25	96	43331	1.84	ug/L	99
11) Methyl iodide	5.47	142	20328	1.00	ug/L	98
12) 1,1,2-Trichloro-1,2,2-trif	5.32	101	53865	1.86	ug/L	98
13) Methyl acetate	6.39	43	50774	2.10	ug/L	95
14) Acrylonitrile	7.30	53	74275	9.49	ug/L	99
15) Methylene chloride	6.14	84	60538	2.00	ug/L	96
16) Carbon disulfide	5.30	76	176667	1.82	ug/L	99
17) trans-1,2-Dichloroethene	6.38	96	52486	1.83	ug/L	99
18) Methyl tert-Butyl ether	6.54	73	121691	1.82	ug/L	96
19) 1,1-Dichloroethane	7.25	63	113274	1.93	ug/L	99
20) Vinyl acetate	7.58	43	50422	1.76	ug/L	100
21) 2-Butanone	8.73	43	40064	3.78	ug/L	99
22) cis-1,2-Dichloroethene	7.99	96	59524	1.91	ug/L	96
23) Bromochloromethane	8.25	128	28029	1.94	ug/L	100
24) Chloroform	8.34	83	109084	1.87	ug/L	98
25) 2,2-Dichloropropane	8.14	77	89231	1.81	ug/L	100
26) Cyclohexane	8.29	56	105846	1.65	ug/L	97
29) 1,2-Dichloroethane	9.37	62	79699	1.95	ug/L	98
30) 1,1,1-Trichloroethane	8.64	97	91018	1.80	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4599.D
Acq On : 13 Sep 2006 12:38
Sample : ICAL 2.0 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 18
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) 1,1-Dichloropropene	8.80	75	72451	1.67 ug/L		98
32) Carbon tetrachloride	8.56	117	73877	1.81 ug/L		99
33) Benzene	9.12	78	251689	1.83 ug/L		100
34) Trichloroethene	9.87	95	59740	1.80 ug/L		100
35) Dibromomethane	10.41	93	30824	1.90 ug/L		97
36) Methylcyclohexane	9.88	83	90159	1.61 ug/L		99
37) 1,2-Dichloropropane	10.53	63	60939	1.89 ug/L		100
38) Bromodichloromethane	10.60	83	66682	1.72 ug/L		97
39) 2-Chloroethylvinyl ether	11.32	63	17075	2.19 ug/L		96
40) 4-Methyl-2-pentanone	12.20	43	76403	3.32 ug/L		96
41) cis-1,3-Dichloropropene	11.42	75	80711	1.65 ug/L		96
43) Toluene	11.75	92	155603	1.75 ug/L		100
44) trans-1,3-Dichloropropene	12.26	75	71231	1.66 ug/L		96
45) 1,1,2-Trichloroethane	12.49	83	38537	1.94 ug/L		95
46) 2-Hexanone	13.32	43	47344	3.05 ug/L		97
47) 1,2-Dibromoethane	13.07	107	38382	1.79 ug/L		97
49) 1,3-Dichloropropane	12.86	76	81518	1.95 ug/L		100
50) Dibromochloromethane	12.74	129	41521	1.72 ug/L		99
51) Tetrachloroethene	12.27	166	64094	1.90 ug/L		96
52) 1-Chlorohexane	13.73	91	64722	1.60 ug/L		82
53) 1,1,1,2-Tetrachloroethane	13.85	131	48834	1.76 ug/L		95
54) Chlorobenzene	13.78	112	173220	1.94 ug/L		96
55) Ethylbenzene	13.80	91	311439	1.83 ug/L		100
56) (m+p)-Xylene	14.00	106	222082	3.60 ug/L		100
57) o-Xylene	14.60	106	102261	1.74 ug/L		100
58) Styrene	14.67	104	139617	1.50 ug/L		98
59) Bromoform	14.71	173	24140	1.58 ug/L		100
62) trans-1,4-Dichloro-2-buten	15.96	89	7095	1.68 ug/L	#	97
63) 1,1,2,2-Tetrachloroethane	15.70	83	54180	1.92 ug/L		99
64) Isopropylbenzene	15.04	105	273328	1.74 ug/L		98
65) 1,2,3-Trichloropropane	15.91	75	45381m	1.95 ug/L		
66) Bromobenzene	15.61	156	69768	1.84 ug/L		97
67) n-Propylbenzene	15.64	91	331228	1.73 ug/L		98
68) 2-Chlorotoluene	15.87	91	224330	1.78 ug/L		98
69) 4-Chlorotoluene	16.11	91	196311	1.80 ug/L		99
70) 1,3,5-Trimethylbenzene	15.91	105	197937	1.68 ug/L		99
71) tert-Butylbenzene	16.37	119	180344	1.65 ug/L		98
72) 1,2,4-Trimethylbenzene	16.48	105	174118	1.65 ug/L		100
73) sec-Butylbenzene	16.64	105	282077	1.70 ug/L		98
74) 1,3-Dichlorobenzene	16.98	146	137161	1.90 ug/L		100
75) p-Isopropyltoluene	16.84	119	192327	1.57 ug/L		100

JK 9/13/06

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\T4599.D Vial: 18
Acq On : 13 Sep 2006 12:38 Operator: JK
Sample : ICAL 2.0 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006 Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76)	1,4-Dichlorobenzene	17.10	146	135312	1.94	ug/L	98
77)	n-Butylbenzene	17.47	91	153765	1.52	ug/L	98
78)	1,2-Dichlorobenzene	17.73	146	125702	1.90	ug/L	99
79)	1,2-Dibromo-3-chloropropan	18.88	75	7526	1.76	ug/L	95
80)	1,2,4-Trichlorobenzene	19.75	180	56871	1.74	ug/L	98
81)	Hexachlorobutadiene	19.72	225	40409	1.75	ug/L	100
82)	Naphthalene	20.13	128	96977	1.83	ug/L	100
83)	1,2,3-Trichlorobenzene	20.34	180	59201	1.81	ug/L	98

(#) = qualifier out of range (m) = manual integration

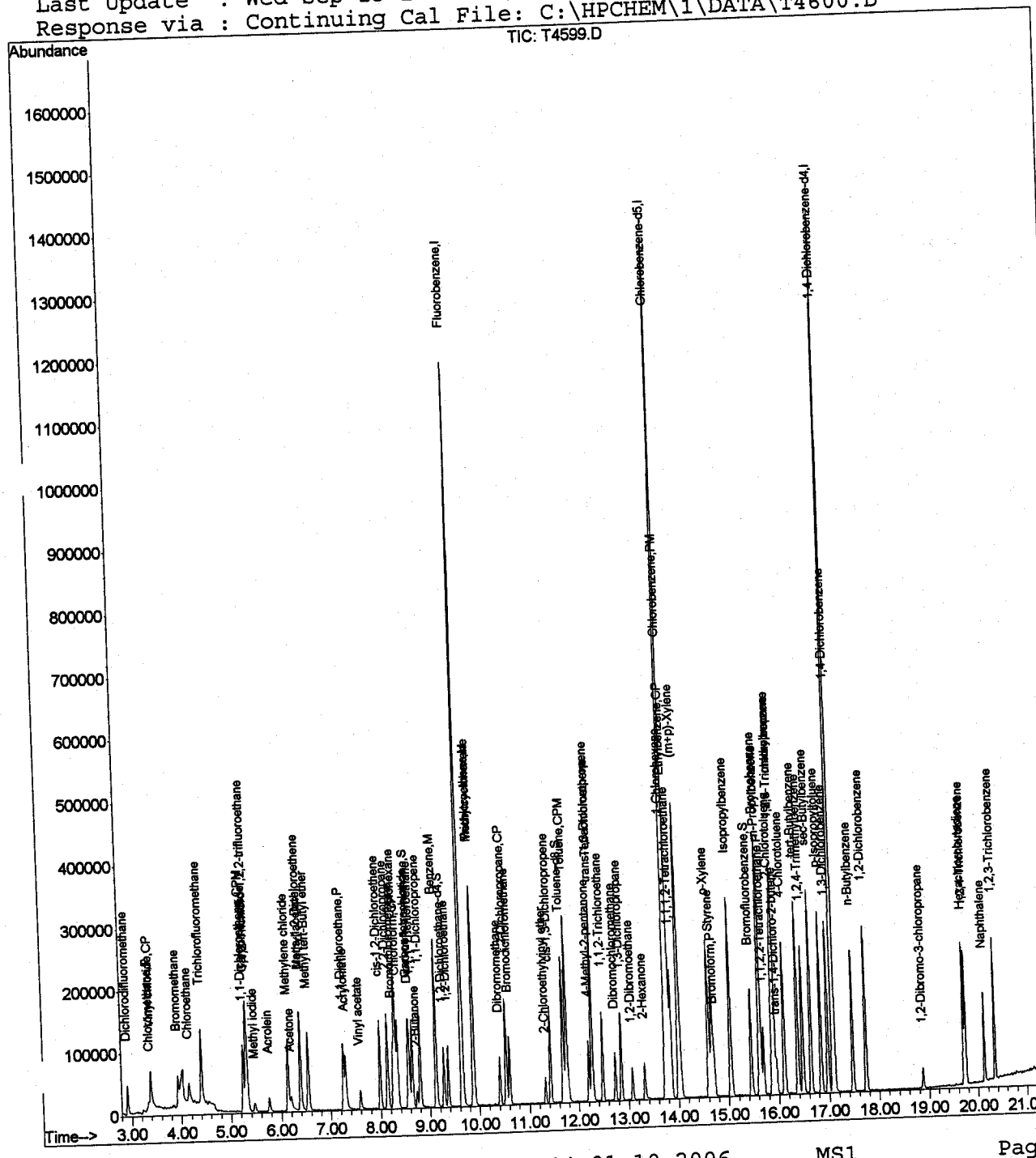
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4599.D
Acq On : 13 Sep 2006 12:38
Sample : ICAL 2.0 PPB
Misc : ICAL,8260W_CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 13 14:00 2006

Vial: 18
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



T4599.D T913VOCW.M Wed Sep 13 14:01:10 2006 MS1 Page 4

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4600.D
Acq On : 13 Sep 2006 13:11
Sample : ICAL 10 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 13:56 2006

Vial: 19
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:56:26 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1179168	10.00	ug/L	0.00
48) Chlorobenzene-d5	13.76	82	557139	10.00	ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	470726	10.00	ug/L	0.00
System Monitoring Compounds						
27) Dibromofluoromethane	8.59	113	268486	10.00	ug/L	0.00
Spiked Amount 10.000			Recovery =	100.00%		
28) 1,2-Dichloroethane-d4	9.28	65	356558	10.00	ug/L	0.00
Spiked Amount 10.000			Recovery =	100.00%		
42) Toluene-d8	11.69	98	1205632	10.00	ug/L	0.00
Spiked Amount 10.000			Recovery =	100.00%		
60) Bromofluorobenzene	15.45	95	447408	10.00	ug/L	0.00
Spiked Amount 10.000			Recovery =	100.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.92	85	428589	10.00	ug/L	98
3) Chloromethane	3.37	50	551957	10.00	ug/L #	45
4) Vinyl chloride	3.38	62	463732	10.00	ug/L	97
5) Bromomethane	3.93	94	220349	10.00	ug/L	90
6) Chloroethane	4.15	64	336533	10.00	ug/L	89
7) Trichlorofluoromethane	4.40	101	629494	10.00	ug/L	99
8) Acetone	6.20	43	153202	20.00	ug/L	99
9) Acrolein	5.75	56	126316	50.00	ug/L #	98
10) 1,1-Dichloroethene	5.24	96	250699	10.00	ug/L	97
11) Methyl iodide	5.47	142	215291	10.00	ug/L	99
12) 1,1,2-Trichloro-1,2,2-trif	5.32	101	308432	10.00	ug/L	98
13) Methyl acetate	6.39	43	256768	10.00	ug/L	100
14) Acrylonitrile	7.30	53	415843	50.00	ug/L	99
15) Methylene chloride	6.14	84	322292	10.00	ug/L	97
16) Carbon disulfide	5.30	76	1030253	10.00	ug/L	99
17) trans-1,2-Dichloroethene	6.39	96	305459	10.00	ug/L	97
18) Methyl tert-Butyl ether	6.54	73	709170	10.00	ug/L	99
19) 1,1-Dichloroethane	7.26	63	624583	10.00	ug/L	99
20) Vinyl acetate	7.58	43	304938	10.00	ug/L	100
21) 2-Butanone	8.73	43	225102	20.00	ug/L	99
22) cis-1,2-Dichloroethene	7.99	96	330712	10.00	ug/L	99
23) Bromochloromethane	8.25	128	153698	10.00	ug/L	95
24) Chloroform	8.34	83	619994	10.00	ug/L	99
25) 2,2-Dichloropropane	8.14	77	523774	10.00	ug/L	99
26) Cyclohexane	8.29	56	683181	10.00	ug/L	99
29) 1,2-Dichloroethane	9.37	62	435076	10.00	ug/L	100
30) 1,1,1-Trichloroethane	8.64	97	537271	10.00	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4600.D
Acq On : 13 Sep 2006 13:11
Sample : ICAL 10 PPB
Misc : ICAL,8260W_CAL,
3 Integration Params: RTEINT.P
Quant Time: Sep 13 13:56 2006

Vial: 19
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:56:26 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31) 1,1-Dichloropropene	8.80	75	460379	10.00	ug/L		100
32) Carbon tetrachloride	8.56	117	434632	10.00	ug/L		100
33) Benzene	9.12	78	1464303	10.00	ug/L		100
34) Trichloroethene	9.87	95	352435	10.00	ug/L		98
35) Dibromomethane	10.41	93	172039	10.00	ug/L		97
36) Methylcyclohexane	9.88	83	593458	10.00	ug/L		99
37) 1,2-Dichloropropane	10.54	63	342855	10.00	ug/L		100
38) Bromodichloromethane	10.60	83	411829	10.00	ug/L		100
39) 2-Chloroethylvinyl ether	11.32	63	82651	10.00	ug/L		96
40) 4-Methyl-2-pentanone	12.20	43	488599	20.00	ug/L		99
41) cis-1,3-Dichloropropene	11.42	75	518377	10.00	ug/L		98
43) Toluene	11.75	92	947045	10.00	ug/L		99
44) trans-1,3-Dichloropropene	12.26	75	455581	10.00	ug/L		100
45) 1,1,2-Trichloroethane	12.48	83	211357	10.00	ug/L		100
46) 2-Hexanone	13.32	43	329342	20.00	ug/L		99
47) 1,2-Dibromoethane	13.07	107	227867	10.00	ug/L		95
49) 1,3-Dichloropropane	12.86	76	457548	10.00	ug/L		100
50) Dibromochloromethane	12.74	129	264116	10.00	ug/L		99
51) Tetrachloroethene	12.27	166	369944	10.00	ug/L		100
52) 1-Chlorohexane	13.73	91	444543	10.00	ug/L		96
53) 1,1,1,2-Tetrachloroethane	13.85	131	304572	10.00	ug/L		98
54) Chlorobenzene	13.78	112	979514	10.00	ug/L		99
55) Ethylbenzene	13.80	91	1864801	10.00	ug/L		99
56) (m+p)-Xylene	14.00	106	1350566	20.00	ug/L		99
57) o-Xylene	14.60	106	643533	10.00	ug/L		100
58) Styrene	14.67	104	1020084	10.00	ug/L		98
59) Bromoform	14.71	173	167721	10.00	ug/L		97
62) trans-1,4-Dichloro-2-buten	15.96	89	47387	10.00	ug/L	#	94
63) 1,1,2,2-Tetrachloroethane	15.69	83	317481	10.00	ug/L		99
64) Isopropylbenzene	15.04	105	1768781	10.00	ug/L		99
65) 1,2,3-Trichloropropane	15.91	75	261360m	10.00	ug/L		
66) Bromobenzene	15.61	156	426199	10.00	ug/L		96
67) n-Propylbenzene	15.63	91	2154185	10.00	ug/L		99
68) 2-Chlorotoluene	15.87	91	1413485	10.00	ug/L		99
69) 4-Chlorotoluene	16.11	91	1224944	10.00	ug/L		100
70) 1,3,5-Trimethylbenzene	15.91	105	1322845	10.00	ug/L		100
71) tert-Butylbenzene	16.37	119	1226298	10.00	ug/L		100
72) 1,2,4-Trimethylbenzene	16.47	105	1184967	10.00	ug/L		100
73) sec-Butylbenzene	16.64	105	1867043	10.00	ug/L		99
74) 1,3-Dichlorobenzene	16.98	146	810146	10.00	ug/L		99
75) p-Isopropyltoluene	16.84	119	1375892	10.00	ug/L		100

9/13/06

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\T4600.D Vial: 19
Acq On : 13 Sep 2006 13:11 Operator: JK
Sample : ICAL 10 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
IS Integration Params: RTEINT.P
Quant Time: Sep 13 13:56 2006 Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:56:26 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76)	1,4-Dichlorobenzene	17.10	146	782674	10.00	ug/L	100
77)	n-Butylbenzene	17.47	91	1132724	10.00	ug/L	100
78)	1,2-Dichlorobenzene	17.74	146	743717	10.00	ug/L	99
79)	1,2-Dibromo-3-chloropropan	18.87	75	47948	10.00	ug/L	91
80)	1,2,4-Trichlorobenzene	19.75	180	366637	10.00	ug/L	100
81)	Hexachlorobutadiene	19.72	225	259812	10.00	ug/L	99
82)	Naphthalene	20.13	128	594912	10.00	ug/L	100
83)	1,2,3-Trichlorobenzene	20.34	180	367158	10.00	ug/L	99

(#) = qualifier out of range (m) = manual integration

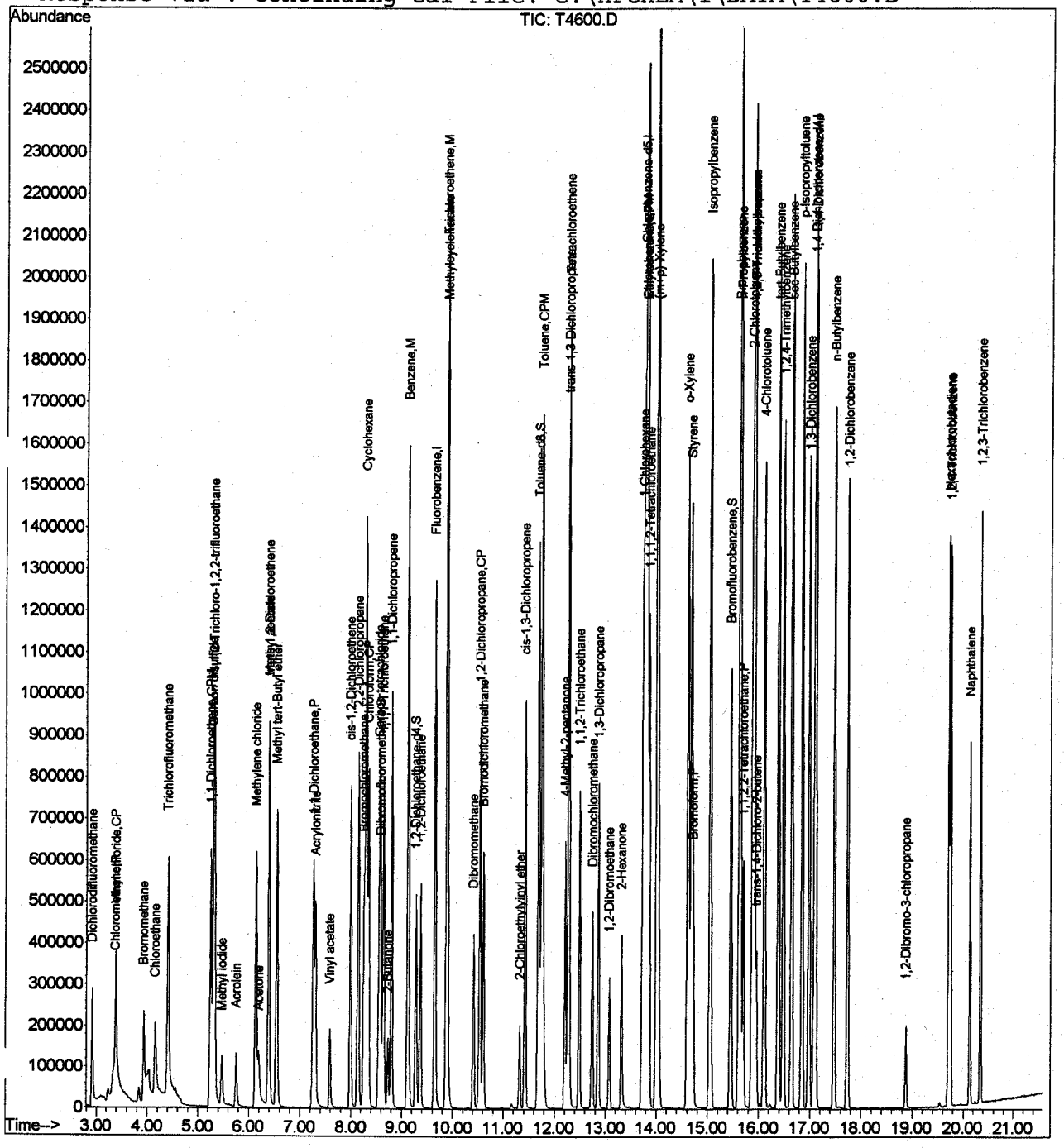
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4600.D
Acq On : 13 Sep 2006 13:11
Sample : ICAL 10 PPB
Misc : ICAL,8260W_CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 13 13:56 2006

Vial: 19
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 13:56:26 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4601.D Vial: 20
Acq On : 13 Sep 2006 13:44 Operator: JK
Sample : ICAL 20 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
3 Integration Params: RTEINT.P
Quant Time: Sep 13 14:17 2006 Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.64	96	1154008	10.00	ug/L	0.00
48) Chlorobenzene-d5	13.75	82	570373	10.00	ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	488997	10.00	ug/L	0.00
System Monitoring Compounds						
27) Dibromofluoromethane	8.58	113	535652	20.39	ug/L	0.00
Spiked Amount 10.000			Recovery =	203.90%		
28) 1,2-Dichloroethane-d4	9.28	65	709623	20.34	ug/L	0.00
Spiked Amount 10.000			Recovery =	203.40%		
42) Toluene-d8	11.68	98	2394907	20.30	ug/L	0.00
Spiked Amount 10.000			Recovery =	203.00%		
60) Bromofluorobenzene	15.44	95	913396	19.94	ug/L	0.00
Spiked Amount 10.000			Recovery =	199.40%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.91	85	868954	20.72	ug/L	99
3) Chloromethane	3.33	50	1124382	20.81	ug/L	100
4) Vinyl chloride	3.37	62	954526	21.03	ug/L	99
5) Bromomethane	3.92	94	450866	20.91	ug/L	88
6) Chloroethane	4.14	64	668452	20.30	ug/L	98
7) Trichlorofluoromethane	4.40	101	1263829	20.51	ug/L	99
8) Acetone	6.19	43	302298	40.32	ug/L	99
9) Acrolein	5.74	56	265783	107.50	ug/L	98
10) 1,1-Dichloroethene	5.24	96	506752	20.65	ug/L	98
11) Methyl iodide	5.47	142	519546	24.66	ug/L	90
12) 1,1,2-Trichloro-1,2,2-trif	5.31	101	606475	20.09	ug/L	99
13) Methyl acetate	6.38	43	514309	20.47	ug/L	100
14) Acrylonitrile	7.29	53	832876	102.33	ug/L	100
15) Methylene chloride	6.13	84	628886	19.94	ug/L	99
16) Carbon disulfide	5.29	76	2024433	20.08	ug/L	100
17) trans-1,2-Dichloroethene	6.38	96	603494	20.19	ug/L	98
18) Methyl tert-Butyl ether	6.53	73	1437594	20.71	ug/L	99
19) 1,1-Dichloroethane	7.25	63	1206406	19.74	ug/L	100
20) Vinyl acetate	7.58	43	661389	22.16	ug/L	100
21) 2-Butanone	8.72	43	465629	42.27	ug/L	99
22) cis-1,2-Dichloroethene	7.98	96	657508	20.32	ug/L	98
23) Bromochloromethane	8.25	128	300506	19.98	ug/L	100
24) Chloroform	8.34	83	1198463	19.75	ug/L	99
25) 2,2-Dichloropropane	8.14	77	1056156	20.60	ug/L	99
26) Cyclohexane	8.29	56	1370810	20.50	ug/L	99
29) 1,2-Dichloroethane	9.36	62	847714	19.91	ug/L	99
30) 1,1,1-Trichloroethane	8.64	97	1050714	19.98	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4601.D
Acq On : 13 Sep 2006 13:44
Sample : ICAL 20 PPB
Misc : ICAL,8260W_CAL,
3 Integration Params: RTEINT.P
Quant Time: Sep 13 14:17 2006

Vial: 20
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	8.80	75	900432	19.98 ug/L	99
32) Carbon tetrachloride	8.56	117	883520	20.77 ug/L	100
33) Benzene	9.12	78	2791613	19.48 ug/L	100
34) Trichloroethene	9.87	95	679513	19.70 ug/L	99
35) Dibromomethane	10.40	93	338980	20.13 ug/L	99
36) Methylcyclohexane	9.88	83	1188759	20.47 ug/L	100
37) 1,2-Dichloropropane	10.53	63	693345	20.66 ug/L	99
38) Bromodichloromethane	10.60	83	815644	20.24 ug/L	100
39) 2-Chloroethylvinyl ether	11.31	63	117782	14.56 ug/L	98
40) 4-Methyl-2-pentanone	12.20	43	1060334	44.35 ug/L	100
41) cis-1,3-Dichloropropene	11.42	75	1046958	20.64 ug/L	99
43) Toluene	11.75	92	1886453	20.35 ug/L	99
44) trans-1,3-Dichloropropene	12.26	75	939306	21.07 ug/L	99
45) 1,1,2-Trichloroethane	12.49	83	418018	20.21 ug/L	98
46) 2-Hexanone	13.32	43	727212	45.12 ug/L	98
47) 1,2-Dibromoethane	13.07	107	451084	20.23 ug/L	98
49) 1,3-Dichloropropane	12.85	76	901954	19.26 ug/L	100
50) Dibromochloromethane	12.74	129	546291	20.20 ug/L	97
51) Tetrachloroethene	12.27	166	735792	19.43 ug/L	100
52) 1-Chlorohexane	13.72	91	923975	20.30 ug/L	97
53) 1,1,1,2-Tetrachloroethane	13.85	131	612535	19.64 ug/L	100
54) Chlorobenzene	13.78	112	1946514	19.41 ug/L	100
55) Ethylbenzene	13.80	91	3717963	19.47 ug/L	99
56) (m+p)-Xylene	14.01	106	2779343	40.20 ug/L	96
57) o-Xylene	14.60	106	1351001	20.51 ug/L	97
58) Styrene	14.67	104	2193011	21.00 ug/L	100
59) Bromoform	14.71	173	356985	20.79 ug/L	99
62) trans-1,4-Dichloro-2-buten	15.96	89	104215	21.17 ug/L #	90
63) 1,1,2,2-Tetrachloroethane	15.70	83	640053	19.41 ug/L	100
64) Isopropylbenzene	15.04	105	3582977	19.50 ug/L	100
65) 1,2,3-Trichloropropane	15.91	75	530192m	19.53 ug/L	
66) Bromobenzene	15.62	156	865675	19.55 ug/L	100
67) n-Propylbenzene	15.63	91	4339290	19.39 ug/L	98
68) 2-Chlorotoluene	15.87	91	2886724	19.66 ug/L	100
69) 4-Chlorotoluene	16.10	91	2488553	19.56 ug/L	99
70) 1,3,5-Trimethylbenzene	15.90	105	2747770	20.00 ug/L	99
71) tert-Butylbenzene	16.38	119	2526182	19.83 ug/L	99
72) 1,2,4-Trimethylbenzene	16.48	105	2466986	20.04 ug/L	98
73) sec-Butylbenzene	16.64	105	3778822	19.48 ug/L	99
74) 1,3-Dichlorobenzene	16.97	146	1643752	19.53 ug/L	99
75) p-Isopropyltoluene	16.84	119	2881220	20.16 ug/L	99

9/13/06

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4601.D Vial: 20
Acq On : 13 Sep 2006 13:44 Operator: JK
Sample : ICAL 20 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Sep 13 14:17 2006 Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76)	1,4-Dichlorobenzene	17.10	146	1602108	19.70	ug/L	98
77)	n-Butylbenzene	17.47	91	2415890	20.53	ug/L	99
78)	1,2-Dichlorobenzene	17.73	146	1521844	19.70	ug/L	99
79)	1,2-Dibromo-3-chloropropan	18.88	75	96805	19.44	ug/L	90
80)	1,2,4-Trichlorobenzene	19.75	180	782355	20.54	ug/L	99
81)	Hexachlorobutadiene	19.72	225	549124	20.35	ug/L	98
82)	Naphthalene	20.13	128	1288827	20.85	ug/L	100
83)	1,2,3-Trichlorobenzene	20.34	180	773623	20.28	ug/L	100

(#) = qualifier out of range (m) = manual integration

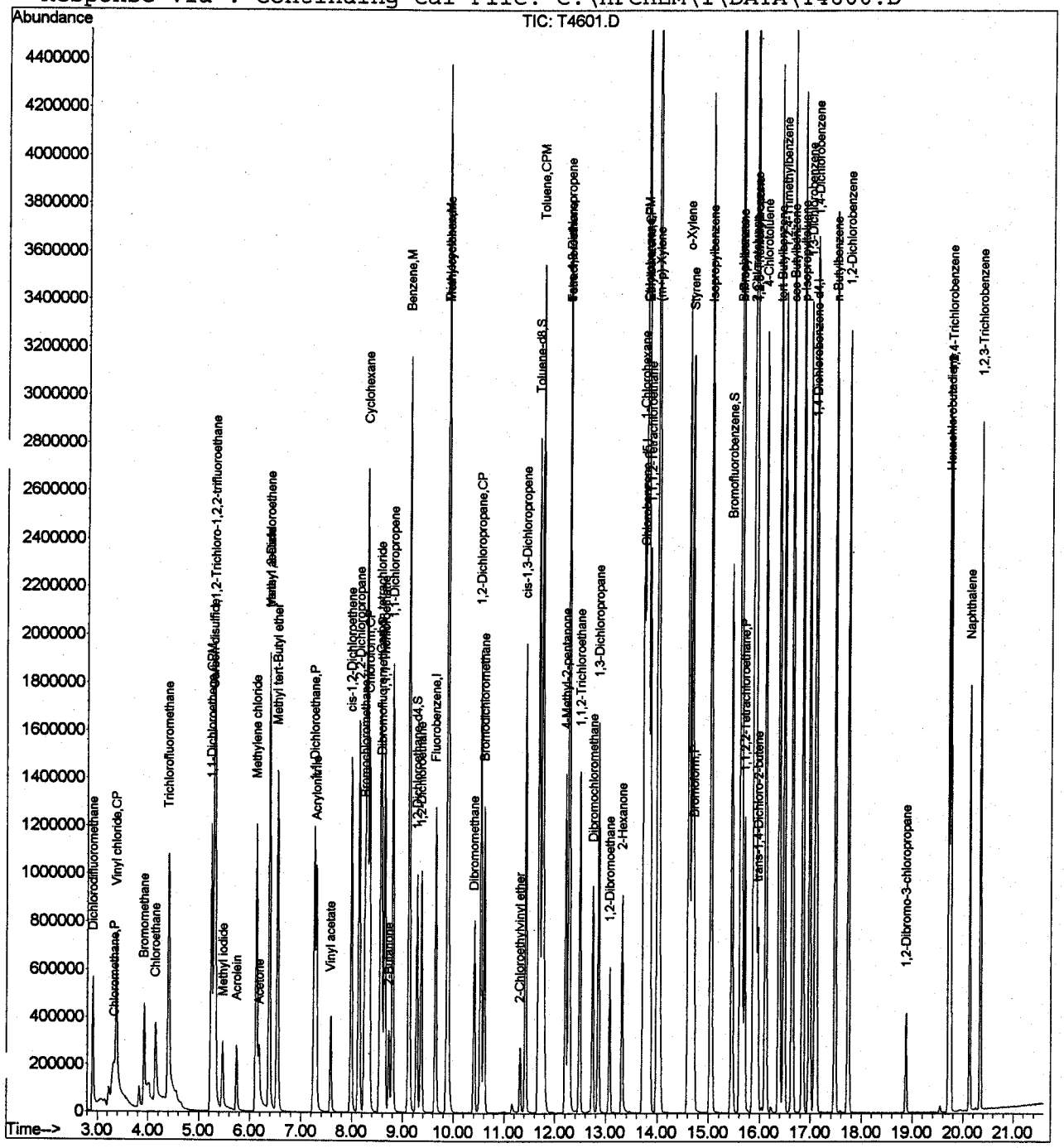
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4601.D
Acq On : 13 Sep 2006 13:44
Sample : ICAL 20 PPB
Misc : ICAL,8260W_CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 13 14:17 2006

Vial: 20
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:00:34 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4602.D
Acq On : 13 Sep 2006 14:17
Sample : ICAL 30 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006

Vial: 21
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:20:53 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1272033	10.00	ug/L	0.00
48) Chlorobenzene-d5	13.75	82	605808	10.00	ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	520385	10.00	ug/L	0.00
System Monitoring Compounds						
27) Dibromofluoromethane	8.58	113	880247	30.39	ug/L	0.00
Spiked Amount 10.000			Recovery =	303.90%		
28) 1,2-Dichloroethane-d4	9.28	65	1149189	29.88	ug/L	0.00
Spiked Amount 10.000			Recovery =	298.80%		
42) Toluene-d8	11.69	98	3815976	29.34	ug/L	0.01
Spiked Amount 10.000			Recovery =	293.40%		
60) Bromofluorobenzene	15.44	95	1458792	29.99	ug/L	0.00
Spiked Amount 10.000			Recovery =	299.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.92	85	1359022	29.39	ug/L	99
3) Chloromethane	3.37	50	1787212	30.02	ug/L #	100
4) Vinyl chloride	3.38	62	1528538	30.56	ug/L	97
5) Bromomethane	3.94	94	745288	31.35	ug/L	83
6) Chloroethane	4.15	64	1063160	29.29	ug/L	95
7) Trichlorofluoromethane	4.42	101	1976831	29.11	ug/L	100
8) Acetone	6.19	43	493586	59.73	ug/L	98
9) Acrolein	5.75	56	449031	164.77	ug/L	98
10) 1,1-Dichloroethene	5.25	96	829824	30.68	ug/L	98
11) Methyl iodide	5.48	142	889626	38.31	ug/L	98
12) 1,1,2-Trichloro-1,2,2-trif	5.32	101	978092	29.40	ug/L	99
13) Methyl acetate	6.38	43	855399	30.88	ug/L	98
14) Acrylonitrile	7.30	53	1403952	156.48	ug/L	99
15) Methylene chloride	6.14	84	1017983	29.28	ug/L	99
16) Carbon disulfide	5.30	76	3261928	29.35	ug/L	99
17) trans-1,2-Dichloroethene	6.39	96	989912	30.04	ug/L	98
18) Methyl tert-Butyl ether	6.54	73	2373454	31.02	ug/L	100
19) 1,1-Dichloroethane	7.26	63	1970795	29.25	ug/L	100
20) Vinyl acetate	7.59	43	1124833	34.19	ug/L	100
21) 2-Butanone	8.73	43	776324	63.94	ug/L	99
22) cis-1,2-Dichloroethene	7.99	96	1076635	30.18	ug/L	99
23) Bromochloromethane	8.25	128	497036	29.98	ug/L	98
24) Chloroform	8.35	83	1950633	29.17	ug/L	99
25) 2,2-Dichloropropane	8.14	77	1750356	30.98	ug/L	99
26) Cyclohexane	8.30	56	2220635	30.13	ug/L	99
29) 1,2-Dichloroethane	9.37	62	1376881	29.34	ug/L	99
30) 1,1,1-Trichloroethane	8.64	97	1718444	29.65	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4602.D Vial: 21
Acq On : 13 Sep 2006 14:17 Operator: JK
Sample : ICAL 30 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006 Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:20:53 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	1,1-Dichloropropene	8.80	75	1493014	30.06	ug/L		100
32)	Carbon tetrachloride	8.56	117	1457124	31.08	ug/L		99
33)	Benzene	9.13	78	4468935	28.29	ug/L		100
34)	Trichloroethene	9.87	95	1123975	29.56	ug/L		99
35)	Dibromomethane	10.41	93	559074	30.12	ug/L		100
36)	Methylcyclohexane	9.89	83	1935854	30.24	ug/L		100
37)	1,2-Dichloropropane	10.53	63	1142429	30.89	ug/L		100
38)	Bromodichloromethane	10.60	83	1361352	30.64	ug/L		100
39)	2-Chloroethylvinyl ether	11.32	63	138725	15.56	ug/L		99
40)	4-Methyl-2-pentanone	12.20	43	1792544	68.02	ug/L		99
41)	cis-1,3-Dichloropropene	11.42	75	1737889	31.08	ug/L		100
43)	Toluene	11.75	92	3019217	29.55	ug/L		96
44)	trans-1,3-Dichloropropene	12.26	75	1585229	32.26	ug/L		99
45)	1,1,2-Trichloroethane	12.49	83	687594	30.16	ug/L		99
46)	2-Hexanone	13.32	43	1241934	69.91	ug/L		99
47)	1,2-Dibromoethane	13.07	107	747615	30.41	ug/L		98
49)	1,3-Dichloropropane	12.85	76	1489340	29.94	ug/L		99
50)	Dibromochloromethane	12.74	129	938891	32.69	ug/L		99
51)	Tetrachloroethene	12.27	166	1188529	29.55	ug/L		100
52)	1-Chlorohexane	13.72	91	1502878	31.09	ug/L		95
53)	1,1,1,2-Tetrachloroethane	13.85	131	1020992	30.83	ug/L		99
54)	Chlorobenzene	13.78	112	3075688	28.88	ug/L		99
55)	Ethylbenzene	13.80	91	5716741	28.19	ug/L		96
56)	(m+p)-Xylene	14.01	106	4378582	59.63	ug/L		90
57)	o-Xylene	14.60	106	2141409	30.60	ug/L		95
58)	Styrene	14.67	104	3517477	31.71	ug/L		100
59)	Bromoform	14.72	173	628431	34.46	ug/L		99
62)	trans-1,4-Dichloro-2-buten	15.96	89	180830	34.52	ug/L	#	86
63)	1,1,2,2-Tetrachloroethane	15.70	83	1051826	29.97	ug/L		100
64)	Isopropylbenzene	15.04	105	5501664	28.14	ug/L		98
65)	1,2,3-Trichloropropane	15.91	75	881959m	30.52	ug/L		
66)	Bromobenzene	15.62	156	1384125	29.38	ug/L		100
67)	n-Propylbenzene	15.63	91	6573255	27.60	ug/L		96
68)	2-Chlorotoluene	15.87	91	4532355	29.01	ug/L		100
69)	4-Chlorotoluene	16.10	91	3890553	28.73	ug/L		99
70)	1,3,5-Trimethylbenzene	15.90	105	4376970	29.93	ug/L		98
71)	tert-Butylbenzene	16.38	119	3957216	29.19	ug/L		98
72)	1,2,4-Trimethylbenzene	16.48	105	3935451	30.04	ug/L		97
73)	sec-Butylbenzene	16.64	105	5746696	27.84	ug/L		96
74)	1,3-Dichlorobenzene	16.97	146	2568986	28.68	ug/L		98
75)	p-Isopropyltoluene	16.84	119	4531720	29.79	ug/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4602.D
Acq On : 13 Sep 2006 14:17
Sample : ICAL 30 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006

Vial: 21
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:20:53 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

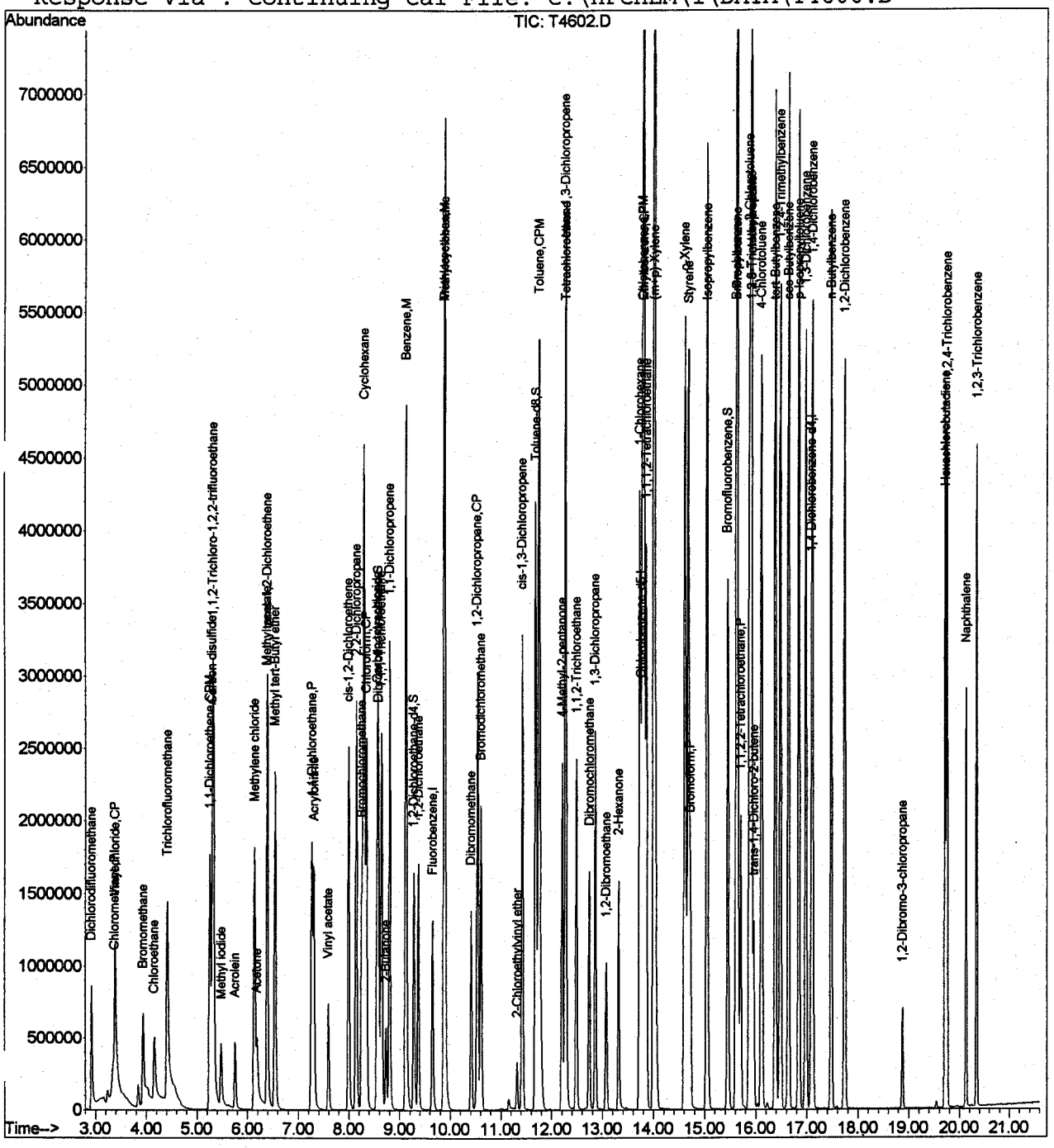
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76) 1,4-Dichlorobenzene	17.11	146	2509492	29.00	ug/L	99
77) n-Butylbenzene	17.47	91	3849827	30.74	ug/L	97
78) 1,2-Dichlorobenzene	17.73	146	2389346	29.06	ug/L	98
79) 1,2-Dibromo-3-chloropropan	18.88	75	163493	30.84	ug/L	89
80) 1,2,4-Trichlorobenzene	19.75	180	1271767	31.38	ug/L	100
81) Hexachlorobutadiene	19.72	225	866665	30.17	ug/L	99
82) Naphthalene	20.13	128	2069408	31.47	ug/L	100
83) 1,2,3-Trichlorobenzene	20.35	180	1255041	30.92	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4602.D Vial: 21
Acq On : 13 Sep 2006 14:17 Operator: JK
Sample : ICAL 30 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006 Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 14:20:53 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4603.D
Acq On : 13 Sep 2006 14:49
Sample : ICAL 40 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006

Vial: 22
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 15:34:19 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1302402	10.00	ug/L	0.00
48) Chlorobenzene-d5	13.76	82	620100	10.00	ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	532438	10.00	ug/L	0.00
System Monitoring Compounds						
27) Dibromofluoromethane	8.59	113	1213455	40.92	ug/L	0.00
Spiked Amount 10.000			Recovery =	409.20%		
28) 1,2-Dichloroethane-d4	9.27	65	1561946	39.66	ug/L	0.00
Spiked Amount 10.000			Recovery =	396.60%		
42) Toluene-d8	11.68	98	5106858	38.35	ug/L	0.00
Spiked Amount 10.000			Recovery =	383.50%		
60) Bromofluorobenzene	15.44	95	2022461	40.61	ug/L	0.00
Spiked Amount 10.000			Recovery =	406.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.92	85	1831820	38.70	ug/L	99
3) Chloromethane	3.35	50	2418019	39.66	ug/L	100
4) Vinyl chloride	3.38	62	2143889	41.86	ug/L	100
5) Bromomethane	3.94	94	1062026	43.64	ug/L	81
6) Chloroethane	4.16	64	1455382	39.15	ug/L	99
7) Trichlorofluoromethane	4.41	101	2765409	39.77	ug/L	100
8) Acetone	6.19	43	683478	80.78	ug/L	98
9) Acrolein	5.75	56	628353	225.19	ug/L	98
10) 1,1-Dichloroethene	5.25	96	1153501	41.66	ug/L	97
11) Methyl iodide	5.48	142	1300394	54.69	ug/L	90
12) 1,1,2-Trichloro-1,2,2-trif	5.32	101	1342176	39.40	ug/L	100
13) Methyl acetate	6.39	43	1179546	41.59	ug/L	98
14) Acrylonitrile	7.30	53	1915761	208.55	ug/L	99
15) Methylene chloride	6.14	84	1392705	39.12	ug/L	98
16) Carbon disulfide	5.31	76	4443643	39.05	ug/L	99
17) trans-1,2-Dichloroethene	6.39	96	1365217	40.46	ug/L	98
18) Methyl tert-Butyl ether	6.54	73	3275913	41.82	ug/L	99
19) 1,1-Dichloroethane	7.26	63	2703660	39.19	ug/L	99
20) Vinyl acetate	7.58	43	1549440	46.00	ug/L	99
21) 2-Butanone	8.73	43	1069961	86.07	ug/L	99
22) cis-1,2-Dichloroethene	7.99	96	1483423	40.61	ug/L	98
23) Bromochloromethane	8.26	128	668745	39.39	ug/L	99
24) Chloroform	8.34	83	2661734	38.87	ug/L	98
25) 2,2-Dichloropropane	8.14	77	2362493	40.84	ug/L	98
26) Cyclohexane	8.29	56	3051923	40.45	ug/L	99
29) 1,2-Dichloroethane	9.37	62	1873800	38.99	ug/L	99
30) 1,1,1-Trichloroethane	8.64	97	2349434	39.59	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4603.D Vial: 22
Acq On : 13 Sep 2006 14:49 Operator: JK
Sample : ICAL 40 PPB Inst : #1MS11
Misc : ICAL,8260W_CAL, Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006 Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 15:34:19 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	1,1-Dichloropropene	8.80	75	2039487	40.11	ug/L		100
32)	Carbon tetrachloride	8.57	117	2015470	41.98	ug/L		100
33)	Benzene	9.12	78	5858268	36.22	ug/L		100
34)	Trichloroethene	9.87	95	1549513	39.81	ug/L		100
35)	Dibromomethane	10.41	93	767204	40.38	ug/L		100
36)	Methylcyclohexane	9.89	83	2667944	40.70	ug/L		99
37)	1,2-Dichloropropane	10.54	63	1560407	41.21	ug/L		100
38)	Bromodichloromethane	10.60	83	1874819	41.22	ug/L		99
39)	2-Chloroethylvinyl ether	11.32	63	153123	16.77	ug/L		98
40)	4-Methyl-2-pentanone	12.20	43	2471816	91.61	ug/L		99
41)	cis-1,3-Dichloropropene	11.42	75	2370894	41.41	ug/L		99
43)	Toluene	11.76	92	4090812	39.11	ug/L		94
44)	trans-1,3-Dichloropropene	12.27	75	2179039	43.30	ug/L		100
45)	1,1,2-Trichloroethane	12.48	83	949133	40.66	ug/L		98
46)	2-Hexanone	13.31	43	1743697	95.87	ug/L		98
47)	1,2-Dibromoethane	13.07	107	1031375	40.98	ug/L		98
49)	1,3-Dichloropropane	12.86	76	2028480	39.83	ug/L		100
50)	Dibromochloromethane	12.74	129	1296910	44.12	ug/L		98
51)	Tetrachloroethene	12.28	166	1651132	40.10	ug/L		100
52)	1-Chlorohexane	13.73	91	2058825	41.61	ug/L		95
53)	1,1,1,2-Tetrachloroethane	13.86	131	1411394	41.64	ug/L		99
54)	Chlorobenzene	13.78	112	4156512	38.13	ug/L		98
55)	Ethylbenzene	13.81	91	7512608	36.20	ug/L		94
56)	(m+p)-Xylene	14.00	106	5927997	78.87	ug/L		82
57)	o-Xylene	14.60	106	2930817	40.92	ug/L		92
58)	Styrene	14.67	104	4791804	42.21	ug/L		98
59)	Bromoform	14.71	173	880986	47.19	ug/L		98
62)	trans-1,4-Dichloro-2-buten	15.96	89	265621	49.56	ug/L	#	82
63)	1,1,2,2-Tetrachloroethane	15.69	83	1437799	40.04	ug/L		100
64)	Isopropylbenzene	15.04	105	7170356	35.84	ug/L		95
65)	1,2,3-Trichloropropane	15.91	75	1232854m	41.70	ug/L		
66)	Bromobenzene	15.61	156	1897450	39.36	ug/L		99
67)	n-Propylbenzene	15.63	91	8420153	34.56	ug/L		92
68)	2-Chlorotoluene	15.87	91	6069591	37.96	ug/L		98
69)	4-Chlorotoluene	16.11	91	5191237	37.47	ug/L		97
70)	1,3,5-Trimethylbenzene	15.91	105	5833551	38.99	ug/L		96
71)	tert-Butylbenzene	16.37	119	5282565	38.08	ug/L		96
72)	1,2,4-Trimethylbenzene	16.47	105	5258837	39.24	ug/L		95
73)	sec-Butylbenzene	16.64	105	7426821	35.17	ug/L		92
74)	1,3-Dichlorobenzene	16.98	146	3462076	37.78	ug/L		97
75)	p-Isopropyltoluene	16.84	119	6014885	38.65	ug/L		94

9/13/06

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\T4603.D
Acq On : 13 Sep 2006 14:49
Sample : ICAL 40 PPB
Misc : ICAL,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006

Vial: 22
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 15:34:19 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76) 1,4-Dichlorobenzene	17.10	146	3368595	38.05	ug/L	100
77) n-Butylbenzene	17.47	91	5098730	39.80	ug/L	94
78) 1,2-Dichlorobenzene	17.74	146	3235841	38.47	ug/L	97
79) 1,2-Dibromo-3-chloropropan	18.87	75	232052	42.79	ug/L	89
80) 1,2,4-Trichlorobenzene	19.74	180	1748136	42.15	ug/L	99
81) Hexachlorobutadiene	19.71	225	1208859	41.14	ug/L	99
82) Naphthalene	20.13	128	2810947	41.77	ug/L	100
83) 1,2,3-Trichlorobenzene	20.34	180	1702975	41.01	ug/L	99

(#) = qualifier out of range (m) = manual integration

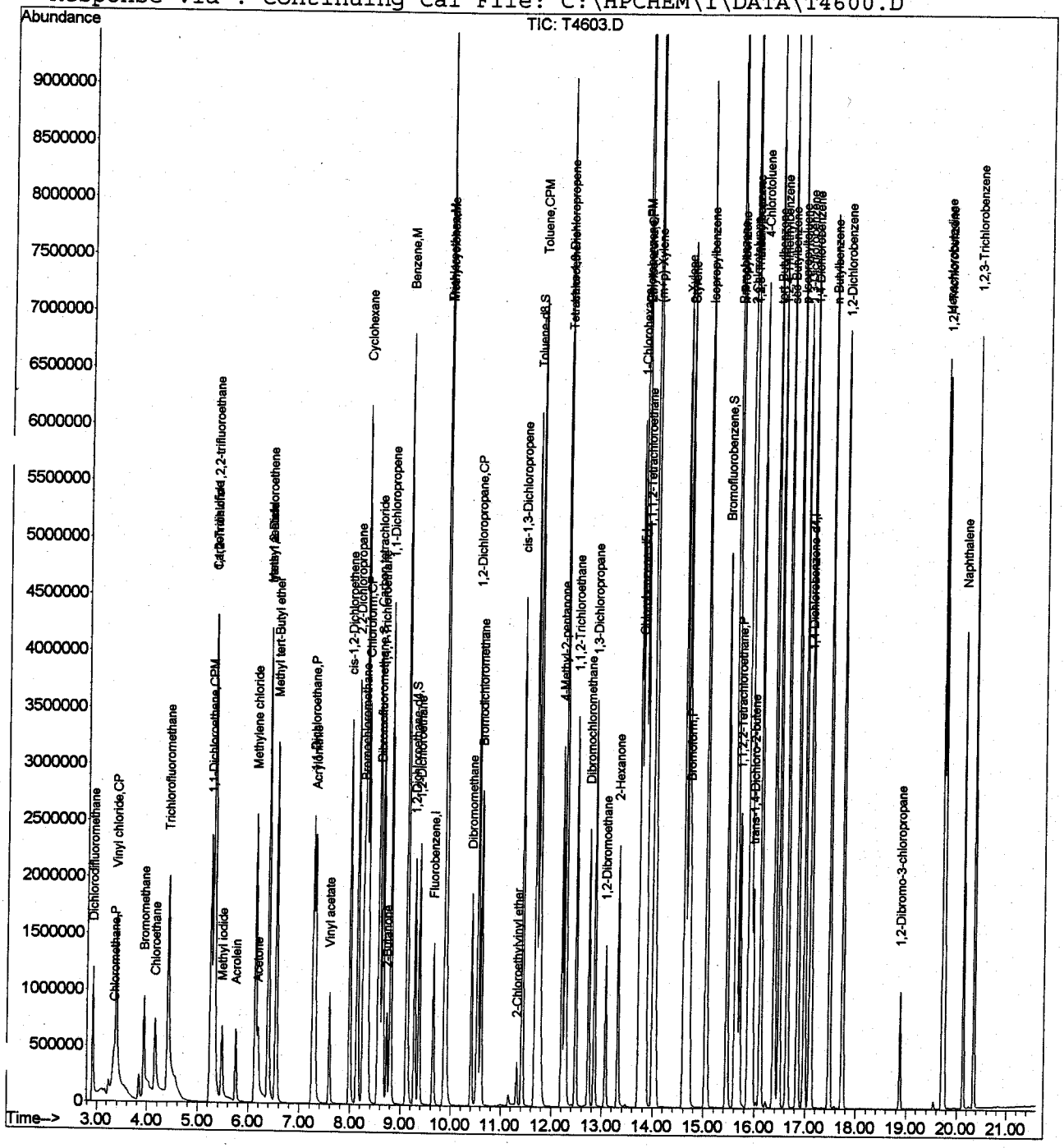
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4603.D
Acq On : 13 Sep 2006 14:49
Sample : ICAL 40 PPB
Misc : ICAL,8260W_CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 13 15:34 2006

Vial: 22
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Wed Sep 13 15:34:19 2006
Response via : Continuing Cal File: C:\HPCHEM\1\DATA\T4600.D



AFCEE
ORGANIC ANALYSES DATA SHEET 4
SECOND SOURCE CALIBRATION VERIFICATION

Analytical Method: SW8260B **AAB #:** R6574

Lab Name: Life Science Laboratories, In **Contract Number:**

Instrument ID: MS01_11 **Initial Calibration ID:** 664

Second Source ID: ICV-6574 **Concentration Units (mg/L or mg/kg):** µg/L

Analyte	Expected	Found	%D	Q
Chloroform	10	10.7	7.1	
cis-1,2-Dichloroethene	10	11.0	9.8	
Tetrachloroethene	10	10.9	9.3	
trans-1,2-Dichloroethene	10	11.1	11.0	
Trichloroethene	10	10.8	8.4	
Vinyl chloride	10	9.91	0.9	

Comments:

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4604.D
Acq On : 13 Sep 2006 18:02
Sample : ICV-6574
Misc : 2SRC,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 14 8:40 2006

Vial: 24
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:04:29 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1295737	10.00	ug/L	0.00
48) Chlorobenzene-d5	13.76	82	596830	10.00	ug/L	0.00
61) 1,4-Dichlorobenzene-d4	17.08	152	493522	10.00	ug/L	0.00
System Monitoring Compounds						
27) Dibromofluoromethane	8.59	113	281393	9.88	ug/L	0.00
Spiked Amount 10.000			Recovery = 98.80%			
28) 1,2-Dichloroethane-d4	9.27	65	399562	10.20	ug/L	0.00
Spiked Amount 10.000			Recovery = 102.00%			
42) Toluene-d8	11.68	98	1316905	10.89	ug/L	0.00
Spiked Amount 10.000			Recovery = 108.90%			
60) Bromofluorobenzene	15.45	95	498620	10.93	ug/L	0.01
Spiked Amount 10.000			Recovery = 109.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.92	85	458118	10.41	ug/L	100
3) Chloromethane	3.39	50	565911	9.04	ug/L #	100
4) Vinyl chloride	3.39	62	490592	9.91	ug/L	98
5) Bromomethane	3.94	94	255382	9.88	ug/L	85
6) Chloroethane	4.16	64	363460	10.23	ug/L	98
7) Trichlorofluoromethane	4.41	101	691167	10.57	ug/L	99
8) Acetone	6.20	43	150289	16.78	ug/L	99
9) Acrolein	5.76	56	171814	61.95	ug/L	98
10) 1,1-Dichloroethene	5.25	96	290763	11.00	ug/L	100
11) Methyl iodide	5.48	142	265145	11.73	ug/L	99
12) 1,1,2-Trichloro-1,2,2-trif	5.33	101	350266	11.04	ug/L	99
13) Methyl acetate	6.39	43	271523	9.28	ug/L	99
14) Acrylonitrile	7.30	53	466708	52.65	ug/L	100
15) Methylene chloride	6.14	84	365097	10.15	ug/L	99
16) Carbon disulfide	5.31	76	1081935	10.00	ug/L	99
17) trans-1,2-Dichloroethene	6.39	96	358675	11.10	ug/L	97
18) Methyl tert-Butyl ether	6.54	73	866820	11.51	ug/L	100
19) 1,1-Dichloroethane	7.26	63	710152	10.74	ug/L	99
20) Vinyl acetate	7.58	43	453167	13.52	ug/L	99
21) 2-Butanone	8.73	43	234862	19.27	ug/L	99
22) cis-1,2-Dichloroethene	7.99	96	384057	10.98	ug/L	100
23) Bromochloromethane	8.26	128	175077	10.84	ug/L	98
24) Chloroform	8.34	83	696231	10.71	ug/L	99
25) 2,2-Dichloropropane	8.14	77	618641	11.17	ug/L	99
26) Cyclohexane	8.29	56	780142	11.09	ug/L	99
29) 1,2-Dichloroethane	9.37	62	491556	10.62	ug/L	98
30) 1,1,1-Trichloroethane	8.65	97	610777	10.98	ug/L	99

(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\T4604.D
Acq On : 13 Sep 2006 18:02
Sample : ICV-6574
Misc : 2SRC,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 14 8:40 2006

Vial: 24
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:04:29 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) 1,1-Dichloropropene	8.80	75	525845	11.19 ug/L	100
32) Carbon tetrachloride	8.57	117	507794	11.19 ug/L	100
33) Benzene	9.12	78	1644329	11.09 ug/L	100
34) Trichloroethene	9.87	95	394835	10.84 ug/L	99
35) Dibromomethane	10.41	93	193958	10.57 ug/L	98
36) Methylcyclohexane	9.88	83	659532	10.87 ug/L	100
37) 1,2-Dichloropropane	10.54	63	397717	10.65 ug/L	100
38) Bromodichloromethane	10.60	83	471507	11.19 ug/L	99
39) 2-Chloroethylvinyl ether	11.32	63	117498	13.59 ug/L	98
40) 4-Methyl-2-pentanone	12.20	43	507053	18.10 ug/L	100
41) cis-1,3-Dichloropropene	11.42	75	599356	11.13 ug/L	99
43) Toluene	11.76	92	1057830	10.99 ug/L	99
44) trans-1,3-Dichloropropene	12.26	75	517690	10.78 ug/L	100
45) 1,1,2-Trichloroethane	12.48	83	239959	10.65 ug/L	98
46) 2-Hexanone	13.32	43	343401	19.67 ug/L	99
47) 1,2-Dibromoethane	13.07	107	247326	10.57 ug/L	96
49) 1,3-Dichloropropane	12.86	76	511287	10.55 ug/L	99
50) Dibromochloromethane	12.74	129	298126	11.04 ug/L	98
51) Tetrachloroethene	12.27	166	414163	10.93 ug/L	100
52) 1-Chlorohexane	13.73	91	517477	11.66 ug/L	97
53) 1,1,1,2-Tetrachloroethane	13.85	131	335381	10.96 ug/L	98
54) Chlorobenzene	13.78	112	1078166	10.64 ug/L	100
55) Ethylbenzene	13.80	91	2067143	11.33 ug/L	100
56) (m+p)-Xylene	14.00	106	1510756	22.75 ug/L	98
57) o-Xylene	14.60	106	722783	11.36 ug/L	98
58) Styrene	14.67	104	1121929	11.88 ug/L	100
59) Bromoform	14.71	173	186301	11.13 ug/L	99
62) trans-1,4-Dichloro-2-buten	15.96	89	57544	12.29 ug/L #	87
63) 1,1,2,2-Tetrachloroethane	15.69	83	343618	10.64 ug/L	98
64) Isopropylbenzene	15.04	105	1956371	12.03 ug/L	99
65) 1,2,3-Trichloropropane	15.91	75	286534m	10.55 ug/L	
66) Bromobenzene	15.61	156	471349	11.30 ug/L	98
67) n-Propylbenzene	15.63	91	2352859	11.78 ug/L	100
68) 2-Chlorotoluene	15.87	91	1546447	11.50 ug/L	100
69) 4-Chlorotoluene	16.11	91	1339033	11.60 ug/L	100
70) 1,3,5-Trimethylbenzene	15.91	105	1438672	11.87 ug/L	100
71) tert-Butylbenzene	16.37	119	1342168	11.58 ug/L	100
72) 1,2,4-Trimethylbenzene	16.47	105	1287877	12.03 ug/L	100
73) sec-Butylbenzene	16.64	105	2018177	11.10 ug/L	99
74) 1,3-Dichlorobenzene	16.97	146	861732	10.92 ug/L	99
75) p-Isopropyltoluene	16.84	119	1504923	10.67 ug/L	100

9/14/06

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4604.D
Acq On : 13 Sep 2006 18:02
Sample : ICV-6574
Misc : 2SRC,8260W_CAL,
Integration Params: RTEINT.P
Quant Time: Sep 14 8:40 2006

Vial: 24
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Quant Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:04:29 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
76)	1,4-Dichlorobenzene	17.10	146	847141	10.52 ug/L	99
77)	n-Butylbenzene	17.47	91	1239362	12.01 ug/L	99
78)	1,2-Dichlorobenzene	17.74	146	802552	10.95 ug/L	99
79)	1,2-Dibromo-3-chloropropan	18.87	75	50246	9.93 ug/L	95
80)	1,2,4-Trichlorobenzene	19.75	180	405540	11.10 ug/L	100
81)	Hexachlorobutadiene	19.71	225	290822	11.40 ug/L	98
82)	Naphthalene	20.13	128	651714	10.57 ug/L	100
83)	1,2,3-Trichlorobenzene	20.34	180	393273	10.57 ug/L	99

(#) = qualifier out of range (m) = manual integration

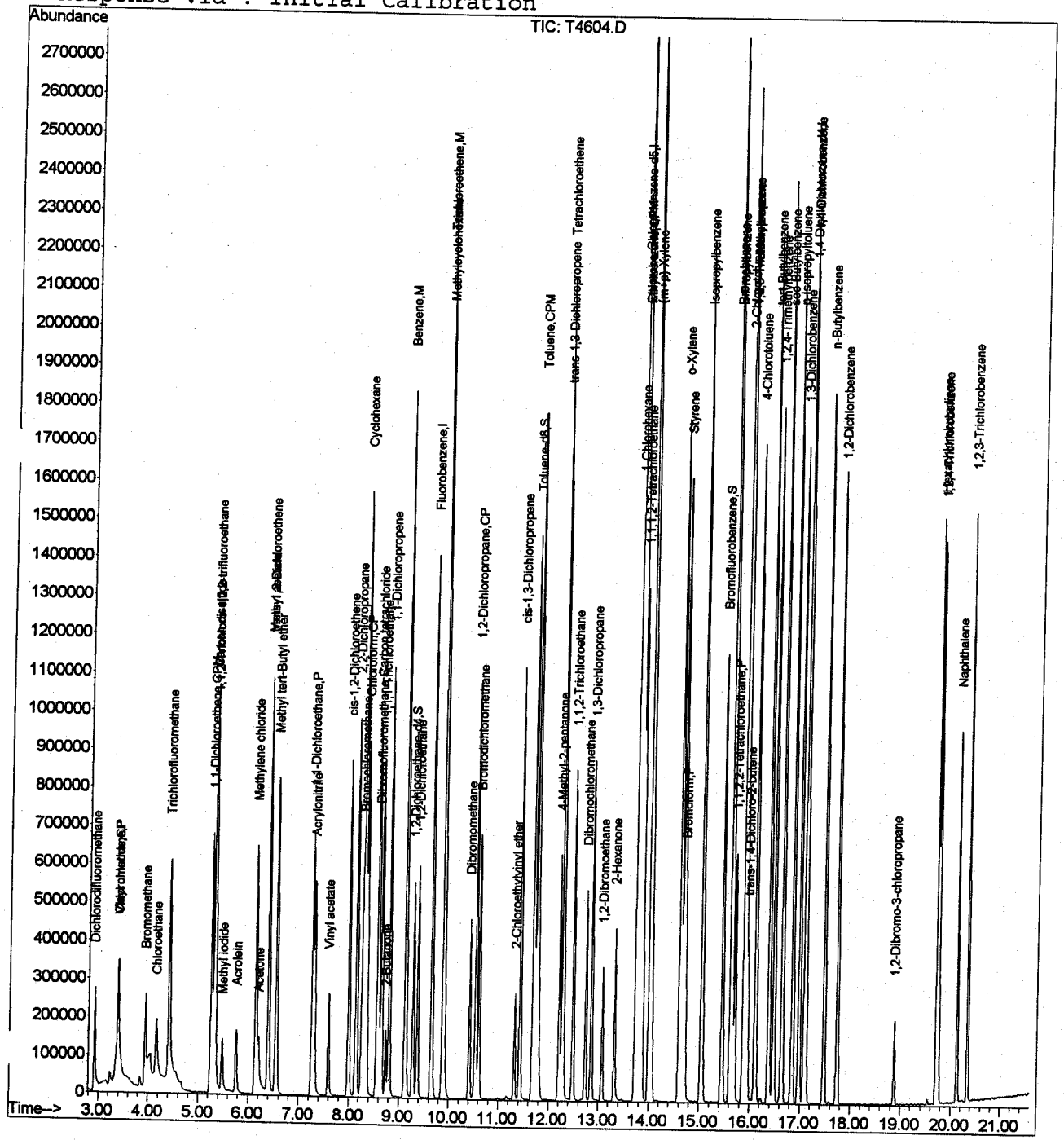
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4604.D
Acq On : 13 Sep 2006 18:02
Sample : ICV-6574
Misc : 2SRC,8260W_CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 14 8:40 2006

Vial: 24
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913VOCW.RES

Method : C:\HPCHEM\1\METHODS\T913VOCW.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Thu Sep 14 07:04:29 2006
Response via : Initial Calibration



AFCEE
ORGANIC ANALYSES DATA SHEET 5
CALIBRATION VERIFICATION

Analytical Method: 8260

AAB #: R6724

Lab Name: Life Science Laboratories, Inc.

Contract #:

Instrument ID: HP5973 GCMS#1

Initial Calibration ID: 664

ICV ID: ICV-6574

CCV #1 ID: CCV-6724

CCV #2 ID:

SEE ATTACHED

Comments:

AFCEE FORM O-5

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\T4798.D
Acq On : 25 Sep 2006 8:41
Sample : CCV-6724
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\T913TAGM.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Mon Sep 25 09:17:47 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.000	1.000	0.0	109	0.00
2		Methyl tert-Butyl ether	0.581	0.581	0.0	106	0.00
3	S	Dibromofluoromethane	0.220	0.234	-6.4	112	0.00
4	S	1,2-Dichloroethane-d4	0.302	0.328	-8.6	119	0.00
5	M	Benzene	1.144	1.277	-11.6	112	0.00
6	S	Toluene-d8	0.934	1.013	-8.5	108	0.00
7	CPM	Toluene	0.743	0.814	-9.6	111	0.00
8	I	Chlorobenzene-d5	1.000	1.000	0.0	112	0.00
9	CP	Ethylbenzene	3.056	3.336	-9.2	111	0.00
10		(m+p)-Xylene	1.112	1.187	-6.7	109	0.00
11		o-Xylene	1.066	1.097	-2.9	106	0.00
12	S	Bromofluorobenzene	0.764	0.739	3.3	103	0.00
	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00
14		Isopropylbenzene	3.294	3.766	-14.3	107	0.00
15		n-Propylbenzene	4.046	4.715	-16.5	110	0.00
16		1,3,5-Trimethylbenzene	2.456	2.805	-14.2	106	0.00
17		tert-Butylbenzene	2.348	2.562	-9.1	105	0.00
18		1,2,4-Trimethylbenzene	2.170	2.487	-14.6	105	0.00
19		sec-Butylbenzene	3.371	4.050	-20.1#	109	0.00
20		p-Isopropyltoluene	2.474	2.880	-16.4	105	0.00
21		n-Butylbenzene	2.090	2.445	-17.0	108	0.00
22		Naphthalene	1.250	1.121	10.3	95	0.00

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\T4798.D
Acq On : 25 Sep 2006 8:41
Sample : CCV-6724
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\T913TAGM.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Mon Sep 25 09:17:47 2006
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	10.000	10.000	0.0	109	0.00
2		Methyl tert-Butyl ether	10.000	9.993	0.1	106	0.00
3	S	Dibromofluoromethane	10.000	10.625	-6.3	112	0.00
4	S	1,2-Dichloroethane-d4	10.000	10.862	-8.6	119	0.00
5	M	Benzene	10.000	11.161	-11.6	112	0.00
6	S	Toluene-d8	10.000	10.854	-8.5	108	0.00
7	CPM	Toluene	10.000	10.957	-9.6	111	0.00
8	I	Chlorobenzene-d5	10.000	10.000	0.0	112	0.00
9	CP	Ethylbenzene	10.000	10.917	-9.2	111	0.00
10		(m+p)-Xylene	20.000	21.345	-6.7	109	0.00
11		o-Xylene	10.000	10.286	-2.9	106	0.00
12	S	Bromofluorobenzene	10.000	9.661	3.4	103	0.00
	I	1,4-Dichlorobenzene-d4	10.000	10.000	0.0	107	0.00
14		Isopropylbenzene	10.000	11.432	-14.3	107	0.00
15		n-Propylbenzene	10.000	11.654	-16.5	110	0.00
16		1,3,5-Trimethylbenzene	10.000	10.165	-1.6	106	0.00
17		tert-Butylbenzene	10.000	10.909	-9.1	105	0.00
18		1,2,4-Trimethylbenzene	10.000	10.042	-0.4	105	0.00
19		sec-Butylbenzene	10.000	10.995	-9.9	109	0.00
20		p-Isopropyltoluene	10.000	10.080	-0.8	105	0.00
21		n-Butylbenzene	10.000	10.176	-1.8	108	0.00
22		Naphthalene	10.000	8.972	10.3	95	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4798.D
Acq On : 25 Sep 2006 8:41
Sample : CCV-6724
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 11:04 2006

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913TAGM.RES

Quant Method : C:\HPCHEM\1\METHODS\T913TAGM.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Mon Sep 25 09:17:47 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1288433	10.00	ug/L	0.00
8) Chlorobenzene-d5	13.76	82	622449	10.00	ug/L	0.00
13) 1,4-Dichlorobenzene-d4	17.08	152	501641	10.00	ug/L	0.00
System Monitoring Compounds						
3) Dibromofluoromethane	8.59	113	301016	10.63	ug/L	0.00
Spiked Amount 10.000			Recovery = 106.30%			
4) 1,2-Dichloroethane-d4	9.27	65	423045	10.86	ug/L	0.00
Spiked Amount 10.000			Recovery = 108.60%			
6) Toluene-d8	11.68	98	1305611	10.85	ug/L	0.00
Spiked Amount 10.000			Recovery = 108.50%			
12) Bromofluorobenzene	15.45	95	459724	9.66	ug/L	0.00
Spiked Amount 10.000			Recovery = 96.60%			
Target Compounds						Qvalue
2) Methyl tert-Butyl ether	6.55	73	748550	9.99	ug/L	98
5) Benzene	9.12	78	1645138	11.16	ug/L	100
7) Toluene	11.75	92	1048591	10.96	ug/L	98
9) Ethylbenzene	13.81	91	2076801	10.92	ug/L	99
10) (m+p)-Xylene	14.00	106	1478051	21.35	ug/L	99
11) o-Xylene	14.61	106	682854	10.29	ug/L	99
14) Isopropylbenzene	15.04	105	1889041	11.43	ug/L	100
15) n-Propylbenzene	15.63	91	2365170	11.65	ug/L	98
16) 1,3,5-Trimethylbenzene	15.91	105	1406875	10.16	ug/L	100
17) tert-Butylbenzene	16.37	119	1285116	10.91	ug/L	99
18) 1,2,4-Trimethylbenzene	16.47	105	1247710	10.04	ug/L	100
19) sec-Butylbenzene	16.64	105	2031832	10.99	ug/L	98
20) p-Isopropyltoluene	16.84	119	1444516	10.08	ug/L	100
21) n-Butylbenzene	17.48	91	1226583	10.18	ug/L	98
22) Naphthalene	20.13	128	562528	8.97	ug/L	100

(#) = qualifier out of range (m) = manual integration

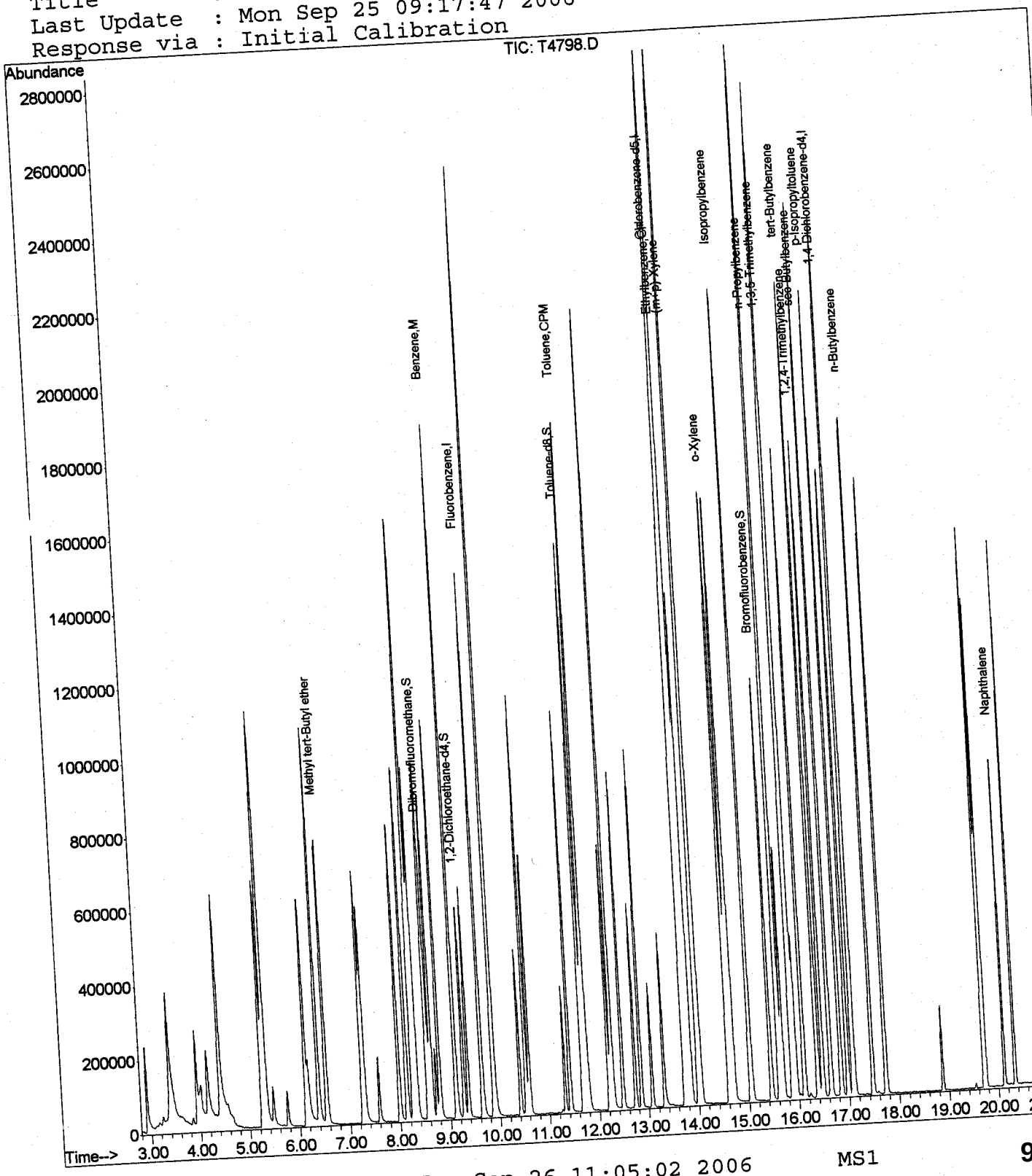
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4798.D
Acq On : 25 Sep 2006 8:41
Sample : CCV-6724
Misc : CCV ,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 11:04 2006

Vial: 16
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913TAGM.RES

Method : C:\HPCHEM\1\METHODS\T913TAGM.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Mon Sep 25 09:17:47 2006
Response via : Initial Calibration



T4798.D T913TAGM.M Tue Sep 26 11:05:02 2006 MS1 99 2

Preparation Blanks

AFCEE
ORGANIC ANALYSES DATA SHEET 7
BLANKS

Analytical Method:	SW8260B	**AAB #:**	R6723
Lab Name:	Life Science Laboratories, In	**Contract Number:**	
Units:	µg/L	**Method Blank ID:**	MB-6723
Initial Calibration ID:	664	**File ID:**	T4802.D

Analyte	Method Blank	RL	Q
Chloroform	0.0290	0.50	U
cis-1,2-Dichloroethene	0.0320	1.0	U
Tetrachloroethene	0.0300	1.0	U
trans-1,2-Dichloroethene	0.0270	1.0	U
Trichloroethene	0.0270	1.0	U
Vinyl chloride	0.0380	1.0	U

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	108	72 - 119	
4-Bromofluorobenzene	94	76 - 119	
Dibromofluoromethane	104	85 - 115	
Toluene-d8	104	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	376293	235363 - 941452	
Chlorobenzene-d5	500609	278570 - 1114278	
Fluorobenzene	1125840	589584 - 2358336	

Comments:

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4802.D
Acq On : 25 Sep 2006 10:52
Sample : MB-6723
Misc : MBLK,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:12 2006

Vial: 20
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913FPM2.RES

Quant Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1125840	10.00	ug/L	0.00
10) Chlorobenzene-d5	13.75	82	500609	10.00	ug/L	0.00
13) 1,4-Dichlorobenzene-d4	17.08	152	376293	10.00	ug/L	0.00
System Monitoring Compounds						
6) Dibromofluoromethane	8.58	113	258290	10.43	ug/L	0.00
Spiked Amount 10.000			Recovery =	104.30%		
7) 1,2-Dichloroethane-d4	9.27	65	368877	10.84	ug/L	0.00
Spiked Amount 10.000			Recovery =	108.40%		
9) Toluene-d8	11.68	98	1089145	10.36	ug/L	0.00
Spiked Amount 10.000			Recovery =	103.60%		
12) Bromofluorobenzene	15.45	95	358819	9.38	ug/L	0.00
Spiked Amount 10.000			Recovery =	93.80%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

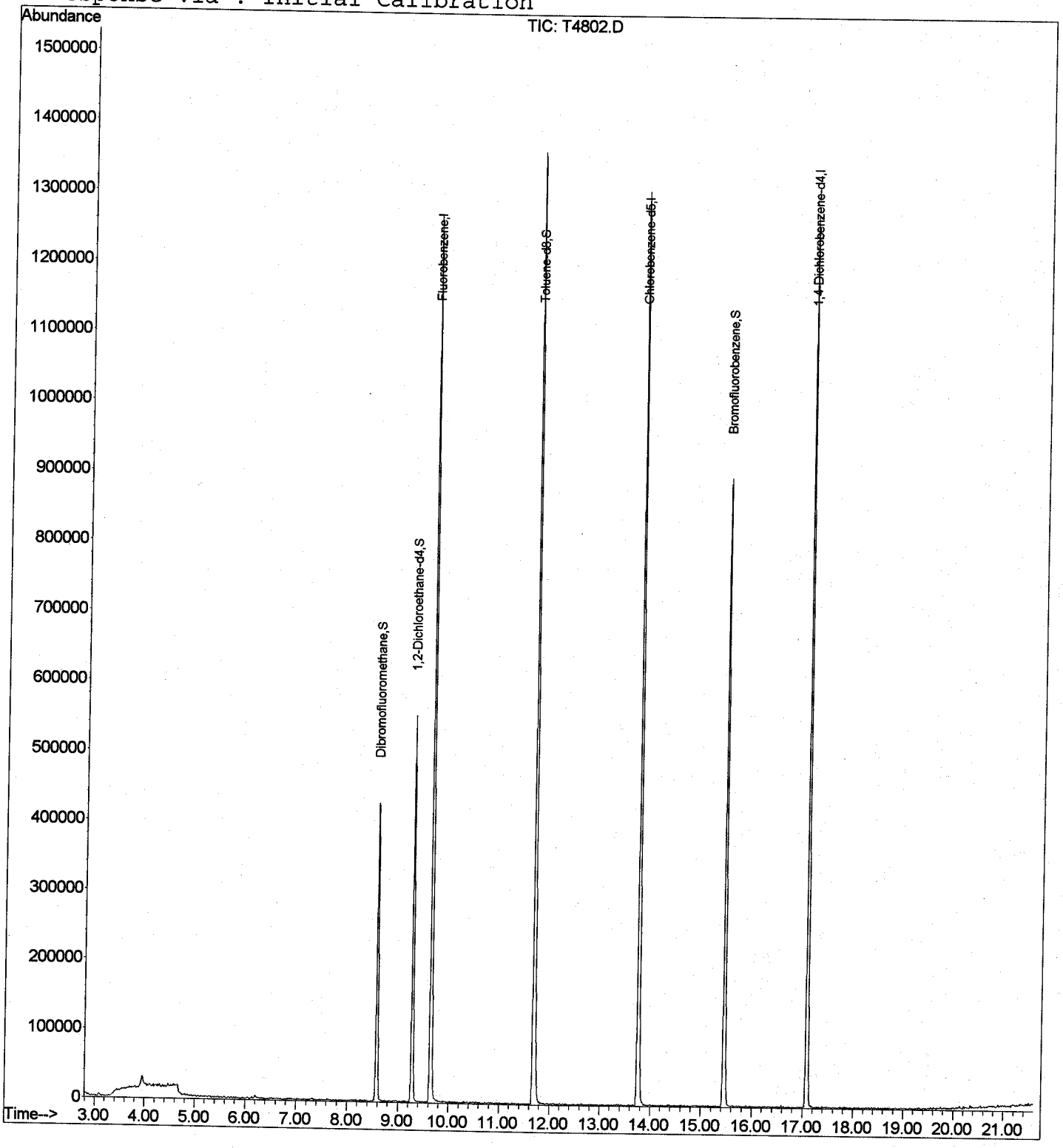
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4802.D
Acq On : 25 Sep 2006 10:52
Sample : MB-6723
Misc : MBLK,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:12 2006

Vial: 20
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913FPM2.RES

Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration



Laboratory Control Sample

AFCEE
ORGANIC ANALYSES DATA SHEET 9
MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLE RECOVERY

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Concentration Units (mg/L or mg/kg): µg/L **% Solids:** 0

Parent Field Sample ID: LCSD-6723 **MS ID:** LCS-6723 **MSD ID:** LCSD-6723

Analyte	Parent Sample Result	Spike Added	Spiked Sample Result	%R	Duplicate Spiked Sample Result	%R	%RPD	Control Limits %R	Control Limits %RPD	Q
Chloroform	0	10.0	10.7	107	10.6	106	1	69 - 128	20	
cis-1,2-Dichloroethene	0	10.0	10.2	102	10.2	102	0	72 - 126	20	
Tetrachloroethene	0	10.0	9.78	98	9.52	95	3	66 - 128	20	
trans-1,2-Dichloroethene	0	10.0	10.3	103	10.4	104	0	63 - 137	20	
Trichloroethene	0	10.0	10.5	105	10.5	105	0	70 - 127	20	
Vinyl chloride	0	10.0	10.4	104	10.2	102	2	50 - 134	20	

Comments:

AFCEE
ORGANIC ANALYSES DATA SHEET 8
LABORATORY CONTROL SAMPLE

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

LCS ID: LCS-6723 **Initial Calibration ID:** 664

Concentration Units (mg/L or mg/kg): ug/L **File ID:** T4799.D

Analyte	Expected	Found	%R	Control Limits	Q
Chloroform	10	10.7	107	69 - 128	
cis-1,2-Dichloroethene	10	10.2	102	72 - 126	
Tetrachloroethene	10	9.78	98	66 - 128	
trans-1,2-Dichloroethene	10	10.3	103	63 - 137	
Trichloroethene	10	10.5	105	70 - 127	
Vinyl chloride	10	10.4	104	50 - 134	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	105	72 - 119	
4-Bromofluorobenzene	95	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	110	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	535172	235363 - 941452	
Chlorobenzene-d5	641102	278570 - 1114278	
Fluorobenzene	1301187	589584 - 2358336	

Comments:

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4799.D
Acq On : 25 Sep 2006 9:14
Sample : LCS-6723
Misc : LCS ,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:12 2006

Vial: 17
Operator: JK
Inst : #1MS11
Multiplr: 1.00
Quant Results File: T913FPM2.RES

Quant Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

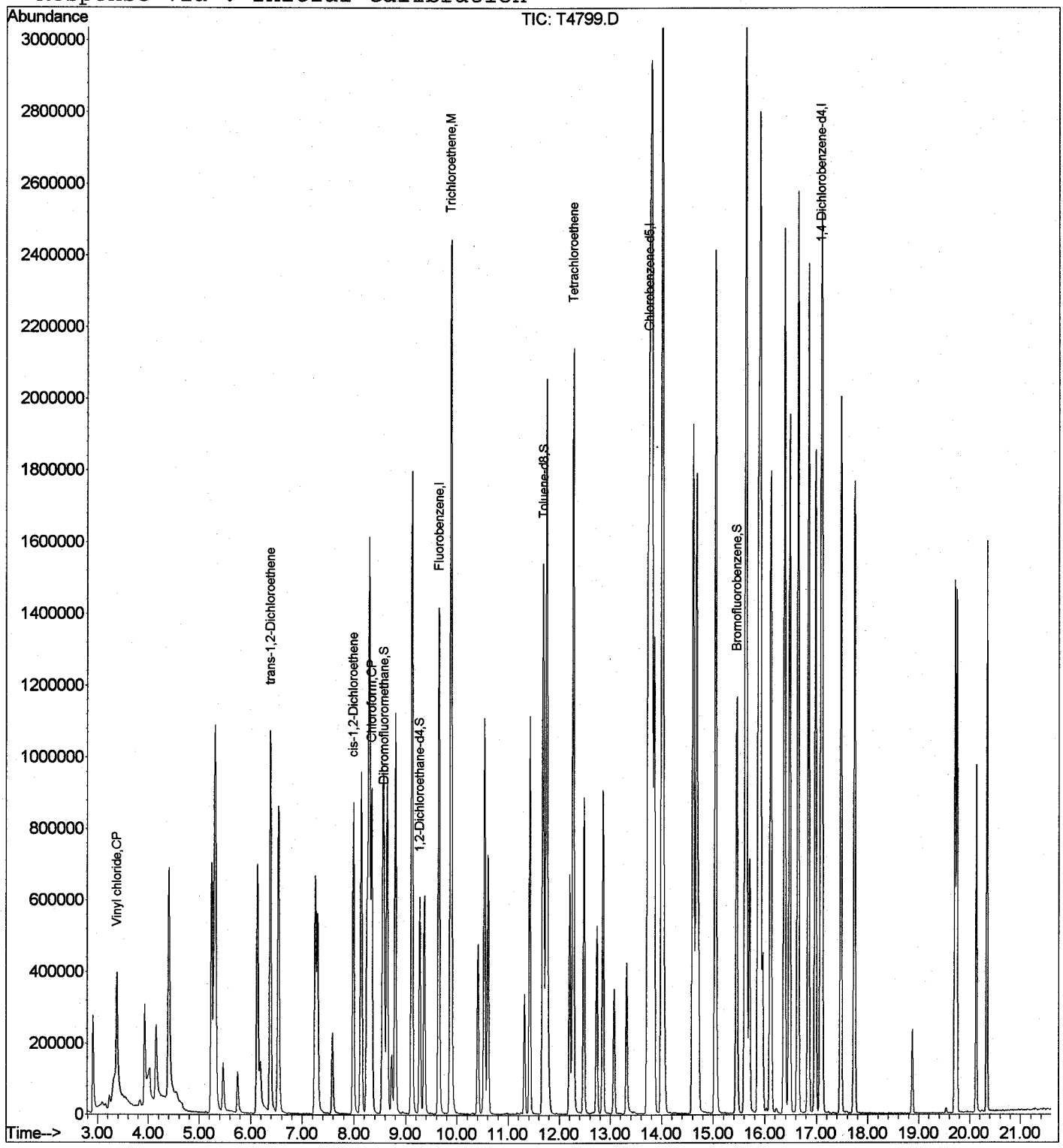
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1301187	10.00	ug/L	0.00
10) Chlorobenzene-d5	13.75	82	641102	10.00	ug/L	0.00
13) 1,4-Dichlorobenzene-d4	17.08	152	535172	10.00	ug/L	0.00
System Monitoring Compounds						
6) Dibromofluoromethane	8.58	113	295617	10.33	ug/L	0.00
Spiked Amount 10.000			Recovery =	103.30%		
7) 1,2-Dichloroethane-d4	9.27	65	412692	10.49	ug/L	0.00
Spiked Amount 10.000			Recovery =	104.90%		
9) Toluene-d8	11.68	98	1341506	11.04	ug/L	0.00
Spiked Amount 10.000			Recovery =	110.40%		
12) Bromofluorobenzene	15.45	95	467602	9.54	ug/L	0.00
Spiked Amount 10.000			Recovery =	95.40%		
Target Compounds						Qvalue
2) Vinyl chloride	3.38	62	517447	10.41	ug/L	98
3) trans-1,2-Dichloroethene	6.38	96	335177	10.33	ug/L	96
4) cis-1,2-Dichloroethene	7.99	96	358279	10.20	ug/L	97
5) Chloroform	8.34	83	697362	10.68	ug/L	99
8) Trichloroethene	9.87	95	384258	10.51	ug/L	97
11) Tetrachloroethene	12.27	166	398096	9.78	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4799.D Vial: 17
Acq On : 25 Sep 2006 9:14 Operator: JK
Sample : LCS-6723 Inst : #1MS11
Misc : LCS ,8260WAF_40CAL, Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:12 2006 Quant Results File: T913FPM2.RES

Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration



AFCEE
ORGANIC ANALYSES DATA SHEET 8
LABORATORY CONTROL SAMPLE

Analytical Method: SW8260B **AAB #:** R6723

Lab Name: Life Science Laboratories, Inc. **Contract #:**

LCS ID: LCSD-6723 **Initial Calibration ID:** 664

Concentration Units (mg/L or mg/kg): µg/L **File ID:** T4800.D

Analyte	Expected	Found	%R	Control Limits	Q
Chloroform	10	10.6	106	69 - 128	
cis-1,2-Dichloroethene	10	10.2	102	72 - 126	
Tetrachloroethene	10	9.52	95	66 - 128	
trans-1,2-Dichloroethene	10	10.4	104	63 - 137	
Trichloroethene	10	10.5	105	70 - 127	
Vinyl chloride	10	10.2	102	50 - 134	

Surrogate	Recovery	Control Limits	Qualifier
1,2-Dichloroethane-d4	105	72 - 119	
4-Bromofluorobenzene	97	76 - 119	
Dibromofluoromethane	103	85 - 115	
Toluene-d8	108	81 - 120	

Internal Std	Area Counts	Area Count Limits	Qualifier
1,4-Dichlorobenzene-d4	535383	235363 - 941452	
Chlorobenzene-d5	658610	278570 - 1114278	
Fluorobenzene	1342068	589584 - 2358336	

Comments:

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\T4800.D
Acq On : 25 Sep 2006 9:46
Sample : LCSD-6723
Misc : LCSD,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:12 2006

Vial: 18
Operator: JK
Inst : #1MS11
Multiplr: 1.00
Quant Results File: T913FPM2.RES

Quant Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration
DataAcq Meth : T913VOCW

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	9.65	96	1342068	10.00	ug/L	0.00
10) Chlorobenzene-d5	13.76	82	658610	10.00	ug/L	0.00
13) 1,4-Dichlorobenzene-d4	17.08	152	535383	10.00	ug/L	0.00
System Monitoring Compounds						
6) Dibromofluoromethane	8.58	113	303809	10.30	ug/L	0.00
Spiked Amount 10.000			Recovery =	103.00%		
7) 1,2-Dichloroethane-d4	9.28	65	425203	10.48	ug/L	0.00
Spiked Amount 10.000			Recovery =	104.80%		
9) Toluene-d8	11.69	98	1355039	10.81	ug/L	0.00
Spiked Amount 10.000			Recovery =	108.10%		
12) Bromofluorobenzene	15.45	95	487585	9.68	ug/L	0.00
Spiked Amount 10.000			Recovery =	96.80%		
Target Compounds						Qvalue
2) Vinyl chloride	3.38	62	523031	10.20	ug/L	99
3) trans-1,2-Dichloroethene	6.39	96	347468	10.38	ug/L	96
4) cis-1,2-Dichloroethene	7.99	96	370525	10.22	ug/L	96
5) Chloroform	8.34	83	715434	10.62	ug/L	99
8) Trichloroethene	9.87	95	395268	10.48	ug/L	96
11) Tetrachloroethene	12.27	166	398064	9.52	ug/L	98

(#) = qualifier out of range (m) = manual integration

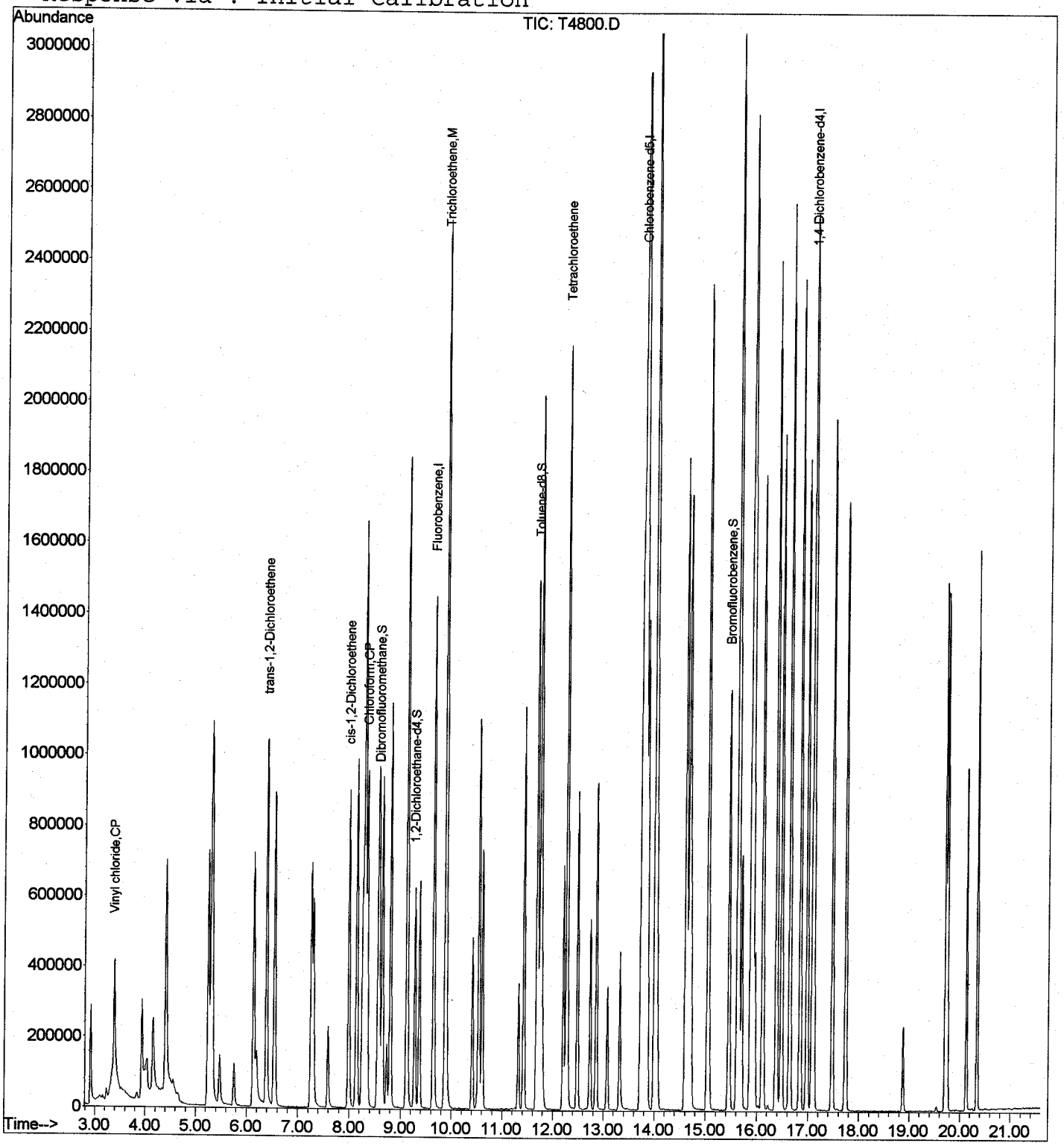
Quantitation Report

Data File : C:\HPCHEM\1\DATA\T4800.D
Acq On : 25 Sep 2006 9:46
Sample : LCSD-6723
Misc : LCSD,8260WAF_40CAL,
MS Integration Params: RTEINT.P
Quant Time: Sep 26 12:12 2006

Vial: 18
Operator: JK
Inst : #1MS11
Multiplr: 1.00

Quant Results File: T913FPM2.RES

Method : C:\HPCHEM\1\METHODS\T913FPM2.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df
Last Update : Tue Sep 26 12:11:52 2006
Response via : Initial Calibration



Injection Logs

AFCEE
ORGANIC ANALYSES DATA SHEET 11
INSTRUMENT ANALYSIS SEQUENCE LOG

Analytical Method: SW8260B **AAB#:**

Lab Name: Life Science Laboratories, Inc. **Contract #:**

Instrument ID #: MS01_11

Field Sample ID/Std ID/ Blank ID/QC Sample ID	Lab Sample ID	Date Analysis Started	Time Analysis Started	Date Analysis Completed	Time Analysis Completed
TB091306A1	TB091306A1	13-Sep-06	11:03	13-Sep-06	11:32
ICAL 0.3 PPB	ICAL 0.3 PPB	13-Sep-06	11:32	13-Sep-06	12:05
ICAL 0.5 PPB	ICAL 0.5 PPB	13-Sep-06	12:05	13-Sep-06	12:38
ICAL 2.0 PPB	ICAL 2.0 PPB	13-Sep-06	12:38	13-Sep-06	13:11
ICAL 10 PPB	ICAL 10 PPB	13-Sep-06	13:11	13-Sep-06	13:44
ICAL 20 PPB	ICAL 20 PPB	13-Sep-06	13:44	13-Sep-06	14:17
ICAL 30 PPB	ICAL 30 PPB	13-Sep-06	14:17	13-Sep-06	14:49
ICAL 40 PPB	ICAL 40 PPB	13-Sep-06	14:49	13-Sep-06	18:02
ICV-6574	ICV-6574	13-Sep-06	18:02	13-Sep-06	18:02
TB092506A1	TB092506A1	25-Sep-06	8:13	25-Sep-06	8:41
CCV-6723	CCV-6723	25-Sep-06	8:41	25-Sep-06	9:14
LCS-6723	LCS-6723	25-Sep-06	9:14	25-Sep-06	9:46
LCSD-6723	LCSD-6723	25-Sep-06	9:46	25-Sep-06	10:52
MB-6723	MB-6723	25-Sep-06	10:52	25-Sep-06	11:58
101M0216RA	0609014-001A	25-Sep-06	11:58	25-Sep-06	11:58

Comments:

Instrument:	MS1/HP5973 (11)
GC Column:	Rtx-VMS
	0.18 mm x 40 m, 1.0 df
Conc. Trap:	VOCARB 3000
Conc. Mtd:	WATER 10
Heated Purge:	Y (N)

Volatile GC/MS Injection Log

	Client No.	Client Name
1		QA/QC
2	✓	[redacted]
3	✓	[redacted]
4	✓	[redacted]

	ALS No.	Client No.	Sample ID (Work Order - Samp#)	Method /ID File	Inj. Vol.*	Method Ref.	Target List	Data File Number	Data File Date	Data File Time	Diln. Factor
1		1	TB0913-06A1	TBFB				[redacted]596	9/13/06	11:03	—
2			ICAL - 0.3 PPB	T913VOCW	10ml	8260	VOC	[redacted]597		11:32	1X
3			- 0.5					[redacted]598		12:05	
4			- 2.0					[redacted]599		12:38	
5			- 10					[redacted]600		13:11	
6			- 20					[redacted]601		13:44	
7			- 30					[redacted]602		14:17	
8			- 40	—		↓		[redacted]603		14:49	
9			ICV 6524-, LCS 6605	↓, T913624W		8260/624	↓	[redacted]604		18:02	
10			LCSD 6605	T913624W		624	624	T4605		18:34	
11			IBLK -					T4606		19:06	
12		↓	MB 6605 -					T4607		19:39	
13		2	0609051 - 001A					T4608		20:12	
14			- 002A					T4609		20:45	
15			- 003A		↓			T4610		21:18	↓
16			- 004A		0.5ml			T4611		21:52	20X
17			- 005A		10ml			T4612		22:25	1X
18		↓	- 006A		↓			T4613		22:58	↓
19		3	0609053 - 001A		2ml			T4614	↓	23:31	5X
20		↓	- 002A		↓			T4615	9/14/06	00:05	↓
21		4	0609056 - 001H		10ml			T4616		00:38	1X
22		↓	- 001I		↓			T4617		1:10	↓
23		5	0609060 - 001A		2ml			T4618		1:44	5X
24		↓	0609060 - 002A		↓			T4619		2:16	↓
25		4	0609063 - 001G		10ml			T4620		2:49	1X
26			- 002A					T4621		3:22	
27			0609064 - 002E					T4622		3:55	
28		↓	- 003A	↓	↓	↓	↓	T4623	↓	4:28	↓
29			-					T			

Comments: [redacted]

Method	Source	Date	SOP = AP #300
(1) 524.2	EPA-500 Series Supp.III, Rev. 4.1	10/95	--01
(2) 624	Fed Register, Vol. 49, No. 209	10/26/84	--03
(3) TCLP	8260B w/ 1311 (AP #100-01)	12/96	--27A/100-01
(4) 8260B	USEPA SW846, Upd. III	12/96	--27A
(5) EPA CLP	USEPA CLP SOW OLM04.3	8/03	--39
(6) DEC ASP	USEPA CLP SOW OLM04.3	8/03	--39

Samples Set By: [signature]

* = Volume(mL)/weight(g) of original sample purged (or uL med. extract added to 44mL vial)

10-5-06

Supervisor Review:

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, E.Syracuse NY, 13057

Volatile GC/MS Injection Log

Internal Std Limits (% of CCV/ICAL Area)

			Upper Limit
			Lower Limit

Pre-run maintenance
___ Replace Septa
___ Replace trap, Lot_____
___ Replace Helium
___ See Maint. log
___ Other:

Internal Standard Area Counts | Matrix

Int. Std. #1	Int. Std. #2	Int. Std. #3	Water Low	Soil Low	Soil Med	Batch No.	Standard No.	pH <2	Comments	
—	—	—					V-7510		↓	1
1167100	514630	409711	X				V-7580, 78, 74, 75		8.8ml; 2.5ml, 2.5ml, 2.5ml / 100ml, 5.3ml → 44ml	2
1158837	510186	411745	X				↓		↓, 8.8ml → 44ml	3
1109895	508548	419033	X						2.0ml, 2.0ml, 2.0ml / 100ml	4
1179168	557139	470726	X						↓, 4.4ml, 4.4ml, 4.4ml → 44ml	5
1154008	570373	488997	X						↓, 8.8ml, 8.8ml, 8.8ml → 44ml	6
1272033	605808	520385	X						↓, 13.2ml, 13.2ml, 13.2ml → 44ml	7
1302402	620100	532438	X				↓		↓, 17.6ml, 17.6ml, 17.6ml → 44ml	8
1295737	596830	493522	X				V-7524, 16, 76, 79		↓, 4.4ml, 4.4ml, 4.4ml → 44ml	9
1296065	560483	494985	X				↓		8.8ml, ↓	10
1124913	508793	411492	X				V-7524		8.8ml	11
1079888	485342	397777	X						↓	12
1056443	471440	382868	X					<2	↓	13
1074700	475078	377072	X					↓	↓	14
1009316	450197	346015	X						↓	15
1038167	466746	357783	X						N RSX	16
965378	423038	314147	X						↓	17
956560	428201	338773	X					↓	↓	18
948479	428535	335614	X					6	↓	19
953551	429854	337271	X					↓	↓	20
961816	433310	341739	X					<2	↓	21
980385	429068	335682	X					↓	↓	22
948242	423524	337665	X						↓	23
974087	435457	316398	X						↓	24
907608	404489	340043	X						↓ R2X	25
925236	407116	327051	X						↓	26
897362	399251	315707	X						↓	27
887745	402079	312187	X				↓	↓	↓	28
										29

I.S. #1= Fluorobenzene/Bromochloromethane(CLP)
I.S. #2= Chlorobenzene-d5/1,4-Difluorobenzene(CLP)
I.S. #3= 1,4-Dichlorobenzene-d4/Chlorobenzene-d5(CLP)

Analyzed by: [signature]

10-5-06
Supervisor Review:

Instrument:	MS1/HP5973 (11)
GC Column:	Rtx-VMS
	0.18 mm x 40 m, 1.0 df
Conc. Trap:	VOCARB 3000
Conc. Mtd:	WATER 10
Heated Purge:	Y (N)

Volatile GC/MS Injection Log

(Page 1of 2)

	Client No.	Client Name
1		QA/QC
2	✓	[redacted]
3	✓	FAM GRIFFISS BUILDING 101
4	✓	[redacted]

	ALS No.	Client No.	Sample ID (Work Order - Samp#)	Method /ID File	Inj. Vol.*	Method Ref.	Target List	Data File Number	Data File Date	Data File Time	Diln. Factor
1		1	TB0925-06A1	TBFB				[redacted]	9/25/06	8:13	—
2			CCV 6712 22,23 24,25	T913NTGL, TAGM, FAM1, 624W	10ml	8260/624	VOC			8:41	1X
3			LCS 6712							9:14	
4			LCSD 6712							9:46	
5			IBLK					T4801		10:20	
6			MB 6712					[redacted]		10:52	
7		2	0609100-001A	T913NTGL		8260		T4803		11:25	
8		3	0609014-001A	T913FAM2				[redacted]		11:58	
9		4	0609016-001A	T913TAGM				T4805		12:30	
10			-002A					T4806		13:02	
11			-003A					T4807		13:35	
12			-004A					T4808		14:08	
13			-005A					T4809		14:41	
14		5	0609009-020A	T913FAM1	0.4ml			T4810		15:15	25X
15			-020A					T4811		17:26	
16			-021A		10ml			T4812		17:59	1X
17			-022A					T4813		18:31	
18			-023A					T4814		19:04	
19			-025A		2ml			T4815		19:36	5X
20		4	0609016-005A	T913TAGM	1ml			T4816		20:09	10X
21		6	0609120-001A	T913624W	10ml	624	624	T4817		20:41	1X
22			-002A					T4818		21:13	
23			-003A					T4819		21:45	
24		7	0609114-001A		2ml			T4820		22:17	5X
25			-002A					T4821		22:50	
26			-					T			
27			-					T			
28			-					T			
29			-					T			

Comments: [redacted]

Method	Source	Date	SOP = AP #300
(1) 524.2	EPA-500 Series Supp.III, Rev. 4.1	10/95	–01
(2) 624	Fed Register, Vol. 49, No. 209	10/26/84	–03
(3) TCLP	8260B w/ 1311 (AP #100-01)	12/96	–27A/100-01
(4) 8260B	USEPA SW846, Upd. III	12/96	–27A
(5) EPA CLP	USEPA CLP SOW OLM04.3	8/03	–39
(6) DEC ASP	USEPA CLP SOW OLM04.3	8/03	–39

Samples Set By:

* = Volume(mL)/weight(g) of original sample purged (or uL med. extract added to 44mL vial)

10-5-06

Supervisor Review:

Life Science Laboratories, Inc.
5000 Brittonfield Parkway, E.Syracuse NY, 13057

G:\Logbooks 2006\Organics\MSV13p1

Log Page No. 101

Volatile GC/MS Injection Log

Internal Std Limits (% of CCV/ICAL Area)

			Upper Limit
			Lower Limit

Pre-run maintenance
___ Replace Septa
___ Replace trap, Lot_____
___ Replace Helium
___ See Maint. log
___ Other:

Internal Standard Area Counts			Matrix							
Int. Std. #1	Int. Std. #2	Int. Std. #3	Water Low	Soil Low	Soil Med	Batch No.	Standard No.	pH <2	Comments	
—	—	—					V-7510			1
1288433	622449	501641	X			R6722, 22, 23, 24	V-7580, 72, 7775		8.8ml, 4.4ml, 4.4ml, 4.4ml, 4.4ml	2
1301187	641102	535172	X				V-7534, 16, 76, 79			3
1342068	658610	535383	X				↓			4
1216548	538312	408602	X				V-7524		8.8ml	5
1125840	500609	376293	X			↓				6
1186858	513168	367255	X			R6722		7		7
1176989	542358	415710	X			R6723		<2		8
1095804	489616	358508	X			R6724				9
1131511	493838	348849	X							10
1006301	457415	346869	X							11
1065219	468394	333684	X							12
1246553	572226	497037	X			↓			R10X, T4816	13
1525958	663651	555844	X			R6725			R25X, CARRY-OVER	14
1255542	558440	424253	X							15
1257362	546220	407040	X							16
1149872	511738	389566	X							17
1131551	504890	373839	X							18
1165953	510638	377468	X			↓				19
1122267	516642	454393	X			R6724				20
1196604	532760	412849	X			R6712				21
1139479	494398	344819	X							22
1217608	529230	394079	X							23
1127192	493274	369832	X							24
1104785	489123	363052	X			↓	↓	↓		25
										26
										27
										28
										29

I.S. #1= Fluorobenzene/Bromochloromethane(CLP)
I.S. #2= Chlorobenzene-d5/1,4-Difluorobenzene(CLP)
I.S. #3= 1,4-Dichlorobenzene-d4/Chlorobenzene-d5(CLP)

Analyzed by: _____

10-5-06
Supervisor Review:

MSV13p2 Log Page No. 102

Tune Raw Data

AFCEE
ORGANIC ANALYSES DATA SHEET 12
INSTRUMENT PERFORMANCE CHECK
(BFB or DFTPP)

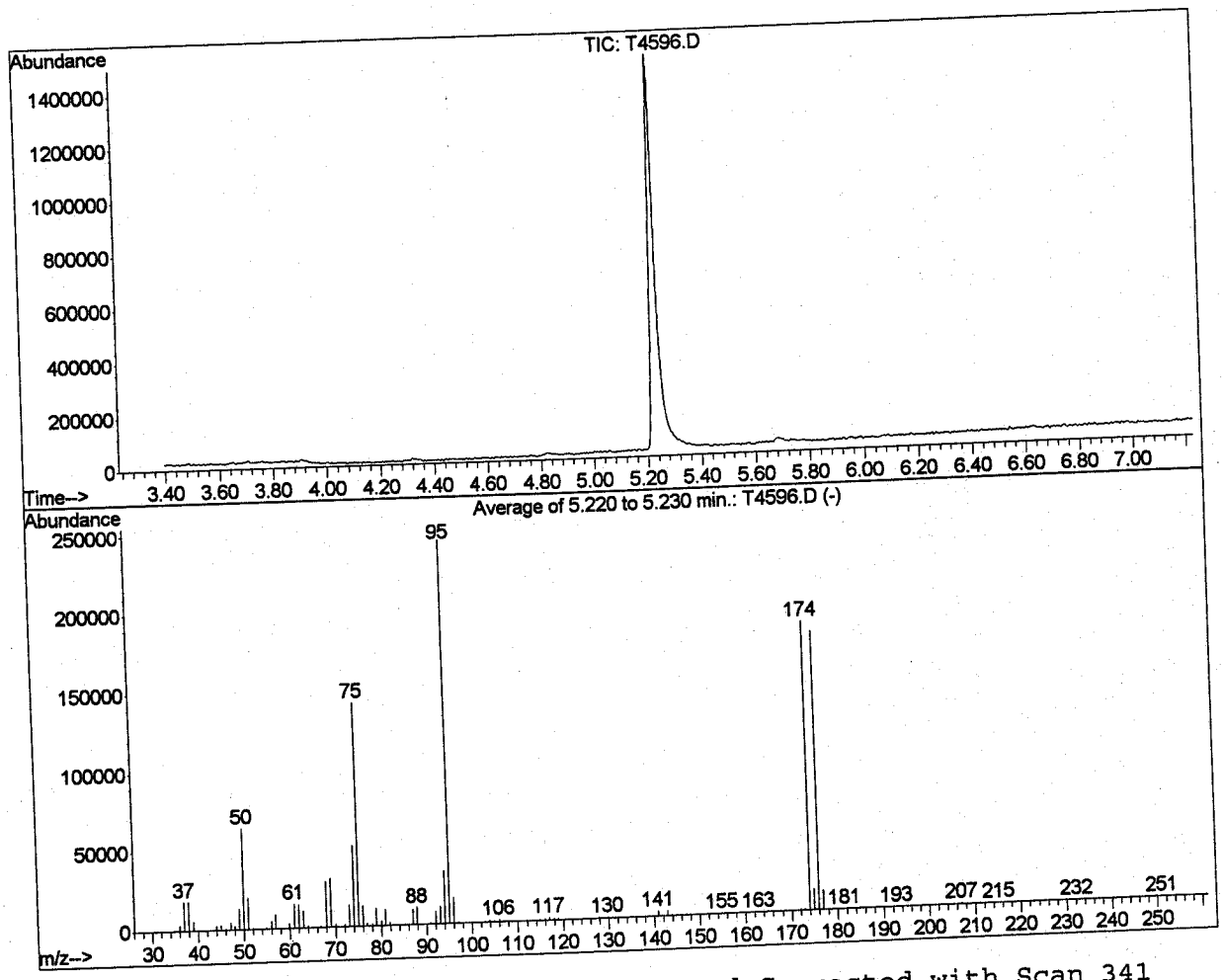
Analytical Method:	SW8260B	**AAB #:**	MS01_11_060913A
Lab Name:	Life Science Laboratories, Inc.	**Contract #:**	
Instrument ID:	MS01_11	**Injection Date/Time:**	9/13/2006 11:03:00 AM
Initial Calibration ID:	664	**File ID:**	C:\HPCHEM\1\DATA\T4596.D
Compound:	SW8260B	**Sample ID:**	TB091306A1

Mass	Ion Abundance Criteria	% Relative Abundance	Q
50	15 - 40% of m/z 95	26.3	
75	30 - 60% of m/z 95	58.4	
95	Base peak, 100% relative abundance	100	
96	5 - 9% of m/z 95	6.8	
173	Less than 2% of m/z 174	0.5	
174	Greater than 50% of m/z 95	75.5	
175	5 - 9% of m/z 174	7.2	
176	Greater than 95% but less than 101% of m/z 174	96.4	
177	5 - 9% of m/z 176	6.8	

BFB

Data File : C:\HPCHEM\1\DATA\T4596.D
Acq On : 13 Sep 2006 11:03
Sample : TB091306A1
Misc :
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TBFB.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df

Vial: 15
Operator: JK
Inst : #1MS11
Multiplr: 1.00



AutoFind: Scans 350, 351, 352; Background Corrected with Scan 341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.3	63939	PASS
75	95	30	60	58.4	141861	PASS
95	95	100	100	100.0	243008	PASS
96	95	5	9	6.8	16404	PASS
173	174	0.00	2	0.5	975	PASS
174	95	50	100	75.5	183416	PASS
175	174	5	9	7.2	13288	PASS
176	174	95	101	96.4	176739	PASS
177	176	5	9	6.8	11941	PASS

T4596.D TBFB.M Wed Sep 13 11:18:22 2006 MS1

9/13/06

Average of 5.220 to 5.230 min.: T4596.D
TB091306A1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	3318	49.00	13338	62.00	14647	74.00	51157
37.00	18444	50.00	63939	63.00	10838	75.00	141861
38.00	18224	50.95	19969	64.05	1209	76.00	12812
39.00	5990	52.00	750	65.05	597	76.95	1533
40.00	156	54.00	86	66.00	149	78.00	1232
43.00	278	55.00	915	66.85	766	78.90	10850
44.00	2573	56.00	5060	68.00	28925	79.95	3036
45.00	2866	56.95	8784	69.00	30741	80.90	10150
46.00	528	58.10	109	70.00	1965	81.90	1970
47.05	4540	59.95	3125	72.05	1648	82.95	499
47.95	2332	61.00	15528	73.00	13472	85.95	417

Average of 5.220 to 5.230 min.: T4596.D
TB091306A1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.95	9598	98.10	99	112.85	255	128.80	295
87.90	10890	102.90	128	114.85	441	129.00	135
89.00	177	103.85	1357	115.90	1068	129.85	1023
90.10	112	104.95	271	116.90	1890	130.90	411
90.90	977	105.90	1566	117.95	1133	132.95	103
92.00	7857	106.95	291	118.80	1271	133.70	164
92.95	11001	108.70	101	120.10	90	134.80	263
94.00	33208	109.00	88	121.60	85	135.00	233
95.00	243008	110.80	124	125.70	90	136.90	544
95.95	16404	111.00	122	126.10	105	137.60	88
97.00	426	111.95	245	127.95	986	139.70	136

Average of 5.220 to 5.230 min.: T4596.D
TB091306A1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.90	3334	149.95	321	160.90	311	177.90	113
141.80	135	151.10	126	162.50	85	178.10	129
142.00	190	151.80	124	162.90	122	179.00	120
142.90	2864	152.85	272	164.70	84	181.60	87
143.85	386	154.00	269	171.95	865	192.85	129
144.85	387	154.85	603	172.80	290	193.20	104
145.80	369	156.00	263	172.95	975	197.10	103
146.20	92	156.90	159	173.90	183416	202.80	109
146.95	322	158.70	142	174.90	13288	203.80	89
147.90	456	158.95	454	175.90	176739	207.00	805
148.80	235	160.60	126	176.90	11941	211.00	538

Average of 5.220 to 5.230 min.: T4596.D
TB091306A1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
212.70	139	251.10	84				
212.95	346						
215.10	246						
218.90	115						
220.90	117						
227.20	87						
228.00	125						
228.90	183						
232.20	188						
233.00	175						
237.00	87						

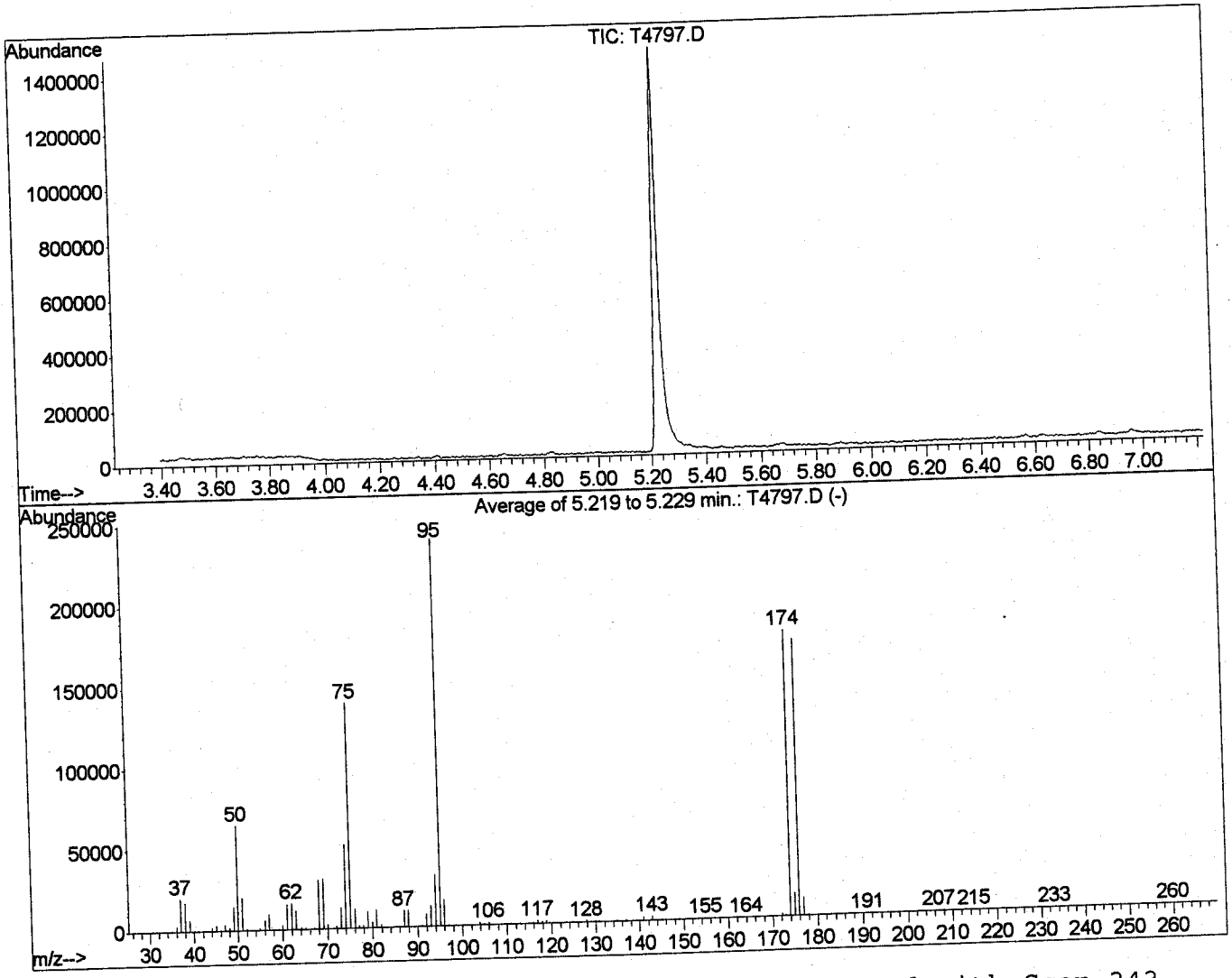
AFCEE
ORGANIC ANALYSES DATA SHEET 12
INSTRUMENT PERFORMANCE CHECK
(BFB or DFTPP)

Analytical Method:	SW8260B	**AAB #:**	MS01_11_060925C
Lab Name:	Life Science Laboratories, Inc.	**Contract #:**	
Instrument ID:	MS01_11	**Injection Date/Time:**	9/25/2006 8:13:00 AM
Initial Calibration ID:	664	**File ID:**	C:\HPCHEM\1\DATA\T4797.D
Compound:	SW8260B	**Sample ID:**	TB092506A1

Mass	Ion Abundance Criteria	% Relative Abundance	Q
50	15 - 40% of m/z 95	27.0	
75	30 - 60% of m/z 95	58.2	
95	Base peak, 100% relative abundance	100	
96	5 - 9% of m/z 95	6.8	
173	Less than 2% of m/z 174	0.5	
174	Greater than 50% of m/z 95	73.8	
175	5 - 9% of m/z 174	8.0	
176	Greater than 95% but less than 101% of m/z 174	96.8	
177	5 - 9% of m/z 176	6.6	

Data File : C:\HPCHEM\1\DATA\T4797.D
Acq On : 25 Sep 2006 8:13
Sample : TB092506A1
Misc :
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\TBFB.M (RTE Integrator)
Title : VOC's w/Restek Rtx-VMS, 0.18 mm x 40 m, 1.0 df

Vial: 15
Operator: JK
Inst : #1MS11
Multiplr: 1.00



AutoFind: Scans 350, 351, 352; Background Corrected with Scan 343

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	27.0	64563	PASS
75	95	30	60	58.2	139005	PASS
95	95	100	100	100.0	238997	PASS
96	95	5	9	6.8	16188	PASS
173	174	0.00	2	0.5	806	PASS
174	95	50	100	73.8	176472	PASS
175	174	5	9	8.0	14146	PASS
176	174	95	101	96.8	170829	PASS
177	176	5	9	6.6	11292	PASS

T4797.D TBFB.M Mon Sep 25 09:23:38 2006 MS1

9/25/06

verage of 5.219 to 5.229 min.: T4797.D
TB092506A1

odified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.00	267	46.00	411	57.80	153	66.95	843
36.00	3152	46.95	3705	58.05	531	68.00	30104
37.00	20272	47.95	1800	58.30	202	69.00	30920
38.00	17634	49.00	14615	58.90	100	70.00	2542
39.05	6832	50.00	64563	59.15	261	71.00	109
40.05	343	51.00	20136	60.00	2712	71.95	1504
41.00	105	52.05	782	61.00	15599	73.00	12758
42.10	139	53.10	209	62.00	16302	74.00	51803
43.00	273	54.90	1098	63.00	11662	75.00	139005
44.00	2356	56.00	5821	64.05	1298	76.00	12154
45.00	3346	57.00	9806	65.00	909	76.95	1378

Average of 5.219 to 5.229 min.: T4797.D
TB092506A1

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
77.90	1466	91.95	7811	106.80	103	117.85	1054
78.90	10249	92.95	12535	107.05	223	118.85	1749
79.90	3463	94.00	31573	109.90	126	123.80	137
80.90	10937	95.00	238997	110.85	510	124.15	187
81.90	1741	96.00	16188	111.85	207	124.80	264
82.70	110	96.95	491	112.95	522	127.90	897
82.90	143	97.30	87	114.50	106	128.60	101
85.80	126	102.85	222	114.80	272	128.85	501
86.95	10238	103.85	1397	115.80	826	129.95	732
87.95	10357	104.85	343	116.00	286	130.75	255
90.95	997	105.90	1604	116.90	1951	131.00	95

Average of 5.219 to 5.229 min.: T4797.D
TB092506A1

ified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.00	105	142.90	2668	153.60	93	164.10	102
133.40	131	145.05	415	154.80	156	172.05	1639
133.90	111	145.80	281	155.00	585	172.85	806
134.85	716	146.15	305	155.70	84	173.90	176472
136.00	190	146.90	102	156.10	128	174.90	14146
136.90	780	147.90	423	156.90	330	175.90	170829
138.20	130	148.90	415	157.95	520	176.90	11292
138.80	91	149.80	243	158.85	227	177.90	277
139.00	112	150.70	85	160.80	189	178.10	233
140.90	2363	152.80	106	161.10	146	189.00	100
141.75	190	153.40	97	162.90	90	191.05	260

Average of 5.219 to 5.229 min.: T4797.D
TB092506A1

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
193.00	196	228.10	106				
194.80	100	231.80	174				
195.10	126	233.05	298				
196.90	103	256.20	92				
199.80	103	257.70	94				
206.30	117	259.90	100				
206.95	549						
207.90	319						
210.80	195						
211.90	153						
214.90	262						