

**PERFORMANCE MONITORING AND
CONFIRMATORY SAMPLING RESULTS
BUILDING 003 VAPOR EXTRACTION SYSTEM**

*IBM Poughkeepsie Facility
Poughkeepsie, New York*



*Prepared for IBM Corporation
File No. 3463.01
February 2014*



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February 24, 2014

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Re: Performance Monitoring and Confirmatory Sampling Results
Building 003 (B003) Vapor Extraction System
RFI Work Plan Implementation
IBM Poughkeepsie Facility
Poughkeepsie, New York
EPA ID No. NYD080480734, NYSDEC Site No. 314001

Dear Mr. Czuhanych and Ms. Kulow:

The enclosed report presents the results of performance monitoring and confirmatory sampling associated with the start-up of a vapor extraction system to address the presence of volatile organic compounds (VOCs) beneath the floor slab of B003 at the IBM Poughkeepsie facility. This work was conducted consistent with the objectives and procedures described in IBM's approved Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan, and IBM's Report of Findings for the B003 Source Assessment, the latter of which was submitted to the New York State Department of Environmental Conservation and the New York State Department of Health (the Agencies) on May 1, 2013 and approved on May 15, 2013.

If you wish to further discuss this document or have questions, please contact Mr. Steve Brannen of IBM at (845) 433-1509.

Sincerely,
International Business Machines Corporation

A handwritten signature in black ink, appearing to read "Michael Phelan", written over a horizontal line.

Michael Phelan, Manager
Environmental, Planning and Site Support Services

**PERFORMANCE MONITORING AND CONFIRMATORY SAMPLING RESULTS
BUILDING 003 VAPOR EXTRACTION SYSTEM**

IBM Poughkeepsie Facility
Poughkeepsie, New York

Prepared for
IBM Corporation



Prepared by
Sanborn, Head Engineering, P.C.

File 3463.01
February 2014

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BUILDING 003 VAPOR EXTRACTION SYSTEM
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1.0 INTRODUCTION

This report presents the results of performance monitoring and confirmatory sampling associated with source remediation measures conducted to address the presence of volatile organic compounds (VOCs), principally trichloroethene (TCE), beneath the floor slab of Building 003 (B003) at the IBM Poughkeepsie facility (the Site). A Site locus plan is provided as Figure 1, and the B003 location on the Site is shown on Figure 2.

As documented in the May 2013 Report of Findings¹, indoor air screening and sampling conducted as part of source investigation work indicated the presence of VOCs throughout the first floor of B003. Subslab vapor sampling and analysis indicated that VOC-containing vapor was widespread under the building, with the highest VOC concentrations confirmed within the historical source area beneath the west-central area of the building. In addition, subslab-to-indoor air pressure differentials across the floor slab were found to range from neutral to slightly favorable for vapor entry into the building in most areas. These findings indicated that subsurface VOCs were the source of the VOCs present in indoor air.

Subsequent assessments, including building reconnaissance, review of heating, ventilating, and air conditioning (HVAC) system configuration and operations, and targeted screening revealed potential pathways for subsurface VOCs to enter the building and be entrained in the HVAC systems and distributed throughout the first floor. In particular, the building floor trench system, and certain interior manholes serving the groundwater collection system, were pathways for VOC vapor entry. In addition, the mechanical rooms housing the air handler units (AHUs) for the first floor were imparting a negative pressure on the floor slab, and on the trenches in some locations, that was conducive to vapor entry and entrainment in the HVAC system.

Based on these findings, IBM implemented measures to reduce VOC migration from the subslab to indoor air. These measures included sealing potential pathways for vapor entry, such as certain floor cracks, joints, trench cover plates, and sumps, and implementing several design and operational modifications to certain AHUs to reduce unfavorable differential pressure gradients and increase outside air exchanges. These measures successfully reduced indoor VOC concentrations in portions of the building.

Additionally, IBM has installed a subslab vapor and trench/manhole vapor extraction system as a means of VOC source reduction, and conducted a performance assessment of the system, including confirmatory indoor air sampling following startup of the system. This report documents the results of those actions.

Sanborn, Head Engineering P.C. (Sanborn Head), with assistance from IBM personnel, conducted this performance assessment and sampling work consistent with the objectives and procedures described in IBM's Resource Conservation and Recovery Act (RCRA)

¹ IBM Corporation and Sanborn, Head Engineering P.C., *Report of Findings, Building 003 VOC Source Assessment, IBM Poughkeepsie Facility, Poughkeepsie, New York*, May 1, 2013.

Facility Investigation Work Plan² (the Work Plan), approved by New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) (collectively, the Agencies). The assessment and this report are subject to the standard limitations of this type of work, as provided in Appendix A.

This report is organized into the following sections:

Section 2 presents an overview of the subslab vapor extraction and trench/manhole vapor extraction systems and summarizes the performance monitoring results.

Section 3 describes the field activities and results of building-wide indoor air screening and confirmatory sampling in B003.

Section 4 presents a summary of the quality assurance/quality control review associated with the confirmatory indoor air sampling results.

2.0 VAPOR EXTRACTION SYSTEM PERFORMANCE

A vapor extraction and treatment system consisting of subslab, floor trench, and manhole extraction components was installed in B003 and put into full-time operation on October 2, 2013. The design basis for the system was communicated to the Agencies in the May 2013 Report of Findings. The Agencies approved the design basis in a May 15, 2013 letter to IBM.

The system is intended to address the confirmed source of VOCs below the building slab and cut off the main VOC preferential pathways, including the building floor trench system and interior manholes. As shown on Figure 4, the trenches run approximately north-south along the east and west sides of B003, with another segment that runs east-west across the middle of the building. They were formerly used for steam condensate return pipes, and now serve as conduits for hot water pipelines for the perimeter heating system. The manholes serve the building underdrain system that conveys VOC-containing groundwater to the on-site industrial wastewater treatment plant.

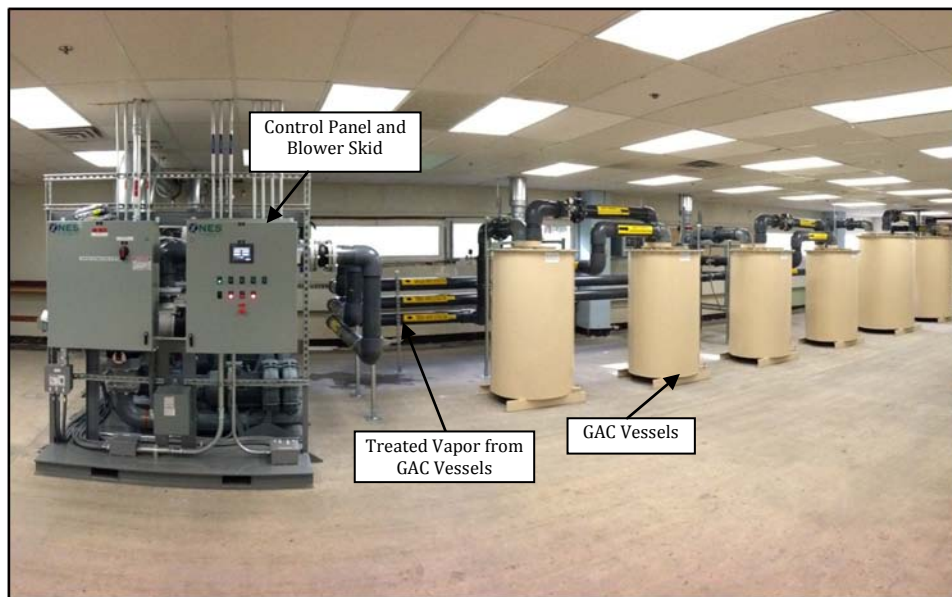
Figure 3 shows a schematic/flow diagram of the vapor extraction system, which consists of the following three components: a subslab vapor extraction system, an east trench/manhole vapor extraction system, and a west trench/manhole vapor extraction system. Each system has a dedicated blower and vapor-phase granular activated carbon (GAC) vessels for removal of VOCs from extracted vapor.

The subslab vapor extraction system consists of 26 extraction ports (EPs) (locations shown on Figure 4). Each of the two separate trench/manhole systems consist of three trench extraction ports (TEPs) and two manhole extraction ports (MHEPs) to remove and treat vapor from the trenches and from the headspace of the groundwater collection system beneath B003 (locations shown on Figure 5). The extracted vapor from each system is

² IBM Corporation and Sanborn, Head Engineering P.C., *RCRA Facility Investigation (RFI) Work Plan, VOC Source Assessment, IBM Poughkeepsie Facility, Poughkeepsie, New York*, October 23, 2012.

treated through three separate treatment trains, each consisting of two GAC vessels connected in a lead-lag series configuration. The vacuum blowers are located downstream of the GAC vessels such that the VOC-containing vapors and the GAC are maintained under a vacuum state during operation. The treated vapor is exhausted through stacks extending above the roofline of B003. Exhibit 1 shows the skid-mounted blower system and GAC treatment vessels installed on the west side of B003.

Exhibit 1: Building 003 Vapor Extraction System



Exhibits 2 and 3 show a subslab extraction port and a trench extraction port, respectively.

Exhibit 2: Subslab Vapor Extraction Port



Exhibit 3: Trench Extraction Port



The following sections describe the performance of the system.

2.1 Subslab Differential Pressure Monitoring Results

The subslab vapor extraction system has achieved subslab depressurization across the floor slab, as shown by the shaded area on Figure 6. Also shown on Figure 6 are the differential pressure readings between the subslab and indoor air recorded after startup in October 2013, as well as the applied vacuum, air flow, temperature, and % relative humidity (RH) measured at each extraction port riser. The United States Environmental Protection Agency's (USEPA) guidance³ considers differential pressure values of 5 Pascals (equivalent to 0.02 in. w.c.) or greater as evidence that vapor extraction has influence at a given subslab monitoring location, although other guidance⁴ and Sanborn Head experience suggests that any measureable depressurization (i.e., 1 Pascal or 0.004 in. w.c., the approximate accuracy limit of digital manometers) should be sufficient to intercept subslab vapor. Therefore, a value of 0.004 in. w.c. was used to determine the extent of subslab depressurization on Figure 6.

Figure 7 shows the differential pressure readings collected from the floor trench/manhole vapor extraction systems, as well as vacuum, airflow, temperature and % RH measured from the trench extraction ports and manhole extraction ports. These data indicate that the entire floor trench network and the manhole headspace are being maintained under vacuum.

2.2 TCE Source Mass Removal and Treatment

The subslab vapor extraction system is successfully removing TCE source mass from below the floor slab, and the trench/manhole vapor extraction systems are intercepting VOC-containing vapor. To estimate the TCE mass removed by the system and monitor the performance of the GAC treatment system, process vapor samples have been collected from the influent, midpoint, and effluent of the GAC vessels on an approximate bi-monthly schedule. These samples were collected in 2.7-liter Summa canisters and analyzed by Alpha Analytical of Mansfield, Massachusetts in accordance with USEPA Method TO-15. IBM will continue to conduct a routine sampling program to monitor TCE source mass recovery and the performance of the GAC treatment system.

The plots on Figure 8 show TCE concentrations versus time at the influent, midpoint, and effluent of the GAC units of each extraction system. The TCE concentrations in the influent from the subslab and East Trench extraction systems exhibit a general decline over time. For the West Trench extraction system, the TCE influent concentrations have been more variable.

Samples collected from the vapor stream being discharged from the lag GAC vessel (GAC effluent) for each system exhibited TCE concentrations that were consistently close to or less than the laboratory reporting limit, which demonstrates the effectiveness of the GAC treatment systems. The midpoint TCE concentrations for the subslab vapor system indicate a gradual increase as GAC adsorptive capacity within the lead vessel is consumed.

³ USEPA, *Engineering Issue: Indoor Air Vapor Intrusion Mitigation Approaches*, EPA/600/R-08-115, October 2008.

⁴ New Jersey Department of Environmental Protection, *Vapor Intrusion Technical Guidance*, March 2013.

The midpoint TCE concentrations have been close to or below the laboratory reporting limit for the West and East Trench systems, indicating that breakthrough of the lead GAC units has not yet occurred. IBM will continue routine process monitoring and will replace the GAC when the GAC has reached its adsorptive capacity.

The plots on Figure 9 show the TCE mass removal rates and cumulative mass removed in the 97 days between October 2 and January 7, 2014. A combined total of approximately 44 pounds of TCE were removed during this period by all three systems⁵. As expected, the mass removal rates show trends similar to the TCE influent concentrations.

The combined TCE mass removal rate by all three systems is currently about 0.4 lbs/day. In the May 2013 Report of Findings, the rate of TCE vapor entry into B003 needed to cause the observed average concentration of TCE in indoor air was estimated at 0.4 lbs/day. Thus, the vapor extraction systems are removing TCE at a rate equivalent to the apparent pre-remediation rate of TCE vapor entry into the building, and should be expected to significantly reduce TCE concentrations in indoor air.

IBM will continue to monitor the system data. In the event that the VOC mass removal rate decreases significantly, such that residual source mass and the potential for VOC vapor entry is similarly significantly reduced, IBM may elect to temporarily shut down the system and sample indoor air to evaluate if VOC levels are acceptable. If so, IBM will then assess, in consultation with the Agencies, if termination or major modification of vapor extraction operations is appropriate (e.g., discontinuing vapor extraction from the subslab ports, trenches, or manholes). IBM will inform the Agencies if it intends to conduct a temporary system shut-down for the purpose of evaluating the effects on indoor VOC levels and possible termination or major modification of system operations.

3.0 INDOOR AIR SCREENING AND CONFIRMATORY SAMPLING

As an initial evaluation of the influence of vapor extraction system operation on indoor air VOC levels, indoor air screening was conducted on October 22, 2013 using a portable gas chromatograph/mass spectrometer (GC/MS), approximately 20 days after system start-up. Indoor air screening was conducted at most of the locations that were screened prior to system installation, as presented in the May 2013 Report of Findings. Indoor air screening locations are shown on Figure 10.

Post-startup, 8-hour indoor air confirmatory sampling using Summa canisters was conducted on November 21, 2013 at the same locations that were sampled during the initial VOC source assessment, with select locations screened using the portable GC/MS prior to initiating confirmatory sample collection. Indoor and ambient outdoor air samples were collected at the locations shown on Figure 11. The ambient outdoor air sample (AA1001) was collected from a location adjacent to the fresh air intake for AHU 3-1-5. For quality assurance/quality control (QA/QC) purposes, one field blank and one field

⁵ Mass removed is calculated based on the influent TCE concentration, flow rate, and hours of operation.

duplicate sample were also collected.⁶ A description of field methods used during indoor air screening and sampling is included in Appendix B.1 of this report.

3.1 Indoor Air Field Screening and Results

October and November 2013 indoor air field screening was conducted using the Inficon HAPSITE Smart portable GC/MS. The portable GC/MS data were used for general screening purposes only to obtain a preliminary qualitative assessment of indoor air conditions after vapor extraction system start-up. Indoor air screening was conducted for 6 of the 8 of the project-specific analytes listed in the RFI Work Plan, including 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (c-1,2-DCE), trans-1,2-dichloroethene (t-1,2-DCE), tetrachloroethene (PCE), and TCE.

Figure 10 presents the indoor air TCE results for pre-remediation screening (November 2012) and post-remediation screening (October and November 2013). Results for each of the six compounds analyzed during the October and November 2013 screening rounds are shown on Table 1. Detected TCE screening concentrations in October and November 2013 ranged from 0.54 to 3.7 $\mu\text{g}/\text{m}^3$; these concentrations reflect significant decreases of one to three orders of magnitude compared to the pre-remediation sample results.

3.2 8-Hour Indoor Air Confirmatory Sample Collection and Analysis

The 8-hour, time-integrated samples were collected on November 21, 2013 using 2.7-liter Summa canisters in accordance with the procedures described in the approved RFI Work Plan, Appendix A.1. Sample canisters were deployed approximately simultaneously and were set at a height of approximately 3.5 feet above the floor. The samples were submitted to Alpha Analytical of Mansfield, MA (Alpha) for laboratory analysis of the 8 site-specific VOCs using USEPA Method TO-15 in selective ion monitoring (SIM) mode. Additional sampling information, including sample collection times, initial and final canister pressures, canister identification numbers, and field screening values, is provided in Table 2. Photographs of sample locations are provided in Appendix B.2

Analytical data were provided to New Environmental Horizons (NEH) for an independent, third-party, data validation evaluation. NEH's data validation report is included as Appendix D. NEH found the data to be useable in accordance with the project data quality objectives and subject to only minor qualifications as described further in Section 4.0.

3.3 Summary of Confirmatory Sampling Analytical Data

Table 3 summarizes the November 2013 confirmatory indoor air sampling results. The analytical laboratory report for the confirmatory samples is included in Appendix C.

⁶ A field blank is a canister that is certified clean by the laboratory and filled in the field with ultra-high purity nitrogen. The purpose of a field blank is to assess for the presence of target compounds that could be due to equipment preparation and transportation of equipment to and from the field. A field duplicate sample is collected at the same time and location as another sample. Collection and analysis of field duplicate sample is intended to assess the precision (repeatability) of the sampling and analysis process. The field blank and duplicate samples are submitted to the analytical laboratory for analysis with the other samples.

Figure 11 shows the TCE indoor air concentrations before and after the startup of the vapor extraction system. TCE was detected in the post-vapor extraction system start-up indoor air samples at concentrations ranging from 0.12 to 3.4 $\mu\text{g}/\text{m}^3$. These concentrations reflect significant decreases of two to three orders of magnitude compared to the pre-remediation sample results. TCE was also detected in the ambient air and field blank samples at concentrations slightly above the detection limit.

As summarized in Table 3, 3 of the 8 site-specific analytes were not detected in any air sample collected in November 2013, specifically: vinyl chloride, t-1,2-DCE, and 1,1-DCA. With the exception of TCE discussed above, the remaining site-specific compounds were detected in at least one sample and all at concentrations of less than 1 $\mu\text{g}/\text{m}^3$.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

Analytical data from the November 2013 confirmatory sampling event were provided to NEH for third-party independent data validation. NEH's data validation report is presented as Appendix D.

NEH's evaluation included a review of sample data to verify that the laboratory conducted the analyses in compliance with the analytical methods required, appropriate laboratory procedures, and consistency with the Work Plan QA/QC requirements. NEH's evaluation was conducted in accordance with USEPA and NYSDEC guidelines for data validation of organic data. NEH prepared a Data Usability Report that summarizes the quality control (QC) issues that required action (i.e., qualification of data) and compared QA/QC criteria to the data quality objectives described in the approved Work Plan.

In summary and as stated above, NEH found the data to be useable in accordance with the project data quality objectives subject to a few minor qualifications that do not affect the findings and conclusions. The following QA/QC considerations were noted by NEH:

- Final canister vacuums for IA1061 (11.61 inches of mercury ["Hg"]), IA1065 (10.56 "Hg), and FB1 (13.5 "Hg) were greater than the highest recommended vacuum specified in the Work Plan (10 "Hg). These concentrations were flagged as estimated ("J" or "UJ") by NEH with an indeterminate bias.
- A low level of TCE (0.059 $\mu\text{g}/\text{m}^3$) was detected in the nitrogen field blank (FB1). The concentrations of TCE detected in samples AA1001 and IA1030 were within 5 times the concentration detected in the field blank. Therefore, those results were flagged as estimated ("EB") by NEH. The TCE result for IA1030 was assigned a high bias. AA1001 was assigned an indeterminate bias because the TCE value was reported at a level below the calibration range (see following bullet).
- TCE was reported at a concentration below the instrument calibration range for samples AA1001 and FB1. These results were reported as estimated and flagged with a "J" qualifier by the laboratory, and NEH assigned an indeterminate bias.

5.0 CONCLUSIONS

The installation and operation of the vapor extraction system in Building 003 is successfully meeting its design objectives of reducing TCE source mass below the floor slab and preventing TCE vapor migration. Since the startup of the vapor extraction system, more than 44 pounds of residual TCE source mass have been removed.

Indoor air sampling indicates that the remediation measures have significantly reduced VOC concentrations throughout the first level of the B003. IBM plans to continue to operate and monitor the performance of the vapor extraction and treatment system as appropriate. IBM is preparing an Operation and Maintenance (O&M) Plan for the system, including an O&M Manual, which will be provided in a future submittal to the Agencies. IBM will inform the Agencies if it elects to evaluate termination or major modification of system operations in the future.

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TABLES

TABLE 1
Summary of Portable GC/MS Indoor Air Screening Results
Performance Monitoring and Confirmatory Sampling Results
Building 003 Vapor Extraction System
IBM Poughkeepsie Facility
Poughkeepsie, New York

Sample Location	Collection Date	Sample Type	Location Description	PID	1,1-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE
				ppbv	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
IA1001	10/22/2013	HAPSITE - Room Air	DI Water Room	175	<2.0	<2.0	<2.0	<2.0	<0.68	2.8
IA1010	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-1) Fan Side	189	<2.0	<2.0	<2.0	<2.0	<0.68	2.6
IA1012	10/22/2013	HAPSITE - Room Air	Server Room - Raised Floor	178	<2.0	<2.0	<2.0	<2.0	<0.68	2.5
	11/21/2013	HAPSITE - Room Air	Server Room - Raised Floor	ND	<2.0	<2.0	<2.0	<2.0	<0.68	1.3
IA1013	10/22/2013	HAPSITE - Room Air	Hallway	182	<2.0	<2.0	<2.0	<2.0	<0.68	2.4
IA1016	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-5)	186	<2.0	<2.0	<2.0	<2.0	<0.68	1.5
IA1018	10/22/2013	HAPSITE - Room Air	Coffee Room	240	<2.0	<2.0	<2.0	<2.0	<0.68	1.1
	11/21/2013	HAPSITE - Room Air	Coffee Room	ND	<2.0	<2.0	<2.0	<2.0	<0.68	<0.54
IA1019	10/22/2013	HAPSITE - Room Air	Hallway	245	<2.0	<2.0	<2.0	<2.0	<0.68	1.1
IA1022	10/22/2013	HAPSITE - Room Air	Hallway	211	<2.0	<2.0	<2.0	<2.0	<0.68	1.5
IA1023	10/22/2013	HAPSITE - Room Air	Conference Room	178	<2.0	<2.0	<2.0	<2.0	<0.68	1.2
IA1025	10/22/2013	HAPSITE - Room Air	Conference Room	207	<2.0	<2.0	<2.0	<2.0	<0.68	0.91
	10/22/2013	SUMMA Grab - Room Air	Conference Room	NS	<0.081	<0.079	0.17	<0.079	0.18	0.90
IA1027	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-3) Fan Side	192	<2.0	<2.0	<2.0	<2.0	<0.68	1.1
IA1030	10/22/2013	HAPSITE - Room Air	Former Manufacturing Area	152	<2.0	<2.0	<2.0	<2.0	<0.68	<0.54
IA1031	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-8)	300	<2.0	<2.0	<2.0	<2.0	<0.68	<0.54
IA1034	10/22/2013	HAPSITE - Room Air	Office	191	<2.0	<2.0	<2.0	<2.0	<0.68	1.2
IA1039	10/22/2013	HAPSITE - Room Air	Hallway	214	<2.0	<2.0	<2.0	<2.0	0.75	2.8
IA1041	10/22/2013	HAPSITE - Room Air	Former Reproduction Room	226	<2.0	<2.0	<2.0	<2.0	<0.68	1.3
IA1043	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-6) Fan Side	223	<2.0	<2.0	<2.0	<2.0	<0.68	0.54
IA1046	10/22/2013	HAPSITE - Room Air	Former Mail Room	134	<2.0	<2.0	<2.0	<2.0	<0.68	3.7
IA1056	10/22/2013	HAPSITE - Room Air	Core Area Near MH 30	243	<2.0	<2.0	<2.0	<2.0	<0.68	2.0
IA1059	10/22/2013	HAPSITE - Room Air	Equipment Maintenance Room	143	<2.0	<2.0	<2.0	<2.0	<0.68	3.1
IA1061	10/22/2013	HAPSITE - Room Air	Recycle Water Room	151	<2.0	<2.0	<2.0	<2.0	<0.68	3.3
	11/21/2013	HAPSITE - Room Air	Recycle Water Room	ND	<2.0	<2.0	<2.0	<2.0	<0.68	2.7
IA1062	10/22/2013	HAPSITE - Room Air	Vending Area	175	<2.0	<2.0	<2.0	<2.0	<0.68	2.3
	11/21/2013	HAPSITE - Room Air	Vending Area	ND	<2.0	<2.0	<2.0	<2.0	<0.68	1.5
IA1063	10/22/2013	HAPSITE - Room Air	Office	177	<2.0	<2.0	<2.0	<2.0	<0.68	2.0
IA1064	10/22/2013	HAPSITE - Room Air	Former Mail Room	116	<2.0	2.7	<2.0	<2.0	<0.68	3.4
	11/21/2013	HAPSITE - Room Air	Former Mail Room	ND	<2.0	<2.0	<2.0	<2.0	<0.68	1.8
IA1065	10/22/2013	HAPSITE - Room Air	Hallway	145	<2.0	<2.0	<2.0	<2.0	<0.68	1.6
IA1068	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-2)	170	<2.0	<2.0	<2.0	<2.0	<0.68	2.5
IA1070	10/22/2013	HAPSITE - Room Air	HVAC Room (3-1-4)	204	<2.0	<2.0	<2.0	<2.0	<0.68	2.8
Field Blank	10/22/2013	HAPSITE - Outside Air	Outside Stair #3	NS	<2.0	<2.0	<2.0	<2.0	<0.68	<0.54
	11/21/2013	HAPSITE - Outside Air	Outside Stair #3	NS	<2.0	<2.0	<2.0	<2.0	<0.68	<0.54

Notes:

1. This table summarizes data recorded during field screening of grab indoor air samples using a HAPSITE Smart portable gas chromatograph/mass spectrometer (GC/MS), manufactured by Inficon. The instrument was calibrated to manufacturer prepared standards ranging from 0.5 part per billion on a volumetric basis (ppbv) to 50 ppbv, for the following compounds: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (c-1,2-DCE), trans-1,2-dichloroethene (t-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and 1,1-dichloroethane (1,1-DCA). The field samples were collected by Sanborn Head personnel directly into the HAPSITE sampling probe from the location and on the dates noted in the table. The samples were screened using the HAPSITE in selective ion monitoring (SIM) mode. Results were converted to micrograms per cubic meter (µg/m³) by Sanborn Head assuming standard temperature (25 °C) and pressure (1 atmosphere) for the conversion. Results were rounded to two significant figures.

2. The HAPSITE was used as a field screening tool; therefore, the data should be considered estimated and not suitable for independent validation and decision-making. The findings should be considered in conjunction with results of samples analyzed in accordance with USEPA TO-15 protocol.

3. "PID" indicates photoionization detector data presented in ppbv.

4. Legend / Flags

< - The analyte was not detected above the indicated reporting limit.

NS - Not sampled for this parameter.

ND - Not detected above the PID reporting limit.

TABLE 2
Summary of November 2013 Confirmatory Sample Information
Performance Monitoring and Confirmatory Sampling Results
Building 003 Vapor Extraction System
IBM Poughkeepsie Facility
Poughkeepsie, New York

Sample Location	Building Floor	Sample Matrix	Canister Number	Sample Height (ft above floor)	Start Time (hours)	Start Pressure (mm Hg)	Stop Time (hours)	Stop Pressure (mm Hg)	PID (ppbv)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location	Notes
Collection Date: November 21, 2013													
AA1001	NA	Ambient Air	446	Ground surface	1050	30.0	1905	4.20	NM	NM	Exterior location SE of building	-	Set near air intake for AHU 3-1-5 (from exterior location)
IA1001	Ground	Indoor Air	187	3.5	1042	30.0	1844	5.55	45	74	DI Water Room	Waste Brine, Carbon, DI Water Cleaning Solution	-
IA1012	Ground	Indoor Air	457	3.5	1117	30.0	1919	6.47	72	71	Server Room - Raised Floor	White Board Cleaner	-
IA1018	Ground	Indoor Air	147	3.5	1024	30.0	1824	5.82	ND	76	Office ID 1-F-2	-	-
IA1018 (DUP1)	Ground	Indoor Air	185	3.5	1026	30.0	1826	7.38					
IA1030	Ground	Indoor Air	255	3.5	1018	30.0	1819	5.89	ND	76	Former Manufacturing Area	-	-
IA1034	Ground	Indoor Air	1768	3.5	1008	28.2	1811	7.45	NM	69	Office ID K-3	Dry Erase Markers, Permanent Markers	-
IA1061	Ground	Indoor Air	109	3.5	1039	30.0	1840	11.61	28	71	Recycle Water Room	Ferricyanide Tanks, Rinse and Brine Tanks	Exhaust fan running
IA1062	Ground	Indoor Air	488	3.5	1037	30.0	1837	5.66	33	74	Vending Area	Multi-Surface Cleaning Fluids (stored in adjacent housekeeping closet)	-
IA1063	Ground	Indoor Air	464	3.5	1046	30.0	1847	7.73	22	73	Office ID 1-A-20	White Board Cleaner, Antibacterial Wipes	-
IA1064	Ground	Indoor Air	140	3.5	1034	30.0	1834	7.50	10	73	Former Mail Room	Carbon	-
IA1065	Ground	Indoor Air	555	3.5	1030	29.9	1830	10.6	17	74	Walkway/Elevator Entrance	-	Located near storm sewer manhole
Field Blank	NA	Nitrogen	456	Ground surface	1109	30.0	1909	13.5	NM	NM	Exterior location near Stair #18	-	-

Notes:

- Samples were collected by Sanborn, Head & Associates, Inc. on November 21, 2013.
- Samples were collected into 2.7-liter, stainless steel, pre-evacuated SUMMA® canisters using 8-hour metering regulators and inline 2-micron filters. Canisters and regulators were laboratory-certified clean (100% certification).
- PID screening was conducted using a ppbRAE, calibrated to a 10 parts per billion by volume (ppbv) isobutylene-in-air standard.
- "NM" indicates not monitored.
"NA" indicates not applicable.
"ND" indicates the instrument read 0 ppbv.

TABLE 3
Summary of Indoor Air 8-Hour Composite Sampling Results
Performance Monitoring and Confirmatory Sampling Results
Building 003 Vapor Extraction System
IBM Poughkeepsie Facility
Poughkeepsie, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																								
			CA			1,1-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			PCE			TCE			VC			
			Result	Qualifer	Bias	Result	Qualifer	Bias	Result	Qualifer	Bias	Result	Qualifer	Bias	Result	Qualifer	Bias	Result	Qualifer	Bias	Result	Qualifer	Bias	Result	Qualifer	Bias	
AA1001	AA1001	11/29/2012	0.053	U		0.081	U		0.079	U		0.23	EB	H	0.079	U		0.14	U		0.69	EB	H	0.051	U		
	AA1001	11/21/2013	0.053	U		0.081	U		0.079	U		0.079	U		0.079	U		0.14			0.064	JEB	I	0.051	U		
IA1001	IA1001	11/29/2012	0.053	U		0.085			0.23			63			0.17			0.26			200			0.46			
	IA1001	11/21/2013	0.053	U		0.081	U		0.079	U		0.21			0.079	U		0.17			1.4			0.051	U		
IA1012	IA1012	11/29/2012	0.053	UJ	I	0.13	J	I	0.75	J	I	160	J	I	0.86	J	I	0.33	J	I	660	J	I	0.55	J	I	
	IA1012	11/21/2013	0.053	U		0.081	U		0.079	U		0.18			0.079	U		0.24			1.2			0.051	U		
IA1018	IA1018	11/29/2012	0.053	U		0.16			0.46			140			0.32			0.52			410			1.1			
	DUP1	11/29/2012	0.053	U		0.18			0.53			160			0.34			0.54			460			1.2			
	IA1018	11/21/2013	0.053	U		0.081	U		0.079	U		0.083			0.079	U		0.15			0.49			0.051	U		
	Dup1	11/21/2013	0.053	U		0.081	U		0.079	U		0.083			0.079	U		0.15			0.49			0.051	U		
IA1030	IA1030	11/29/2012	0.053	U		0.12			0.62			210			0.43			0.60			580			1.8			
	IA1030	11/21/2013	0.053	U		0.081	U		0.079	U		0.079	U		0.079	U		0.14	U		0.12	EB	H	0.051	U		
IA1034	IA1034	11/29/2012	0.053	U		0.081	U		0.079	U		17			0.079	U		0.22			49			0.15			
	IA1034	11/21/2013	0.053	U		0.081	U		0.079	U		0.079	U		0.079	U		0.16			0.54			0.051	U		
IA1061	IA1061	11/29/2012	0.053	U		0.081	U		0.13			37			0.091			0.20			110			0.28			
	IA1061	11/21/2013	0.053	U		0.081	U		0.079	U		0.67	J	I	0.079	U		0.16	J	I	3.4	J	I	0.051	U		
IA1062	IA1062	11/29/2012	0.053	U		0.085			0.23			75			0.17			0.40			210			0.60			
	IA1062	11/21/2013	0.053	U		0.081	U		0.079	U		0.16			0.079	U		0.22			1.3			0.051	U		
IA1063	IA1063	11/29/2012	0.053	U		0.28			0.69			220			0.46			0.40			630			1.8			
	IA1063	11/21/2013	0.053	U		0.081	U		0.079	U		0.18			0.079	U		0.14			0.73			0.051	U		
IA1064	IA1064	11/29/2012	0.053	UJ	I	0.081	UJ	I	0.14	J	I	38	J	I	0.14	J	I	0.22	J	I	120	J	I	0.28	J	I	
	IA1064	11/21/2013	0.053			0.081	U		0.079	U		0.46			0.079	U		0.22			2.1			0.051	U		
IA1065	IA1065	11/29/2012	0.053	U		0.081	U		0.16			52			0.13			0.35			140			0.47			
	IA1065	11/21/2013	0.053	U		0.081	U		0.079	U		0.099	J	I	0.079	U		0.20	J	I	1.1	J	I	0.051	U		
Field Blank	FB1	11/29/2012	0.053	U		0.081	U		0.079	U		0.15			0.079	U		0.14	U		0.47			0.051	U		
	FB1	11/21/2013	0.053	U		0.081	U		0.079	U		0.079	U		0.079	U		0.14	U		0.059	J	I	0.051	U		

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "CA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; "PCE" is tetrachloroethene; "TCE" is trichloroethene; and "VC" is vinyl chloride.
2. Results are presented in micrograms per cubic meter (µg/m³).
3. In-depth data usability reviews (DURs) were performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR reports for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.
4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.
5. The field blank samples were collected by transferring high purity nitrogen provided by the laboratory from one certified clean SUMMA canister into another certified clean SUMMA canister over an approximately 8-hour period.
6. Results were rounded to two significant figures.

FIGURES

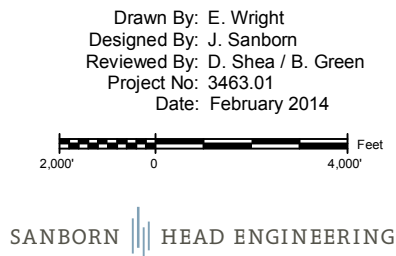
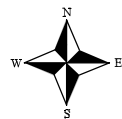
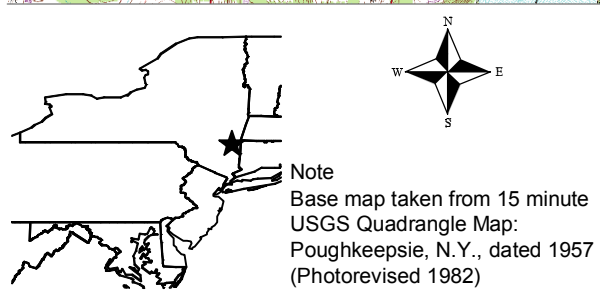
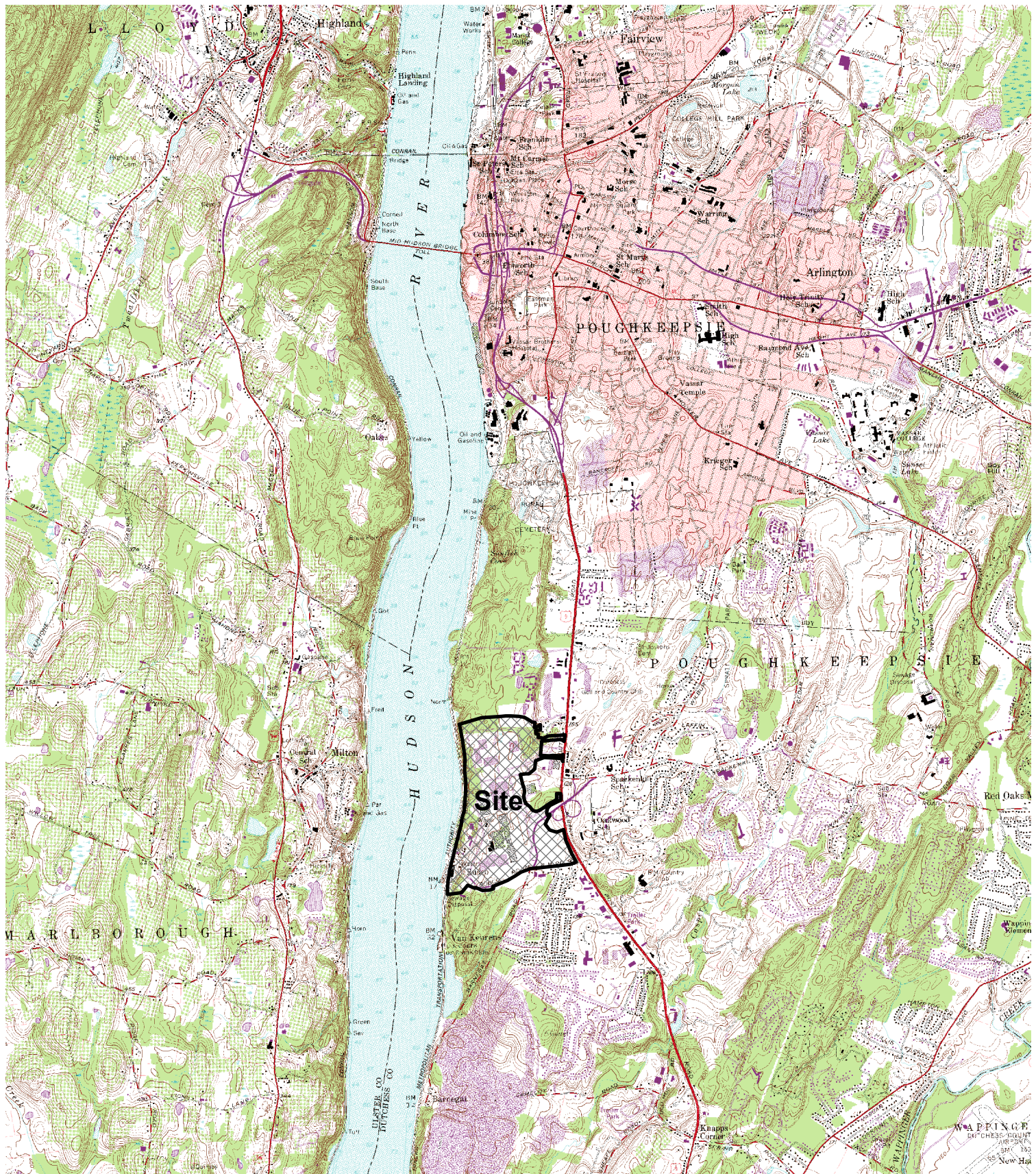


Figure 1

Locus Plan

Performance Monitoring and Confirmatory
Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

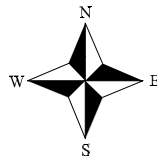


Figure 2

Building 003 Location Plan

Performance Monitoring and Confirmatory Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

Drawn By: E. Wright
Designed By: J. Sanborn
Reviewed By: D. Shea / B. Green
Project No: 3463.01
Date: February 2014

Figure Narrative

This figure shows the buildings at the IBM Poughkeepsie Facility. B003 is shown with a blue outline.

Notes

1. Base plan was prepared using AutoCAD files provided by Grubb & Ellis Management Services, Inc. (GEMS) in December 2009.

Legend

- Approximate location of property line
- 003** Indicates building number
- Indicates the location of Building 003
- Unlabeled features include tanks, storage sheds, and other structures and features not intended for routine occupancy



NOTES:
1. THIS DRAWING IS FOR GENERAL INFORMATION ONLY. REFER TO THE SYSTEM DESIGN DRAWINGS FOR FURTHER INFORMATION.

LEGEND:

● | BALL VALVE

⌵ CHECK VALVE OR DAMPER

✕ BLAST GATE

⌵ VACUUM RELIEF VALVE

Y Y-STRAINER

⌵ BUTTERFLY VALVE

≡ UNION

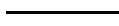
SP SAMPLE PORT



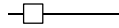
FLEXIBLE CONVEYANCE HOSE



CAM LOCK QUICK CONNECT



RIGID CONVEYANCE PIPE



RIGID CONVEYANCE PIPE WITH INSULATION AND INSULATION JACKET



SECONDARY CONTAINMENT



REGENERATIVE BLOWER (B-101)



CENTRIFUGAL PUMP (P-101)



IN-LINE PARTICULATE FILTER



IN-LINE HEPA FILTER



AIR INLET FILTER

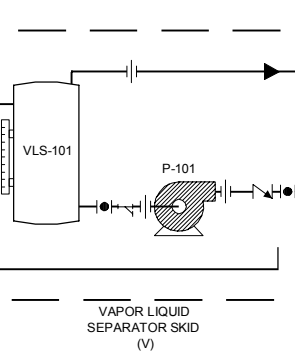


CONSTRUCTION MANAGER'S VENDOR
FURNISHED FOR CONTRACTOR
INSTALLATION

EXISTING VACUUM PIPE NETWORK - SUBSLAB

FLOOR SLAB

EXISTING SUBSLAB EXTRACTION PORT
TYPICAL OF 26 LOCATIONS



VAPOR LIQUID
SEPARATOR SKID
(V)

TO INDUSTRIAL
WASTE
TREATMENT
FACILITY

1,600 lb GRANULAR
ACTIVATED
CARBON VESSEL
V-101
(V)

1,600 lb GRANULAR
ACTIVATED
CARBON VESSEL
V-102
(V)

B-101

BUILDING
EXTERIOR

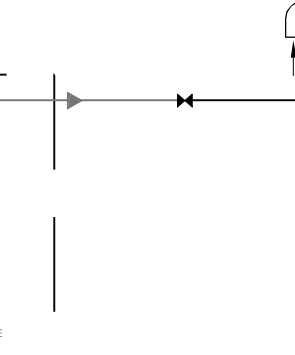
TO ATMOSPHERE

EXISTING VACUUM PIPE NETWORK - EAST SIDE

TRENCH PLATE

EXISTING TRENCH
EXTRACTION PORT
TYPICAL OF 3 LOCATIONS

EXISTING MANHOLE
EXTRACTION PORT
TYPICAL OF 2 LOCATIONS



700lb GRANULAR
ACTIVATED
CARBON VESSEL
V-201
(V)

700lb GRANULAR
ACTIVATED
CARBON VESSEL
V-202
(V)

B-201

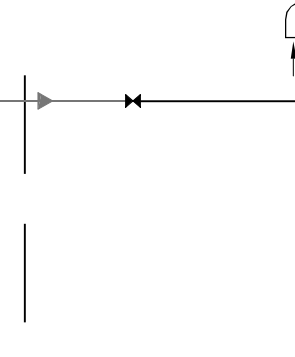
TO INDUSTRIAL
WASTE
TREATMENT
FACILITY

EXISTING VACUUM PIPE NETWORK - WEST SIDE

TRENCH PLATE

EXISTING TRENCH
EXTRACTION PORT
TYPICAL OF 3 LOCATIONS

EXISTING MANHOLE
EXTRACTION PORT
TYPICAL OF 2 LOCATIONS



700lb GRANULAR
ACTIVATED
CARBON VESSEL
V-301
(V)

700lb GRANULAR
ACTIVATED
CARBON VESSEL
V-302
(V)

B-301

BLOWER SKID (V)

SANBORN HEAD ENGINEERING

NOT TO SCALE

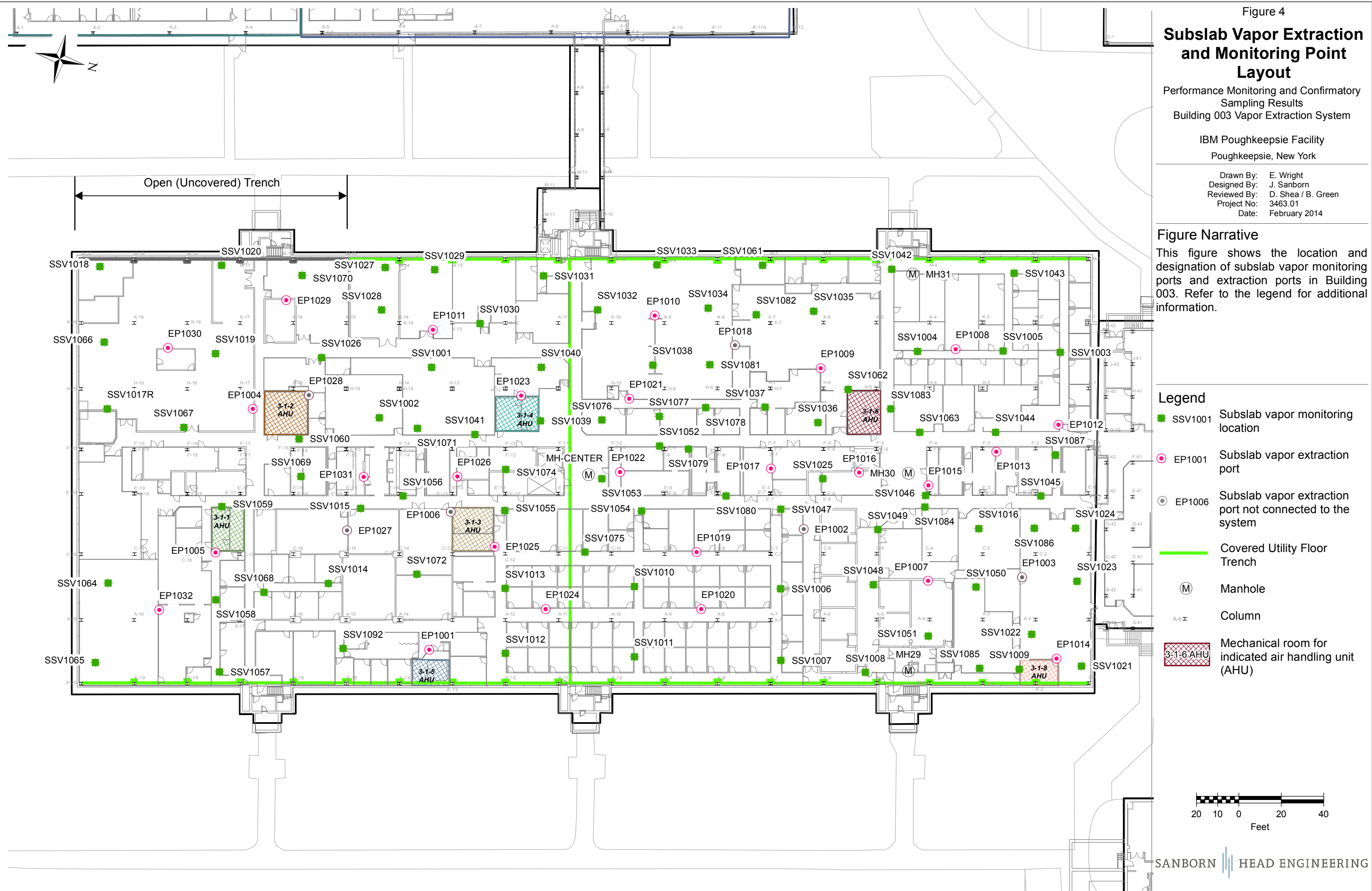
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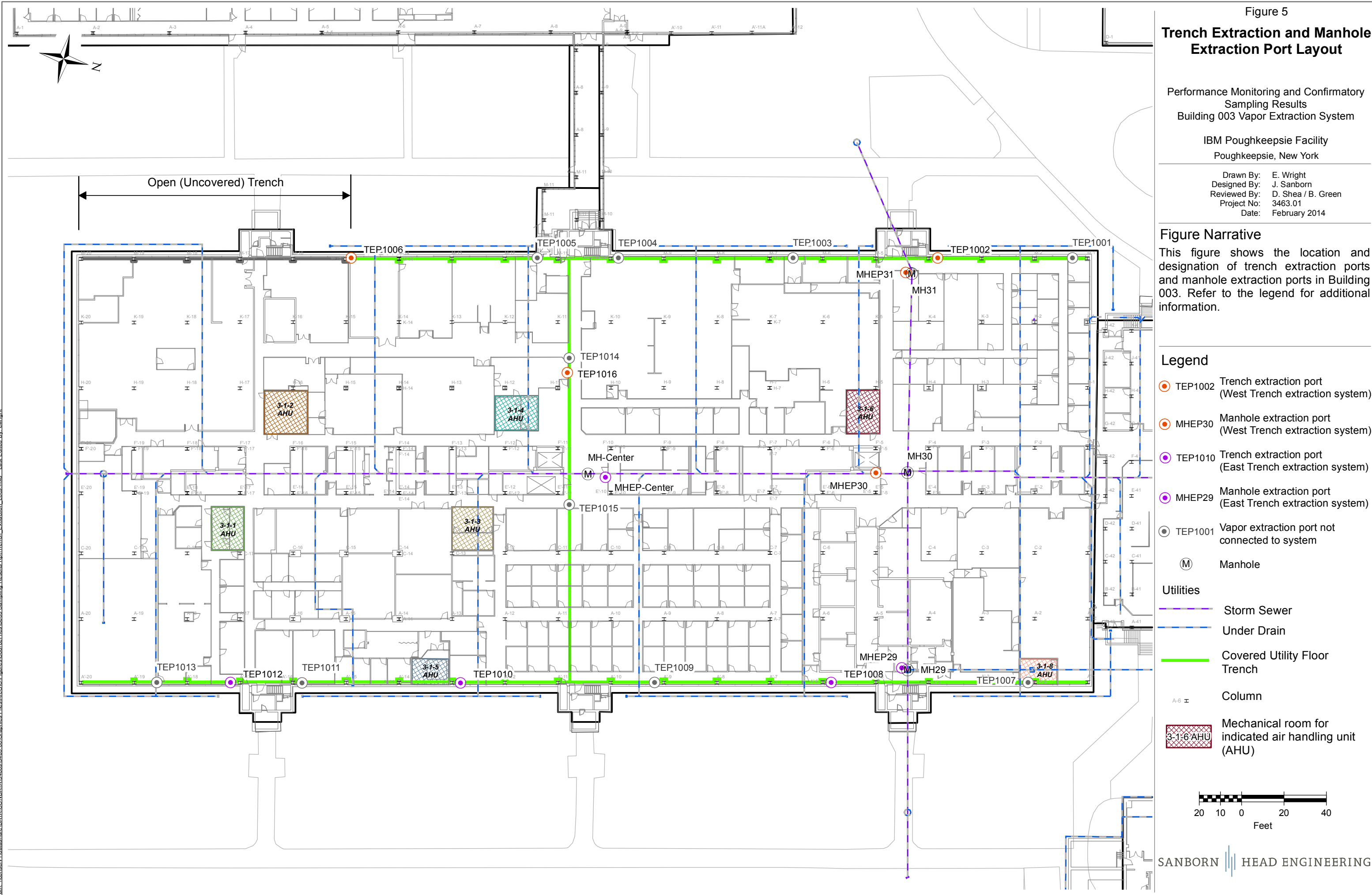
DRAWN BY: R.HIRTLE
DESIGNED BY: S.SOOS
REVIEWED BY: D.SHEA
PROJECT MGR: S.SOOS
PIC: D.SHEA
DATE: FEBRUARY 2014

PERFORMANCE MONITORING AND CONFIRMATORY SAMPLING
RESULTS: BUILDING 003 VAPOR EXTRACTION SYSTEM
IBM POUGHKEEPSIE FACILITY
POUGHKEEPSIE, NEW YORK

PROCESS FLOW DIAGRAMFF
VOC SOURCE REMEDIATION

PROJECT NUMBER:
3463.01
FIGURE:
3





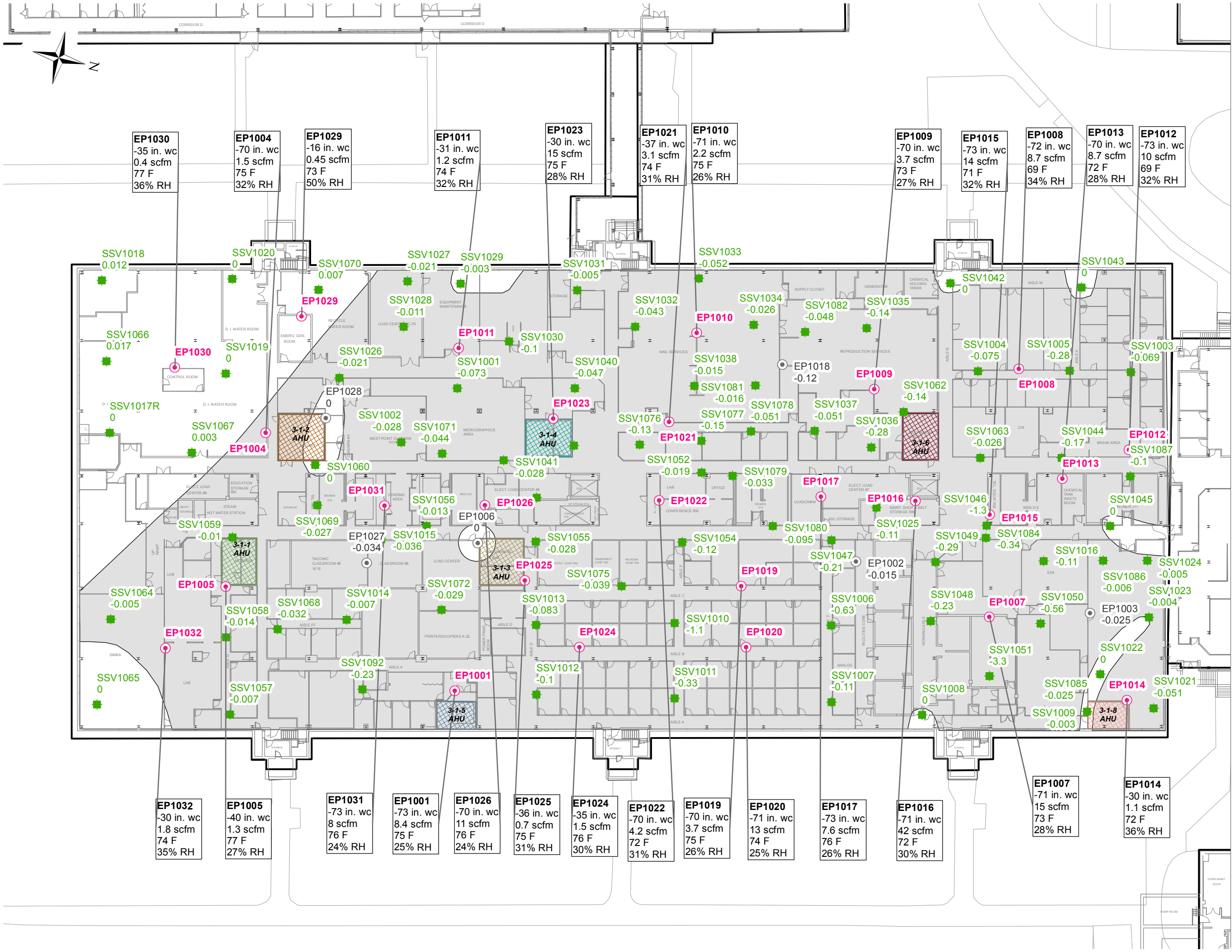


Figure 6

Subslab Pressure Response to Vapor Extraction

Performance Monitoring and Confirmatory Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

Drawn By: C. LaVack / E. Wright
Designed By: R. Welch / S. Soos
Reviewed By: D. Shea / B. Green
Project No: 3463.01
Date: February 2014

Figure Narrative

This figure shows sublab vapor extraction system operation data and observed sublab pressure response. Subslab pressure was monitored using a digital manometer referenced to the indoor pressure. Negative values indicate subslab pressure less than indoor air pressure. The gray area indicates the zone where differential pressure measurements were less than -0.004 in. wc as recorded in October 2013 after the system had been operating for 19 days.

Legend

- SSV1001 Subslab Vapor Monitoring Location
- EP1001 Vapor Extraction Port
- EP1001 Vapor Extraction Port not connected to system

Data collected on October 21, 2013

EP1002 in. wc scfm F % RH	Extraction Port Vacuum (extraction port) Flow Rate Temperature Relative Humidity
--	--

-0.082 Subslab air pressure (in. wc) relative to room air pressure

Area where differential pressure measurements less than -0.004 in. wc were recorded on October 21, 2013

3-1-6 AHU Mechanical room for indicated air handling unit (AHU)

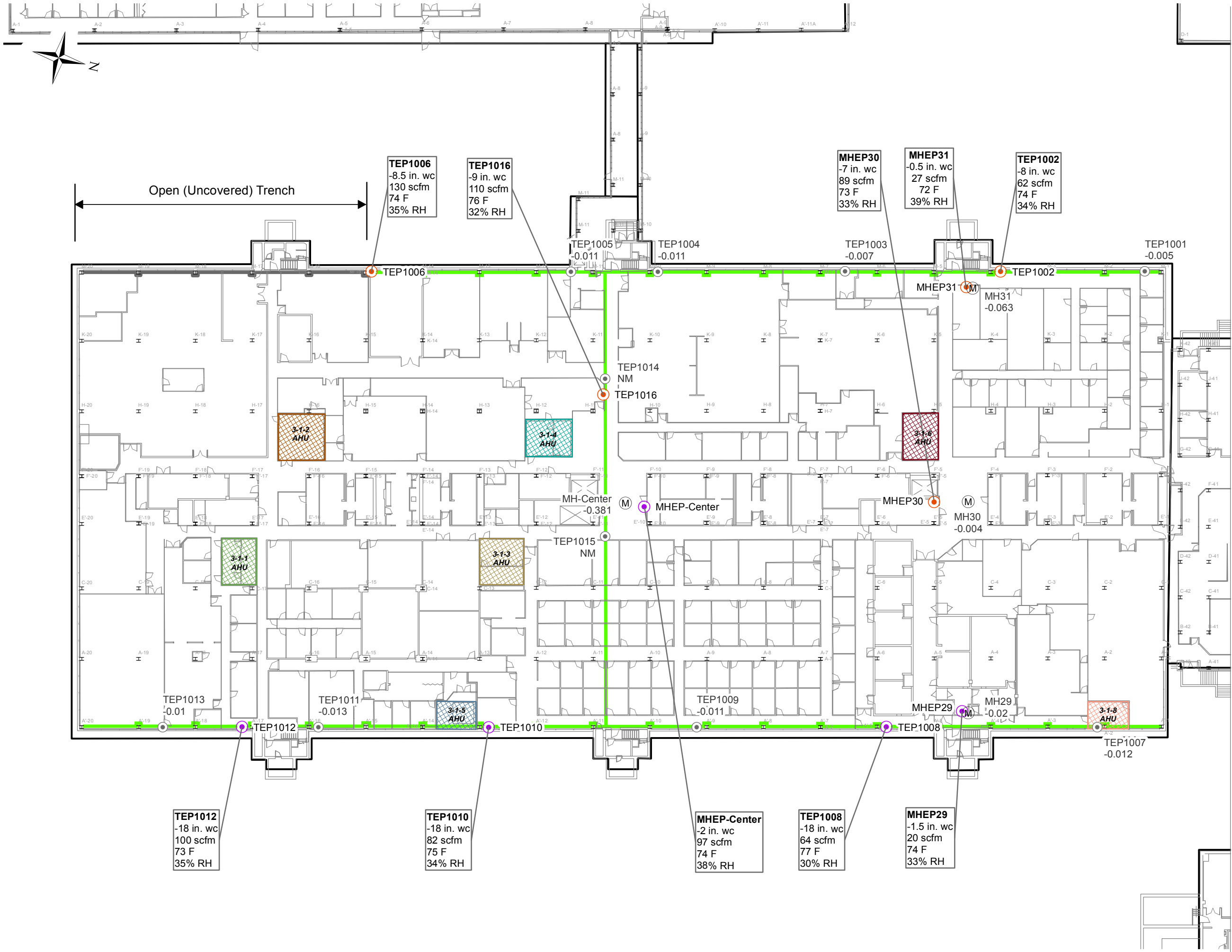


Figure 7
Measured Trench and Manhole Vapor Extraction Parameters

Performance Monitoring and Confirmatory Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

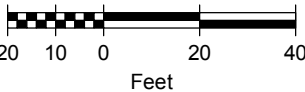
Drawn By: C. LaVack / E. Wright
Designed By: R. Welch / S. Soos
Reviewed By: D. Shea / B. Green
Project No: 3463.01
Date: February 2014

Figure Narrative
This figure shows the operation data and observed pressure response to trench and manhole vapor extraction. Trench and manhole air pressure was monitored using a digital manometer referenced to the indoor air pressure. Negative values indicate trench or manhole pressure less than indoor air pressure.

- Legend**
- TEP1002 Trench extraction port (West Trench extraction system)
 - MHEP30 Manhole extraction port (West Trench extraction system)
 - TEP1010 Trench extraction port (East Trench extraction system)
 - MHEP29 Manhole extraction port (East Trench extraction system)
 - TEP1001 Vapor extraction port not connected to system
 - (M) Manhole

Data collected on October 21, 2013

TEP1002	
in. wc	Trench Extraction Port Vacuum (extraction port)
scfm	Flow Rate
F	Temperature
% RH	Relative Humidity
-0.008	Trench or Manhole air pressure (in. wc) relative to room air pressure
NM	Air pressure not measured at Trench or Manhole
	Covered Utility Floor Trench
3-1-6 AHU	Mechanical room for indicated air handling unit (AHU)



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Last Edited By: ewright
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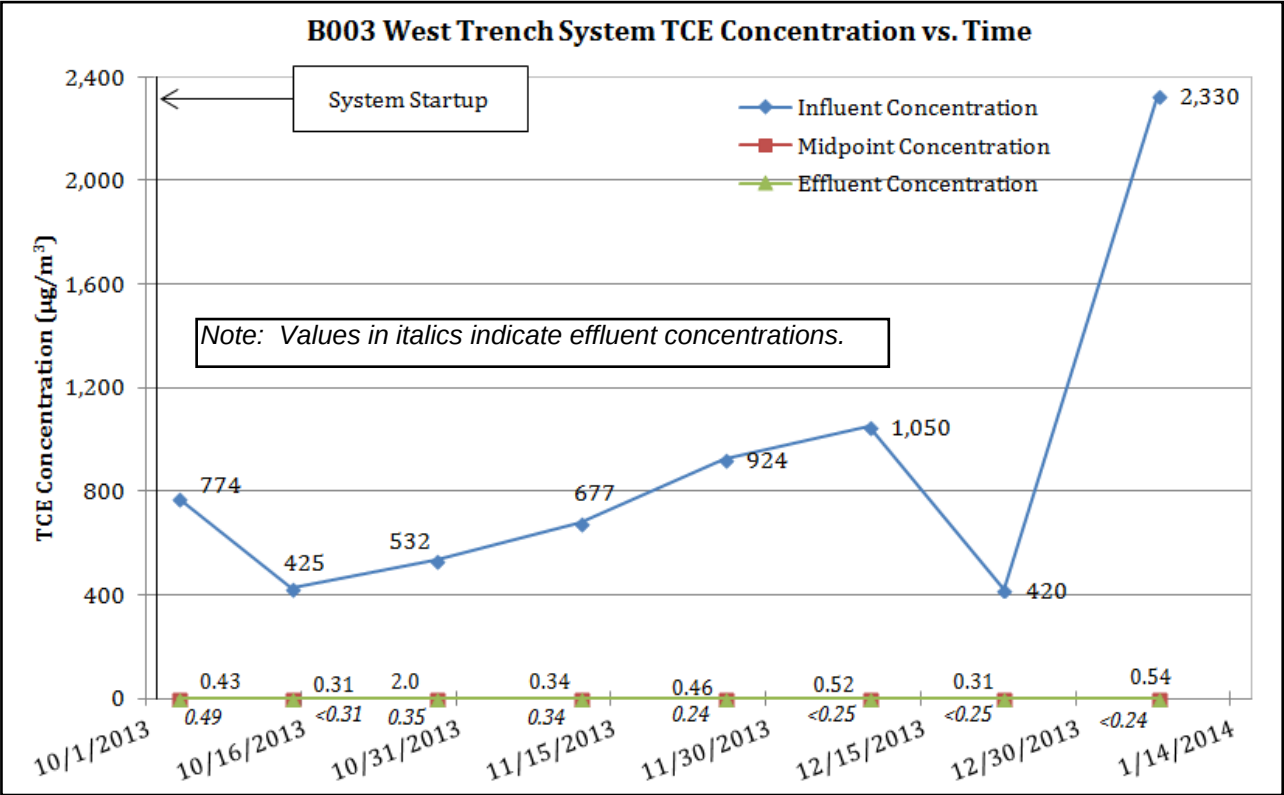
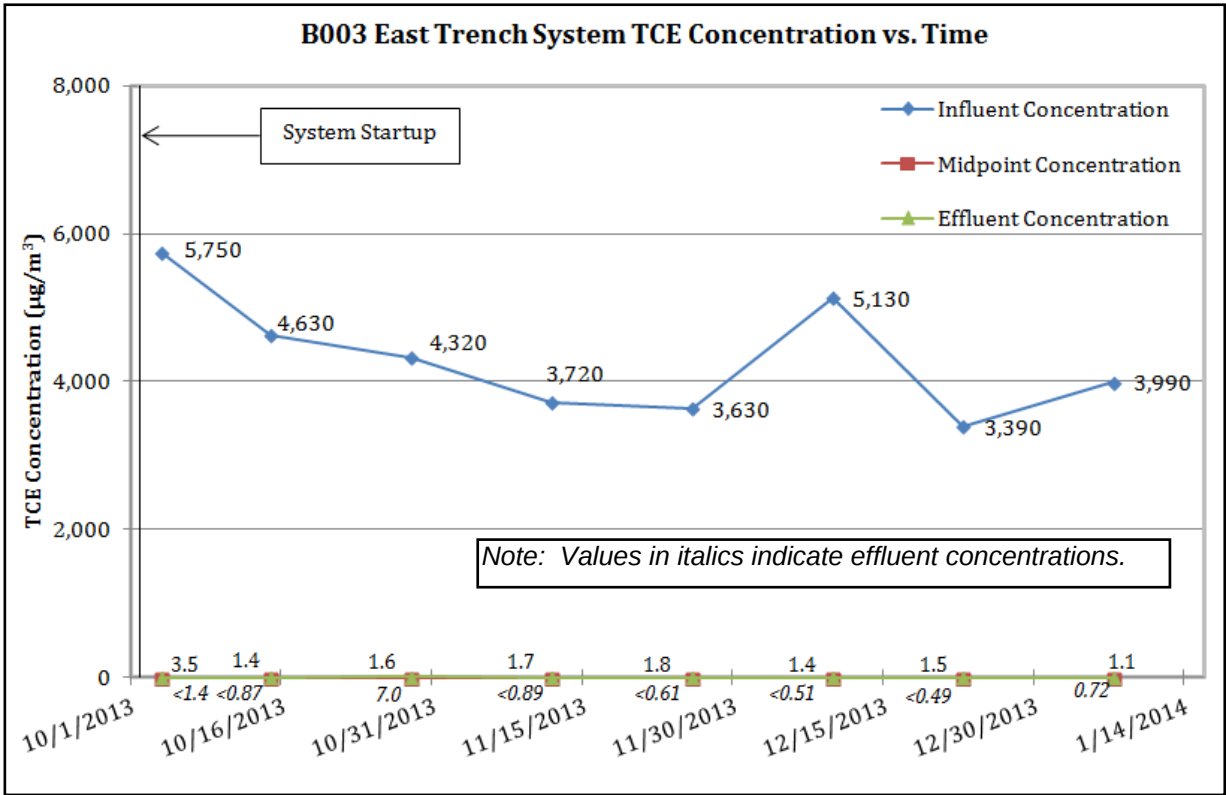
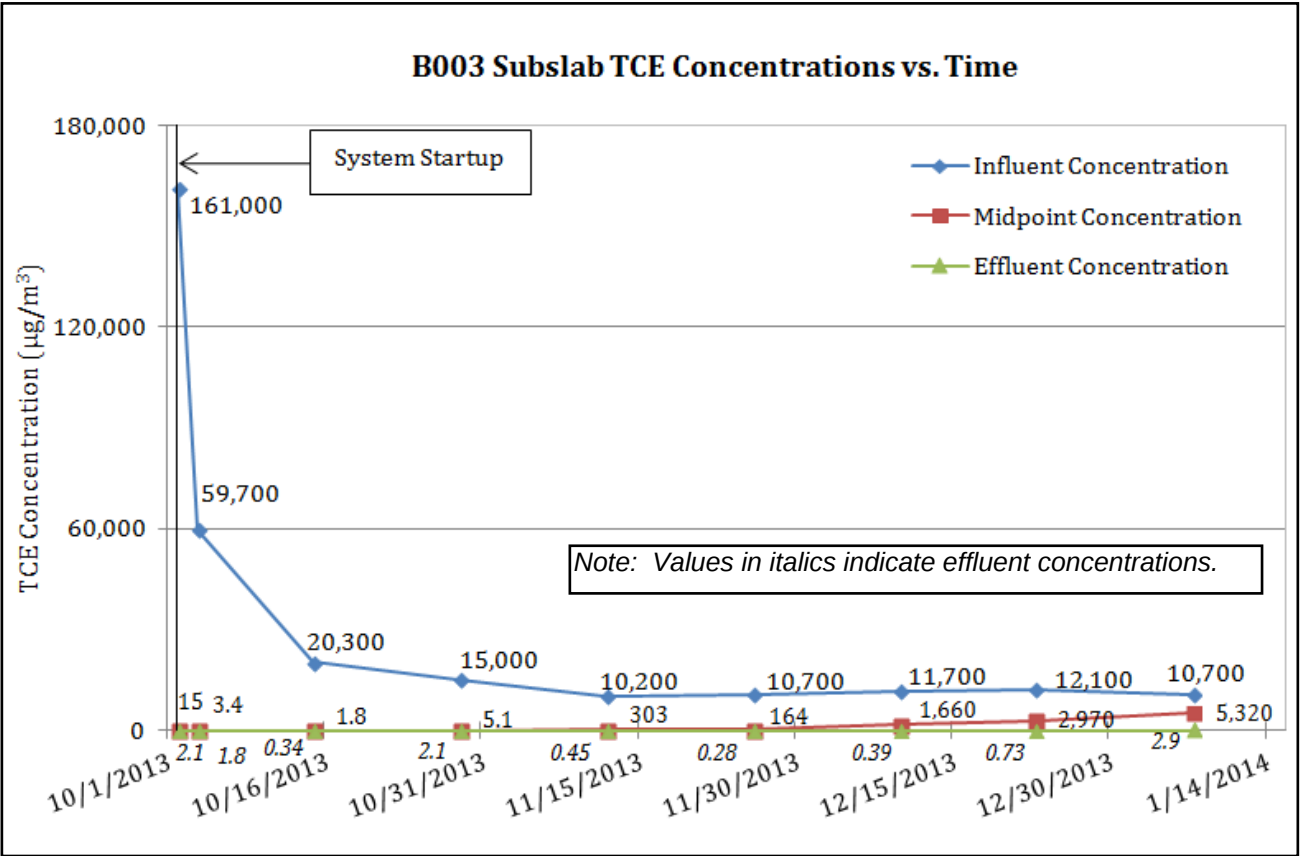
Figure 8
**Vapor Extraction System
TCE Concentrations
Versus Time**

Performance Monitoring and Confirmatory
Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

Drawn By: E. Wright
Designed By: J. Sanborn
Reviewed By: D. Shea / B. Green
Project No: 3463.01
Date: February 2014

Figure Narrative
This figure shows time-series plots of trichloroethene (TCE) concentrations in Summa canister samples collected from the B003 vapor extraction systems (subslab, east trench, and west trench systems). The samples were collected from the influent, midpoint, and effluent of the granular activated carbon (GAC) vessels for each system.



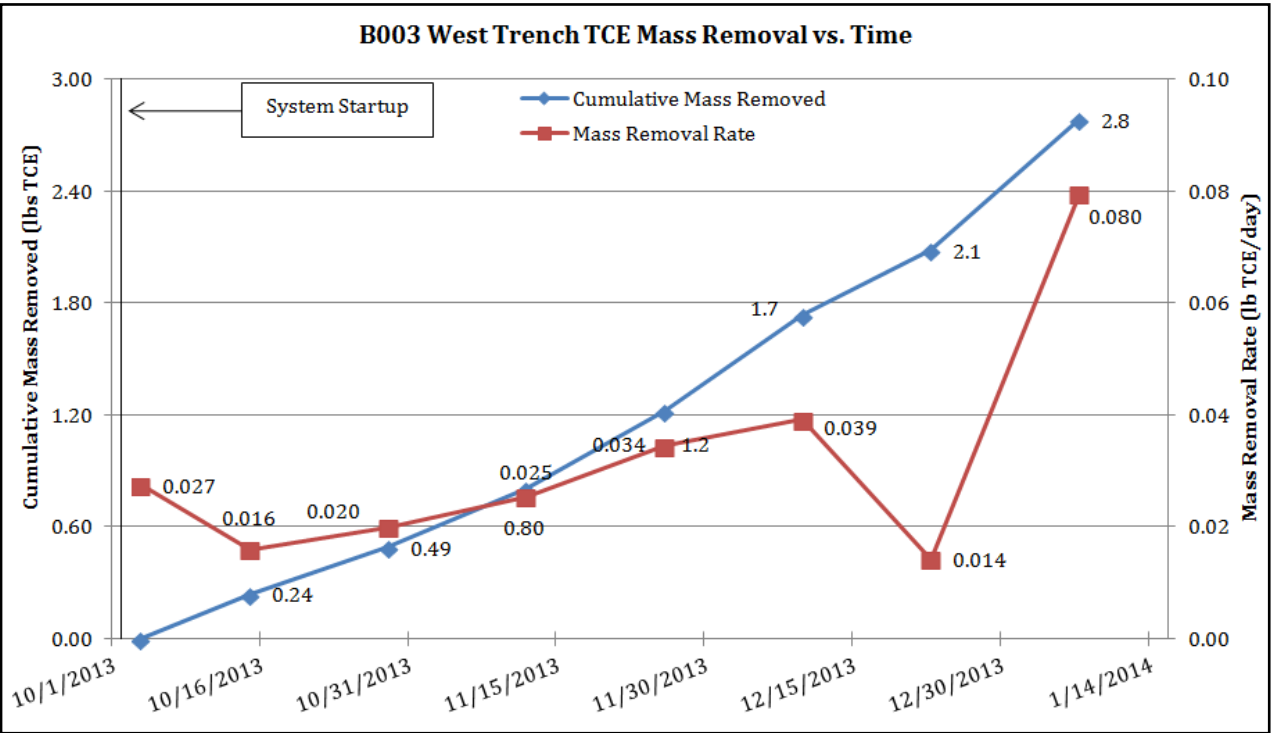
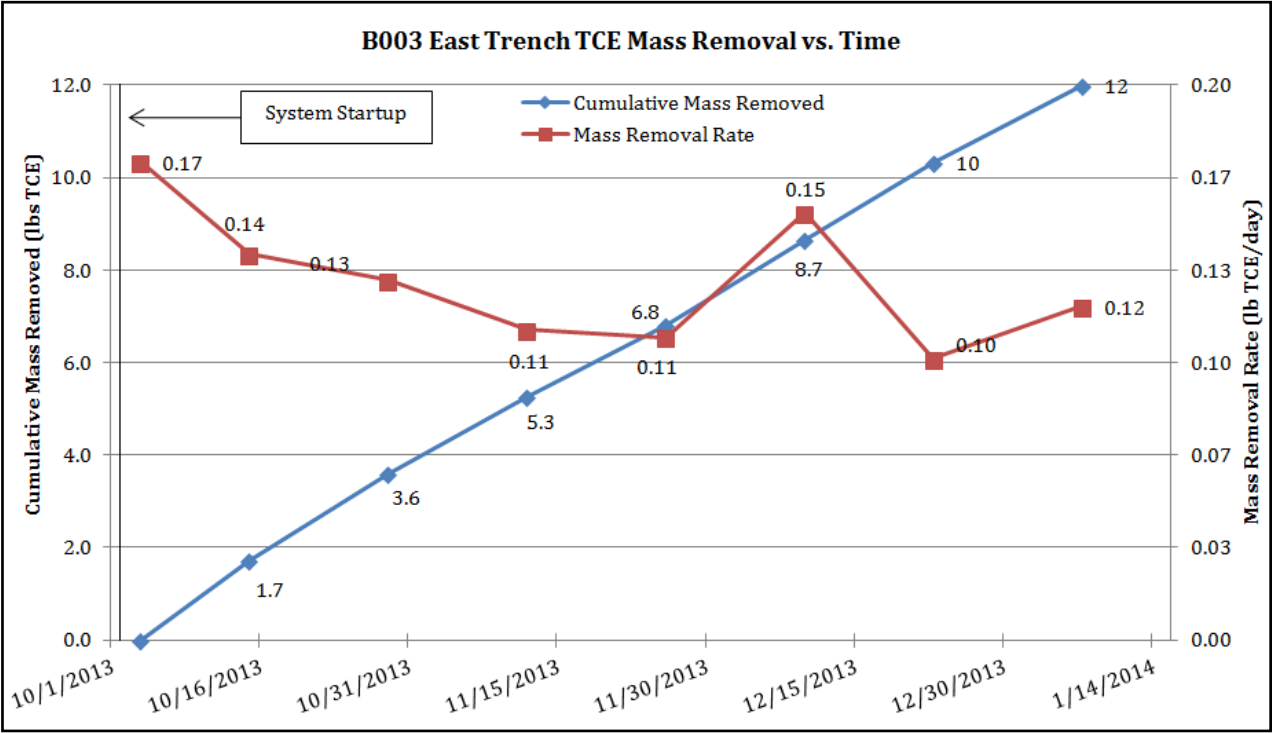
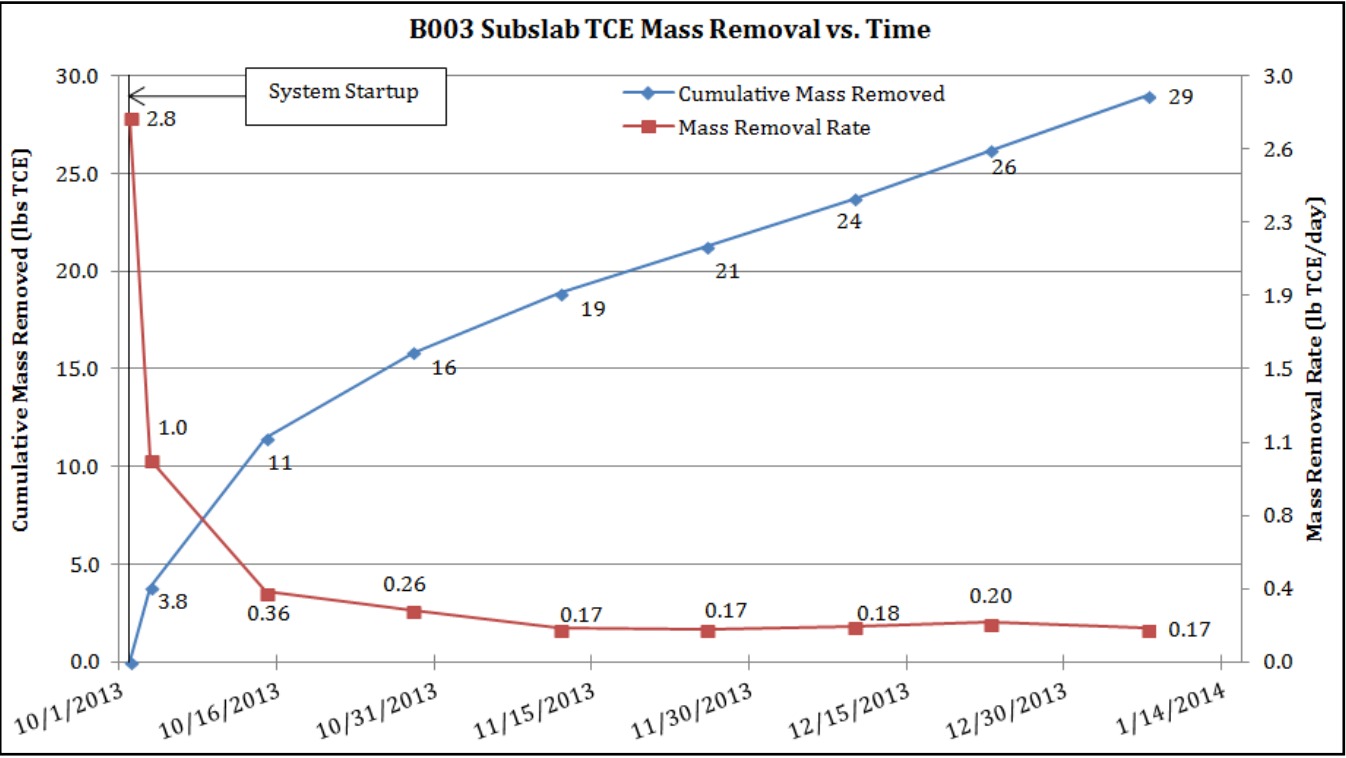


Figure 9
**Vapor Extraction System
TCE Mass Removal Versus
Time**

Performance Monitoring and Confirmatory
Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

Drawn By: E. Wright
Designed By: J. Sanborn
Reviewed By: D. Shea / B. Green
Project No: 3463.01
Date: February 2014

Figure Narrative
This figure shows time-series plots of trichloroethene (TCE) mass removal rates and cumulative mass removed for the B003 vapor extraction systems (subslab, east trench, and west trench systems). The calculated mass removed is based on TCE concentrations from Summa samples collected from the influent of the granular activated carbon (GAC) vessels for each system.

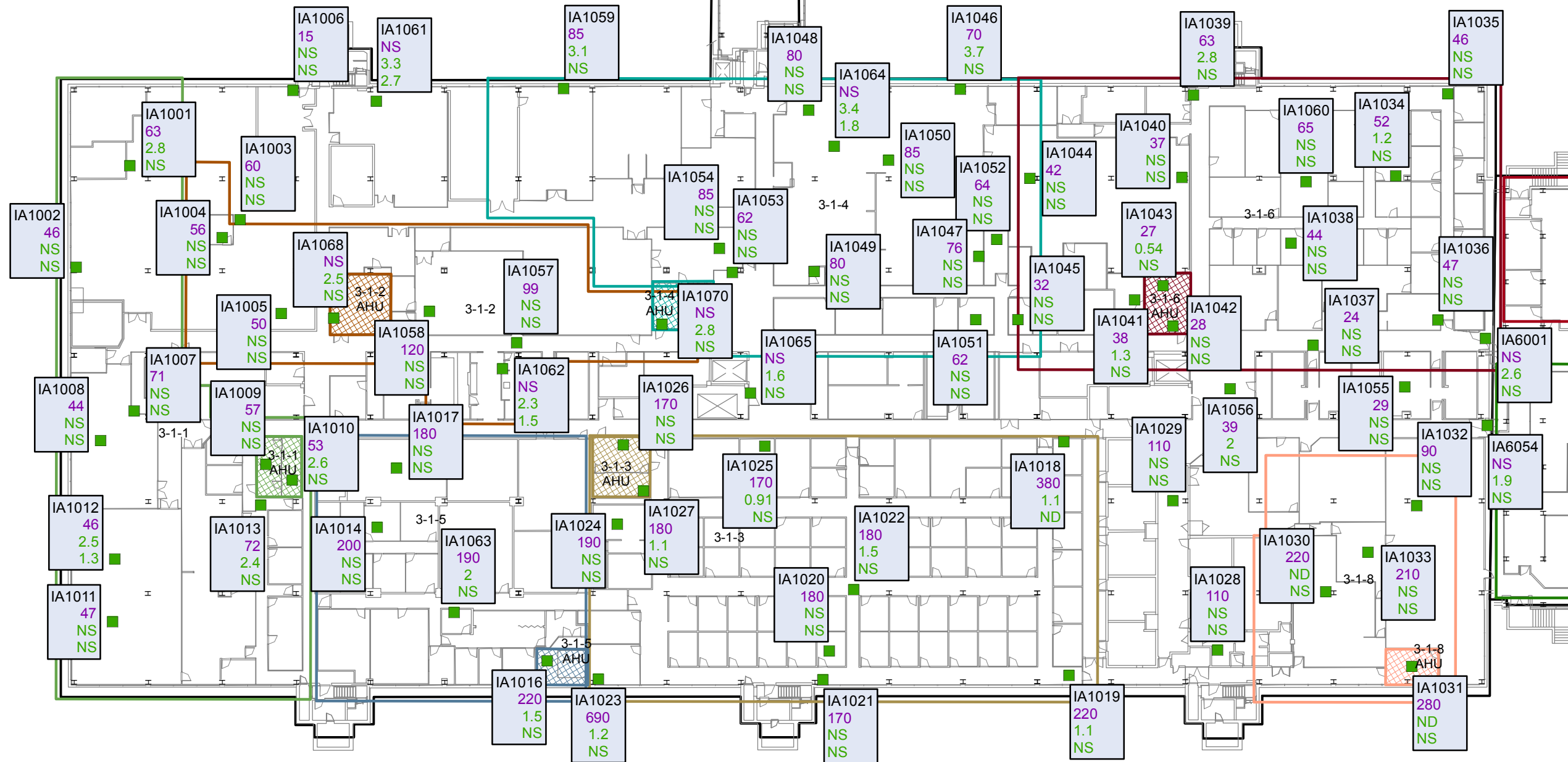


Figure 10 Summary of TCE Screening Results in Indoor Air (Portable GC/MS)

Performance Monitoring and Confirmatory
Sampling Results
Building 003 Vapor Extraction System

IBM Poughkeepsie Facility
Poughkeepsie, New York

Drawn By: E. Wright
Designed By: J. Sanborn
Reviewed By: D. Shea
Project No: 3463.01
Date: February 2014

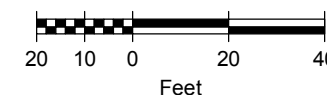
Figure Narrative

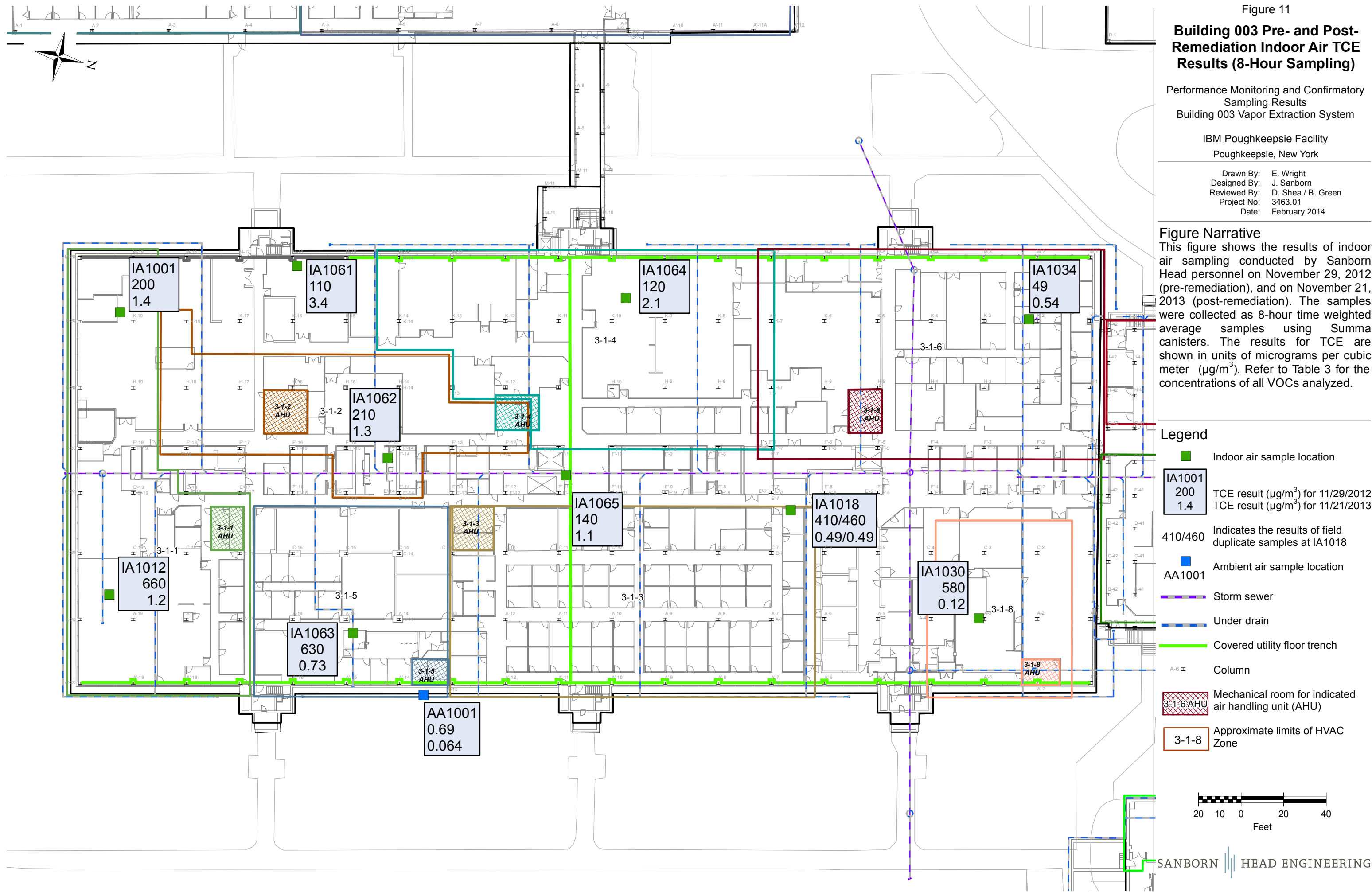
This figure shows the results of indoor air screening for TCE using a portable gas chromatograph/mass spectrometer (GC/MS). The portable GC/MS results should be considered screening level only. The results are shown in units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Indoor air screening was conducted in November 2012, October 2013, and November 2013. November 2012 screening was conducted prior to any modifications being made to document baseline conditions. October/November 2013 screening was conducted after operation of the vapor extraction system was initiated.

Legend

- Indoor air location
- | | |
|--------|---|
| IA1041 | Sample name |
| 38 | Nov. 2012 TCE result ($\mu\text{g}/\text{m}^3$) |
| 1.3 | October 2013 TCE result ($\mu\text{g}/\text{m}^3$) |
| NS | November 2013 TCE result ($\mu\text{g}/\text{m}^3$) |
- NS Indicates not sampled
- ND Indicates not detected
- 3-1-6 AHU Mechanical room for indicated air handling unit (AHU)
- 3-1-8 Approximate limits of HVAC Zone





APPENDIX A

LIMITATIONS

APPENDIX A

LIMITATIONS

1. The findings and conclusions described in this report are based in part on the data obtained from a finite number of samples from widely spaced locations. The figures are intended to depict inferred conditions during a given period of time, consistent with available information. The actual conditions will vary from that shown, both spatially and temporally. Other interpretations are possible. The nature and extent of variations between sampling locations may not become evident until further investigation is initiated. If variations or other latent conditions then appear evident, it may be necessary to re-evaluate the conclusions of this report.
2. The conclusions contained in this report are based in part upon various types of chemical data, as well as historical and hydrogeologic information developed by previous investigators. While SHPC has reviewed that data available to us at the time the report was prepared and information as stated in this report, any of SHPC's interpretations and conclusions that have relied on that information will be contingent on its validity. SHPC has not performed an independent assessment of the reliability of the data; should additional chemical data, historical information, or hydrogeologic information become available in the future, such information should be reviewed by SHPC and the interpretations and conclusions presented herein may be modified accordingly.
3. Sampling and quantitative laboratory testing was performed by others as part of the investigation as noted within the report. Where such analyses have been conducted by an outside laboratory, unless otherwise stated in the report, SHPC has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data. It must be noted that additional compounds not searched for during the current study may be present in vapor and groundwater at the site. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their distribution within the groundwater and vapor may occur due to the passage of time, seasonal water table fluctuations, recharge events, and other factors.
4. This report has been prepared for the exclusive use of IBM for specific application to Building 003 at the Poughkeepsie facility in accordance with generally accepted engineering and scientific practices. No warranty, expressed or implied, is made. The contents of this report should not be relied on by any other party without the express written consent of SHPC.
5. In preparing this report, SHPC has endeavored to conform to generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. SHPC has attempted to observe a degree of care and skill generally exercised by the technical community under similar circumstances and conditions.

APPENDIX B.1

SUMMARY OF FIELD METHODS AND QA/QC

APPENDIX B.1

SUMMARY OF FIELD METHODS AND QA/QC

B.1 INTRODUCTION

This appendix describes the field methods, and data quality assurance/quality control (QA/QC) evaluations and results, associated with the Building 003 (B003) vapor extraction system performance monitoring and confirmatory sampling at IBM's Poughkeepsie facility. Field procedures and data QA/QC measures were conducted in general accordance with the standard operating procedures (SOP) provided in IBM's VOC Source Assessment RFI Work Plan (RFI Work Plan).

Tabular summaries of the data described below are provided in Tables 1 and 3 of the main report. The Site-specific analyte list referenced below was presented in the RFI Work Plan and includes the following volatile organic compounds (VOCs): chloroethane (CA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (c-1,2-DCE), trans-1,2-dichloroethene (t-1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC).

B.2 INDOOR AIR SCREENING

B.2.1 Field Methods

Indoor air screening on the first floor of B003 was conducted using an Inficon HAPSITE Smart field-portable gas chromatograph/mass spectrometer (GC/MS) (i.e., HAPSITE). The HAPSITE was used as an air-screening device for 6 of the 8 of the Site-specific VOCs¹. Screening was conducted on October 22, 2013, following the startup of the vapor extraction system; and on November 21, 2013 prior to the deployment of SUMMA canisters for indoor air sampling.

The HAPSITE was calibrated to vendor-prepared standards ranging from 0.5 to 50 parts per billion by volume (ppbv) for the target analytes, and the samples were screened in selective ion monitoring (SIM) mode. Reporting limits were generally based on the lowest point on the calibration curve. However, the reporting limit for PCE and TCE was adjusted to 0.1 ppbv based on the linearity of the calibration curve for those compounds, and because the HAPSITE has a strong response to those compounds at concentrations down to 0.1 ppbv.

HAPSITE sample collection and analysis takes approximately 6 minutes. The line is purged for 1 minute to remove remnants of previous samples, then the concentrator tube is filled for 1 minute. The mass collected in the concentrator is then pumped through the GC/MS for analysis. Total analysis time is approximately 4 minutes and is based on the elution time of the analytes. Prior to HAPSITE screening, the indoor air locations were screened with a photoionization detector (PID).

¹ The HAPSITE was not calibrated for chloroethane or vinyl chloride; therefore, these compounds were not reported.

B.2.2 QA/QC Evaluation

The objective of HAPSITE field screening was to obtain general, order-of-magnitude understanding of VOC concentrations to inform and adjust the focus of the field activities in real time. The HAPSITE data is not intended to support final decisions. Nevertheless, the following QA/QC measures were taken to support evaluation of the field screening data.

Outside air blanks were collected through a carbon filter into the HAPSITE from locations outside of B003 at the beginning of each day. In the event that the blank analysis results indicated that one of the analytes (particularly TCE) had been detected, a “cleaning” method would be run on the HAPSITE. This method runs a blank sample at high temperature to facilitate the removal of chemical traces from previous sampling rounds. The outside air blank was then repeated. This process was generally repeated until satisfactorily low concentrations in the outside air blank analysis had been achieved. Where outside air blank sample results were not reported as “non-detect”, indoor air results similar to (and therefore not discernible from) those recorded for blanks were assumed to be associated with the HAPSITE operating environment and/or residual VOC presence in the HAPSITE column and were therefore considered to be less than the reporting limit of the instrument.

In addition, a grab indoor air sample was collected into a 2.7-liter pre-evacuated SUMMA canister at indoor air screening location IA1025 immediately after the HAPSITE screening sample was collected in October 2013. The sample was submitted for laboratory analysis by USEPA Method TO-15 in SIM mode. The purpose of the grab SUMMA sample was to obtain an understanding of the general comparability of the HAPSITE screening results with the results of a sample subject to laboratory analysis. The results for the grab SUMMA sample are shown on Table 1. Although the HAPSITE screening and grab SUMMA sample are not true field duplicate samples because the sample time intervals and volumes are different for each method, the TCE results indicate order-of-magnitude agreement.

A QA/QC review of the HAPSITE results was conducted in the office at the analyte level by reviewing the HAPSITE output files and chromatographs. The instrument reports values based on the quality of fit of chromatograph peaks and ion pairs, both within and outside of the calibration range. Compounds with a fit of less than 80% were flagged for further consideration during the office QA/QC process. Other factors that were considered when reviewing the data included ion ratios, retention times, and daily blank sample results. Results identified as “false positives” based on this data review were considered to be less than the reporting limit for that compound.

B.3 8-HOUR INDOOR AIR SAMPLING

B.3.1 Field Methods

SUMMA canisters were used to collect 8-hour time-weighted-average indoor air samples at ten locations on the first floor of B003 on November 21, 2013. The indoor air samples were collected in accordance with the Indoor and Ambient Air Sampling SOP included in Appendix A.1 of the RFI Work Plan. The samples were collected into 2.7-liter pre-

evacuated SUMMA canisters at a height of approximately 3.5 feet above the floor. SUMMA canisters were submitted to Alpha Analytical of Mansfield, MA (Alpha) for laboratory analysis of the eight site-specific VOCs using USEPA Method TO-15 in SIM mode. A summary of sampling information for the air samples is provided in Table 2.

B.3.2 QA/QC Evaluation

Field and laboratory QA/QC measures were implemented for the November 21, 2013 8-hour indoor air samples in accordance with Table B.1 of the RFI Work Plan QA/QC Plan. Field QA/QC samples included collection of one field duplicate sample, one ambient air sample, and one field blank using ultra-high purity nitrogen provided by the laboratory.

Analytical data was provided to New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts for an independent third-party data usability review (DUR). NEH's DUR report is presented as Appendix D.

NEH's evaluation included a review of sample data to verify that the laboratory performed the analyses in compliance with the analytical methods required, and to verify consistency with the QA/QC Plan requirements. The evaluation was conducted in accordance with the USEPA and NYSDEC guidelines for data validation of organic data. NEH prepared a Data Usability Report that summarized the QC issues that required action (i.e., qualification of data) and compared QA/QC criteria to the data quality objectives (DQOs) described in the Work Plan.

In summary, NEH found the data to be usable in accordance with the project DQOs subject to a few minor qualifications. Section 4.0 of the main report provides a summary of the QA/QC considerations noted by NEH.

S:\CONDATA\3400s\3463.01\Source Files\201402 Perf Mon & Sampling Report\App B\App B1 Field Methods.docx

APPENDIX B.2

PHOTOGRAPH LOG

APPENDIX B.2

PHOTOGRAPH LOG



Photo #1: Sample IA1001, located in the DI Water Treatment Room.



Photo #2: Sample IA1012, located in SAIL Lab (server room).



Photo #3: Sample IA1018 and DUP1, located in office 1-F-2 (former coffee room).



Photo #4: Sample IA1030, located in vacant former manufacturing area.



Photo #5: Sample IA1034, located in office K-3.



Photo #6: Sample IA1061, located in Recycle Water Room.



Photo #7: Sample IA1062, located in vending area.



Photo #8: Sample IA1063, located in office 1-A-20.



Photo #9: Sample IA1064, located in former Mail Services (subslab vapor extraction equipment room).

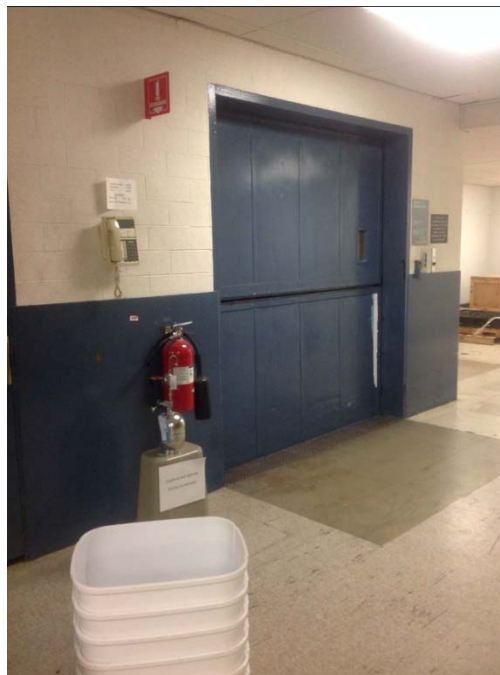


Photo #10: Sample IA1065, located in walkway/elevator entrance.



Photo #11: Sample AA1001, located at exterior intake for AHU 3-1-5.



Photo #12: Field Blank, located at the SE exterior of building, near Stair #18.

APPENDIX C

LABORATORY ANALYTICAL REPORT



December 13, 2013

Alpha Analytical Deliverable Package Narrative

Alpha SDG: L1323970

Client: Sanborn, Head & Associates

Site: IBM-POK

This data deliverable package replaces the package issued on December 6, 2013. The report has been revised at the request of the client to remove the sample designated IA8005\G, L1323970-01 (formerly IA7005\G) from this report.

LT





www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L1323970

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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Project Name: IBM-POK
Project Number: 3463.00

Lab Number: L1323970
Report Date: 12/12/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1323970-02	IA1034	POUGHKEEPSIE, NY	11/21/13 18:11
L1323970-03	IA1030	POUGHKEEPSIE, NY	11/21/13 18:19
L1323970-04	IA1018	POUGHKEEPSIE, NY	11/21/13 18:24
L1323970-05	DUP1	POUGHKEEPSIE, NY	11/21/13 18:26
L1323970-06	IA1065	POUGHKEEPSIE, NY	11/21/13 18:30
L1323970-07	IA1064	POUGHKEEPSIE, NY	11/21/13 18:34
L1323970-08	IA1062	POUGHKEEPSIE, NY	11/21/13 18:37
L1323970-09	IA1061	POUGHKEEPSIE, NY	11/21/13 18:40
L1323970-10	IA1001	POUGHKEEPSIE, NY	11/21/13 18:44
L1323970-11	IA1063	POUGHKEEPSIE, NY	11/21/13 18:47
L1323970-12	FB1	POUGHKEEPSIE, NY	11/21/13 19:09
L1323970-13	AA1001	POUGHKEEPSIE, NY	11/21/13 19:05
L1323970-14	IA1012	POUGHKEEPSIE, NY	11/21/13 19:19
L1323970-15	UNUSED CAN 177	POUGHKEEPSIE, NY	
L1323970-16	UNUSED CAN 120	POUGHKEEPSIE, NY	
L1323970-17	UNUSED CAN 381	POUGHKEEPSIE, NY	
L1323970-18	UNUSED CAN 258	POUGHKEEPSIE, NY	



Project Name: IBM-POK
Project Number: 3463.00

Lab Number: L1323970
Report Date: 12/12/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

REISSUE

Project Name: IBM-POK
Project Number: 3463.00

Lab Number: L1323970
Report Date: 12/12/13

Case Narrative (continued)

Report Submission

This report replaces the report previously issued on December 4, 2013. The report has been revised at the request of the client to remove the sample designated IA8005\G, L1323970-01 (formerly IA7005\G) from this report.

The removal of this sample also removes the laboratory duplicate results from this report.

REISSUE

Report Submission

This report replaces the report previously issued on December 3, 2013. The report has been revised to add information about the flow controller for the -03 sample.

Volatile Organics in Air

Canisters were released from the laboratory on October 30, 2013. The canister certification results are provided as an addendum.

The flow controller listed on the chain of custody form for the sample designated IA1030 (L1323970-03) is 0281 but should be 0285. The client was able to verify that 0285 was the flow controller ID number associated with this sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Report Date: 12/12/13

Title: Technical Director/Representative



List of Organic Method Qualifiers

Table 1

Qualifier (Q)	Description
B	Entered if the analyte is found in the associated blank as well as the sample.
C	Applied to pesticide results when the identification has been confirmed by GC/MS.
D	Included when the all identified compounds in the analysis are at the secondary dilution factor.
E	Identified compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value, may indicate one of the following, depending on the situation: (1) The reported value is estimated and below the MDL. (2) Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the identification criteria, but the results is less than the quantitation limit, but greater than zero. (3) QC associated with this analyte is within warning limits.
N	Included for TIC that indicate presumptive evidence of a compound.
U	Entered if the analyte was analyzed for, but not detected.
P	Used for a pesticide/Aroclor target analyte when the concentration difference between 2 GC columns is greater than 25%; the lower value is flagged with a "P".
EMPC	"Estimated Maximum Possible Concentration" – The amount of analyte cannot be accurately quantified, so a maximum concentration has been estimated for the compound.
"XYZ"	"Wildcard" or Laboratory defined qualifier.

Note: Form I allows only one character in each qualifier column. If multiple qualifiers are applicable, please assess qualifier priority in the following order: U, E, J, B, D, C, P, N. Reporting done in the EDD may include multiple qualifiers when applicable, separated by a single space.

(Information obtained from NYSDEC ASP Exhibit B, 7/2005, page 64)





List of Inorganic Method Qualifiers

Table 2

Qualifier	Column (1)	Description
Concentration qualifiers		
B	C	Entered if the reported value was less than the CRDL, but greater than the IDL.
U	C	Entered if the analyte was analyzed for, but not detected.
J	C	Entered if the reported value is estimated and below the MDL.
*	C	Duplicate precision exceeds RPD limit.
M	C	Replicate precision exceeds RPD limit.
"XYZ"	C	"Wildcard" or Laboratory defined qualifier.
Qualifier specific entries		
E	Q	Entered if the reported value is estimated because of the presence of interferences.
Method qualifiers		
A	M	Flame atomic absorption
AS	M	Semi-automated spectrophotometric
AV	M	Automated cold vapor atomic absorption
C	M	Manual spectrophotometric
F	M	Furnace atomic absorption
MS	M	Mass spectrometry (ICP-MS)
NR	M	Analyte is not required to be analyzed
P	M	Inductively coupled plasma (ICP)
" "	M	No data have been entered

(1) The term "Column" is used to indicate under which column heading in the reporting forms that the qualifier will be found under.

Note: Form I allows only one character in each qualifier column. If multiple qualifiers are applicable to column C, please assess qualifier priority in the following order: U, J, B. Reporting done in the EDD may include multiple qualifiers when applicable, separated by a single space.

(Information obtained from NYSDEC ASP Exhibit B, 7/2005, page 65)





Volatile Organics Instruments

Volatile Organics: Jack

Instrument: Agilent 5975MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: EST Encon
Autosampler: EST Centurion
Purge time: 11 min

Column Type: RTX-VMS
Column Length: 20 Meters
df: 1.00um
ID: 0.18mm
Desorb: 2 min

Volatile Organics: Quimby

Instrument: Agilent 5973MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: EST Encon
Autosampler: EST Centurion
Purge time: 11 min

Column Type: RTX-VMS
Column Length: 20 Meters
df: 1.00um
ID: 0.18mm
Desorb: 2 min

Volatile Organics: Curly

Instrument: Agilent 5972 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Tekmar 3000
Autosampler: Archon
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: Elaine

Instrument: Agilent 5973 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Teledyne Velocity
Autosampler: Teledyne Solatek
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: Gonzo

Instrument: Agilent 5973 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Teledyne Velocity
Autosampler: Teledyne Solatek
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: VOA101

Instrument: Agilent 5975C inert XL MSD
Trap: EST K Trap (VOCARB 3000)
Concentrator: Encon Evolution
Autosampler: EST Centurion
Purge time: 11 min

Column Type: Restek RTX-VMS
Column Length: 30 Meters
df: 1.40 μ m
ID: 0.25 mm
Desorb: 1 min

Volatile Organics: Charlie/Voa100/Voa104

Instrument: Agilent 5975C MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Encon Evolution
Autosampler: EST Centurion
Purge time: 11 min

Column Type: Agilent DB-624
Column Length: 25 Meters
df: 1.12 μ m
ID: 0.20 mm
Desorb: 2 min

Volatile Organics: M

Instrument: Agilent 6890

Concentrator: Tekmar 2016
Autosampler: Tekmar 3100

Column Type: Restek RTX 502.2
Column Length: 105 Meters
df: 3.00 μ m
ID: 0.53 mm

Volatile Organics: L/N

Instrument: Agilent 6890

Concentrator: Encon Evolution
Autosampler: EST Archon

Column Type: Restek RTX 502.2
Column Length: 105 Meters
df: 3.00 μ m
ID: 0.53 mm

Volatile Organics: O/P

Instrument: Agilent 7890A

Concentrator: Encon Evolution
Autosampler: EST Centurion

Column Type: Restek RTX 502.2
Column Length: 105 Meters
df: 3.00 μ m
ID: 0.53 mm

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instrument: Agilent 6890 GC / 5975 MSD

Concentrator: Entech 7100A
Autosampler: Entech 7016CA

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Column Type: Restek RTX-1
Column Length: 60 Meters
df: 1.00 μ m
ID: 0.52 mm

Semivolatile Organics Instruments

Semivolatile Organics (Acid/Base/Neutral Extractables): Juliet/ Gcms5/Gcms7

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SIL MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (Acid/Base/Neutral Extractables): Buffy

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (Acid/Base/Neutral Extractables): Juliet/GCMS5

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM: Dakota/ Mork

Instrument: Agilent 5973 MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM: Mindy

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SIL MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Pesticides/PCB : Pest 11/Pest2/Pest7/Pest12

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek RTX-CLP (Channel A)	df: 0.32 um
Column: Restek RTX-CLPPesticide II (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Pesticides/PCB: Pest 10/ Pest9

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek STX-CLP (Channel A)	df: 0.32 um
Column: Restek STX-CLPPesticide II (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Herbicides

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek RTX-1701 (Channel A)	df: 0.25 um
Column Type: Restek RTX-5 (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Petro9

Instrument: Agilent 6890 w/FID
Column: Restek RTX-5-MS
Column Length: 30 Meters

Injection Volume: 1uL
df: 0.25 um
ID: 0.32 mm

EPH Petro10/ Petro11

Instrument: Agilent 6890N w/FID
Column: Restek RTX-5-MS
Column Length: 30 Meters

Injection Volume: 1uL
df: 0.25um
ID: 0.32 mm

Explosives

Instrument: Dionex ICS-3000, AS50 Autosampler and PDA-100 detectors.
Injection Volume: 100uL
Column: Phenomenex Synergi 4u Hydro-RP and Luna 5u Phenyl-Hexyl

GC/MS Forensic Semivolatile Organic instruments

Semivolatile Organics (ALK-PAH extractables): PAH1/PAH2/PAH3/PAH4

Instrument: Agilent 5973C MSD
Column Type: Phenomenex ZB-5
Column Length: 60 Meters

Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (ALK-PAH extractables): PAH8/PAH9/PAH10/PAH11/PAH12/PAH13/PAH14

Instrument: Agilent 5975C MSD
Column Type: Phenomenex ZB-5
Column Length: 60 Meters

Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (ALK-PAH extractables): PAH17/PAH18/PAH19

Instrument: Agilent 5975C MSD
Column Type: Phenomenex ZB-5
Column Length: 60 Meters

Injection volume: 1ul
df: 0.25um
ID: 0.25mm

GC/FID Forensic Semivolatile Organic instruments

Semivolatile Organics (SHC extractables):PAH1/PAH2/PAH3/PAH4/PAH8

Instrument: Agilent 6890N w/FID
Column Type: Restek RTX-5
Column Length: 60 Meters

Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (SHC extractables): FID6 (dual column)/ FID9 (dual column)/ FID17 (dual column)

Instrument: Agilent 6890N w/FID
Column Type: Restek RTX-5
Column Length: 60 Meters

Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (SHC extractables):FID7 (dual column)

Instrument: Agilent 7890N w/FID

Injection volume: 1ul

Column Type: Restek RTX-5

df: 0.25um

Column Length: 60 Meters

ID: 0.25mm





Sample Delivery Group Form

Laboratory Job number: L1323970

Project Number: 3463.00

Project Name: IBM-POK

Received: 11/22/2013 08:10

Client Account: Envirotest Laboratories Inc.

Received by: KL

Samples Delivered by: COURIER

Call Tracker #

Bill Of Laden N/A

Trackingnum

Coc Present Present

Container Status Intact

Sample IDs

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A

Are samples Properly Preserved? Yes

Initial pH preserved in house with

Final pH

Other Issues

Chlorine Check N/A

Are VOA/VPV Vials Present? No

Aqueous: Do Vials Contain Head Space? N/A

Soils: Is MeOH Covering the Soil? N/A

Reagent H2O Preserved vials Frozen on N/A

Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
N/A	Absent	No	No	-	No	No

Project Manager: Chris Anderson

Review Date: 12/11/2013

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 12 2013, 03:27 pm

Login Number: L1323970

Account: ETESTIBM Envirotest Laboratories Inc. Project: 3463.00

Received: 22NOV13 Due Date: 02DEC13
Mat PR Collected Container

Sample #	Client ID			
L1323970-02	IA1034	10	S0	21NOV13 18:11 1-Can-2.7
Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction Package Due Date: 12/03/13				
ASP-B, CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM				
L1323970-03	IA1030	10	S0	21NOV13 18:19 1-Can-2.7
Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction Package Due Date: 12/03/13				
CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM				
L1323970-04	IA1018	10	S0	21NOV13 18:24 1-Can-2.7
Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction Package Due Date: 12/03/13				
CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM				
L1323970-05	DUP1	10	S0	21NOV13 18:26 1-Can-2.7
Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction Package Due Date: 12/03/13				
CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM				
L1323970-06	IA1065	10	S0	21NOV13 18:30 1-Can-2.7
Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction Package Due Date: 12/03/13				
CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM				
L1323970-07	IA1064	10	S0	21NOV13 18:34 1-Can-2.7
Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction Package Due Date: 12/03/13				
CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 12 2013, 03:27 pm

Login Number: L1323970

Account: ETESTIBM Envirotest Laboratories Inc. Project: 3463.00

Sample # Client ID Received: 22NOV13 Due Date: 02DEC13
Mat PR Collected Container

L1323970-08 IA1062 10 S0 21NOV13 18:37 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

L1323970-09 IA1061 10 S0 21NOV13 18:40 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

L1323970-10 IA1001 10 S0 21NOV13 18:44 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

L1323970-11 IA1063 10 S0 21NOV13 18:47 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

L1323970-12 FB1 10 S0 21NOV13 19:09 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

L1323970-13 AA1001 10 S0 21NOV13 19:05 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 12 2013, 03:27 pm

Login Number: L1323970

Account: ETESTIBM Envirotest Laboratories Inc. Project: 3463.00

Sample # Client ID Received: 22NOV13 Due Date: 02DEC13
Mat PR Collected Container

L1323970-14 IA1012 10 S0 21NOV13 19:19 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-CERT-SIM, CAN-RENT, FLOW-CERT, FLOW-RENT, NYSDEC-T015-SIM

L1323970-15 UNUSED CAN 177 10 S0 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-RENT, CLEAN-FEE, FLOW-RENT

L1323970-16 UNUSED CAN 120 10 S0 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-RENT, CLEAN-FEE, FLOW-RENT

L1323970-17 UNUSED CAN 381 10 S0 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-RENT, CLEAN-FEE, FLOW-RENT

L1323970-18 UNUSED CAN 258 10 S0 1-Can-2.7

Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's
Instruction Package Due Date: 12/03/13

CAN-RENT, CLEAN-FEE, FLOW-RENT



AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn Head & Associates

Address: 20 Foundry St
Concord NH

Phone: 603-229-1900

Fax: _____

Email: j.sanborn@sanbornhead.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Site-specific analyte list

Project Information

Project Name: IBM-POL

Project Location: NY

Project #: 3463.00

Project Manager: Jenn Sanborn

ALPHA Quote #: _____

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: _____

Time: _____

Date Rec'd in Lab: _____

Report Information - Data Deliverables

☐ FAX

☒ ADEx

Criteria Checker: _____

(Default based on Regulatory Criteria Indicated)

Other Formats: _____

☒ EMAIL (standard pdf report)

☐ Additional Deliverables: _____

Report to: (if different than Project Manager) _____

ALPHA Job #: L1323970

Billing Information

☒ Same as Client info PO #: 3463.00

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A	TO-15	TO-153	APH	FIXED C	TO-13A	TO-41	Sample Comments (i.e. PID)
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum														
01	IA7005 ⁵ (REW) / G	11/20/13	20:44	Grab	29.5	1.5	AA	REW	2.7L	231	A		X							PID = 50
02	IA1034	11/21/13	10:08	18:11	28.15	7.45	AA			1768	491		X							
03	IA1030	11/21/13	10:18	18:19	29.96	5.89	AA			255	281		X							Call Regan
04	IA1018		10:24	18:24	30	5.82	AA			147	129		X							Welch with
05	DUP 1		10:26	18:26	30	7.38	AA			185	292		X							questions
06	IA1065		10:30	18:30	29.88	10.56	AA			555	188		X							603-415
07	IA1064		10:34	18:34	30	7.50	AA			140	483		X							6123
08	IA1062		10:37	18:37	30	5.66	AA			488	484		X							
09	IA1061		10:39	18:40	30	11.61	AA			109	562		X							
10	IA1001		10:42	18:44	30	5.55	AA			187	291		X							

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill Gas/SVE

Other = Please Specify

Container Type

CS

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time:

Regan
Tom Cohen
JSA

11/22/13 0810

11/22/13 1708

11/22/13 2359

11/23/13 0400

Tom Cohen
JSA
Mansfield Lab

11/22/13 0810

11/22/13 1708

11/22/13 2359

11/23/13 0400



AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn Head & Associates

Address: 20 Foundry St.
Comond, NH 03301

Phone: 603-229-1900

Fax: _____

Email: jsanborn@sanbornhead.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Site-specific analyte list

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14	TO-15	TO-15	APH	FIXED	TO-13	TO-4	Sample Comments (i.e. PID)
		Date	Start Time	End Time	Initial Vacuum	Final Vacuum														
-11	IA1063	11/21/13	10:46	10:47	30	7.73	AA	REW	2.7	464	139		X							
-12	AA1001 FB1	11/21/13	11:09	1909	30	13.5	AA			456	541		X							Call Regan
73	FB1 AA1001	11/21/13	10:50	1905	30	4.20	AA			446	412		X							Welan
74	IA1012	11/21/13	11:17	1919	30	6.47	AA			457	280		X							with questions 603-415-6123

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

CS

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time:

Regan
Tom Toher
SA

11/22/13 1708
11-22-13 23:59
11/23/13 04:00

Tom Toher
SA
Mansfield Lab

11/22/13 8:19
11-22-13 1708
11/22/13 23:59
11/23/13 04:00

Organics

GC/MS VOA
Air Analysis
Selective Ion Monitoring

Volatiles QC Summary

3
LAB DUPLICATE
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1323970
Lab Sample ID : WG655026-6
Client Sample ID : IA8005\G

Matrix: Air
Injected: 11/27/13 17:48 Lab File ID: R226509

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
Vinyl chloride	ND	ND	NC	20
Chloroethane	ND	ND	NC	20
1,1-Dichloroethene	ND	ND	NC	20
trans-1,2-Dichloroethene	ND	ND	NC	20
1,1-Dichloroethane	ND	ND	NC	20
cis-1,2-Dichloroethene	ND	ND	NC	20
Trichloroethene	0.022	0.023	4	20
Tetrachloroethene	0.037	0.036	3	20

* Values outside of QC limits.

COMMENTS: _____

FORM III NYSDEC-T015-SIM

3
LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Lab Control Sample: WG655026-3LCS

Lab Control Dup : WG655026-4LCSD

Matrix: Air

Injected: 11/27/13 11:54

Injected: 11/27/13 12:26

Lab File ID: R226503

Lab File ID: R226504

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD REC.
Vinyl chloride	5	NA	5.06	101	5.23	105	4	20 70-130
Chloroethane	5	NA	5.17	103	5.20	104	1	20 70-130
1,1-Dichloroethene	5	NA	4.93	99	5.02	100	1	20 70-130
trans-1,2-Dichloroethene	5	NA	4.21	84	4.29	86	2	20 70-130
1,1-Dichloroethane	5	NA	5.04	101	5.12	102	1	20 70-130
cis-1,2-Dichloroethene	5	NA	5.37	107	5.48	110	3	20 70-130
Trichloroethene	5	NA	5.55	111	5.53	111	0	20 70-130
Tetrachloroethene	5	NA	5.50	110	5.57	111	1	20 70-130

* Values outside of QC limits.

COMMENTS: _____

FORM III NYSDEC-T015-SIM

3
LAB CONTROL/LAB CONTROL DUPLICATE SAMPLE RECOVERY
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Lab Control Sample: WG655026-9LCS

Lab Control Dup : WG655026-10LCSD

Matrix: Air

Injected: 12/02/13 11:10

Injected: 12/02/13 11:41

Lab File ID: R226523

Lab File ID: R226524

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD REC.
Vinyl chloride	5	NA	5.28	106	5.26	105	1	20 70-130
Chloroethane	5	NA	5.24	105	5.31	106	1	20 70-130
1,1-Dichloroethene	5	NA	4.99	100	5.02	100	0	20 70-130
trans-1,2-Dichloroethene	5	NA	4.30	86	4.34	87	1	20 70-130
1,1-Dichloroethane	5	NA	5.18	104	5.20	104	0	20 70-130
cis-1,2-Dichloroethene	5	NA	5.51	110	5.55	111	1	20 70-130
Trichloroethene	5	NA	5.24	105	5.24	105	0	20 70-130
Tetrachloroethene	5	NA	5.66	113	5.68	114	1	20 70-130

* Values outside of QC limits.

COMMENTS: _____

FORM III NYSDEC-T015-SIM

BFB Injection Time: 19:10

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Lab File ID: R226502_tune

BFB Injection Date: 11/27/13

Instrument ID: AIRPIAN02

BFB Injection Time: 11:22

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.6
75	30.0 - 60.0% of mass 95	46.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.3 (.3)1
174	Greater than 50.0 of mass 95	99.4
175	5.0 - 9.0% of mass 174	7.8 (7.9)1
176	95.0 - 101% of mass 174	98.2 (98.8)1
177	5.0 - 9.0% of mass 176	6.4 (6.5)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG655026-2	R226503	11/27/13	11:54
02	WG655026-3LCS	WG655026-3	R226503	11/27/13	11:54
03	WG655026-4LCSD	WG655026-4	R226504	11/27/13	12:26
04	WG655026-5BLANK	WG655026-5	R226505	11/27/13	13:31
05	FB1	L1323970-12	R226506	11/27/13	16:13
06	AA1001	L1323970-13	R226507	11/27/13	16:44
07	IA8005\GDUP	WG655026-6	R226509	11/27/13	17:48
08	IA1034	L1323970-02	R226510	11/27/13	18:21
09	IA1030	L1323970-03	R226511	11/27/13	18:53
10	IA1018	L1323970-04	R226512	11/27/13	19:25
11	DUP1	L1323970-05	R226513	11/27/13	19:57
12	IA1065	L1323970-06	R226514	11/27/13	20:29
13	IA1064	L1323970-07	R226515	11/27/13	21:01
14	IA1062	L1323970-08	R226516	11/27/13	21:33
15	IA1061	L1323970-09	R226517	11/27/13	22:06
16	IA1001	L1323970-10	R226518	11/27/13	22:37
17	IA1063	L1323970-11	R226519	11/27/13	23:09

8A
VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Lab File ID (Standard): R226503

Date Analyzed: 11/27/13

Instrument ID : AIRPIAN02

Time Analyzed: 11:54

	IS1 AREA	RT	IS2 AREA	RT	IS3 AREA	RT
=====	=====	=====	=====	=====	=====	=====
24 HOUR STD	180926	10.38	520889	12.56	100941	16.90
UPPER LIMIT	253296	10.71	729245	12.89	141317	17.23
LOWER LIMIT	108556	10.05	312533	12.23	60565	16.57
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 WG655026-3LCS	180926	10.38	520889	12.56	100941	16.90
02 WG655026-4LCSD	180581	10.38	524851	12.56	101090	16.91
03 WG655026-5BLANK	174671	10.38	510380	12.56	96699	16.91
04 FB1	179595	10.39	508122	12.56	98314	16.91
05 AA1001	175021	10.39	498089	12.56	97148	16.91
06 WG655026-6DUP	173667	10.39	493601	12.56	96946	16.91
07 IA1034	174397	10.38	495904	12.56	97005	16.91
08 IA1030	174630	10.39	496459	12.56	96763	16.91
09 IA1018	172151	10.39	487343	12.56	95524	16.91
10 DUP1	171109	10.39	486723	12.56	95078	16.91
11 IA1065	170740	10.39	483221	12.56	94598	16.91
12 IA1064	169911	10.39	494769	12.56	96090	16.91
13 IA1062	171120	10.39	494643	12.56	96151	16.91
14 IA1061	170600	10.39	486020	12.56	94318	16.91
15 IA1001	169136	10.39	484347	12.56	95098	16.91
16 IA1063	168297	10.39	479388	12.56	94506	16.91
17 WG655026-9LCS	188847	10.38	548831	12.56	104381	16.90

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

* Values outside of QC limits.

8A

Lab Name: Alpha Analytical Labs

SDG No. : L1323970

Lab File ID (Standard): R226523

Date Analyzed: 12/02/13

Instrument ID : AIRPIAN02

Time Analyzed: 11:10

[illegible]

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

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

* Values outside of QC limits.

Determination of Method Detection Limits

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 2

Analyst: AJ
Date: 5/7/2009
Instrument: Airpiano 2
Column ID: RTX-1

Method: TO-15SIM

2009

Approved

GC/MS

Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143						
		Date	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009						
		Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean ppbv	Mean Accuracy	Std Dev	MDL ppbv	RL ppbv	Comments
			ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv						
1	dichlorodifluoromethane	0.02	0.022	0.02	0.023	0.023	0.023	0.02	0.021	0.022	109%	0.001	0.004	0.50		
2	chloromethane	0.0522	0.048	0.047	0.048	0.049	0.049	0.046	0.047	0.048	91%	0.001	0.003	0.05		
3	Freon-114	0.02	0.023	0.021	0.024	0.023	0.024	0.021	0.024	0.023	114%	0.001	0.004	0.02		
4	vinyl chloride	0.02	0.022	0.021	0.022	0.023	0.023	0.019	0.023	0.022	109%	0.001	0.005	0.02		
5	1,3-butadiene	0.02	0.023	0.022	0.023	0.024	0.023	0.02	0.022	0.022	112%	0.001	0.004	0.02		
6	bromomethane	0.02	0.026	0.023	0.023	0.024	0.025	0.021	0.023	0.024	118%	0.002	0.005	0.02		
7	chloroethane	0.02	0.023	0.025	0.024	0.022	0.024	0.022	0.023	0.023	116%	0.001	0.003	0.02		
8	acetone	0.6446	0.545	0.559	0.517	0.537	0.542	0.552	0.566	0.545	85%	0.016	0.050	2.00		
9	acrylonitrile	0.02	0.023	0.024	0.02	0.022	0.022	0.034	0.02	0.024	118%	0.005	0.015	0.50		
10	1,1-dichloroethene	0.02	0.02	0.019	0.021	0.022	0.021	0.019	0.02	0.020	101%	0.001	0.003	0.02		
11	methylene chloride	0.2	0.237	0.243	0.233	0.233	0.25	0.266	0.299	0.252	126%	0.024	0.075	0.50		
12	Freon 113	0.02	0.021	0.021	0.023	0.022	0.022	0.019	0.021	0.021	106%	0.001	0.004	0.05		
13	Halothane	0.02	0.019	0.019	0.016	0.016	0.017	0.017	0.019	0.018	88%	0.001	0.004	0.05		
14	trans-1,2-dichloroethene	0.02	0.018	0.017	0.019	0.019	0.019	0.017	0.017	0.018	90%	0.001	0.003	0.02		
15	1,1-dichloroethane	0.02	0.019	0.019	0.018	0.017	0.019	0.018	0.018	0.018	91%	0.001	0.002	0.02		
16	MTBE	0.02	0.016	0.017	0.017	0.018	0.018	0.017	0.015	0.017	84%	0.001	0.003	0.02		
17	2-butanone	0.02	0.024	0.025	0.025	0.024	0.025	0.025	0.023	0.024	122%	0.001	0.002	0.50		
18	cis-1,2-dichloroethene	0.02	0.017	0.017	0.017	0.018	0.018	0.016	0.017	0.017	86%	0.001	0.002	0.02		
19	chloroform	0.02	0.019	0.018	0.018	0.018	0.019	0.017	0.018	0.018	91%	0.001	0.002	0.02		
20	1,2-dichloroethane	0.02	0.016	0.015	0.016	0.017	0.017	0.014	0.016	0.016	79%	0.001	0.003	0.02		
21	1,1,1-trichloroethane	0.02	0.017	0.018	0.018	0.017	0.018	0.016	0.018	0.017	87%	0.001	0.002	0.02		
22	benzene	0.0989	0.08	0.069	0.082	0.073	0.084	0.069	0.076	0.076	77%	0.006	0.019	0.07		
23	carbon tetrachloride	0.02	0.015	0.014	0.016	0.016	0.016	0.014	0.015	0.015	76%	0.001	0.003	0.02		
24	1,2-dichloropropane	0.02	0.015	0.016	0.015	0.015	0.016	0.016	0.016	0.016	78%	0.001	0.002	0.02		
25	bromodichloromethane	0.02	0.016	0.016	0.016	0.015	0.016	0.014	0.016	0.016	78%	0.001	0.002	0.02		
26	trichloroethene	0.02	0.019	0.019	0.02	0.02	0.02	0.018	0.019	0.019	96%	0.001	0.002	0.02		
27	cis-1,3-dichloropropene	0.02	0.015	0.014	0.014	0.015	0.016	0.013	0.014	0.014	72%	0.001	0.003	0.50		
28	4-methyl-2-pentanone	0.02	0.015	0.017	0.017	0.015	0.016	0.014	0.015	0.016	78%	0.001	0.004	0.50		
29	trans-1,3-dichloropropene	0.02	0.014	0.014	0.013	0.014	0.015	0.014	0.014	0.014	70%	0.001	0.002	0.02		
30	1,1,2-trichloroethane	0.02	0.018	0.017	0.016	0.017	0.018	0.015	0.016	0.017	84%	0.001	0.003	0.02		
31	toluene	0.0454	0.035	0.036	0.035	0.035	0.032	0.032	0.032	0.034	75%	0.002	0.006	0.02		
32	dibromochloromethane	0.02	0.017	0.017	0.016	0.016	0.017	0.016	0.016	0.016	82%	0.001	0.002	0.02		
33	1,2-dibromoethane	0.02	0.018	0.018	0.017	0.018	0.019	0.017	0.017	0.018	89%	0.001	0.002	0.02		
34	tetrachloroethene	0.02	0.019	0.019	0.02	0.02	0.02	0.019	0.019	0.019	97%	0.001	0.002	0.02		
35	1,1,1,2-tetrachloroethane	0.02	0.018	0.017	0.019	0.018	0.018	0.017	0.016	0.018	88%	0.001	0.003	0.02		
36	chlorobenzene	0.02	0.018	0.018	0.02	0.019	0.019	0.018	0.018	0.019	93%	0.001	0.002	0.02		
37	ethylbenzene	0.02	0.019	0.019	0.019	0.019	0.019	0.018	0.017	0.019	93%	0.001	0.002	0.02		
38	m+p-xylene	0.04	0.033	0.034	0.033	0.034	0.034	0.033	0.031	0.033	83%	0.001	0.003	0.04		
39	bromoform	0.02	0.016	0.016	0.015	0.016	0.016	0.015	0.015	0.016	78%	0.001	0.002	0.02		
40	styrene	0.04	0.039	0.037	0.039	0.04	0.043	0.039	0.039	0.039	99%	0.002	0.006	0.02		
41	1,1,2,2-tetrachloroethane	0.02	0.018	0.019	0.018	0.018	0.019	0.019	0.018	0.018	92%	0.001	0.002	0.02		
42	o-xylene	0.02	0.016	0.017	0.016	0.017	0.017	0.017	0.015	0.016	82%	0.001	0.002	0.02		
43	isopropylbenzene	0.02	0.016	0.017	0.016	0.016	0.017	0.016	0.015	0.016	81%	0.001	0.002	0.02		

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Approved

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Analyst: AJ

Date: 5/7/2009

Instrument: Airplane 2

Column ID: RTX-1

Method: TO-15SIM

2009

GC/MS

Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					Comments	
		Date	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009	5/7/2009	Mean ppbv	Mean Accuracy	Std Dev	MDL ppbv	RL ppbv		
		Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6							Rep 7
44	4-ethyl toluene	0.02	0.016	0.016	0.016	0.017	0.017	0.017	0.015	0.016	81%	0.001	0.002	0.02		
45	1,3,5-trimethylbenzene	0.02	0.016	0.017	0.016	0.017	0.017	0.017	0.015	0.016	82%	0.001	0.002	0.02		
46	1,2,4-trimethylbenzene	0.02	0.017	0.017	0.017	0.018	0.018	0.017	0.016	0.017	86%	0.001	0.002	0.02		
47	1,3-dichlorobenzene	0.02	0.02	0.02	0.02	0.021	0.021	0.02	0.019	0.020	101%	0.001	0.002	0.02		
48	1,4-dichlorobenzene	0.02	0.019	0.02	0.02	0.021	0.021	0.02	0.02	0.020	101%	0.001	0.002	0.02		
49	sec-butylbenzene	0.02	0.013	0.015	0.013	0.014	0.014	0.014	0.013	0.014	69%	0.001	0.002	0.5		
50	p-isopropyltoluene	0.02	0.013	0.014	0.014	0.014	0.014	0.014	0.013	0.014	69%	0.000	0.002	0.5		
51	1,2-dichlorobenzene	0.02	0.019	0.019	0.02	0.021	0.02	0.02	0.018	0.020	98%	0.001	0.003	0.02		
52	n-butylbenzene	0.02	0.014	0.014	0.014	0.016	0.015	0.014	0.013	0.014	71%	0.001	0.003	0.5		
53	1,2,4-trichlorobenzene	0.0377	0.026	0.027	0.027	0.027	0.027	0.029	0.026	0.027	72%	0.001	0.003	0.05		
54	naphthalene	0.02	0.019	0.019	0.019	0.02	0.018	0.018	0.017	0.019	93%	0.001	0.003	0.05		
55	1,2,3-Trichlorobenzene	0.02	0.017	0.017	0.018	0.018	0.017	0.016	0.015	0.017	84%	0.001	0.003	0.05		
56	hexachlorobutadiene	0.02	0.02	0.021	0.022	0.022	0.021	0.022	0.021	0.021	106%	0.001	0.002	0.02		
	Surrogates															
1	1,2-dichloroethane-D4	10	9.735	10.013	8.91	8.508	9.249	9.857	10.249	9.503	95%					
2	toluene-D8	10	10.737	11.118	9.698	9.603	9.935	10.831	10.892	10.402	104%					
3	bromofluorobenzene	10	9.58	10.042	8.583	8.764	9.176	9.876	9.917	9.420	94%					

Comments:

NO- Trichlorofluoromethane

Volatiles Sample Data

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-02
 Client ID : IA1034
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226510
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:11
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 18:21
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
79-01-6	Trichloroethene	0.100	0.020	0.007	0.537	0.107	0.038	
127-18-4	Tetrachloroethene	0.024	0.020	0.020	0.163	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-03
 Client ID : IA1030
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226511
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:19
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 18:53
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
79-01-6	Trichloroethene	0.023	0.020	0.007	0.124	0.107	0.038	
127-18-4	Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136	U

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-04
 Client ID : IA1018
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226512
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:24
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 19:25
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.020	0.020	0.083	0.079	0.079	
79-01-6	Trichloroethene	0.092	0.020	0.007	0.494	0.107	0.038	
127-18-4	Tetrachloroethene	0.022	0.020	0.020	0.149	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-05
 Client ID : DUP1
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226513
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:26
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 19:57
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.021	0.020	0.020	0.083	0.079	0.079	
79-01-6	Trichloroethene	0.091	0.020	0.007	0.489	0.107	0.038	
127-18-4	Tetrachloroethene	0.022	0.020	0.020	0.149	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-06
 Client ID : IA1065
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226514
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:30
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 20:29
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.025	0.020	0.020	0.099	0.079	0.079	
79-01-6	Trichloroethene	0.205	0.020	0.007	1.10	0.107	0.038	
127-18-4	Tetrachloroethene	0.029	0.020	0.020	0.197	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-07
 Client ID : IA1064
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226515
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:34
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 21:01
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	0.020	0.020	0.020	0.053	0.053	0.053	
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.116	0.020	0.020	0.460	0.079	0.079	
79-01-6	Trichloroethene	0.388	0.020	0.007	2.09	0.107	0.038	
127-18-4	Tetrachloroethene	0.033	0.020	0.020	0.224	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-08
 Client ID : IA1062
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226516
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:37
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 21:33
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.041	0.020	0.020	0.163	0.079	0.079	
79-01-6	Trichloroethene	0.237	0.020	0.007	1.27	0.107	0.038	
127-18-4	Tetrachloroethene	0.032	0.020	0.020	0.217	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-09
 Client ID : IA1061
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226517
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:40
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 22:06
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.168	0.020	0.020	0.666	0.079	0.079	
79-01-6	Trichloroethene	0.641	0.020	0.007	3.44	0.107	0.038	
127-18-4	Tetrachloroethene	0.024	0.020	0.020	0.163	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-10
 Client ID : IA1001
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226518
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:44
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 22:37
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.052	0.020	0.020	0.206	0.079	0.079	
79-01-6	Trichloroethene	0.265	0.020	0.007	1.42	0.107	0.038	
127-18-4	Tetrachloroethene	0.025	0.020	0.020	0.170	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-11
 Client ID : IA1063
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226519
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 18:47
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 23:09
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.046	0.020	0.020	0.182	0.079	0.079	
79-01-6	Trichloroethene	0.136	0.020	0.007	0.731	0.107	0.038	
127-18-4	Tetrachloroethene	0.020	0.020	0.020	0.136	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-12
 Client ID : FB1
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226506
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 19:09
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 16:13
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
79-01-6	Trichloroethene	0.011	0.020	0.007	0.059	0.107	0.038	J
127-18-4	Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136	U

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-13
 Client ID : AA1001
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226507
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 19:05
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 16:44
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
79-01-6	Trichloroethene	0.012	0.020	0.007	0.065	0.107	0.038	J
127-18-4	Tetrachloroethene	0.020	0.020	0.020	0.136	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : L1323970-14
 Client ID : IA1012
 Sample Location : POUGHKEEPSIE, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226526
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/21/13 19:19
 Date Received : 11/22/13
 Date Analyzed : 12/02/13 13:41
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	0.045	0.020	0.020	0.178	0.079	0.079	
79-01-6	Trichloroethene	0.229	0.020	0.007	1.23	0.107	0.038	
127-18-4	Tetrachloroethene	0.035	0.020	0.020	0.237	0.136	0.136	

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : WG655026-11
 Client ID : WG655026-11BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226525
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 12/02/13 12:39
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
79-01-6	Trichloroethene	ND	0.020	0.007	ND	0.107	0.038	U
127-18-4	Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136	U

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : WG655026-5
 Client ID : WG655026-5BLANK
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226505
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/27/13 13:31
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	0.053	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079	U
79-01-6	Trichloroethene	ND	0.020	0.007	ND	0.107	0.038	U
127-18-4	Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136	U

Form 1

Volatile Organics

Client : Envirotest Laboratories Inc.
 Project Name : IBM-POK
 Lab ID : WG655026-6
 Client ID : IA8005\GDUP
 Sample Location :
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R226509
 Sample Amount : 250 ml

Lab Number : L1323970
 Project Number : 3463.00
 Date Collected : 11/20/13 20:44
 Date Received : 11/22/13
 Date Analyzed : 11/27/13 17:48
 Dilution Factor : 1
 Analyst : RY
 Instrument ID : AIRPIANO2
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	0.007	ND	0.051	.02	U
75-00-3	Chloroethane	ND	0.020	0.020	ND	0.053	.02	U
75-35-4	1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	.02	U
156-60-5	trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	.02	U
75-34-3	1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	.02	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	.02	U
79-01-6	Trichloroethene	0.023	0.020	0.007	0.124	0.107	.02	
127-18-4	Tetrachloroethene	0.036	0.020	0.020	0.244	0.136	.02	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226506.D
 Acq On : 27 Nov 2013 4:13 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-12,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 28 07:01:03 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	179595	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		99.26%	
32) 1,4-difluorobenzene	12.56	114	508122	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		97.55%	
49) chlorobenzene-D5	16.91	54	98314	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		97.40%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	131489	9.603	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.03%	
51) toluene-D8	15.25	98	343349	9.377	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		93.77%	
64) bromofluorobenzene	18.08	95	240644	8.906	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		89.06%	
Target Compounds						
6) vinyl chloride	4.93		0		N.D.	
9) chloroethane	5.78		0		N.D.	
16) 1,1-dichloroethene	7.68		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.22		0		N.D.	
27) cis-1,2-dichloroethene	10.19		0		N.D.	
42) trichloroethene	13.36	130	228	0.011	ppbV	94
55) tetrachloroethene	16.38		0		N.D.	

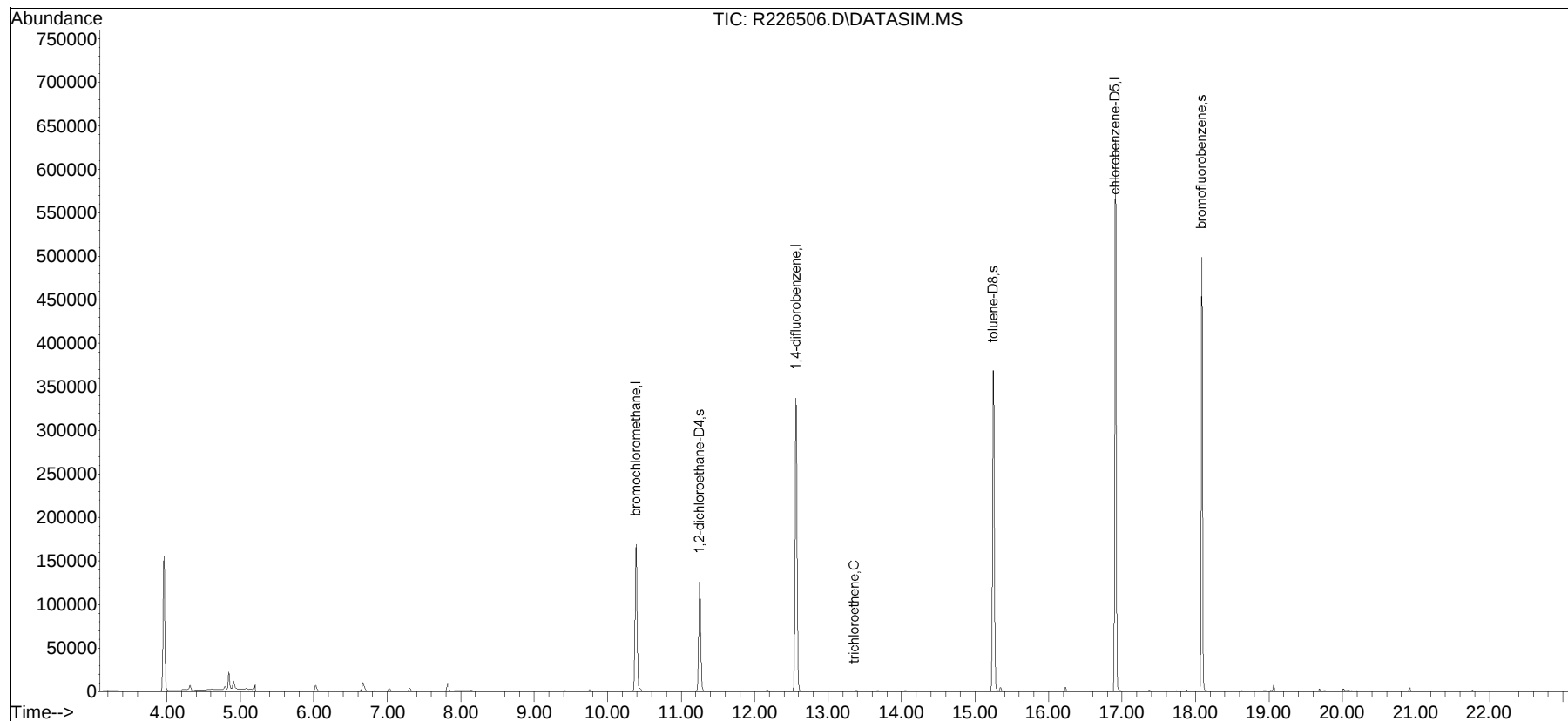
(#) = qualifier out of range (m) = manual integration (+) = signals summed

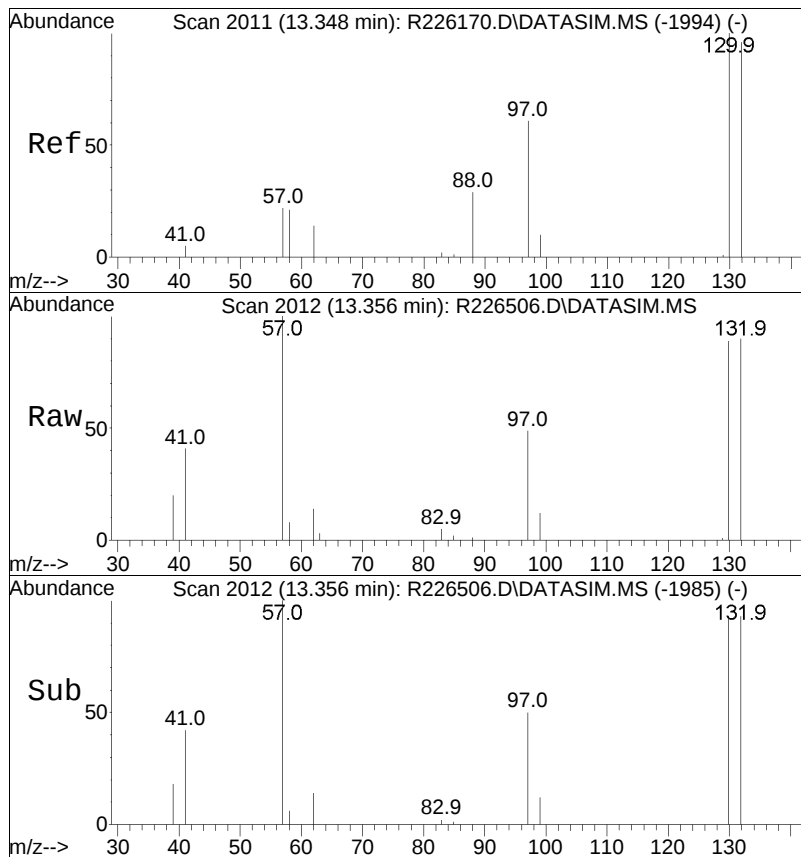
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
Data File : R226506.D
Acq On : 27 Nov 2013 4:13 pm
Operator : AIRPIAN02:RY
Sample : L1323970-12,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 28 07:01:03 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

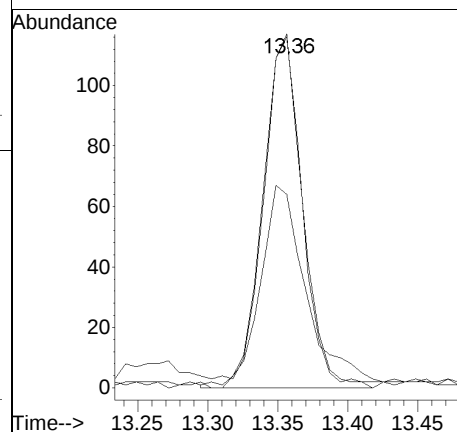
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D





#42
trichloroethene
Concen: 0.01 ppbV
RT: 13.36 min Scan# 2012
Delta R.T. 0.008 min
Lab File: R226506.D
Acq: 27 Nov 2013 4:13 pm

Tgt Ion:	130	Resp:	228
Ion Ratio	Lower	Upper	
130	100		
132	100.9	77.1	115.7
97	55.2	49.0	73.4



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226506.D Operator : AIRPIAN02:RY
Date Inj'd : 11/27/2013 4:13 pm Instrument : Air Piano 2
Sample : L1323970-12,3,250,250 Quant Date : 11/28/2013 7:01 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226507.D
 Acq On : 27 Nov 2013 4:44 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-13,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 09:25:50 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	175021	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		96.74%	
32) 1,4-difluorobenzene	12.56	114	498089	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		95.62%	
49) chlorobenzene-D5	16.91	54	97148	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		96.24%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	136172	10.146	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.46%	
51) toluene-D8	15.25	98	360041	9.951	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.51%	
64) bromofluorobenzene	18.08	95	251834	9.432	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		94.32%	
Target Compounds						Qvalue
6) vinyl chloride	4.94		0		N.D.	
9) chloroethane	5.77		0		N.D.	
16) 1,1-dichloroethene	7.67		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.09		0		N.D.	
27) cis-1,2-dichloroethene	10.20		0		N.D.	
42) trichloroethene	13.36	130	231	0.012	ppbV	98
55) tetrachloroethene	16.38	166	503	0.020	ppbV	96

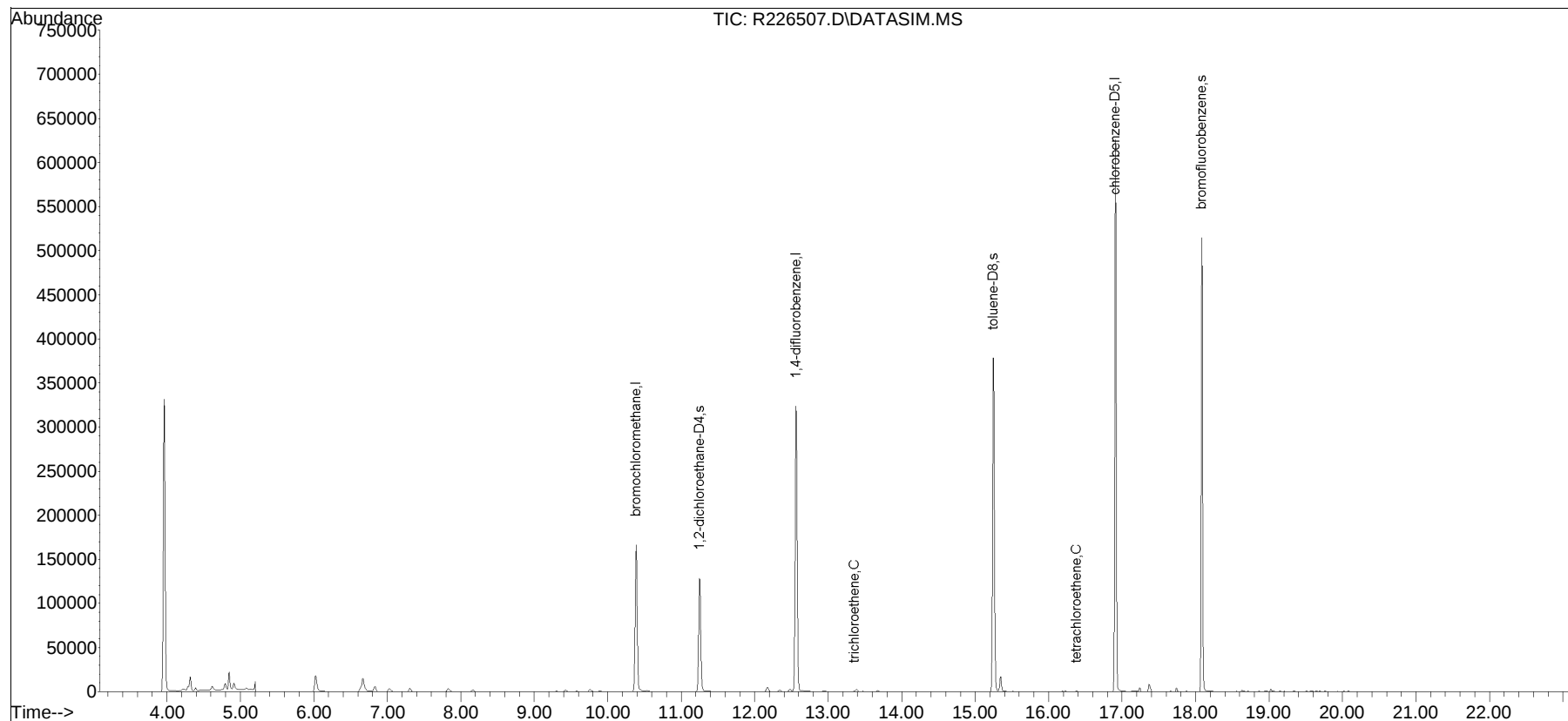
(#) = qualifier out of range (m) = manual integration (+) = signals summed

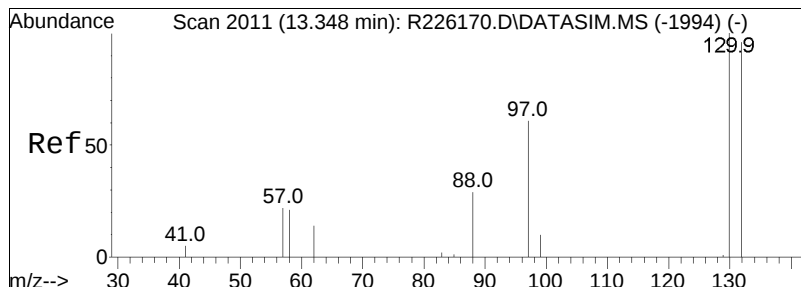
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
Data File : R226507.D
Acq On : 27 Nov 2013 4:44 pm
Operator : AIRPIAN02:RY
Sample : L1323970-13, 3, 250, 250
Misc : WG655026, ICAL8844
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 30 09:25:50 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

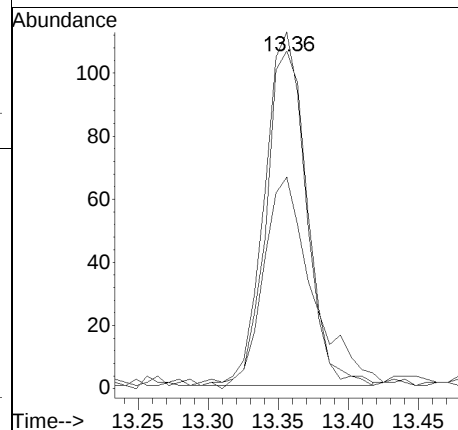
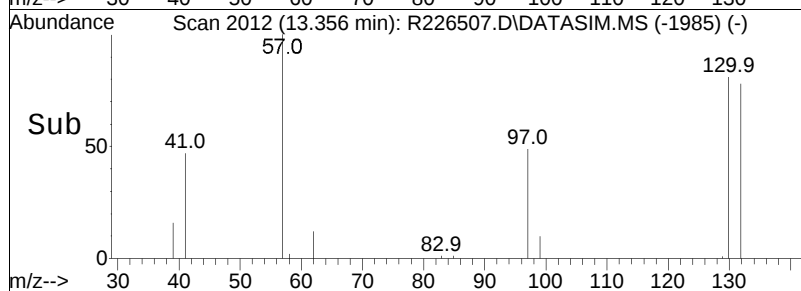
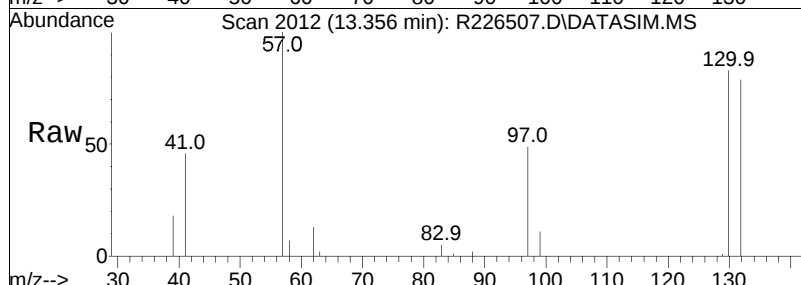
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

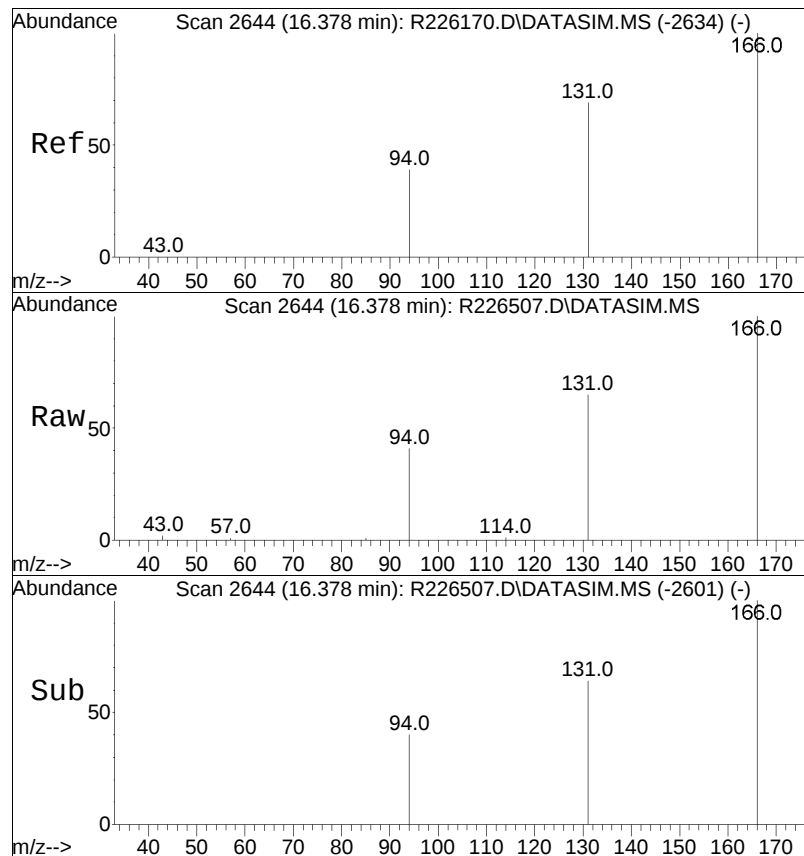




#42
 trichloroethene
 Concen: 0.01 ppbV
 RT: 13.36 min Scan# 2012
 Delta R.T. 0.008 min
 Lab File: R226507.D
 Acq: 27 Nov 2013 4:44 pm

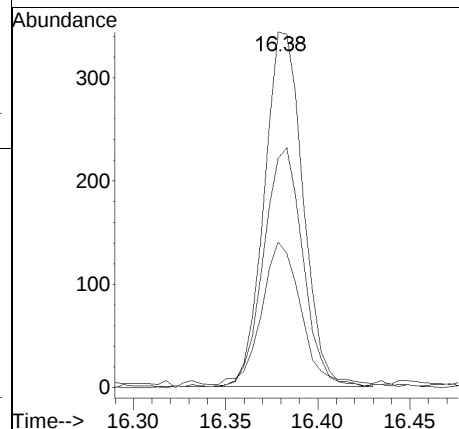
Tgt Ion:130 Resp: 231
 Ion Ratio Lower Upper
 130 100
 132 94.7 77.1 115.7
 97 59.3 49.0 73.4





#55
tetrachloroethene
Concen: 0.02 ppbV
RT: 16.38 min Scan# 2644
Delta R.T. -0.000 min
Lab File: R226507.D
Acq: 27 Nov 2013 4:44 pm

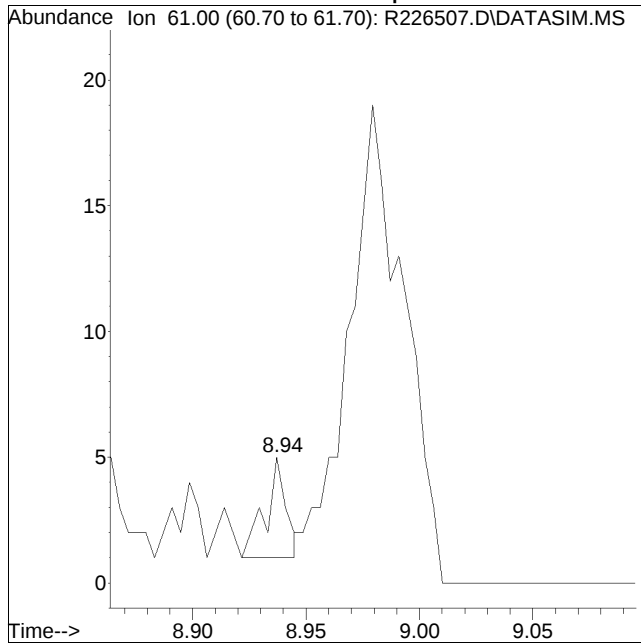
Tgt Ion	Ratio	Lower	Upper
166	100		
131	64.5	55.1	82.7
94	41.0	31.4	47.0



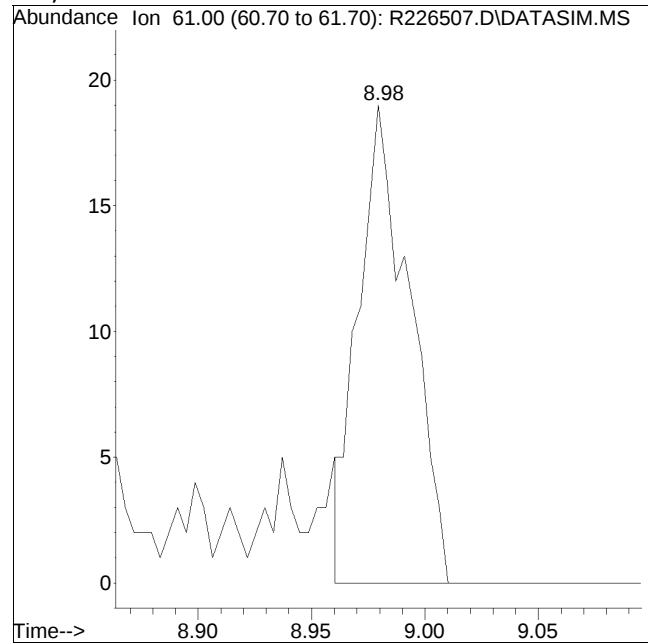
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226507.D Operator : AIRPIAN02:RY
Date Inj'd : 11/27/2013 4:44 pm Instrument : Air Piano 2
Sample : L1323970-13,3,250,250 Quant Date : 11/28/2013 7:01 am

Compound #22: trans-1,2-dichloroethene



Original Peak Response = 3



Manual Peak Response = 31 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226510.D
 Acq On : 27 Nov 2013 6:21 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-02,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 30 09:28:00 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.38	49	174397	10.000	ppbV	0.00
Standard Area = 180926			Recovery =	96.39%		
32) 1,4-difluorobenzene	12.56	114	495904	10.000	ppbV	0.00
Standard Area = 520889			Recovery =	95.20%		
49) chlorobenzene-D5	16.91	54	97005	10.000	ppbV	0.00
Standard Area = 100941			Recovery =	96.10%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	134608	10.073	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.73%		
51) toluene-D8	15.25	98	356214	9.859	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.59%		
64) bromofluorobenzene	18.08	95	252738	9.480	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	94.80%		
Target Compounds						
					Qvalue	
6) vinyl chloride	4.93		0	N.D.		
9) chloroethane	5.77	64	50	0.009	ppbV	90
16) 1,1-dichloroethene	0.00		0	N.D.	d	
22) trans-1,2-dichloroethene	8.98		0	N.D.		
23) 1,1-dichloroethane	9.22		0	N.D.		
27) cis-1,2-dichloroethene	10.20	61	183	0.011	ppbV	97
42) trichloroethene	13.36	130	1978	0.100	ppbV	97
55) tetrachloroethene	16.38	166	620	0.024	ppbV	97

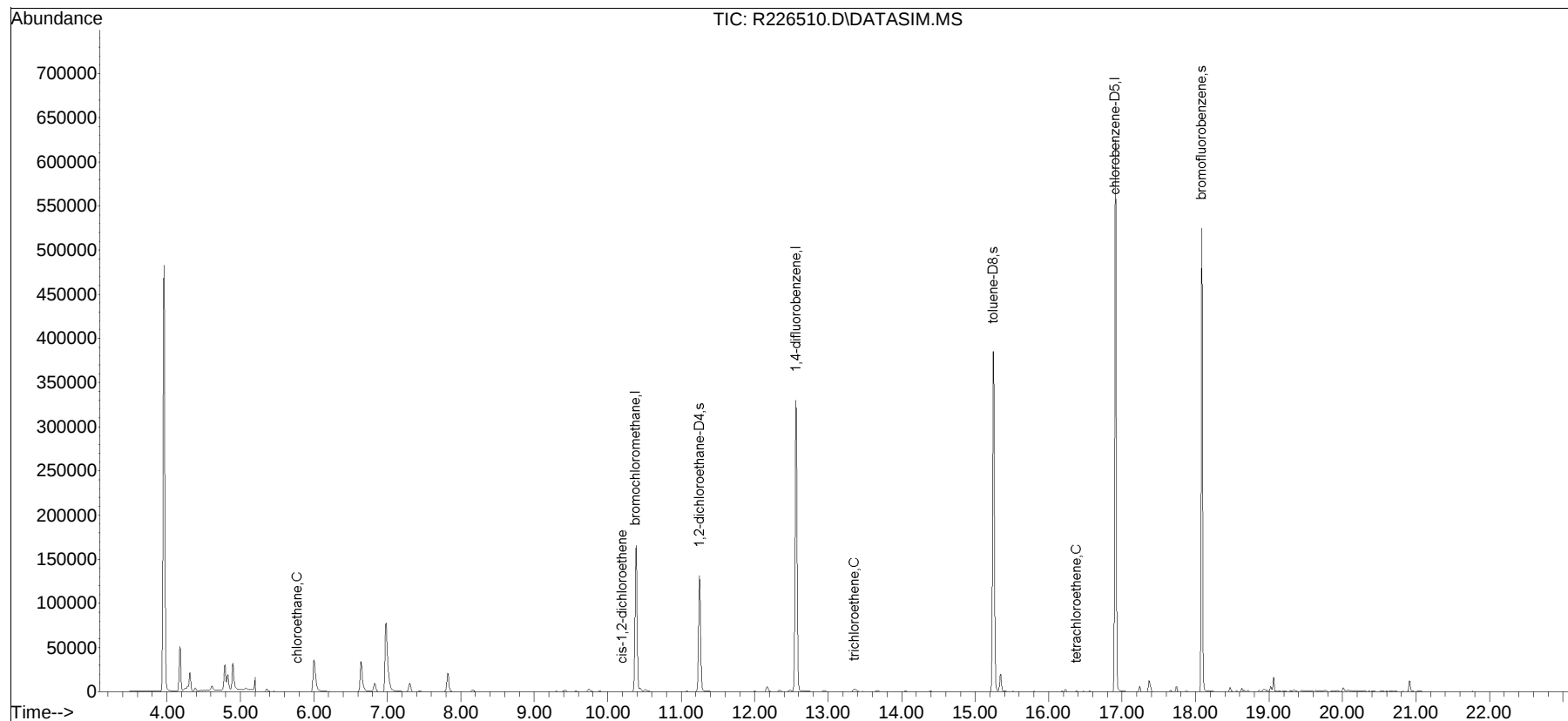
(#) = qualifier out of range (m) = manual integration (+) = signals summed

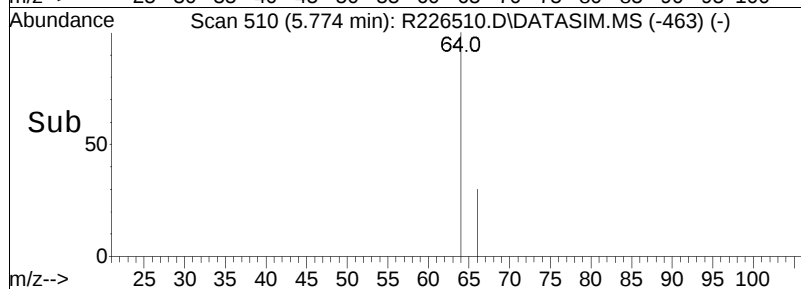
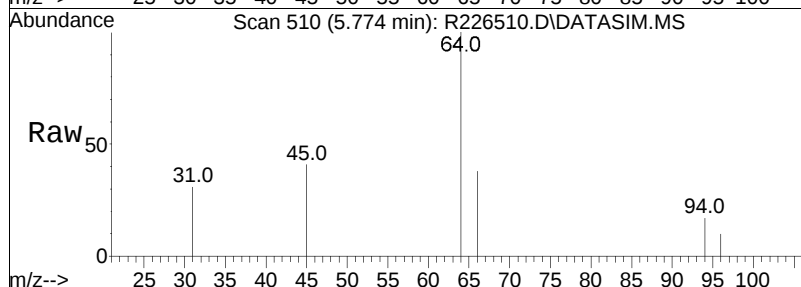
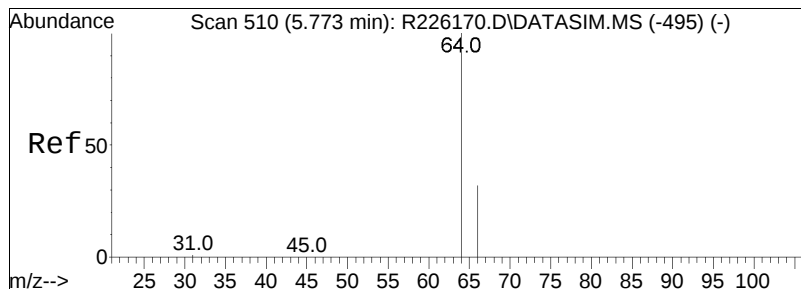
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226510.D
 Acq On : 27 Nov 2013 6:21 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-02,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 30 09:28:00 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

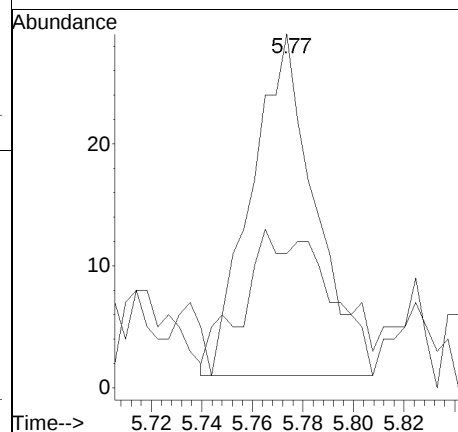
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

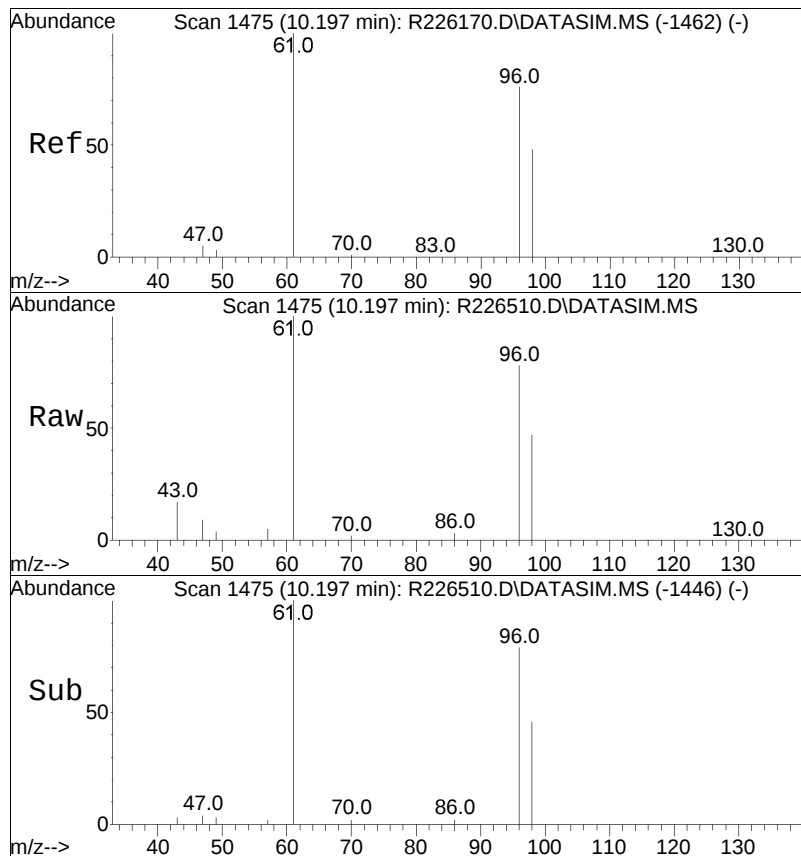




#9
chloroethane
Concen: 0.01 ppbV
RT: 5.77 min Scan# 510
Delta R.T. 0.000 min
Lab File: R226510.D
Acq: 27 Nov 2013 6:21 pm

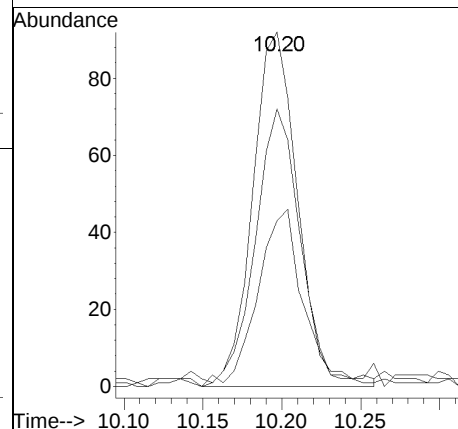
Tgt Ion: 64 Resp: 50
Ion Ratio Lower Upper
64 100
66 37.9 25.8 38.8

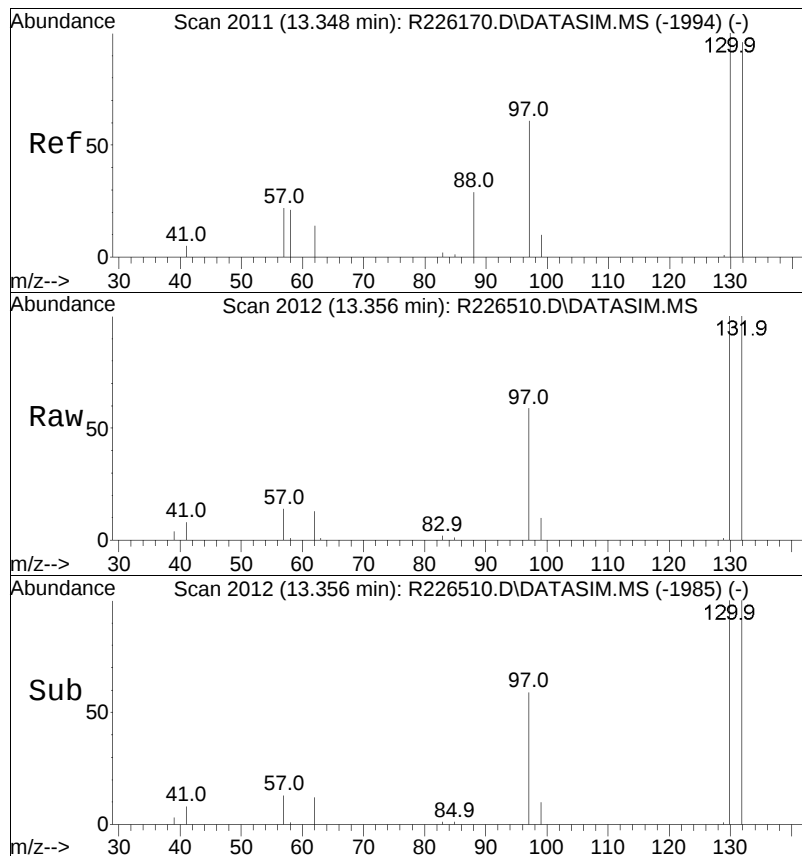




#27
 cis-1,2-dichloroethene
 Concen: 0.01 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.000 min
 Lab File: R226510.D
 Acq: 27 Nov 2013 6:21 pm

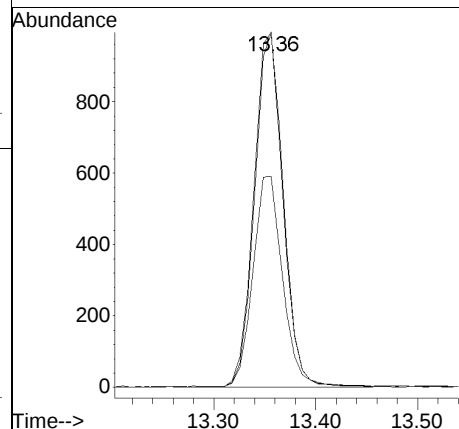
Tgt Ion:	61	Resp:	183
Ion Ratio	Lower	Upper	
61	100		
96	78.3	60.6	91.0
98	46.7	38.6	58.0

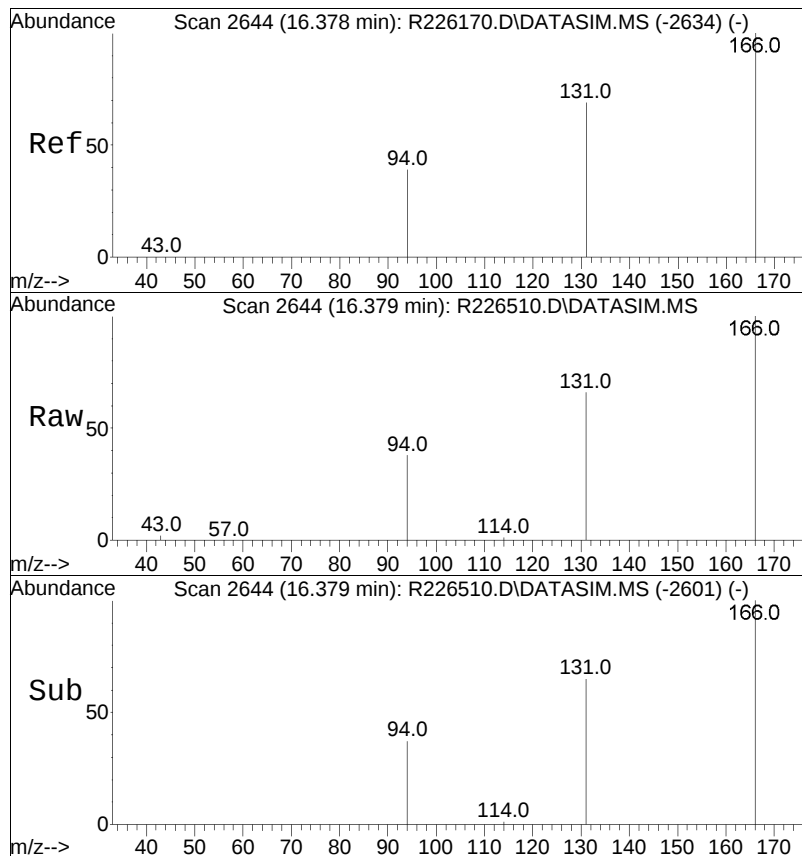




#42
 trichloroethene
 Concen: 0.10 ppbV
 RT: 13.36 min Scan# 2012
 Delta R.T. 0.008 min
 Lab File: R226510.D
 Acq: 27 Nov 2013 6:21 pm

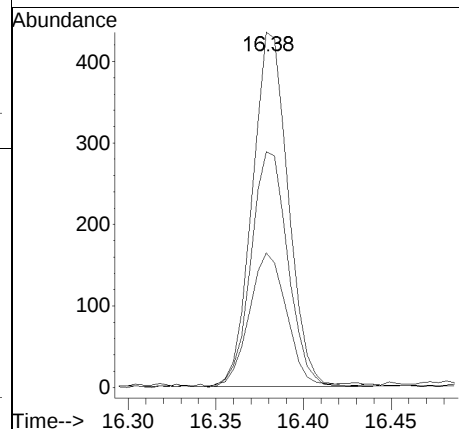
Tgt Ion	Ratio	Lower	Upper
130	100		
132	99.6	77.1	115.7
97	59.3	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.02 ppbV
 RT: 16.38 min Scan# 2644
 Delta R.T. 0.000 min
 Lab File: R226510.D
 Acq: 27 Nov 2013 6:21 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	66.3	55.1	82.7
94	37.8	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226510.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 6:21 pm	Instrument	: Air Piano 2
Sample	: L1323970-02,3,250,250	Quant Date	: 11/28/2013 7:03 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226511.D
 Acq On : 27 Nov 2013 6:53 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-03,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 28 07:03:21 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	174630	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		96.52%	
32) 1,4-difluorobenzene	12.56	114	496459	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		95.31%	
49) chlorobenzene-D5	16.91	54	96763	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		95.86%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	132991	9.941	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.41%	
51) toluene-D8	15.25	98	348913	9.681	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.81%	
64) bromofluorobenzene	18.09	95	248029	9.327	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		93.27%	
Target Compounds						
					Qvalue	
6) vinyl chloride	4.94		0	N.D.		
9) chloroethane	5.77	64	70	0.013	ppbV #	88
16) 1,1-dichloroethene	7.70		0	N.D.		
22) trans-1,2-dichloroethene	8.98		0	N.D.		
23) 1,1-dichloroethane	9.22		0	N.D.		
27) cis-1,2-dichloroethene	10.20		0	N.D.		
42) trichloroethene	13.36	130	444	0.023	ppbV	93
55) tetrachloroethene	16.38	166	482	0.019	ppbV	95

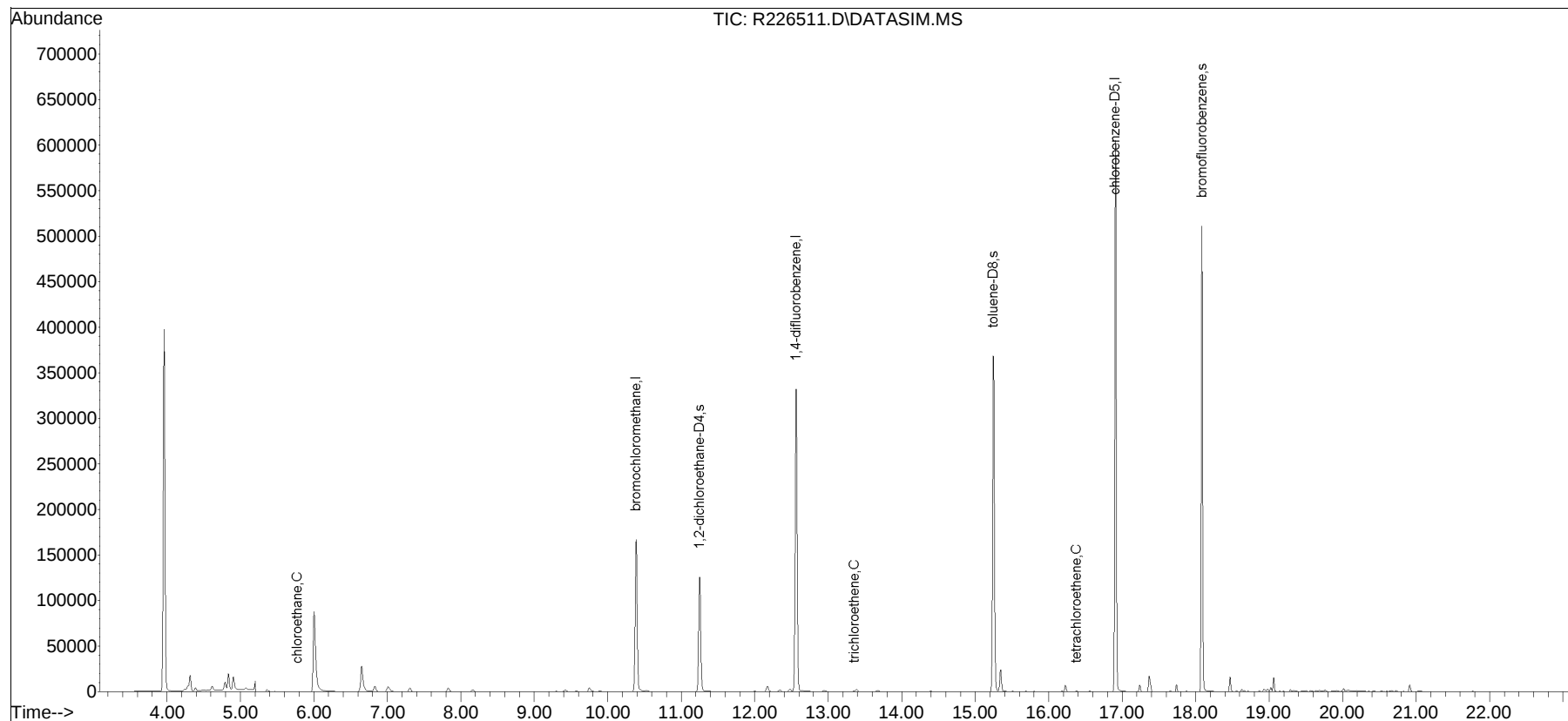
(#) = qualifier out of range (m) = manual integration (+) = signals summed

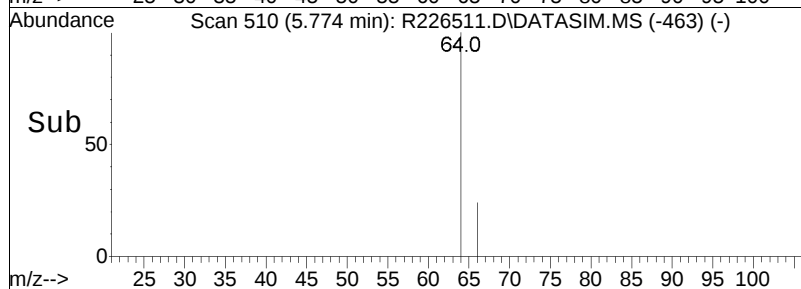
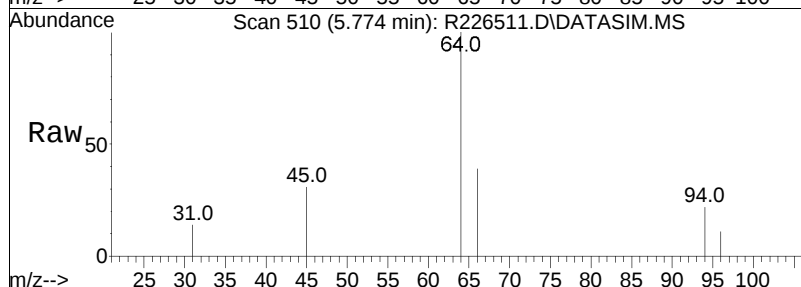
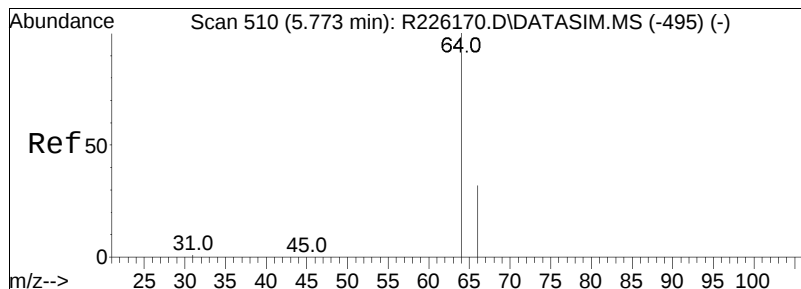
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226511.D
 Acq On : 27 Nov 2013 6:53 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-03, 3, 250, 250
 Misc : WG655026, ICAL8844
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 28 07:03:21 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

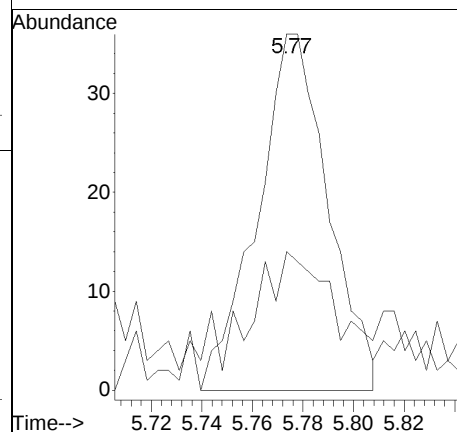
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

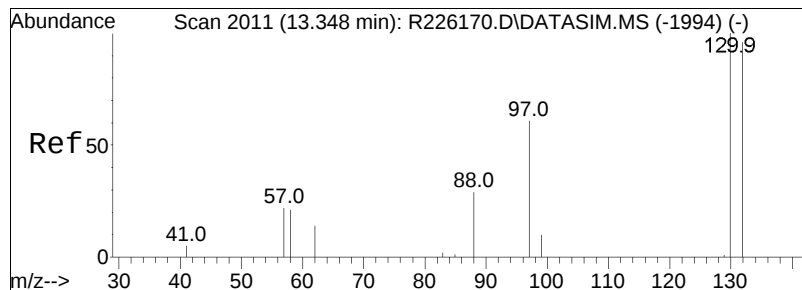




#9
chloroethane
Concen: 0.01 ppbV
RT: 5.77 min Scan# 510
Delta R.T. 0.000 min
Lab File: R226511.D
Acq: 27 Nov 2013 6:53 pm

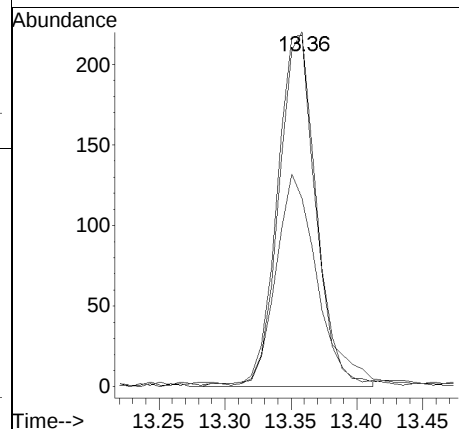
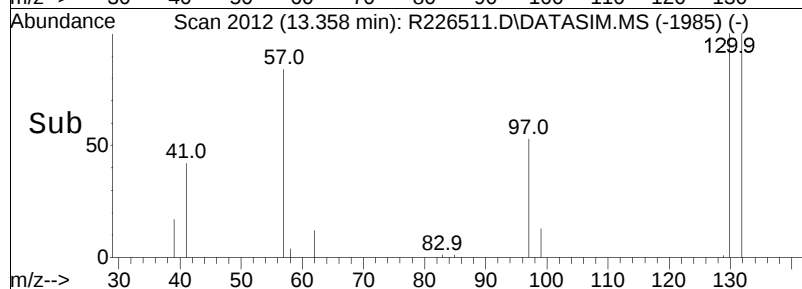
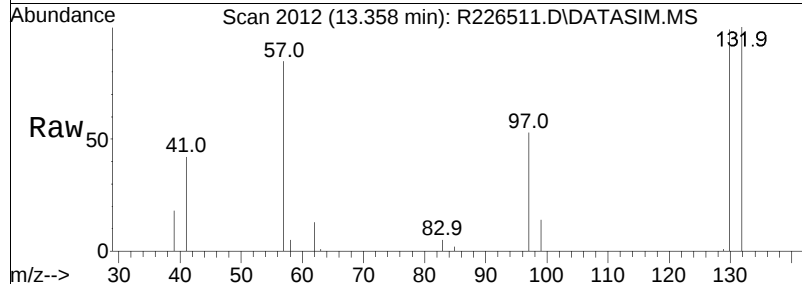
Tgt Ion: 64 Resp: 70
Ion Ratio Lower Upper
64 100
66 38.9 25.8 38.8#

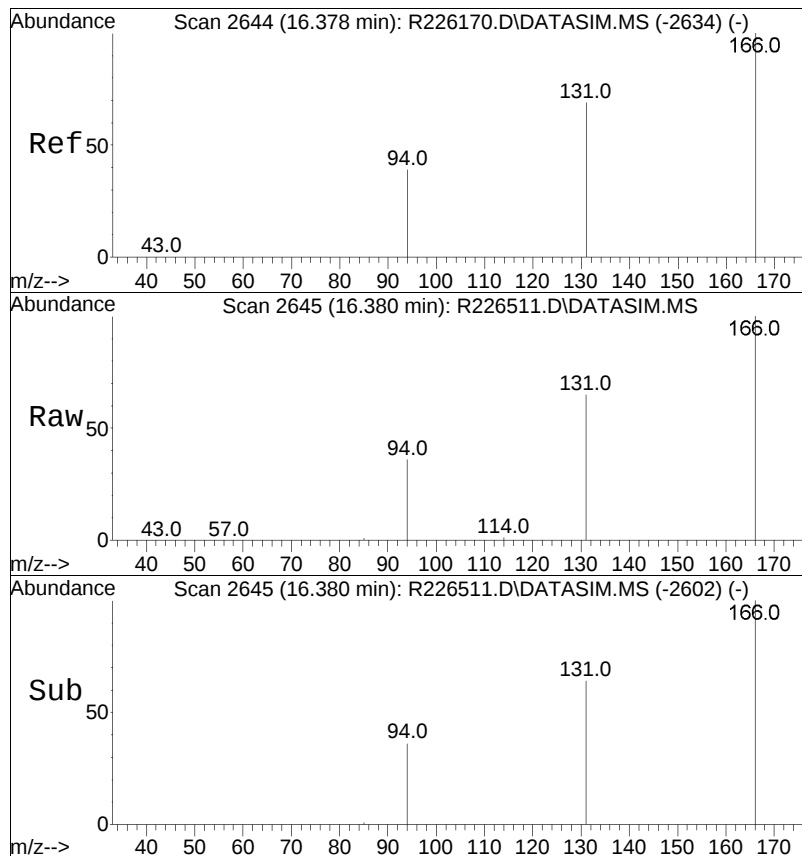




#42
trichloroethene
Concen: 0.02 ppbV
RT: 13.36 min Scan# 2012
Delta R.T. 0.010 min
Lab File: R226511.D
Acq: 27 Nov 2013 6:53 pm

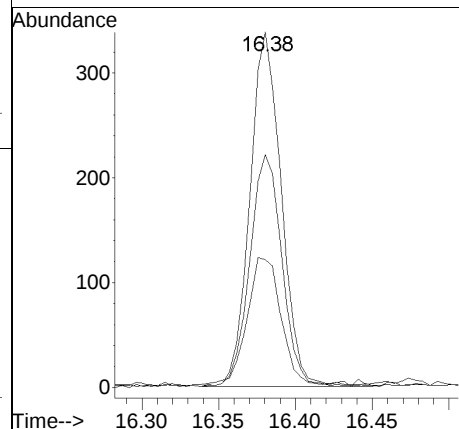
Tgt	Ion	Ratio	Lower	Upper
130	100			
132	100.9	77.1	115.7	
97	53.7	49.0	73.4	





#55
 tetrachloroethene
 Concen: 0.02 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.002 min
 Lab File: R226511.D
 Acq: 27 Nov 2013 6:53 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	65.5	55.1	82.7
94	36.0	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226511.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 6:53 pm	Instrument	: Air Piano 2
Sample	: L1323970-03,3,250,250	Quant Date	: 11/28/2013 7:03 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226512.D
 Acq On : 27 Nov 2013 7:25 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-04,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 28 07:03:40 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	172151	10.000	ppbV	0.00
Standard Area = 180926			Recovery =	95.15%		
32) 1,4-difluorobenzene	12.56	114	487343	10.000	ppbV	0.00
Standard Area = 520889			Recovery =	93.56%		
49) chlorobenzene-D5	16.91	54	95524	10.000	ppbV	0.00
Standard Area = 100941			Recovery =	94.63%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	131418	10.007	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.07%		
51) toluene-D8	15.25	98	346149	9.729	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.29%		
64) bromofluorobenzene	18.08	95	246307	9.382	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.82%		
Target Compounds						
6) vinyl chloride	4.94		0	N.D.		
9) chloroethane	5.77	64	89	0.016	ppbV #	76
16) 1,1-dichloroethene	7.64		0	N.D.		
22) trans-1,2-dichloroethene	8.98		0	N.D.		
23) 1,1-dichloroethane	9.22		0	N.D.		
27) cis-1,2-dichloroethene	10.20	61	350	0.021	ppbV	98
42) trichloroethene	13.36	130	1775	0.092	ppbV	96
55) tetrachloroethene	16.38	166	560	0.022	ppbV	100

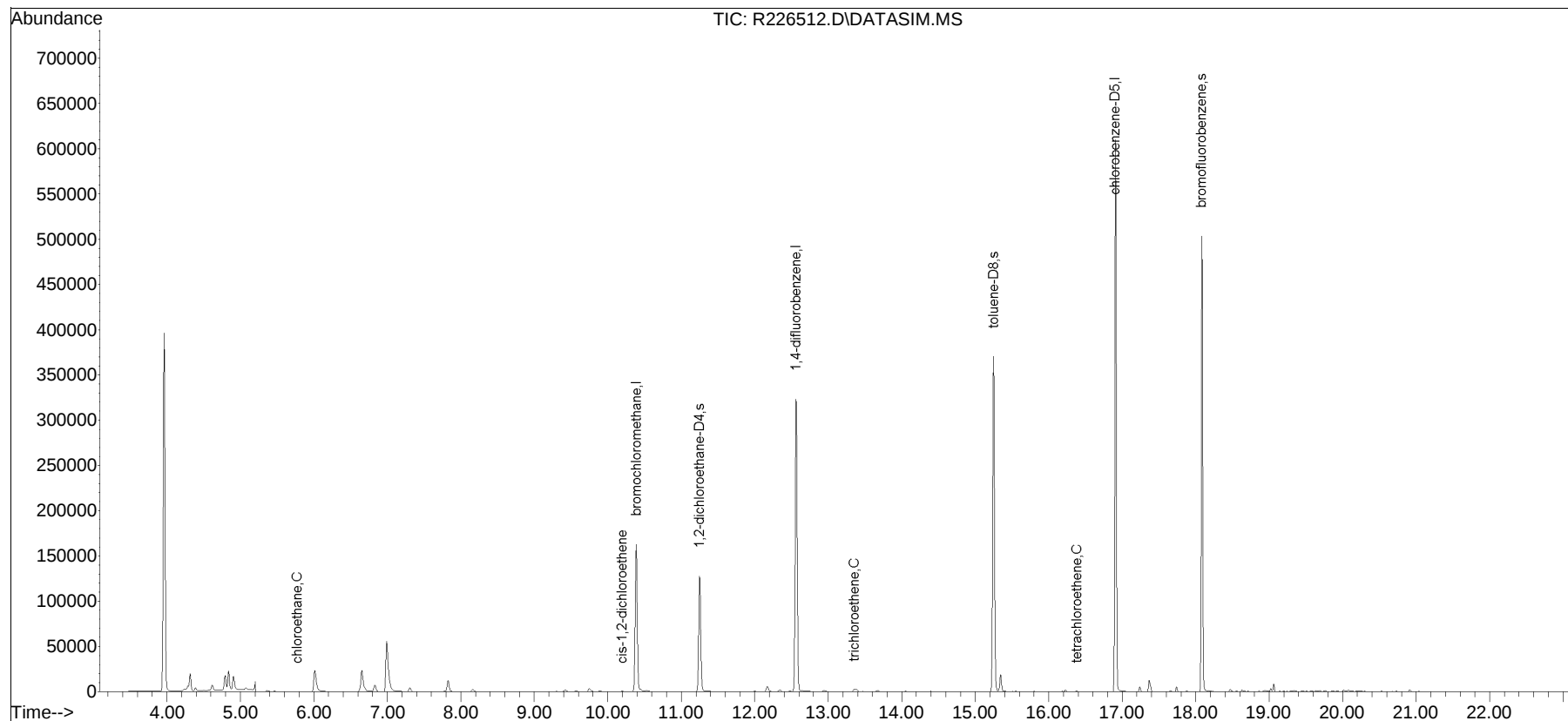
(#) = qualifier out of range (m) = manual integration (+) = signals summed

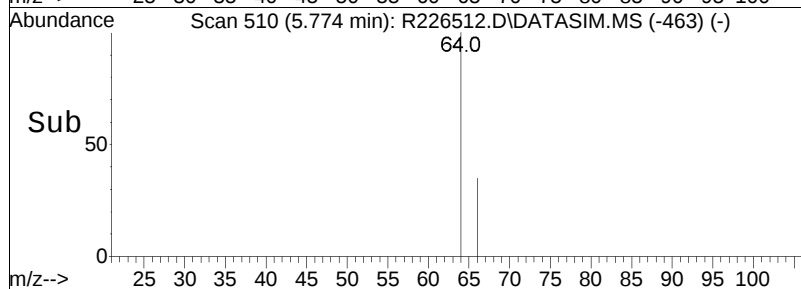
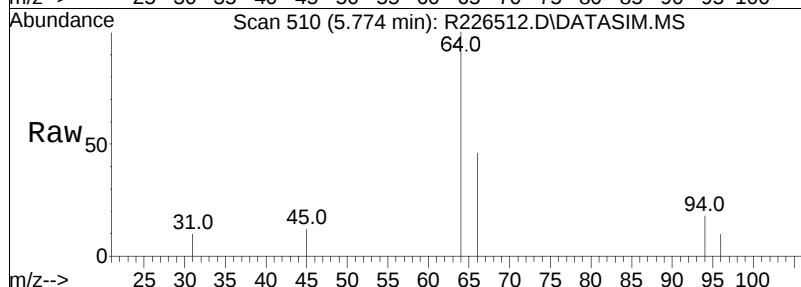
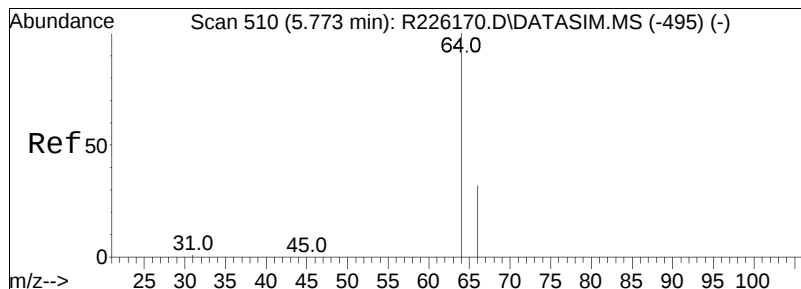
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226512.D
 Acq On : 27 Nov 2013 7:25 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-04,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 28 07:03:40 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

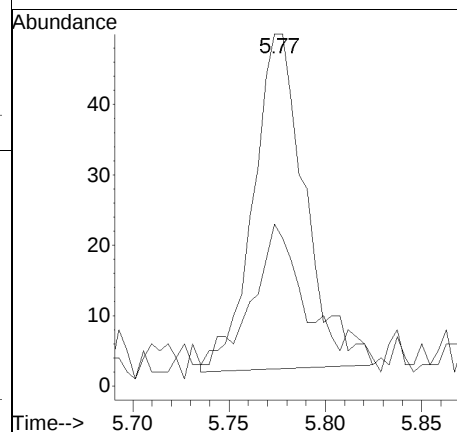
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

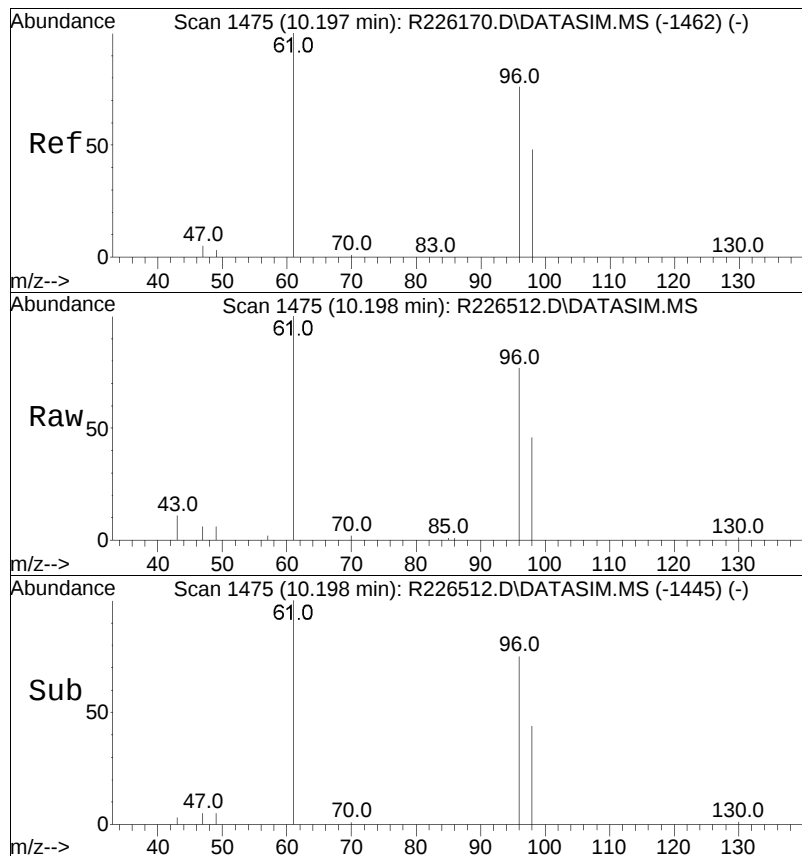




#9
chloroethane
Concen: 0.02 ppbV
RT: 5.77 min Scan# 510
Delta R.T. 0.000 min
Lab File: R226512.D
Acq: 27 Nov 2013 7:25 pm

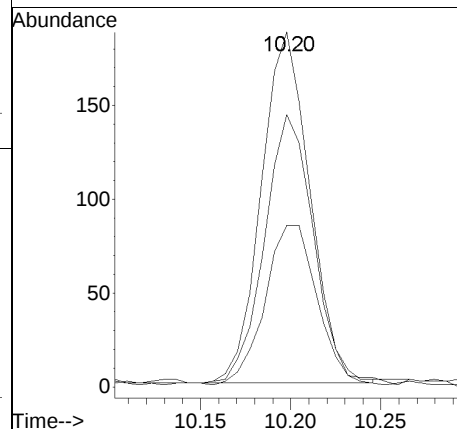
Tgt Ion: 64 Resp: 89
Ion Ratio Lower Upper
64 100
66 46.0 25.8 38.8#

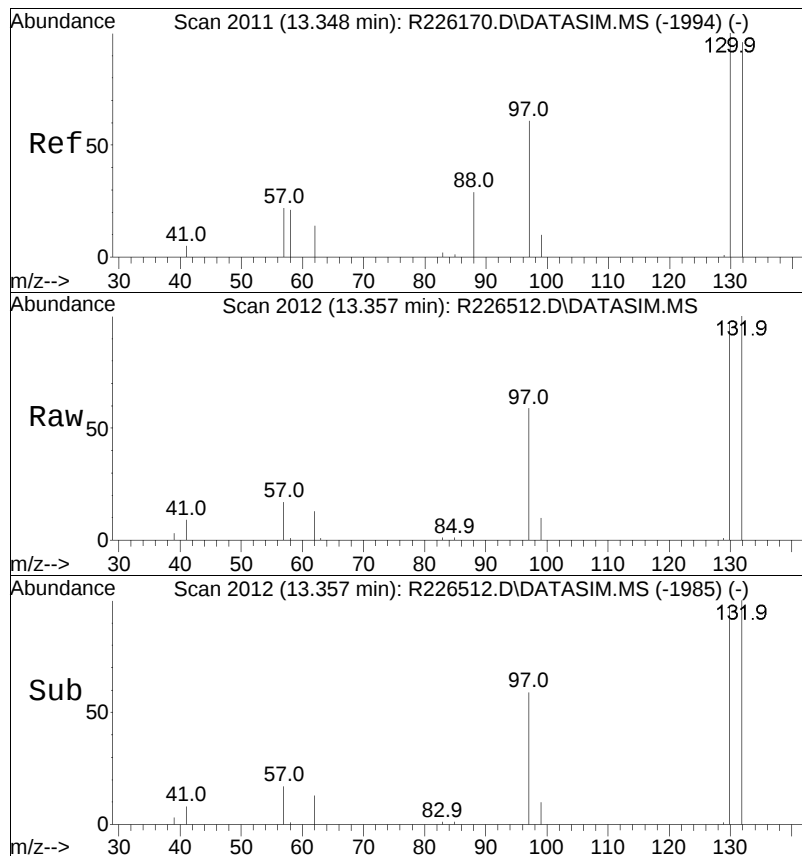




#27
 cis-1,2-dichloroethene
 Concen: 0.02 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.001 min
 Lab File: R226512.D
 Acq: 27 Nov 2013 7:25 pm

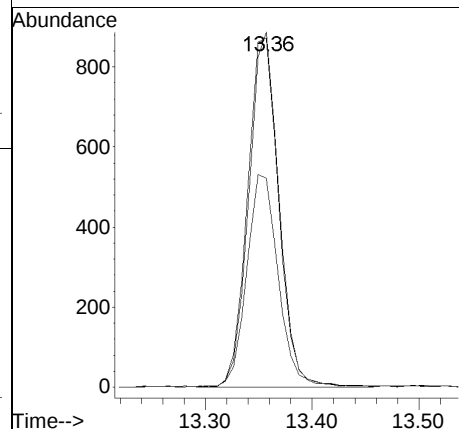
Tgt Ion:	61	Resp:	350
Ion Ratio	Lower	Upper	
61	100		
96	76.7	60.6	91.0
98	45.5	38.6	58.0

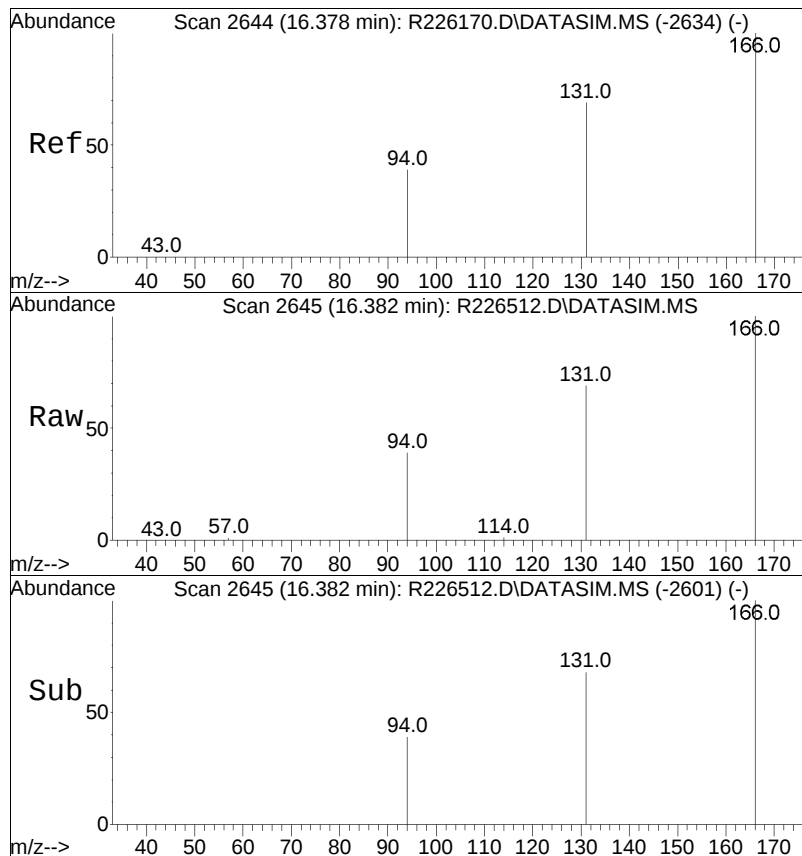




#42
trichloroethene
Concen: 0.09 ppbV
RT: 13.36 min Scan# 2012
Delta R.T. 0.009 min
Lab File: R226512.D
Acq: 27 Nov 2013 7:25 pm

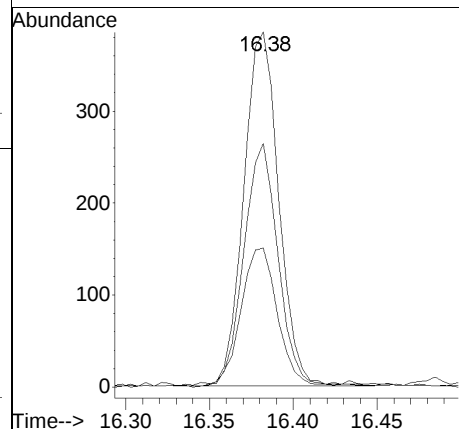
Tgt Ion:	130	Resp:	1775
Ion Ratio	Lower	Upper	
130	100		
132	101.7	77.1	115.7
97	59.9	49.0	73.4





#55
tetrachloroethene
Concen: 0.02 ppbV
RT: 16.38 min Scan# 2645
Delta R.T. 0.004 min
Lab File: R226512.D
Acq: 27 Nov 2013 7:25 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	68.7	55.1	82.7
94	39.1	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226512.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 7:25 pm	Instrument	: Air Piano 2
Sample	: L1323970-04,3,250,250	Quant Date	: 11/28/2013 7:03 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226513.D
 Acq On : 27 Nov 2013 7:57 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-05,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 28 07:03:59 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	171109	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		94.57%	
32) 1,4-difluorobenzene	12.56	114	486723	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		93.44%	
49) chlorobenzene-D5	16.91	54	95078	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		94.19%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	130501	9.950	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.50%	
51) toluene-D8	15.25	98	341389	9.641	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.41%	
64) bromofluorobenzene	18.09	95	243655	9.325	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		93.25%	
Target Compounds						
					Qvalue	
6) vinyl chloride	4.93		0		N.D.	
9) chloroethane	5.77	64	53	0.010	ppbV #	58
16) 1,1-dichloroethene	7.61		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.22		0		N.D.	
27) cis-1,2-dichloroethene	10.20	61	355	0.021	ppbV	100
42) trichloroethene	13.36	130	1755	0.091	ppbV	96
55) tetrachloroethene	16.38	166	558	0.022	ppbV	98

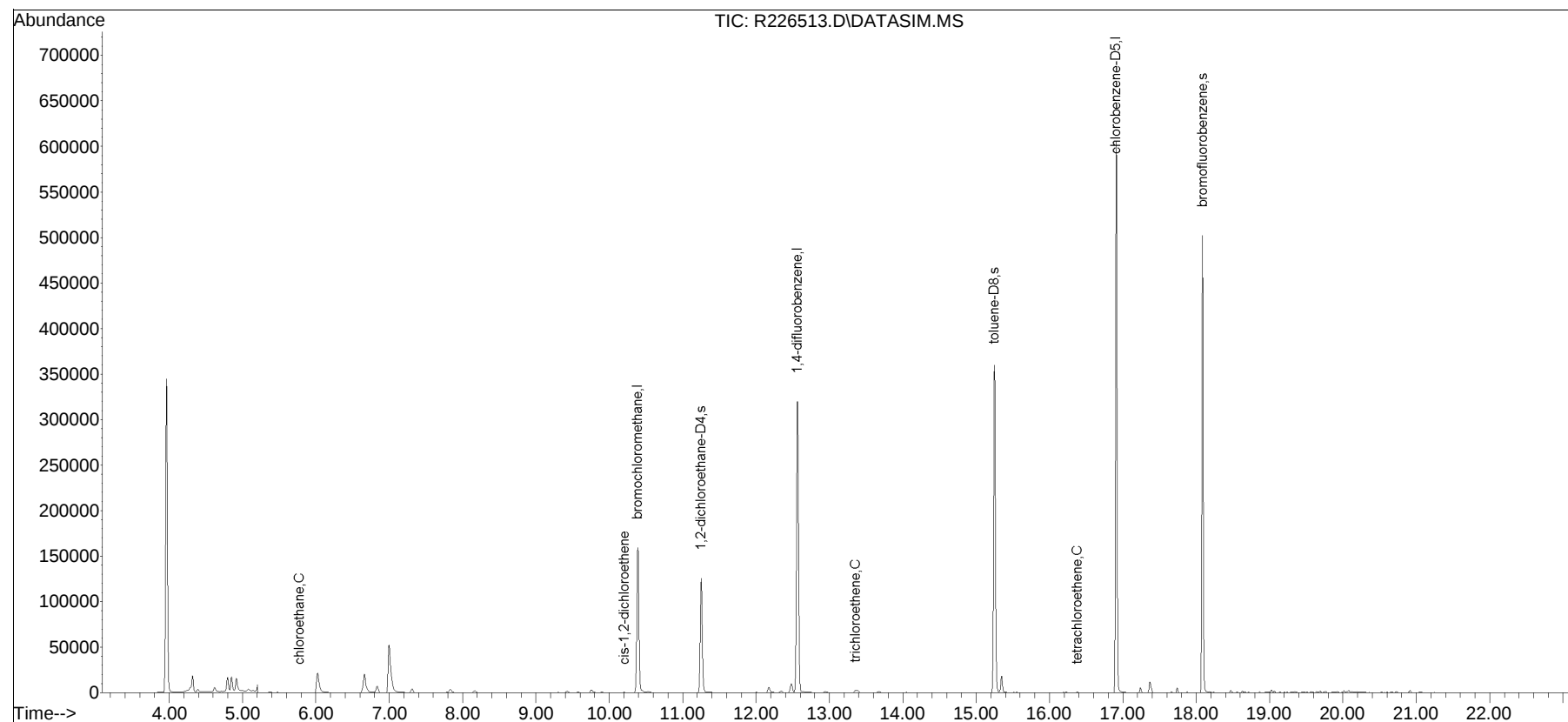
(#) = qualifier out of range (m) = manual integration (+) = signals summed

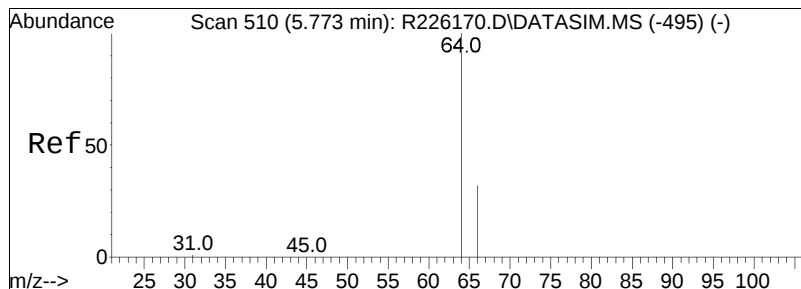
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
Data File : R226513.D
Acq On : 27 Nov 2013 7:57 pm
Operator : AIRPIAN02:RY
Sample : L1323970-05,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 28 07:03:59 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

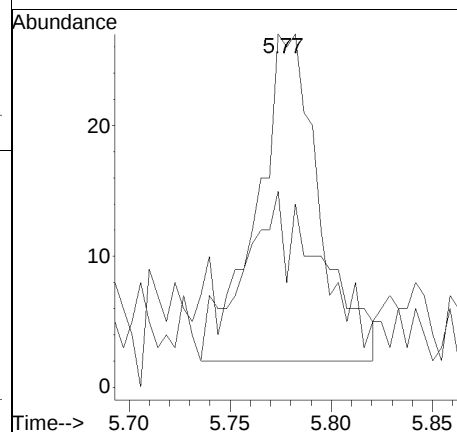
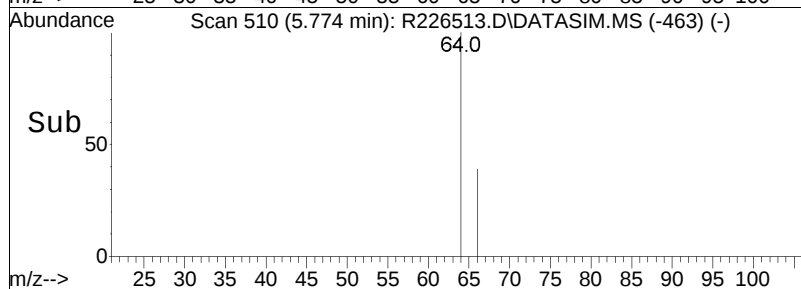
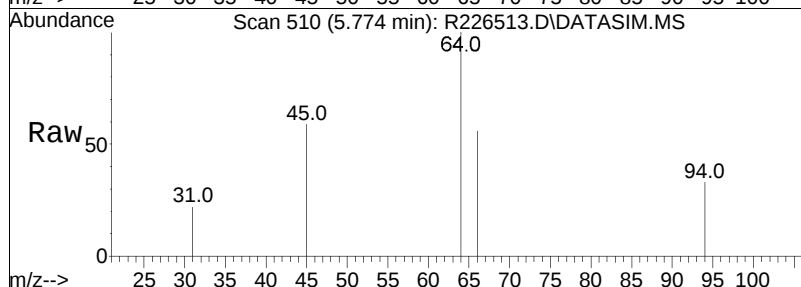
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

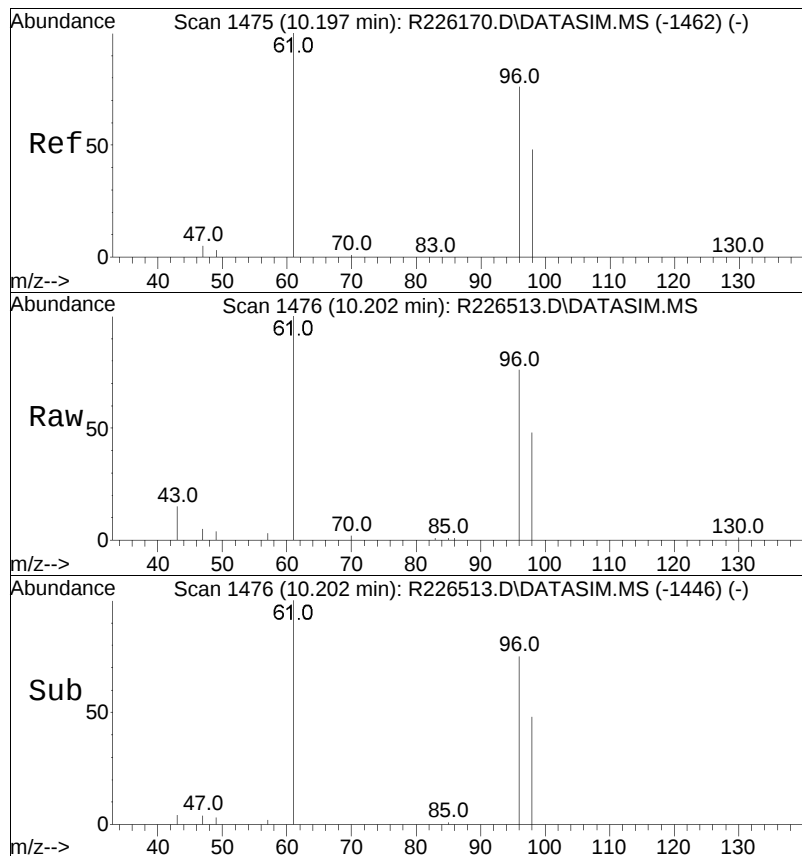




#9
chloroethane
Concen: 0.01 ppbV
RT: 5.77 min Scan# 510
Delta R.T. 0.000 min
Lab File: R226513.D
Acq: 27 Nov 2013 7:57 pm

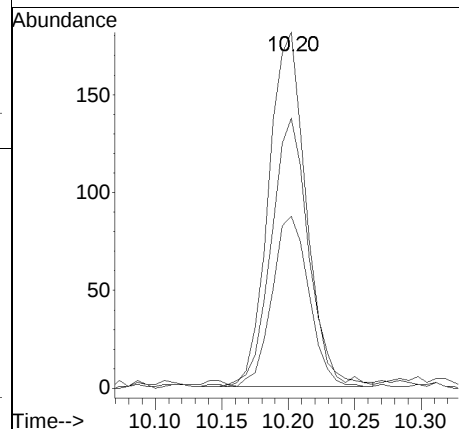
Tgt Ion: 64 Resp: 53
Ion Ratio Lower Upper
64 100
66 55.6 25.8 38.8#

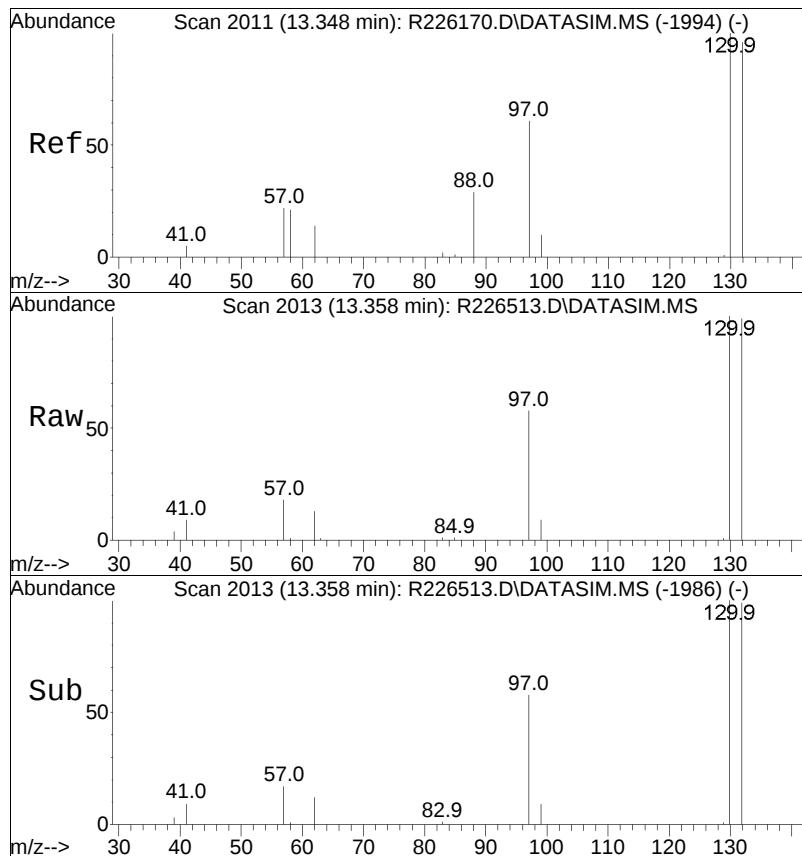




#27
 cis-1,2-dichloroethene
 Concen: 0.02 ppbV
 RT: 10.20 min Scan# 1476
 Delta R.T. 0.005 min
 Lab File: R226513.D
 Acq: 27 Nov 2013 7:57 pm

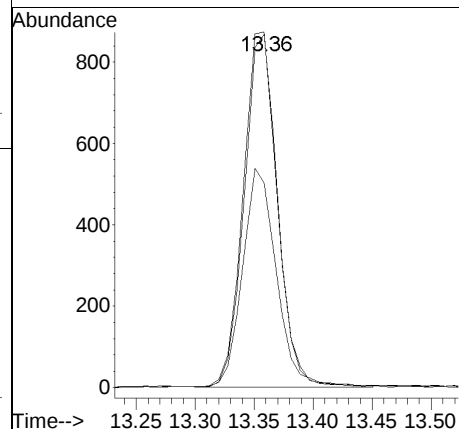
Tgt Ion:	61	Resp:	355
Ion Ratio	Lower	Upper	
61	100		
96	75.8	60.6	91.0
98	48.4	38.6	58.0

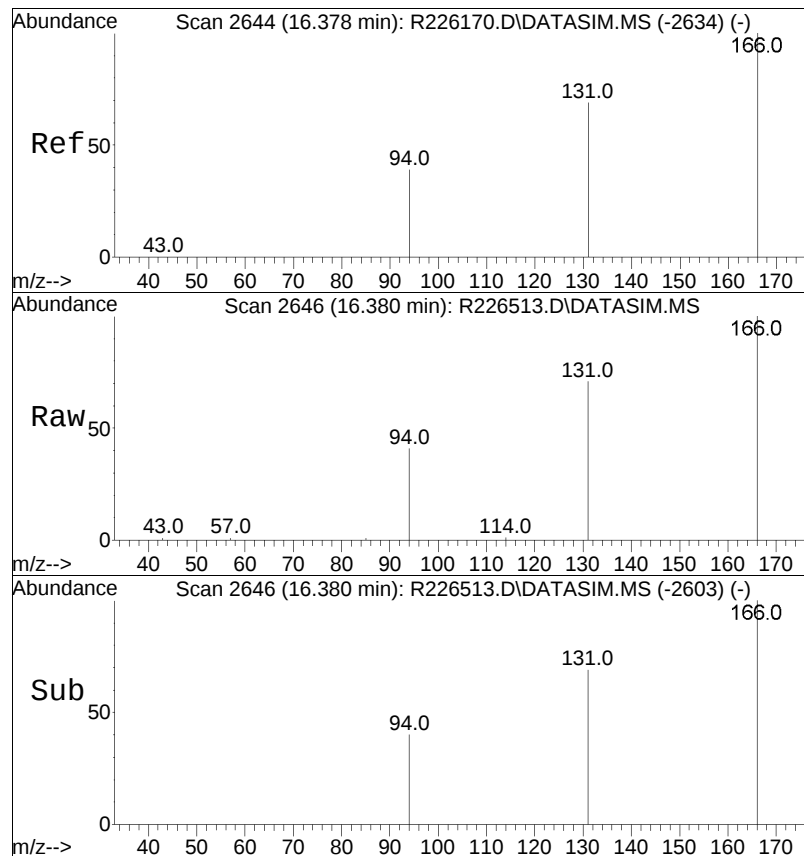




#42
 trichloroethene
 Concen: 0.09 ppbV
 RT: 13.36 min Scan# 2013
 Delta R.T. 0.010 min
 Lab File: R226513.D
 Acq: 27 Nov 2013 7:57 pm

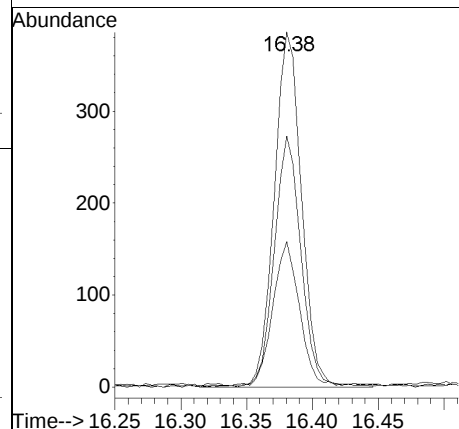
Tgt Ion	Ratio	Lower	Upper
130	100		
132	99.3	77.1	115.7
97	57.6	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.02 ppbV
 RT: 16.38 min Scan# 2646
 Delta R.T. 0.002 min
 Lab File: R226513.D
 Acq: 27 Nov 2013 7:57 pm

Tgt Ion:	166	Resp:	558
Ion Ratio	Lower	Upper	
166	100		
131	70.7	55.1	82.7
94	40.9	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226513.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 7:57 pm	Instrument	: Air Piano 2
Sample	: L1323970-05,3,250,250	Quant Date	: 11/28/2013 7:03 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226514.D
 Acq On : 27 Nov 2013 8:29 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-06,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 28 07:04:32 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	170740	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		94.37%	
32) 1,4-difluorobenzene	12.56	114	483221	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		92.77%	
49) chlorobenzene-D5	16.91	54	94598	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		93.72%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	129125	9.917	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.17%	
51) toluene-D8	15.25	98	338604	9.610	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.10%	
64) bromofluorobenzene	18.08	95	240207	9.239	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		92.39%	
Target Compounds						
					Qvalue	
6) vinyl chloride	4.94		0	N.D.		
9) chloroethane	5.78	64	56	0.010	ppbV	92
16) 1,1-dichloroethene	7.65		0	N.D.		
22) trans-1,2-dichloroethene	8.98		0	N.D.		
23) 1,1-dichloroethane	9.22		0	N.D.		
27) cis-1,2-dichloroethene	10.20	61	417	0.025	ppbV	94
42) trichloroethene	13.36	130	3944	0.205	ppbV	96
55) tetrachloroethene	16.38	166	716	0.029	ppbV	98

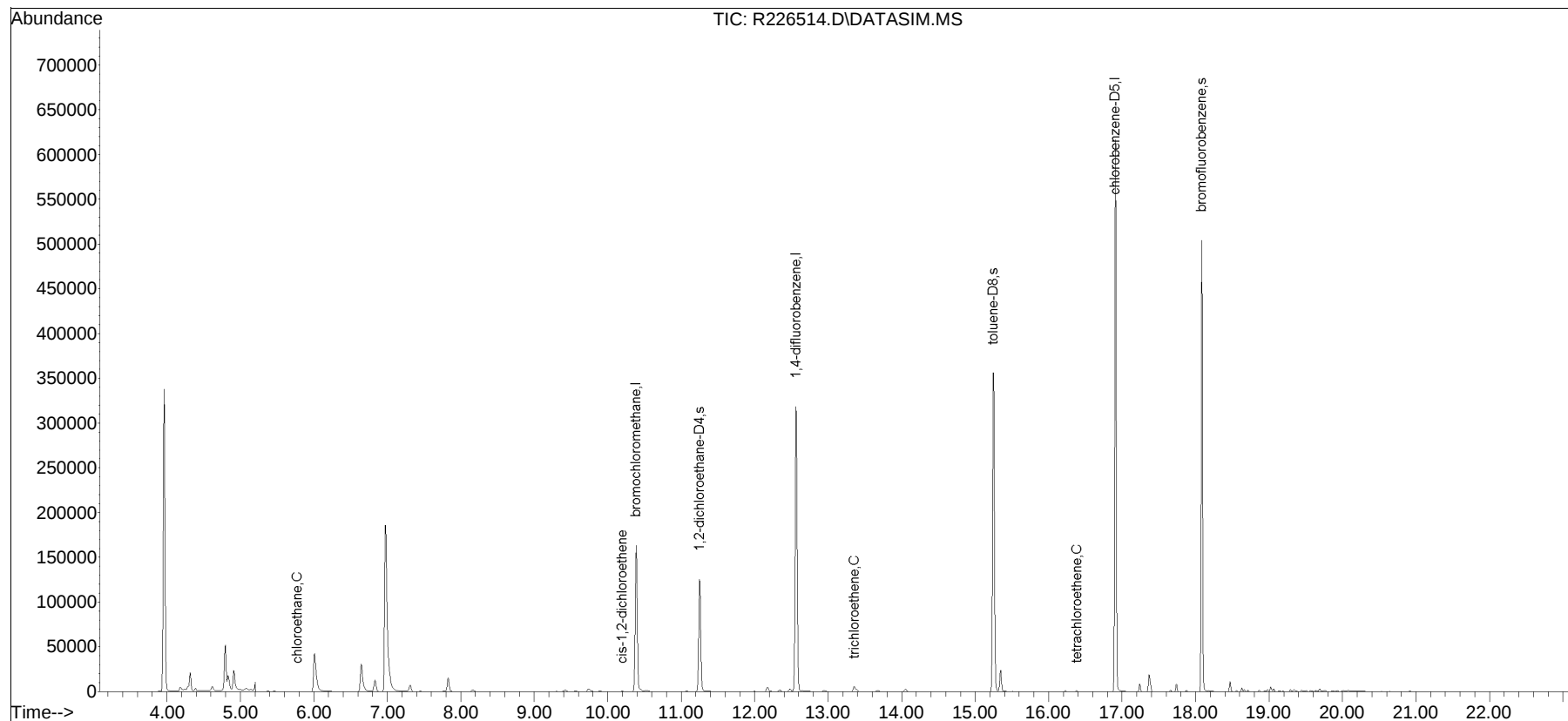
(#) = qualifier out of range (m) = manual integration (+) = signals summed

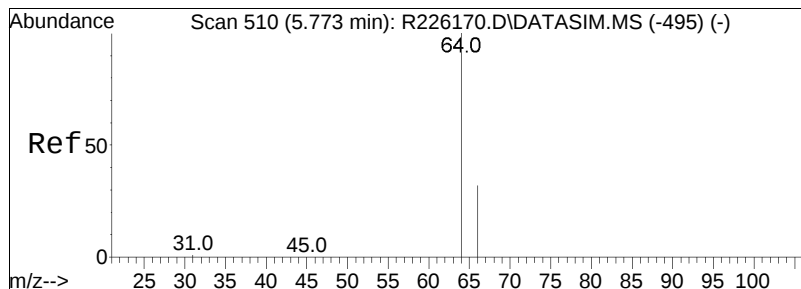
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226514.D
 Acq On : 27 Nov 2013 8:29 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-06,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 28 07:04:32 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

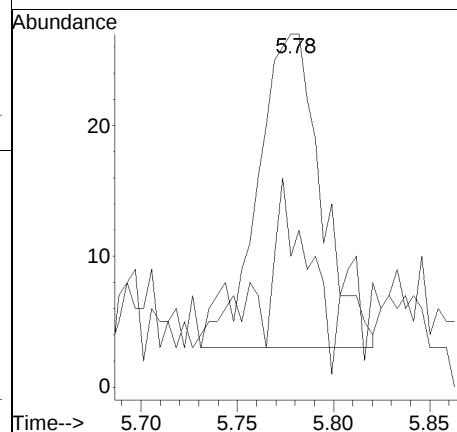
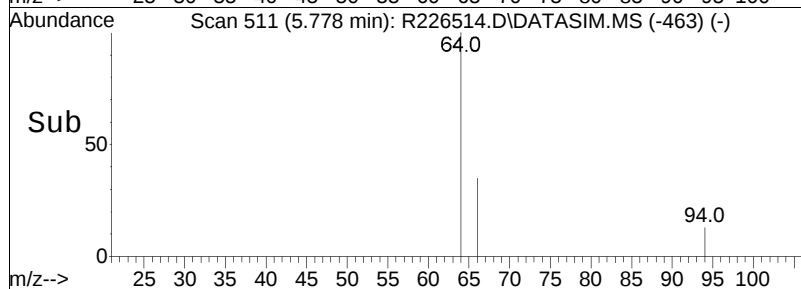
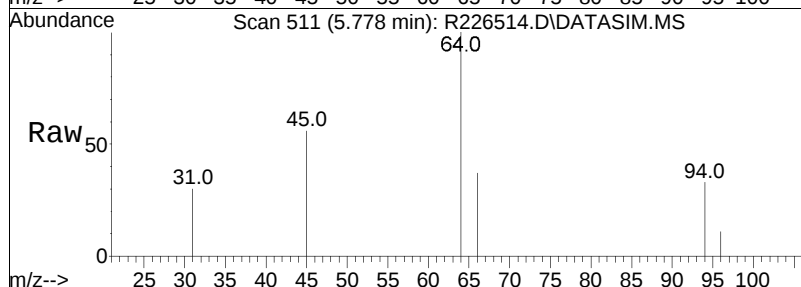
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

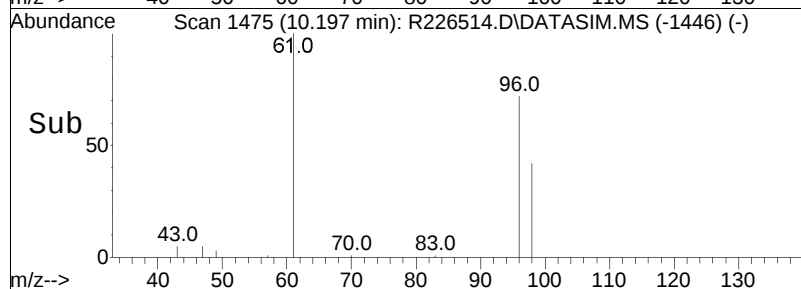
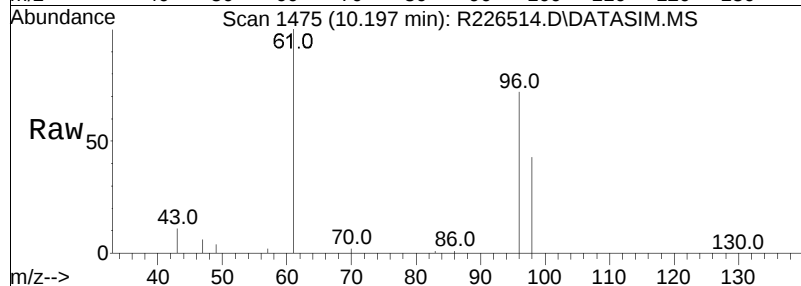
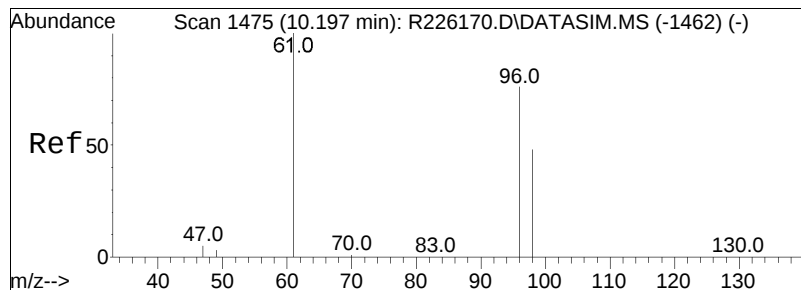




#9
chloroethane
Concen: 0.01 ppbV
RT: 5.78 min Scan# 511
Delta R.T. 0.004 min
Lab File: R226514.D
Acq: 27 Nov 2013 8:29 pm

Tgt Ion: 64 Resp: 56
Ion Ratio Lower Upper
64 100
66 37.0 25.8 38.8





#27

cis-1,2-dichloroethene

Concen: 0.02 ppbV

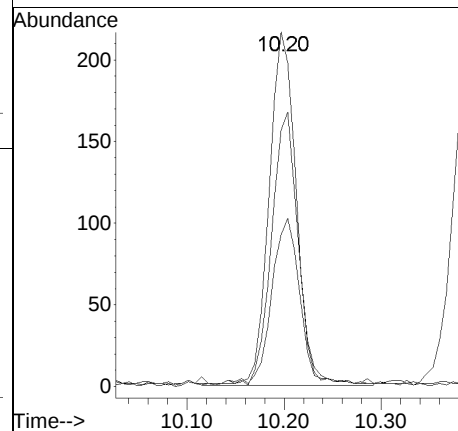
RT: 10.20 min Scan# 1475

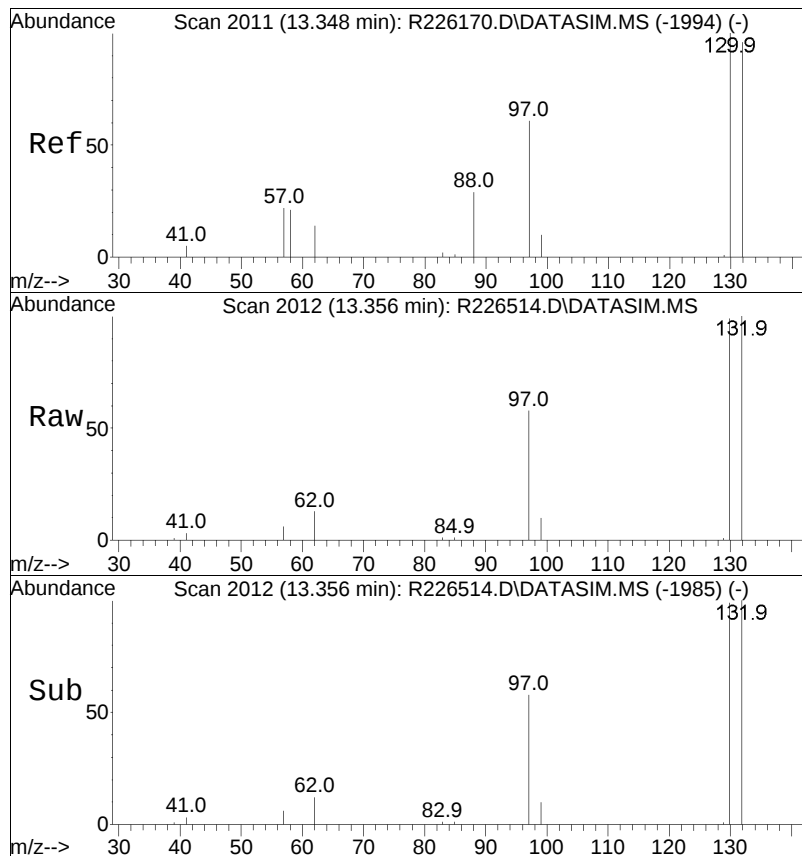
Delta R.T. 0.000 min

Lab File: R226514.D

Acq: 27 Nov 2013 8:29 pm

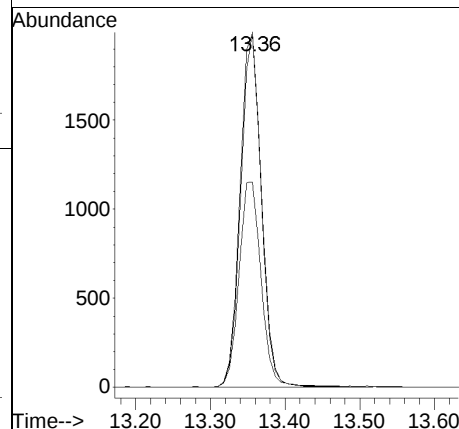
Tgt Ion:	61	Resp:	417
Ion Ratio	Lower	Upper	
61	100		
96	72.4	60.6	91.0
98	42.9	38.6	58.0

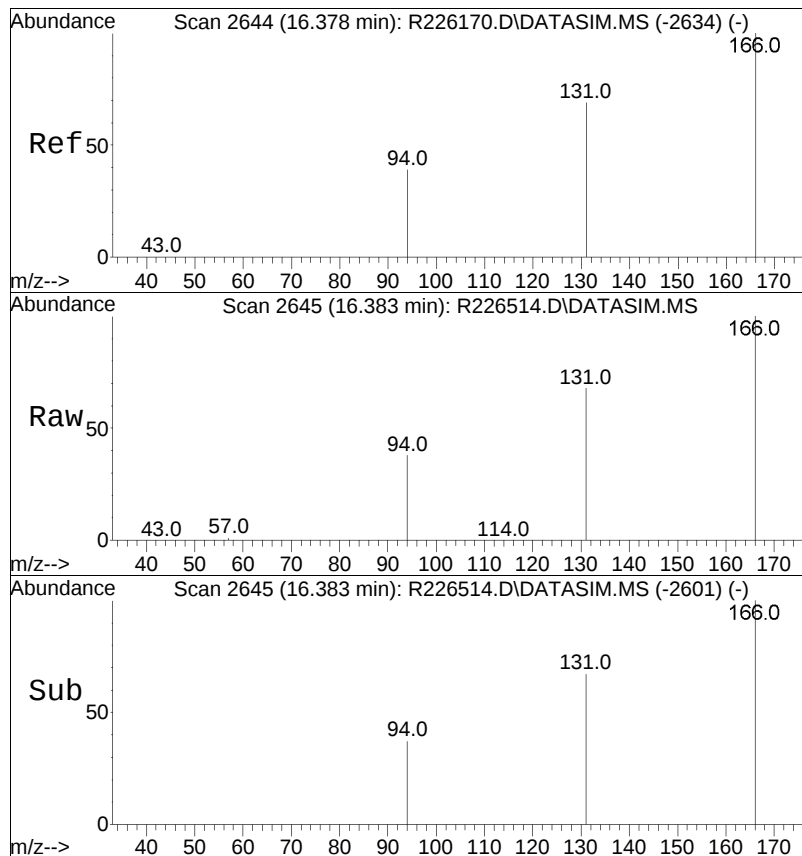




#42
 trichloroethene
 Concen: 0.21 ppbV
 RT: 13.36 min Scan# 2012
 Delta R.T. 0.008 min
 Lab File: R226514.D
 Acq: 27 Nov 2013 8:29 pm

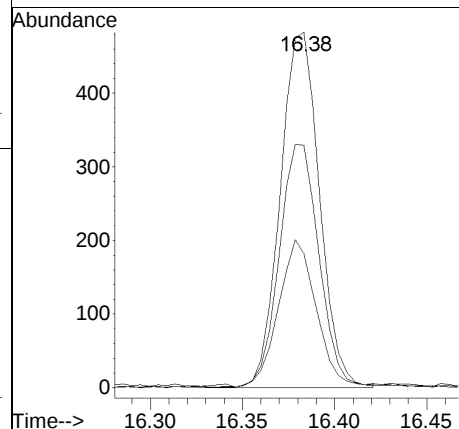
Tgt Ion	Ratio	Lower	Upper
130	100		
132	100.7	77.1	115.7
97	58.3	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.03 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.005 min
 Lab File: R226514.D
 Acq: 27 Nov 2013 8:29 pm

Tgt Ion:	166	Resp:	716
Ion Ratio	Lower	Upper	
166	100		
131	68.1	55.1	82.7
94	37.7	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226514.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 8:29 pm	Instrument	: Air Piano 2
Sample	: L1323970-06,3,250,250	Quant Date	: 11/28/2013 7:04 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226515.D
 Acq On : 27 Nov 2013 9:01 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-07,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 30 09:30:50 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	169911	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		93.91%	
32) 1,4-difluorobenzene	12.56	114	494769	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		94.99%	
49) chlorobenzene-D5	16.91	54	96090	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		95.19%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	129480	9.712	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.12%	
51) toluene-D8	15.25	98	342022	9.557	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		95.57%	
64) bromofluorobenzene	18.09	95	246690	9.341	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		93.41%	
Target Compounds						
6) vinyl chloride	4.94		0	N.D.		
9) chloroethane	5.78	64	107	0.020	ppbV #	88
16) 1,1-dichloroethene	7.66		0	N.D.		
22) trans-1,2-dichloroethene	8.99		0	N.D.		
23) 1,1-dichloroethane	9.23		0	N.D.		
27) cis-1,2-dichloroethene	10.20	61	1951	0.116	ppbV	99
42) trichloroethene	13.36	130	7635	0.388	ppbV	97
55) tetrachloroethene	16.38	166	836	0.033	ppbV	98

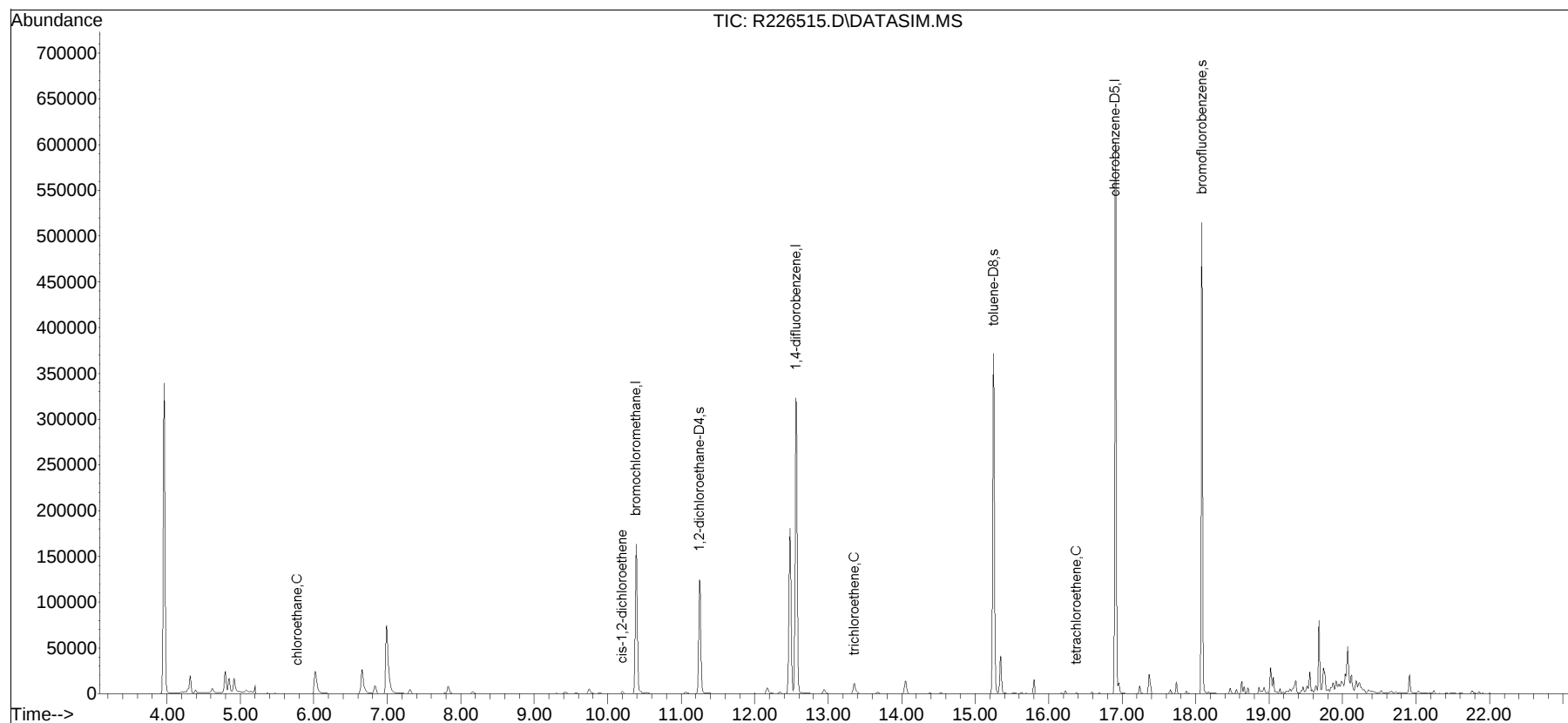
(#) = qualifier out of range (m) = manual integration (+) = signals summed

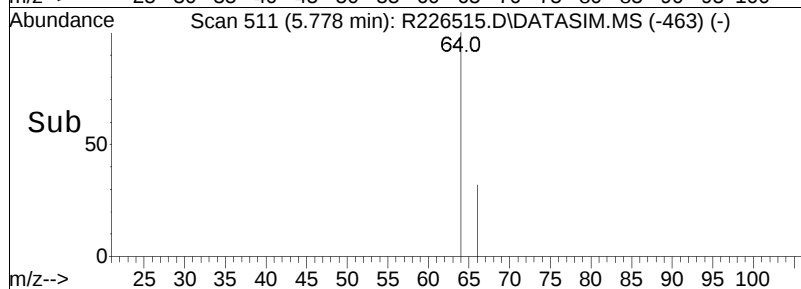
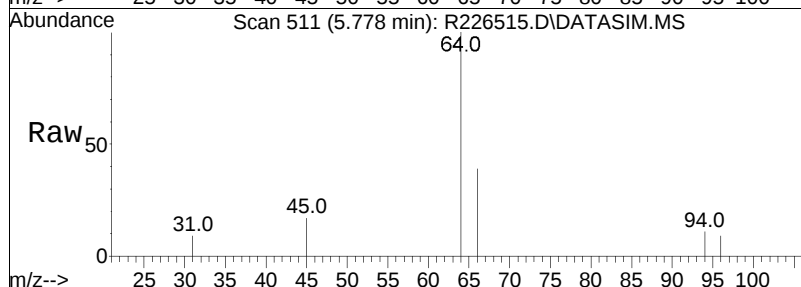
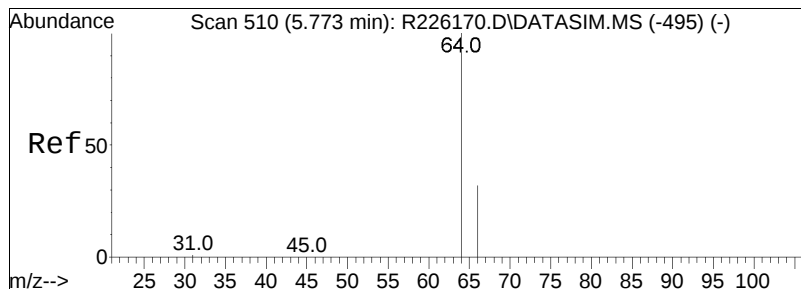
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226515.D
 Acq On : 27 Nov 2013 9:01 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-07,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 30 09:30:50 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

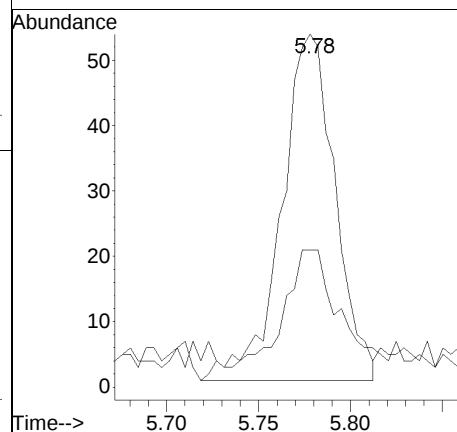
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

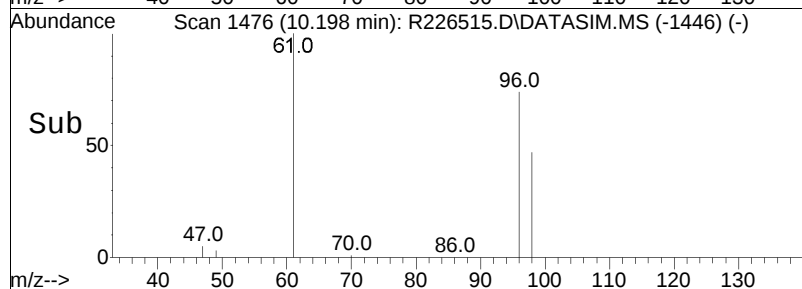
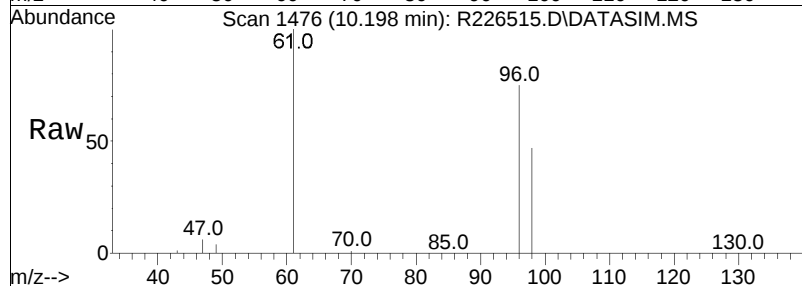
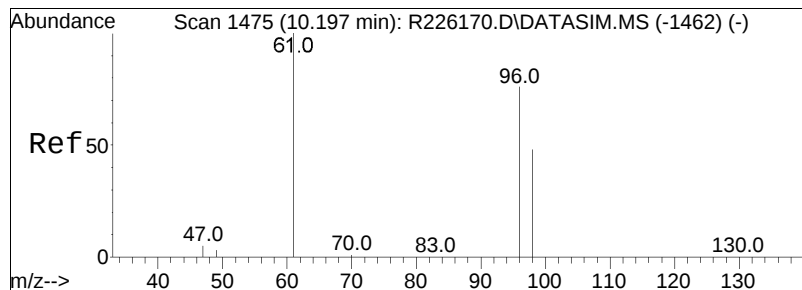




#9
chloroethane
Concen: 0.02 ppbV
RT: 5.78 min Scan# 511
Delta R.T. 0.005 min
Lab File: R226515.D
Acq: 27 Nov 2013 9:01 pm

Tgt Ion: 64 Resp: 107
Ion Ratio Lower Upper
64 100
66 38.9 25.8 38.8#





#27

cis-1,2-dichloroethene

Concen: 0.12 ppbV

RT: 10.20 min Scan# 1476

Delta R.T. 0.002 min

Lab File: R226515.D

Acq: 27 Nov 2013 9:01 pm

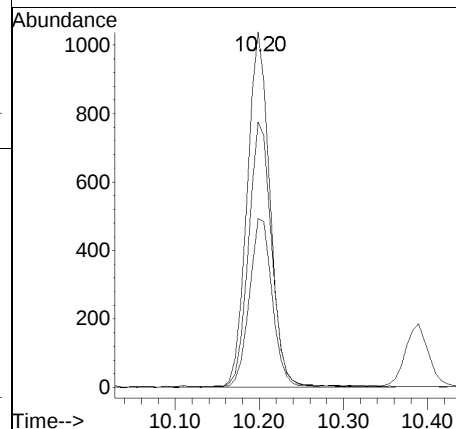
Tgt Ion: 61 Resp: 1951

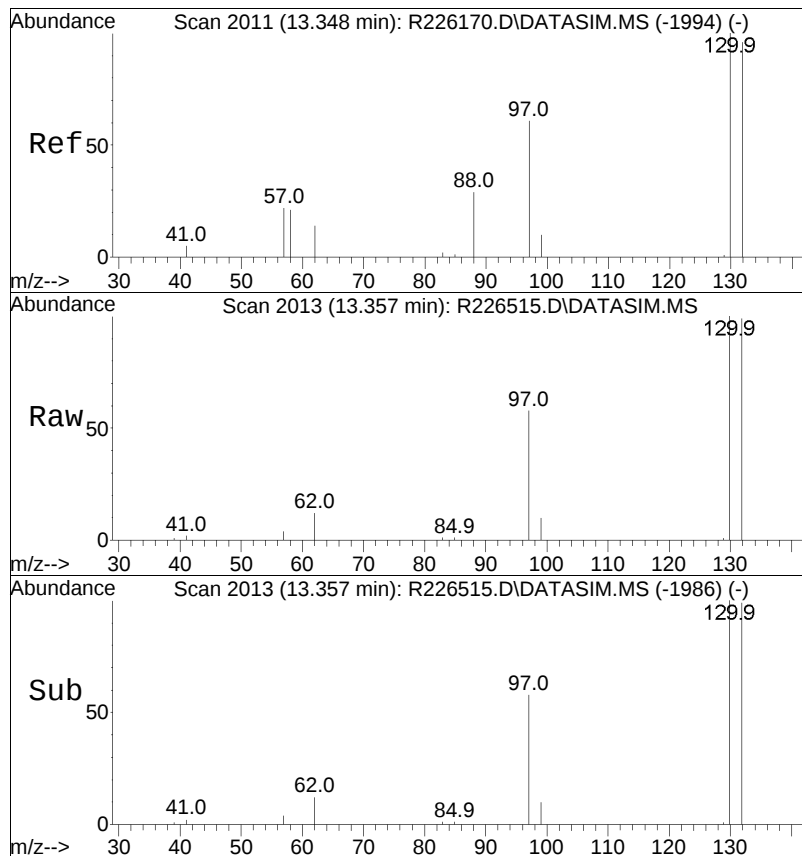
Ion Ratio Lower Upper

61 100

96 74.7 60.6 91.0

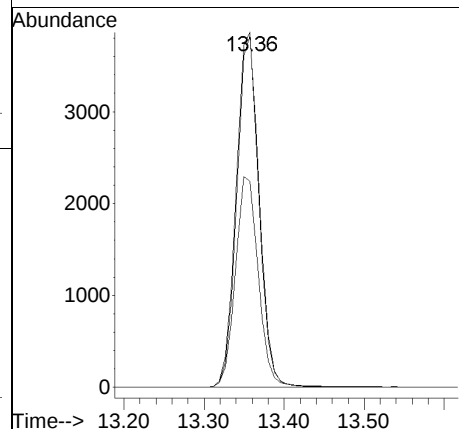
98 47.5 38.6 58.0

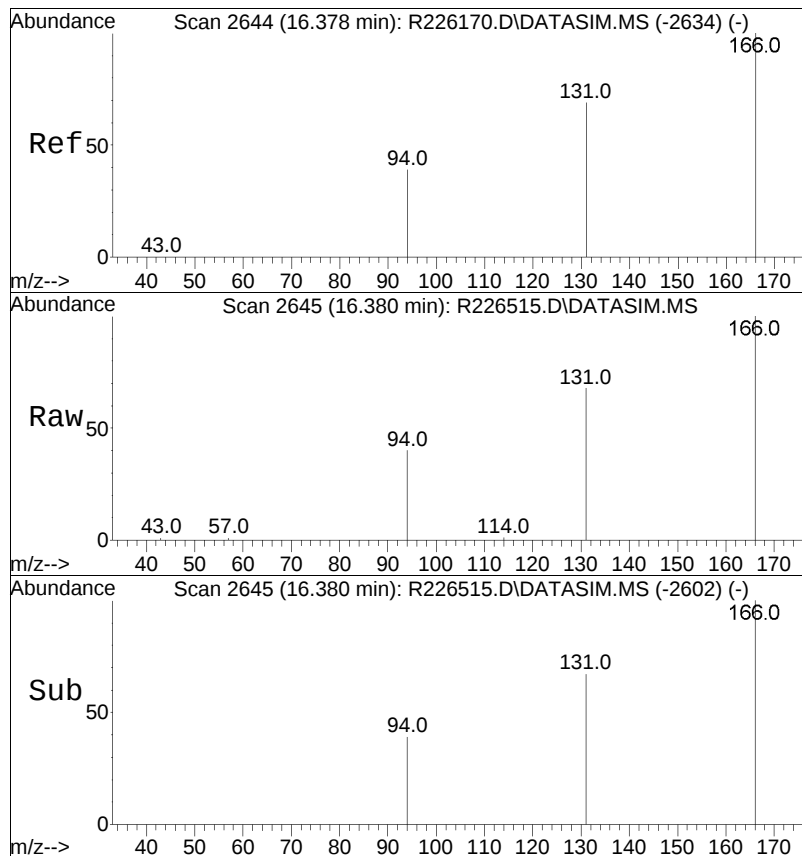




#42
trichloroethene
Concen: 0.39 ppbV
RT: 13.36 min Scan# 2013
Delta R.T. 0.009 min
Lab File: R226515.D
Acq: 27 Nov 2013 9:01 pm

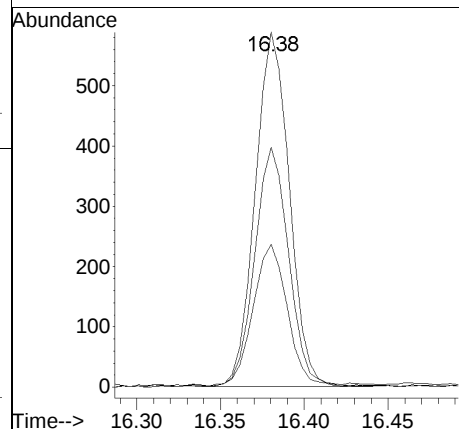
Tgt	Ion	Ratio	Lower	Upper
130	100			
132	98.9	77.1	115.7	
97	58.0	49.0	73.4	





#55
 tetrachloroethene
 Concen: 0.03 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.002 min
 Lab File: R226515.D
 Acq: 27 Nov 2013 9:01 pm

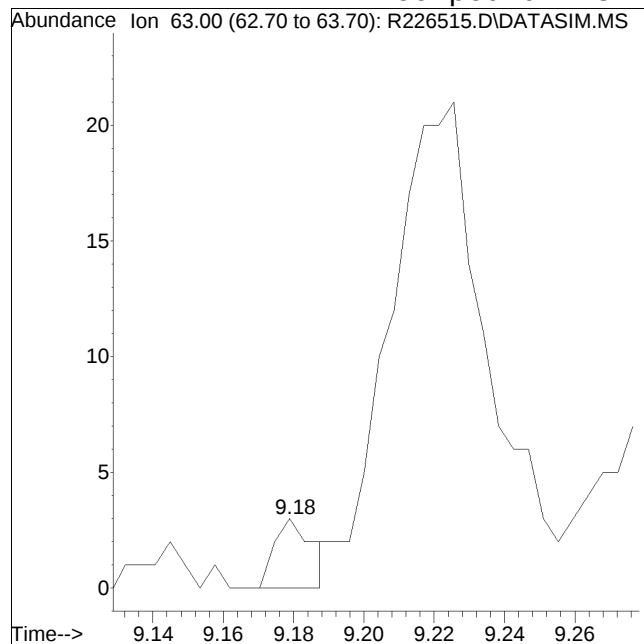
Tgt Ion	Ratio	Lower	Upper
166	100		
131	67.6	55.1	82.7
94	40.2	31.4	47.0



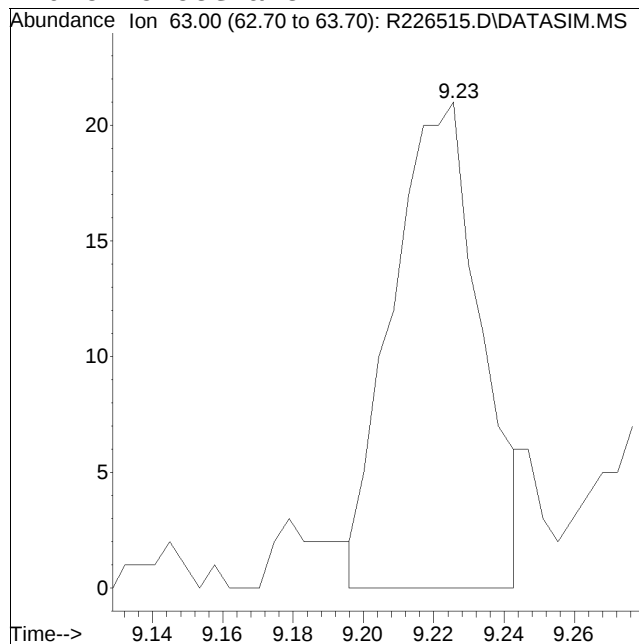
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
 Data File : R226515.D Operator : AIRPIAN02:RY
 Date Inj'd : 11/27/2013 9:01 pm Instrument : Air Piano 2
 Sample : L1323970-07,3,250,250 Quant Date : 11/28/2013 7:04 am

Compound #23: 1,1-dichloroethane



Original Peak Response = 2



Manual Peak Response = 36 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226516.D
 Acq On : 27 Nov 2013 9:33 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-08,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 07:05:11 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	171120	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		94.58%	
32) 1,4-difluorobenzene	12.56	114	494643	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		94.96%	
49) chlorobenzene-D5	16.91	54	96151	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		95.25%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	131601	9.873	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.73%	
51) toluene-D8	15.25	98	344585	9.622	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.22%	
64) bromofluorobenzene	18.08	95	243009	9.196	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		91.96%	
Target Compounds						
					Qvalue	
6) vinyl chloride	4.94		0	N.D.		
9) chloroethane	5.78	64	41	0.007	ppbV	96
16) 1,1-dichloroethene	7.73		0	N.D.		
22) trans-1,2-dichloroethene	8.99		0	N.D.		
23) 1,1-dichloroethane	9.22		0	N.D.		
27) cis-1,2-dichloroethene	10.20	61	687	0.041	ppbV	99
42) trichloroethene	13.36	130	4663	0.237	ppbV	98
55) tetrachloroethene	16.38	166	797	0.032	ppbV	97

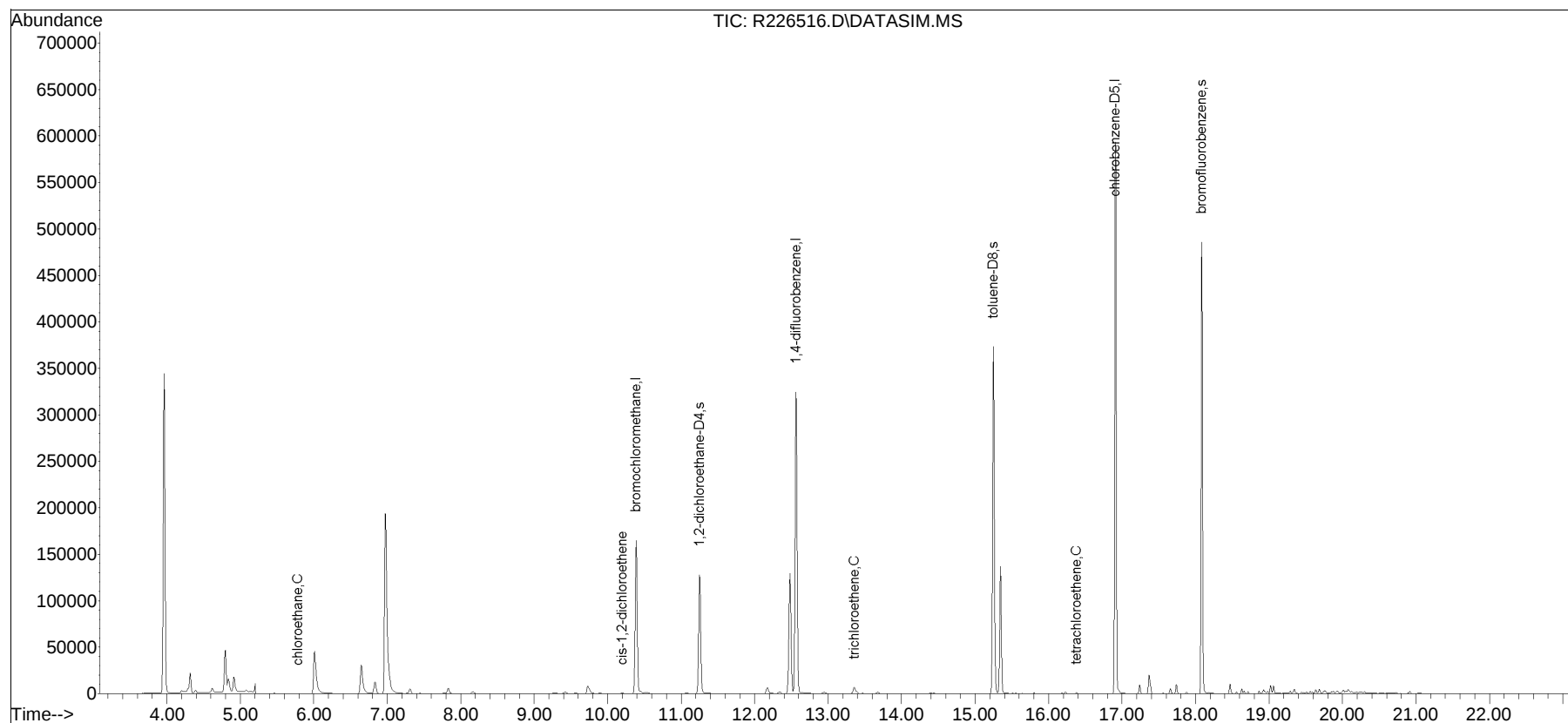
(#) = qualifier out of range (m) = manual integration (+) = signals summed

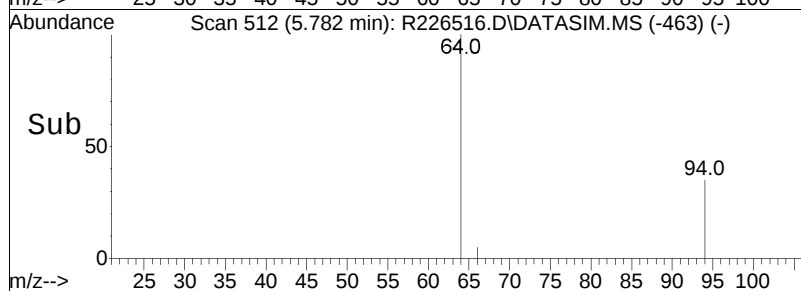
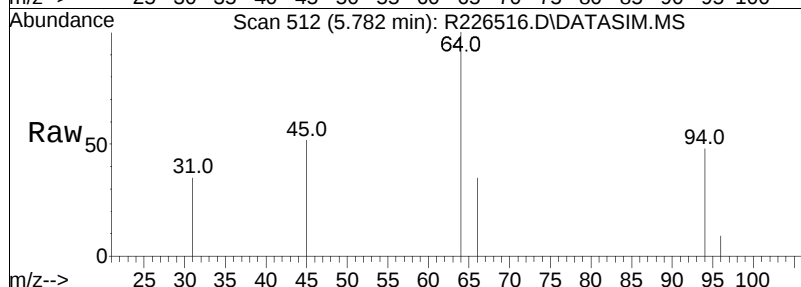
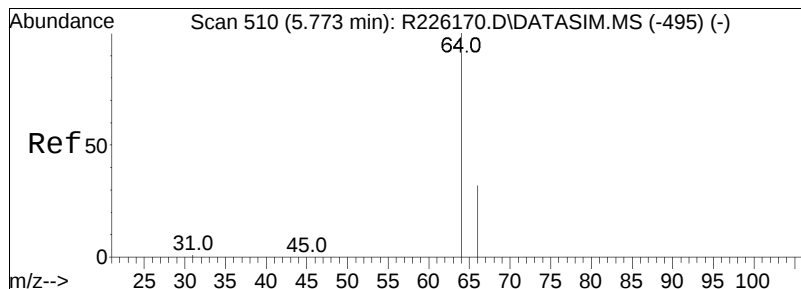
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226516.D
 Acq On : 27 Nov 2013 9:33 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-08,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 28 07:05:11 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

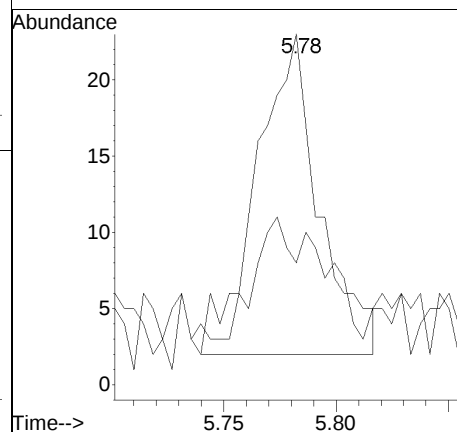
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

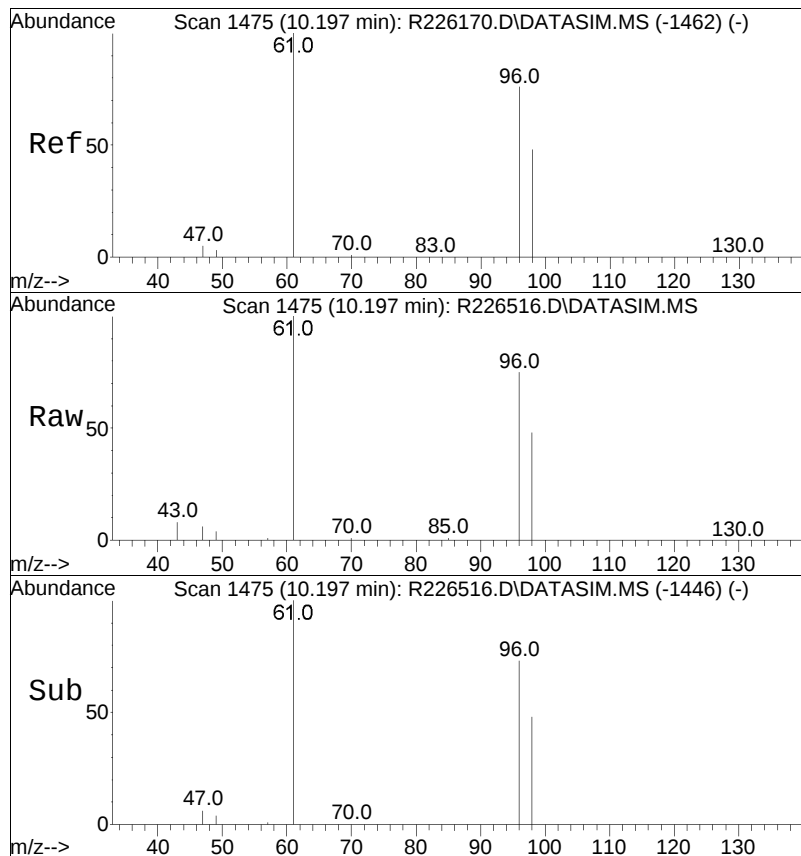




#9
chloroethane
Concen: 0.01 ppbV
RT: 5.78 min Scan# 512
Delta R.T. 0.009 min
Lab File: R226516.D
Acq: 27 Nov 2013 9:33 pm

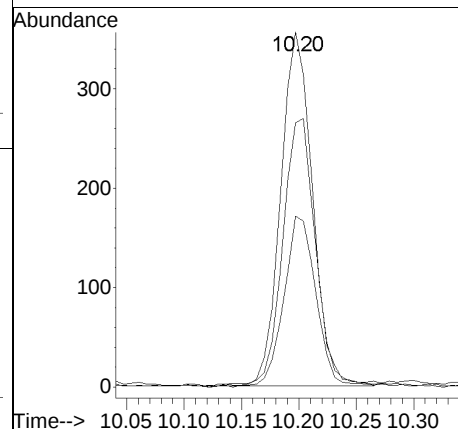
Tgt Ion: 64 Resp: 41
Ion Ratio Lower Upper
64 100
66 34.8 25.8 38.8

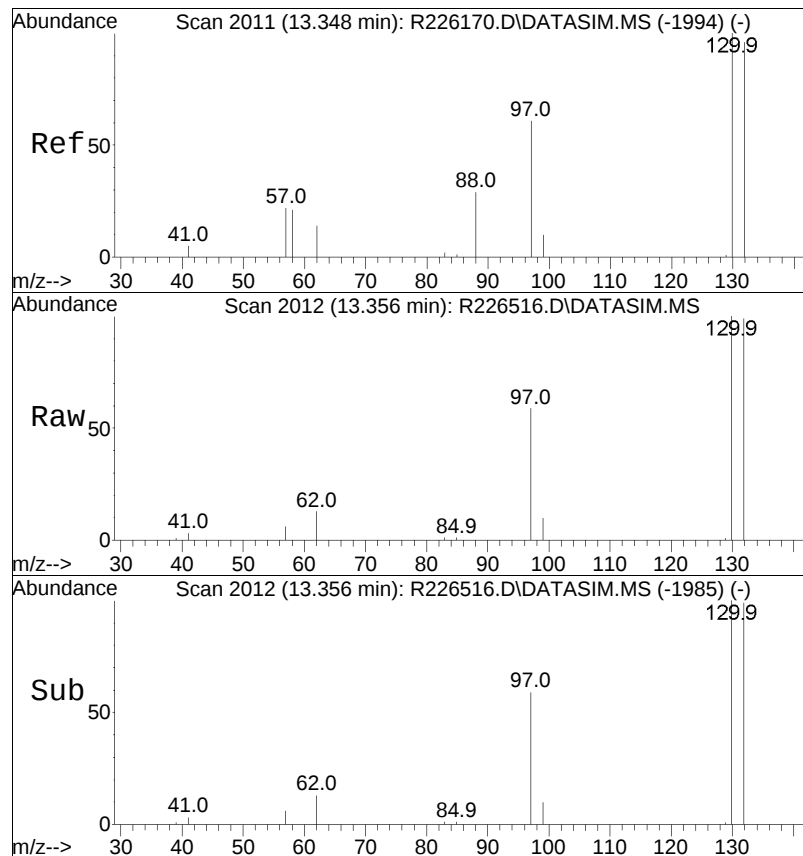




#27
 cis-1,2-dichloroethene
 Concen: 0.04 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.000 min
 Lab File: R226516.D
 Acq: 27 Nov 2013 9:33 pm

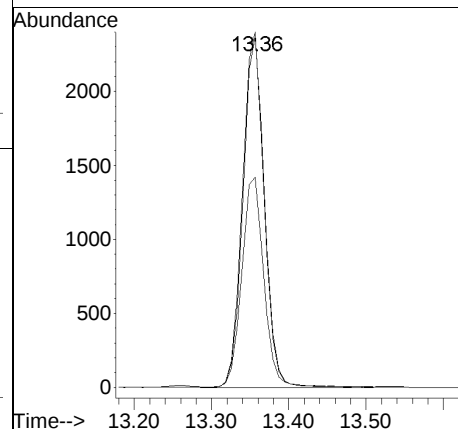
Tgt	Ion: 61	Resp:	687
Ion	Ratio	Lower	Upper
61	100		
96	74.5	60.6	91.0
98	48.2	38.6	58.0

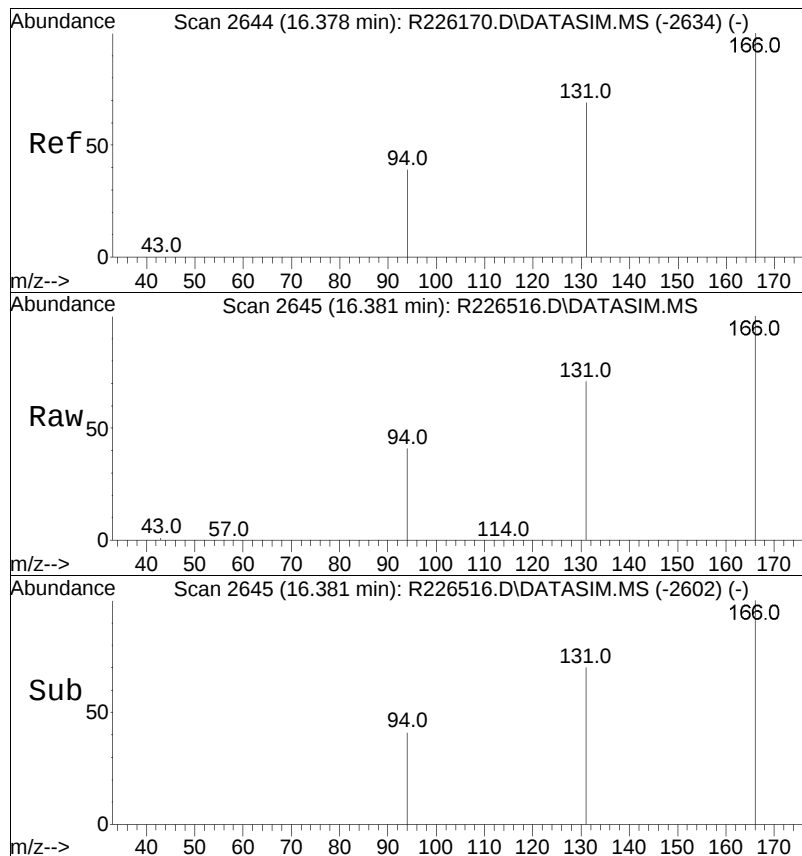




#42
trichloroethene
Concen: 0.24 ppbV
RT: 13.36 min Scan# 2012
Delta R.T. 0.008 min
Lab File: R226516.D
Acq: 27 Nov 2013 9:33 pm

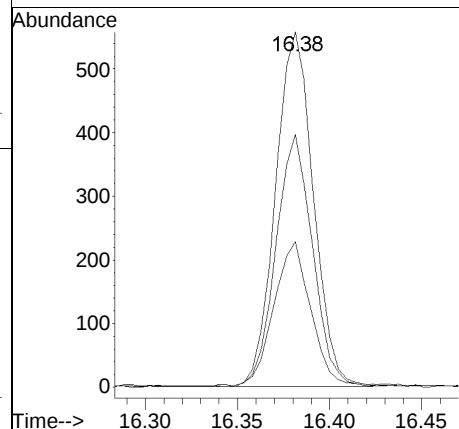
Tgt Ion:	130	Resp:	4663
Ion Ratio	Lower	Upper	
130	100		
132	98.7	77.1	115.7
97	59.1	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.03 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.003 min
 Lab File: R226516.D
 Acq: 27 Nov 2013 9:33 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	71.1	55.1	82.7
94	41.0	31.4	47.0



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226516.D Operator : AIRPIAN02:RY
Date Inj'd : 11/27/2013 9:33 pm Instrument : Air Piano 2
Sample : L1323970-08,3,250,250 Quant Date : 11/28/2013 7:05 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226517.D
 Acq On : 27 Nov 2013 10:06 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-09,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 09:32:00 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	170600	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		94.29%	
32) 1,4-difluorobenzene	12.56	114	486020	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		93.31%	
49) chlorobenzene-D5	16.91	54	94318	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		93.44%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	128119	9.783	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		97.83%	
51) toluene-D8	15.25	98	333297	9.488	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		94.88%	
64) bromofluorobenzene	18.08	95	235748	9.095	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		90.95%	
Target Compounds						Qvalue
6) vinyl chloride	4.93		0		N.D.	
9) chloroethane	5.78		0		N.D.	
16) 1,1-dichloroethene	7.66		0		N.D.	
22) trans-1,2-dichloroethene	8.99		0		N.D.	
23) 1,1-dichloroethane	9.22		0		N.D.	
27) cis-1,2-dichloroethene	10.20	61	2828	0.168	ppbV	95
42) trichloroethene	13.36	130	12389	0.641	ppbV	96
55) tetrachloroethene	16.38	166	587	0.024	ppbV	97

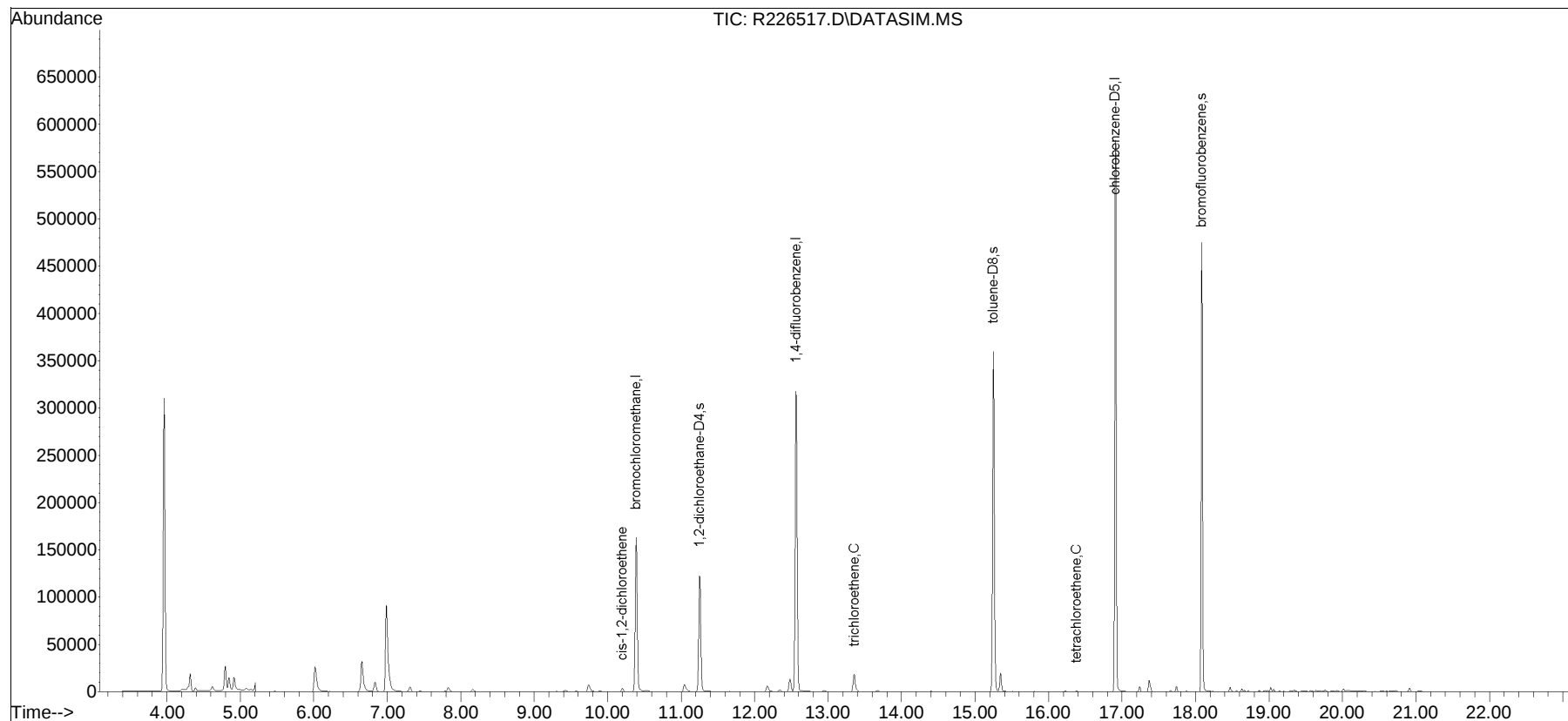
(#) = qualifier out of range (m) = manual integration (+) = signals summed

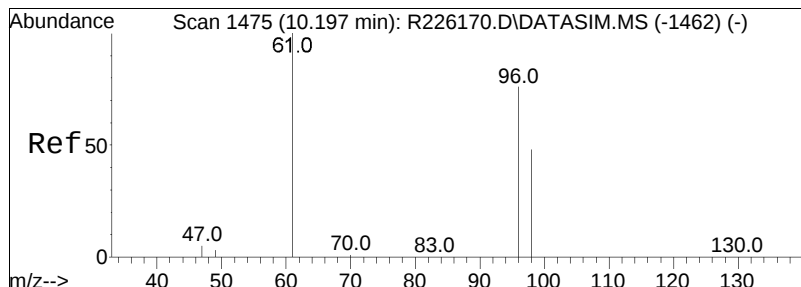
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226517.D
 Acq On : 27 Nov 2013 10:06 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-09,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 30 09:32:00 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

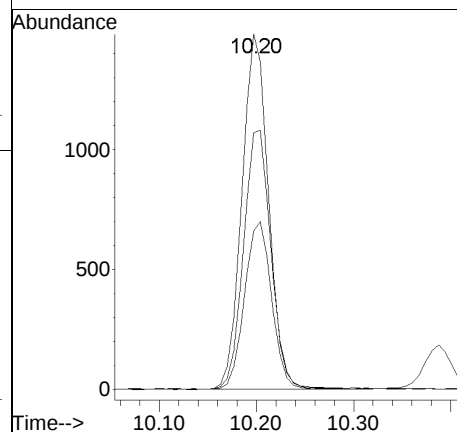
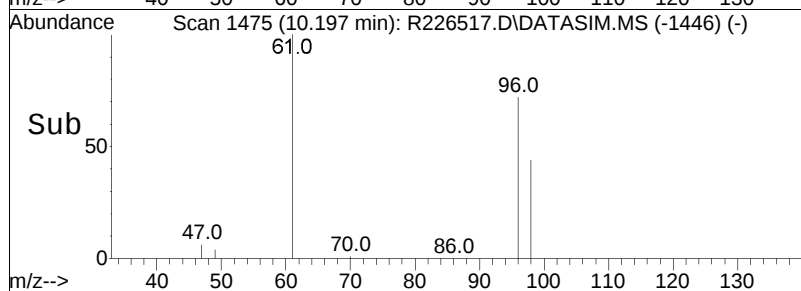
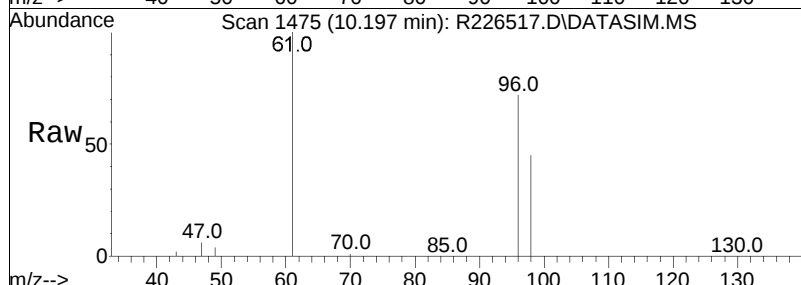
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

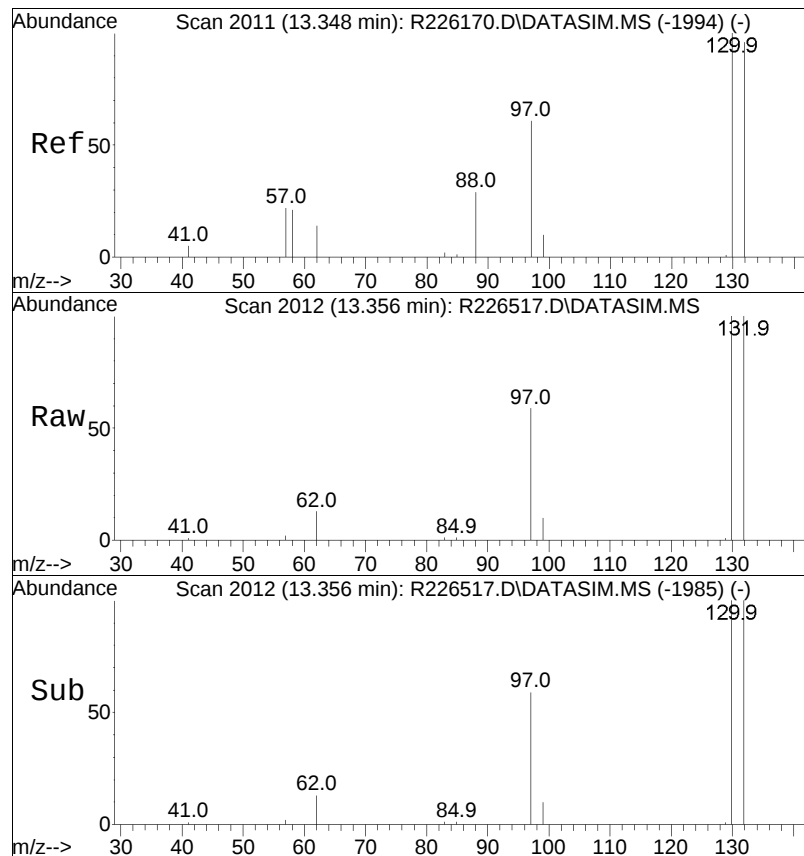




#27
 cis-1,2-dichloroethene
 Concen: 0.17 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.000 min
 Lab File: R226517.D
 Acq: 27 Nov 2013 10:06 pm

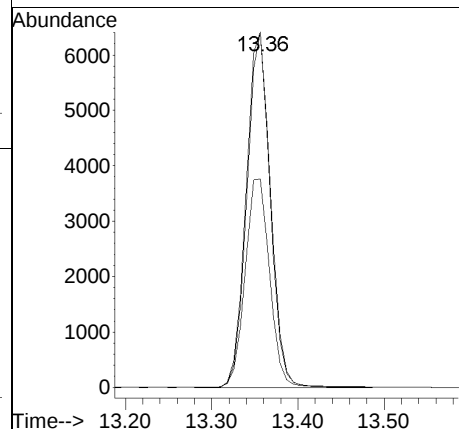
Tgt Ion	Ratio	Lower	Upper
61	100		
96	72.2	60.6	91.0
98	44.6	38.6	58.0

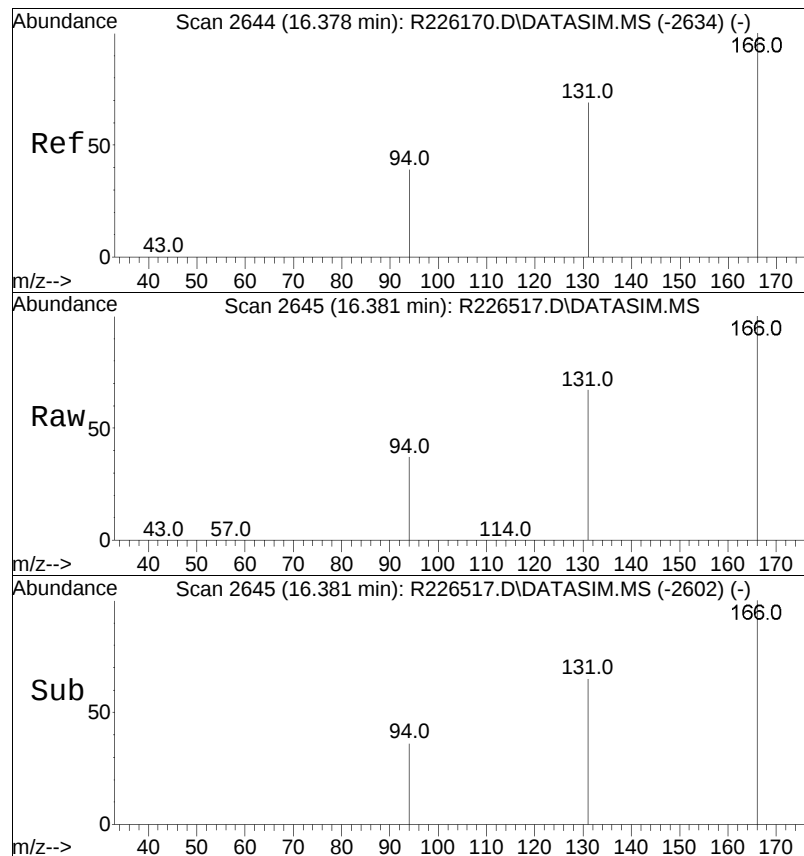




#42
 trichloroethene
 Concen: 0.64 ppbV
 RT: 13.36 min Scan# 2012
 Delta R.T. 0.008 min
 Lab File: R226517.D
 Acq: 27 Nov 2013 10:06 pm

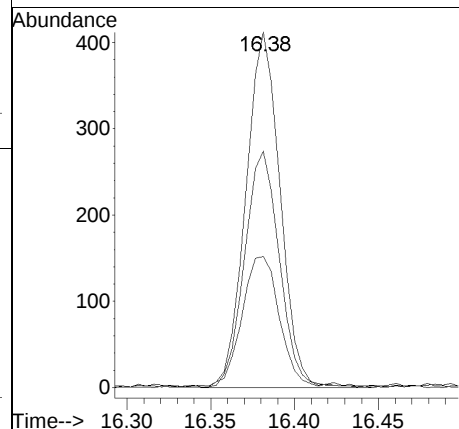
Tgt Ion	Ratio	Lower	Upper
130	100		
132	100.0	77.1	115.7
97	58.7	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.02 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.003 min
 Lab File: R226517.D
 Acq: 27 Nov 2013 10:06 pm

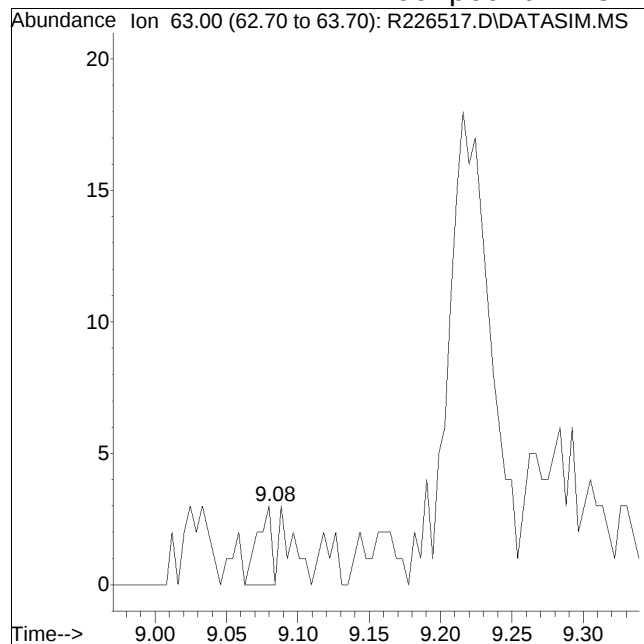
Tgt Ion	Ratio	Lower	Upper
166	100		
131	66.5	55.1	82.7
94	36.9	31.4	47.0



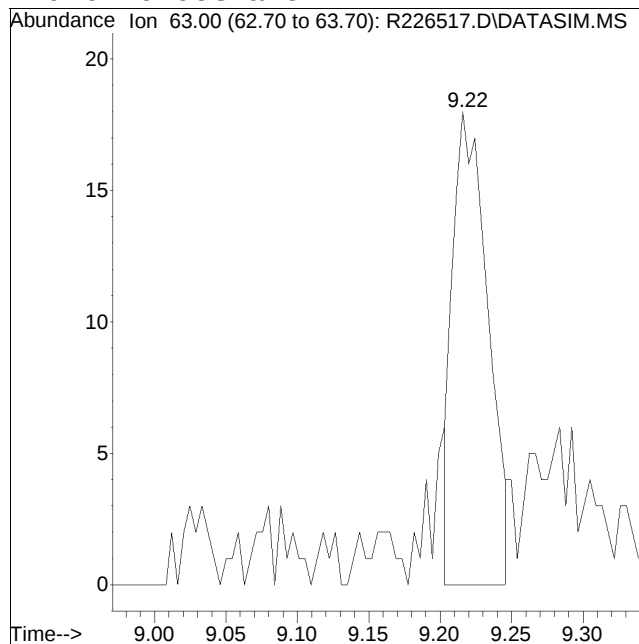
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226517.D Operator : AIRPIAN02:RY
Date Inj'd : 11/27/2013 10:06 pm Instrument : Air Piano 2
Sample : L1323970-09,3,250,250 Quant Date : 11/28/2013 7:05 am

Compound #23: 1,1-dichloroethane



Original Peak Response = 2



Manual Peak Response = 31 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226518.D
 Acq On : 27 Nov 2013 10:37 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-10,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 09:32:37 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	169136	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		93.48%	
32) 1,4-difluorobenzene	12.56	114	484347	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		92.98%	
49) chlorobenzene-D5	16.91	54	95098	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		94.21%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	129715	9.939	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.39%	
51) toluene-D8	15.25	98	338613	9.560	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		95.60%	
64) bromofluorobenzene	18.08	95	241619	9.245	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		92.45%	
Target Compounds						Qvalue
6) vinyl chloride	4.94		0		N.D.	
9) chloroethane	5.78	64	56	0.010	ppbV #	78
16) 1,1-dichloroethene	7.66		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.22		0		N.D.	
27) cis-1,2-dichloroethene	10.20	61	873	0.052	ppbV	96
42) trichloroethene	13.36	130	5092	0.265	ppbV	97
55) tetrachloroethene	16.38	166	619	0.025	ppbV	100

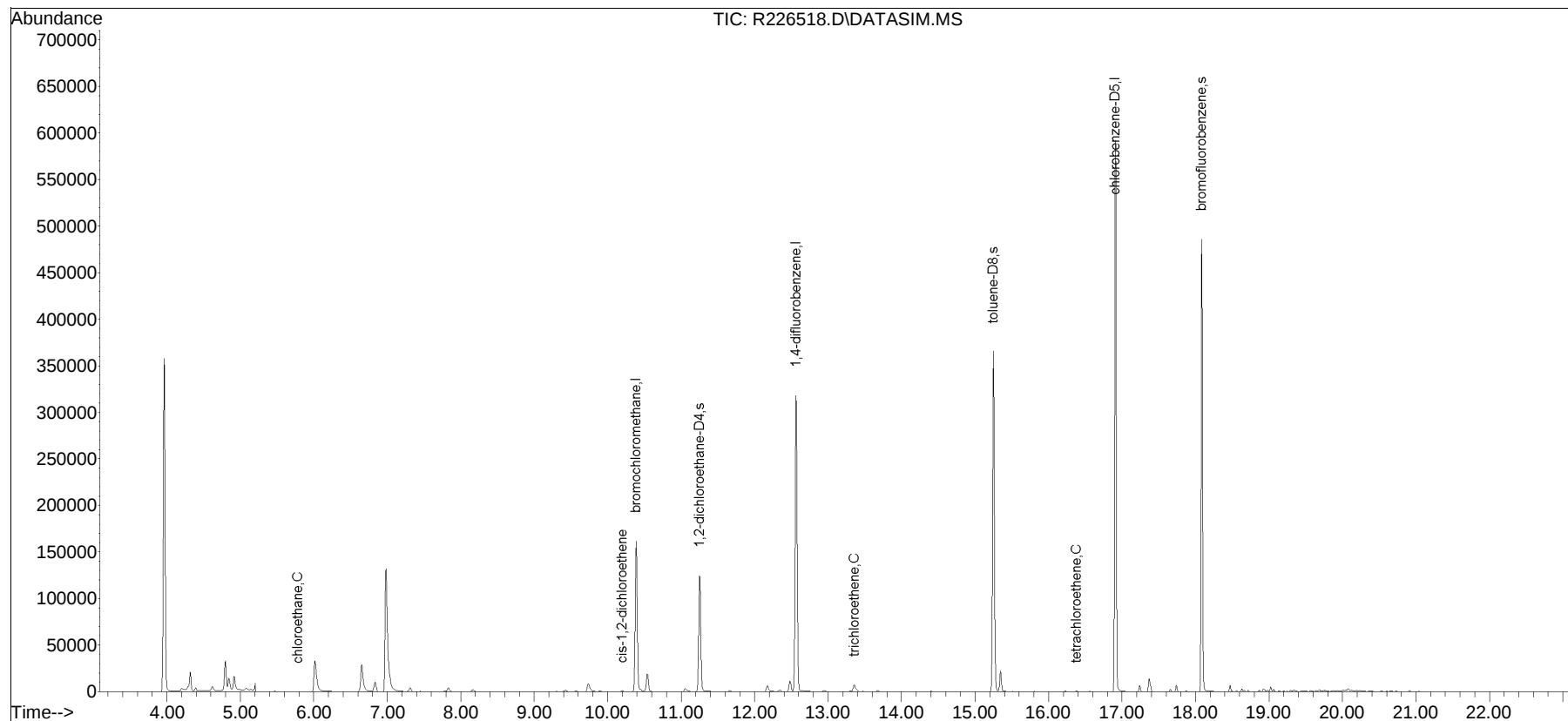
(#) = qualifier out of range (m) = manual integration (+) = signals summed

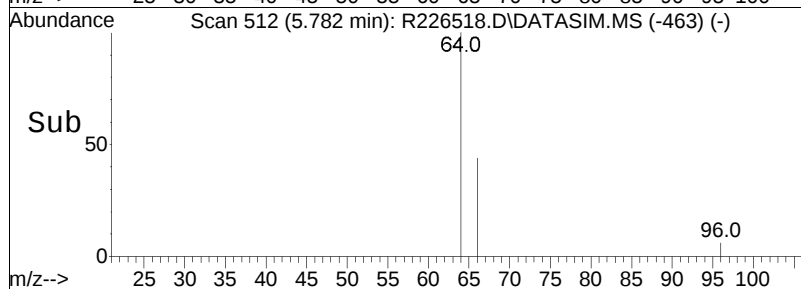
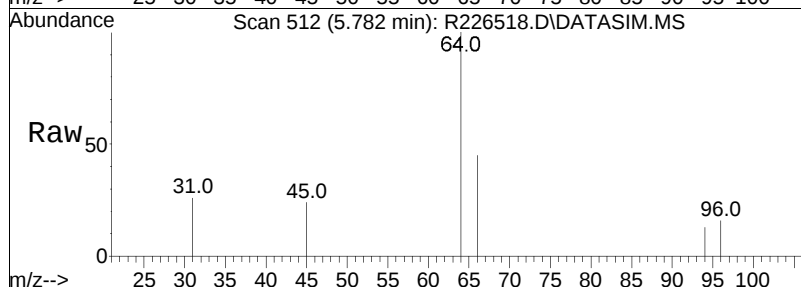
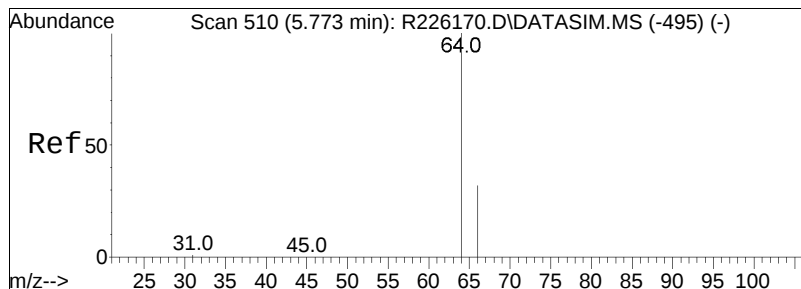
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226518.D
 Acq On : 27 Nov 2013 10:37 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-10,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 30 09:32:37 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

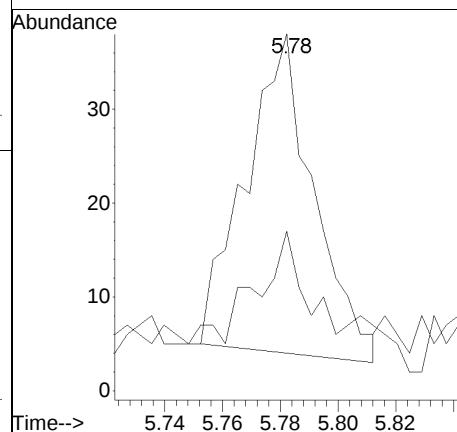
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

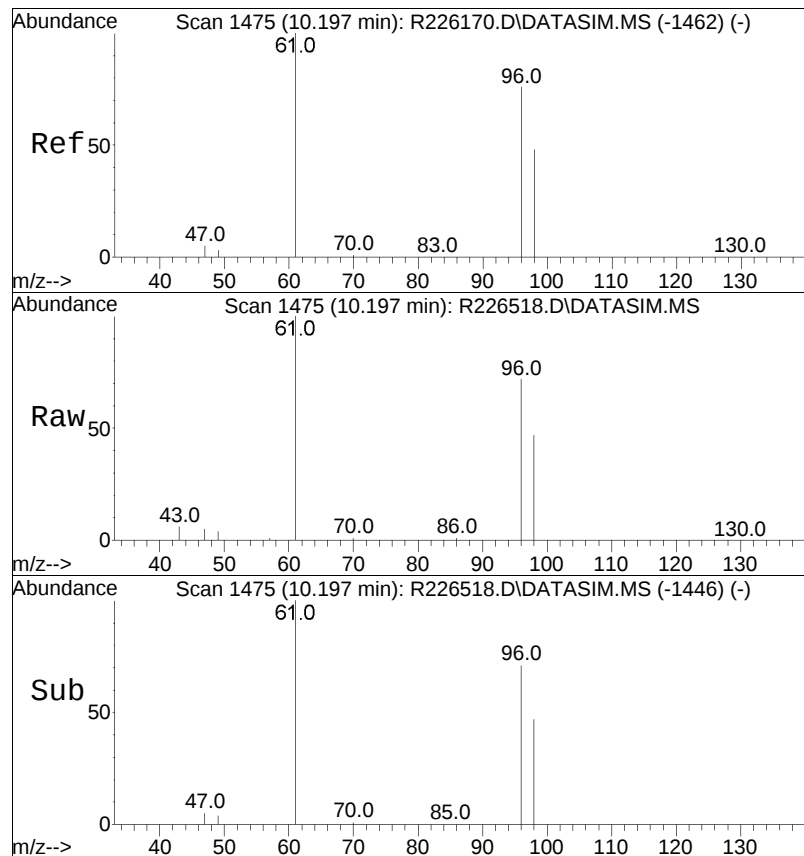




#9
chloroethane
Concen: 0.01 ppbV
RT: 5.78 min Scan# 512
Delta R.T. 0.009 min
Lab File: R226518.D
Acq: 27 Nov 2013 10:37 pm

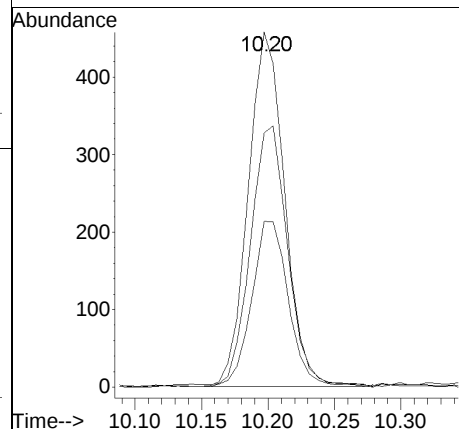
Tgt Ion: 64 Resp: 56
Ion Ratio Lower Upper
64 100
66 44.7 25.8 38.8#

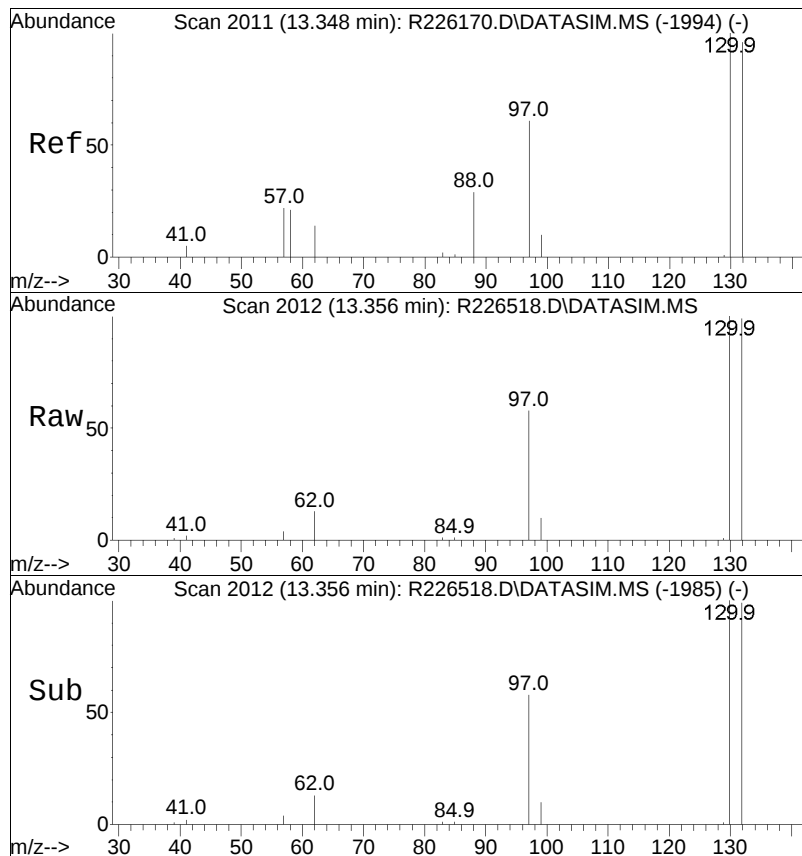




#27
 cis-1,2-dichloroethene
 Concen: 0.05 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.000 min
 Lab File: R226518.D
 Acq: 27 Nov 2013 10:37 pm

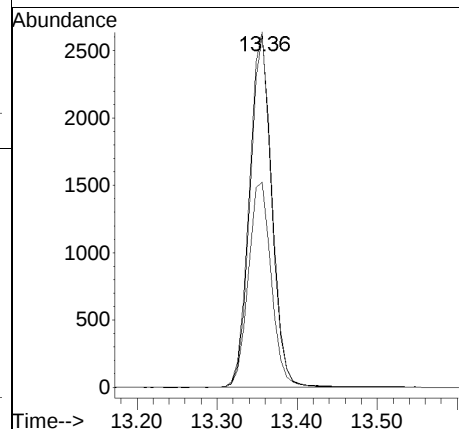
Tgt Ion:	61	Resp:	873
Ion Ratio	Lower	Upper	
61	100		
96	71.6	60.6	91.0
98	46.7	38.6	58.0

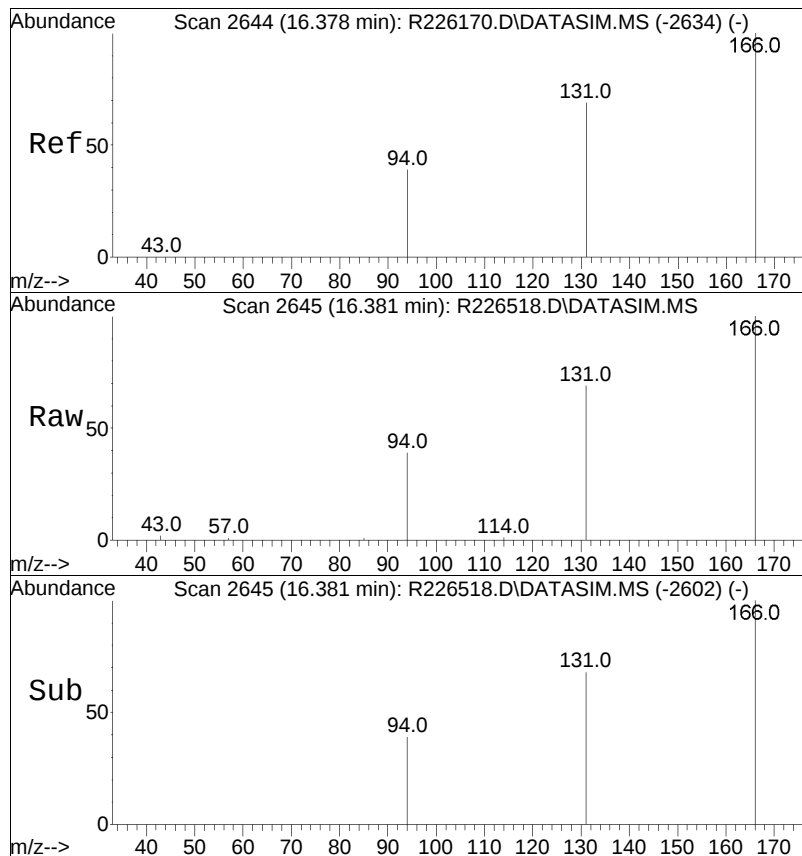




#42
 trichloroethene
 Concen: 0.26 ppbV
 RT: 13.36 min Scan# 2012
 Delta R.T. 0.008 min
 Lab File: R226518.D
 Acq: 27 Nov 2013 10:37 pm

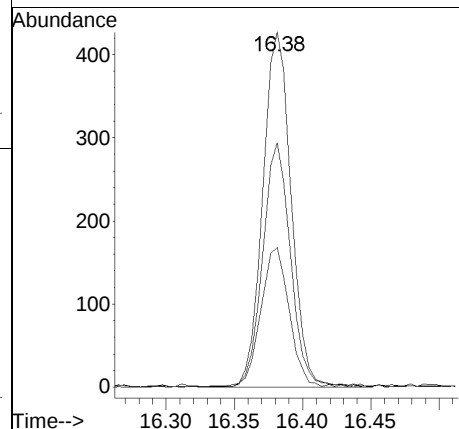
Tgt Ion:	130	Resp:	5092
Ion Ratio	Lower	Upper	
130	100		
132	98.9	77.1	115.7
97	57.7	49.0	73.4





#55
tetrachloroethene
Concen: 0.02 ppbV
RT: 16.38 min Scan# 2645
Delta R.T. 0.003 min
Lab File: R226518.D
Acq: 27 Nov 2013 10:37 pm

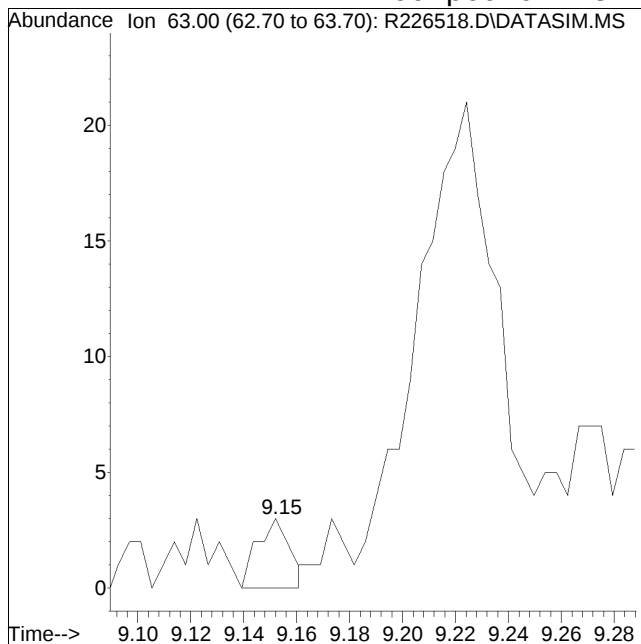
Tgt Ion	Ratio	Lower	Upper
166	100		
131	68.9	55.1	82.7
94	39.3	31.4	47.0



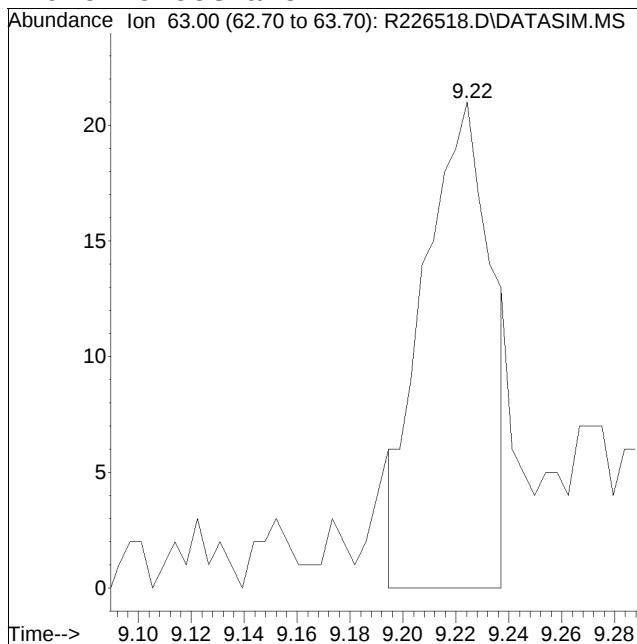
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
 Data File : R226518.D Operator : AIRPIAN02:RY
 Date Inj'd : 11/27/2013 10:37 pm Instrument : Air Piano 2
 Sample : L1323970-10,3,250,250 Quant Date : 11/28/2013 7:05 am

Compound #23: 1,1-dichloroethane



Original Peak Response = 3



Manual Peak Response = 37 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226519.D
 Acq On : 27 Nov 2013 11:09 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-11,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 07:06:14 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	168297	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		93.02%	
32) 1,4-difluorobenzene	12.56	114	479388	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		92.03%	
49) chlorobenzene-D5	16.91	54	94506	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		93.62%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	128807	9.971	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		99.71%	
51) toluene-D8	15.25	98	334820	9.512	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		95.12%	
64) bromofluorobenzene	18.09	95	235288	9.059	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		90.59%	
Target Compounds						
					Qvalue	
6) vinyl chloride	4.94		0		N.D.	
9) chloroethane	5.78		0		N.D.	
16) 1,1-dichloroethene	7.62		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.21		0		N.D.	
27) cis-1,2-dichloroethene	10.20	61	769	0.046	ppbV	92
42) trichloroethene	13.35	130	2588	0.136	ppbV	98
55) tetrachloroethene	16.38	166	484	0.020	ppbV	97

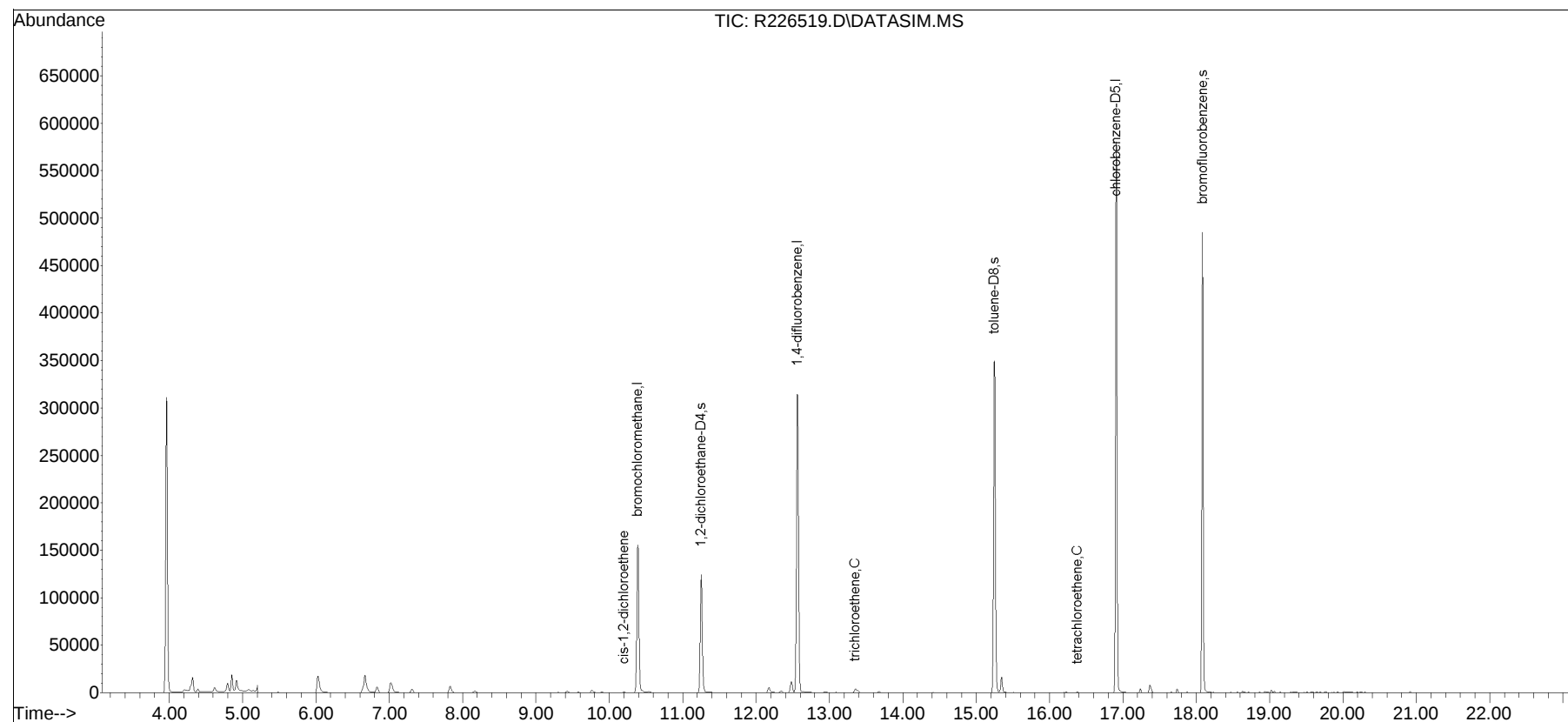
(#) = qualifier out of range (m) = manual integration (+) = signals summed

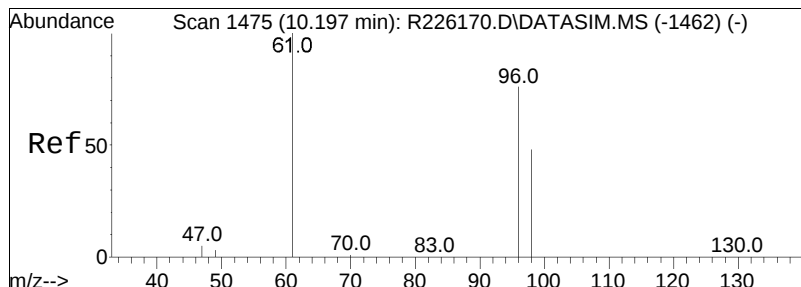
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226519.D
 Acq On : 27 Nov 2013 11:09 pm
 Operator : AIRPIAN02:RY
 Sample : L1323970-11,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 28 07:06:14 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

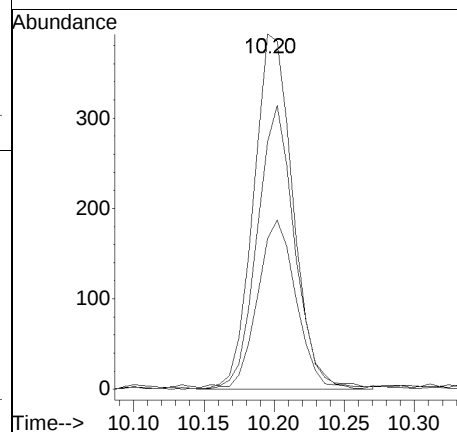
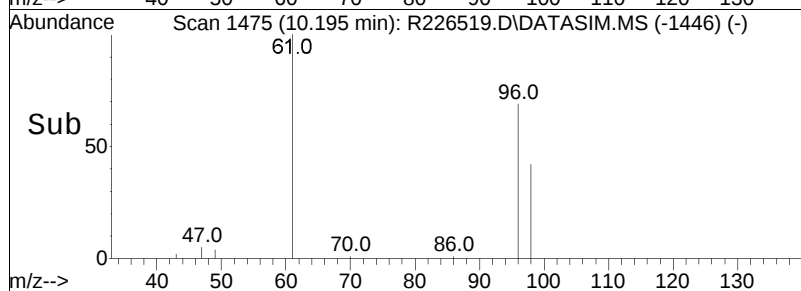
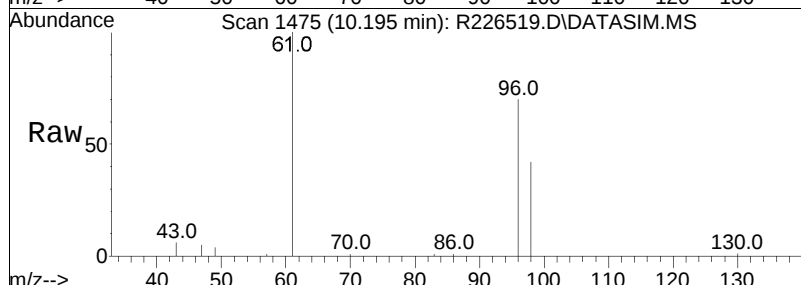
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

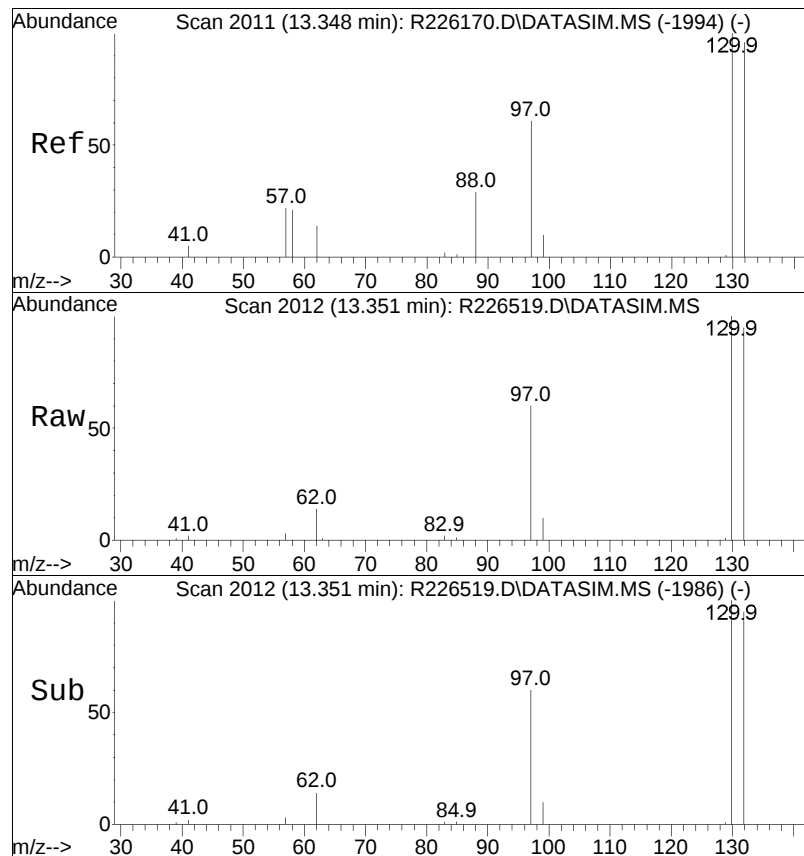




#27
 cis-1,2-dichloroethene
 Concen: 0.05 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. -0.001 min
 Lab File: R226519.D
 Acq: 27 Nov 2013 11:09 pm

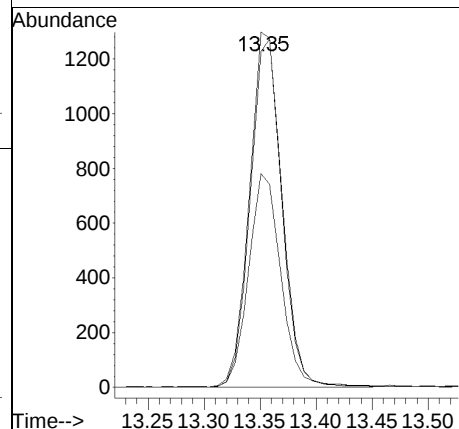
Tgt Ion	Ratio	Resp	Lower	Upper
61	100	769		
96	69.7		60.6	91.0
98	42.5		38.6	58.0

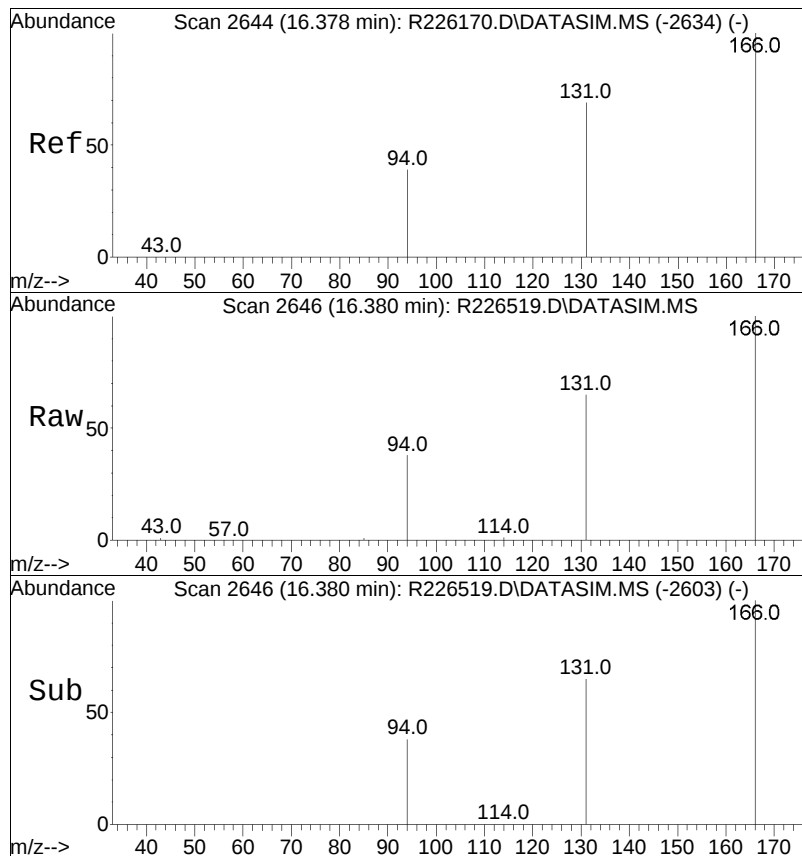




#42
 trichloroethene
 Concen: 0.14 ppbV
 RT: 13.35 min Scan# 2012
 Delta R.T. 0.002 min
 Lab File: R226519.D
 Acq: 27 Nov 2013 11:09 pm

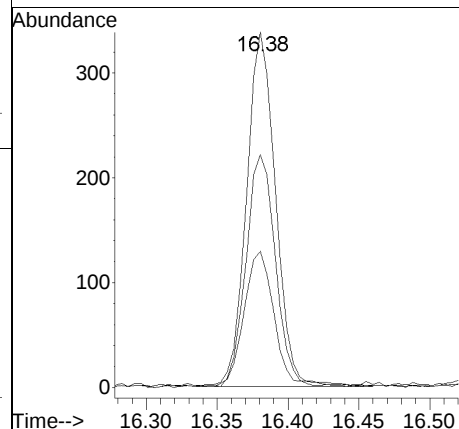
Tgt Ion:	130	Resp:	2588
Ion Ratio	Lower	Upper	
130	100		
132	94.5	77.1	115.7
97	60.2	49.0	73.4





#55
tetrachloroethene
Concen: 0.02 ppbV
RT: 16.38 min Scan# 2646
Delta R.T. 0.002 min
Lab File: R226519.D
Acq: 27 Nov 2013 11:09 pm

Tgt Ion	Ratio	Lower	Upper
166	100		
131	65.5	55.1	82.7
94	38.3	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226519.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 11:09 pm	Instrument	: Air Piano 2
Sample	: L1323970-11,3,250,250	Quant Date	: 11/28/2013 7:06 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226526.D
 Acq On : 2 Dec 2013 1:41 pm
 Operator : AIRPIAN02:MB
 Sample : L1323970-14,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 14:13:17 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131202SIM\R226523.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

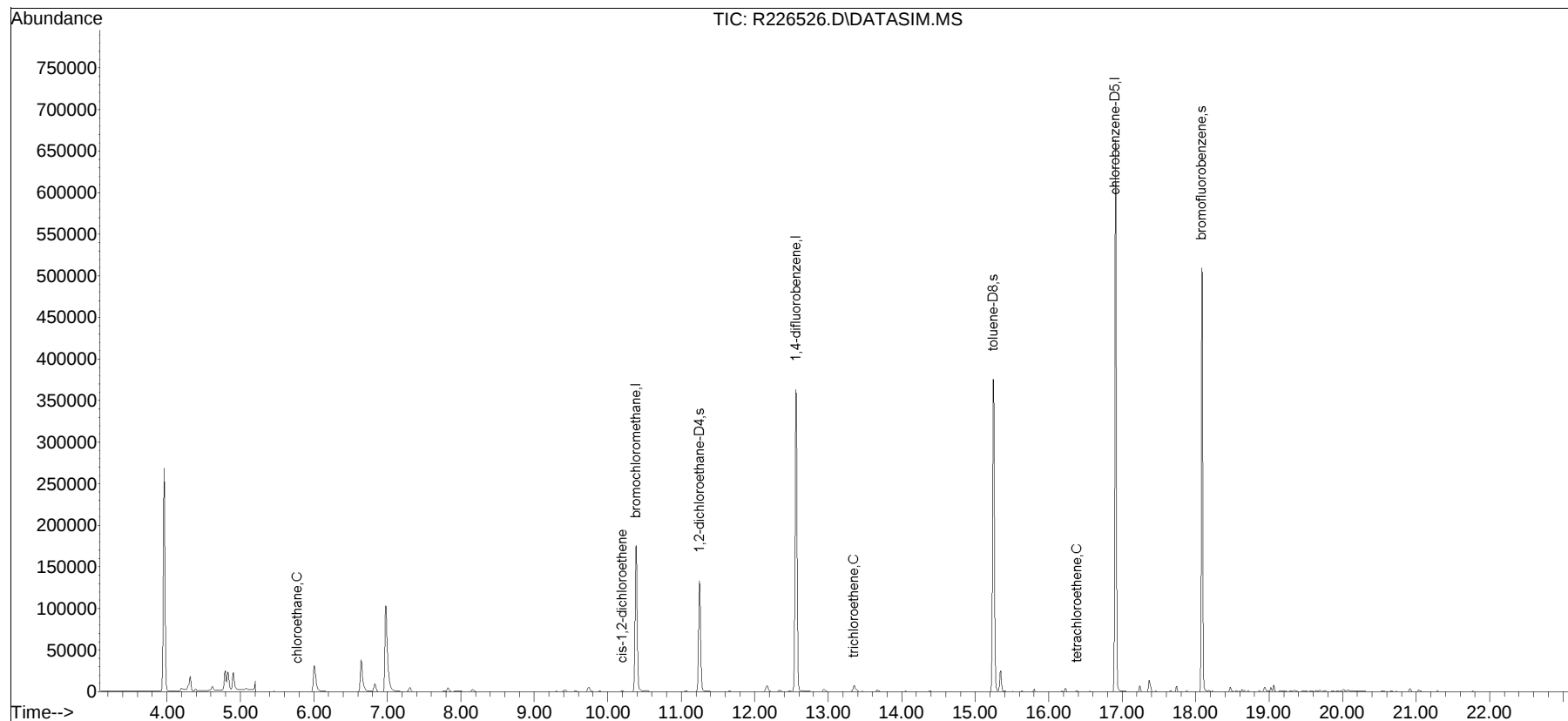
Internal Standards						
1) bromochloromethane	10.38	49	188951	10.000	ppbV	0.00
Standard Area = 188847			Recovery =	100.06%		
32) 1,4-difluorobenzene	12.56	114	545098	10.000	ppbV	0.00
Standard Area = 548831			Recovery =	99.32%		
49) chlorobenzene-D5	16.91	54	102945	10.000	ppbV	0.00
Standard Area = 104381			Recovery =	98.62%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	135951	9.256	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	92.56%		
51) toluene-D8	15.25	98	359400	9.374	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	93.74%		
64) bromofluorobenzene	18.08	95	254126	8.982	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	89.82%		
Target Compounds						
					Qvalue	
6) vinyl chloride	4.93		0	N.D.		
9) chloroethane	5.78	64	64	0.011	ppbV #	84
16) 1,1-dichloroethene	7.65		0	N.D.		
22) trans-1,2-dichloroethene	8.98		0	N.D.		
23) 1,1-dichloroethane	9.21		0	N.D.		
27) cis-1,2-dichloroethene	10.20	61	846	0.045	ppbV	98
42) trichloroethene	13.35	130	4951	0.229	ppbV	99
55) tetrachloroethene	16.38	166	928	0.035	ppbV	96

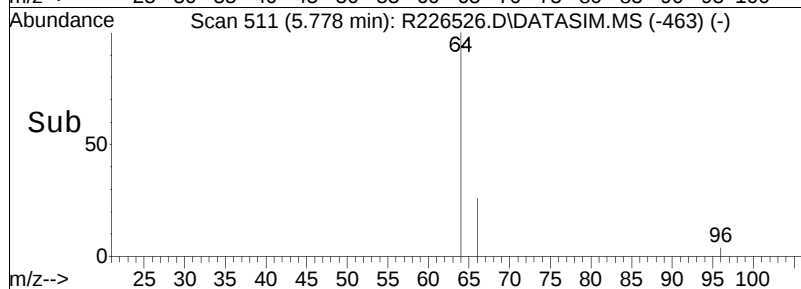
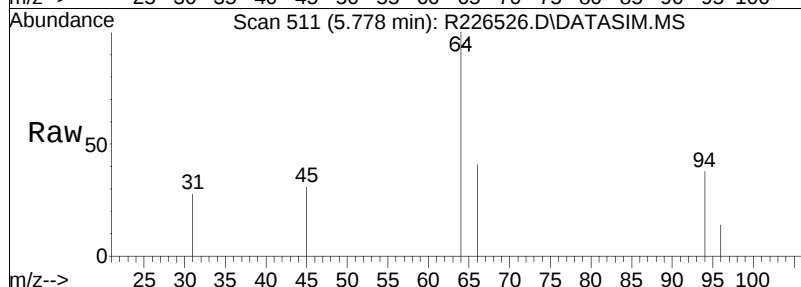
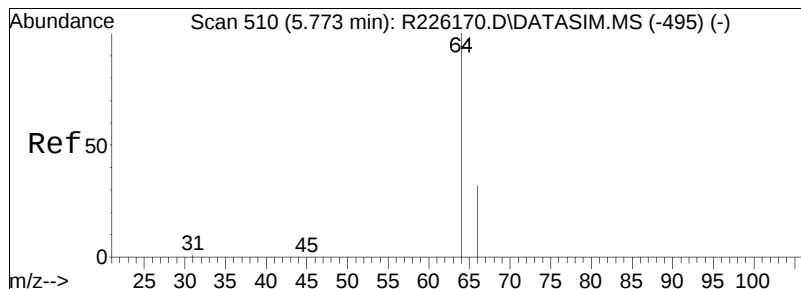
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IBM-POK - .s\Data\AIR2\2013\131202SIM\R226523.D

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
Data File : R226526.D
Acq On : 2 Dec 2013 1:41 pm
Operator : AIRPIANO2:MB
Sample : L1323970-14,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 1 Sample Multiplier: 1

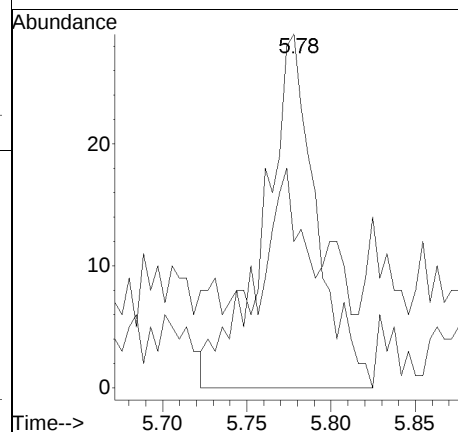
Quant Time: Dec 02 14:13:17 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

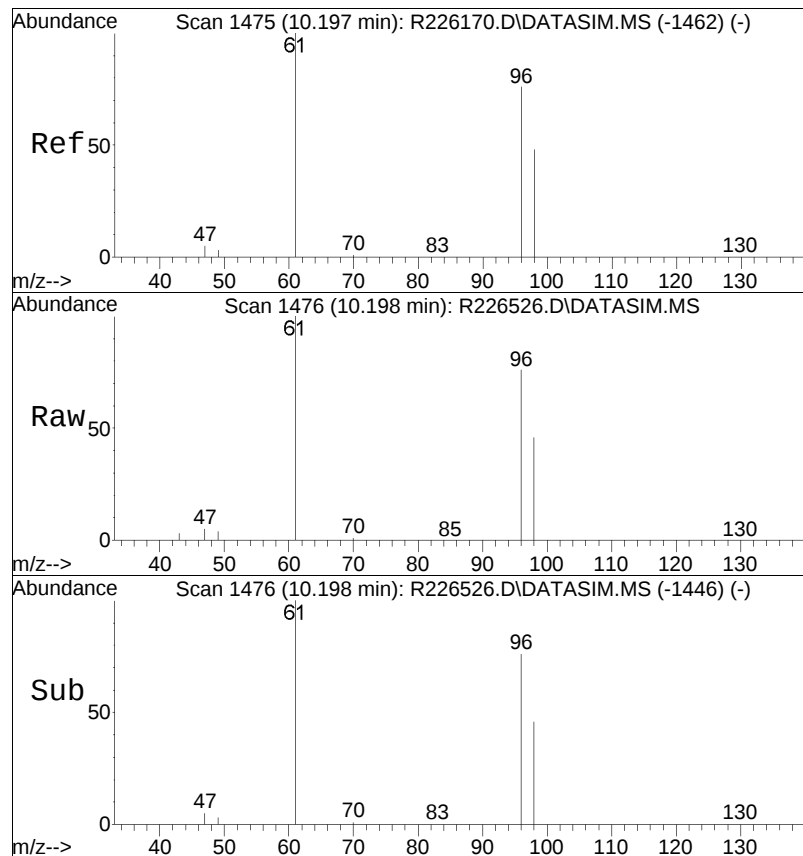




#9
 chloroethane
 Concen: 0.01 ppbV
 RT: 5.78 min Scan# 511
 Delta R.T. 0.005 min
 Lab File: R226526.D
 Acq: 2 Dec 2013 1:41 pm

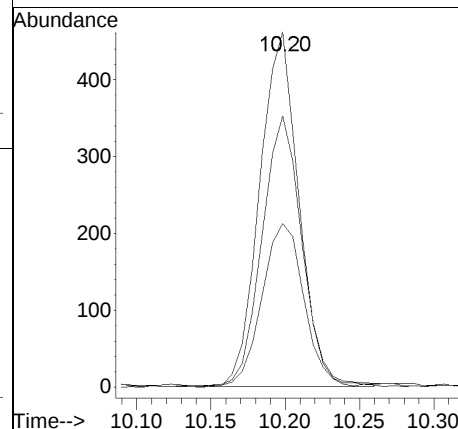
Tgt Ion: 64 Resp: 64
 Ion Ratio Lower Upper
 64 100
 66 41.4 25.8 38.8#

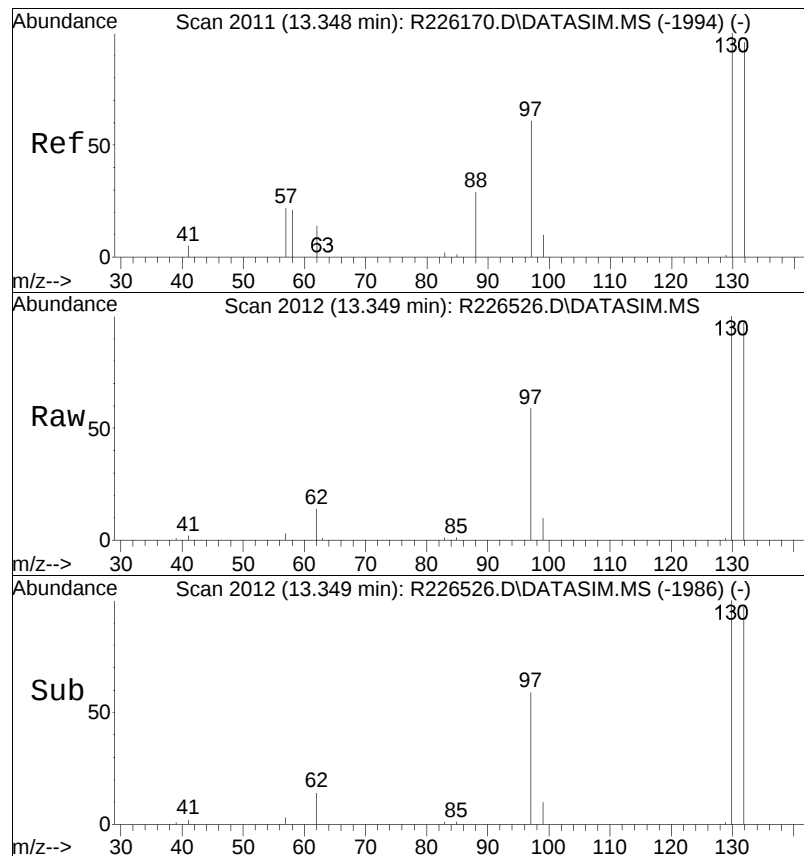




#27
 cis-1,2-dichloroethene
 Concen: 0.05 ppbV
 RT: 10.20 min Scan# 1476
 Delta R.T. 0.002 min
 Lab File: R226526.D
 Acq: 2 Dec 2013 1:41 pm

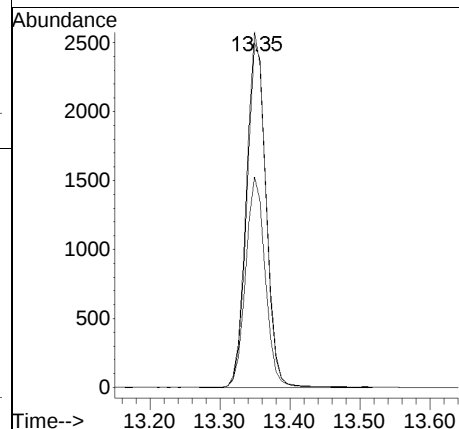
Tgt Ion:	61	Resp:	846
Ion Ratio	Lower	Upper	
61	100		
96	76.4	60.6	91.0
98	46.1	38.6	58.0

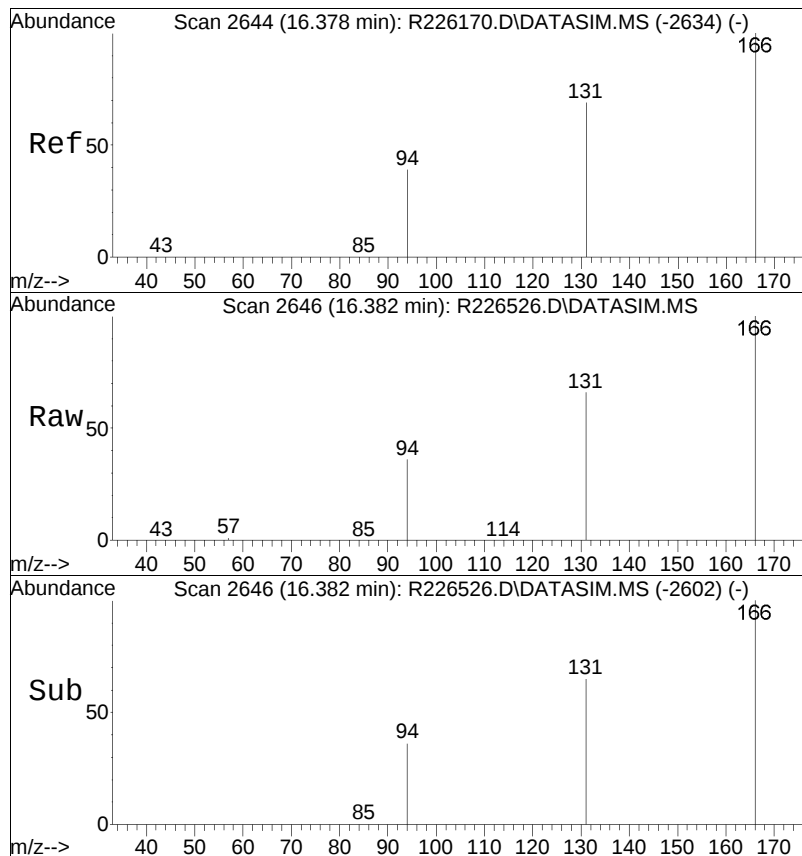




#42
 trichloroethene
 Concen: 0.23 ppbV
 RT: 13.35 min Scan# 2012
 Delta R.T. 0.001 min
 Lab File: R226526.D
 Acq: 2 Dec 2013 1:41 pm

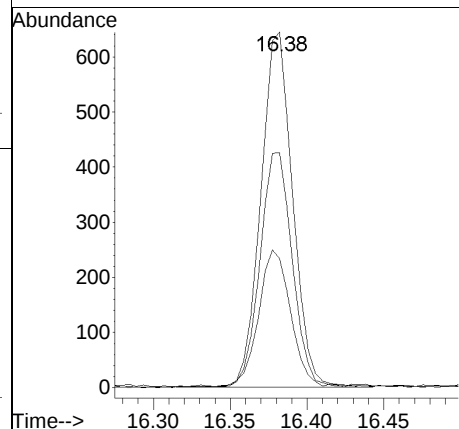
Tgt Ion:	130	Resp:	4951
Ion Ratio	Lower	Upper	
130	100		
132	97.1	77.1	115.7
97	59.3	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.03 ppbV
 RT: 16.38 min Scan# 2646
 Delta R.T. 0.004 min
 Lab File: R226526.D
 Acq: 2 Dec 2013 1:41 pm

Tgt Ion:	166	Resp:	928
Ion Ratio	Lower	Upper	
166	100		
131	66.0	55.1	82.7
94	36.3	31.4	47.0



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226526.D Operator : AIRPIAN02:MB
Date Inj'd : 12/2/2013 1:41 pm Instrument : Air Piano 2
Sample : L1323970-14,3,250,250 Quant Date : 12/2/2013 2:13 pm

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

6A
VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Instrument ID: AIRPIAN02 Calibration Date(s): 11/10/13 11/10/13

Calibration Times: 08:23 13:46

Calibration Files

0.02=R226163.D 0.04=R226164.D 0.1 =R226165.D 0.2 =R226166.D 0.5 =R226167.D 1.0 =R226168.D
2.5 =R226169.D 5.0 =R226170.D 10.0=R226171.D 20.0=R226172.D 50.0=R226173.D

	Compound	0.02	0.04	0.1	0.2	0.5	1.0	2.5	5.0	10.0	20.0	50.0	Avg	%RSD
1) I	bromochloromethane	-----ISTD-----												
3)	dichlorodifluoromethane	0.692	0.786	0.622	0.589	0.622	0.566	0.670	0.646	0.715	0.764	0.531	0.6549	12.24
4) C	chloromethane		0.709	0.668	0.636	0.643	0.614	0.689	0.672	0.678	0.657	0.569	0.6536	6.17
6) C	vinyl chloride	0.646	0.626	0.666	0.643	0.667	0.647	0.732	0.721	0.729	0.712	0.622	0.6737	6.21
9) C	chloroethane	0.345	0.289	0.310	0.303	0.315	0.302	0.344	0.337	0.344	0.335	0.291	0.3195	6.92
12)	acetone			1.230	1.126	1.099	1.058	1.124	1.103	1.122	1.078	0.954	1.0994	6.62
13)	trichlorofluoromethane	1.685	1.643	1.791	1.723	1.803	1.745	1.991	1.945	1.977	1.914	1.647	1.8057	7.26
15) C	acrylonitrile	0.516	0.546	0.472	0.494	0.459	0.431	0.483	0.491	0.498	0.489	0.463	0.4857	6.28
16) C	1,1-dichloroethene	1.079	1.071	1.124	1.138	1.199	1.150	1.307	1.274	1.233	1.231	1.069	1.1704	7.15
17) C	methylene chloride					1.051	0.932	0.989	0.957	0.949	0.931	0.803	0.9445	7.97
22)	trans-1,2-dichloroethene	1.229	1.170	1.319	1.273	1.337	1.303	1.378	1.363	1.398	1.363	1.285	1.3108	5.21
23) C	1,1-dichloroethane	1.211	1.170	1.284	1.241	1.296	1.253	1.439	1.402	1.421	1.373	1.207	1.2998	7.27
24) C	MTBE	1.666	1.669	1.881	1.832	1.918	1.874	1.969	1.933	1.976	1.928	1.828	1.8615	5.77
26) C	2-butanone		1.667	1.729	1.663	1.720	1.649	1.772	1.737	1.770	1.718	1.623	1.7048	3.02
27)	cis-1,2-dichloroethene	0.884	0.883	0.974	0.948	0.994	0.959	1.103	1.078	1.085	1.054	0.921	0.9895	8.08
29) C	chloroform	1.382	1.322	1.479	1.430	1.490	1.439	1.651	1.615	1.629	1.587	1.389	1.4921	7.54
31) C	1,2-dichloroethane	1.016	0.985	1.010	0.981	1.002	0.972	1.107	1.086	1.083	1.053	0.914	1.0191	5.71
32) I	1,4-difluorobenzene	-----ISTD-----												
35) C	1,1,1-trichloroethane	0.489	0.477	0.521	0.502	0.525	0.508	0.581	0.571	0.578	0.562	0.506	0.5290	7.09
36) C	benzene		0.739	0.765	0.702	0.721	0.689	0.780	0.763	0.773	0.752	0.680	0.7364	4.95
37) C	carbon tetrachloride	0.342	0.353	0.429	0.432	0.486	0.493	0.585	0.588	0.607	0.600	0.549	0.4966	19.64
39) C	1,2-dichloropropane	0.269	0.251	0.278	0.263	0.276	0.268	0.307	0.300	0.304	0.298	0.271	0.2804	6.69
40)	bromodichloromethane	0.494	0.480	0.536	0.516	0.558	0.545	0.584	0.578	0.599	0.588	0.575	0.5503	7.24
42) C	trichloroethene	0.355	0.322	0.368	0.363	0.392	0.391	0.449	0.454	0.462	0.427	0.389	0.3974	11.42
45) C	cis-1,3-dichloropropene	0.311	0.293	0.344	0.329	0.357	0.351	0.416	0.416	0.430	0.429	0.399	0.3706	13.34
46) C	4-methyl-2-pentanone	0.677	0.604	0.682	0.643	0.685	0.672	0.721	0.713	0.732	0.715	0.695	0.6855	5.43
47)	trans-1,3-dichloropropene	0.273	0.294	0.350	0.325	0.346	0.341	0.404	0.408	0.426	0.430	0.403	0.3638	14.81
48) C	1,1,2-trichloroethane	0.277		0.299	0.288	0.305	0.295	0.344	0.340	0.345	0.338	0.306	0.3136	8.13
49) I	chlorobenzene-D5	-----ISTD-----												
50) C	toluene		4.281	4.545	4.359	4.558	4.395	5.121	5.066	5.129	5.043	4.496	4.6993	7.38
53)	dibromochloromethane	2.719	2.703	2.909	2.836	3.087	3.068	3.381	3.425	3.623	3.628	3.484	3.1693	11.12
54) C	1,2-dibromoethane	2.155	2.092	2.346	2.369	2.541	2.425	2.940	2.942	3.002	2.998	2.714	2.5932	13.21
55) C	tetrachloroethene	2.284	2.158	2.470	2.400	2.583	2.501	2.931	2.901	2.965	2.919	2.622	2.6120	10.80
56)	1,1,1,2-tetrachloroethane	2.036	1.918	2.177	2.105	2.238	2.174	2.346	2.332	2.415	2.374	2.226	2.2128	6.88
57) C	chlorobenzene	3.577	3.400	3.808	3.704	3.964	3.803	4.444	4.387	4.454	4.418	3.959	3.9926	9.48
58) C	ethylbenzene	5.344	4.964	5.628	5.495	5.931	5.734	6.717	6.661	6.781	6.658	5.909	5.9837	10.53
59) C	m+p-xylene	4.101	3.866	4.389	4.322	4.661	4.515	5.312	5.281	5.368	5.326	4.709	4.7136	11.38
60) C	bromoform	3.067	2.909	3.361	3.285	3.536	3.456	3.817	3.911	4.139	4.170	3.883	3.5941	11.74
61) C	styrene	3.089	2.743	3.153	3.215	3.485	3.414	4.090	4.123	4.202	4.194	3.725	3.5848	14.32
62) C	1,1,2,2-tetrachloroethane	2.981	2.859	3.240	3.116	3.289	3.104	3.720	3.562	3.618	3.862	3.392	3.3404	9.59
63) C	o-xylene	4.407	4.081	4.581	4.489	4.786	4.654	5.467	5.464	5.531	5.454	4.725	4.8764	10.51
65) C	isopropylbenzene	6.418	6.128	7.105	7.027	7.543	7.329	7.916	7.830	7.975	7.820	7.370	7.3147	8.33
67)	1,3,5-trimethylbenzene	4.680	4.511	5.258	5.199	5.640	5.524	6.603	6.590	6.686	6.596	5.724	5.7283	13.87

6A
VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Instrument ID: AIRPIAN02 Calibration Date(s): 11/10/13 11/10/13

Calibration Times: 08:23 13:46

Compound	0.02	0.04	0.1	0.2	0.5	1.0	2.5	5.0	10.0	20.0	50.0	Avg	%RSD
69) 1,2,4-trimethylbenzene	4.385	4.449	5.065	5.060	5.562	5.486	6.628	6.629	6.691	6.626	5.339	5.6289	15.70
71) 1,3-dichlorobenzene	3.020	2.900	3.704	3.929	4.491	4.486	5.494	5.562	5.545	5.549	4.793	4.4978	22.35
72) C 1,4-dichlorobenzene	3.017	2.830	3.659	3.868	4.463	4.590	5.607	5.620	5.634	5.611	4.786	4.5168	23.41
73) sec-butylbenzene	0.729	0.726	0.874	0.871	0.949	0.934	1.017	1.021	1.033	1.022	0.919	0.9178	12.04
74) p-isopropyltoluene	6.285	6.029	7.681	7.755	8.559	8.460	9.440	9.359	9.532	9.331	8.121	8.2320	14.87
75) 1,2-dichlorobenzene	3.038	2.938	3.768	3.835	4.278	4.287	5.266	5.298	5.329	5.290	4.586	4.3557	20.48
76) n-butylbenzene	3.972	4.246	6.000	6.324	7.294	7.404	8.475	8.505	8.631	8.547	8.221	7.0563	24.30

FORM VI-NYSDEC-T015-SIM

Response Factor Report Air Piano 2

Method Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Method File : TSIM131110.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Nov 19 17:44:46 2013
 Response Via : Initial Calibration

Calibration Files

0.02=R226163.D 0.04=R226164.D 0.1 =R226165.D 0.2 =R226166.D 0.5 =R226167.D 1.0 =R226168.D
 2.5 =R226169.D 5.0 =R226170.D 10.0=R226171.D 20.0=R226172.D 50.0=R226173.D

	Compound	0.02	0.04	0.1	0.2	0.5	1.0	2.5	5.0	10.0	20.0	50.0	Avg	%RSD
1) I	bromochloromethane	-----ISTD-----												
3)	dichlorodifl...	0.692	0.786	0.622	0.589	0.622	0.566	0.670	0.646	0.715	0.764	0.531	0.6549	12.24
4) C	chloromethane		0.709	0.668	0.636	0.643	0.614	0.689	0.672	0.678	0.657	0.569	0.6536	6.17
6) C	vinyl chloride	0.646	0.626	0.666	0.643	0.667	0.647	0.732	0.721	0.729	0.712	0.622	0.6737	6.21
9) C	chloroethane	0.345	0.289	0.310	0.303	0.315	0.302	0.344	0.337	0.344	0.335	0.291	0.3195	6.92
12)	acetone			1.230	1.126	1.099	1.058	1.124	1.103	1.122	1.078	0.954	1.0994	6.62
13)	trichloroflu...	1.685	1.643	1.791	1.723	1.803	1.745	1.991	1.945	1.977	1.914	1.647	1.8057	7.26
15) C	acrylonitrile	0.516	0.546	0.472	0.494	0.459	0.431	0.483	0.491	0.498	0.489	0.463	0.4857	6.28
16) C	1,1-dichloro...	1.079	1.071	1.124	1.138	1.199	1.150	1.307	1.274	1.233	1.231	1.069	1.1704	7.15
17) C	methylene ch...					1.051	0.932	0.989	0.957	0.949	0.931	0.803	0.9445	7.97
22)	trans-1,2-di...	1.229	1.170	1.319	1.273	1.337	1.303	1.378	1.363	1.398	1.363	1.285	1.3108	5.21
23) C	1,1-dichloro...	1.211	1.170	1.284	1.241	1.296	1.253	1.439	1.402	1.421	1.373	1.207	1.2998	7.27
24) C	MTBE	1.666	1.669	1.881	1.832	1.918	1.874	1.969	1.933	1.976	1.928	1.828	1.8615	5.77
26) C	2-butanone		1.667	1.729	1.663	1.720	1.649	1.772	1.737	1.770	1.718	1.623	1.7048	3.02
27)	cis-1,2-dich...	0.884	0.883	0.974	0.948	0.994	0.959	1.103	1.078	1.085	1.054	0.921	0.9895	8.08
29) C	chloroform	1.382	1.322	1.479	1.430	1.490	1.439	1.651	1.615	1.629	1.587	1.389	1.4921	7.54
31) C	1,2-dichloro...	1.016	0.985	1.010	0.981	1.002	0.972	1.107	1.086	1.083	1.053	0.914	1.0191	5.71
32) I	1,4-difluorobenzene	-----ISTD-----												
35) C	1,1,1-trichl...	0.489	0.477	0.521	0.502	0.525	0.508	0.581	0.571	0.578	0.562	0.506	0.5290	7.09
36) C	benzene		0.739	0.765	0.702	0.721	0.689	0.780	0.763	0.773	0.752	0.680	0.7364	4.95
37) C	carbon tetra...	0.342	0.353	0.429	0.432	0.486	0.493	0.585	0.588	0.607	0.600	0.549	0.4966	19.64
39) C	1,2-dichloro...	0.269	0.251	0.278	0.263	0.276	0.268	0.307	0.300	0.304	0.298	0.271	0.2804	6.69
40)	bromodichlor...	0.494	0.480	0.536	0.516	0.558	0.545	0.584	0.578	0.599	0.588	0.575	0.5503	7.24
42) C	trichloroethene	0.355	0.322	0.368	0.363	0.392	0.391	0.449	0.454	0.462	0.427	0.389	0.3974	11.42
45) C	cis-1,3-dich...	0.311	0.293	0.344	0.329	0.357	0.351	0.416	0.416	0.430	0.429	0.399	0.3706	13.34
46) C	4-methyl-2-p...	0.677	0.604	0.682	0.643	0.685	0.672	0.721	0.713	0.732	0.715	0.695	0.6855	5.43
47)	trans-1,3-di...	0.273	0.294	0.350	0.325	0.346	0.341	0.404	0.408	0.426	0.430	0.403	0.3638	14.81
48) C	1,1,2-trichl...	0.277		0.299	0.288	0.305	0.295	0.344	0.340	0.345	0.338	0.306	0.3136	8.13
49) I	chlorobenzene-D5	-----ISTD-----												

Response Factor Report Air Piano 2

Method Path : O:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Method File : TSIM131110.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Nov 19 17:44:46 2013
 Response Via : Initial Calibration

Calibration Files

0.02=R226163.D 0.04=R226164.D 0.1 =R226165.D 0.2 =R226166.D 0.5 =R226167.D 1.0 =R226168.D
 2.5 =R226169.D 5.0 =R226170.D 10.0=R226171.D 20.0=R226172.D 50.0=R226173.D

	Compound	0.02	0.04	0.1	0.2	0.5	1.0	2.5	5.0	10.0	20.0	50.0	Avg	%RSD
50) C	toluene		4.281	4.545	4.359	4.558	4.395	5.121	5.066	5.129	5.043	4.496	4.6993	7.38
53)	dibromochlor...	2.719	2.703	2.909	2.836	3.087	3.068	3.381	3.425	3.623	3.628	3.484	3.1693	11.12
54) C	1,2-dibromoe...	2.155	2.092	2.346	2.369	2.541	2.425	2.940	2.942	3.002	2.998	2.714	2.5932	13.21
55) C	tetrachloroe...	2.284	2.158	2.470	2.400	2.583	2.501	2.931	2.901	2.965	2.919	2.622	2.6120	10.80
56)	1,1,1,2-tetr...	2.036	1.918	2.177	2.105	2.238	2.174	2.346	2.332	2.415	2.374	2.226	2.2128	6.88
57) C	chlorobenzene	3.577	3.400	3.808	3.704	3.964	3.803	4.444	4.387	4.454	4.418	3.959	3.9926	9.48
58) C	ethylbenzene	5.344	4.964	5.628	5.495	5.931	5.734	6.717	6.661	6.781	6.658	5.909	5.9837	10.53
59) C	m+p-xylene	4.101	3.866	4.389	4.322	4.661	4.515	5.312	5.281	5.368	5.326	4.709	4.7136	11.38
60) C	bromoform	3.067	2.909	3.361	3.285	3.536	3.456	3.817	3.911	4.139	4.170	3.883	3.5941	11.74
61) C	styrene	3.089	2.743	3.153	3.215	3.485	3.414	4.090	4.123	4.202	4.194	3.725	3.5848	14.32
62) C	1,1,2,2-tetr...	2.981	2.859	3.240	3.116	3.289	3.104	3.720	3.562	3.618	3.862	3.392	3.3404	9.59
63) C	o-xylene	4.407	4.081	4.581	4.489	4.786	4.654	5.467	5.464	5.531	5.454	4.725	4.8764	10.51
65) C	isopropylben...	6.418	6.128	7.105	7.027	7.543	7.329	7.916	7.830	7.975	7.820	7.370	7.3147	8.33
67)	1,3,5-trimet...	4.680	4.511	5.258	5.199	5.640	5.524	6.603	6.590	6.686	6.596	5.724	5.7283	13.87
69)	1,2,4-trimet...	4.385	4.449	5.065	5.060	5.562	5.486	6.628	6.629	6.691	6.626	5.339	5.6289	15.70
71)	1,3-dichloro...	3.020	2.900	3.704	3.929	4.491	4.486	5.494	5.562	5.545	5.549	4.793	4.4978	22.35
72) C	1,4-dichloro...	3.017	2.830	3.659	3.868	4.463	4.590	5.607	5.620	5.634	5.611	4.786	4.5168	23.41
73)	sec-butylben...	0.729	0.726	0.874	0.871	0.949	0.934	1.017	1.021	1.033	1.022	0.919	0.9178	12.04
74)	p-isopropylt...	6.285	6.029	7.681	7.755	8.559	8.460	9.440	9.359	9.532	9.331	8.121	8.2320	14.87
75)	1,2-dichloro...	3.038	2.938	3.768	3.835	4.278	4.287	5.266	5.298	5.329	5.290	4.586	4.3557	20.48
76)	n-butylbenzene	3.972	4.246	6.000	6.324	7.294	7.404	8.475	8.505	8.631	8.547	8.221	7.0563	24.30

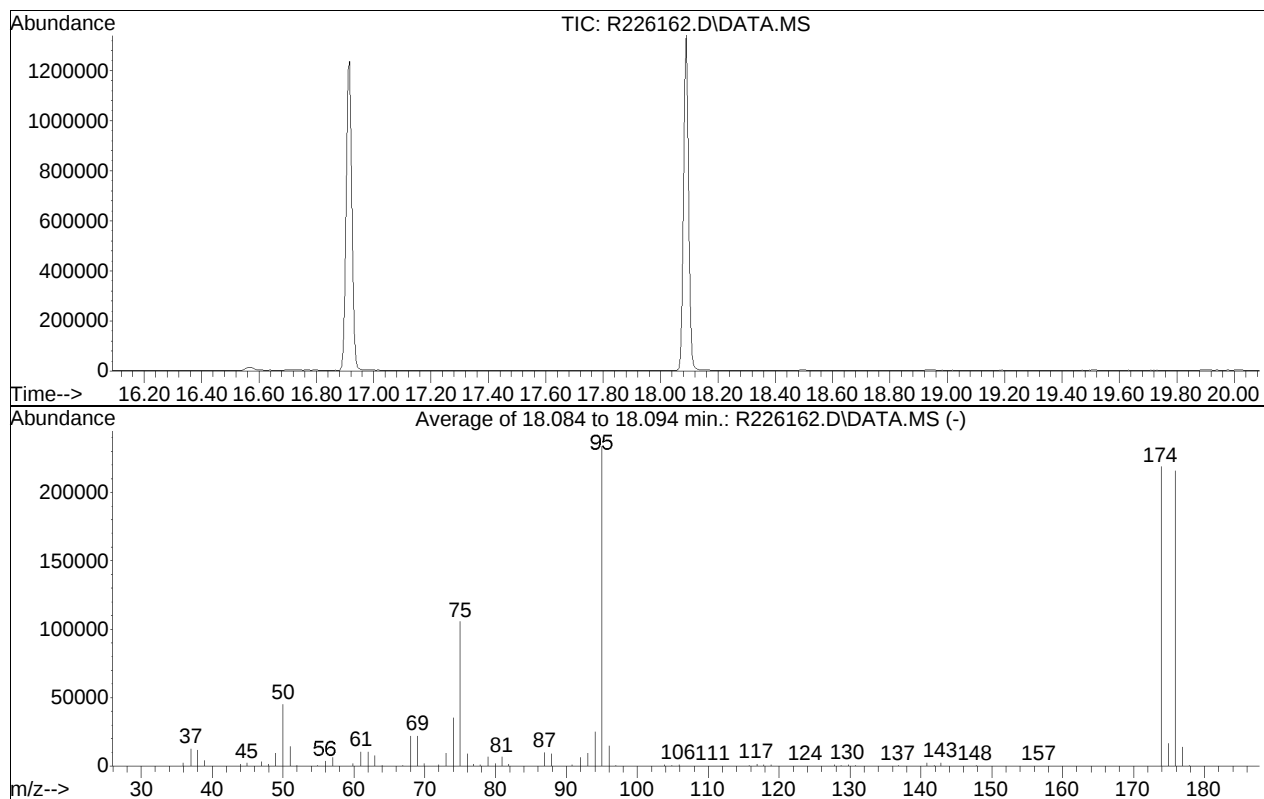
(#) = Out of Range

BFB

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226162.D
 Acq On : 10 Nov 2013 7:51 am
 Operator : AIRPIAN02:MB
 Sample : WG652929-1,3,250,250
 Misc : WG652929
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 14 16:11:26 2013



AutoFind: Scans 2930, 2931, 2932; Background Corrected with Scan 2922

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	45053	PASS
75	95	30	66	45.2	105523	PASS
95	95	100	100	100.0	233429	PASS
96	95	5	9	6.4	15000	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.7	218731	PASS
175	174	4	9	7.5	16483	PASS
176	174	93	101	98.7	215979	PASS
177	176	5	9	6.4	13882	PASS

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226163.D
 Acq On : 10 Nov 2013 8:23 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.02
 Misc : WG652929
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:45:37 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 15:14:25 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	239138	10.000	ppbV	0.00
Standard Area = 228959			Recovery = 104.45%			
32) 1,4-difluorobenzene	12.56	114	690776	10.000	ppbV	0.00
Standard Area = 682020			Recovery = 101.28%			
49) chlorobenzene-D5	16.91	54	139221	10.000	ppbV	0.00
Standard Area = 132824			Recovery = 104.82%			
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.26	65	190504	10.300	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.00%			
51) toluene-D8	15.25	98	510909	9.715	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.15%			
64) bromofluorobenzene	18.08	95	369102	9.483	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.83%			
Target Compounds						
					Qvalue	
2) propylene	4.29	41	382M6	0.028	ppbV	
3) dichlorodifluoromethane	4.39	85	331	0.021	ppbV #	88
4) chloromethane	4.62	50	363	0.023	ppbV #	83
5) Freon-114	4.77	85	845	0.019	ppbV	96
6) vinyl chloride	4.94	62	309	0.018	ppbV #	60
7) 1,3-butadiene	5.14	54	212	0.018	ppbV #	15
8) bromomethane	5.52	94	334	0.021	ppbV	96
9) chloroethane	5.78	64	165	0.020	ppbV	89
10) ethanol	6.04	31	2088	0.161	ppbV	99
11) vinyl bromide	6.26	106	327	0.019	ppbV	98
12) acetone	6.69	43	4338	0.164	ppbV #	100
13) trichlorofluoromethane	6.83	101	806	0.017	ppbV	100
14) isopropyl alcohol	7.04	45	1403	0.050	ppbV	99
15) acrylonitrile	7.28	53	247	0.021	ppbV	97
16) 1,1-dichloroethene	7.65	61	516	0.017	ppbV	98
17) methylene chloride	7.83	49	2495	0.109	ppbV	96
18) 3-chloropropene	0.00		0	N.D.	d	
19) carbon disulfide	8.15	76	960	0.019	ppbV #	1
20) Freon 113	8.16	101	693	0.018	ppbV	97
21) Halothane	8.74	117	683	0.018	ppbV	96
22) trans-1,2-dichloroethene	8.98	61	588	0.018	ppbV	96
23) 1,1-dichloroethane	9.22	63	579	0.017	ppbV	98
24) MTBE	9.37	73	797	0.017	ppbV	93

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226163.D
 Acq On : 10 Nov 2013 8:23 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.02
 Misc : WG652929
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:45:37 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 15:14:25 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.43	43	396	0.037	ppbV	97
26) 2-butanone	9.76	43	955	0.023	ppbV	98
27) cis-1,2-dichloroethene	10.20	61	423	0.016	ppbV	92
28) Ethyl Acetate	10.52	61	105	0.018	ppbV	84
29) chloroform	10.54	83	661	0.017	ppbV #	95
30) Tetrahydrofuran	11.08	42	464M6	0.021	ppbV	
31) 1,2-dichloroethane	11.38	62	486	0.019	ppbV #	92
33) hexane	10.44	57	544	0.021	ppbV #	24
35) 1,1,1-trichloroethane	11.66	97	676	0.017	ppbV	97
36) benzene	12.17	78	1269	0.024	ppbV	100
37) carbon tetrachloride	12.34	117	473	0.012	ppbV	98
38) cyclohexane	12.48	56	549	0.021	ppbV	93
39) 1,2-dichloropropane	13.10	63	371M4	0.018	ppbV	
40) bromodichloromethane	13.31	83	682	0.017	ppbV	96
41) 1,4-dioxane	13.45	88	275	0.025	ppbV	99
42) trichloroethene	13.36	130	490	0.016	ppbV	97
43) 2,2,4-trimethylpentane	13.39	57	2915	0.034	ppbV	100
44) heptane	13.67	43	728	0.021	ppbV	98
45) cis-1,3-dichloropropene	14.33	75	430	0.015	ppbV	94
46) 4-methyl-2-pentanone	14.40	43	936	0.019	ppbV	98
47) trans-1,3-dichloropropene	14.89	75	377	0.013	ppbV	97
48) 1,1,2-trichloroethane	15.08	97	383M2	0.016	ppbV	
50) toluene	15.35	91	1324M4	0.019	ppbV	
52) 2-hexanone	15.65	43	711	0.015	ppbV	93
53) dibromochloromethane	15.76	129	757	0.016	ppbV	99
54) 1,2-dibromoethane	15.99	107	600	0.015	ppbV	98
55) tetrachloroethene	16.38	166	636	0.016	ppbV	99
56) 1,1,1,2-tetrachloroethane	16.94	131	567	0.017	ppbV	97
57) chlorobenzene	16.95	112	996M6	0.016	ppbV	
58) ethylbenzene	17.24	91	1488	0.016	ppbV	99
59) m+p-xylene	17.38	91	2284	0.031	ppbV	100
60) bromoform	17.46	173	854	0.016	ppbV	99
61) styrene	17.66	104	860	0.015	ppbV	96
62) 1,1,2,2-tetrachloroethane	17.74	83	830	0.017	ppbV	97
63) o-xylene	17.74	91	1227	0.016	ppbV	100
65) isopropylbenzene	18.18	105	1787	0.016	ppbV	100
66) 4-ethyl toluene	18.66	105	1453M4	0.013	ppbV	
67) 1,3,5-trimethylbenzene	18.72	105	1303	0.014	ppbV	99
68) tert-butylbenzene	19.03	119	1626	0.016	ppbV	97
69) 1,2,4-trimethylbenzene	19.02	105	1221	0.013	ppbV	92

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226163.D
 Acq On : 10 Nov 2013 8:23 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.02
 Misc : WG652929
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:45:37 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 15:14:25 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

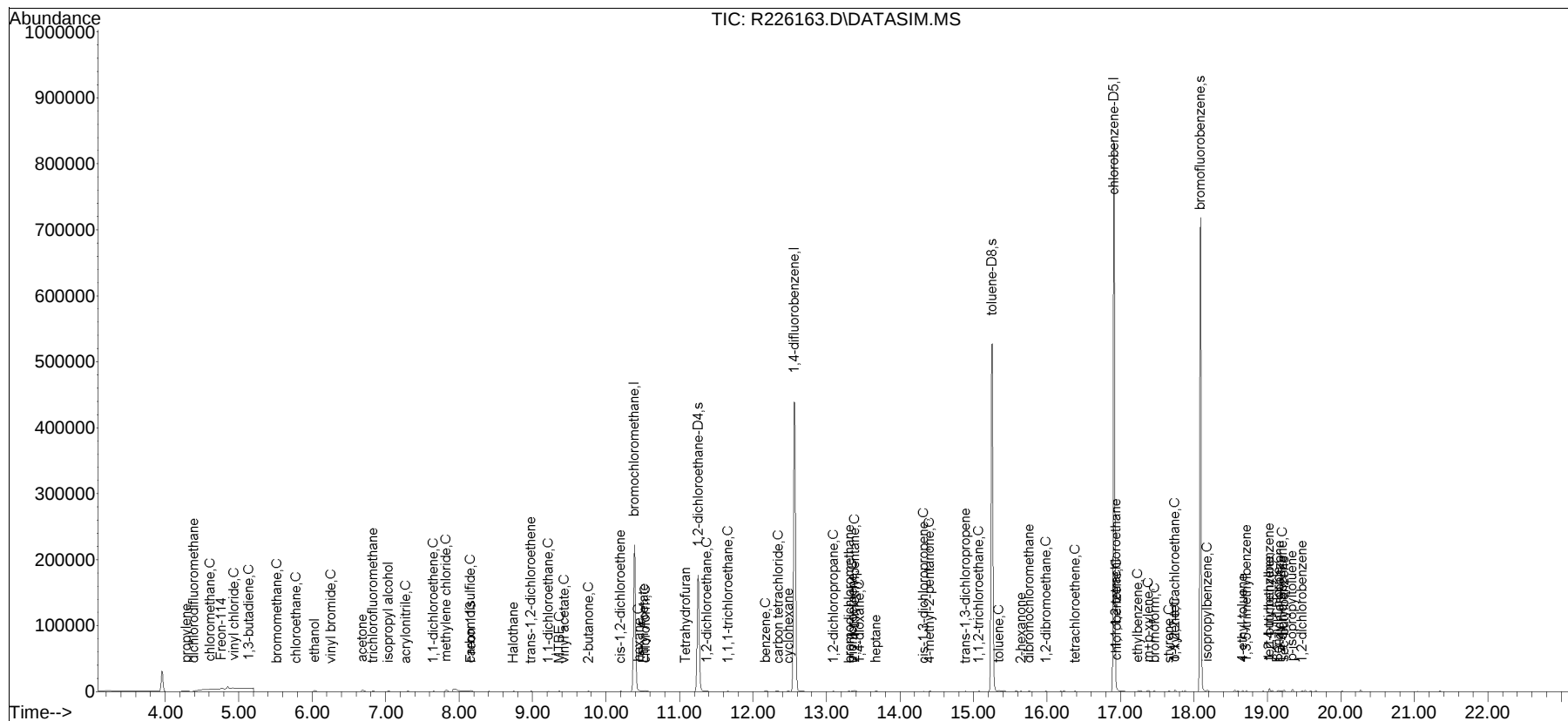
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	762	0.010	ppbV	97
71) 1,3-dichlorobenzene	19.16	146	841	0.011	ppbV	93
72) 1,4-dichlorobenzene	19.21	146	840M4	0.011	ppbV	
73) sec-butylbenzene	19.23	105	2031	0.014	ppbV	100
74) p-isopropyltoluene	19.34	119	1750	0.013	ppbV	97
75) 1,2-dichlorobenzene	19.47	146	846	0.011	ppbV	95
76) n-butylbenzene	19.66		0	N.D.		
77) 1,2,4-trichlorobenzene	20.92		0	N.D.		
78) naphthalene	21.05		0	N.D.		
79) 1,2,3-trichlorobenzene	21.29		0	N.D.		
80) hexachlorobutadiene	21.35		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1110SIM_ICAL\R226170.D

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226163.D
Acq On : 10 Nov 2013 8:23 am
Operator : AIRPIANO2:MB
Sample : IT015-SIMSTD0.02
Misc : WG652929
ALS Vial : 5 Sample Multiplier: 1

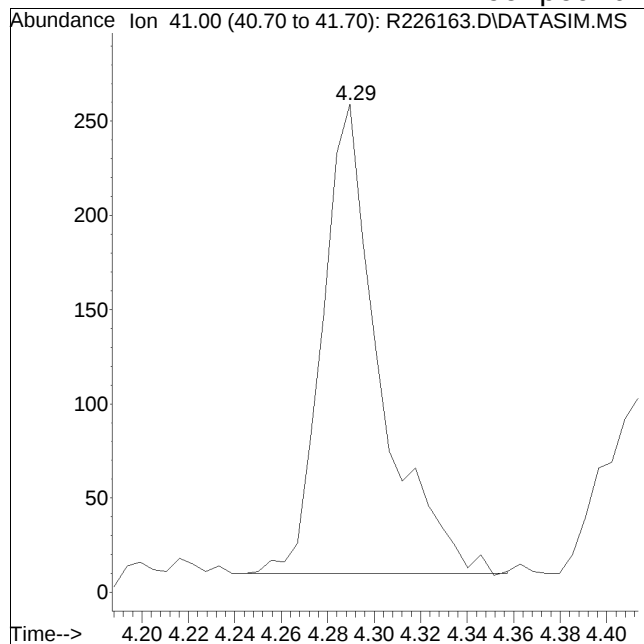
Quant Time: Nov 14 15:45:37 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 15:14:25 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

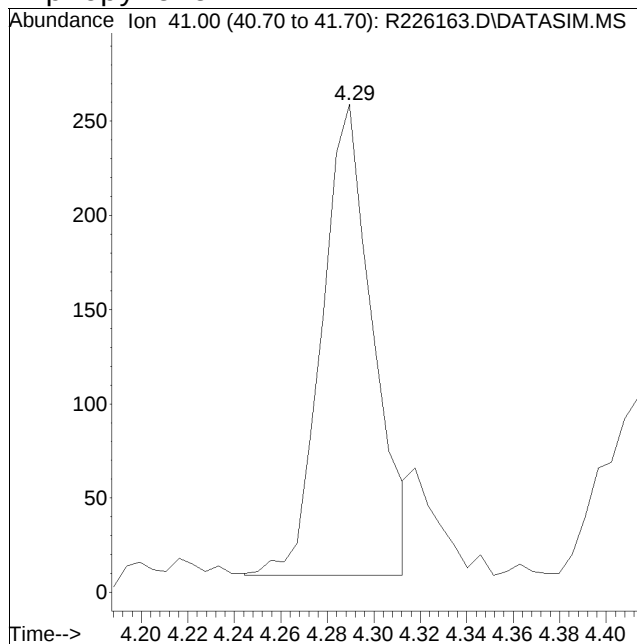
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #2: propylene



Original Peak Response = 427

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



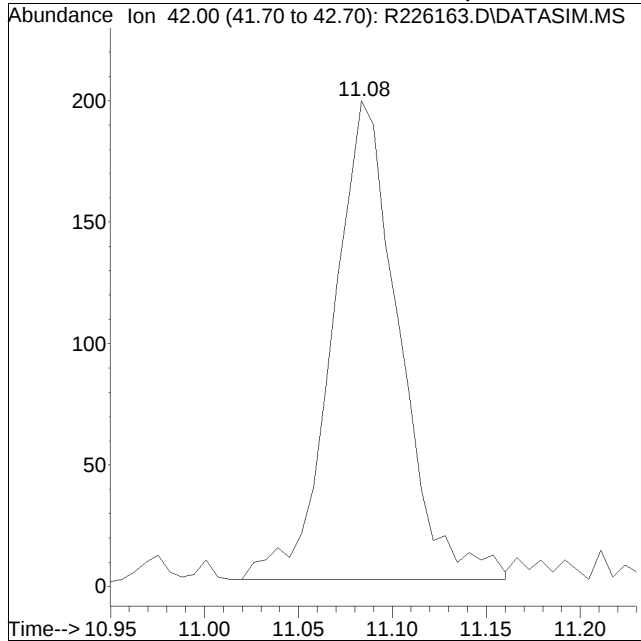
Manual Peak Response = 382 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

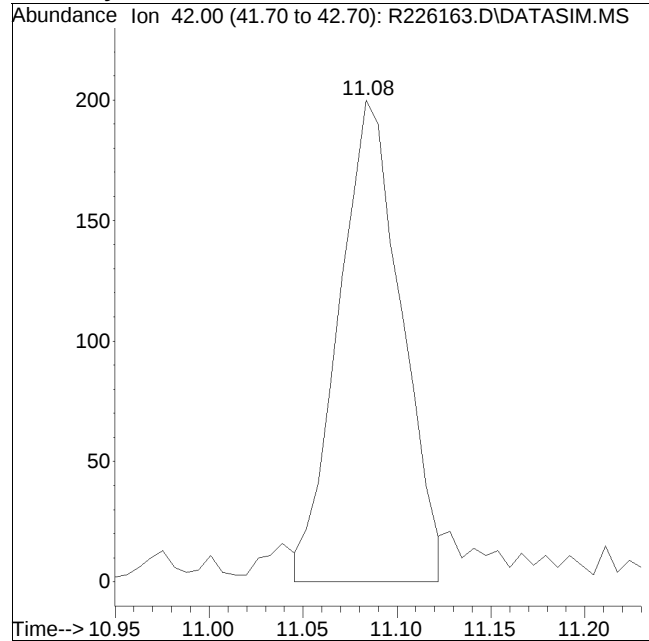
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #30: Tetrahydrofuran



Original Peak Response = 486



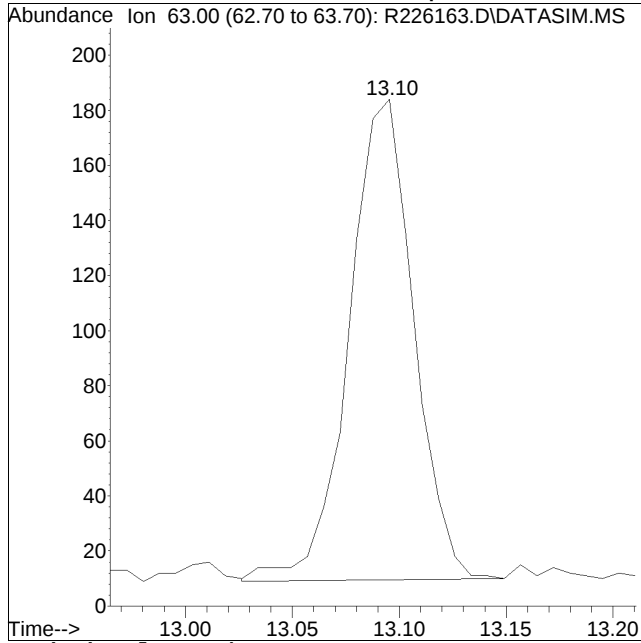
Manual Peak Response = 464 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

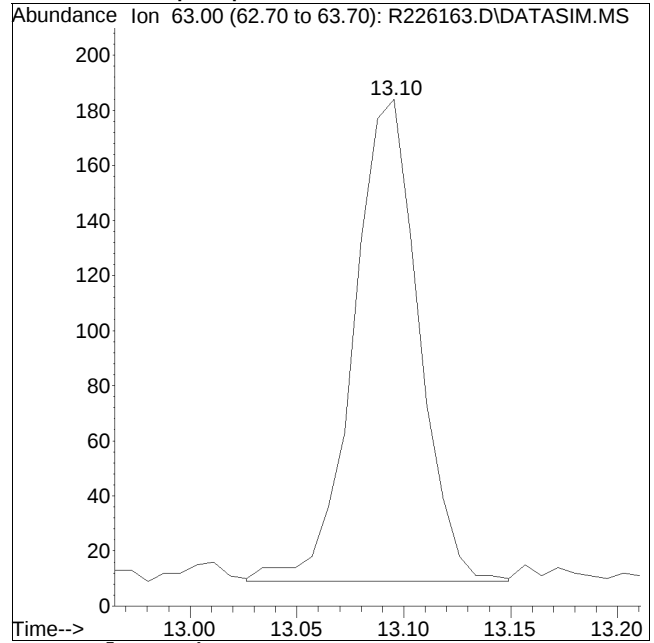
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #39: 1,2-dichloropropane



Original Peak Response = 367

M4 = Poor automated baseline construction.

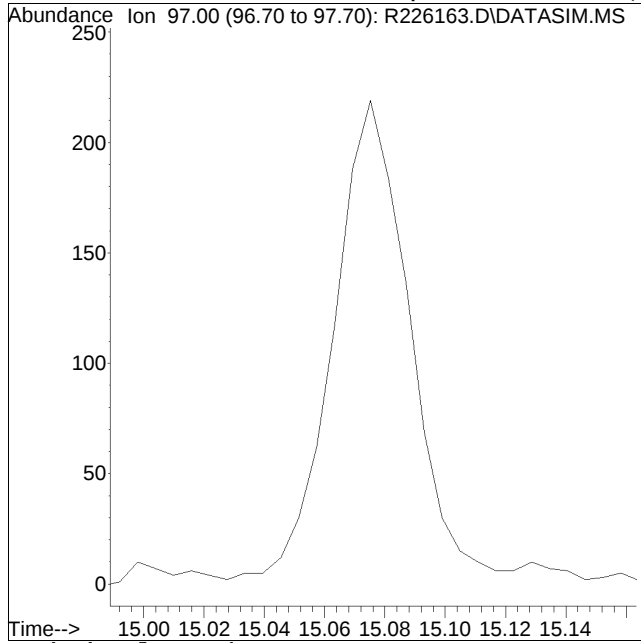


Manual Peak Response = 371 M4

Manual Integration/Negative Proof Report

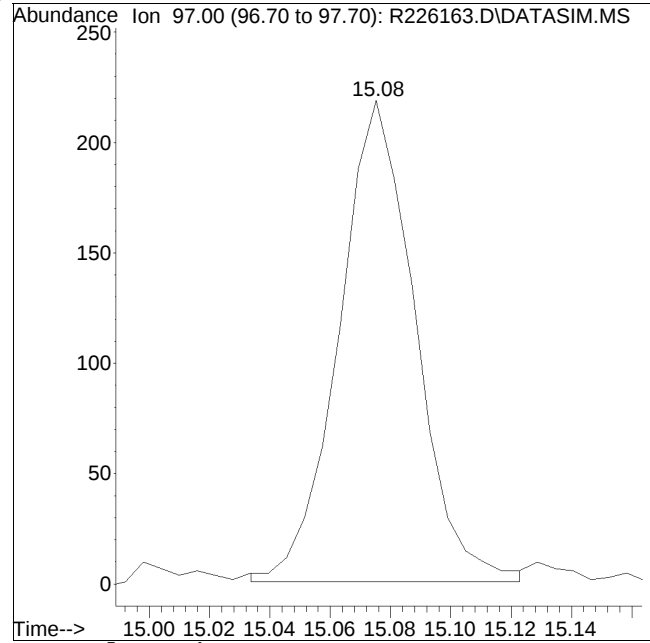
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #48: 1,1,2-trichloroethane



Original Peak Response = 0

M2 = Peak not found by automatic integration algorithm.

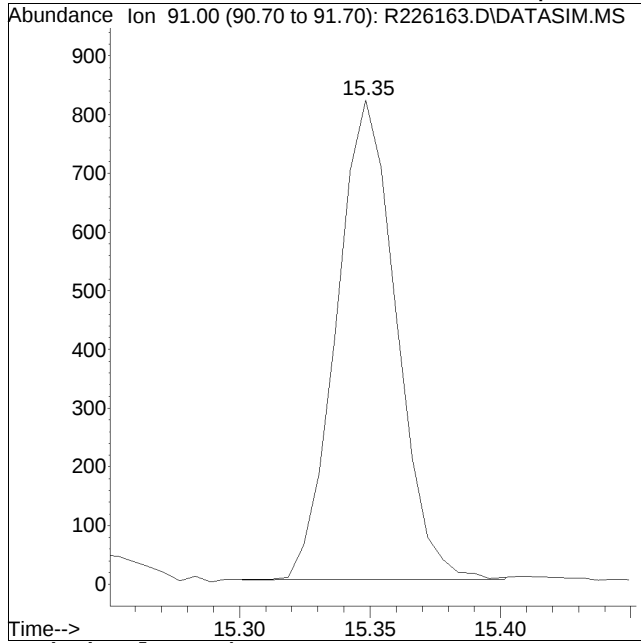


Manual Peak Response = 383 M2

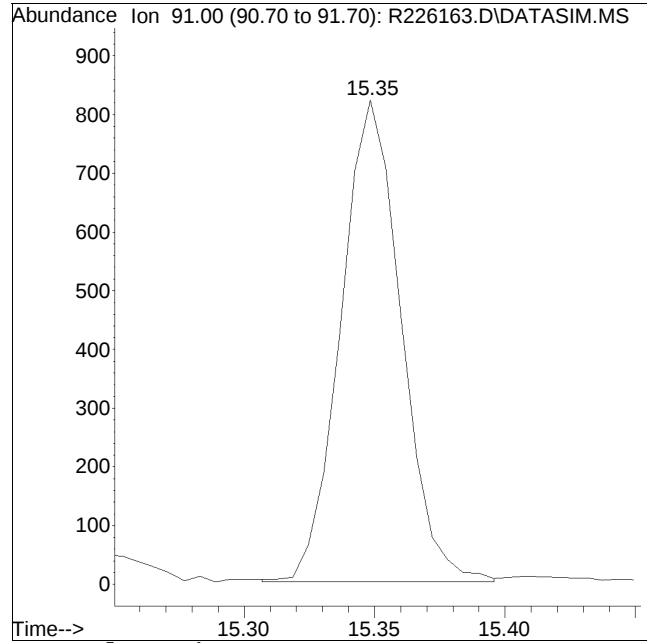
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #50: toluene



Original Peak Response = 1301



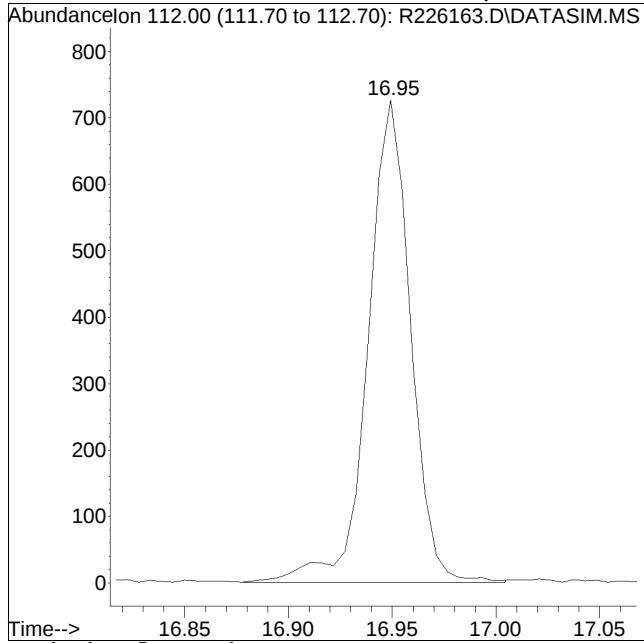
Manual Peak Response = 1324 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

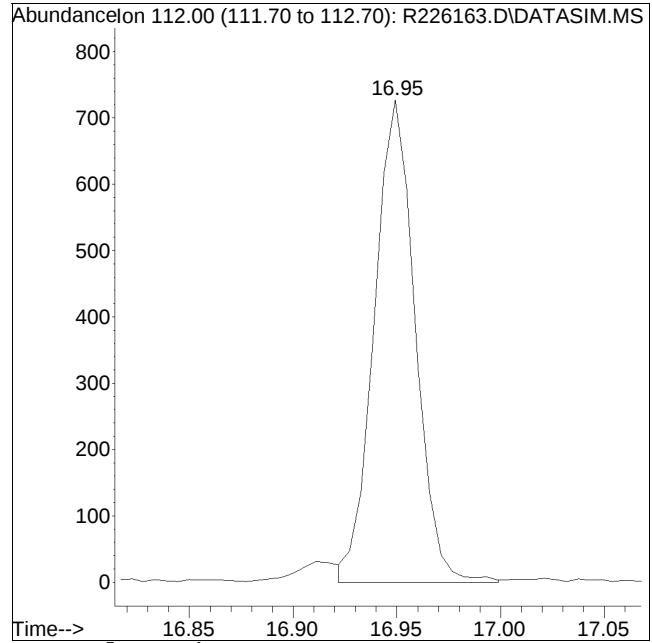
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #57: chlorobenzene



Original Peak Response = 1035

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

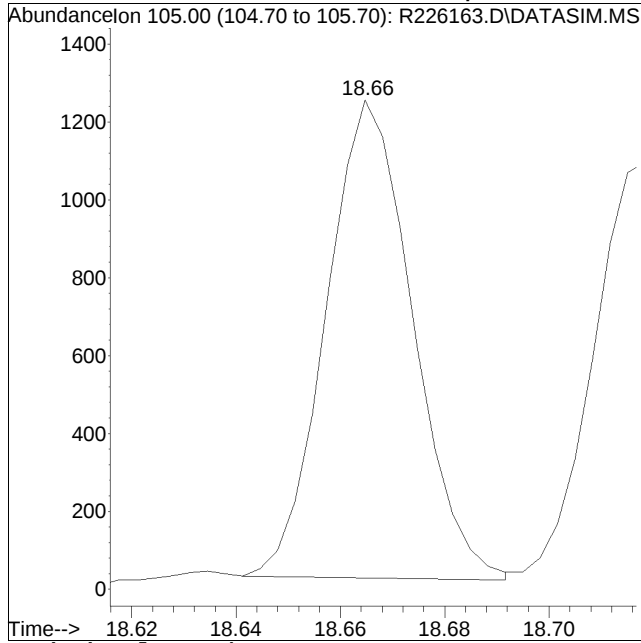


Manual Peak Response = 996 M6

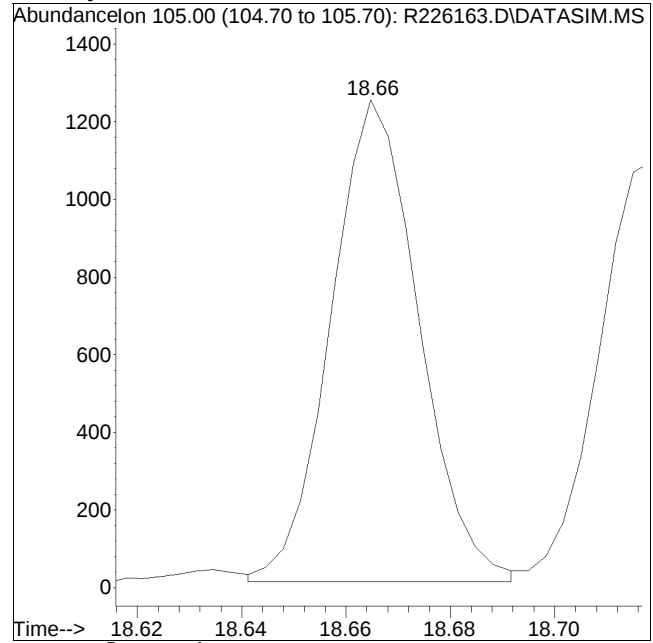
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #66: 4-ethyl toluene



Original Peak Response = 1411



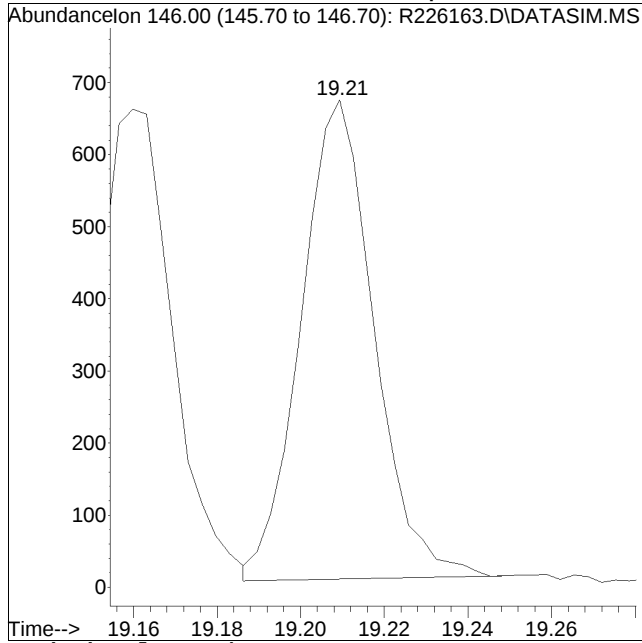
Manual Peak Response = 1453 M4

M4 = Poor automated baseline construction.

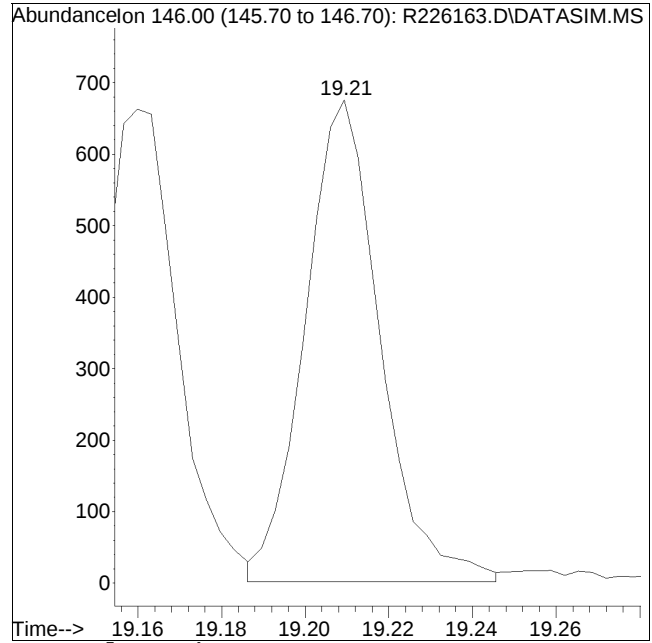
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #72: 1,4-dichlorobenzene



Original Peak Response = 804



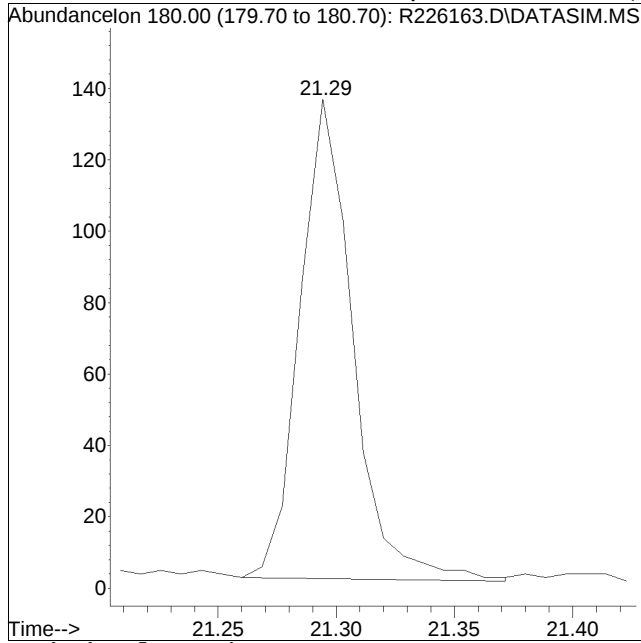
Manual Peak Response = 840 M4

M4 = Poor automated baseline construction.

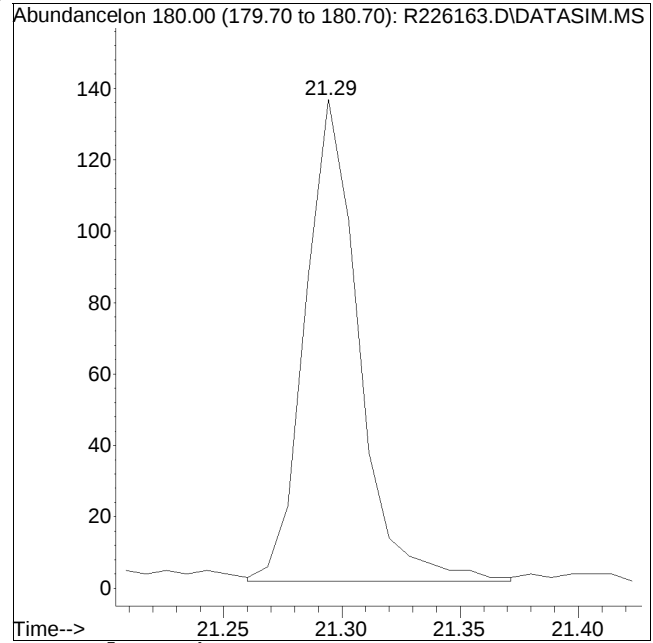
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226163.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:23 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.02 Quant Date : 11/14/2013 3:15 pm

Compound #79: 1,2,3-trichlorobenzene



Original Peak Response = 209



Manual Peak Response = 213 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226164.D
 Acq On : 10 Nov 2013 8:55 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.04
 Misc : WG652929
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:46:57 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 15:14:25 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	235595	10.000	ppbV	0.00
Standard Area = 228959			Recovery = 102.90%			
32) 1,4-difluorobenzene	12.56	114	687230	10.000	ppbV	0.00
Standard Area = 682020			Recovery = 100.76%			
49) chlorobenzene-D5	16.91	54	138004	10.000	ppbV	0.00
Standard Area = 132824			Recovery = 103.90%			
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	187808	10.206	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.06%			
51) toluene-D8	15.25	98	505528	9.698	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.98%			
64) bromofluorobenzene	18.08	95	367380	9.522	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.22%			
Target Compounds						
					Qvalue	
2) propylene	4.29	41	601M6	0.046	ppbV	
3) dichlorodifluoromethane	4.39	85	741	0.049	ppbV	97
4) chloromethane	4.62	50	668	0.042	ppbV	89
5) Freon-114	4.77	85	1685	0.038	ppbV	99
6) vinyl chloride	4.94	62	590	0.035	ppbV #	80
7) 1,3-butadiene	5.14	54	442	0.038	ppbV #	42
8) bromomethane	5.52	94	577	0.037	ppbV	99
9) chloroethane	5.78	64	272M3	0.034	ppbV	
10) ethanol	6.04	31	3010	0.236	ppbV	98
11) vinyl bromide	6.26	106	618	0.037	ppbV	95
12) acetone	6.69	43	6466	0.249	ppbV #	99
13) trichlorofluoromethane	6.83	101	1548	0.034	ppbV	99
14) isopropyl alcohol	7.04	45	1798	0.066	ppbV	98
15) acrylonitrile	7.28	53	515	0.045	ppbV	97
16) 1,1-dichloroethene	7.65	61	1009	0.034	ppbV	98
17) methylene chloride	7.83	49	2862	0.127	ppbV	100
18) 3-chloropropene	7.97	41	860M4	0.038	ppbV	
19) carbon disulfide	8.15	76	1791	0.036	ppbV #	81
20) Freon 113	8.17	101	1287	0.033	ppbV	96
21) Halothane	8.74	117	1264	0.034	ppbV	98
22) trans-1,2-dichloroethene	8.98	61	1103	0.034	ppbV	100
23) 1,1-dichloroethane	9.22	63	1103	0.033	ppbV	100
24) MTBE	9.36	73	1573	0.035	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226164.D
 Acq On : 10 Nov 2013 8:55 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.04
 Misc : WG652929
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:46:57 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 15:14:25 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.44	43	784	0.073	ppbV	100
26) 2-butanone	9.76	43	1571	0.038	ppbV	98
27) cis-1,2-dichloroethene	10.20	61	832	0.033	ppbV	97
28) Ethyl Acetate	10.51	61	217	0.037	ppbV	76
29) chloroform	10.54	83	1246M4	0.033	ppbV	
30) Tetrahydrofuran	11.08	42	833M6	0.039	ppbV	
31) 1,2-dichloroethane	11.38	62	928	0.036	ppbV	96
33) hexane	10.44	57	984	0.038	ppbV #	25
35) 1,1,1-trichloroethane	11.66	97	1310	0.033	ppbV	99
36) benzene	12.17	78	2032	0.039	ppbV	100
37) carbon tetrachloride	12.34	117	970	0.024	ppbV	99
38) cyclohexane	12.48	56	1017	0.038	ppbV	96
39) 1,2-dichloropropane	13.09	63	691	0.033	ppbV	99
40) bromodichloromethane	13.31	83	1319	0.033	ppbV	99
41) 1,4-dioxane	13.45	88	383	0.035	ppbV	90
42) trichloroethene	13.36	130	885	0.028	ppbV	96
43) 2,2,4-trimethylpentane	13.39	57	5502	0.064	ppbV	99
44) heptane	13.68	43	1241	0.036	ppbV	99
45) cis-1,3-dichloropropene	14.33	75	806	0.028	ppbV	98
46) 4-methyl-2-pentanone	14.40	43	1659	0.034	ppbV	96
47) trans-1,3-dichloropropene	14.89	75	809	0.029	ppbV	95
48) 1,1,2-trichloroethane	0.00		0	N.D.		
50) toluene	15.35	91	2363	0.034	ppbV	100
52) 2-hexanone	15.64	43	1233	0.026	ppbV	95
53) dibromochloromethane	15.76	129	1492	0.032	ppbV	98
54) 1,2-dibromoethane	15.99	107	1155	0.028	ppbV	99
55) tetrachloroethene	16.38	166	1191	0.030	ppbV	98
56) 1,1,1,2-tetrachloroethane	16.93	131	1059	0.033	ppbV	95
57) chlorobenzene	16.95	112	1877	0.031	ppbV	99
58) ethylbenzene	17.24	91	2740	0.030	ppbV	99
59) m+p-xylene	17.38	91	4268	0.059	ppbV	99
60) bromoform	17.46	173	1606	0.030	ppbV	98
61) styrene	17.66	104	1514	0.027	ppbV	99
62) 1,1,2,2-tetrachloroethane	17.74	83	1578	0.032	ppbV	100
63) o-xylene	17.74	91	2253	0.030	ppbV	96
65) isopropylbenzene	18.18	105	3383	0.031	ppbV	99
66) 4-ethyl toluene	18.66	105	2876M6	0.026	ppbV	
67) 1,3,5-trimethylbenzene	18.72	105	2490	0.027	ppbV #	95
68) tert-butylbenzene	19.02	119	3136	0.030	ppbV	97
69) 1,2,4-trimethylbenzene	19.02	105	2456M4	0.027	ppbV	

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226164.D
 Acq On : 10 Nov 2013 8:55 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.04
 Misc : WG652929
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:46:57 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 15:14:25 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

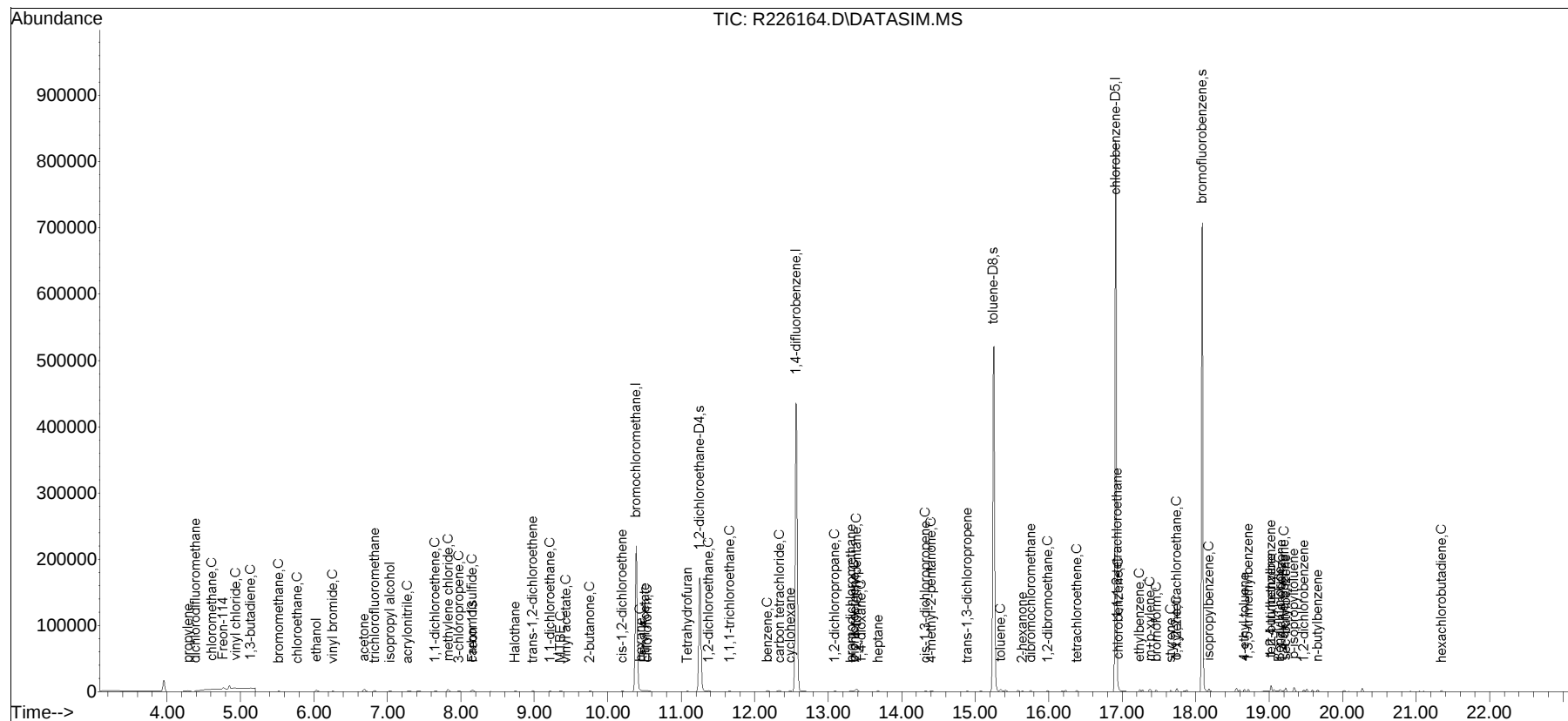
70) Benzyl Chloride	19.14	91	1547	0.021	ppbV	93
71) 1,3-dichlorobenzene	19.16	146	1601	0.021	ppbV	98
72) 1,4-dichlorobenzene	19.21	146	1562M4	0.020	ppbV	
73) sec-butylbenzene	19.23	105	4010	0.028	ppbV	96
74) p-isopropyltoluene	19.34	119	3328	0.026	ppbV	98
75) 1,2-dichlorobenzene	19.47	146	1622	0.022	ppbV	99
76) n-butylbenzene	19.66	91	2344	0.020	ppbV	97
77) 1,2,4-trichlorobenzene	20.92		0	N.D.		
78) naphthalene	21.04		0	N.D.		
79) 1,2,3-trichlorobenzene	21.29		0	N.D.		
80) hexachlorobutadiene	21.35	225	1132	0.017	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1110SIM_ICAL\R226170.D

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226164.D
Acq On : 10 Nov 2013 8:55 am
Operator : AIRPIANO2:MB
Sample : IT015-SIMSTD0.04
Misc : WG652929
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 14 15:46:57 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 15:14:25 2013
Response via : Initial Calibration



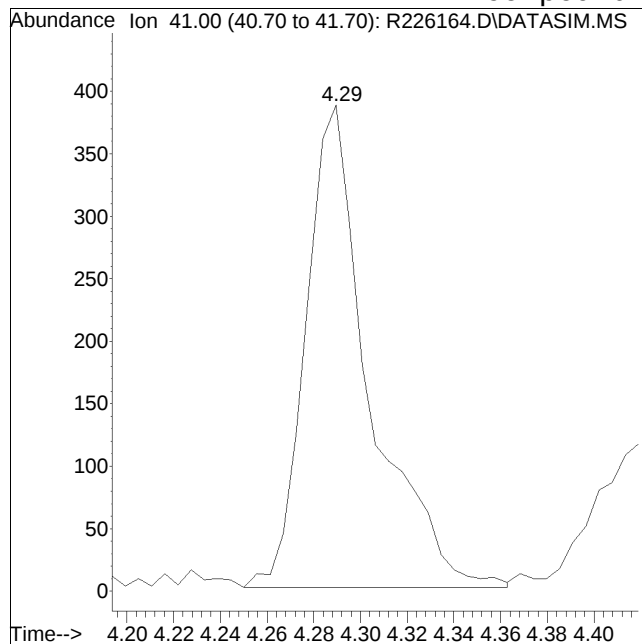
TSIM131110.M Tue Nov 19 17:42:16 2013

Page: 4

Manual Integration/Negative Proof Report

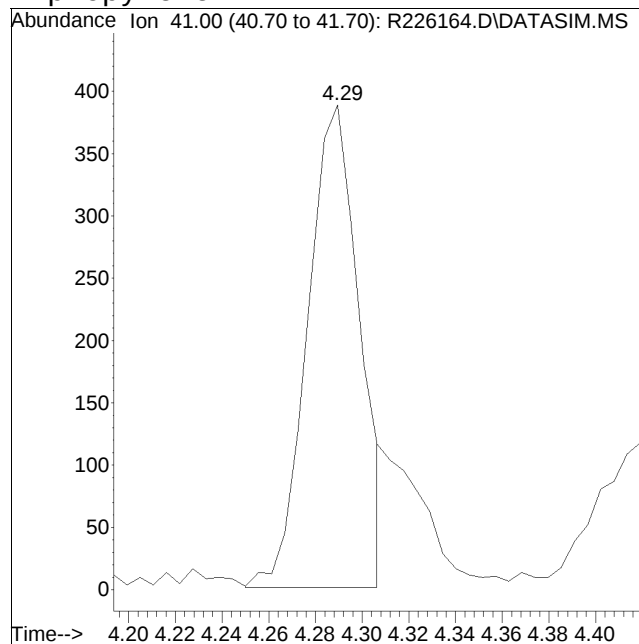
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #2: propylene



Original Peak Response = 732

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

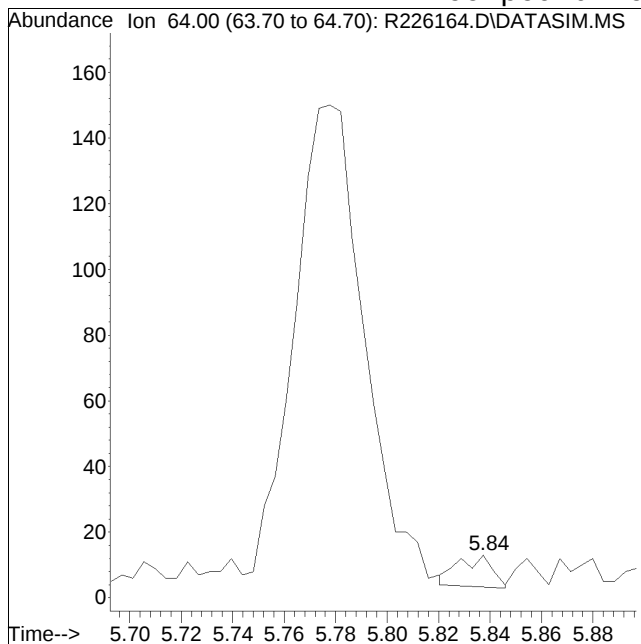


Manual Peak Response = 601 M6

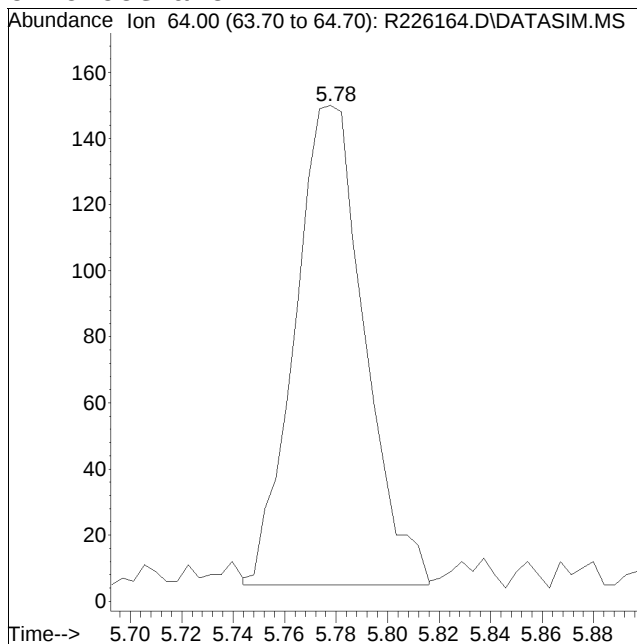
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #9: chloroethane



Original Peak Response = 9



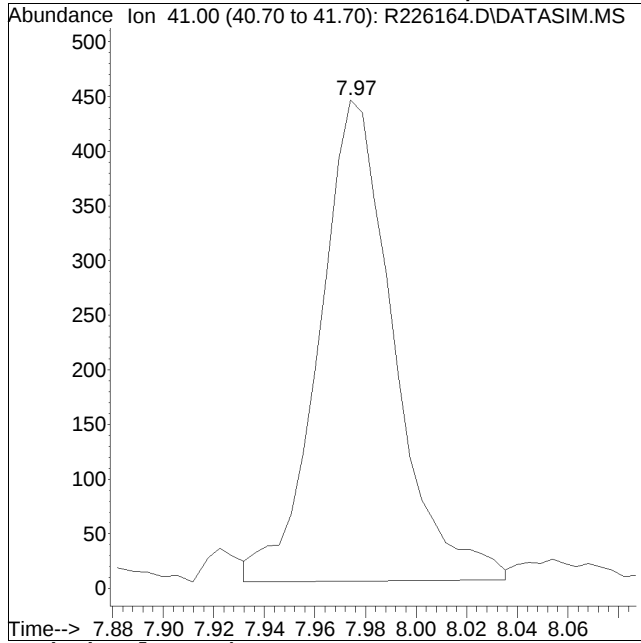
Manual Peak Response = 272 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

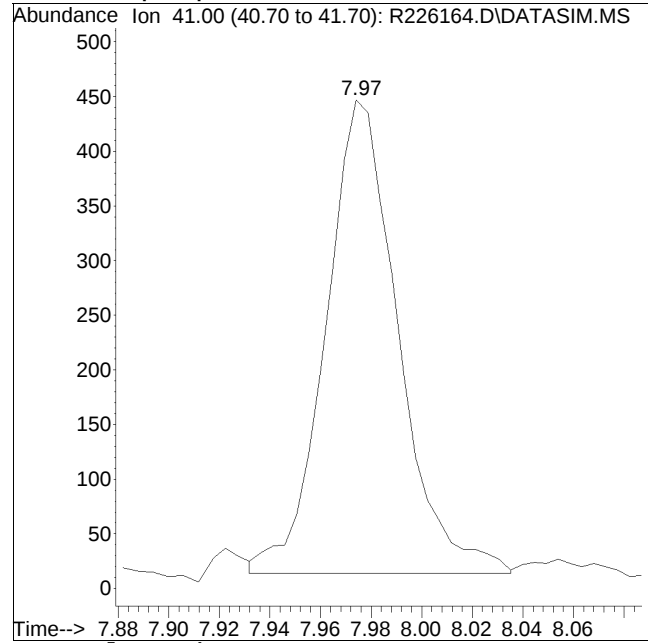
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #18: 3-chloropropene



Original Peak Response = 903

M4 = Poor automated baseline construction.

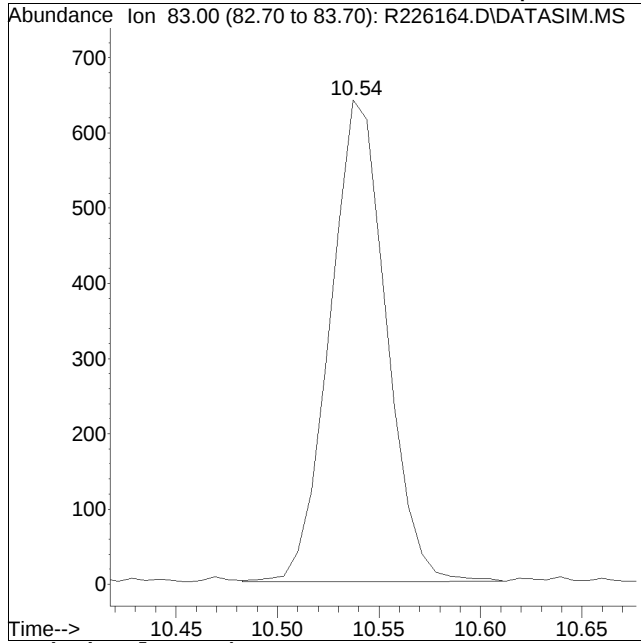


Manual Peak Response = 860 M4

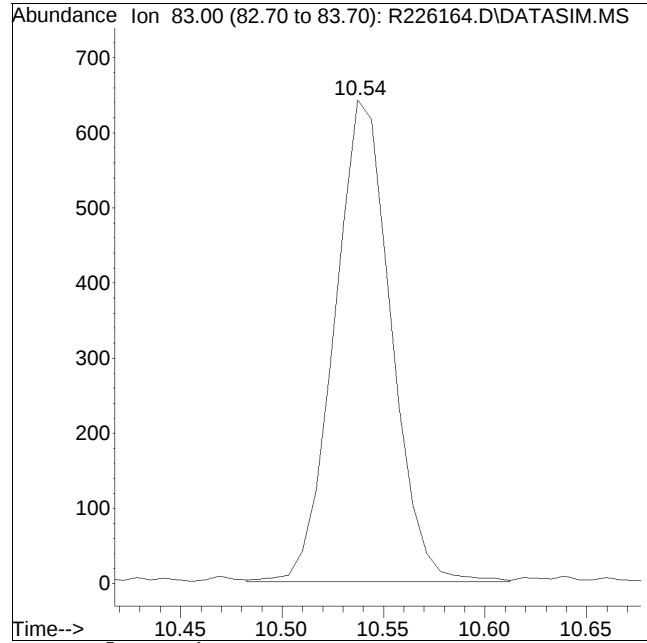
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #29: chloroform



Original Peak Response = 1234



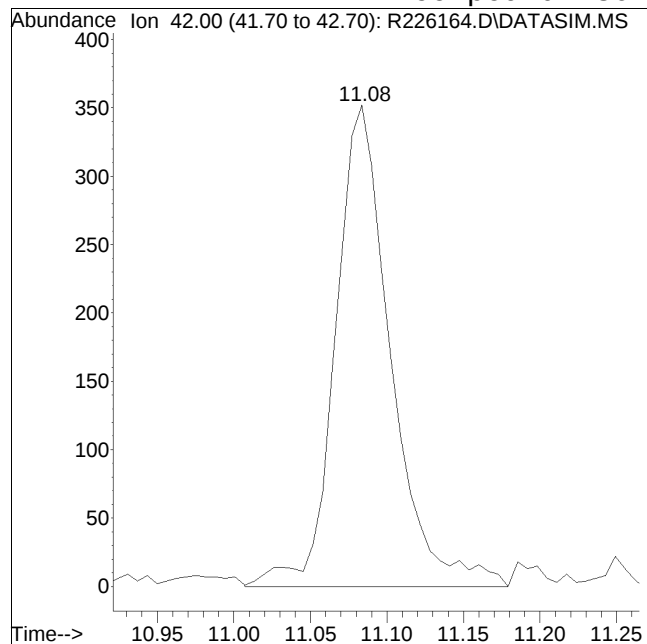
Manual Peak Response = 1246 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

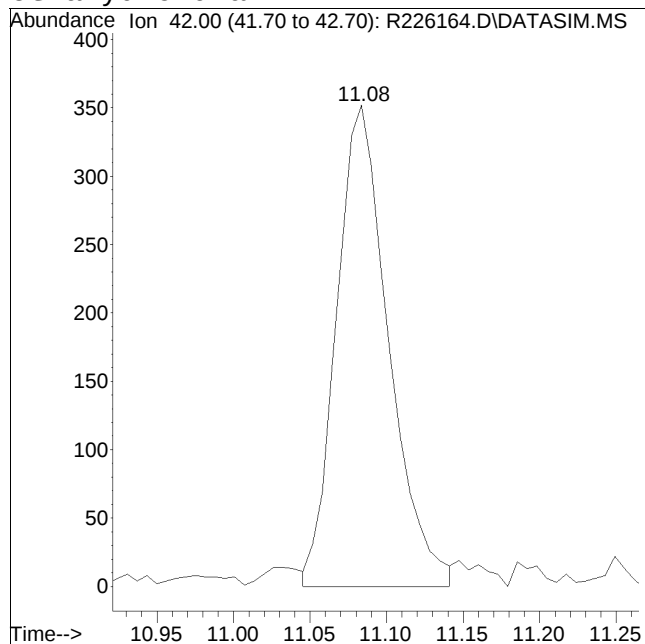
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #30: Tetrahydrofuran



Original Peak Response = 883

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

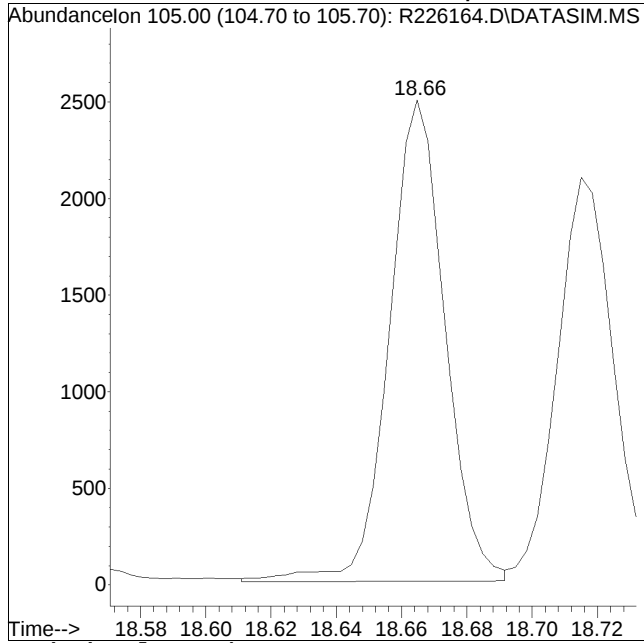


Manual Peak Response = 833 M6

Manual Integration/Negative Proof Report

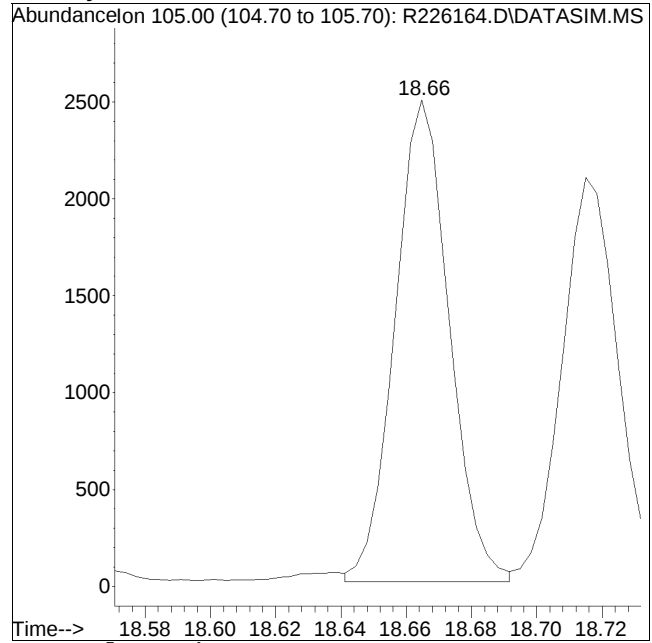
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #66: 4-ethyl toluene



Original Peak Response = 2957

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

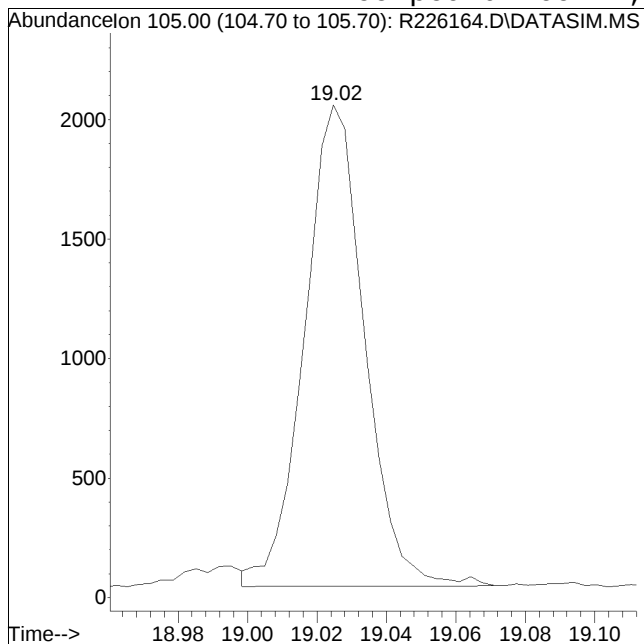


Manual Peak Response = 2876 M6

Manual Integration/Negative Proof Report

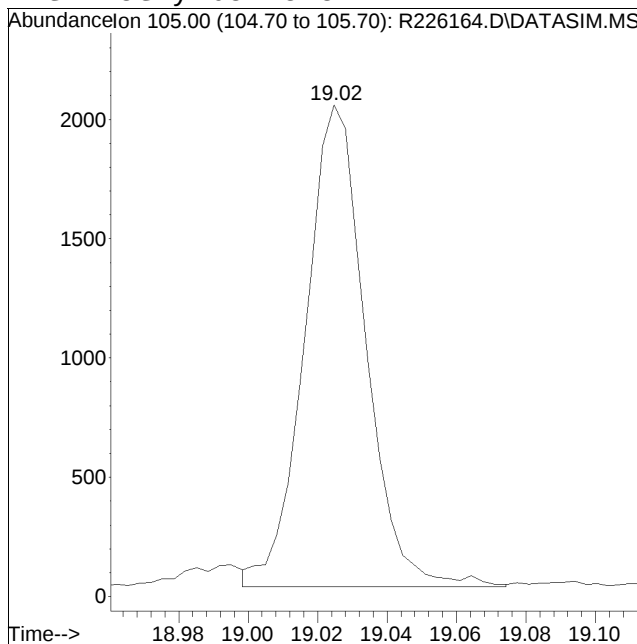
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #69: 1,2,4-trimethylbenzene



Original Peak Response = 2417

M4 = Poor automated baseline construction.

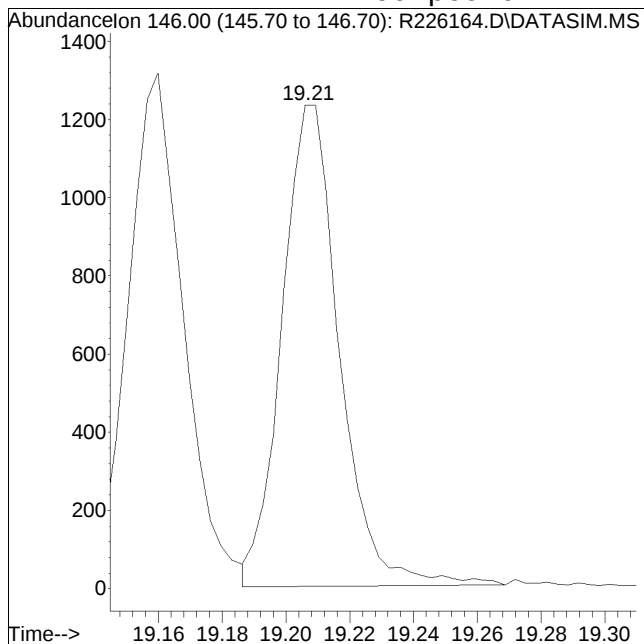


Manual Peak Response = 2456 M4

Manual Integration/Negative Proof Report

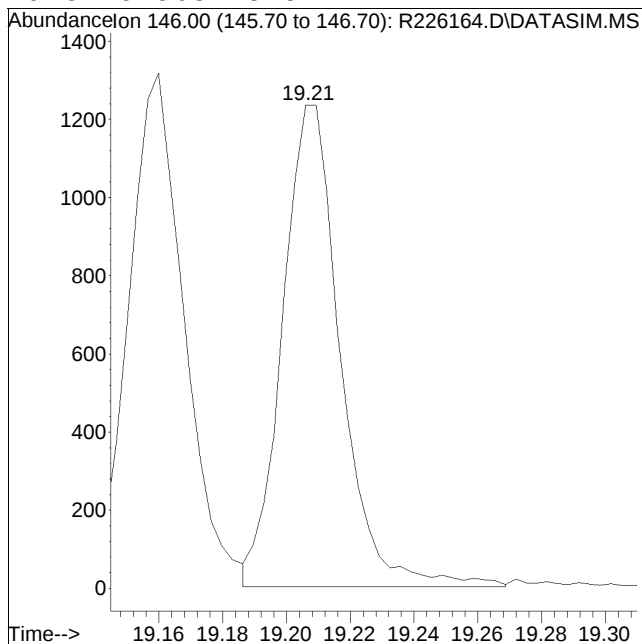
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226164.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 8:55 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.04 Quant Date : 11/14/2013 3:16 pm

Compound #72: 1,4-dichlorobenzene



Original Peak Response = 1545

M4 = Poor automated baseline construction.



Manual Peak Response = 1562 M4

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226165.D
 Acq On : 10 Nov 2013 9:27 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.1
 Misc : WG652929
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 15:49:06 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	234222	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	102.30%		
32) 1,4-difluorobenzene	12.57	114	686051	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	100.59%		
49) chlorobenzene-D5	16.91	54	137912	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	103.83%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.26	65	187839	10.225	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.25%		
51) toluene-D8	15.25	98	504402	9.683	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.83%		
64) bromofluorobenzene	18.08	95	367406	9.529	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.29%		
Target Compounds						
					Qvalue	
2) propylene	4.28	41	1397M6	0.106	ppbV	
3) dichlorodifluoromethane	4.39	85	1457	0.096	ppbV	99
4) chloromethane	4.62	50	1564	0.099	ppbV	96
5) Freon-114	4.77	85	4081	0.092	ppbV	99
6) vinyl chloride	4.94	62	1560	0.092	ppbV	92
7) 1,3-butadiene	5.14	54	1201M4	0.103	ppbV	
8) bromomethane	5.52	94	1456	0.093	ppbV	98
9) chloroethane	5.78	64	726	0.092	ppbV	100
10) ethanol	6.03	31	7417	0.600	ppbV	99
11) vinyl bromide	6.26	106	1675	0.100	ppbV	99
12) acetone	6.68	43	14407	0.558	ppbV	99
13) trichlorofluoromethane	6.83	101	4194	0.092	ppbV	100
14) isopropyl alcohol	7.03	45	3919	0.144	ppbV	99
15) acrylonitrile	7.28	53	1106M6	0.096	ppbV	
16) 1,1-dichloroethene	7.65	61	2633	0.088	ppbV	98
17) methylene chloride	7.83	49	4055	0.181	ppbV	97
18) 3-chloropropene	7.97	41	2248M4	0.099	ppbV	
19) carbon disulfide	8.15	76	4631	0.095	ppbV #	1
20) Freon 113	8.16	101	3256	0.085	ppbV	97
21) Halothane	8.74	117	3504	0.094	ppbV	97
22) trans-1,2-dichloroethene	8.98	61	3090	0.097	ppbV	100
23) 1,1-dichloroethane	9.22	63	3008	0.092	ppbV	99
24) MTBE	9.35	73	4406	0.097	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226165.D
 Acq On : 10 Nov 2013 9:27 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.1
 Misc : WG652929
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 15:49:06 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.44	43	991	0.093	ppbV	100
26) 2-butanone	9.75	43	4049	0.100	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	2281	0.090	ppbV	95
28) Ethyl Acetate	10.51	61	548	0.094	ppbV	91
29) chloroform	10.54	83	3464	0.092	ppbV	98
30) Tetrahydrofuran	11.07	42	2387	0.118	ppbV	97
31) 1,2-dichloroethane	11.38	62	2366	0.093	ppbV	97
33) hexane	10.44	57	2679	0.104	ppbV #	25
35) 1,1,1-trichloroethane	11.66	97	3574	0.091	ppbV	100
36) benzene	12.17	78	5248	0.100	ppbV	99
37) carbon tetrachloride	12.34	117	2944	0.073	ppbV	100
38) cyclohexane	12.48	56	2744	0.104	ppbV	96
39) 1,2-dichloropropane	13.10	63	1906	0.092	ppbV	98
40) bromodichloromethane	13.31	83	3680	0.093	ppbV	98
41) 1,4-dioxane	13.43	88	1160	0.104	ppbV	97
42) trichloroethene	13.36	130	2525	0.081	ppbV	98
43) 2,2,4-trimethylpentane	13.39	57	9974	0.116	ppbV	99
44) heptane	13.67	43	3503	0.102	ppbV	99
45) cis-1,3-dichloropropene	14.33	75	2363	0.083	ppbV	99
46) 4-methyl-2-pentanone	14.39	43	4682	0.096	ppbV	99
47) trans-1,3-dichloropropene	14.89	75	2401	0.086	ppbV	97
48) 1,1,2-trichloroethane	15.08	97	2049	0.088	ppbV	98
50) toluene	15.35	91	6268	0.090	ppbV	100
52) 2-hexanone	15.63	43	3806	0.079	ppbV	97
53) dibromochloromethane	15.76	129	4012	0.085	ppbV	99
54) 1,2-dibromoethane	15.99	107	3236	0.080	ppbV	100
55) tetrachloroethene	16.38	166	3406	0.085	ppbV	98
56) 1,1,1,2-tetrachloroethane	16.93	131	3002	0.093	ppbV	97
57) chlorobenzene	16.95	112	5252M6	0.087	ppbV	
58) ethylbenzene	17.24	91	7761	0.084	ppbV	99
59) m+p-xylene	17.38	91	12106	0.166	ppbV	100
60) bromoform	17.46	173	4635	0.086	ppbV	98
61) styrene	17.66	104	4348	0.076	ppbV	98
62) 1,1,2,2-tetrachloroethane	17.74	83	4469	0.091	ppbV	98
63) o-xylene	17.74	91	6318	0.084	ppbV	99
65) isopropylbenzene	18.18	105	9798	0.091	ppbV	100
66) 4-ethyl toluene	18.66	105	8941M6	0.081	ppbV	
67) 1,3,5-trimethylbenzene	18.72	105	7252	0.080	ppbV	100
68) tert-butylbenzene	19.02	119	9198	0.089	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	6985	0.076	ppbV	89

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226165.D
 Acq On : 10 Nov 2013 9:27 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.1
 Misc : WG652929
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 15:49:06 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

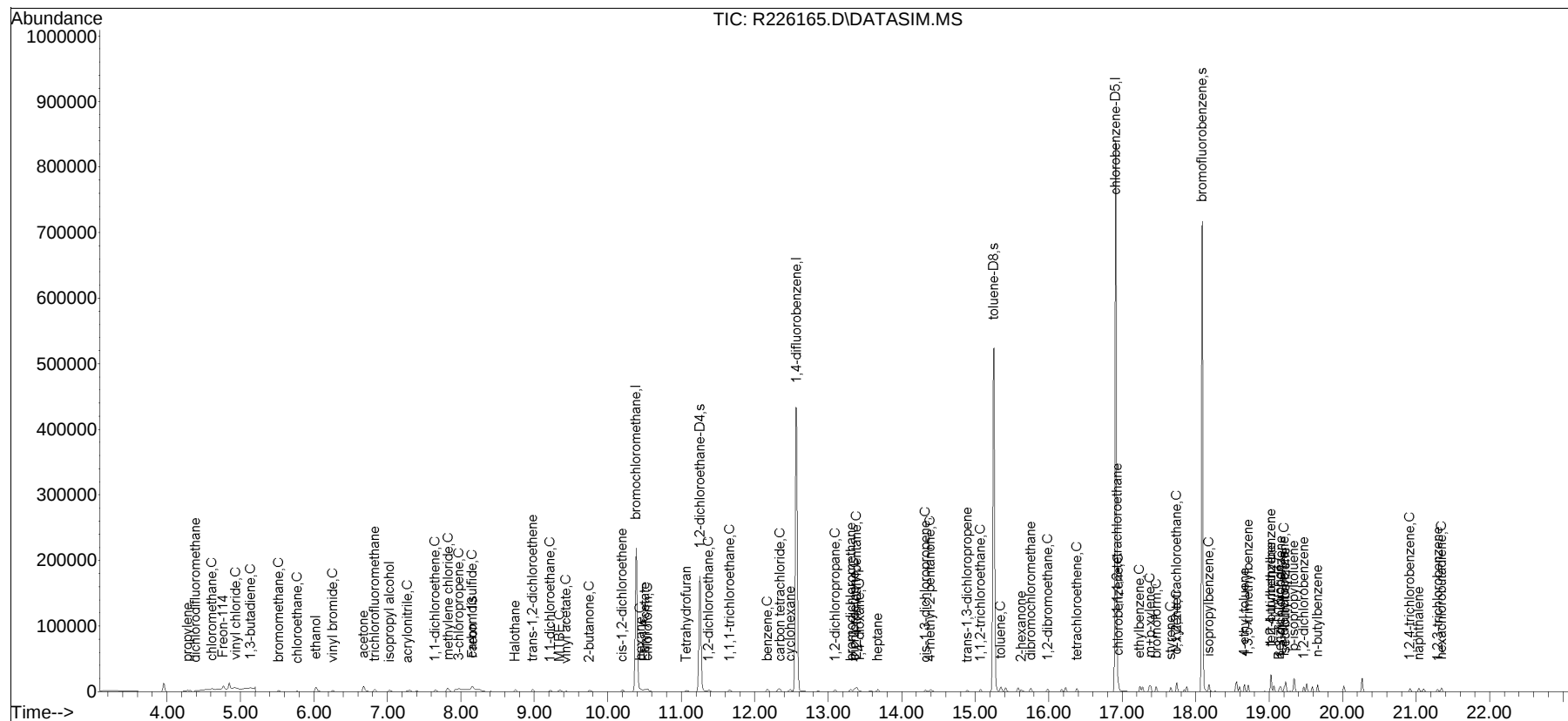
CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	4618	0.063	ppbV	97
71) 1,3-dichlorobenzene	19.16	146	5108	0.067	ppbV	99
72) 1,4-dichlorobenzene	19.21	146	5046	0.065	ppbV	99
73) sec-butylbenzene	19.22	105	12047	0.086	ppbV	100
74) p-isopropyltoluene	19.33	119	10593	0.082	ppbV	100
75) 1,2-dichlorobenzene	19.47	146	5197	0.071	ppbV	99
76) n-butylbenzene	19.66	91	8275	0.071	ppbV	97
77) 1,2,4-trichlorobenzene	20.92	180	2878	0.039	ppbV	99
78) naphthalene	21.04	128	6327	0.041	ppbV	99
79) 1,2,3-trichlorobenzene	21.29	180	3423	0.044	ppbV	99
80) hexachlorobutadiene	21.35	225	4295	0.066	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path   : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File  : R226165.D
Acq On     : 10 Nov 2013    9:27 am
Operator   : AIRPIAN02:MB
Sample     : IT015-SIMSTD0.1
Misc       : WG652929
ALS Vial   : 6    Sample Multiplier: 1
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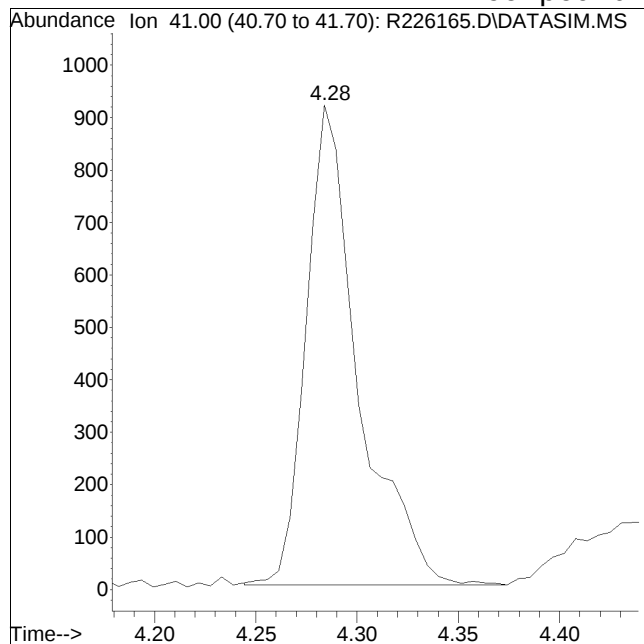
Quant Time: Nov 14 15:49:06 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

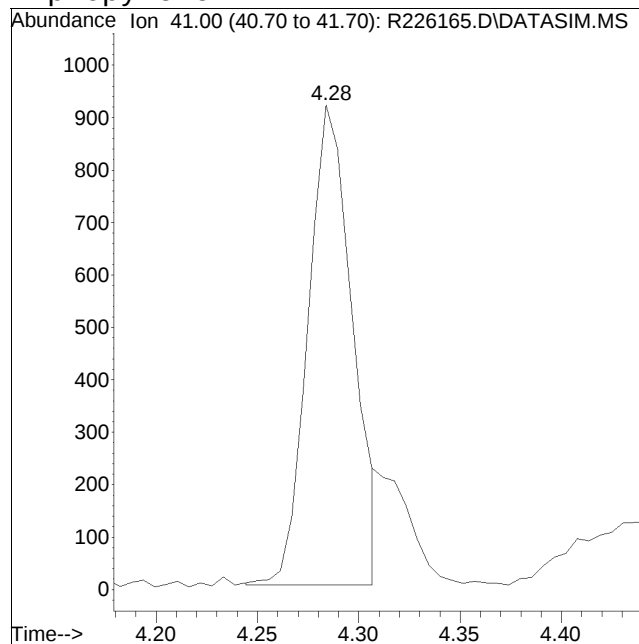
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226165.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 9:27 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.1 Quant Date : 11/11/2013 8:28 am

Compound #2: propylene



Original Peak Response = 1640

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

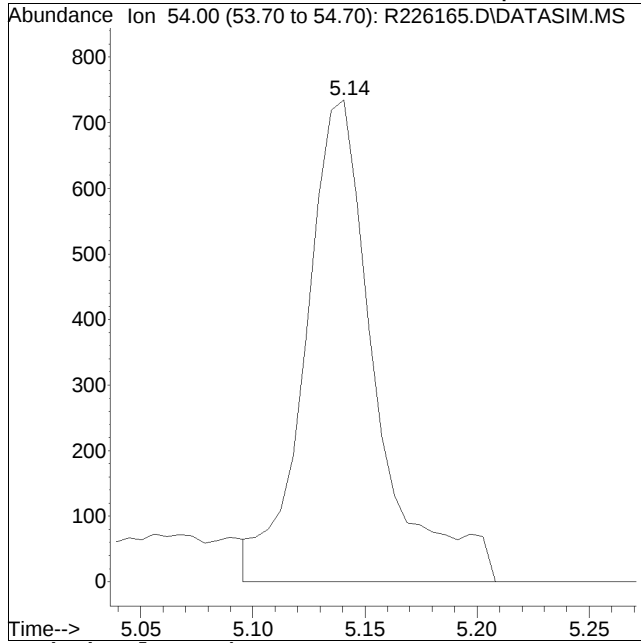


Manual Peak Response = 1397 M6

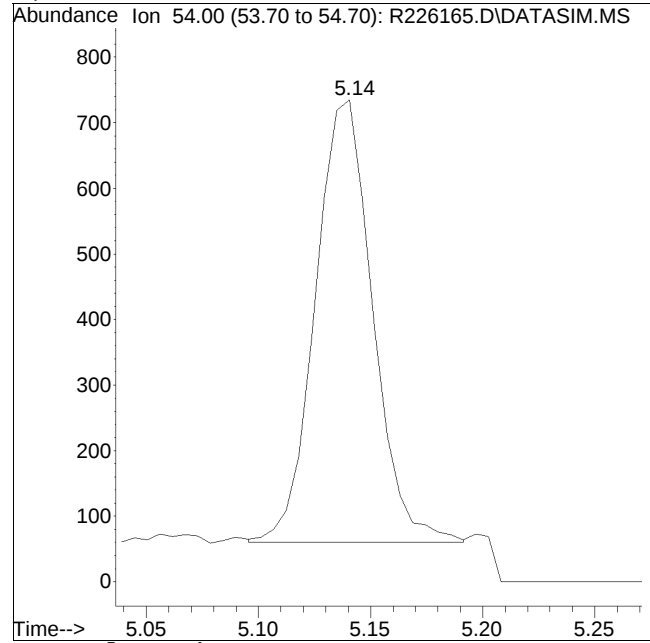
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226165.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 9:27 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.1 Quant Date : 11/11/2013 8:28 am

Compound #7: 1,3-butadiene



Original Peak Response = 1575



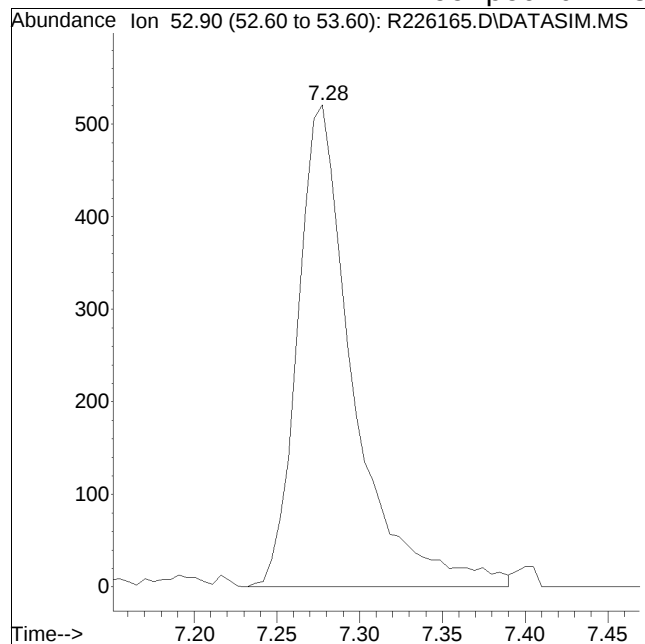
Manual Peak Response = 1201 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

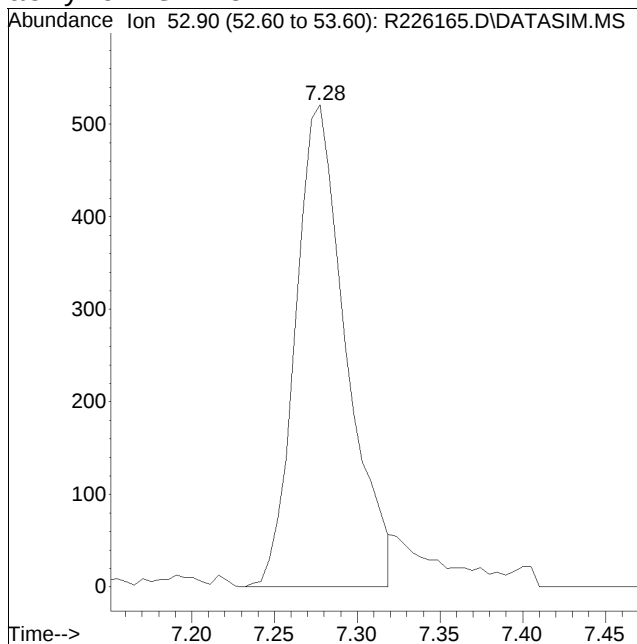
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
 Data File : R226165.D Operator : AIRPIAN02:MB
 Date Inj'd : 11/10/2013 9:27 am Instrument : Air Piano 2
 Sample : IT015-SIMSTD0.1 Quant Date : 11/11/2013 8:28 am

Compound #15: acrylonitrile



Original Peak Response = 1220

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

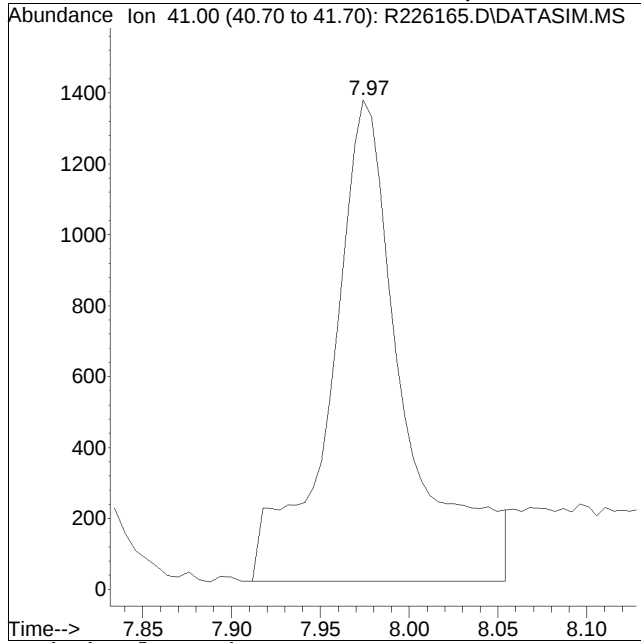


Manual Peak Response = 1106 M6

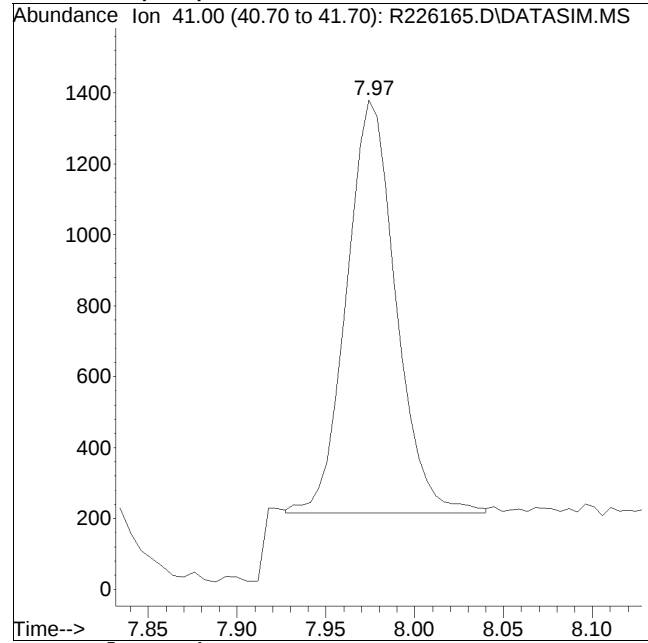
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226165.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 9:27 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.1 Quant Date : 11/11/2013 8:28 am

Compound #18: 3-chloropropene



Original Peak Response = 3966



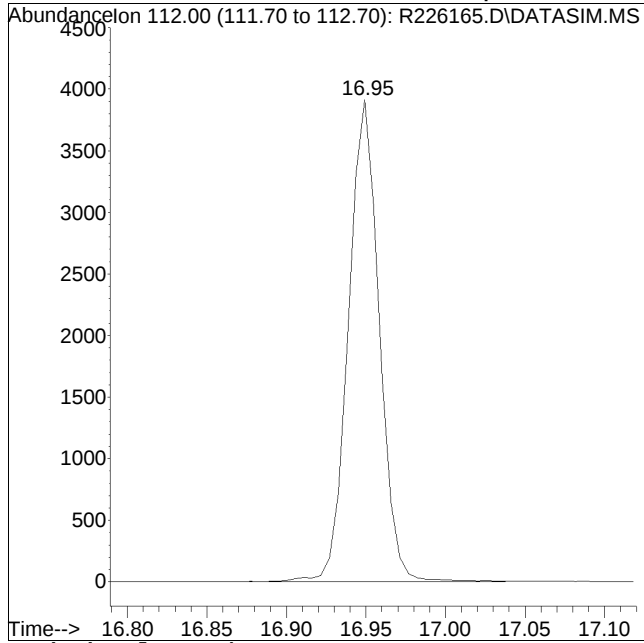
Manual Peak Response = 2248 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

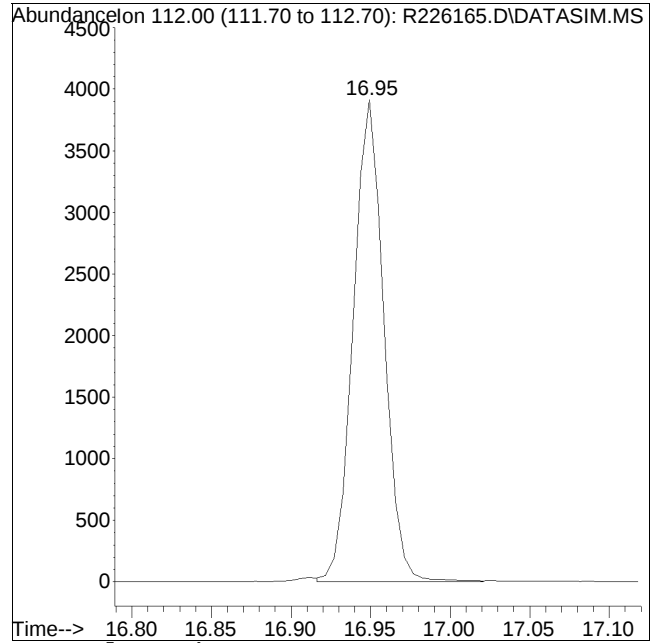
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226165.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 9:27 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.1 Quant Date : 11/11/2013 8:28 am

Compound #57: chlorobenzene



Original Peak Response = 5300

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

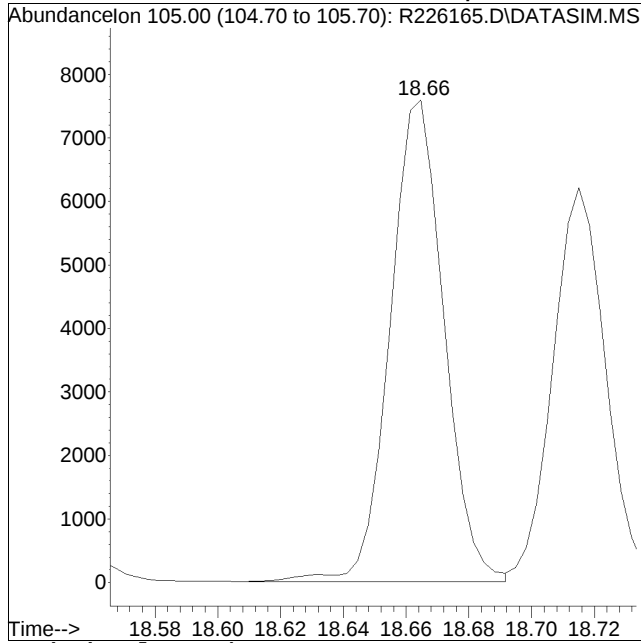


Manual Peak Response = 5252 M6

Manual Integration/Negative Proof Report

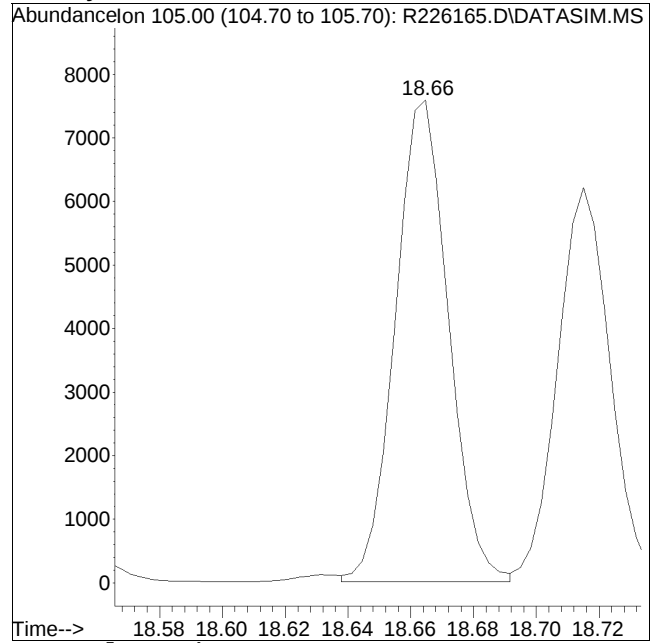
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226165.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 9:27 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.1 Quant Date : 11/11/2013 8:28 am

Compound #66: 4-ethyl toluene



Original Peak Response = 9065

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 8941 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226166.D
 Acq On : 10 Nov 2013 10:00 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.2
 Misc : WG652929
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 15:53:34 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	231861	10.000	ppbV	0.00
Standard Area = 228959			Recovery = 101.27%			
32) 1,4-difluorobenzene	12.56	114	683820	10.000	ppbV	0.00
Standard Area = 682020			Recovery = 100.26%			
49) chlorobenzene-D5	16.91	54	136534	10.000	ppbV	0.00
Standard Area = 132824			Recovery = 102.79%			
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	185599	10.136	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.36%			
51) toluene-D8	15.25	98	503364	9.760	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.60%			
64) bromofluorobenzene	18.09	95	367580	9.630	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.30%			
Target Compounds						
					Qvalue	
2) propylene	4.28	41	2685M6	0.207	ppbV	
3) dichlorodifluoromethane	4.39	85	2733	0.182	ppbV	100
4) chloromethane	4.62	50	2949	0.189	ppbV	98
5) Freon-114	4.77	85	8151	0.186	ppbV	99
6) vinyl chloride	4.93	62	2983	0.178	ppbV	99
7) 1,3-butadiene	5.13	54	2303	0.199	ppbV	89
8) bromomethane	5.52	94	2765	0.179	ppbV	100
9) chloroethane	5.77	64	1403	0.180	ppbV	99
10) ethanol	6.02	31	12936	1.058	ppbV	97
11) vinyl bromide	6.26	106	3181	0.193	ppbV	100
12) acetone	6.67	43	26107	1.021	ppbV	98
13) trichlorofluoromethane	6.83	101	7990	0.177	ppbV	100
14) isopropyl alcohol	7.02	45	6649	0.247	ppbV	100
15) acrylonitrile	7.27	53	2293	0.201	ppbV	98
16) 1,1-dichloroethene	7.65	61	5279	0.179	ppbV	98
17) methylene chloride	7.82	49	5972	0.269	ppbV	97
18) 3-chloropropene	7.97	41	4396	0.195	ppbV	99
19) carbon disulfide	8.15	76	9185	0.190	ppbV	94
20) Freon 113	8.16	101	6633	0.175	ppbV	99
21) Halothane	8.74	117	6722	0.182	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	5905	0.187	ppbV	99
23) 1,1-dichloroethane	9.22	63	5756	0.177	ppbV	100
24) MTBE	9.34	73	8496	0.190	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226166.D
 Acq On : 10 Nov 2013 10:00 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.2
 Misc : WG652929
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 15:53:34 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.44	43	1449	0.138	ppbV	100
26) 2-butanone	9.75	43	7710	0.191	ppbV	99
27) cis-1,2-dichloroethene	10.20	61	4398	0.176	ppbV	94
28) Ethyl Acetate	10.50	61	1040	0.180	ppbV	91
29) chloroform	10.54	83	6633	0.177	ppbV	99
30) Tetrahydrofuran	11.06	42	4481	0.223	ppbV	99
31) 1,2-dichloroethane	11.37	62	4548	0.181	ppbV	99
33) hexane	10.44	57	5079	0.198	ppbV #	31
35) 1,1,1-trichloroethane	11.66	97	6871	0.176	ppbV	99
36) benzene	12.17	78	9596	0.184	ppbV	99
37) carbon tetrachloride	12.34	117	5903	0.147	ppbV	99
38) cyclohexane	12.48	56	5245	0.199	ppbV	99
39) 1,2-dichloropropane	13.09	63	3596	0.175	ppbV	98
40) bromodichloromethane	13.30	83	7061	0.179	ppbV	99
41) 1,4-dioxane	13.42	88	2075	0.187	ppbV	96
42) trichloroethene	13.35	130	4966	0.160	ppbV	99
43) 2,2,4-trimethylpentane	13.39	57	19001	0.222	ppbV	99
44) heptane	13.67	43	6662M4	0.195	ppbV	
45) cis-1,3-dichloropropene	14.32	75	4505	0.158	ppbV	99
46) 4-methyl-2-pentanone	14.38	43	8799	0.181	ppbV	98
47) trans-1,3-dichloropropene	14.88	75	4448	0.159	ppbV	98
48) 1,1,2-trichloroethane	15.07	97	3937	0.170	ppbV	98
50) toluene	15.35	91	11904	0.172	ppbV	99
52) 2-hexanone	15.61	43	7435	0.156	ppbV	94
53) dibromochloromethane	15.76	129	7744	0.166	ppbV	100
54) 1,2-dibromoethane	15.98	107	6468	0.161	ppbV	99
55) tetrachloroethene	16.38	166	6553	0.165	ppbV	99
56) 1,1,1,2-tetrachloroethane	16.93	131	5747	0.181	ppbV	99
57) chlorobenzene	16.95	112	10114	0.169	ppbV	99
58) ethylbenzene	17.24	91	15004	0.165	ppbV	97
59) m+p-xylene	17.38	91	23605	0.327	ppbV	100
60) bromoform	17.46	173	8971	0.168	ppbV	99
61) styrene	17.66	104	8779	0.156	ppbV	100
62) 1,1,2,2-tetrachloroethane	17.74	83	8509	0.175	ppbV	99
63) o-xylene	17.74	91	12259	0.164	ppbV	99
65) isopropylbenzene	18.18	105	19189	0.179	ppbV	99
66) 4-ethyl toluene	18.66	105	18109M6	0.166	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	14197	0.158	ppbV	100
68) tert-butylbenzene	19.02	119	17906	0.174	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	13816	0.153	ppbV	91

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226166.D
 Acq On : 10 Nov 2013 10:00 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.2
 Misc : WG652929
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 15:53:34 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

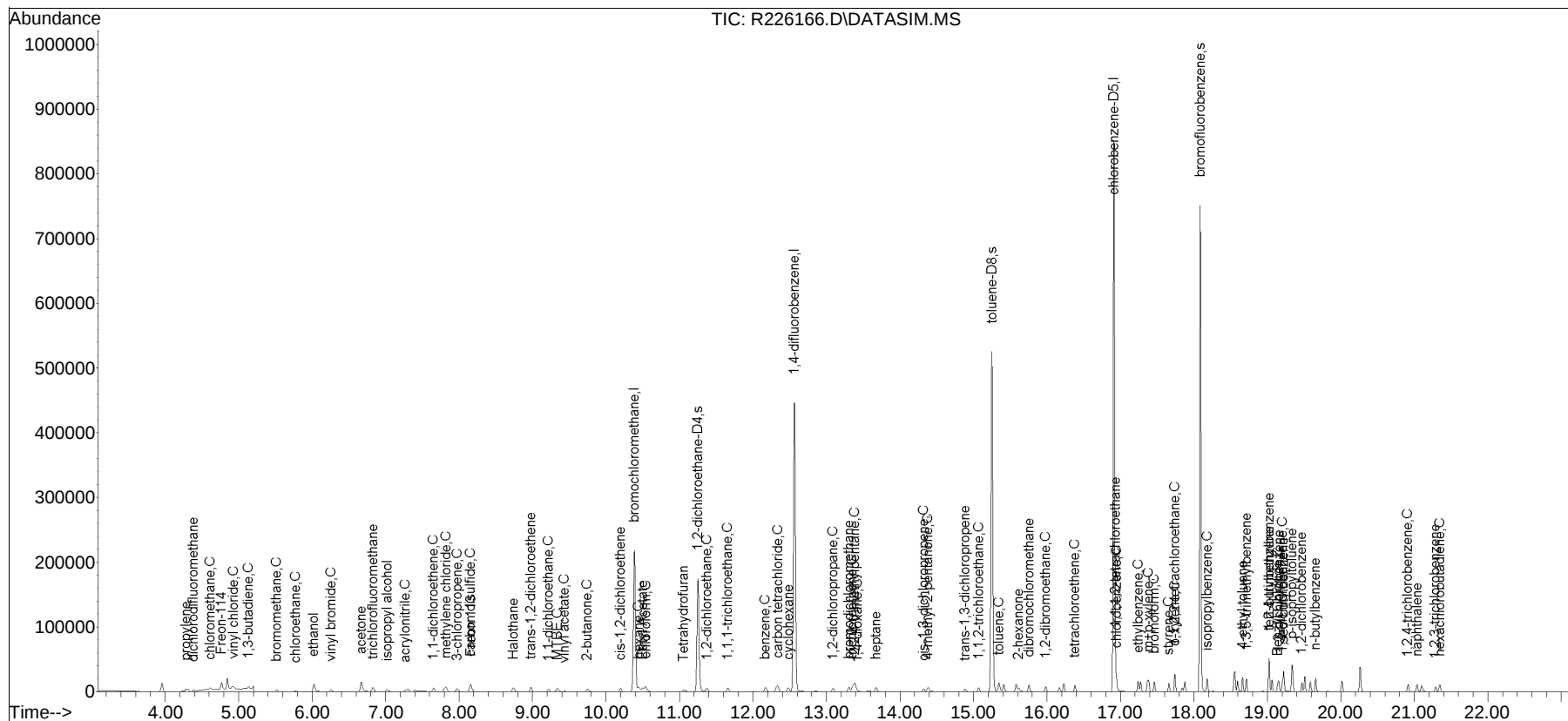
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	9434	0.130	ppbV	98
71) 1,3-dichlorobenzene	19.15	146	10730	0.141	ppbV	98
72) 1,4-dichlorobenzene	19.20	146	10563M4	0.138	ppbV	
73) sec-butylbenzene	19.22	105	23797	0.171	ppbV	98
74) p-isopropyltoluene	19.33	119	21176	0.166	ppbV	99
75) 1,2-dichlorobenzene	19.47	146	10473	0.145	ppbV	99
76) n-butylbenzene	19.66	91	17270	0.149	ppbV	100
77) 1,2,4-trichlorobenzene	20.91	180	6289	0.086	ppbV #	95
78) naphthalene	21.04	128	14481	0.094	ppbV	99
79) 1,2,3-trichlorobenzene	21.29	180	7337	0.095	ppbV #	94
80) hexachlorobutadiene	21.35	225	8477	0.131	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1110SIM_ICAL\R226170.D

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226166.D
Acq On : 10 Nov 2013 10:00 am
Operator : AIRPIANO2:MB
Sample : IT015-SIMSTD0.2
Misc : WG652929
ALS Vial : 6 Sample Multiplier: 1

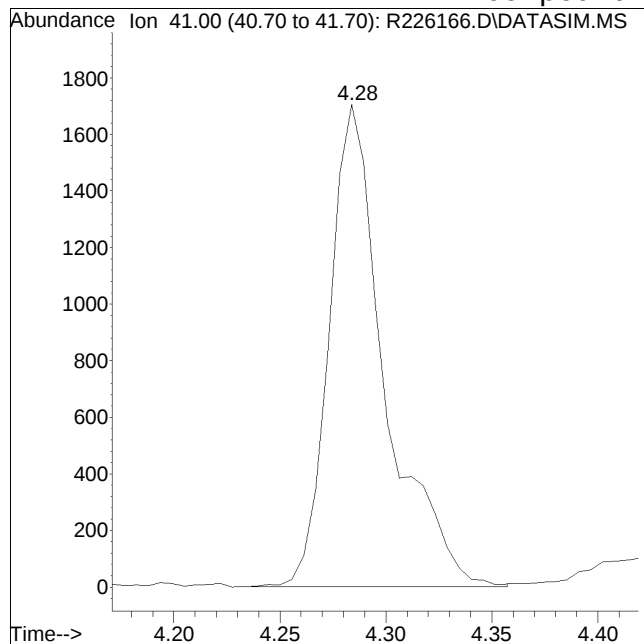
Quant Time: Nov 14 15:53:34 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

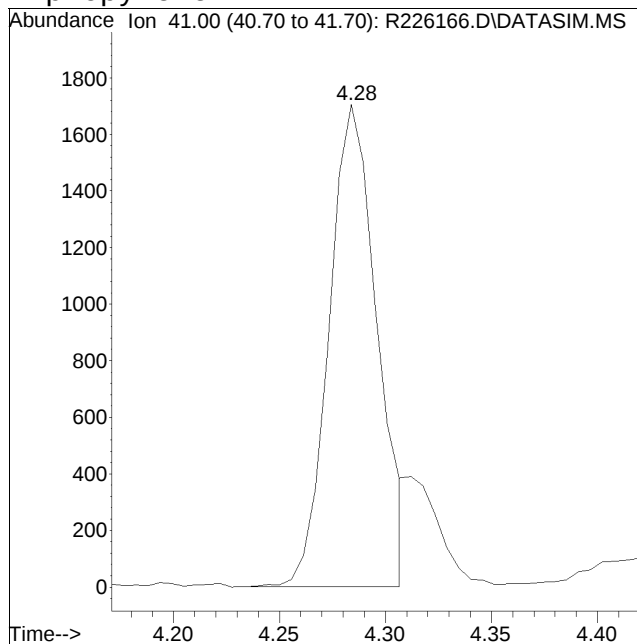
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226166.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:00 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.2 Quant Date : 11/11/2013 8:28 am

Compound #2: propylene



Original Peak Response = 3117

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 2685 M6

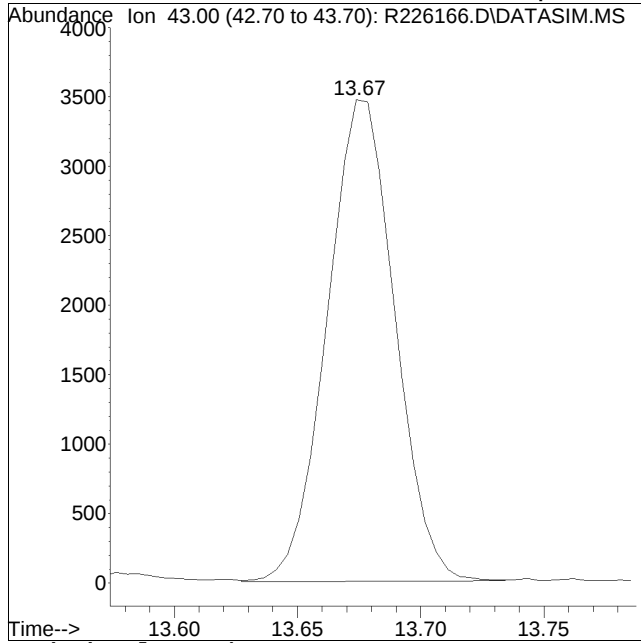
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

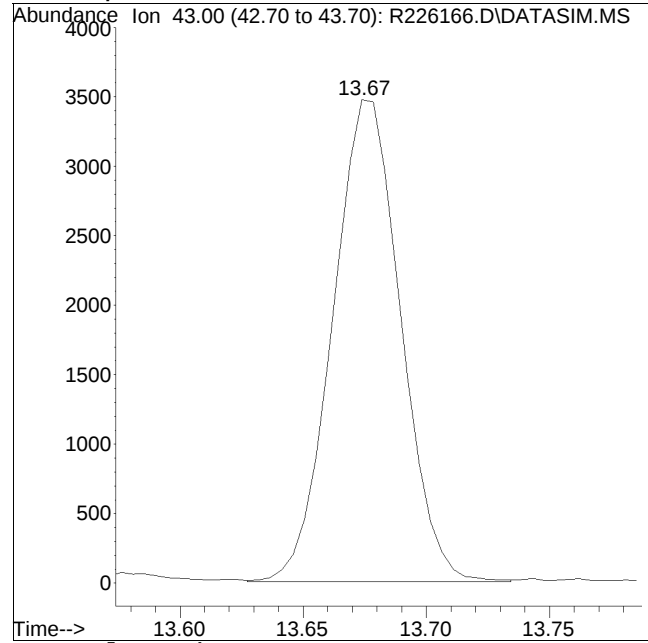
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Data File : R226166.D
Date Inj'd : 11/10/2013 10:00 am
Sample : IT015-SIMSTD0.2

Method : TSIM131110.M
Operator : AIRPIAN02:MB
Instrument : Air Piano 2
Quant Date : 11/11/2013 8:28 am

Compound #44: heptane



Original Peak Response = 6633



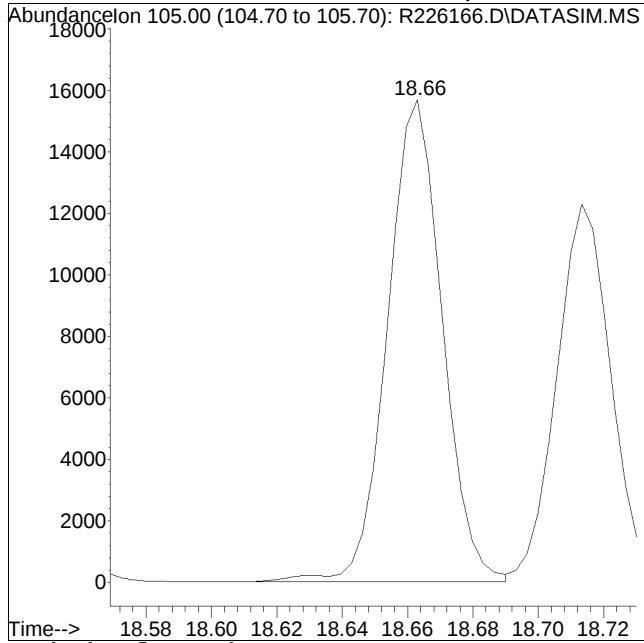
Manual Peak Response = 6662 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

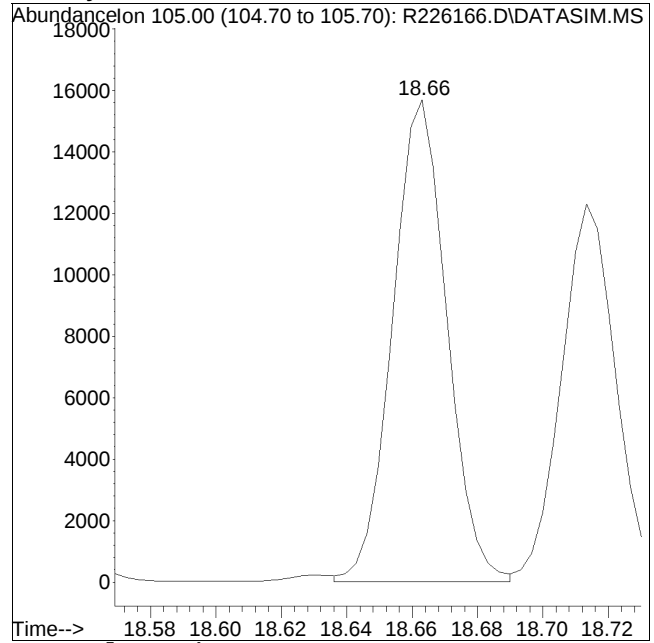
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226166.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:00 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.2 Quant Date : 11/11/2013 8:28 am

Compound #66: 4-ethyl toluene



Original Peak Response = 18265

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

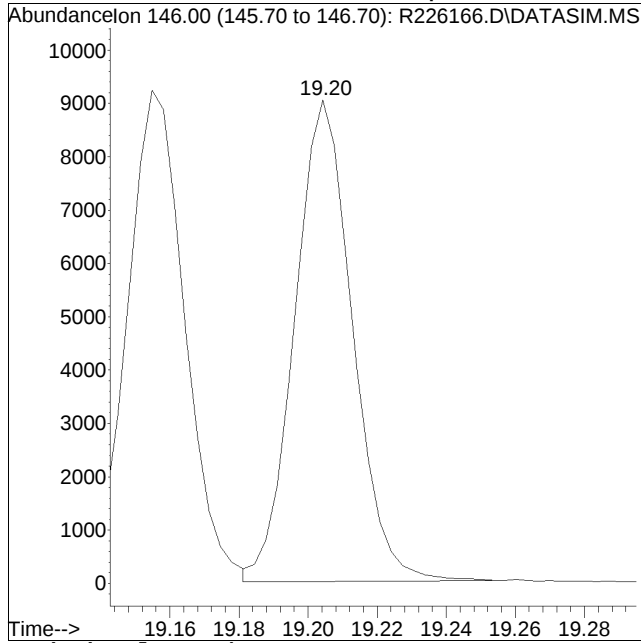


Manual Peak Response = 18109 M6

Manual Integration/Negative Proof Report

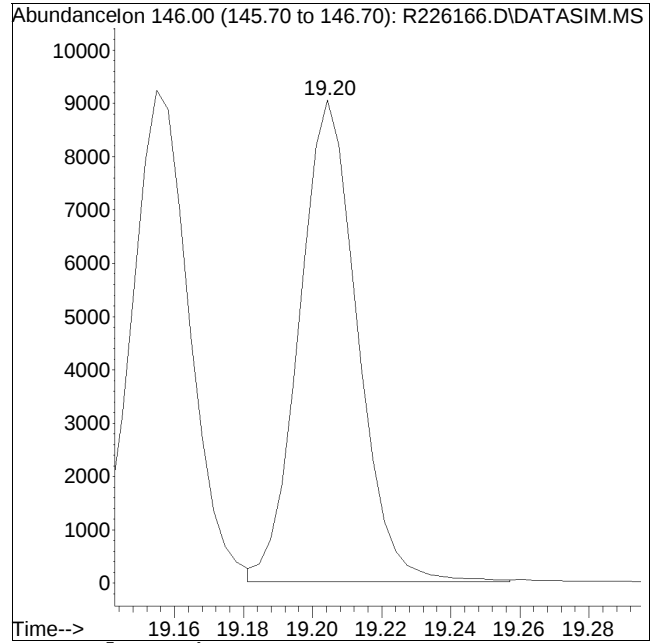
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226166.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:00 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.2 Quant Date : 11/11/2013 8:28 am

Compound #72: 1,4-dichlorobenzene



Original Peak Response = 10475

M4 = Poor automated baseline construction.



Manual Peak Response = 10563 M4

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226167.D
 Acq On : 10 Nov 2013 10:33 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.5
 Misc : WG652929
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 14 15:56:13 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	231001	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	100.89%		
32) 1,4-difluorobenzene	12.56	114	681006	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	99.85%		
49) chlorobenzene-D5	16.91	54	134985	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	101.63%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	184598	10.123	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.23%		
51) toluene-D8	15.25	98	499924	9.805	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.05%		
64) bromofluorobenzene	18.08	95	368310	9.760	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.60%		
Target Compounds						Qvalue
2) propylene	4.28	41	6554M6	0.506	ppbV	
3) dichlorodifluoromethane	4.39	85	7188	0.481	ppbV	99
4) chloromethane	4.62	50	7430	0.478	ppbV	99
5) Freon-114	4.77	85	20556	0.470	ppbV	99
6) vinyl chloride	4.94	62	7706	0.463	ppbV	99
7) 1,3-butadiene	5.13	54	5835M4	0.507	ppbV	
8) bromomethane	5.52	94	7123	0.462	ppbV	99
9) chloroethane	5.77	64	3643	0.468	ppbV	99
10) ethanol	6.02	31	31576	2.592	ppbV	99
11) vinyl bromide	6.26	106	8244	0.501	ppbV	99
12) acetone	6.66	43	63496	2.492	ppbV	99
13) trichlorofluoromethane	6.83	101	20828	0.464	ppbV	99
14) isopropyl alcohol	7.01	45	14426	0.538	ppbV	100
15) acrylonitrile	7.27	53	5307M6	0.468	ppbV	
16) 1,1-dichloroethene	7.65	61	13847	0.470	ppbV	99
17) methylene chloride	7.82	49	12141	0.549	ppbV	97
18) 3-chloropropene	7.97	41	11374	0.506	ppbV	99
19) carbon disulfide	8.15	76	23931	0.496	ppbV	98
20) Freon 113	8.16	101	17331	0.460	ppbV	100
21) Halothane	8.74	117	17709	0.482	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	15438	0.490	ppbV	100
23) 1,1-dichloroethane	9.22	63	14970	0.462	ppbV	99
24) MTBE	9.33	73	22156	0.496	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226167.D
 Acq On : 10 Nov 2013 10:33 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.5
 Misc : WG652929
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 14 15:56:13 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.43	43	3457	0.330	ppbV	100
26) 2-butanone	9.73	43	19868	0.495	ppbV	99
27) cis-1,2-dichloroethene	10.20	61	11482	0.461	ppbV	96
28) Ethyl Acetate	10.50	61	2687M4	0.468	ppbV	
29) chloroform	10.54	83	17212	0.461	ppbV	99
30) Tetrahydrofuran	11.04	42	11784	0.589	ppbV	99
31) 1,2-dichloroethane	11.37	62	11576	0.462	ppbV	98
33) hexane	10.44	57	12986	0.508	ppbV #	53
35) 1,1,1-trichloroethane	11.66	97	17871	0.460	ppbV	99
36) benzene	12.17	78	24553	0.472	ppbV	98
37) carbon tetrachloride	12.34	117	16533	0.413	ppbV	98
38) cyclohexane	12.48	56	13482	0.513	ppbV	98
39) 1,2-dichloropropane	13.09	63	9393	0.459	ppbV	99
40) bromodichloromethane	13.30	83	19013	0.483	ppbV	99
41) 1,4-dioxane	13.39	88	5269	0.477	ppbV #	61
42) trichloroethene	13.36	130	13341	0.432	ppbV	97
43) 2,2,4-trimethylpentane	13.39	57	44722	0.526	ppbV	100
44) heptane	13.67	43	17284	0.509	ppbV	99
45) cis-1,3-dichloropropene	14.32	75	12154	0.429	ppbV	99
46) 4-methyl-2-pentanone	14.37	43	23340	0.481	ppbV	99
47) trans-1,3-dichloropropene	14.89	75	11787	0.424	ppbV	99
48) 1,1,2-trichloroethane	15.07	97	10369	0.448	ppbV	94
50) toluene	15.35	91	30765	0.450	ppbV	99
52) 2-hexanone	15.60	43	19901M6	0.424	ppbV	
53) dibromochloromethane	15.75	129	20836	0.451	ppbV	100
54) 1,2-dibromoethane	15.98	107	17153	0.432	ppbV	100
55) tetrachloroethene	16.38	166	17432	0.445	ppbV	98
56) 1,1,1,2-tetrachloroethane	16.93	131	15105	0.480	ppbV	98
57) chlorobenzene	16.95	112	26756	0.452	ppbV	97
58) ethylbenzene	17.24	91	40033	0.445	ppbV	98
59) m+p-xylene	17.38	91	62916	0.883	ppbV	100
60) bromoform	17.46	173	23866	0.452	ppbV	99
61) styrene	17.66	104	23523	0.423	ppbV	98
62) 1,1,2,2-tetrachloroethane	17.74	83	22200	0.462	ppbV	99
63) o-xylene	17.74	91	32305	0.438	ppbV	98
65) isopropylbenzene	18.18	105	50909	0.482	ppbV	99
66) 4-ethyl toluene	18.66	105	49488M6	0.458	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	38066	0.428	ppbV	100
68) tert-butylbenzene	19.02	119	47450	0.467	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	37537	0.419	ppbV	93

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226167.D
 Acq On : 10 Nov 2013 10:33 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD0.5
 Misc : WG652929
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 14 15:56:13 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

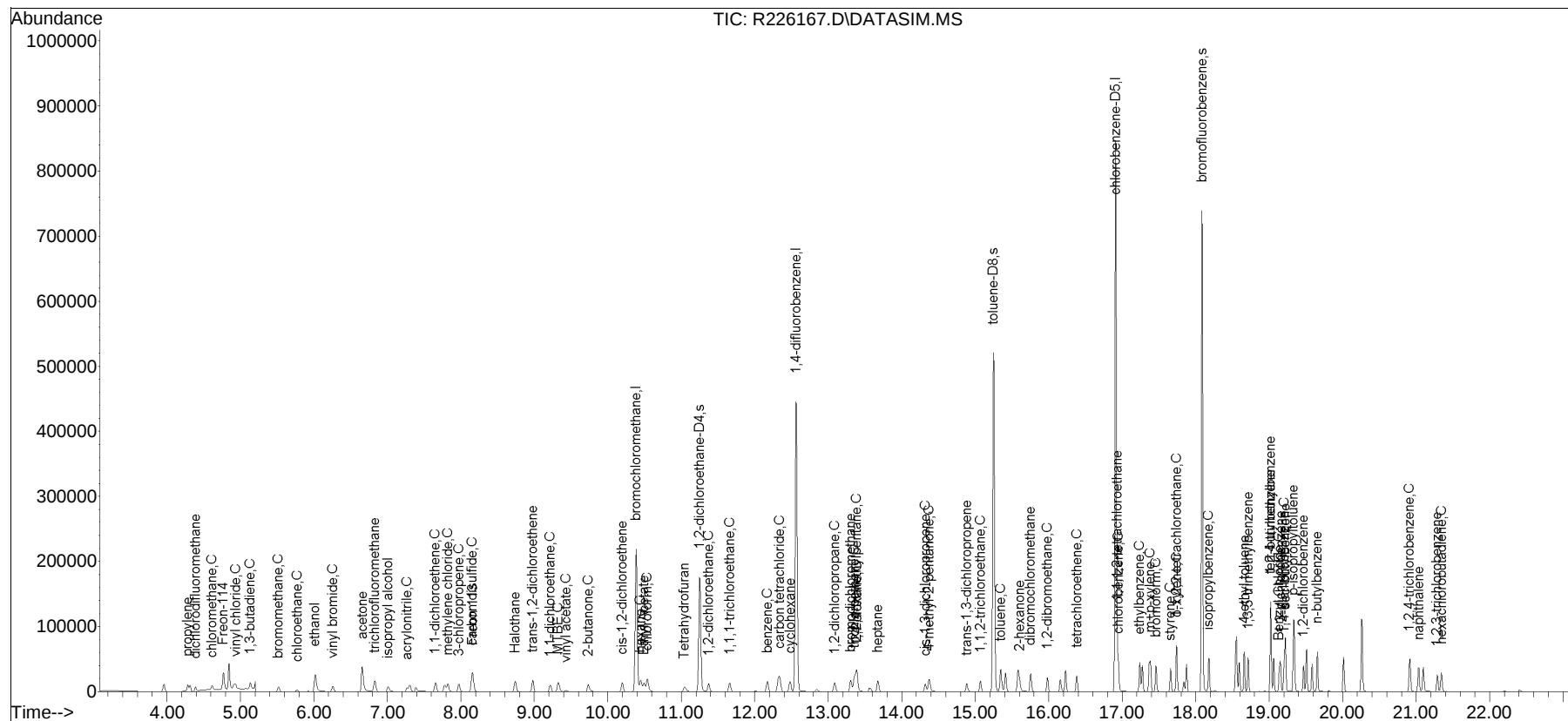
CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	27674	0.386	ppbV	97
71) 1,3-dichlorobenzene	19.15	146	30312	0.404	ppbV	100
72) 1,4-dichlorobenzene	19.20	146	30125	0.397	ppbV	100
73) sec-butylbenzene	19.22	105	64035	0.465	ppbV	99
74) p-isopropyltoluene	19.33	119	57768	0.457	ppbV	99
75) 1,2-dichlorobenzene	19.47	146	28870	0.404	ppbV	99
76) n-butylbenzene	19.65	91	49229	0.429	ppbV	100
77) 1,2,4-trichlorobenzene	20.91	180	21600	0.298	ppbV #	95
78) naphthalene	21.04	128	50518	0.332	ppbV	98
79) 1,2,3-trichlorobenzene	21.29	180	25431	0.332	ppbV #	95
80) hexachlorobutadiene	21.35	225	23348	0.364	ppbV	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path   : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File  : R226167.D
Acq On     : 10 Nov 2013  10:33 am
Operator   : AIRPIAN02:MB
Sample     : IT015-SIMSTD0.5
Misc       : WG652929
ALS Vial   : 7      Sample Multiplier: 1
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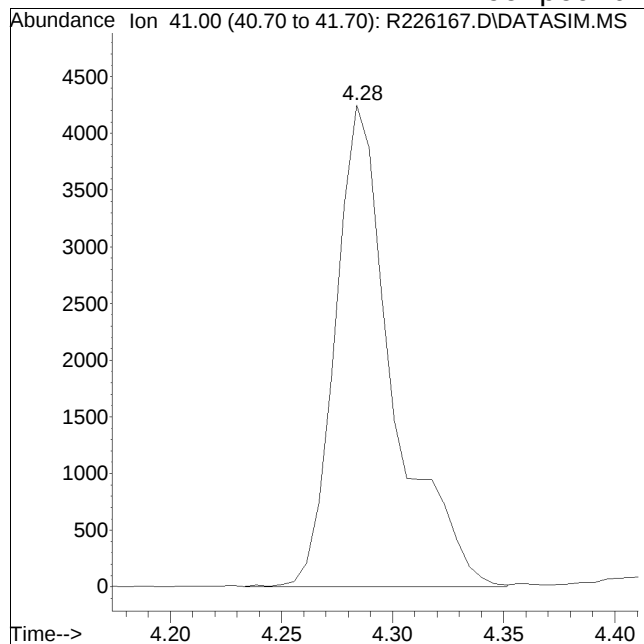
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Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

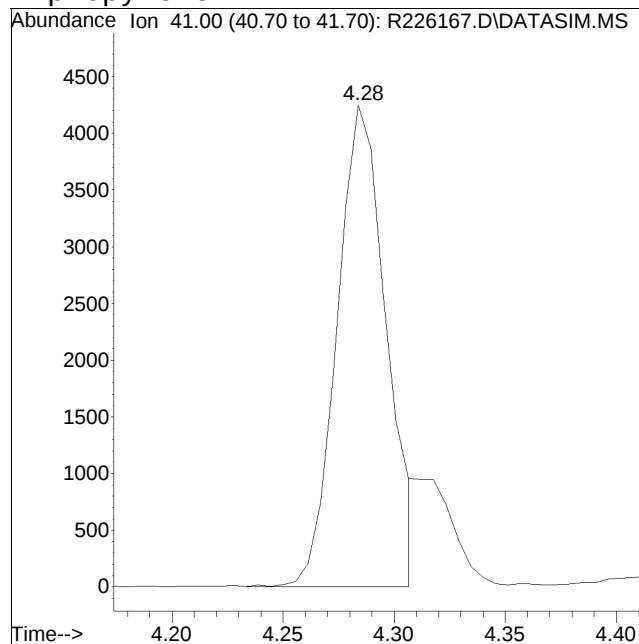
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Data File : R226167.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:33 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.5 Quant Date : 11/11/2013 8:28 am

Compound #2: propylene



Original Peak Response = 7665

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

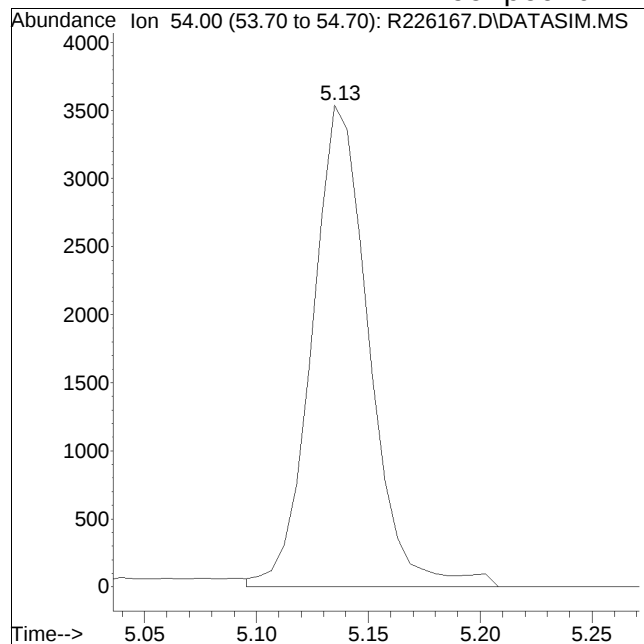


Manual Peak Response = 6554 M6

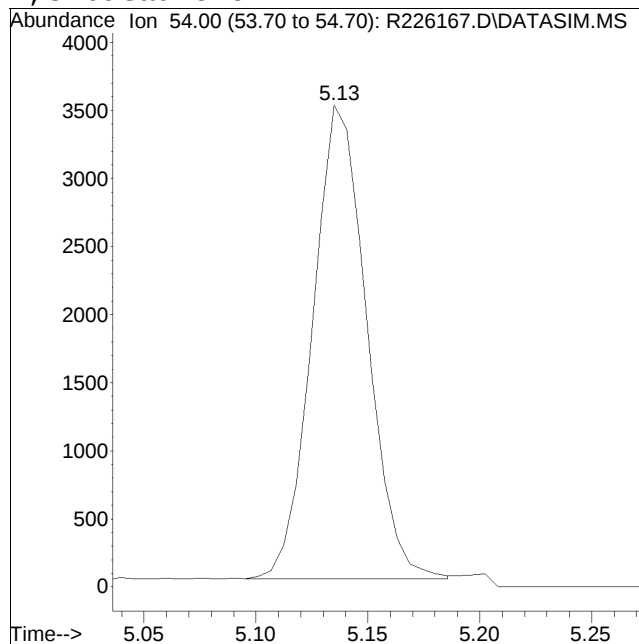
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226167.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:33 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.5 Quant Date : 11/11/2013 8:28 am

Compound #7: 1,3-butadiene



Original Peak Response = 6184



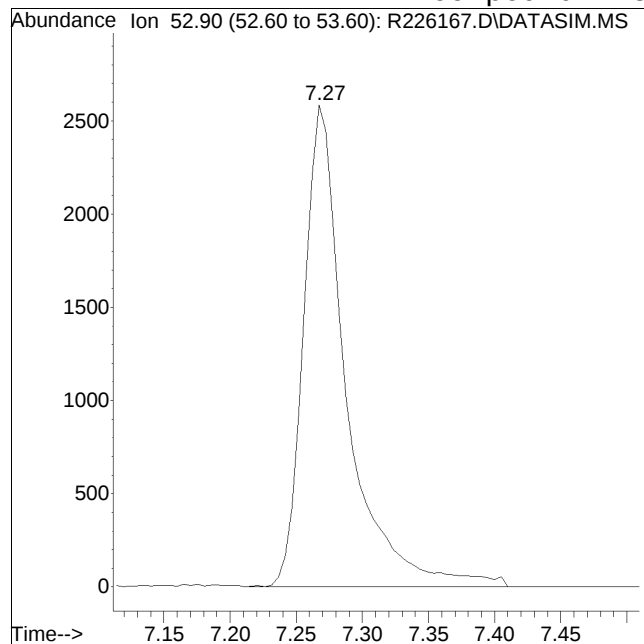
Manual Peak Response = 5835 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

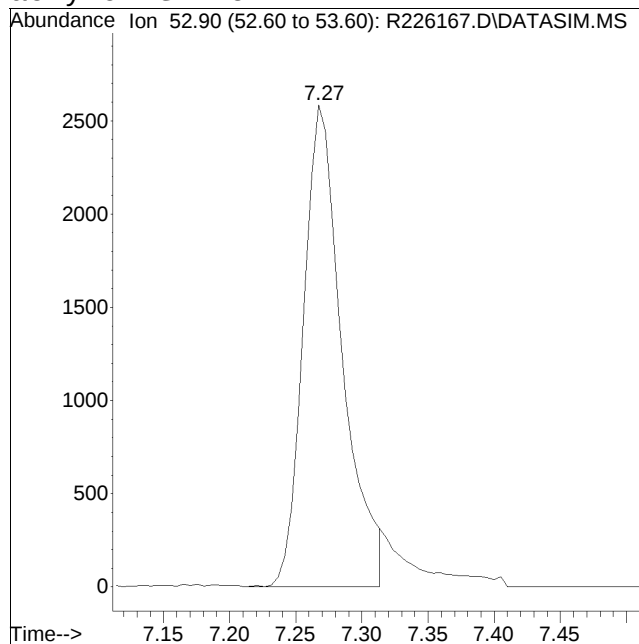
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226167.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:33 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.5 Quant Date : 11/11/2013 8:28 am

Compound #15: acrylonitrile



Original Peak Response = 5837

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

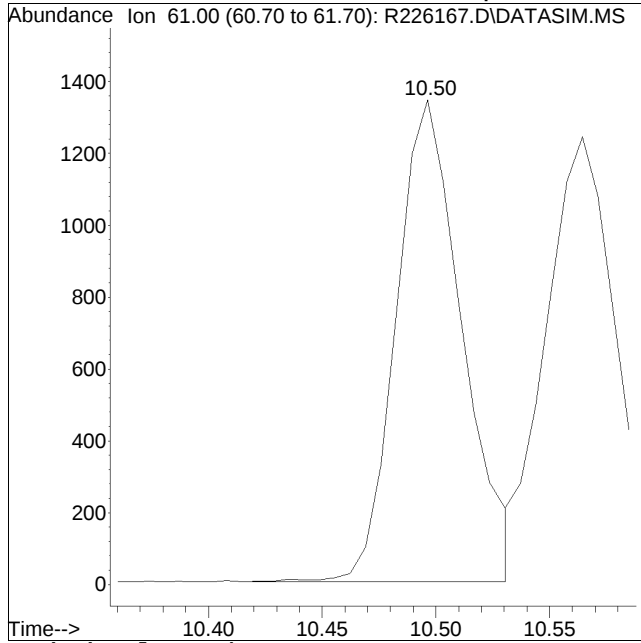


Manual Peak Response = 5307 M6

Manual Integration/Negative Proof Report

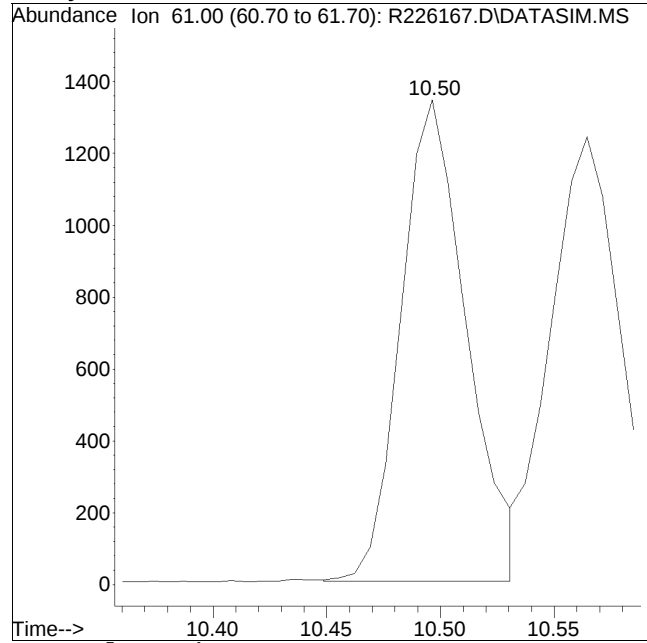
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226167.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:33 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.5 Quant Date : 11/11/2013 8:28 am

Compound #28: Ethyl Acetate



Original Peak Response = 2699

M4 = Poor automated baseline construction.

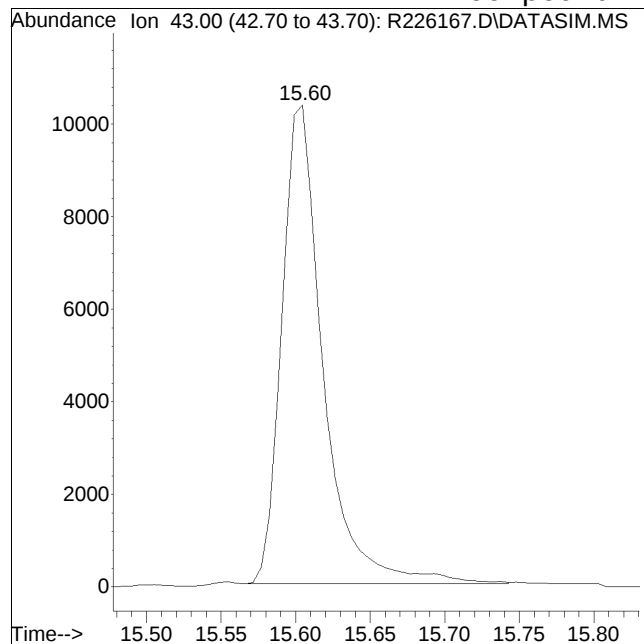


Manual Peak Response = 2687 M4

Manual Integration/Negative Proof Report

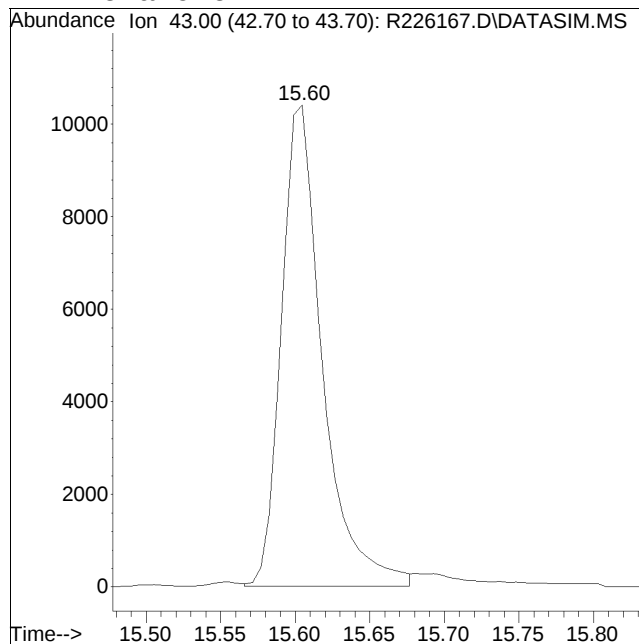
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
 Data File : R226167.D Operator : AIRPIAN02:MB
 Date Inj'd : 11/10/2013 10:33 am Instrument : Air Piano 2
 Sample : IT015-SIMSTD0.5 Quant Date : 11/11/2013 8:28 am

Compound #52: 2-hexanone



Original Peak Response = 20048

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

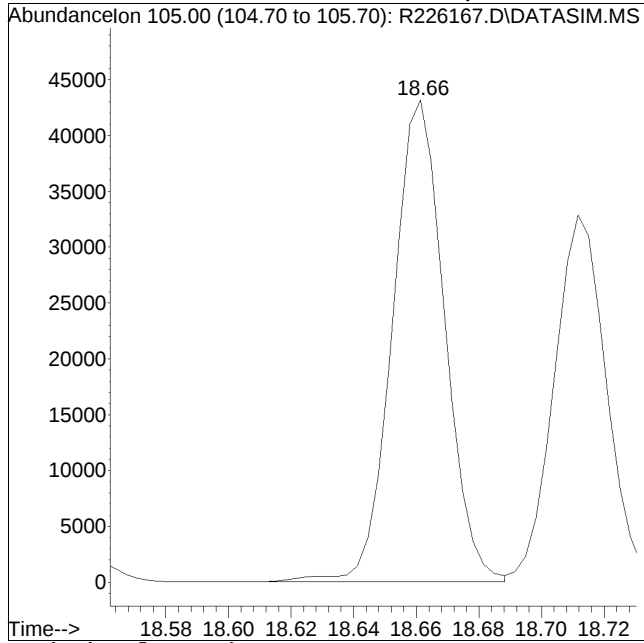


Manual Peak Response = 19901 M6

Manual Integration/Negative Proof Report

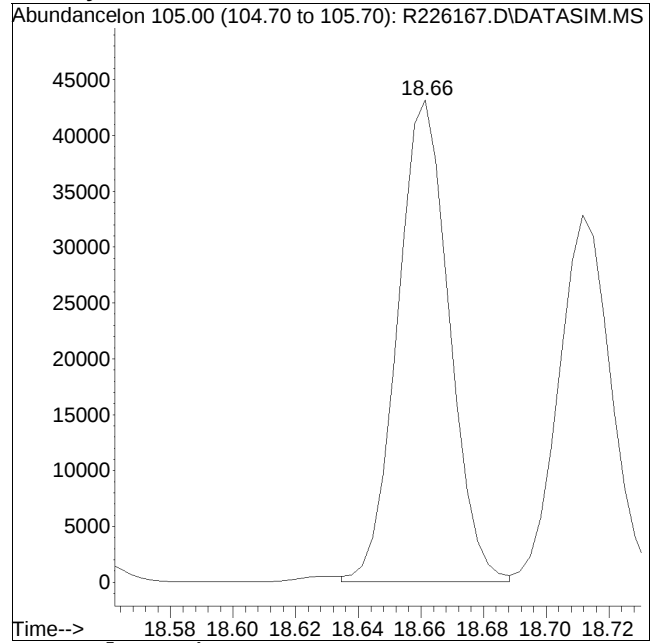
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226167.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 10:33 am Instrument : Air Piano 2
Sample : IT015-SIMSTD0.5 Quant Date : 11/11/2013 8:28 am

Compound #66: 4-ethyl toluene



Original Peak Response = 50010

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 49488 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226168.D
 Acq On : 10 Nov 2013 11:05 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD1.0
 Misc : WG652929
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 14 15:59:32 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.38	49	230707	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	100.76%		
32) 1,4-difluorobenzene	12.56	114	681486	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	99.92%		
49) chlorobenzene-D5	16.91	54	135329	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	101.89%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	183925	10.079	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.79%		
51) toluene-D8	15.25	98	498717	9.756	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.56%		
64) bromofluorobenzene	18.08	95	368352	9.736	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.36%		
Target Compounds						
					Qvalue	
2) propylene	4.28	41	12661M6	0.979	ppbV	
3) dichlorodifluoromethane	4.39	85	13048	0.875	ppbV	99
4) chloromethane	4.62	50	14155	0.912	ppbV	100
5) Freon-114	4.77	85	39541	0.905	ppbV	99
6) vinyl chloride	4.93	62	14930	0.898	ppbV	100
7) 1,3-butadiene	5.13	54	11280M4	0.982	ppbV	
8) bromomethane	5.52	94	13631	0.886	ppbV	100
9) chloroethane	5.77	64	6961	0.896	ppbV	100
10) ethanol	6.01	31	58192	4.782	ppbV	99
11) vinyl bromide	6.26	106	15872	0.966	ppbV	99
12) acetone	6.65	43	122078	4.797	ppbV	98
13) trichlorofluoromethane	6.83	101	40262	0.897	ppbV	100
14) isopropyl alcohol	7.00	45	26504	0.989	ppbV	99
15) acrylonitrile	7.26	53	9942M6	0.878	ppbV	
16) 1,1-dichloroethene	7.65	61	26528	0.902	ppbV	99
17) methylene chloride	7.82	49	21507	0.974	ppbV	98
18) 3-chloropropene	7.97	41	22126	0.985	ppbV	99
19) carbon disulfide	8.15	76	46099	0.956	ppbV	98
20) Freon 113	8.16	101	33359	0.886	ppbV	99
21) Halothane	8.74	117	34456	0.938	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	30071	0.957	ppbV	99
23) 1,1-dichloroethane	9.22	63	28898	0.893	ppbV	100
24) MTBE	9.32	73	43227	0.969	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226168.D
 Acq On : 10 Nov 2013 11:05 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD1.0
 Misc : WG652929
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 14 15:59:32 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.43	43	7006M4	0.670	ppbV	
26) 2-butanone	9.72	43	38048	0.950	ppbV	99
27) cis-1,2-dichloroethene	10.20	61	22130	0.890	ppbV	98
28) Ethyl Acetate	10.49	61	5247	0.915	ppbV	92
29) chloroform	10.54	83	33199	0.891	ppbV	99
30) Tetrahydrofuran	11.03	42	22707	1.135	ppbV	99
31) 1,2-dichloroethane	11.37	62	22432	0.895	ppbV	99
33) hexane	10.44	57	25127	0.982	ppbV #	74
35) 1,1,1-trichloroethane	11.66	97	34587	0.889	ppbV	99
36) benzene	12.17	78	46933	0.902	ppbV	98
37) carbon tetrachloride	12.34	117	33576	0.838	ppbV	100
38) cyclohexane	12.48	56	25903	0.985	ppbV	98
39) 1,2-dichloropropane	13.09	63	18263	0.892	ppbV	97
40) bromodichloromethane	13.30	83	37169	0.943	ppbV	100
41) 1,4-dioxane	13.38	88	10195	0.923	ppbV #	49
42) trichloroethene	13.36	130	26623	0.861	ppbV	97
43) 2,2,4-trimethylpentane	13.39	57	86056	1.011	ppbV	99
44) heptane	13.67	43	33278	0.980	ppbV	99
45) cis-1,3-dichloropropene	14.32	75	23910	0.842	ppbV	99
46) 4-methyl-2-pentanone	14.37	43	45803	0.943	ppbV	99
47) trans-1,3-dichloropropene	14.89	75	23242	0.836	ppbV	100
48) 1,1,2-trichloroethane	15.07	97	20133	0.870	ppbV	95
50) toluene	15.35	91	59477	0.868	ppbV	98
52) 2-hexanone	15.59	43	41051M6	0.871	ppbV	
53) dibromochloromethane	15.75	129	41519	0.896	ppbV	100
54) 1,2-dibromoethane	15.98	107	32812	0.824	ppbV	99
55) tetrachloroethene	16.38	166	33846	0.862	ppbV	97
56) 1,1,1,2-tetrachloroethane	16.93	131	29423	0.932	ppbV	98
57) chlorobenzene	16.95	112	51470	0.867	ppbV	96
58) ethylbenzene	17.24	91	77591	0.861	ppbV	98
59) m+p-xylene	17.38	91	122193	1.710	ppbV	100
60) bromoform	17.46	173	46774	0.884	ppbV	99
61) styrene	17.66	104	46206	0.828	ppbV	98
62) 1,1,2,2-tetrachloroethane	17.74	83	42010	0.871	ppbV	99
63) o-xylene	17.74	91	62986	0.852	ppbV	98
65) isopropylbenzene	18.18	105	99181	0.936	ppbV	99
66) 4-ethyl toluene	18.66	105	98239M6	0.906	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	74751	0.838	ppbV	99
68) tert-butylbenzene	19.02	119	93641	0.918	ppbV	99
69) 1,2,4-trimethylbenzene	19.02	105	74243	0.828	ppbV	94

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226168.D
 Acq On : 10 Nov 2013 11:05 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD1.0
 Misc : WG652929
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 14 15:59:32 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

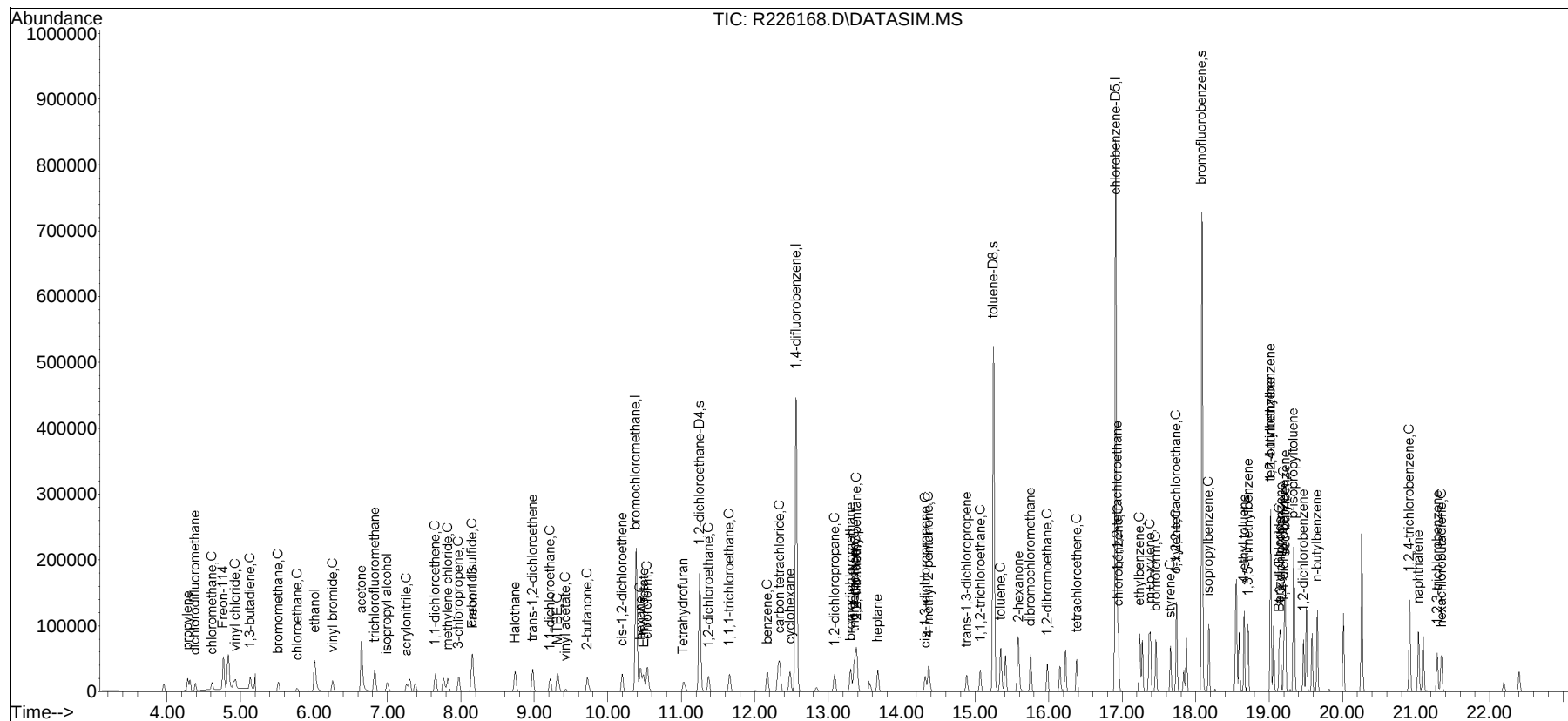
CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	57935	0.806	ppbV	100
71) 1,3-dichlorobenzene	19.15	146	60713	0.807	ppbV	98
72) 1,4-dichlorobenzene	19.20	146	62112	0.817	ppbV	99
73) sec-butylbenzene	19.22	105	126433	0.915	ppbV	99
74) p-isopropyltoluene	19.33	119	114486	0.904	ppbV	100
75) 1,2-dichlorobenzene	19.47	146	58017	0.809	ppbV	98
76) n-butylbenzene	19.66	91	100195	0.871	ppbV	100
77) 1,2,4-trichlorobenzene	20.91	180	47923	0.660	ppbV	98
78) naphthalene	21.03	128	112608	0.737	ppbV	99
79) 1,2,3-trichlorobenzene	21.29	180	56018	0.730	ppbV	97
80) hexachlorobutadiene	21.35	225	46231	0.719	ppbV	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path   : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File  : R226168.D
Acq On     : 10 Nov 2013  11:05 am
Operator   : AIRPIAN02:MB
Sample     : IT015-SIMSTD1.0
Misc       : WG652929
ALS Vial   : 7      Sample Multiplier: 1
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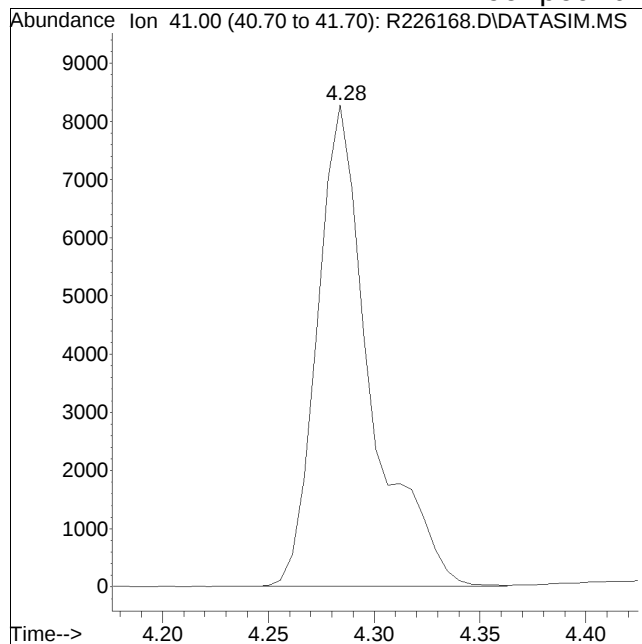
Quant Time: Nov 14 15:59:32 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

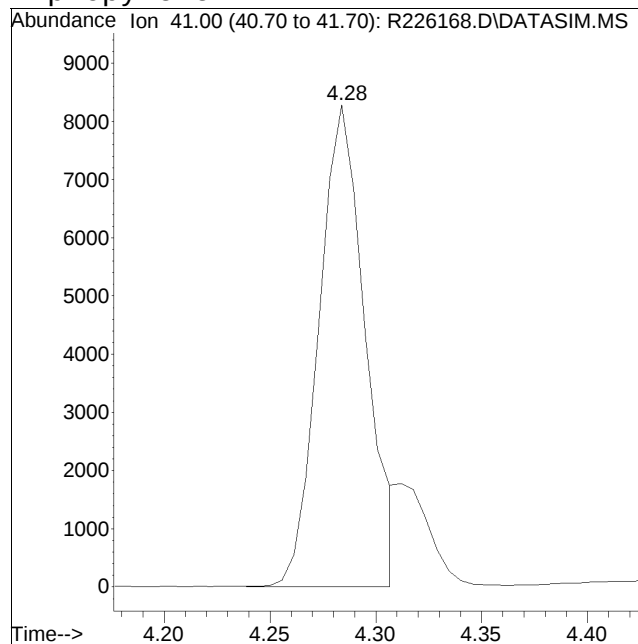
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226168.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:05 am Instrument : Air Piano 2
Sample : IT015-SIMSTD1.0 Quant Date : 11/11/2013 8:29 am

Compound #2: propylene



Original Peak Response = 14542

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



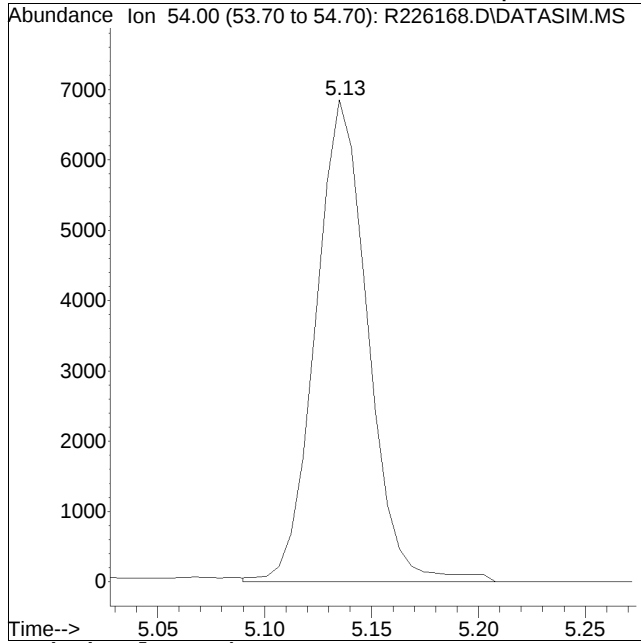
Manual Peak Response = 12661 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

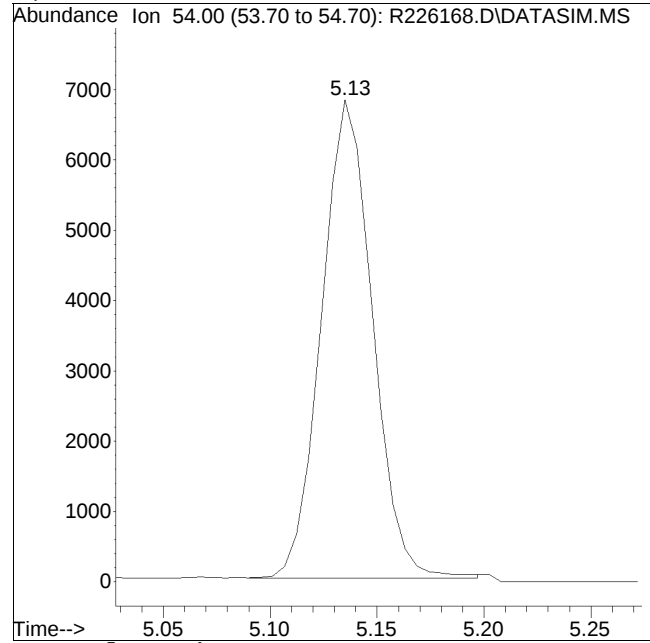
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226168.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:05 am Instrument : Air Piano 2
Sample : IT015-SIMSTD1.0 Quant Date : 11/11/2013 8:29 am

Compound #7: 1,3-butadiene



Original Peak Response = 11531

M4 = Poor automated baseline construction.

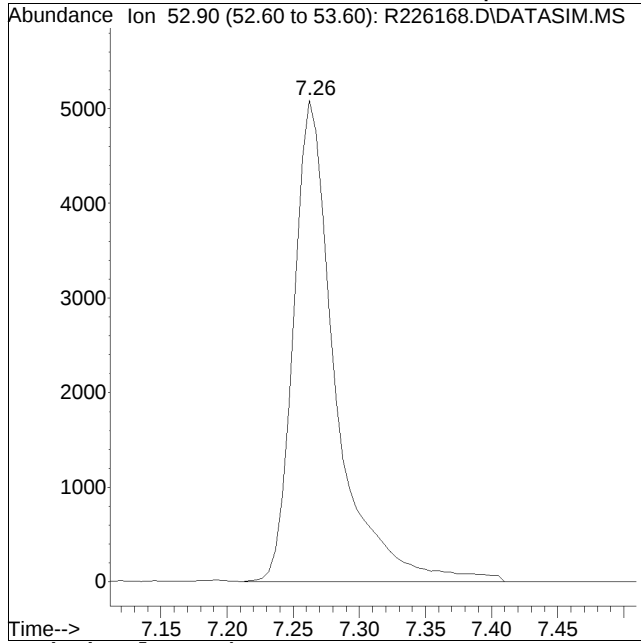


Manual Peak Response = 11280 M4

Manual Integration/Negative Proof Report

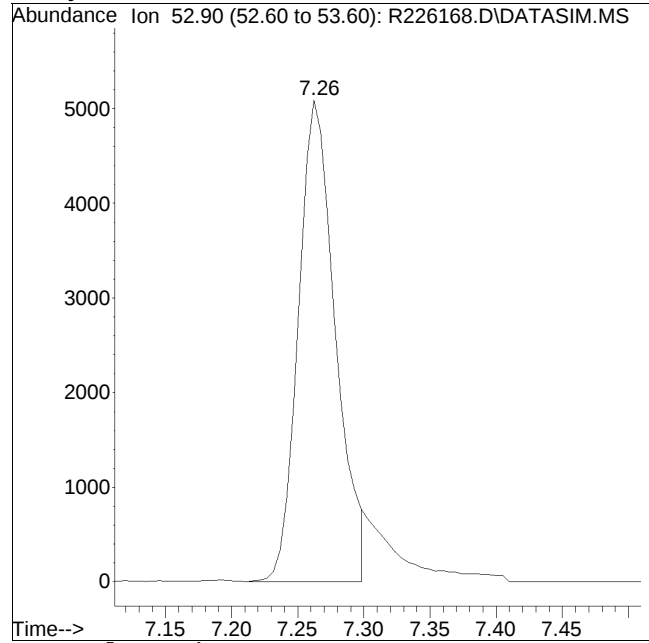
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226168.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:05 am Instrument : Air Piano 2
Sample : IT015-SIMSTD1.0 Quant Date : 11/11/2013 8:29 am

Compound #15: acrylonitrile



Original Peak Response = 11288

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

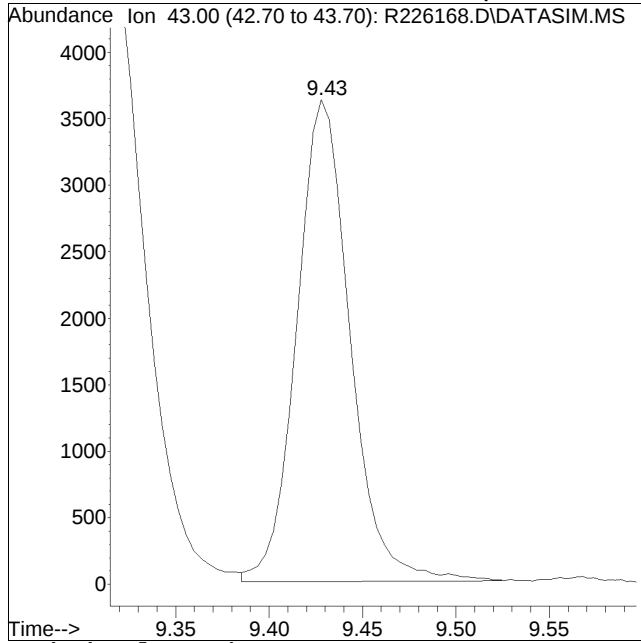


Manual Peak Response = 9942 M6

Manual Integration/Negative Proof Report

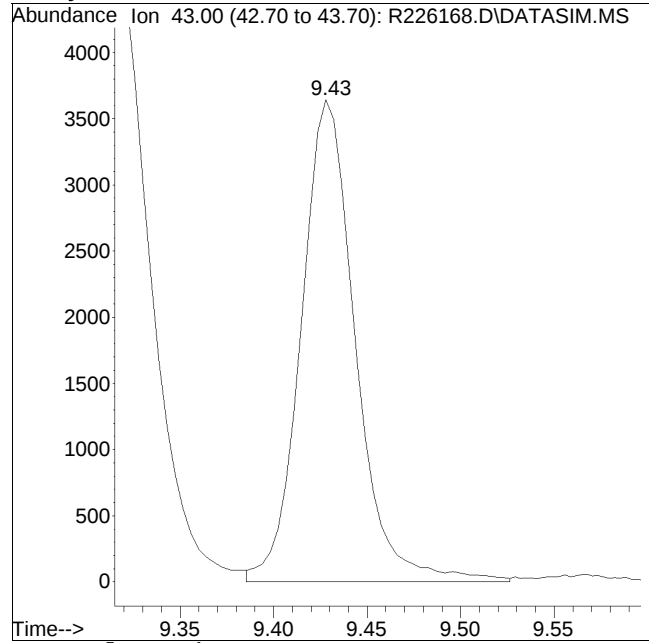
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226168.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:05 am Instrument : Air Piano 2
Sample : IT015-SIMSTD1.0 Quant Date : 11/11/2013 8:29 am

Compound #25: vinyl acetate



Original Peak Response = 6820

M4 = Poor automated baseline construction.

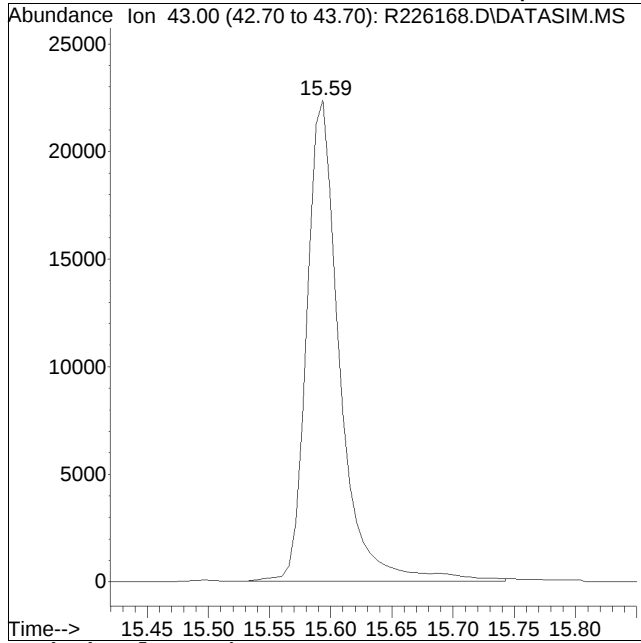


Manual Peak Response = 7006 M4

Manual Integration/Negative Proof Report

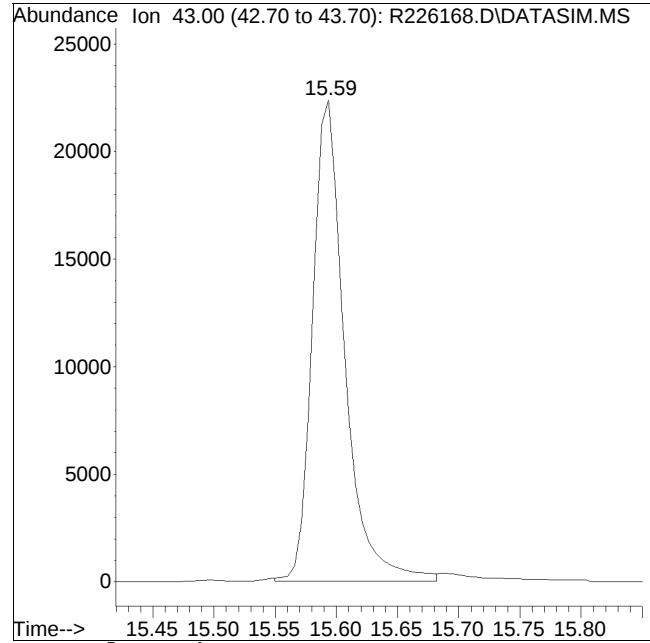
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226168.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:05 am Instrument : Air Piano 2
Sample : IT015-SIMSTD1.0 Quant Date : 11/11/2013 8:29 am

Compound #52: 2-hexanone



Original Peak Response = 41942

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

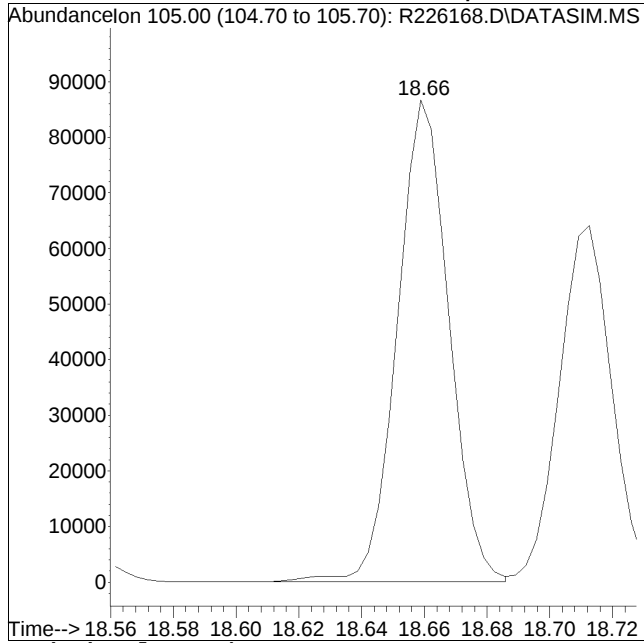


Manual Peak Response = 41051 M6

Manual Integration/Negative Proof Report

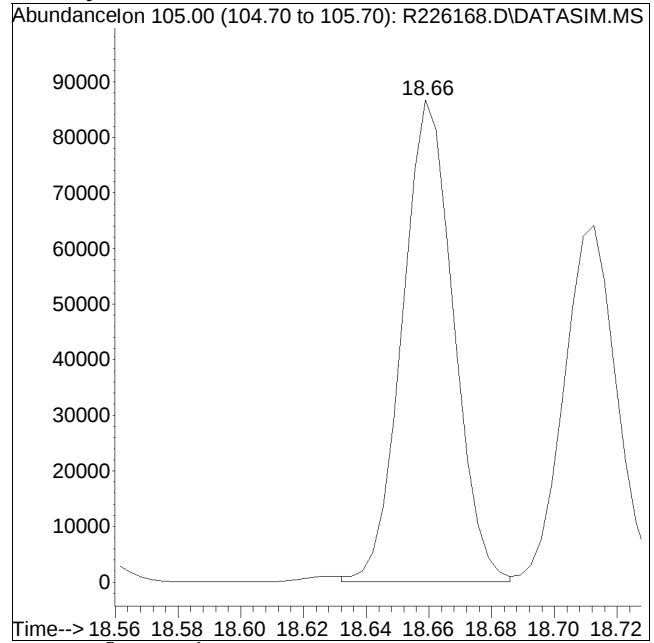
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226168.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:05 am Instrument : Air Piano 2
Sample : IT015-SIMSTD1.0 Quant Date : 11/11/2013 8:29 am

Compound #66: 4-ethyl toluene



Original Peak Response = 99185

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 98239 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226169.D
 Acq On : 10 Nov 2013 11:37 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD2.5
 Misc : WG652929
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 16:02:54 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	230116	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	100.51%		
32) 1,4-difluorobenzene	12.56	114	684132	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	100.31%		
49) chlorobenzene-D5	16.91	54	134198	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	101.03%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	184666	10.081	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.81%		
51) toluene-D8	15.25	98	501518	9.894	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.94%		
64) bromofluorobenzene	18.08	95	370299	9.870	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.70%		
Target Compounds						
					Qvalue	
2) propylene	4.29	41	32780M6	2.541	ppbV	
3) dichlorodifluoromethane	4.39	85	38537	2.591	ppbV	100
4) chloromethane	4.62	50	39654	2.562	ppbV	100
5) Freon-114	4.77	85	110505	2.536	ppbV	98
6) vinyl chloride	4.94	62	42095	2.537	ppbV	100
7) 1,3-butadiene	5.14	54	29414M4	2.566	ppbV	
8) bromomethane	5.52	94	38873	2.534	ppbV	99
9) chloroethane	5.77	64	19795	2.555	ppbV	99
10) ethanol	6.00	31	160936	13.260	ppbV	99
11) vinyl bromide	6.26	106	41406	2.527	ppbV	99
12) acetone	6.63	43	323302	12.737	ppbV	99
13) trichlorofluoromethane	6.83	101	114552	2.560	ppbV	99
14) isopropyl alcohol	6.98	45	71412	2.671	ppbV	100
15) acrylonitrile	7.25	53	27763M6	2.458	ppbV	
16) 1,1-dichloroethene	7.65	61	75172	2.564	ppbV	99
17) methylene chloride	7.82	49	56908	2.584	ppbV	97
18) 3-chloropropene	7.97	41	56901	2.541	ppbV	99
19) carbon disulfide	8.15	76	121576	2.528	ppbV	99
20) Freon 113	8.16	101	95471	2.541	ppbV	100
21) Halothane	8.74	117	92297	2.520	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	79256	2.528	ppbV	99
23) 1,1-dichloroethane	9.22	63	82775	2.565	ppbV	100
24) MTBE	9.30	73	113303	2.547	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226169.D
 Acq On : 10 Nov 2013 11:37 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD2.5
 Misc : WG652929
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 16:02:54 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.42	43	22003M4	2.110	ppbV	
26) 2-butanone	9.71	43	101946	2.551	ppbV	99
27) cis-1,2-dichloroethene	10.20	61	63447	2.557	ppbV	98
28) Ethyl Acetate	10.48	61	14284	2.497	ppbV	93
29) chloroform	10.54	83	94975	2.555	ppbV	99
30) Tetrahydrofuran	11.01	42	52426M6	2.628	ppbV	
31) 1,2-dichloroethane	11.37	62	63707	2.550	ppbV	99
33) hexane	10.44	57	65326	2.543	ppbV	91
35) 1,1,1-trichloroethane	11.66	97	99432	2.547	ppbV	99
36) benzene	12.17	78	133390	2.554	ppbV	99
37) carbon tetrachloride	12.34	117	100117	2.490	ppbV	99
38) cyclohexane	12.48	56	67950	2.574	ppbV	99
39) 1,2-dichloropropane	13.09	63	52437	2.552	ppbV	97
40) bromodichloromethane	13.30	83	99817	2.524	ppbV	100
41) 1,4-dioxane	13.36	88	28073	2.531	ppbV	85
42) trichloroethene	13.36	130	76877	2.477	ppbV	97
43) 2,2,4-trimethylpentane	13.39	57	218711	2.559	ppbV	99
44) heptane	13.67	43	87274	2.560	ppbV	100
45) cis-1,3-dichloropropene	14.32	75	71110	2.496	ppbV	98
46) 4-methyl-2-pentanone	14.36	43	123247	2.528	ppbV	100
47) trans-1,3-dichloropropene	14.88	75	69146	2.477	ppbV	99
48) 1,1,2-trichloroethane	15.07	97	58787	2.531	ppbV	98
50) toluene	15.35	91	171797	2.527	ppbV	99
52) 2-hexanone	15.58	43	115016	2.462	ppbV	98
53) dibromochloromethane	15.75	129	113428	2.468	ppbV	100
54) 1,2-dibromoethane	15.98	107	98639	2.498	ppbV	100
55) tetrachloroethene	16.38	166	98330	2.526	ppbV	100
56) 1,1,1,2-tetrachloroethane	16.93	131	78706	2.515	ppbV	99
57) chlorobenzene	16.95	112	149093	2.532	ppbV	95
58) ethylbenzene	17.23	91	225360	2.521	ppbV	100
59) m+p-xylene	17.38	91	356452	5.030	ppbV	99
60) bromoform	17.46	173	128074	2.440	ppbV	100
61) styrene	17.66	104	137226	2.480	ppbV	99
62) 1,1,2,2-tetrachloroethane	17.74	83	124810	2.611	ppbV	98
63) o-xylene	17.74	91	183411M4	2.501	ppbV	
65) isopropylbenzene	18.18	105	265589	2.528	ppbV	100
66) 4-ethyl toluene	18.66	105	266497M6	2.479	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	221543	2.505	ppbV	99
68) tert-butylbenzene	19.02	119	255177	2.524	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	222356	2.499	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226169.D
 Acq On : 10 Nov 2013 11:37 am
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD2.5
 Misc : WG652929
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 16:02:54 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

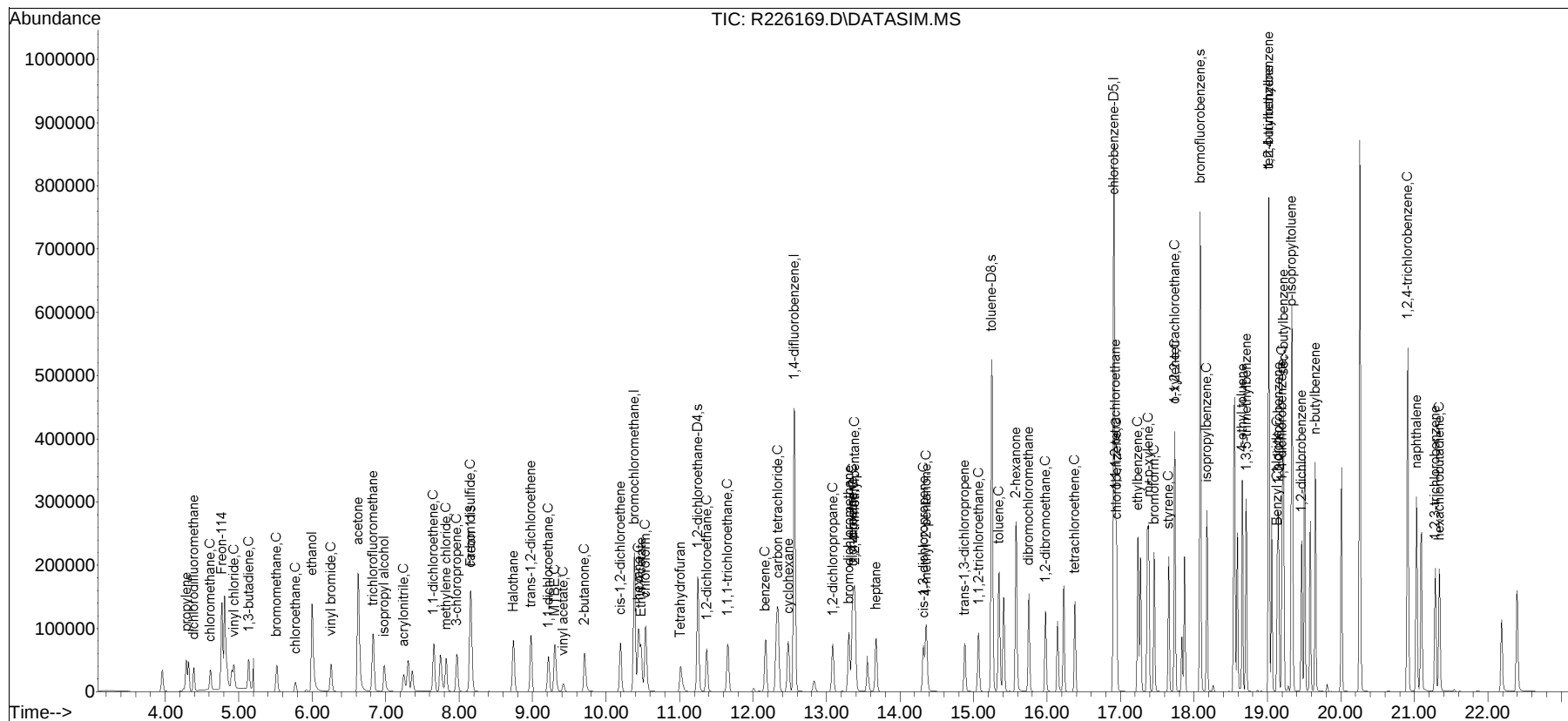
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.13	91	170301	2.389	ppbV	99
71) 1,3-dichlorobenzene	19.15	146	184324	2.469	ppbV	99
72) 1,4-dichlorobenzene	19.20	146	188100	2.494	ppbV	99
73) sec-butylbenzene	19.22	105	341321	2.492	ppbV	99
74) p-isopropyltoluene	19.33	119	316695	2.521	ppbV	99
75) 1,2-dichlorobenzene	19.47	146	176665	2.485	ppbV	98
76) n-butylbenzene	19.65	91	284333	2.491	ppbV	99
77) 1,2,4-trichlorobenzene	20.91	180	174677	2.427	ppbV	99
78) naphthalene	21.03	128	369106	2.437	ppbV	100
79) 1,2,3-trichlorobenzene	21.29	180	185999	2.444	ppbV	99
80) hexachlorobutadiene	21.34	225	158627	2.488	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1110SIM_ICAL\R226170.D

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226169.D
Acq On : 10 Nov 2013 11:37 am
Operator : AIRPIANO2:MB
Sample : IT015-SIMSTD2.5
Misc : WG652929
ALS Vial : 8 Sample Multiplier: 1

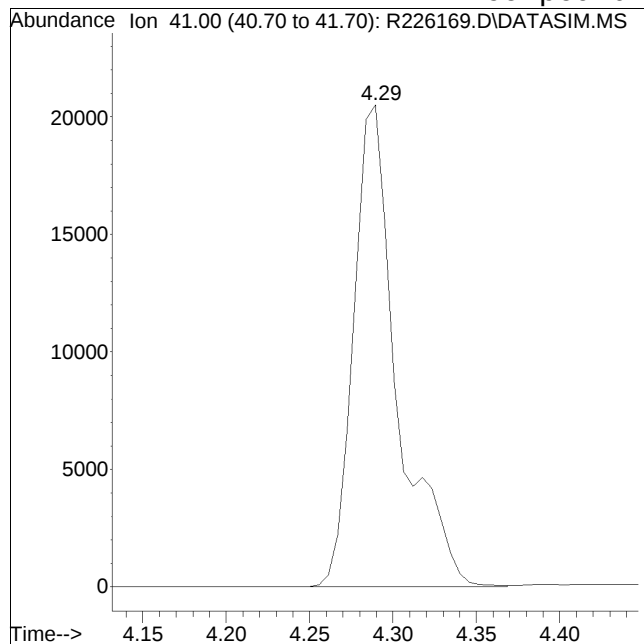
Quant Time: Nov 14 16:02:54 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

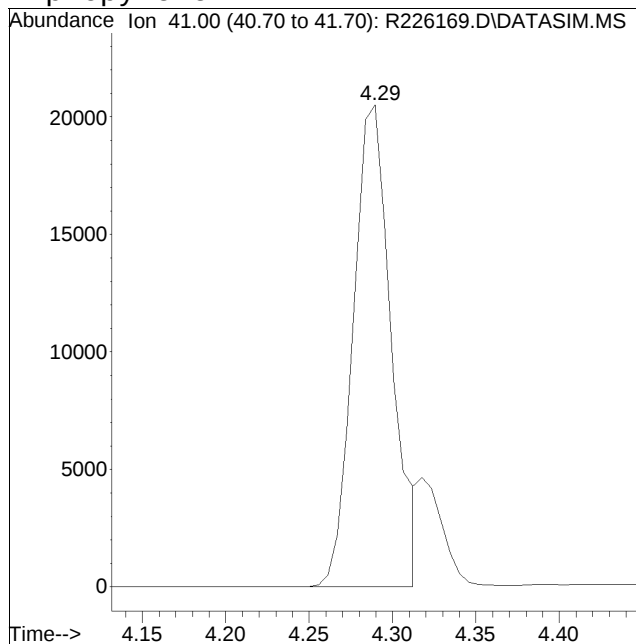
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #2: propylene



Original Peak Response = 37608

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



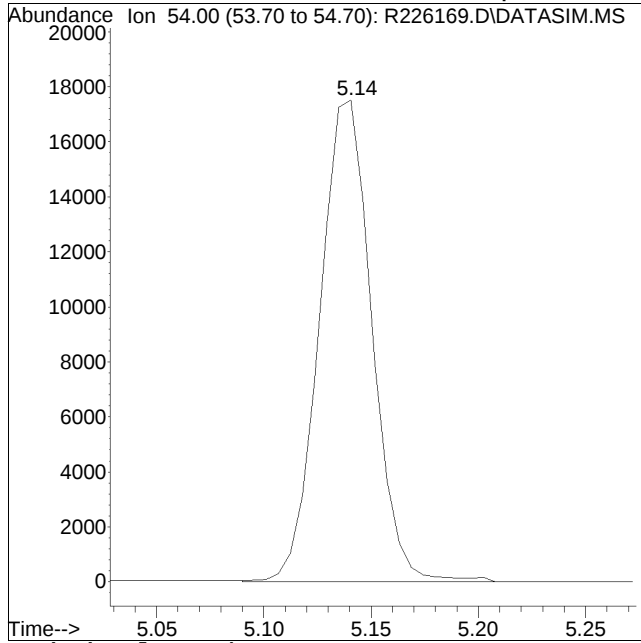
Manual Peak Response = 32780 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

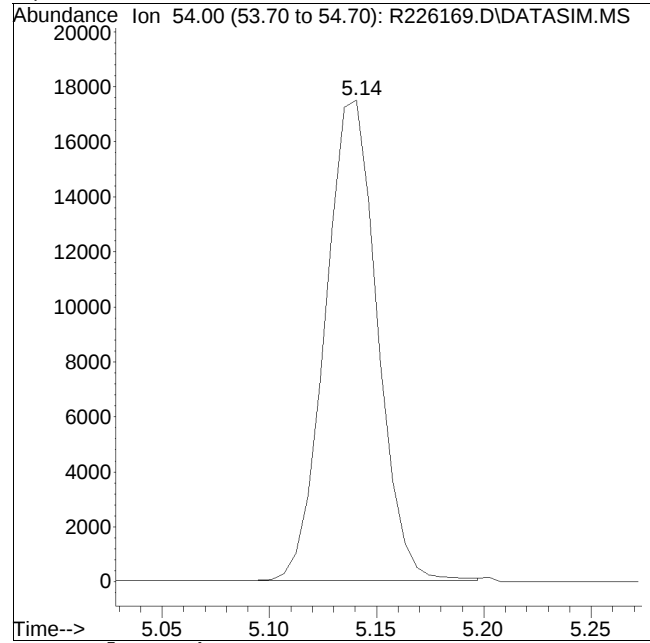
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #7: 1,3-butadiene



Original Peak Response = 29463



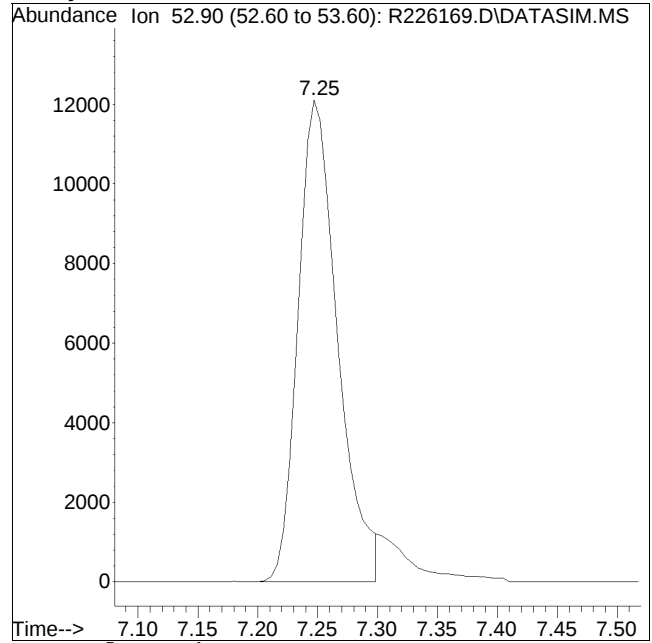
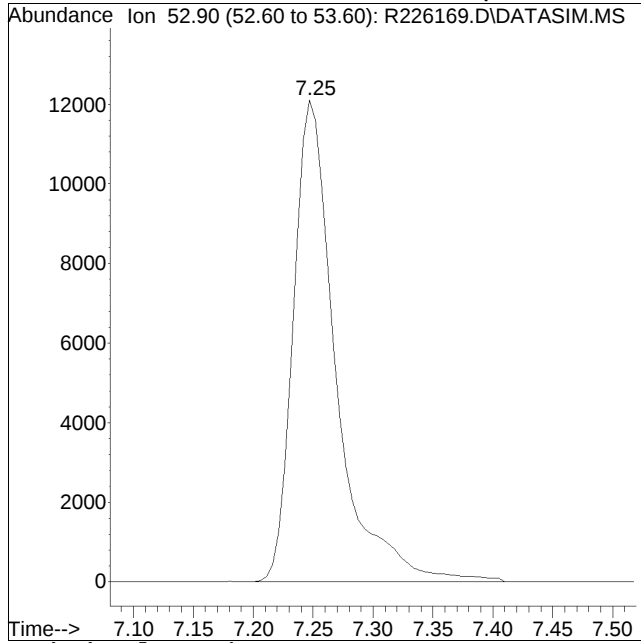
Manual Peak Response = 29414 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #15: acrylonitrile

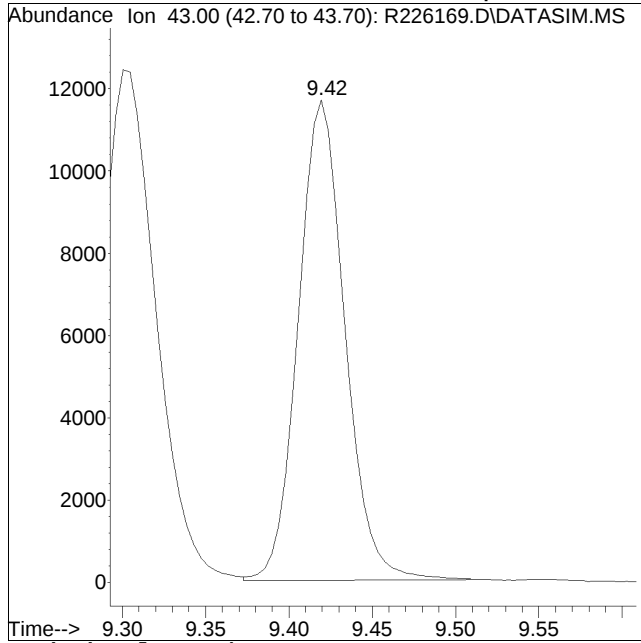


M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

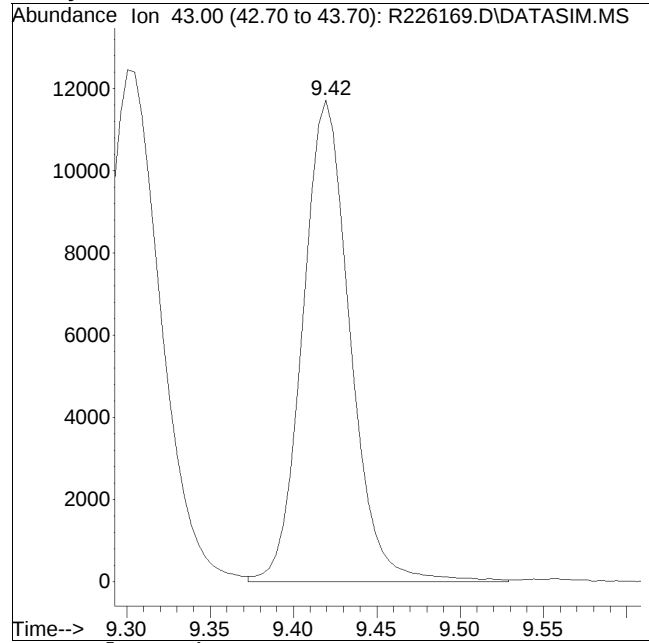
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #25: vinyl acetate



Original Peak Response = 22322

M4 = Poor automated baseline construction.

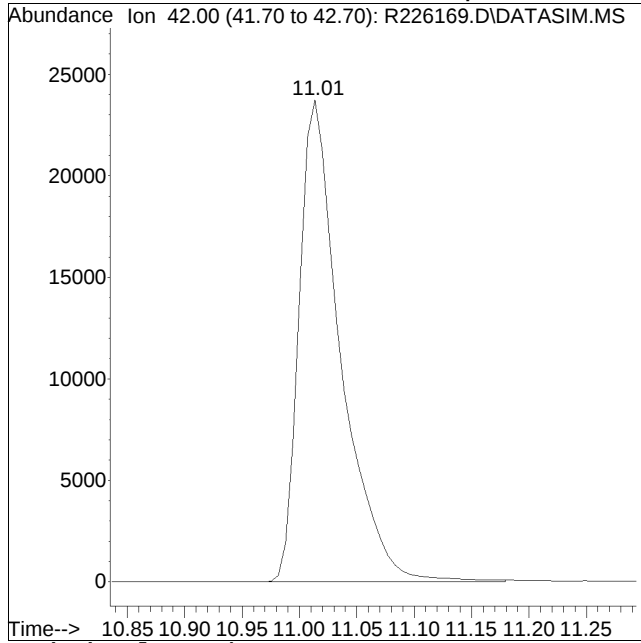


Manual Peak Response = 22003 M4

Manual Integration/Negative Proof Report

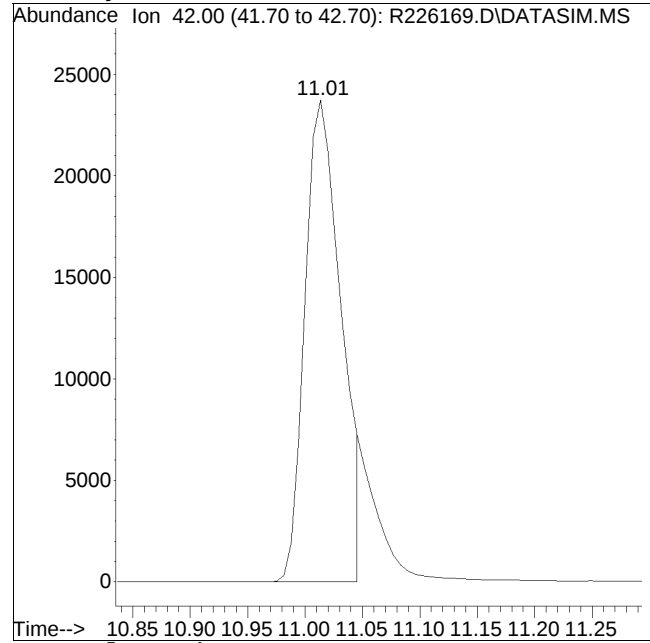
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #30: Tetrahydrofuran



Original Peak Response = 60186

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

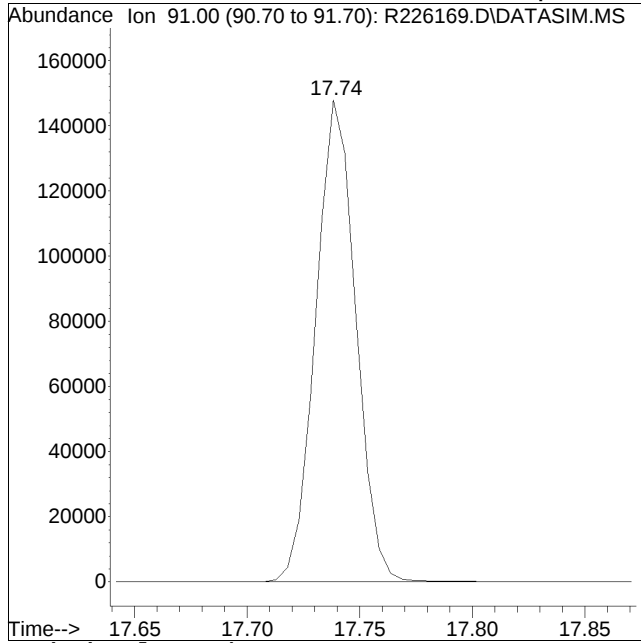


Manual Peak Response = 52426 M6

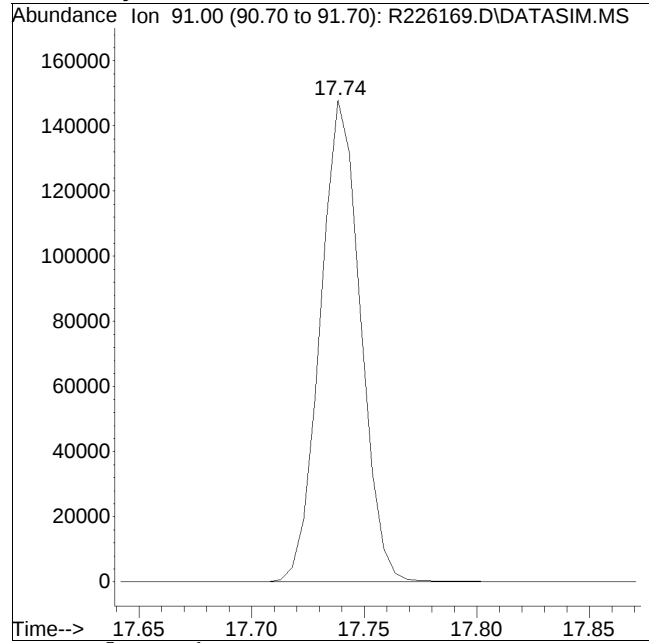
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #63: o-xylene



Original Peak Response = 183729



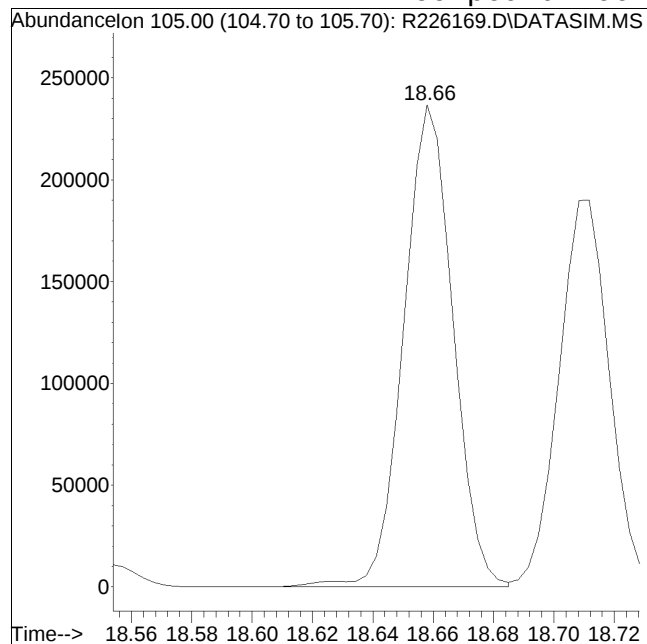
Manual Peak Response = 183411 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

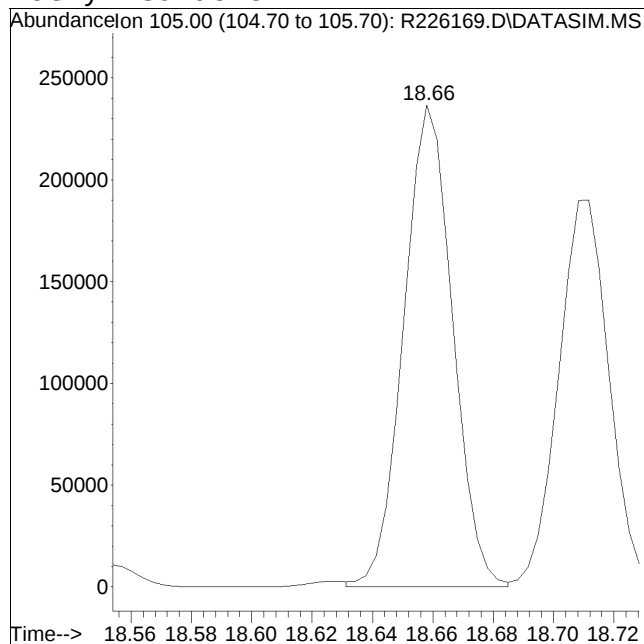
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226169.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 11:37 am Instrument : Air Piano 2
Sample : IT015-SIMSTD2.5 Quant Date : 11/11/2013 8:29 am

Compound #66: 4-ethyl toluene



Original Peak Response = 269235

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 266497 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226170.D
 Acq On : 10 Nov 2013 12:09 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:13:34 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Tue Sep 10 13:38:56 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.38	49	228959	10.000	ppbV	# 0.02
Standard Area = 228959			Recovery =	100.00%		
32) 1,4-difluorobenzene	12.56	114	682020	10.000	ppbV	0.02
Standard Area = 682020			Recovery =	100.00%		
49) chlorobenzene-D5	16.91	54	132824	10.000	ppbV	0.01
Standard Area = 132824			Recovery =	100.00%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	182618	9.930	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.30%		
51) toluene-D8	15.25	98	501720	12.053	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	120.53%		
64) bromofluorobenzene	18.08	95	371325	12.018	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	120.18%		
Target Compounds						
						Qvalue
2) propylene	4.28	41	64180M6	5.675	ppbV	
3) dichlorodifluoromethane	4.39	85	73988	6.815	ppbV	99
4) chloromethane	4.62	50	76986	5.368	ppbV	100
5) Freon-114	4.77	85	216794	7.195	ppbV	98
6) vinyl chloride	4.93	62	82533	6.028	ppbV	100
7) 1,3-butadiene	5.13	54	57146M6	5.721	ppbV	
8) bromomethane	5.52	94	76329	6.496	ppbV	97
9) chloroethane	5.77	64	38544	6.071	ppbV	98
10) ethanol	5.99	31	309855M4	32.774	ppbV	
11) vinyl bromide	6.26	106	81525	7.071	ppbV	97
12) acetone	6.61	43	631367	29.675	ppbV	99
13) trichlorofluoromethane	6.83	101	222626	6.791	ppbV	100
14) isopropyl alcohol	6.97	45	133007	5.243	ppbV	100
15) acrylonitrile	7.24	53	56192	5.561	ppbV	100
16) 1,1-dichloroethene	7.65	61	145858	6.162	ppbV	92
17) methylene chloride	7.82	49	109576	5.591	ppbV #	81
18) 3-chloropropene	7.97	41	111424	5.835	ppbV	93
19) carbon disulfide	8.15	76	239291	7.126	ppbV	97
20) Freon 113	8.16	101	186881	7.251	ppbV	94
21) Halothane	8.74	117	182222	8.527	ppbV #	89
22) trans-1,2-dichloroethene	8.98	61	155999	5.886	ppbV #	85
23) 1,1-dichloroethane	9.22	63	160522	5.885	ppbV	98
24) MTBE	9.30	73	221304	6.404	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226170.D
 Acq On : 10 Nov 2013 12:09 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:13:34 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Tue Sep 10 13:38:56 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.41	43	51867	3.337	ppbV	98
26) 2-butanone	9.69	43	198838	5.379	ppbV	96
27) cis-1,2-dichloroethene	10.20	61	123432	5.820	ppbV #	85
28) Ethyl Acetate	10.47	61	28459	5.592	ppbV	98
29) chloroform	10.54	83	184892	6.584	ppbV	98
30) Tetrahydrofuran	10.99	42	103340M6	5.388	ppbV	
31) 1,2-dichloroethane	11.37	62	124307	6.060	ppbV	97
33) hexane	10.44	57	128044	4.369	ppbV #	55
35) 1,1,1-trichloroethane	11.66	97	194589	5.461	ppbV	95
36) benzene	12.17	78	260286	4.991	ppbV	93
37) carbon tetrachloride	12.34	117	200388	6.010	ppbV	100
38) cyclohexane	12.48	56	131578	4.273	ppbV #	87
39) 1,2-dichloropropane	13.08	63	102424	4.540	ppbV	96
40) bromodichloromethane	13.30	83	197136	5.431	ppbV	100
41) 1,4-dioxane	13.36	88	55060M6	5.120	ppbV	
42) trichloroethene	13.35	130	154679	5.691	ppbV	98
43) 2,2,4-trimethylpentane	13.38	57	425961	4.436	ppbV #	94
44) heptane	13.67	43	169951	4.562	ppbV #	98
45) cis-1,3-dichloropropene	14.32	75	142022	5.392	ppbV	99
46) 4-methyl-2-pentanone	14.35	43	242976	4.780	ppbV	98
47) trans-1,3-dichloropropene	14.88	75	139157	5.422	ppbV	98
48) 1,1,2-trichloroethane	15.07	97	115788	5.412	ppbV	96
50) toluene	15.34	91	336423	6.210	ppbV	99
52) 2-hexanone	15.57	43	231165	6.118	ppbV	95
53) dibromochloromethane	15.75	129	227476	6.794	ppbV	99
54) 1,2-dibromoethane	15.98	107	195394	6.713	ppbV	97
55) tetrachloroethene	16.38	166	192646	7.117	ppbV	95
56) 1,1,1,2-tetrachloroethane	16.93	131	154870	6.683	ppbV	99
57) chlorobenzene	16.94	112	291358	6.318	ppbV	97
58) ethylbenzene	17.23	91	442361	6.253	ppbV	99
59) m+p-xylene	17.38	91	701400	12.688	ppbV	98
60) bromoform	17.46	173	259734	7.460	ppbV	100
61) styrene	17.66	104	273849	6.276	ppbV	99
62) 1,1,2,2-tetrachloroethane	17.73	83	236573	6.063	ppbV	100
63) o-xylene	17.74	91	362869	6.314	ppbV	99
65) isopropylbenzene	18.18	105	520005	6.282	ppbV	99
66) 4-ethyl toluene	18.66	105	526657M6	6.433	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	437636	6.349	ppbV	99
68) tert-butylbenzene	19.02	119	500334	6.486	ppbV	99
69) 1,2,4-trimethylbenzene	19.02	105	440249	6.435	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226170.D
 Acq On : 10 Nov 2013 12:09 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 15:13:34 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Tue Sep 10 13:38:56 2013
 Response via : Initial Calibration

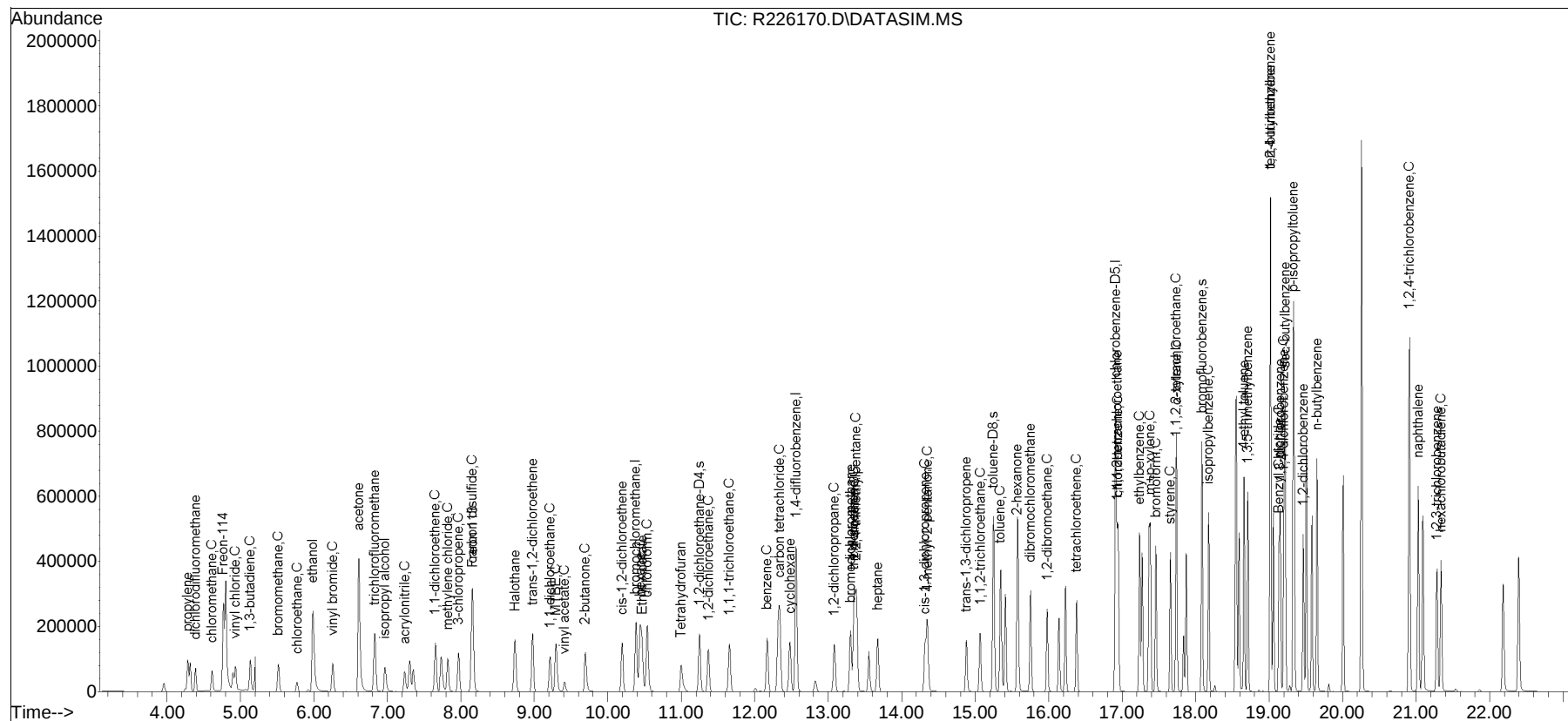
CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.13	91	352806	6.722	ppbV	99
71) 1,3-dichlorobenzene	19.15	146	369415	7.165	ppbV	97
72) 1,4-dichlorobenzene	19.20	146	373255	7.050	ppbV	97
73) sec-butylbenzene	19.22	105	677765	6.450	ppbV	99
74) p-isopropyltoluene	19.33	119	621562	6.329	ppbV	99
75) 1,2-dichlorobenzene	19.46	146	351840	7.064	ppbV	98
76) n-butylbenzene	19.65	91	564811	6.678	ppbV	99
77) 1,2,4-trichlorobenzene	20.91	180	356228	8.347	ppbV #	93
78) naphthalene	21.03	128	749638	7.559	ppbV	99
79) 1,2,3-trichlorobenzene	21.29	180	376633	8.576	ppbV	94
80) hexachlorobutadiene	21.34	225	315506	8.136	ppbV	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226170.D
Acq On    : 10 Nov 2013 12:09 pm
Operator  : AIRPIAN02:MB
Sample    : IT015-SIMSTD5.0
Misc      : WG652929
ALS Vial  : 8 Sample Multiplier: 1
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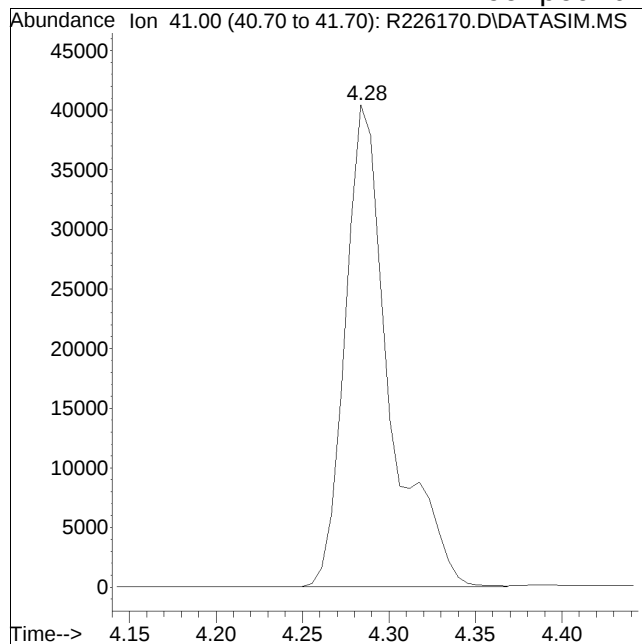
Quant Time: Nov 14 15:13:34 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Tue Sep 10 13:38:56 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

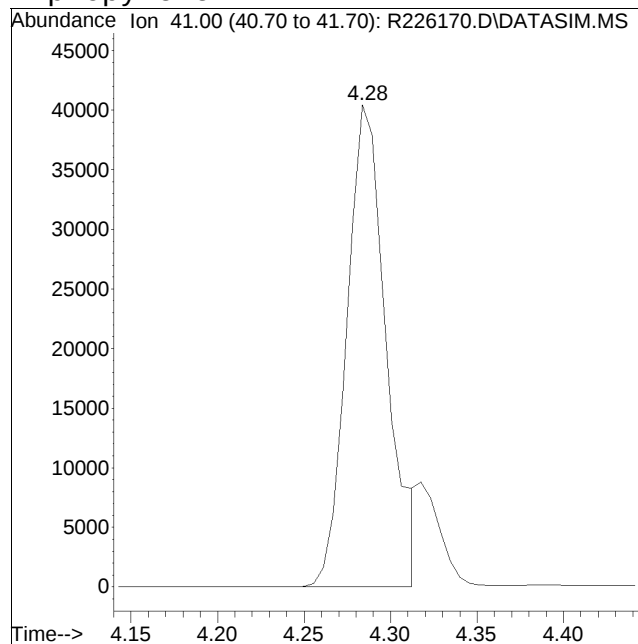
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226170.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:09 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD5.0 Quant Date : 11/11/2013 8:26 am

Compound #2: propylene



Original Peak Response = 72514

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



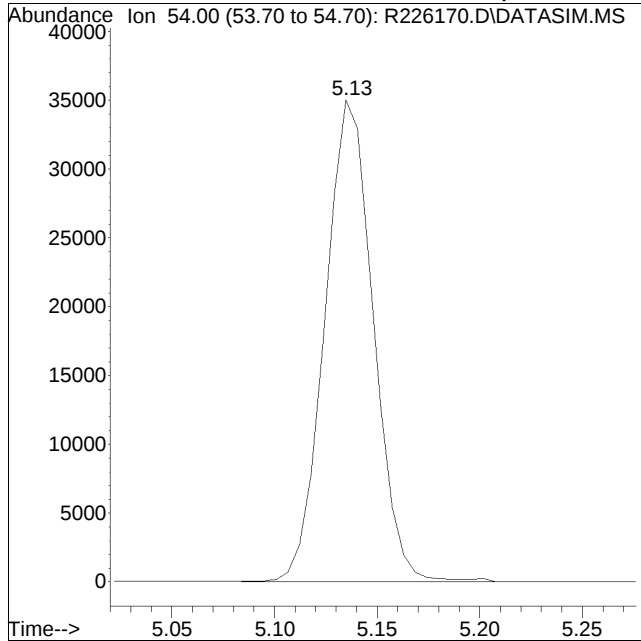
Manual Peak Response = 64180 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

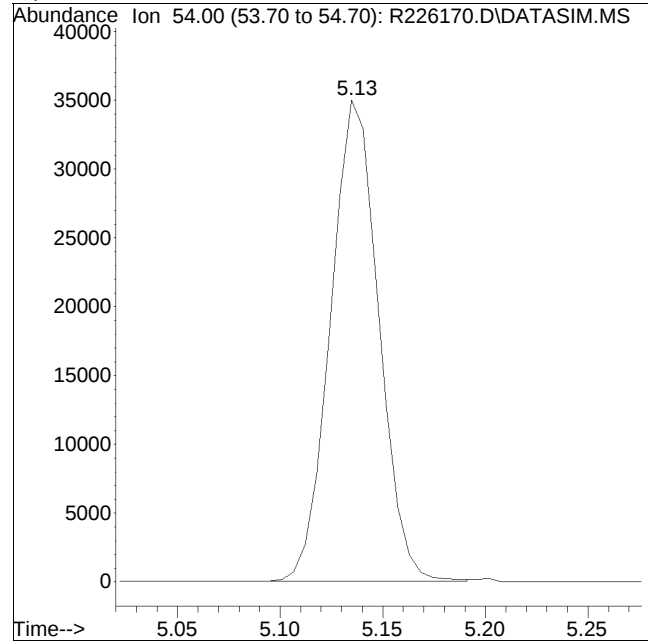
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226170.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:09 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD5.0 Quant Date : 11/11/2013 8:26 am

Compound #7: 1,3-butadiene



Original Peak Response = 57025

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

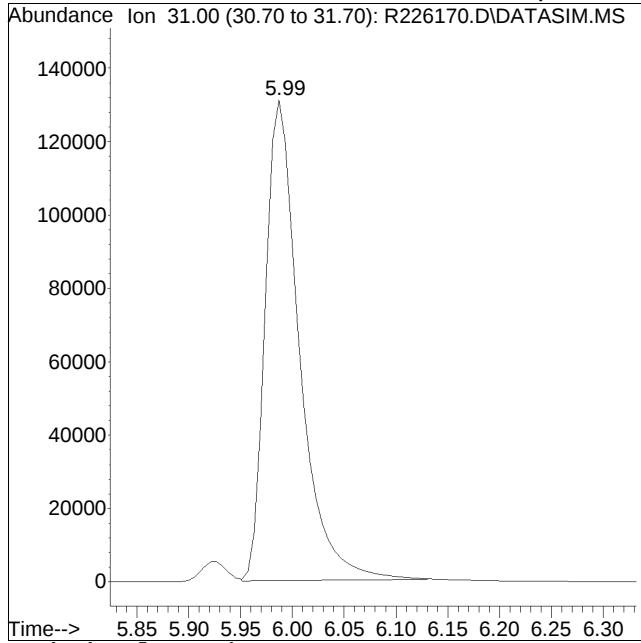


Manual Peak Response = 57146 M6

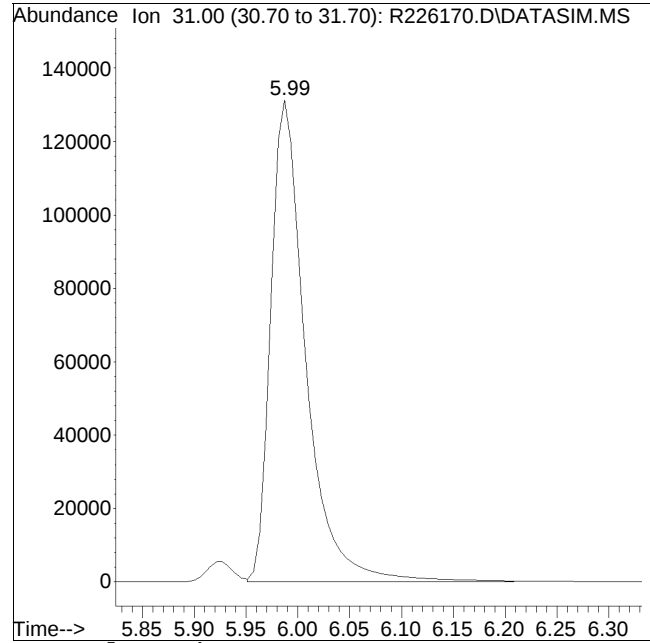
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226170.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:09 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD5.0 Quant Date : 11/11/2013 8:26 am

Compound #10: ethanol



Original Peak Response = 301901



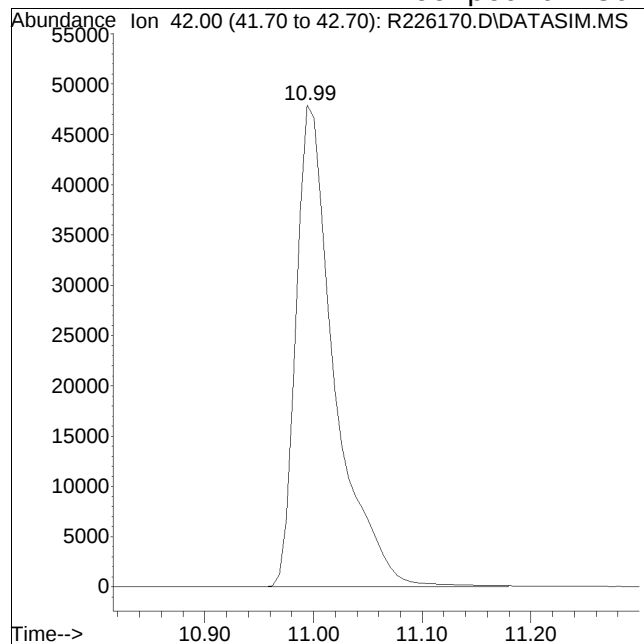
Manual Peak Response = 309855 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

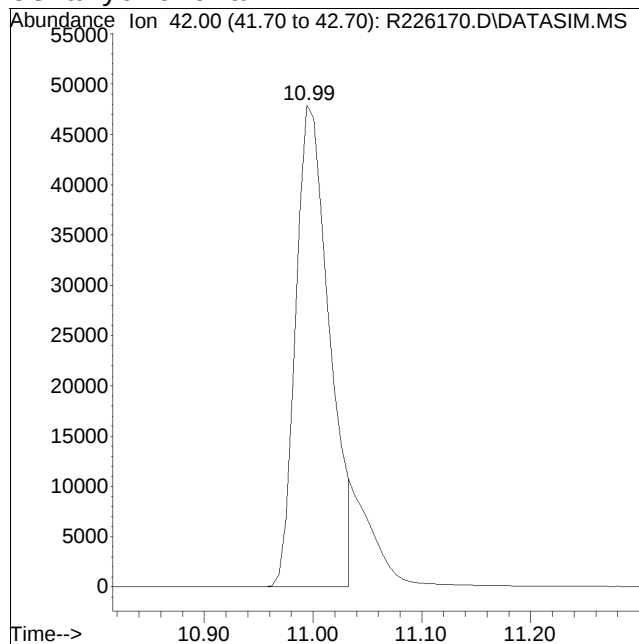
Data Path : O:\Forensics\Data\AIR2\2013Q
 Data File : R226170.D
 Date Inj'd : 11/10/2013 12:09 pm
 Sample : IT015-SIMSTD5.0
 Method : TSIM131110.M
 Operator : AIRPIAN02:MB
 Instrument : Air Piano 2
 Quant Date : 11/11/2013 8:26 am

Compound #30: Tetrahydrofuran



Original Peak Response = 118095

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

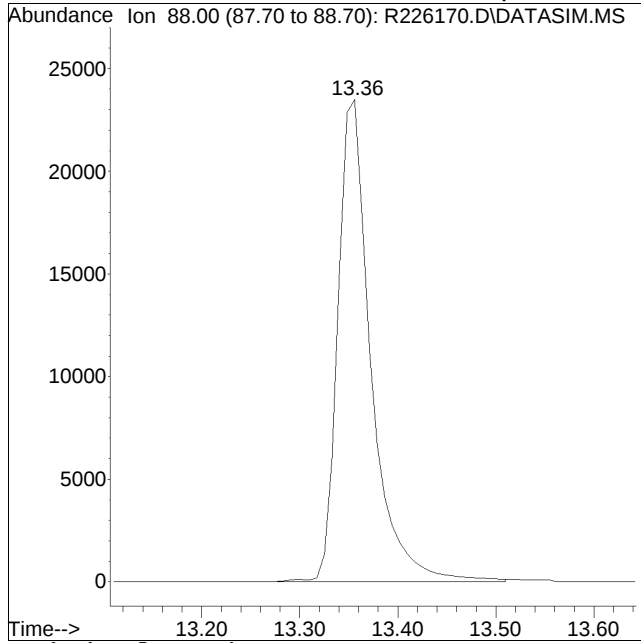


Manual Peak Response = 103340 M6

Manual Integration/Negative Proof Report

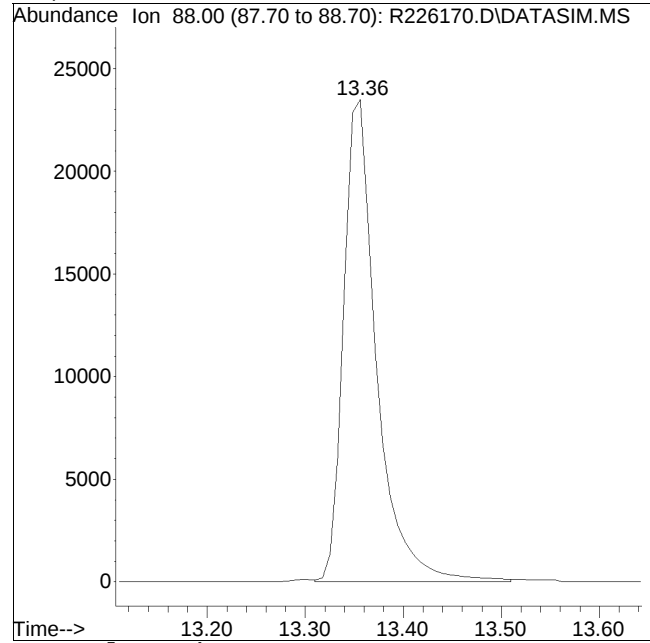
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226170.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:09 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD5.0 Quant Date : 11/11/2013 8:26 am

Compound #41: 1,4-dioxane



Original Peak Response = 55290

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

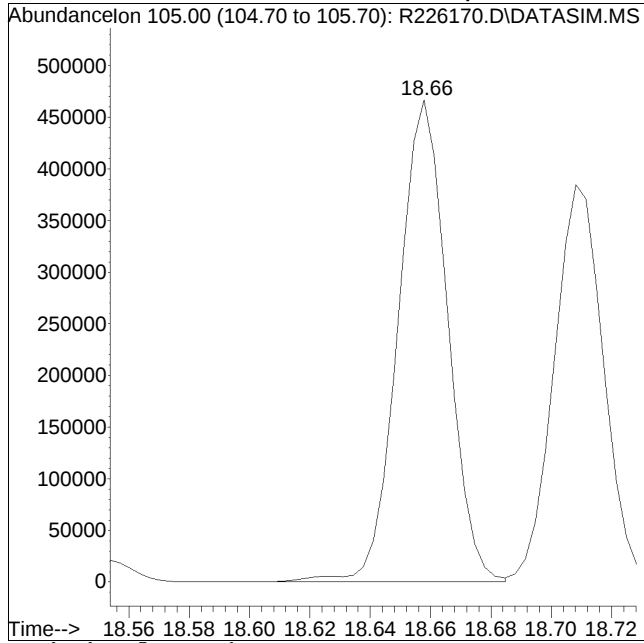


Manual Peak Response = 55060 M6

Manual Integration/Negative Proof Report

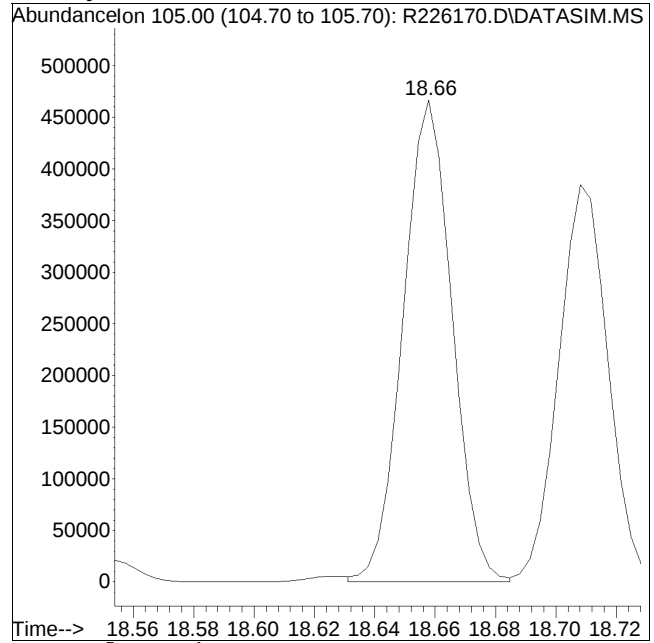
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226170.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:09 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD5.0 Quant Date : 11/11/2013 8:26 am

Compound #66: 4-ethyl toluene



Original Peak Response = 532024

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 526657 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226171.D
 Acq On : 10 Nov 2013 12:42 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD10.0
 Misc : WG652929
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 16:06:19 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	230010	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	100.46%		
32) 1,4-difluorobenzene	12.56	114	683181	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	100.17%		
49) chlorobenzene-D5	16.91	54	132274	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	99.59%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	181979	9.948	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.48%		
51) toluene-D8	15.25	98	500028	10.008	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.08%		
64) bromofluorobenzene	18.09	95	372535	10.074	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.74%		
Target Compounds					Qvalue	
2) propylene	4.28	41	128176M6	9.940	ppbV	
3) dichlorodifluoromethane	4.39	85	164522	11.067	ppbV	100
4) chloromethane	4.61	50	156010	10.086	ppbV	99
5) Freon-114	4.77	85	443452	10.181	ppbV	99
6) vinyl chloride	4.93	62	167646	10.110	ppbV	100
7) 1,3-butadiene	5.13	54	117899	10.290	ppbV	97
8) bromomethane	5.52	94	156155	10.182	ppbV	100
9) chloroethane	5.77	64	79235	10.232	ppbV	99
10) ethanol	5.98	31	638732M4	52.651	ppbV	
11) vinyl bromide	6.26	106	167627	10.234	ppbV	100
12) acetone	6.60	43	1290341	50.860	ppbV	100
13) trichlorofluoromethane	6.83	101	454628	10.164	ppbV	100
14) isopropyl alcohol	6.96	45	292514	10.946	ppbV	100
15) acrylonitrile	7.23	53	114499	10.142	ppbV	100
16) 1,1-dichloroethene	7.65	61	283538	9.675	ppbV	100
17) methylene chloride	7.82	49	218184M4	9.910	ppbV	
18) 3-chloropropene	7.97	41	232260	10.375	ppbV	99
19) carbon disulfide	8.15	76	497351	10.345	ppbV	100
20) Freon 113	8.16	101	379722	10.113	ppbV	100
21) Halothane	8.74	117	375386	10.253	ppbV	100
22) trans-1,2-dichloroethene	8.98	61	321563	10.259	ppbV	99
23) 1,1-dichloroethane	9.22	63	326949	10.137	ppbV	99
24) MTBE	9.29	73	454578	10.224	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226171.D
 Acq On : 10 Nov 2013 12:42 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD10.0
 Misc : WG652929
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 16:06:19 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.41	43	140688	13.500	ppbV	99
26) 2-butanone	9.69	43	407197	10.193	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	249594	10.064	ppbV	98
28) Ethyl Acetate	10.46	61	59482	10.403	ppbV #	61
29) chloroform	10.54	83	374605	10.084	ppbV	99
30) Tetrahydrofuran	10.99	42	217008M6	10.885	ppbV	
31) 1,2-dichloroethane	11.37	62	249169	9.977	ppbV	99
33) hexane	10.44	57	263425	10.269	ppbV	91
35) 1,1,1-trichloroethane	11.65	97	394720	10.125	ppbV	100
36) benzene	12.17	78	528158	10.128	ppbV	100
37) carbon tetrachloride	12.34	117	414700	10.330	ppbV	100
38) cyclohexane	12.48	56	272818	10.350	ppbV	96
39) 1,2-dichloropropane	13.08	63	207752	10.125	ppbV	99
40) bromodichloromethane	13.30	83	409211	10.361	ppbV	99
41) 1,4-dioxane	13.34	88	119535	10.791	ppbV	97
42) trichloroethene	13.35	130	315636	10.186	ppbV	99
43) 2,2,4-trimethylpentane	13.38	57	880136	10.314	ppbV	100
44) heptane	13.67	43	348370	10.232	ppbV	100
45) cis-1,3-dichloropropene	14.32	75	294010	10.333	ppbV	99
46) 4-methyl-2-pentanone	14.34	43	500165	10.275	ppbV	100
47) trans-1,3-dichloropropene	14.88	75	291320	10.450	ppbV	99
48) 1,1,2-trichloroethane	15.07	97	235720	10.162	ppbV	99
50) toluene	15.35	91	678394	10.124	ppbV	99
52) 2-hexanone	15.57	43	477881	10.379	ppbV	99
53) dibromochloromethane	15.75	129	479193	10.577	ppbV	100
54) 1,2-dibromoethane	15.98	107	397108	10.204	ppbV	100
55) tetrachloroethene	16.38	166	392156	10.220	ppbV	98
56) 1,1,1,2-tetrachloroethane	16.93	131	319387	10.354	ppbV	97
57) chlorobenzene	16.95	112	589114	10.152	ppbV	99
58) ethylbenzene	17.24	91	896886	10.180	ppbV	98
59) m+p-xylene	17.38	91	1420093	20.331	ppbV	100
60) bromoform	17.46	173	547465	10.583	ppbV	99
61) styrene	17.66	104	555828	10.191	ppbV	98
62) 1,1,2,2-tetrachloroethane	17.73	83	478558	10.156	ppbV	99
63) o-xylene	17.74	91	731629	10.123	ppbV	99
65) isopropylbenzene	18.18	105	1054934	10.186	ppbV	99
66) 4-ethyl toluene	18.66	105	1077591M6	10.169	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	884450	10.147	ppbV	99
68) tert-butylbenzene	19.02	119	1006004	10.095	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	885004	10.093	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226171.D
 Acq On : 10 Nov 2013 12:42 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD10.0
 Misc : WG652929
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 16:06:19 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

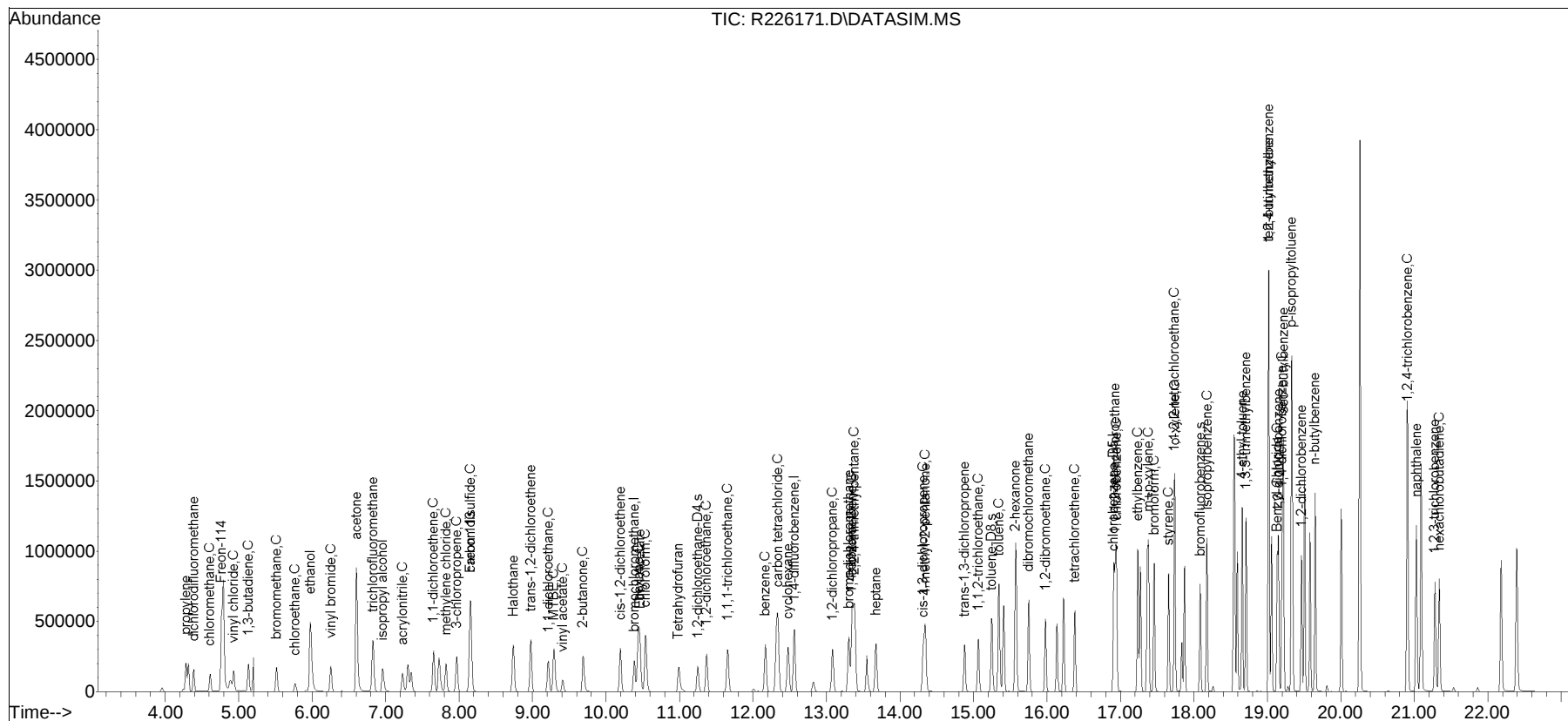
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.13	91	753899	10.729	ppbV	98
71) 1,3-dichlorobenzene	19.15	146	733463	9.969	ppbV	100
72) 1,4-dichlorobenzene	19.20	146	745210	10.024	ppbV	99
73) sec-butylbenzene	19.22	105	1366747	10.125	ppbV	99
74) p-isopropyltoluene	19.33	119	1260897	10.185	ppbV	99
75) 1,2-dichlorobenzene	19.46	146	704831	10.058	ppbV	99
76) n-butylbenzene	19.65	91	1141615	10.148	ppbV	99
77) 1,2,4-trichlorobenzene	20.91	180	697603	9.832	ppbV	99
78) naphthalene	21.03	128	1489251	9.974	ppbV	99
79) 1,2,3-trichlorobenzene	21.28	180	737730	9.834	ppbV #	94
80) hexachlorobutadiene	21.34	225	614750	9.783	ppbV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1110SIM_ICAL\R226170.D

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226171.D
Acq On : 10 Nov 2013 12:42 pm
Operator : AIRPIANO2:MB
Sample : IT015-SIMSTD10.0
Misc : WG652929
ALS Vial : 9 Sample Multiplier: 1

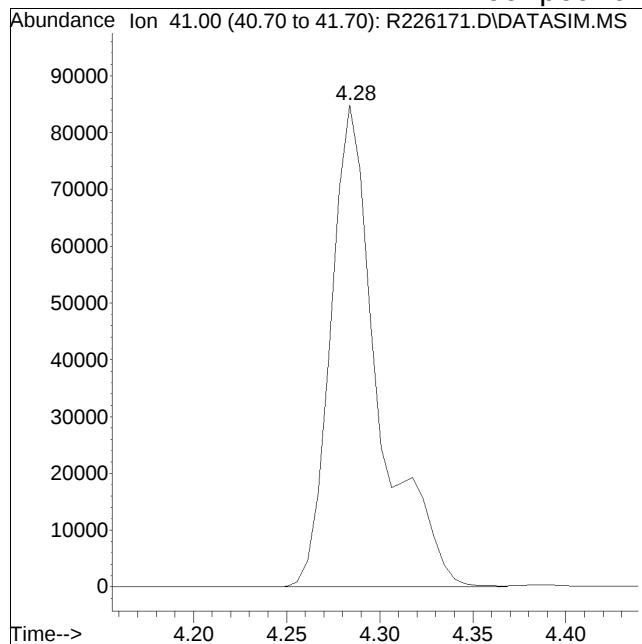
Quant Time: Nov 14 16:06:19 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

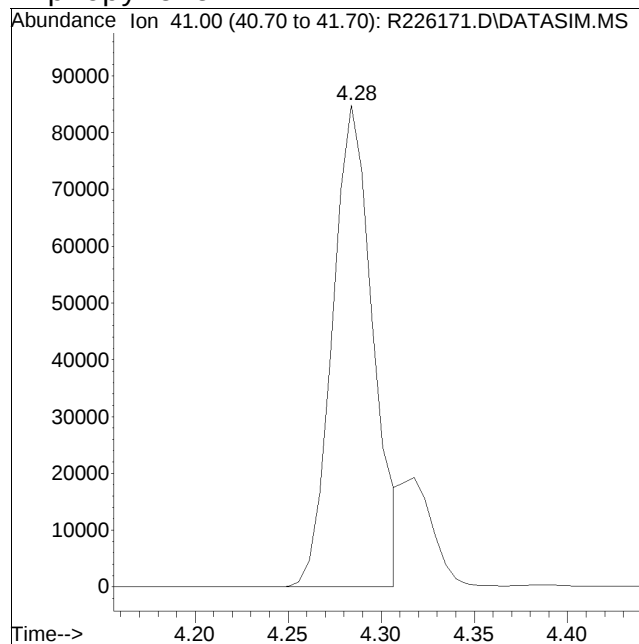
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226171.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:42 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD10.0 Quant Date : 11/11/2013 8:29 am

Compound #2: propylene



Original Peak Response = 151563

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

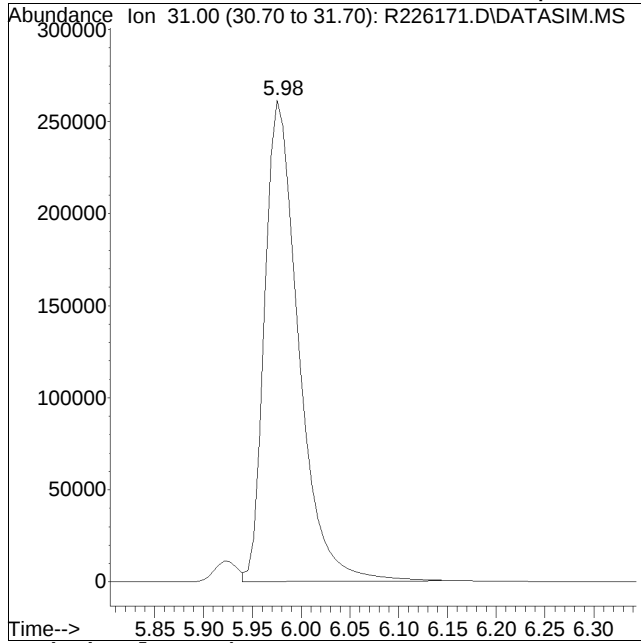


Manual Peak Response = 128176 M6

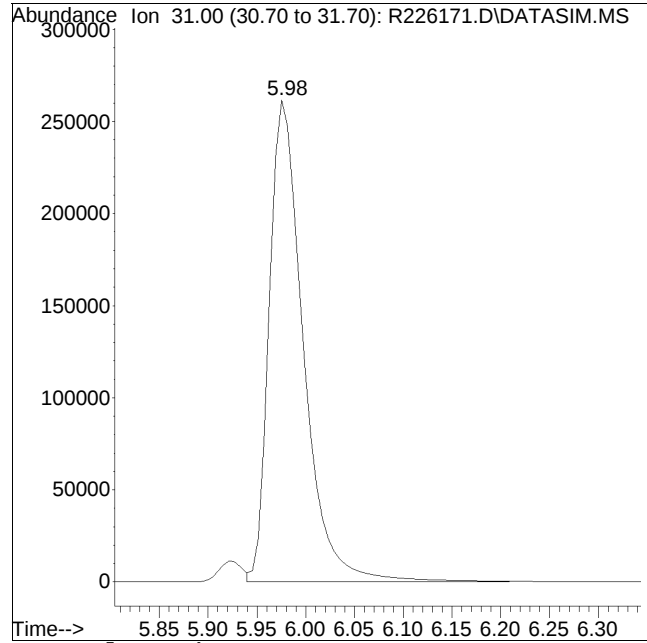
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013Q
Data File : R226171.D
Date Inj'd : 11/10/2013 12:42 pm
Sample : IT015-SIMSTD10.0
Method : TSIM131110.M
Operator : AIRPIAN02:MB
Instrument : Air Piano 2
Quant Date : 11/11/2013 8:29 am

Compound #10: ethanol



Original Peak Response = 631489



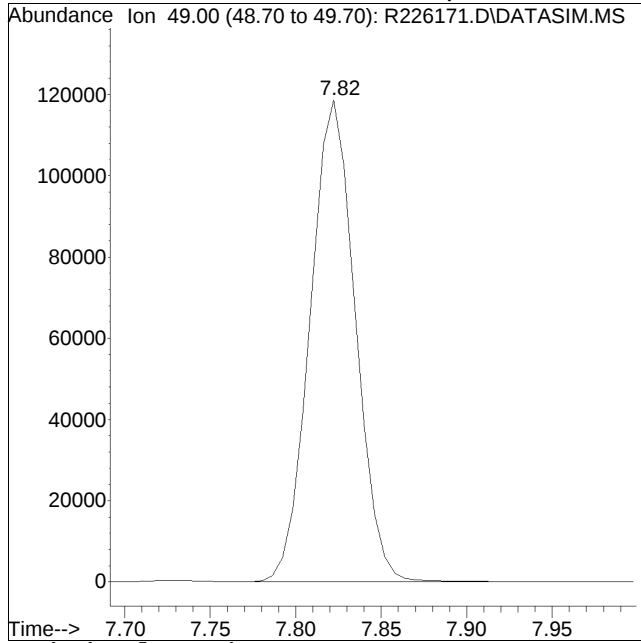
Manual Peak Response = 638732 M4

M4 = Poor automated baseline construction.

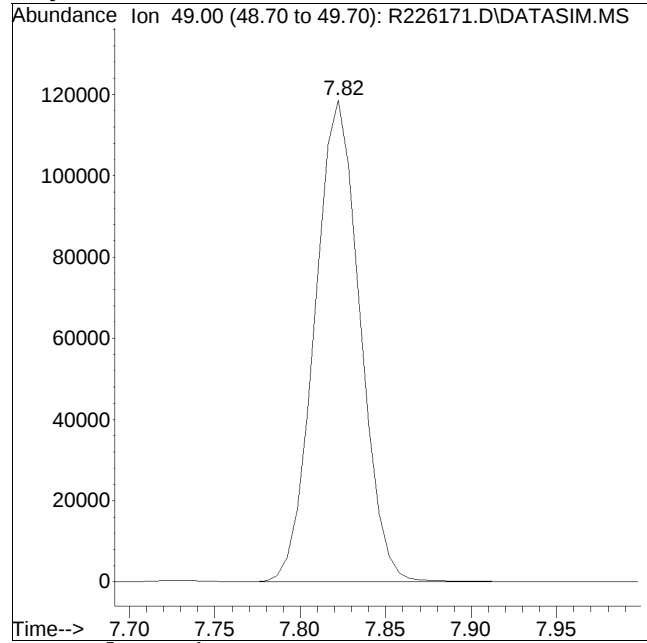
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226171.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:42 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD10.0 Quant Date : 11/11/2013 8:29 am

Compound #17: methylene chloride



Original Peak Response = 216517



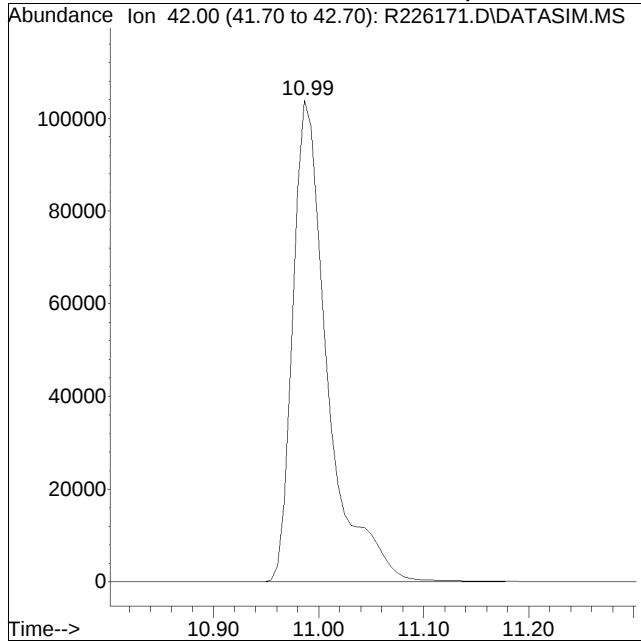
Manual Peak Response = 218184 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

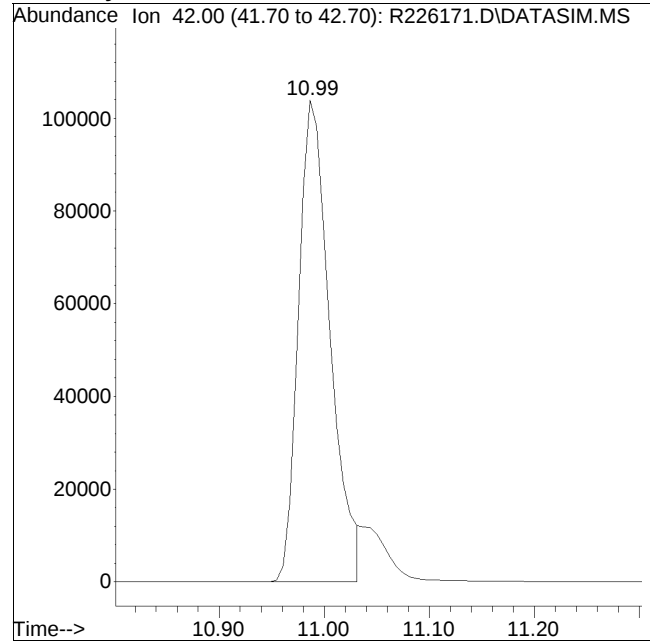
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226171.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:42 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD10.0 Quant Date : 11/11/2013 8:29 am

Compound #30: Tetrahydrofuran



Original Peak Response = 239105

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

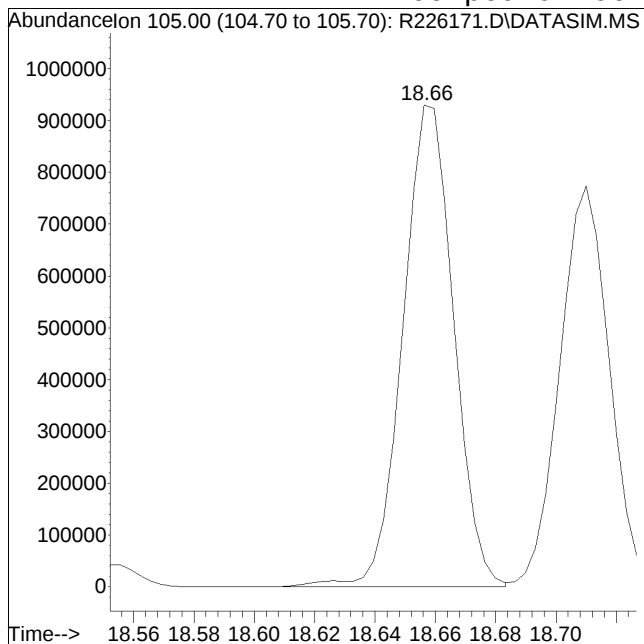


Manual Peak Response = 217008 M6

Manual Integration/Negative Proof Report

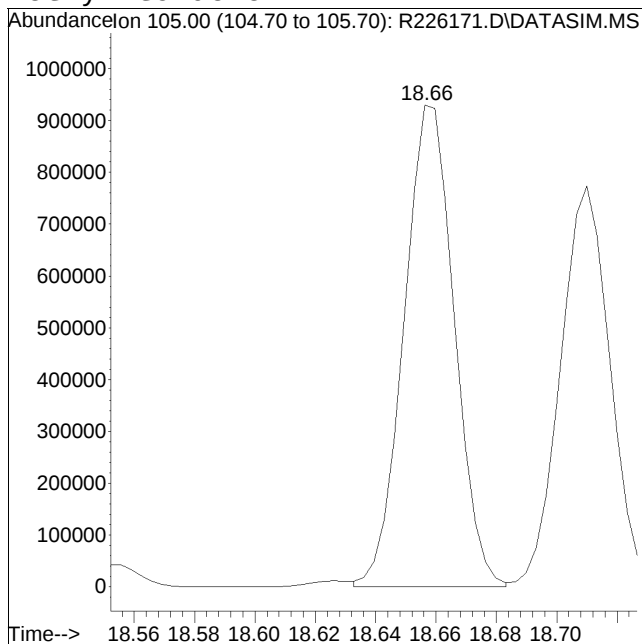
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226171.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 12:42 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD10.0 Quant Date : 11/11/2013 8:29 am

Compound #66: 4-ethyl toluene



Original Peak Response = 1089898

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 1077591 M6

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226172.D
 Acq On : 10 Nov 2013 1:14 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD20.0
 Misc : WG652929
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 16:09:22 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.38	49	232444	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	101.52%		
32) 1,4-difluorobenzene	12.56	114	690607	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	101.26%		
49) chlorobenzene-D5	16.91	54	132487	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	99.75%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	182304	9.859	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.59%		
51) toluene-D8	15.25	98	503624	10.063	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.63%		
64) bromofluorobenzene	18.08	95	378258	10.213	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.13%		
Target Compounds						
					Qvalue	
2) propylene	4.28	41	251532M6	19.302	ppbV	
3) dichlorodifluoromethane	4.39	85	355124	23.639	ppbV	100
4) chloromethane	4.61	50	305443	19.540	ppbV	99
5) Freon-114	4.77	85	901233	20.474	ppbV	100
6) vinyl chloride	4.93	62	330817	19.741	ppbV	100
7) 1,3-butadiene	5.13	54	232663	20.094	ppbV	95
8) bromomethane	5.51	94	308362	19.897	ppbV	99
9) chloroethane	5.77	64	155672	19.891	ppbV	99
10) ethanol	5.98	31	1206021M4	98.372	ppbV	
11) vinyl bromide	6.26	106	329788	19.923	ppbV	99
12) acetone	6.60	43	2506517	97.762	ppbV	100
13) trichlorofluoromethane	6.83	101	889657	19.681	ppbV	100
14) isopropyl alcohol	6.96	45	559697	20.725	ppbV	100
15) acrylonitrile	7.23	53	227305	19.923	ppbV	100
16) 1,1-dichloroethene	7.65	61	572471	19.330	ppbV	99
17) methylene chloride	7.82	49	432757M4	19.451	ppbV	
18) 3-chloropropene	7.97	41	452480	20.000	ppbV	99
19) carbon disulfide	8.15	76	990853	20.394	ppbV	99
20) Freon 113	8.16	101	749826	19.761	ppbV	99
21) Halothane	8.74	117	746588	20.179	ppbV	100
22) trans-1,2-dichloroethene	8.98	61	633627	20.004	ppbV	99
23) 1,1-dichloroethane	9.22	63	638344	19.585	ppbV	99
24) MTBE	9.29	73	896447	19.950	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226172.D
 Acq On : 10 Nov 2013 1:14 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD20.0
 Misc : WG652929
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 16:09:22 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.41	43	358535	34.045	ppbV	100
26) 2-butanone	9.68	43	798628	19.781	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	489832	19.545	ppbV	99
28) Ethyl Acetate	10.46	61	119267	20.640	ppbV #	39
29) chloroform	10.54	83	737688	19.650	ppbV	99
30) Tetrahydrofuran	10.98	42	429254	21.305	ppbV	92
31) 1,2-dichloroethane	11.37	62	489717	19.403	ppbV	100
33) hexane	10.44	57	520104	20.057	ppbV #	71
35) 1,1,1-trichloroethane	11.65	97	776254	19.698	ppbV	100
36) benzene	12.17	78	1039313	19.717	ppbV	100
37) carbon tetrachloride	12.34	117	829134	20.431	ppbV	100
38) cyclohexane	12.47	56	535700	20.104	ppbV	95
39) 1,2-dichloropropane	13.08	63	411894	19.857	ppbV	99
40) bromodichloromethane	13.30	83	811853	20.335	ppbV	100
41) 1,4-dioxane	13.34	88	234468	20.940	ppbV	91
42) trichloroethene	13.35	130	589714	18.825	ppbV	100
43) 2,2,4-trimethylpentane	13.38	57	1735391	20.117	ppbV	100
44) heptane	13.67	43	686040	19.933	ppbV	99
45) cis-1,3-dichloropropene	14.32	75	593161	20.623	ppbV	99
46) 4-methyl-2-pentanone	14.34	43	987757	20.073	ppbV	100
47) trans-1,3-dichloropropene	14.88	75	593486	21.059	ppbV	98
48) 1,1,2-trichloroethane	15.07	97	467134	19.921	ppbV	100
50) toluene	15.35	91	1336295	19.911	ppbV	98
52) 2-hexanone	15.57	43	957050	20.753	ppbV	99
53) dibromochloromethane	15.75	129	961249	21.182	ppbV	100
54) 1,2-dibromoethane	15.98	107	794517	20.383	ppbV	100
55) tetrachloroethene	16.38	166	773401	20.124	ppbV	100
56) 1,1,1,2-tetrachloroethane	16.93	131	629055	20.361	ppbV	99
57) chlorobenzene	16.95	112	1170646	20.141	ppbV	96
58) ethylbenzene	17.23	91	1764152	19.991	ppbV	100
59) m+p-xylene	17.38	91	2822334	40.341	ppbV	99
60) bromoform	17.46	173	1105045	21.327	ppbV	99
61) styrene	17.66	104	1111264	20.341	ppbV	100
62) 1,1,2,2-tetrachloroethane	17.73	83	1023444	21.686	ppbV	100
63) o-xylene	17.74	91	1445151	19.963	ppbV	100
65) isopropylbenzene	18.18	105	2071995	19.974	ppbV	100
66) 4-ethyl toluene	18.66	105	2125947M6	20.031	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	1747816	20.020	ppbV	99
68) tert-butylbenzene	19.02	119	1959587	19.633	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	1755588	19.989	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226172.D
 Acq On : 10 Nov 2013 1:14 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD20.0
 Misc : WG652929
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 16:09:22 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

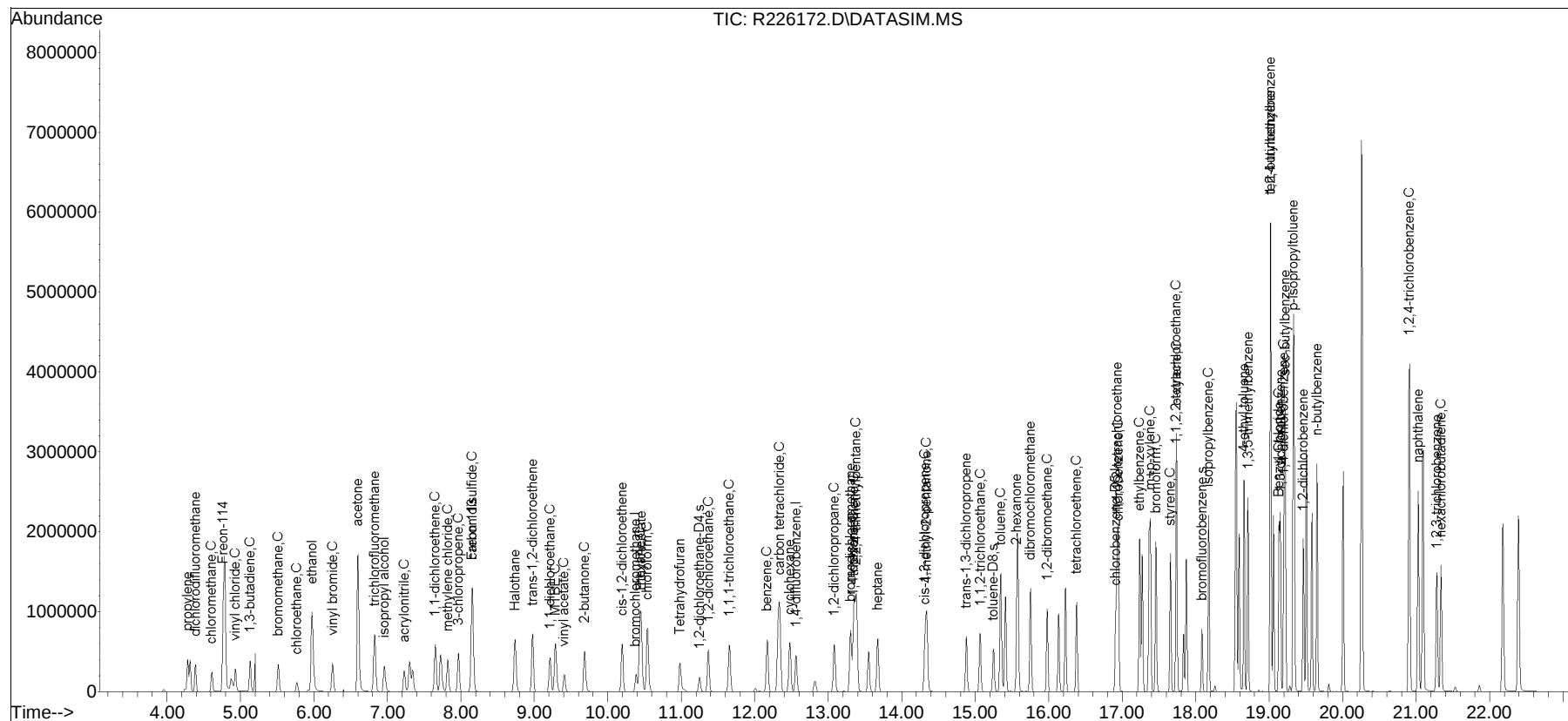
CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.13	91	1617512	22.982	ppbV	99
71) 1,3-dichlorobenzene	19.15	146	1470370	19.952	ppbV	99
72) 1,4-dichlorobenzene	19.20	146	1486723	19.966	ppbV	97
73) sec-butylbenzene	19.22	105	2707003	20.021	ppbV	100
74) p-isopropyltoluene	19.33	119	2472526	19.940	ppbV	99
75) 1,2-dichlorobenzene	19.47	146	1401736	19.971	ppbV	98
76) n-butylbenzene	19.65	91	2264662	20.099	ppbV	100
77) 1,2,4-trichlorobenzene	20.91	180	1398808	19.684	ppbV	99
78) naphthalene	21.03	128	2979996	19.927	ppbV	99
79) 1,2,3-trichlorobenzene	21.29	180	1477968	19.671	ppbV	99
80) hexachlorobutadiene	21.34	225	1234444	19.613	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

```
Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226172.D
Acq On    : 10 Nov 2013    1:14 pm
Operator  : AIRPIAN02:MB
Sample    : IT015-SIMSTD20.0
Misc      : WG652929
ALS Vial  : 9    Sample Multiplier: 1
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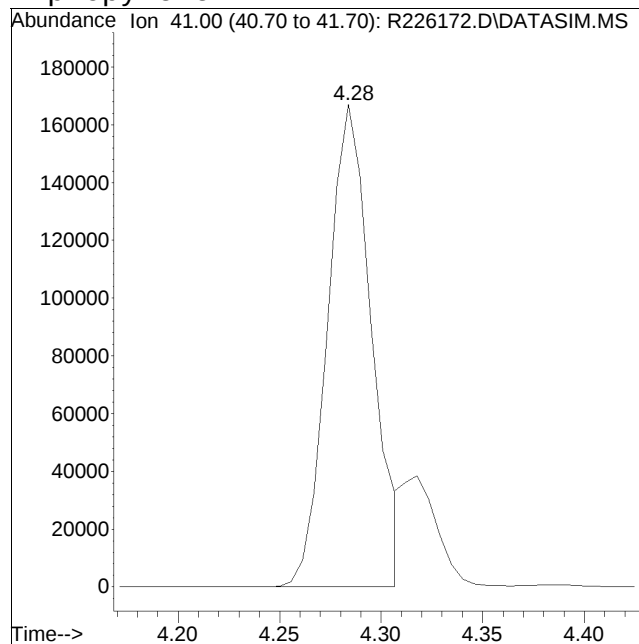
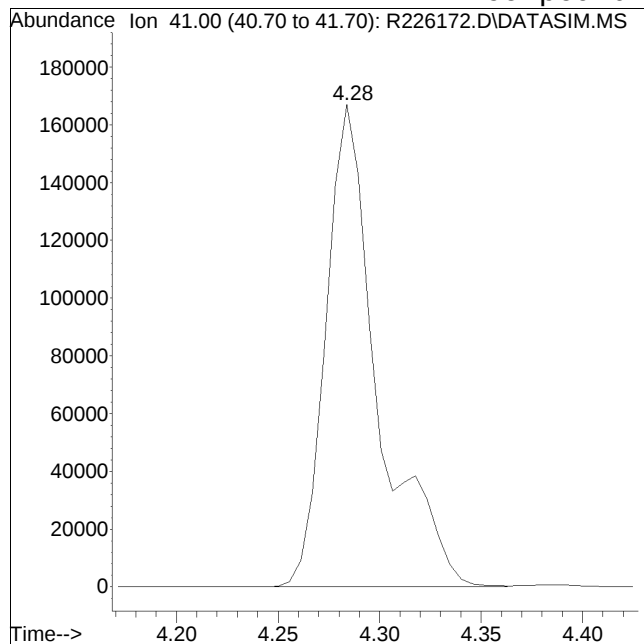
Quant Time: Nov 14 16:09:22 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226172.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 1:14 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD20.0 Quant Date : 11/11/2013 8:29 am

Compound #2: propylene

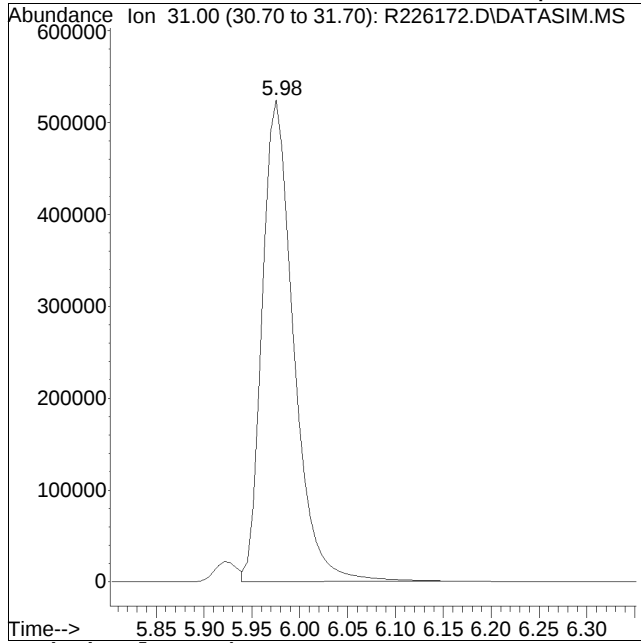


M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

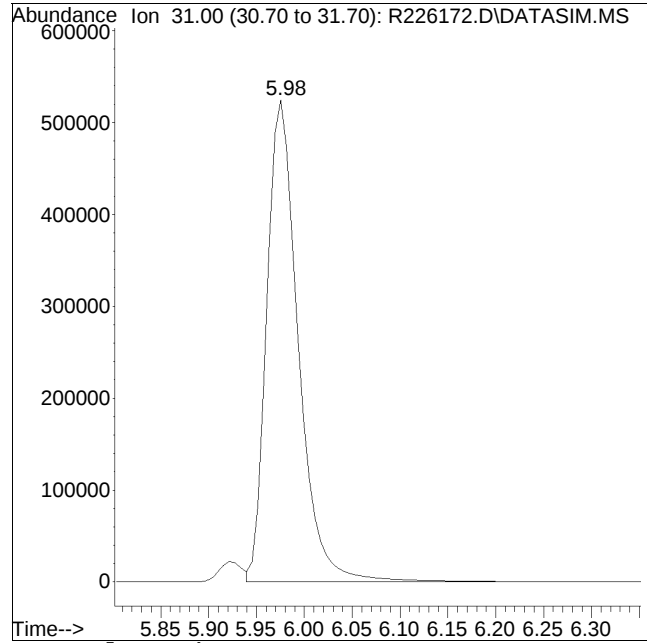
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226172.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 1:14 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD20.0 Quant Date : 11/11/2013 8:29 am

Compound #10: ethanol



Original Peak Response = 1194651



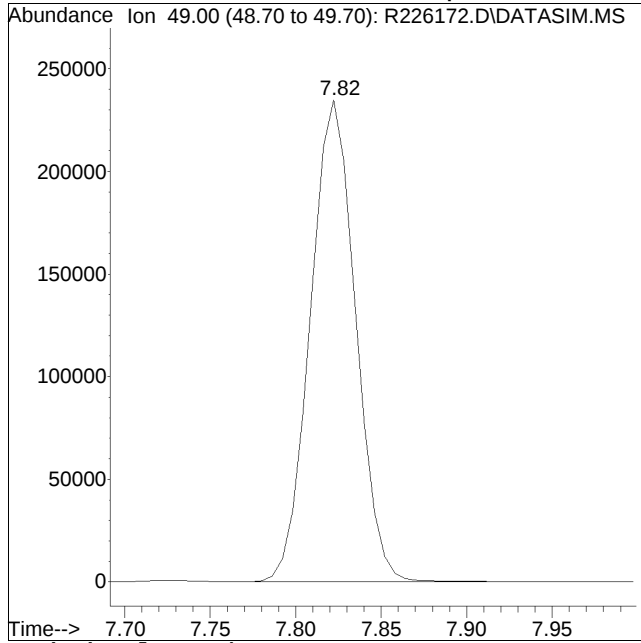
Manual Peak Response = 1206021 M4

M4 = Poor automated baseline construction.

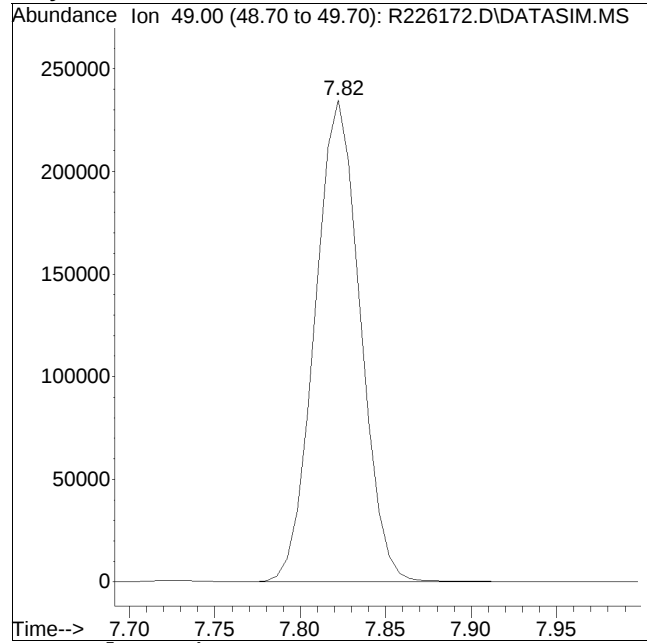
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226172.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 1:14 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD20.0 Quant Date : 11/11/2013 8:29 am

Compound #17: methylene chloride



Original Peak Response = 429386



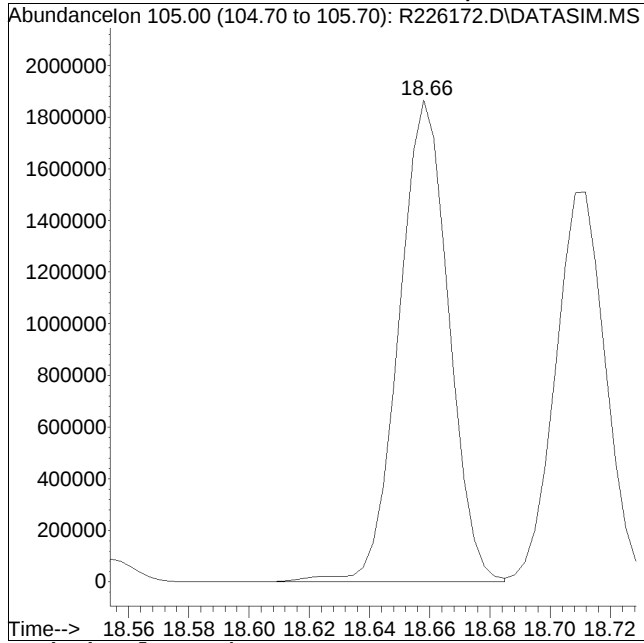
Manual Peak Response = 432757 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

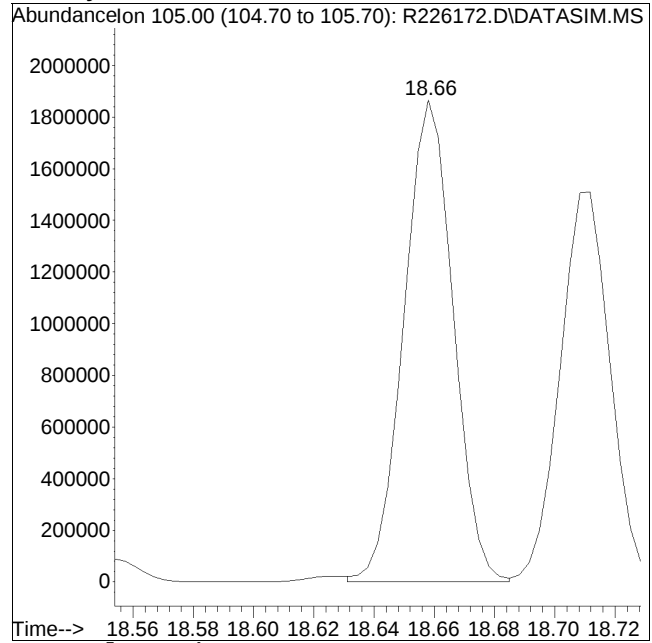
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226172.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 1:14 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD20.0 Quant Date : 11/11/2013 8:29 am

Compound #66: 4-ethyl toluene



Original Peak Response = 2148301

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 2125947 M6

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226173.D
 Acq On : 10 Nov 2013 1:46 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD50.0
 Misc : WG652929
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 16:11:03 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.39	49	243094	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	106.17%		
32) 1,4-difluorobenzene	12.56	114	702209	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	102.96%		
49) chlorobenzene-D5	16.91	54	135614	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	102.10%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	183168	9.742	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.42%		
51) toluene-D8	15.25	98	516377	10.080	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.80%		
64) bromofluorobenzene	18.08	95	391168	10.318	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.18%		
Target Compounds						
					Qvalue	
2) propylene	4.28	41	633030M6	46.449	ppbV	
3) dichlorodifluoromethane	4.39	85	645410	41.080	ppbV	100
4) chloromethane	4.62	50	691896	42.324	ppbV	100
5) Freon-114	4.77	85	1454403	31.593	ppbV	100
6) vinyl chloride	4.93	62	756394	43.159	ppbV	100
7) 1,3-butadiene	5.13	54	569054	46.994	ppbV	97
8) bromomethane	5.52	94	704976	43.495	ppbV	100
9) chloroethane	5.77	64	353606	43.203	ppbV	100
10) ethanol	5.99	31	3016774M4	235.289	ppbV	
11) vinyl bromide	6.26	106	809077	46.736	ppbV	100
12) acetone	6.60	43	5795738	216.148	ppbV	99
13) trichlorofluoromethane	6.83	101	2001287	42.334	ppbV	100
14) isopropyl alcohol	6.96	45	1411530	49.977	ppbV	100
15) acrylonitrile	7.24	53	562513	47.142	ppbV	99
16) 1,1-dichloroethene	7.65	61	1298916	41.938	ppbV	100
17) methylene chloride	7.82	49	975485	41.924	ppbV	98
18) 3-chloropropene	7.97	41	1122904	47.459	ppbV	98
19) carbon disulfide	8.15	76	2490358	49.010	ppbV	97
20) Freon 113	8.16	101	1715123	43.220	ppbV	100
21) Halothane	8.74	117	1839253	47.533	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	1562169	47.158	ppbV	100
23) 1,1-dichloroethane	9.22	63	1466927	43.036	ppbV	100
24) MTBE	9.29	73	2222476	47.293	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226173.D
 Acq On : 10 Nov 2013 1:46 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD50.0
 Misc : WG652929
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 16:11:03 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.41	43	1212091	110.052	ppbV	99
26) 2-butanone	9.68	43	1972683	46.721	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	1119721	42.720	ppbV	97
28) Ethyl Acetate	10.46	61	301003	49.809	ppbV	83
29) chloroform	10.54	83	1687947	42.993	ppbV	100
30) Tetrahydrofuran	10.98	42	1062127	50.406	ppbV	96
31) 1,2-dichloroethane	11.37	62	1110606	42.074	ppbV	99
33) hexane	10.44	57	1279043	48.509	ppbV	81
35) 1,1,1-trichloroethane	11.66	97	1776064	44.324	ppbV	100
36) benzene	12.17	78	2386569	44.527	ppbV	99
37) carbon tetrachloride	12.34	117	1925936	46.674	ppbV	99
38) cyclohexane	12.48	56	1337496	49.364	ppbV	98
39) 1,2-dichloropropane	13.09	63	951394	45.109	ppbV	96
40) bromodichloromethane	13.30	83	2017873	49.708	ppbV	99
41) 1,4-dioxane	13.33	88	619992	54.455	ppbV	96
42) trichloroethene	13.36	130	1367329	42.928	ppbV	99
43) 2,2,4-trimethylpentane	13.39	57	4196491M6	47.843	ppbV	
44) heptane	13.67	43	1696518	48.477	ppbV	99
45) cis-1,3-dichloropropene	14.32	75	1400053	47.873	ppbV	100
46) 4-methyl-2-pentanone	14.34	43	2441133	48.790	ppbV	99
47) trans-1,3-dichloropropene	14.88	75	1415956	49.413	ppbV	98
48) 1,1,2-trichloroethane	15.07	97	1073665	45.030	ppbV	97
50) toluene	15.35	91	3048749	44.379	ppbV	98
52) 2-hexanone	15.57	43	2336553	49.499	ppbV	97
53) dibromochloromethane	15.75	129	2362717	50.865	ppbV	98
54) 1,2-dibromoethane	15.98	107	1840088	46.118	ppbV	100
55) tetrachloroethene	16.38	166	1777936	45.196	ppbV	98
56) 1,1,1,2-tetrachloroethane	16.93	131	1509095	47.719	ppbV	96
57) chlorobenzene	16.95	112	2684422	45.120	ppbV	100
58) ethylbenzene	17.24	91	4006819	44.357	ppbV	97
59) m+p-xylene	17.38	91	6385438	89.166	ppbV	98
60) bromoform	17.46	173	2632870	49.641	ppbV	97
61) styrene	17.66	104	2525814	45.168	ppbV	96
62) 1,1,2,2-tetrachloroethane	17.74	83	2299912	47.609	ppbV	99
63) o-xylene	17.74	91	3203713	43.236	ppbV	99
65) isopropylbenzene	18.18	105	4997584	47.065	ppbV	98
66) 4-ethyl toluene	18.66	105	5018084M6	46.190	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	3881463	43.433	ppbV	99
68) tert-butylbenzene	19.02	119	4240896	41.509	ppbV	98
69) 1,2,4-trimethylbenzene	19.02	105	3620068	40.268	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226173.D
 Acq On : 10 Nov 2013 1:46 pm
 Operator : AIRPIAN02:MB
 Sample : IT015-SIMSTD50.0
 Misc : WG652929
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 16:11:03 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Mon Nov 11 08:28:14 2013
 Response via : Initial Calibration

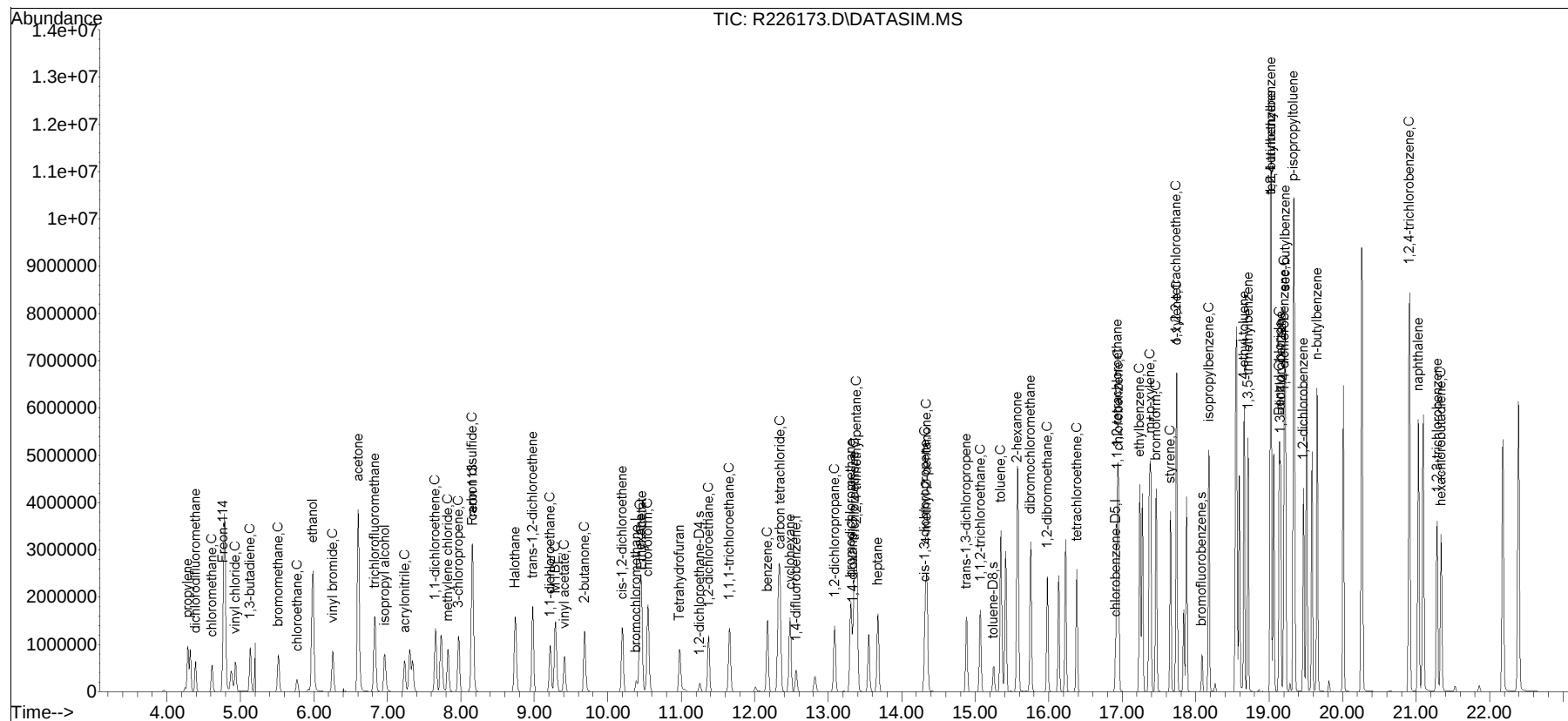
CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	4020349	55.805	ppbV	99
71) 1,3-dichlorobenzene	19.15	146	3250184	43.086	ppbV	96
72) 1,4-dichlorobenzene	19.20	146	3245386	42.580	ppbV	97
73) sec-butylbenzene	19.22	105	6228688	45.005	ppbV	97
74) p-isopropyltoluene	19.33	119	5506414	43.384	ppbV	97
75) 1,2-dichlorobenzene	19.47	146	3109384	43.278	ppbV	98
76) n-butylbenzene	19.65	91	5574381	48.332	ppbV	99
77) 1,2,4-trichlorobenzene	20.91	180	2925744	40.221	ppbV	96
78) naphthalene	21.03	128	7044265	46.018	ppbV	96
79) 1,2,3-trichlorobenzene	21.29	180	3568848	46.404	ppbV	98
80) hexachlorobutadiene	21.34	225	2644663	41.049	ppbV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226173.D
Acq On    : 10 Nov 2013    1:46 pm
Operator  : AIRPIAN02:MB
Sample    : IT015-SIMSTD50.0
Misc      : WG652929
ALS Vial  : 10    Sample Multiplier: 1
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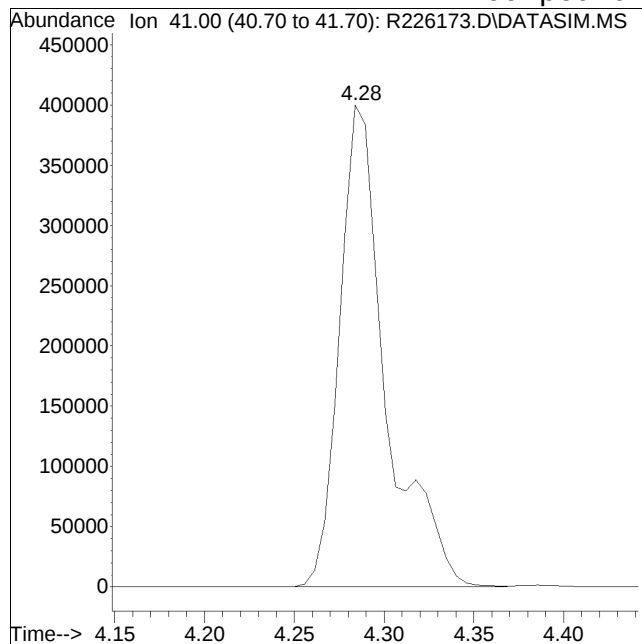
Quant Time: Nov 14 16:11:03 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Mon Nov 11 08:28:14 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

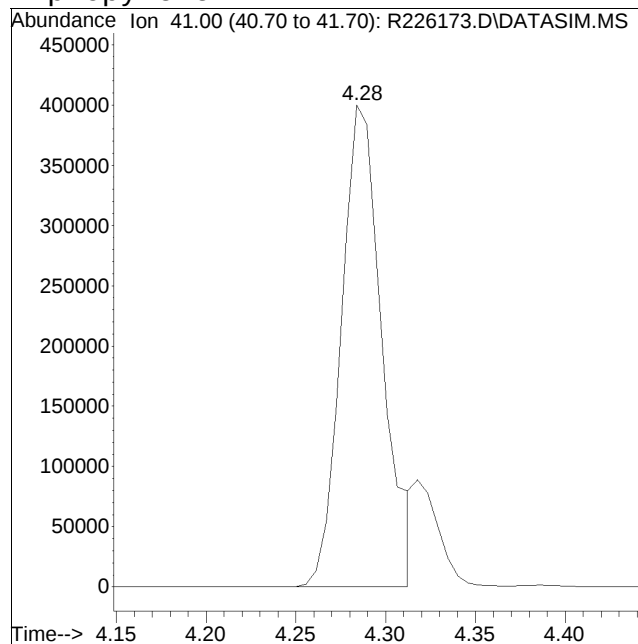
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Data File : R226173.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 1:46 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD50.0 Quant Date : 11/11/2013 8:29 am

Compound #2: propylene



Original Peak Response = 720248

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

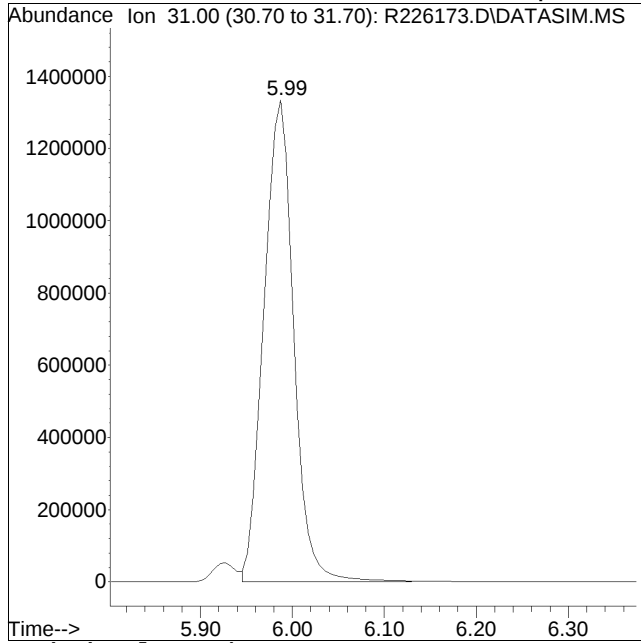


Manual Peak Response = 633030 M6

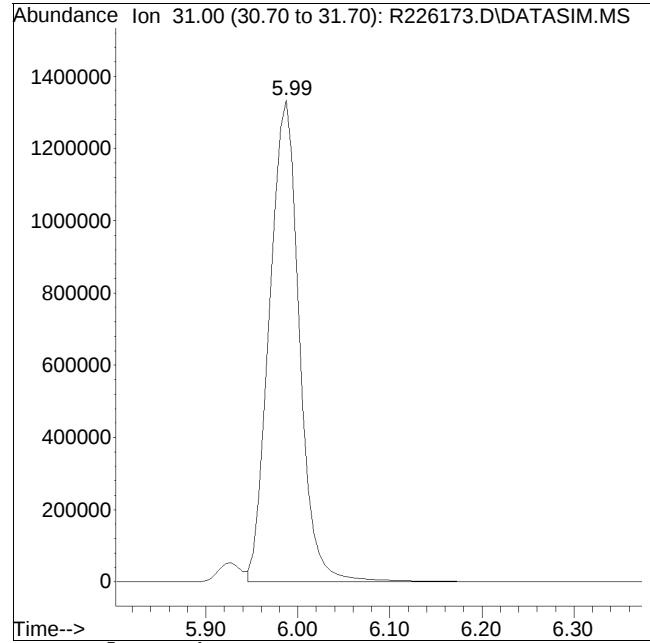
Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226173.D Operator : AIRPIAN02:MB
Date Inj'd : 11/10/2013 1:46 pm Instrument : Air Piano 2
Sample : IT015-SIMSTD50.0 Quant Date : 11/11/2013 8:29 am

Compound #10: ethanol



Original Peak Response = 2998190



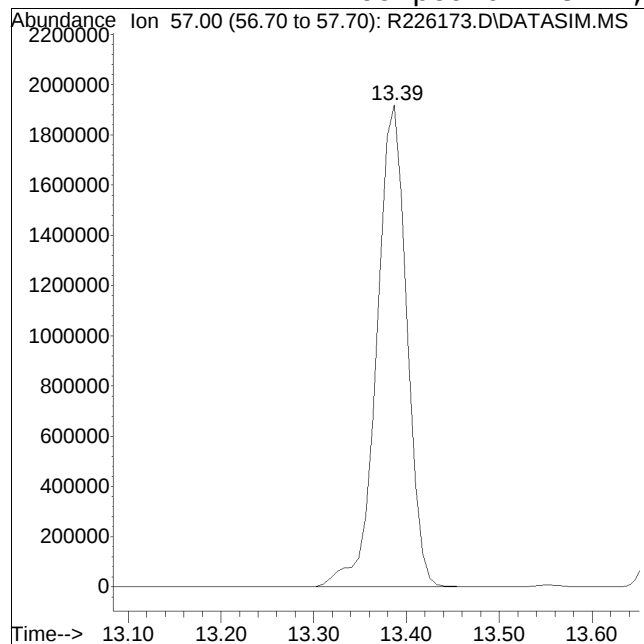
Manual Peak Response = 3016774 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

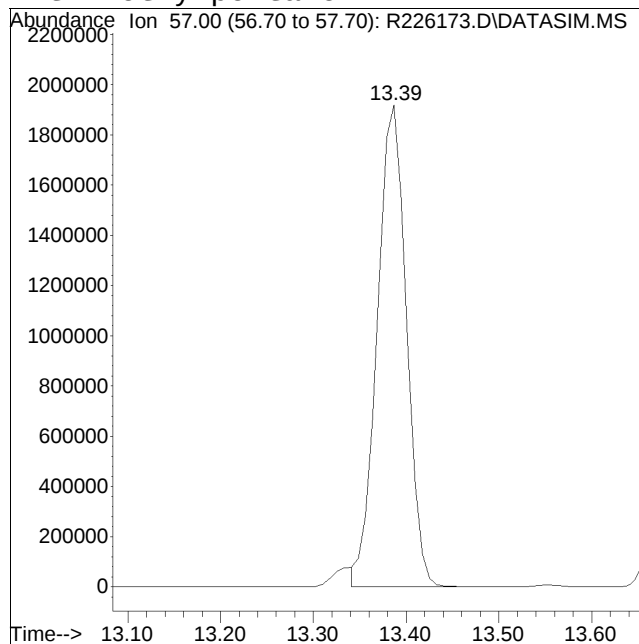
Data Path : O:\Forensics\Data\AIR2\2013Q
Data File : R226173.D
Date Inj'd : 11/10/2013 1:46 pm
Sample : IT015-SIMSTD50.0
Method : TSIM131110.M
Operator : AIRPIAN02:MB
Instrument : Air Piano 2
Quant Date : 11/11/2013 8:29 am

Compound #43: 2,2,4-trimethylpentane



Original Peak Response = 4318644

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

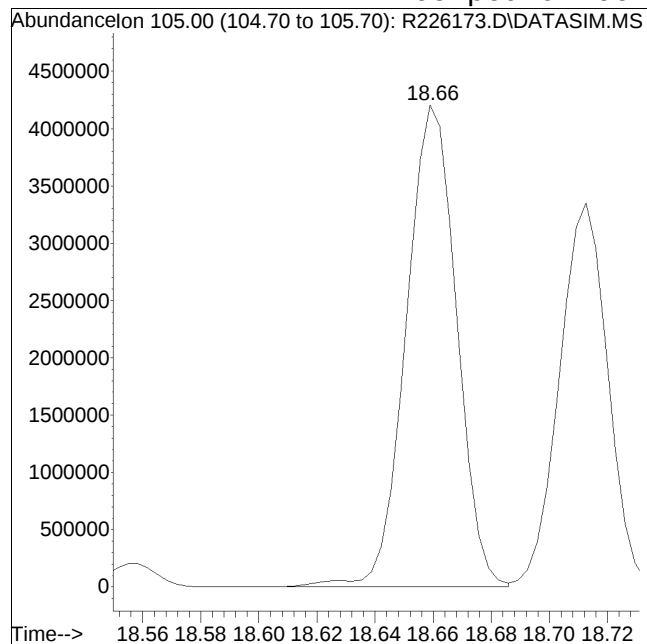


Manual Peak Response = 4196491 M6

Manual Integration/Negative Proof Report

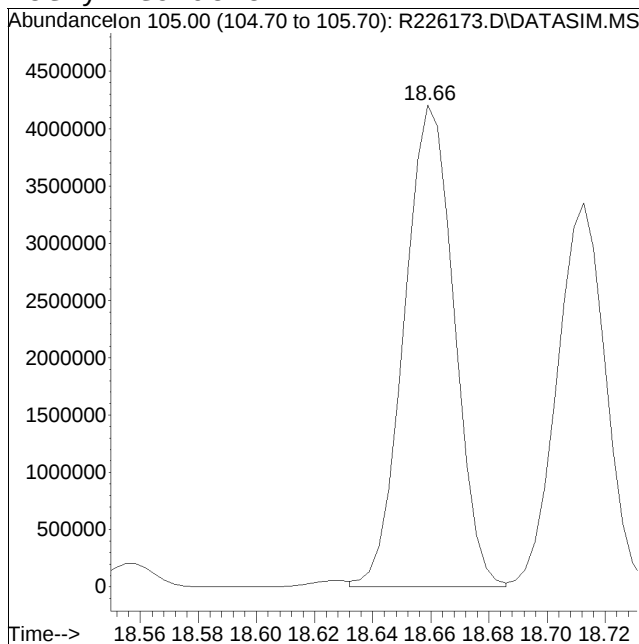
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
 Data File : R226173.D Operator : AIRPIAN02:MB
 Date Inj'd : 11/10/2013 1:46 pm Instrument : Air Piano 2
 Sample : IT015-SIMSTD50.0 Quant Date : 11/11/2013 8:29 am

Compound #66: 4-ethyl toluene



Original Peak Response = 5071311

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



Manual Peak Response = 5018084 M6

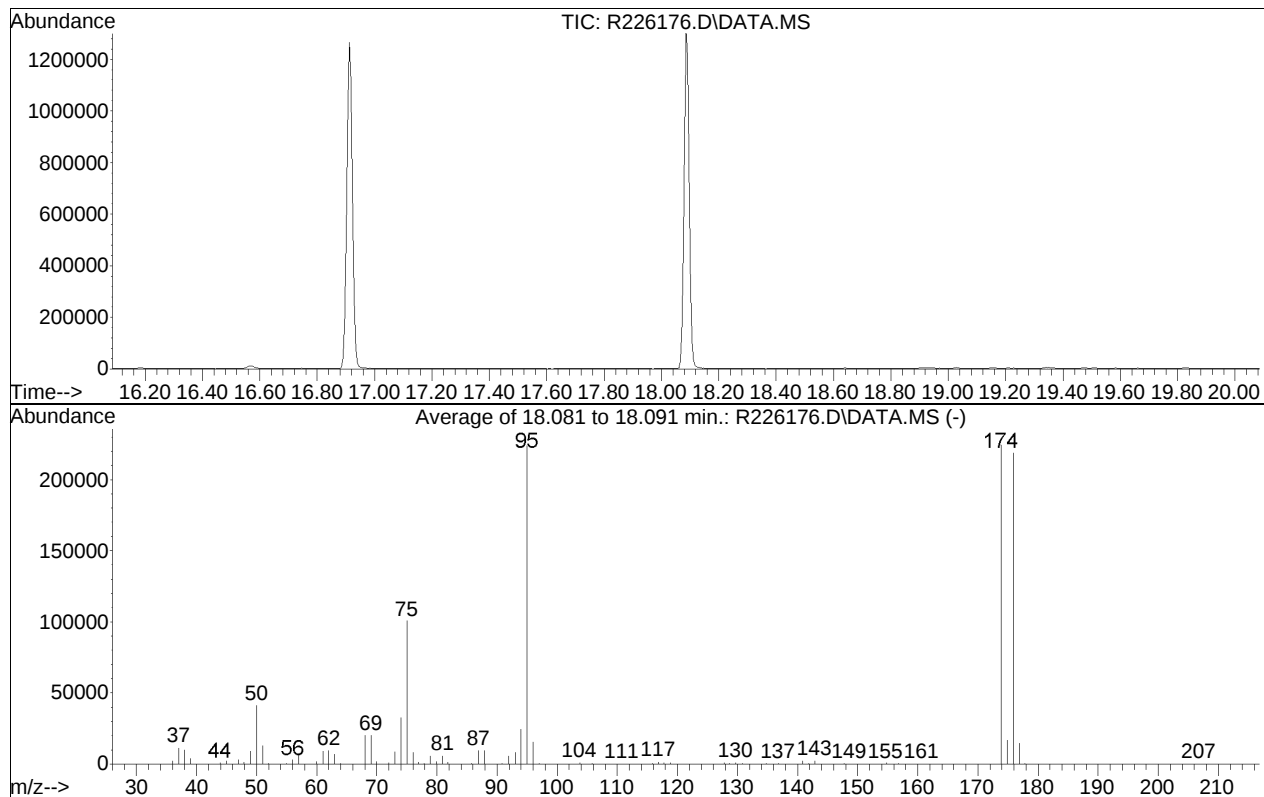
Initial Calibration Verification

BFB

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226176.D
 Acq On : 10 Nov 2013 7:10 pm
 Operator : AIRPIAN02:MB
 Sample : WG652929-2,3,250,250
 Misc : WG652929
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Thu Nov 14 16:11:26 2013



AutoFind: Scans 2929, 2930, 2931; Background Corrected with Scan 2922

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.5	41317	PASS
75	95	30	66	45.0	100669	PASS
95	95	100	100	100.0	223808	PASS
96	95	5	9	7.0	15700	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	100.4	224597	PASS
175	174	4	9	7.5	16851	PASS
176	174	93	101	97.5	218880	PASS
177	176	5	9	6.6	14468	PASS

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226178.D
 Acq On : 11 Nov 2013 8:04 am
 Operator : AIRPIAN02:MB
 Sample : CT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 17:45:08 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	98	0.00
2	propylene	0.568	0.566	0.4	99	0.00
3	dichlorodifluoromethane	0.655	0.675	-3.1	102	0.00
4 C	chloromethane	0.654	0.655	-0.2	95	0.00
5	Freon-114	1.766	1.921	-8.8	99	0.00
6 C	vinyl chloride	0.674	0.707	-4.9	96	0.00
7 C	1,3-butadiene	0.492	0.515	-4.7	101	0.00
8 C	bromomethane	0.636	0.663	-4.2	97	0.00
9 C	chloroethane	0.319	0.334	-4.7	97	0.00
10	ethanol	0.546	0.524	4.0	95	0.00
11 C	vinyl bromide	0.698	0.692	0.9	95	0.00
12	acetone	1.099	1.175	-6.9	104	0.00
13	trichlorofluoromethane	1.806	1.947	-7.8	98	0.00
14	isopropyl alcohol	1.205	1.312	-8.9	111	0.00
15 C	acrylonitrile	0.486	0.462	4.9	92	0.00
16 C	1,1-dichloroethene	1.170	1.211	-3.5	93	0.00
17 C	methylene chloride	0.945	0.946	-0.1	97	0.00
18 C	3-chloropropene	0.963	1.015	-5.4	102	0.00
19 C	carbon disulfide	2.047	2.015	1.6	95	0.00
20	Freon 113	1.504	1.636	-8.8	98	0.00
21	Halothane	1.517	1.788	-17.9	110	0.00
22	trans-1,2-dichloroethene	1.311	1.207	7.9	87	0.00
23 C	1,1-dichloroethane	1.300	1.384	-6.5	97	0.00
24 C	MTBE	1.862	1.912	-2.7	97	0.00
25 C	vinyl acetate	0.445	0.596	-33.9#	129	0.00
26 C	2-butanone	1.705	1.665	2.3	94	0.00
27	cis-1,2-dichloroethene	0.989	1.165	-17.8	106	0.00
28	Ethyl Acetate	0.239	0.243	-1.7	96	0.00
29 C	chloroform	1.492	1.621	-8.6	98	0.00
30	Tetrahydrofuran	0.943	0.884	6.3	96	0.00
31 C	1,2-dichloroethane	1.019	1.061	-4.1	96	0.00
32 I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00
33 C	hexane	0.377	0.355	5.8	95	0.00
34 s	1,2-dichloroethane-D4	0.269	0.266	1.1	99	0.00
35 C	1,1,1-trichloroethane	0.529	0.564	-6.6	99	0.00
36 C	benzene	0.736	0.731	0.7	96	0.00
37 C	carbon tetrachloride	0.497	0.588	-18.3	100	0.00
38	cyclohexane	0.389	0.370	4.9	96	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226178.D
 Acq On : 11 Nov 2013 8:04 am
 Operator : AIRPIAN02:MB
 Sample : CT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 17:45:08 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
39 C	1,2-dichloropropane	0.280	0.293	-4.6	97	0.00
40	bromodichloromethane	0.550	0.564	-2.5	98	0.00
41 C	1,4-dioxane	0.165	0.171	-3.6	106	0.00
42 C	trichloroethene	0.397	0.426	-7.3	94	0.00
43 C	2,2,4-trimethylpentane	1.436	1.197	16.6	96	0.00
44	heptane	0.494	0.469	5.1	94	0.00
45 C	cis-1,3-dichloropropene	0.371	0.432	-16.4	104	0.00
46 C	4-methyl-2-pentanone	0.685	0.676	1.3	95	0.00
47	trans-1,3-dichloropropene	0.364	0.367	-0.8	90	0.00
48 C	1,1,2-trichloroethane	0.314	0.339	-8.0	100	0.00
49 I	chlorobenzene-D5	1.000	1.000	0.0	99	0.00
50 C	toluene	4.699	4.980	-6.0	97	0.00
51 s	toluene-D8	3.725	3.810	-2.3	100	0.00
52	2-hexanone	3.076	3.298	-7.2	94	0.00
53	dibromochloromethane	3.169	3.348	-5.6	96	0.00
54 C	1,2-dibromoethane	2.593	2.953	-13.9	99	0.00
55 C	tetrachloroethene	2.612	2.887	-10.5	98	0.00
56	1,1,1,2-tetrachloroethane	2.213	2.219	-0.3	94	0.00
57 C	chlorobenzene	3.993	4.412	-10.5	99	0.00
58 C	ethylbenzene	5.984	6.646	-11.1	98	0.00
59 C	m+p-xylene	4.714	5.236	-11.1	98	0.00
60 C	bromoform	3.594	3.703	-3.0	93	0.00
61 C	styrene	3.585	4.088	-14.0	98	0.00
62 C	1,1,2,2-tetrachloroethane	3.340	3.778	-13.1	105	0.00
63 C	o-xylene	4.876	5.470	-12.2	99	0.00
64 s	bromofluorobenzene	2.748	2.802	-2.0	99	0.00
65 C	isopropylbenzene	7.315	7.551	-3.2	95	0.00
66	4-ethyl toluene	7.053	7.200	-2.1	90	0.00
67	1,3,5-trimethylbenzene	5.728	6.491	-13.3	97	0.00
68	tert-butylbenzene	6.827	7.043	-3.2	92	0.00
69	1,2,4-trimethylbenzene	5.629	6.626	-17.7	99	0.00
70 C	Benzyl Chloride	4.995	4.988	0.1	93	0.00
71	1,3-dichlorobenzene	4.498	5.542	-23.2	98	0.00
72 C	1,4-dichlorobenzene	4.517	5.572	-23.4	98	0.00
73	sec-butylbenzene	9.178	9.496	-3.5	92	0.00
74	p-isopropyltoluene	8.232	8.171	0.7	86	0.00
75	1,2-dichlorobenzene	4.356	5.305	-21.8	99	0.00
76	n-butylbenzene	7.056	8.344	-18.3	97	0.00

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226178.D
 Acq On : 11 Nov 2013 8:04 am
 Operator : AIRPIAN02:MB
 Sample : CT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 17:45:08 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77 C	1,2,4-trichlorobenzene	3.719	5.207	-40.0#	96	0.00
78	naphthalene	8.211	10.137	-23.5	89	0.00
79	1,2,3-trichlorobenzene	4.131	5.125	-24.1	89	0.00
80 C	hexachlorobutadiene	3.631	4.572	-25.9	95	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 2

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226178.D
 Acq On : 11 Nov 2013 8:04 am
 Operator : AIRPIAN02:MB
 Sample : CT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 17:45:08 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	224419	10.000	ppbV	0.00
Standard Area = 228959			Recovery =	98.02%		
32) 1,4-difluorobenzene	12.56	114	682475	10.000	ppbV	0.00
Standard Area = 682020			Recovery =	100.07%		
49) chlorobenzene-D5	16.91	54	131090	10.000	ppbV	0.00
Standard Area = 132824			Recovery =	98.69%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	181397	9.864	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.64%		
51) toluene-D8	15.25	98	499484	10.230	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.30%		
64) bromofluorobenzene	18.09	95	367251	10.194	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.94%		
Target Compounds						
					Qvalue	
2) propylene	4.28	41	63543M6	4.986	ppbV	
3) dichlorodifluoromethane	4.39	85	75783	5.156	ppbV	100
4) chloromethane	4.62	50	73502	5.011	ppbV	100
5) Freon-114	4.77	85	215512	5.438	ppbV	98
6) vinyl chloride	4.94	62	79335	5.247	ppbV	99
7) 1,3-butadiene	5.13	54	57807M4	5.240	ppbV	
8) bromomethane	5.52	94	74343	5.205	ppbV	99
9) chloroethane	5.77	64	37469	5.226	ppbV	99
10) ethanol	5.99	31	294035M4	23.997	ppbV	
11) vinyl bromide	6.26	106	77682	4.959	ppbV	99
12) acetone	6.61	43	659112	26.713	ppbV	100
13) trichlorofluoromethane	6.83	101	218513	5.392	ppbV	99
14) isopropyl alcohol	6.97	45	147257	5.443	ppbV	100
15) acrylonitrile	7.24	53	51787M6	4.751	ppbV	
16) 1,1-dichloroethene	7.65	61	135938	5.175	ppbV	99
17) methylene chloride	7.82	49	106107	5.006	ppbV	99
18) 3-chloropropene	7.97	41	113873	5.267	ppbV	99
19) carbon disulfide	8.15	76	226133	4.921	ppbV	100
20) Freon 113	8.16	101	183557	5.437	ppbV	100
21) Halothane	8.74	117	200643	5.893	ppbV	100
22) trans-1,2-dichloroethene	8.98	61	135492	4.606	ppbV	100
23) 1,1-dichloroethane	9.22	63	155328	5.325	ppbV	100
24) MTBE	9.30	73	214512	5.135	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226178.D
 Acq On : 11 Nov 2013 8:04 am
 Operator : AIRPIAN02:MB
 Sample : CT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 17:45:08 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) vinyl acetate	9.42	43	66861	6.701	ppbV	99
26) 2-butanone	9.70	43	186813	4.883	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	130684	5.885	ppbV	98
28) Ethyl Acetate	10.47	61	27276	5.088	ppbV	83
29) chloroform	10.54	83	181863	5.431	ppbV	99
30) Tetrahydrofuran	11.00	42	99233M6	4.690	ppbV	
31) 1,2-dichloroethane	11.37	62	119056	5.206	ppbV	100
33) hexane	10.44	57	121024	4.703	ppbV	93
35) 1,1,1-trichloroethane	11.65	97	192574	5.334	ppbV	100
36) benzene	12.17	78	249358	4.962	ppbV	99
37) carbon tetrachloride	12.34	117	200485	5.915	ppbV	99
38) cyclohexane	12.48	56	126257	4.757	ppbV	97
39) 1,2-dichloropropane	13.08	63	99813	5.215	ppbV	98
40) bromodichloromethane	13.30	83	192519	5.126	ppbV	99
41) 1,4-dioxane	13.35	88	58289	5.189	ppbV	99
42) trichloroethene	13.35	130	145535	5.366	ppbV	98
43) 2,2,4-trimethylpentane	13.38	57	408471	4.167	ppbV	99
44) heptane	13.67	43	160011	4.743	ppbV	100
45) cis-1,3-dichloropropene	14.32	75	147552	5.833	ppbV	100
46) 4-methyl-2-pentanone	14.35	43	230641	4.930	ppbV	100
47) trans-1,3-dichloropropene	14.88	75	125158	5.041	ppbV	99
48) 1,1,2-trichloroethane	15.07	97	115703	5.406	ppbV	100
50) toluene	15.34	91	326427	5.299	ppbV	99
52) 2-hexanone	15.57	43	216143	5.361	ppbV #	94
53) dibromochloromethane	15.75	129	219431	5.282	ppbV	100
54) 1,2-dibromoethane	15.98	107	193561	5.694	ppbV	100
55) tetrachloroethene	16.38	166	189204	5.526	ppbV	98
56) 1,1,1,2-tetrachloroethane	16.93	131	145465	5.015	ppbV	97
57) chlorobenzene	16.95	112	289184	5.525	ppbV	98
58) ethylbenzene	17.24	91	435634	5.554	ppbV	98
59) m+p-xylene	17.38	91	686327	11.107	ppbV	100
60) bromoform	17.46	173	242733	5.152	ppbV	100
61) styrene	17.66	104	267968	5.702	ppbV	98
62) 1,1,2,2-tetrachloroethane	17.73	83	247646	5.655	ppbV	99
63) o-xylene	17.74	91	358545	5.609	ppbV	98
65) isopropylbenzene	18.18	105	494903	5.161	ppbV	99
66) 4-ethyl toluene	18.66	105	471914M4	5.104	ppbV	
67) 1,3,5-trimethylbenzene	18.71	105	425435	5.665	ppbV	99
68) tert-butylbenzene	19.02	119	461619	5.158	ppbV	100
69) 1,2,4-trimethylbenzene	19.02	105	434290	5.886	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
 Data File : R226178.D
 Acq On : 11 Nov 2013 8:04 am
 Operator : AIRPIAN02:MB
 Sample : CT015-SIMSTD5.0
 Misc : WG652929
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 19 17:45:08 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\R226170.D
 Sub List : Default - All compounds listed

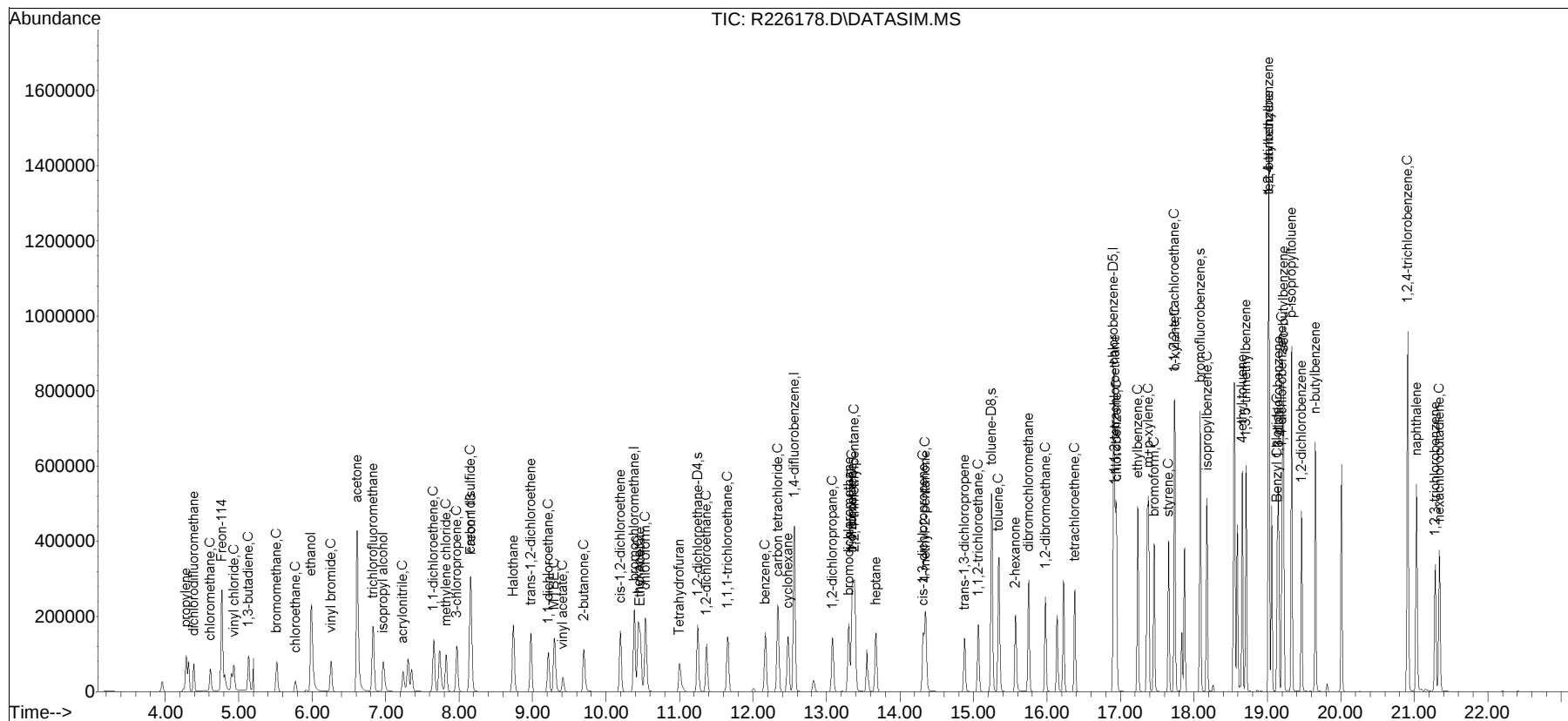
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Benzyl Chloride	19.14	91	326935	4.993	ppbV	100
71) 1,3-dichlorobenzene	19.15	146	363248	6.161	ppbV	100
72) 1,4-dichlorobenzene	19.20	146	365210	6.168	ppbV	99
73) sec-butylbenzene	19.22	105	622406	5.173	ppbV	99
74) p-isopropyltoluene	19.33	119	535585	4.963	ppbV	100
75) 1,2-dichlorobenzene	19.46	146	347691	6.089	ppbV	100
76) n-butylbenzene	19.65	91	546905	5.912	ppbV	100
77) 1,2,4-trichlorobenzene	20.91	180	341304	7.000	ppbV	100
78) naphthalene	21.03	128	664438	6.173	ppbV	100
79) 1,2,3-trichlorobenzene	21.29	180	335911	6.203	ppbV	100
80) hexachlorobutadiene	21.34	225	299657	6.295	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed1110SIM_ICAL\R226170.D

Data Path : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\
Data File : R226178.D
Acq On : 11 Nov 2013 8:04 am
Operator : AIRPIANO2:MB
Sample : CT015-SIMSTD5.0
Misc : WG652929
ALS Vial : 2 Sample Multiplier: 1

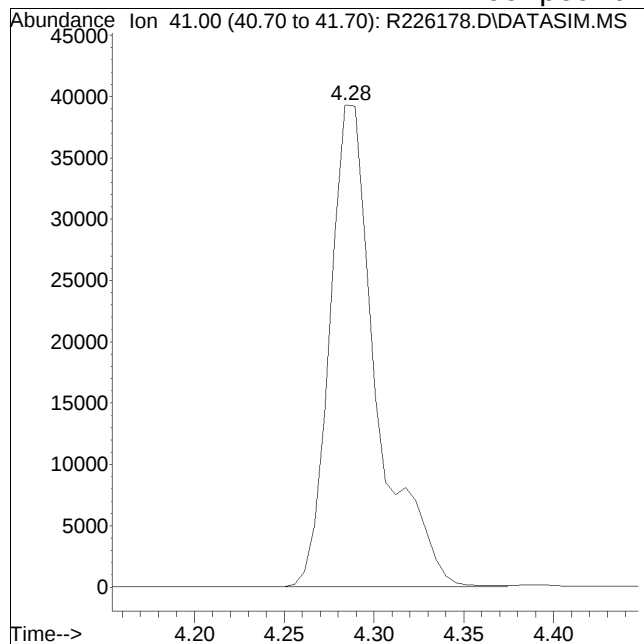
Quant Time: Nov 19 17:45:08 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131110SIM_ICAL\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

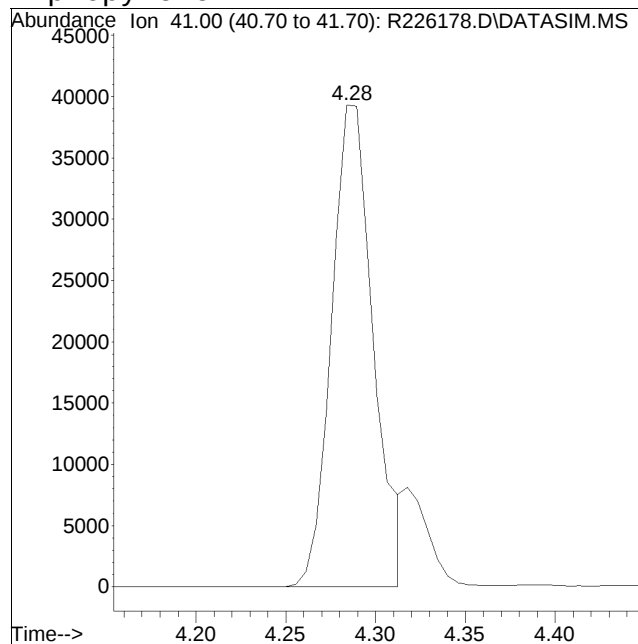
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226178.D Operator : AIRPIAN02:MB
Date Inj'd : 11/11/2013 8:04 am Instrument : Air Piano 2
Sample : CT015-SIMSTD5.0 Quant Date : 11/19/2013 5:45 pm

Compound #2: propylene



Original Peak Response = 71551

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).



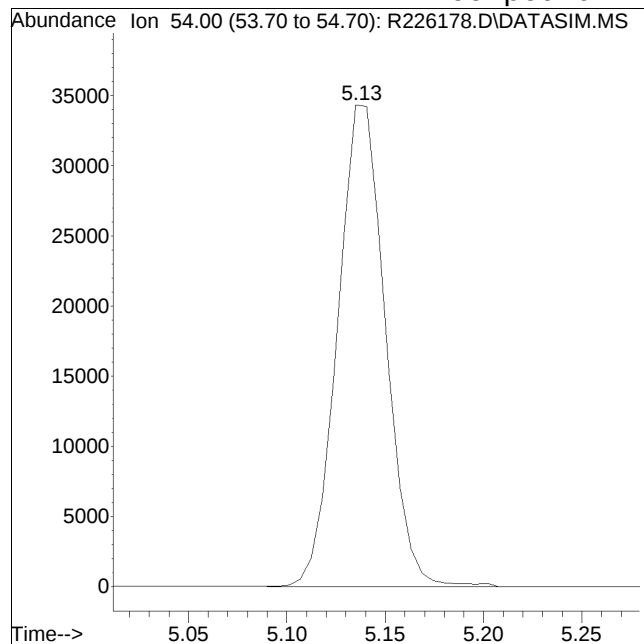
Manual Peak Response = 63543 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

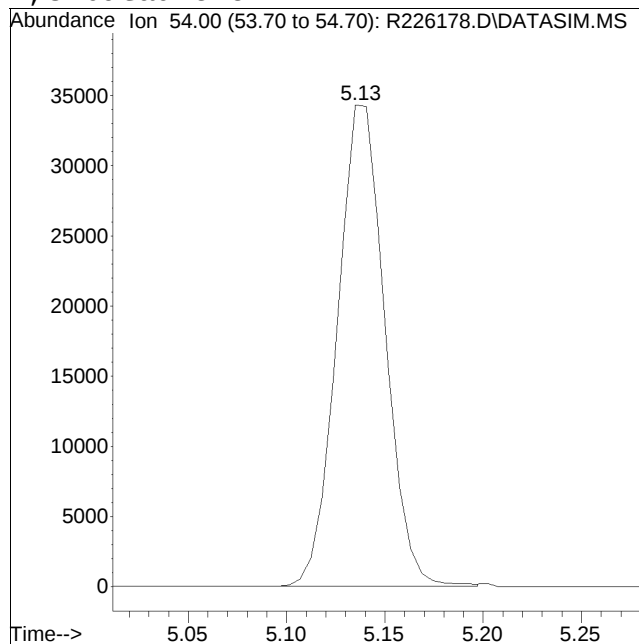
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226178.D Operator : AIRPIAN02:MB
Date Inj'd : 11/11/2013 8:04 am Instrument : Air Piano 2
Sample : CT015-SIMSTD5.0 Quant Date : 11/19/2013 5:45 pm

Compound #7: 1,3-butadiene



Original Peak Response = 57483

M4 = Poor automated baseline construction.

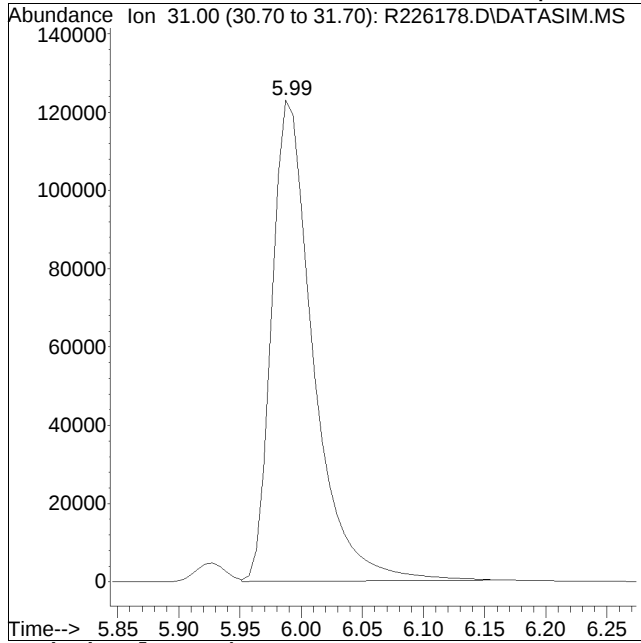


Manual Peak Response = 57807 M4

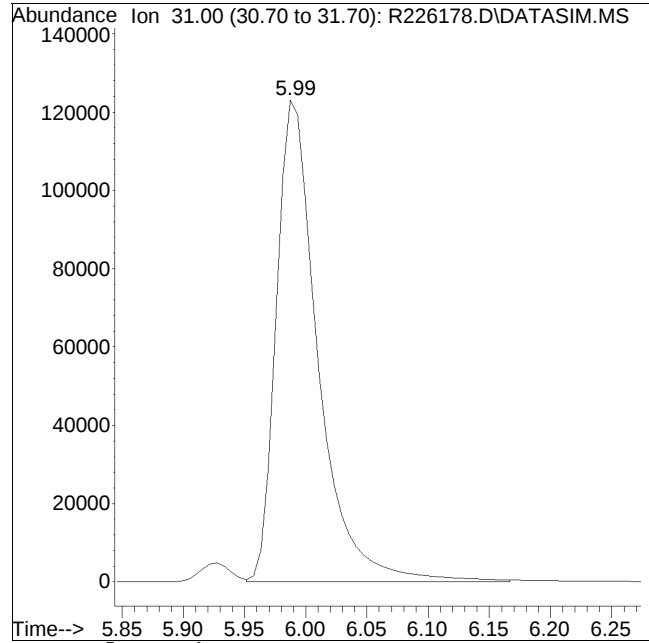
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226178.D Operator : AIRPIAN02:MB
Date Inj'd : 11/11/2013 8:04 am Instrument : Air Piano 2
Sample : CT015-SIMSTD5.0 Quant Date : 11/19/2013 5:45 pm

Compound #10: ethanol



Original Peak Response = 289969



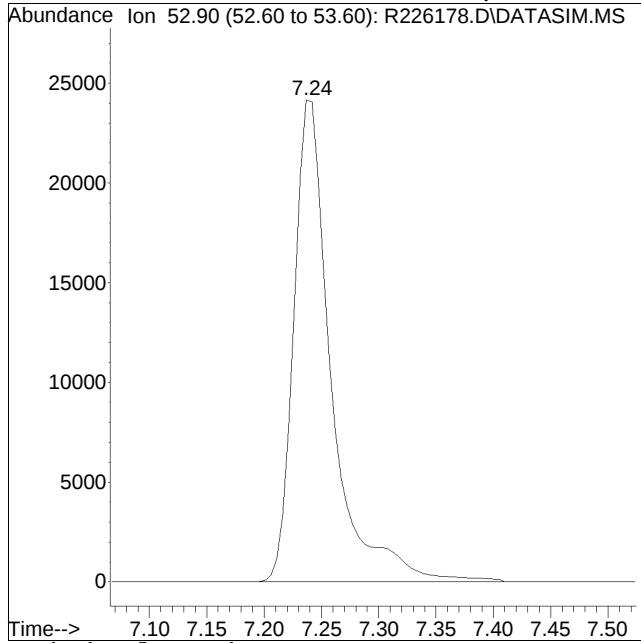
Manual Peak Response = 294035 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

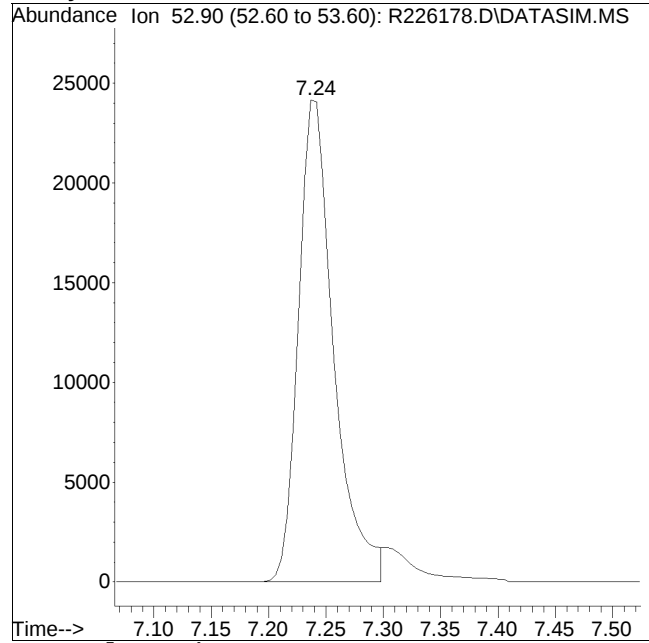
Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226178.D Operator : AIRPIAN02:MB
Date Inj'd : 11/11/2013 8:04 am Instrument : Air Piano 2
Sample : CT015-SIMSTD5.0 Quant Date : 11/19/2013 5:45 pm

Compound #15: acrylonitrile



Original Peak Response = 55368

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

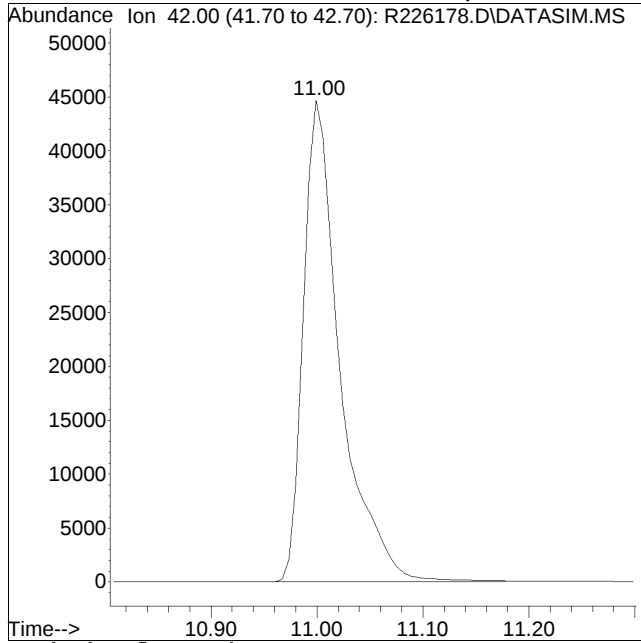


Manual Peak Response = 51787 M6

Manual Integration/Negative Proof Report

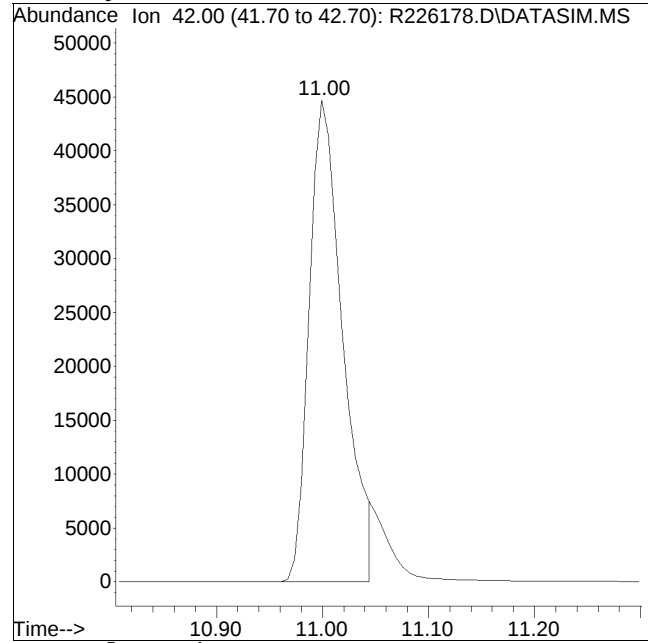
Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226178.D Operator : AIRPIAN02:MB
Date Inj'd : 11/11/2013 8:04 am Instrument : Air Piano 2
Sample : CT015-SIMSTD5.0 Quant Date : 11/19/2013 5:45 pm

Compound #30: Tetrahydrofuran



Original Peak Response = 108007

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

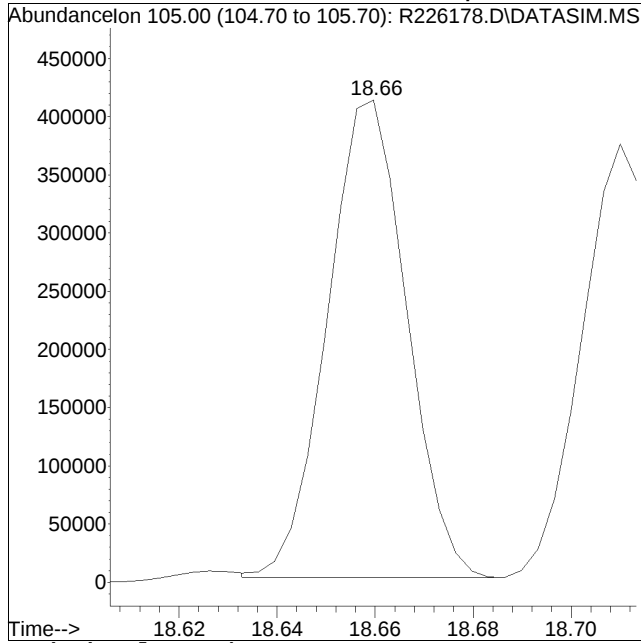


Manual Peak Response = 99233 M6

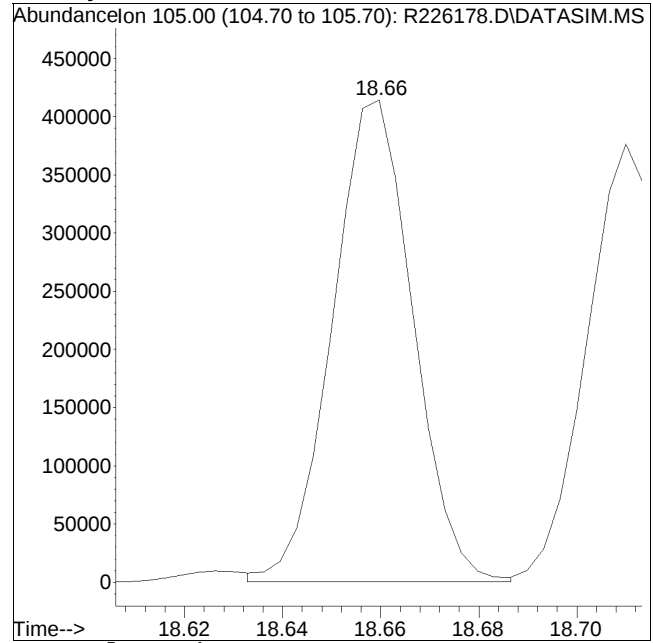
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226178.D Operator : AIRPIAN02:MB
Date Inj'd : 11/11/2013 8:04 am Instrument : Air Piano 2
Sample : CT015-SIMSTD5.0 Quant Date : 11/19/2013 5:45 pm

Compound #66: 4-ethyl toluene



Original Peak Response = 459596



Manual Peak Response = 471914 M4

M4 = Poor automated baseline construction.

Continuing Calibration

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Instrument ID: AIRPIAN02 Calibration Date: 11/27/2013 Time: 11:54

Lab File ID: R226503 Init. Calib. Date(s): 11/10/13 11/10/13

Sample No: WG655026-2,3,25 Init. Calib. Times : 08:23 13:46

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	79	0.00
6 C	vinyl chloride	0.674	0.682	-1.2	75	0.00
9 C	chloroethane	0.319	0.330	-3.4	77	0.00
16 C	1,1-dichloroethene	1.170	1.153	1.5	72	0.00
22	trans-1,2-dichloroethene	1.311	1.103	15.9	64	0.00
23 C	1,1-dichloroethane	1.300	1.311	-0.8	74	0.00
27	cis-1,2-dichloroethene	0.989	1.063	-7.5	78	0.00
32 I	1,4-difluorobenzene	1.000	1.000	0.0	76	0.00
34 S	1,2-dichloroethane-D4	0.269	0.268	0.4	77	0.00
42 C	trichloroethene	0.397	0.441	-11.1	74	0.00
49 I	chlorobenzene-D5	1.000	1.000	0.0	76	0.00
51 S	toluene-D8	3.725	3.742	-0.5	75	0.00
55 C	tetrachloroethene	2.612	2.873	-10.0	75	0.00
64 S	bromofluorobenzene	2.748	2.771	-0.8	75	0.00

* Evaluation of CC level amount vs concentration.

FORM VII NYSDEC-T015-SIM

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1323970

Instrument ID: AIRPIAN02 Calibration Date: 12/02/2013 Time: 11:10

Lab File ID: R226523 Init. Calib. Date(s): 11/10/13 11/10/13

Sample No: WG655026-8,3,25 Init. Calib. Times : 08:23 13:46

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	82	0.00
6 C	vinyl chloride	0.674	0.711	-5.5	81	0.00
9 C	chloroethane	0.319	0.335	-5.0	82	0.00
16 C	1,1-dichloroethene	1.170	1.168	0.2	76	0.00
22	trans-1,2-dichloroethene	1.311	1.128	14.0	68	0.00
23 C	1,1-dichloroethane	1.300	1.346	-3.5	79	0.00
27	cis-1,2-dichloroethene	0.989	1.090	-10.2	83	0.00
32 I	1,4-difluorobenzene	1.000	1.000	0.0	80	0.00
34 S	1,2-dichloroethane-D4	0.269	0.264	1.9	79	0.00
42 C	trichloroethene	0.397	0.417	-5.0	74	0.00
49 I	chlorobenzene-D5	1.000	1.000	0.0	79	0.00
51 S	toluene-D8	3.725	3.765	-1.1	78	0.00
55 C	tetrachloroethene	2.612	2.960	-13.3	80	0.00
64 S	bromofluorobenzene	2.748	2.775	-1.0	78	0.00

* Evaluation of CC level amount vs concentration.

FORM VII NYSDEC-T015-SIM

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226503.D
 Acq On : 27 Nov 2013 11:54 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-2,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:33:25 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	79	0.00
6 C	vinyl chloride	0.674	0.682	-1.2	75	0.00
9 C	chloroethane	0.319	0.330	-3.4	77	0.00
16 C	1,1-dichloroethene	1.170	1.153	1.5	72	0.00
22	trans-1,2-dichloroethene	1.311	1.103	15.9	64	0.00
23 C	1,1-dichloroethane	1.300	1.311	-0.8	74	0.00
27	cis-1,2-dichloroethene	0.989	1.063	-7.5	78	0.00
32 I	1,4-difluorobenzene	1.000	1.000	0.0	76	0.00
34 s	1,2-dichloroethane-D4	0.269	0.268	0.4	77	0.00
42 C	trichloroethene	0.397	0.441	-11.1	74	0.00
49 I	chlorobenzene-D5	1.000	1.000	0.0	76	0.00
51 s	toluene-D8	3.725	3.742	-0.5	75	0.00
55 C	tetrachloroethene	2.612	2.873	-10.0	75	0.00
64 s	bromofluorobenzene	2.748	2.771	-0.8	75	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226503.D
 Acq On : 27 Nov 2013 11:54 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-2,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:33:25 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.38	49	180926	10.000	ppbV	0.00
Standard Area = 180926			Recovery =	100.00%		
32) 1,4-difluorobenzene	12.56	114	520889	10.000	ppbV	0.00
Standard Area = 520889			Recovery =	100.00%		
49) chlorobenzene-D5	16.90	54	100941	10.000	ppbV	0.00
Standard Area = 100941			Recovery =	100.00%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	139806	9.960	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.60%		
51) toluene-D8	15.25	98	377771	10.048	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.48%		
64) bromofluorobenzene	18.08	95	279710	10.083	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.83%		
Target Compounds						
					Qvalue	
6) vinyl chloride	4.93	62	61689	5.061	ppbV	100
9) chloroethane	5.77	64	29871	5.168	ppbV	99
16) 1,1-dichloroethene	7.65	61	104315	4.926	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	99761	4.206	ppbV	98
23) 1,1-dichloroethane	9.21	63	118610	5.044	ppbV	99
27) cis-1,2-dichloroethene	10.19	61	96203	5.374	ppbV	94
42) trichloroethene	13.35	130	114877	5.549	ppbV	100
55) tetrachloroethene	16.38	166	144986	5.499	ppbV	98

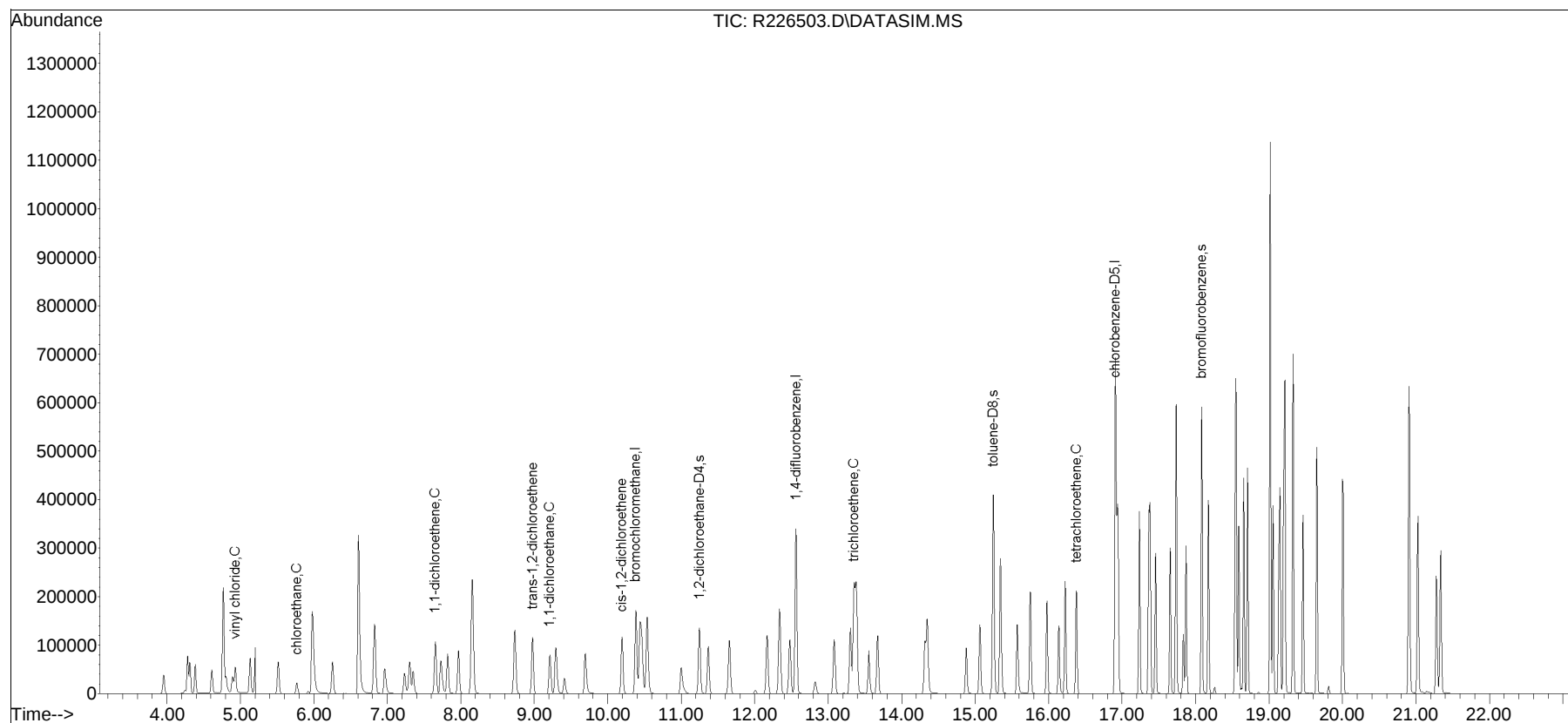
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226503.D
 Acq On : 27 Nov 2013 11:54 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-2,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:33:25 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226503.D Operator : AIRPIAN02:RY
Date Inj'd : 11/27/2013 11:54 am Instrument : Air Piano 2
Sample : WG655026-2,3,250,250 Quant Date : 11/27/2013 12:33 pm

There are no manual integrations or false positives in this file.

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226523.D
 Acq On : 2 Dec 2013 11:10 am
 Operator : AIRPIAN02:MB
 Sample : WG655026-8,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 11:47:33 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	82	0.00
6 C	vinyl chloride	0.674	0.711	-5.5	81	0.00
9 C	chloroethane	0.319	0.335	-5.0	82	0.00
16 C	1,1-dichloroethene	1.170	1.168	0.2	76	0.00
22	trans-1,2-dichloroethene	1.311	1.128	14.0	68	0.00
23 C	1,1-dichloroethane	1.300	1.346	-3.5	79	0.00
27	cis-1,2-dichloroethene	0.989	1.090	-10.2	83	0.00
32 I	1,4-difluorobenzene	1.000	1.000	0.0	80	0.00
34 s	1,2-dichloroethane-D4	0.269	0.264	1.9	79	0.00
42 C	trichloroethene	0.397	0.417	-5.0	74	0.00
49 I	chlorobenzene-D5	1.000	1.000	0.0	79	0.00
51 s	toluene-D8	3.725	3.765	-1.1	78	0.00
55 C	tetrachloroethene	2.612	2.960	-13.3	80	0.00
64 s	bromofluorobenzene	2.748	2.775	-1.0	78	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226523.D
 Acq On : 2 Dec 2013 11:10 am
 Operator : AIRPIAN02:MB
 Sample : WG655026-8,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 11:47:33 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131202SIM\R226523.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

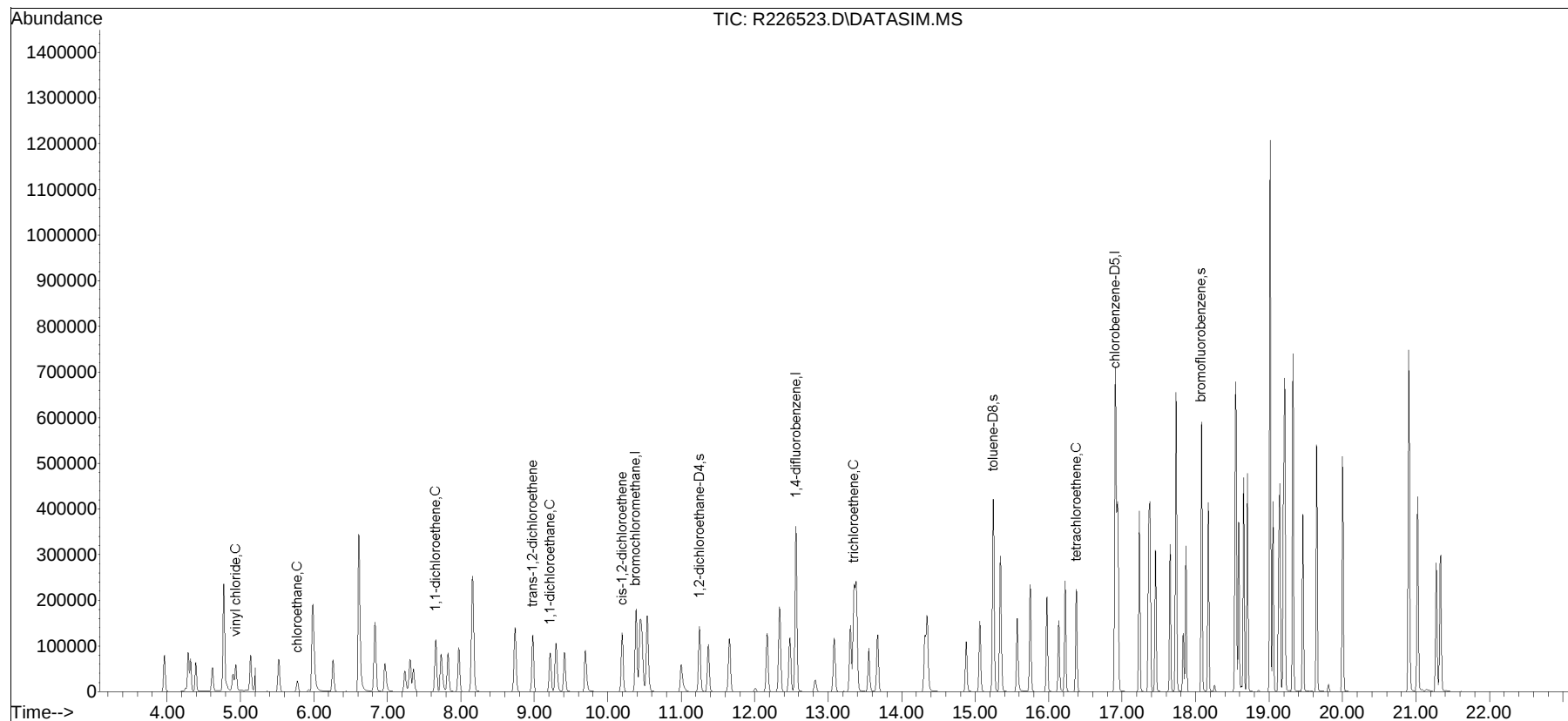
Internal Standards						
1) bromochloromethane	10.38	49	188847	10.000	ppbV	0.00
Standard Area = 188847			Recovery =	100.00%		
32) 1,4-difluorobenzene	12.56	114	548831	10.000	ppbV	0.00
Standard Area = 548831			Recovery =	100.00%		
49) chlorobenzene-D5	16.90	54	104381	10.000	ppbV	0.00
Standard Area = 104381			Recovery =	100.00%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	144789	9.790	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.90%		
51) toluene-D8	15.25	98	393038	10.110	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.10%		
64) bromofluorobenzene	18.08	95	289627	10.096	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.96%		
Target Compounds						
					Qvalue	
6) vinyl chloride	4.94	62	67117	5.275	ppbV	100
9) chloroethane	5.78	64	31594	5.237	ppbV	100
16) 1,1-dichloroethene	7.66	61	110240	4.988	ppbV	98
22) trans-1,2-dichloroethene	8.98	61	106465	4.301	ppbV	98
23) 1,1-dichloroethane	9.22	63	127097	5.178	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	102912	5.508	ppbV	99
42) trichloroethene	13.35	130	114371	5.243	ppbV	99
55) tetrachloroethene	16.38	166	154464	5.665	ppbV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IBM-POK - .s\Data\AIR2\2013\131202SIM\R226523.D

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
Data File : R226523.D
Acq On : 2 Dec 2013 11:10 am
Operator : AIRPIAN02:MB
Sample : WG655026-8,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 11:47:33 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226523.D Operator : AIRPIAN02:MB
Date Inj'd : 12/2/2013 11:10 am Instrument : Air Piano 2
Sample : WG655026-8,3,250,250 Quant Date : 12/2/2013 11:45 am

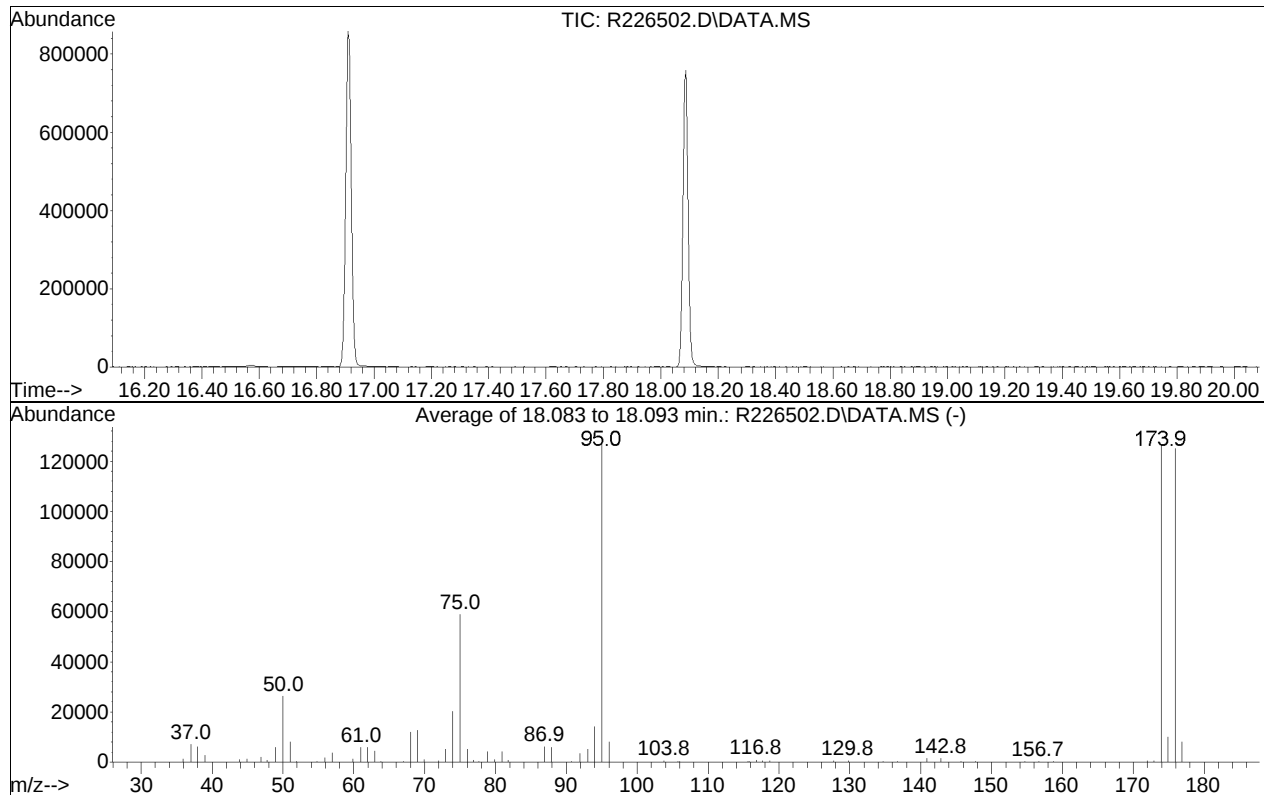
There are no manual integrations or false positives in this file.

BFB

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226502.D
 Acq On : 27 Nov 2013 11:22 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-1,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Nov 19 17:44:46 2013



AutoFind: Scans 2929, 2930, 2931; Background Corrected with Scan 2922

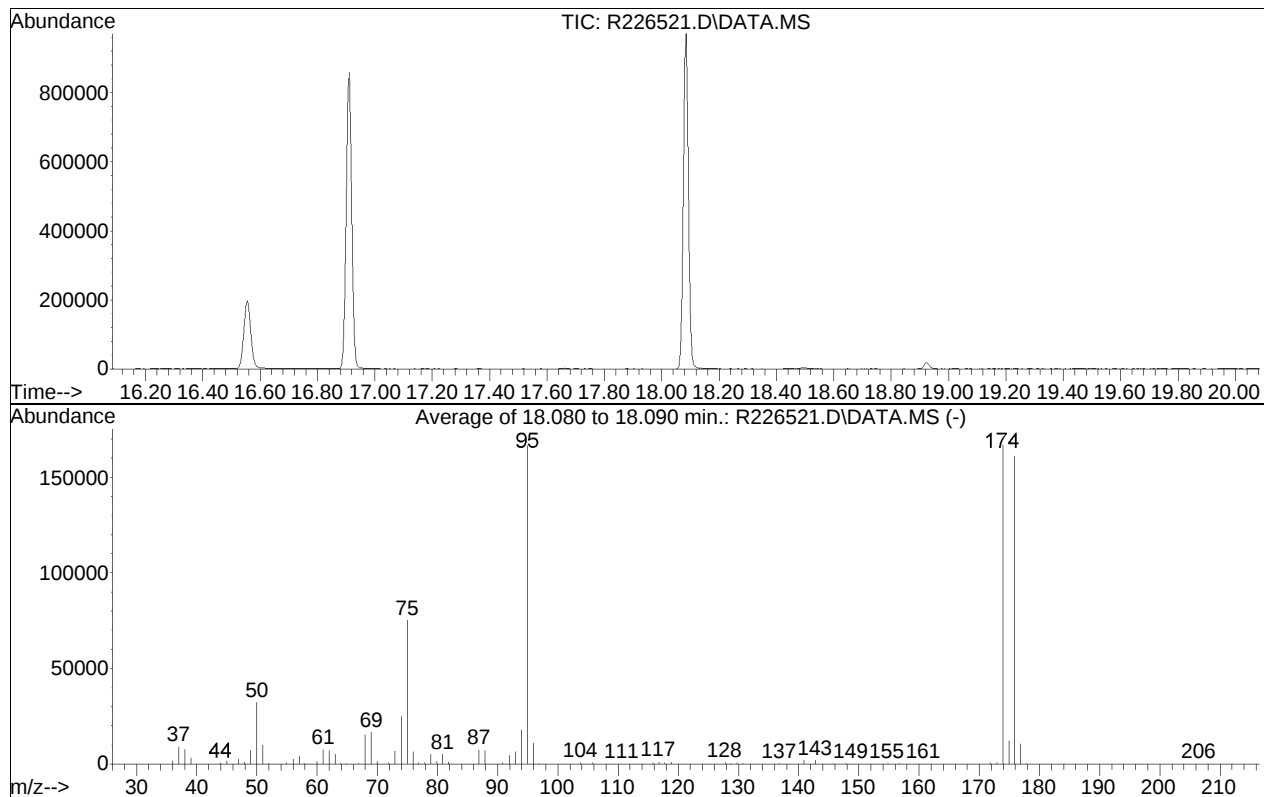
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	20.6	26277	PASS
75	95	30	66	46.3	58939	PASS
95	95	100	100	100.0	127400	PASS
96	95	5	9	6.4	8147	PASS
173	174	0.00	2	0.3	418	PASS
174	95	50	120	99.4	126619	PASS
175	174	4	9	7.9	9955	PASS
176	174	93	101	98.8	125077	PASS
177	176	5	9	6.5	8094	PASS

BFB

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226521.D
 Acq On : 2 Dec 2013 10:06 am
 Operator : AIRPIAN02:MB
 Sample : WG655026-7,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Title : T0-14A/T0-15 SIM/Full Scan Analysis
 Last Update : Tue Nov 19 17:44:46 2013



AutoFind: Scans 2930, 2931, 2932; Background Corrected with Scan 2922

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	32205	PASS
75	95	30	66	45.3	75379	PASS
95	95	100	100	100.0	166485	PASS
96	95	5	9	6.6	10984	PASS
173	174	0.00	2	0.4	617	PASS
174	95	50	120	100.3	167061	PASS
175	174	4	9	7.3	12187	PASS
176	174	93	101	96.4	161088	PASS
177	176	5	9	6.7	10726	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226505.D
 Acq On : 27 Nov 2013 1:31 pm
 Operator : AIRPIAN02:RY
 Sample : WG655026-5,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 27 14:06:00 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.38	49	174671	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		96.54%	
32) 1,4-difluorobenzene	12.56	114	510380	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		97.98%	
49) chlorobenzene-D5	16.91	54	96699	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		95.80%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	139271	10.127	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.27%	
51) toluene-D8	15.25	98	377137	10.471	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		104.71%	
64) bromofluorobenzene	18.08	95	242430	9.122	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		91.22%	
Target Compounds						Qvalue
6) vinyl chloride	4.94		0		N.D.	
9) chloroethane	5.82		0		N.D.	
16) 1,1-dichloroethene	7.65		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.21		0		N.D.	
27) cis-1,2-dichloroethene	10.20		0		N.D.	
42) trichloroethene	13.36		0		N.D.	
55) tetrachloroethene	16.38		0		N.D.	

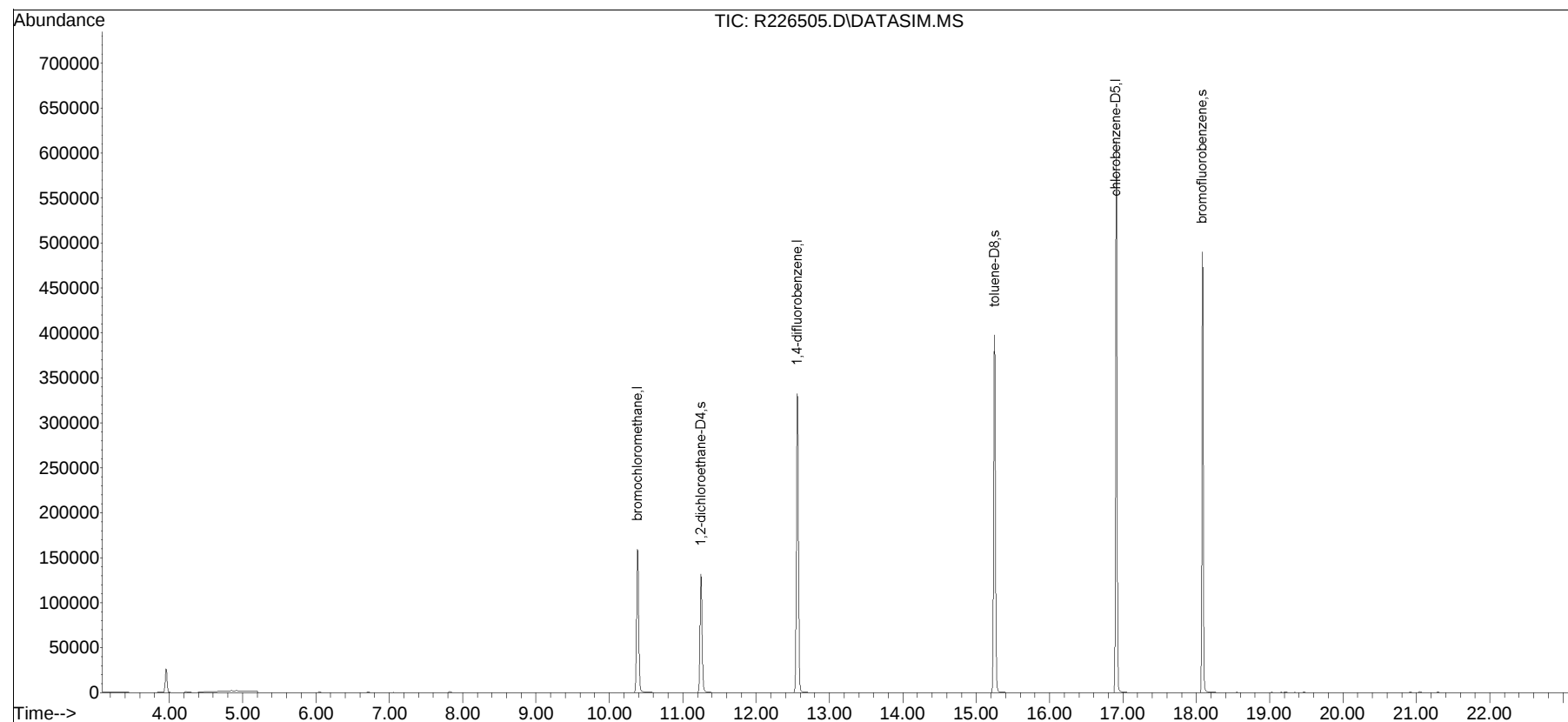
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226505.D
 Acq On : 27 Nov 2013 1:31 pm
 Operator : AIRPIAN02:RY
 Sample : WG655026-5,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 27 14:06:00 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226505.D Operator : AIRPIAN02:RY
Date Inj'd : 11/27/2013 1:31 pm Instrument : Air Piano 2
Sample : WG655026-5,3,250,250 Quant Date : 11/27/2013 2:05 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226525.D
 Acq On : 2 Dec 2013 12:39 pm
 Operator : AIRPIAN02:MB
 Sample : WG655026-11,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 02 13:10:26 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131202SIM\R226523.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

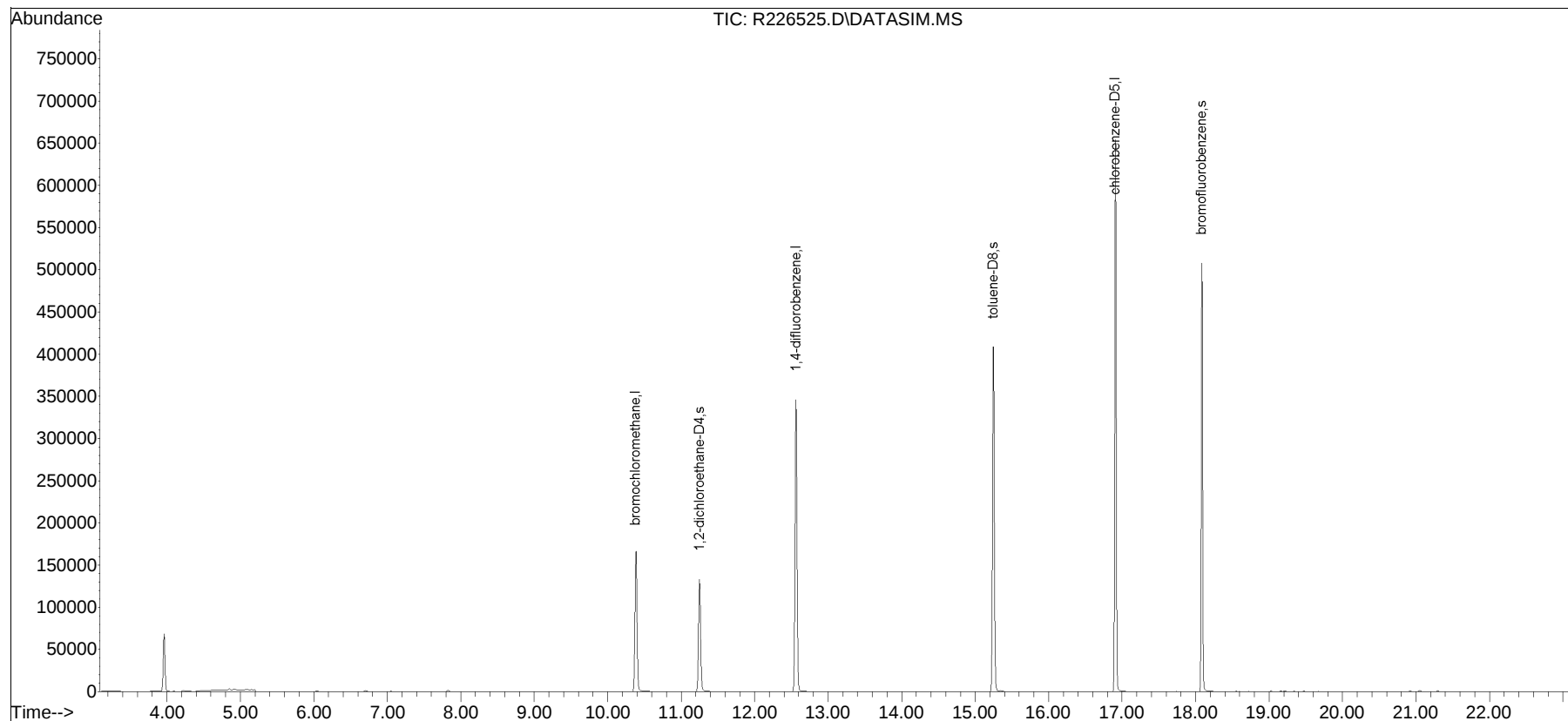
Internal Standards						
1) bromochloromethane	10.38	49	180477	10.000	ppbV	0.00
Standard Area = 188847			Recovery =		95.57%	
32) 1,4-difluorobenzene	12.56	114	529431	10.000	ppbV	0.00
Standard Area = 548831			Recovery =		96.47%	
49) chlorobenzene-D5	16.91	54	100498	10.000	ppbV	0.00
Standard Area = 104381			Recovery =		96.28%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	140517	9.850	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.50%	
51) toluene-D8	15.25	98	381336	10.188	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.88%	
64) bromofluorobenzene	18.08	95	253314	9.172	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		91.72%	
Target Compounds						Qvalue
6) vinyl chloride	4.94		0		N.D.	
9) chloroethane	5.77		0		N.D.	
16) 1,1-dichloroethene	7.65		0		N.D.	
22) trans-1,2-dichloroethene	8.98		0		N.D.	
23) 1,1-dichloroethane	9.22		0		N.D.	
27) cis-1,2-dichloroethene	10.20		0		N.D.	
42) trichloroethene	13.36		0		N.D.	
55) tetrachloroethene	16.38		0		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IBM-POK - .s\Data\AIR2\2013\131202SIM\R226523.D

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
Data File : R226525.D
Acq On : 2 Dec 2013 12:39 pm
Operator : AIRPIAN02:MB
Sample : WG655026-11,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 1 Sample Multiplier: 1

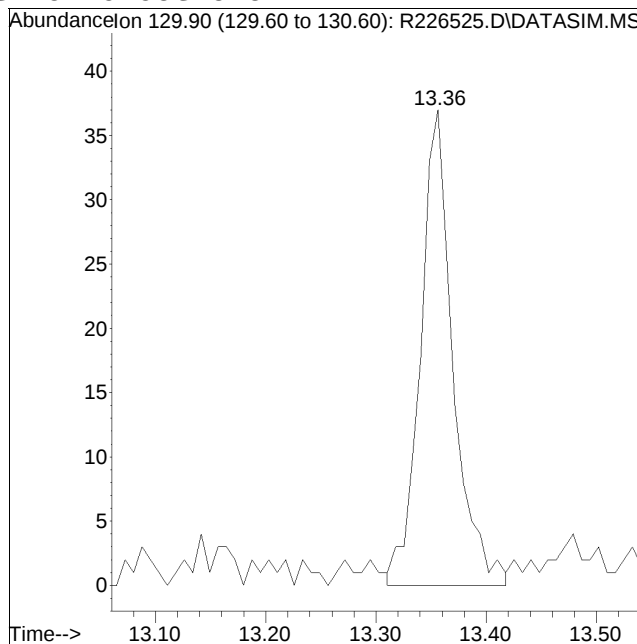
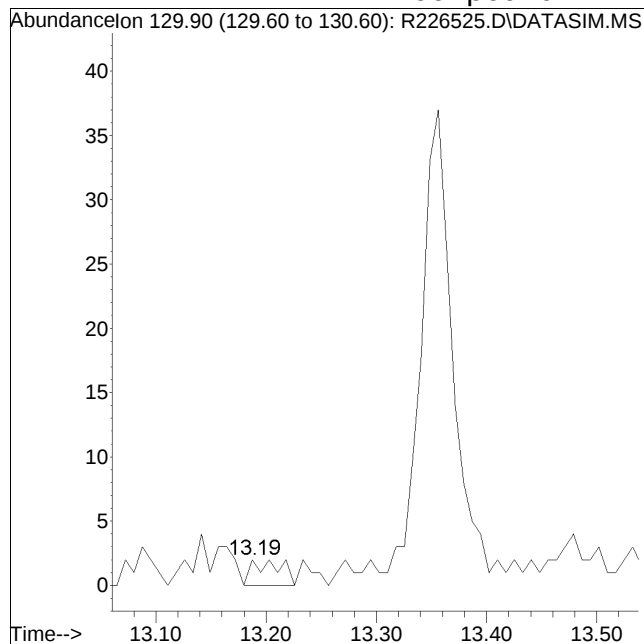
Quant Time: Dec 02 13:10:26 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration



Manual Integration/Negative Proof Report

Data Path : 0:\Forensics\Data\AIR2\2013QMethod : TSIM131110.M
Data File : R226525.D Operator : AIRPIAN02:MB
Date Inj'd : 12/2/2013 12:39 pm Instrument : Air Piano 2
Sample : WG655026-11, 3, 250, 250 Quant Date : 12/2/2013 1:08 pm

Compound #42: trichloroethene



Original Peak Response = 4

Manual Peak Response = 76 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226503.D
 Acq On : 27 Nov 2013 11:54 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-3,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:33:25 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	79	0.00
6 C	vinyl chloride	5.000	5.061	-1.2	75	0.00
9 C	chloroethane	5.000	5.168	-3.4	77	0.00
16 C	1,1-dichloroethene	5.000	4.926	1.5	72	0.00
22	trans-1,2-dichloroethene	5.000	4.206	15.9	64	0.00
23 C	1,1-dichloroethane	5.000	5.044	-0.9	74	0.00
27	cis-1,2-dichloroethene	5.000	5.374	-7.5	78	0.00
32 I	1,4-difluorobenzene	10.000	10.000	0.0	76	0.00
34 s	1,2-dichloroethane-D4	10.000	9.960	0.4	77	0.00
42 C	trichloroethene	5.000	5.549	-11.0	74	0.00
49 I	chlorobenzene-D5	10.000	10.000	0.0	76	0.00
51 s	toluene-D8	10.000	10.048	-0.5	75	0.00
55 C	tetrachloroethene	5.000	5.499	-10.0	75	0.00
64 s	bromofluorobenzene	10.000	10.083	-0.8	75	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226523.D
 Acq On : 2 Dec 2013 11:10 am
 Operator : AIRPIAN02:MB
 Sample : WG655026-9,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 11:47:33 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	82	0.00
6 C	vinyl chloride	5.000	5.275	-5.5	81	0.00
9 C	chloroethane	5.000	5.237	-4.7	82	0.00
16 C	1,1-dichloroethene	5.000	4.988	0.2	76	0.00
22	trans-1,2-dichloroethene	5.000	4.301	14.0	68	0.00
23 C	1,1-dichloroethane	5.000	5.178	-3.6	79	0.00
27	cis-1,2-dichloroethene	5.000	5.508	-10.2	83	0.00
32 I	1,4-difluorobenzene	10.000	10.000	0.0	80	0.00
34 s	1,2-dichloroethane-D4	10.000	9.790	2.1	79	0.00
42 C	trichloroethene	5.000	5.243	-4.9	74	0.00
49 I	chlorobenzene-D5	10.000	10.000	0.0	79	0.00
51 s	toluene-D8	10.000	10.110	-1.1	78	0.00
55 C	tetrachloroethene	5.000	5.665	-13.3	80	0.00
64 s	bromofluorobenzene	10.000	10.096	-1.0	78	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226503.D
 Acq On : 27 Nov 2013 11:54 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-3,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:33:25 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.38	49	180926	10.000	ppbV	0.00
Standard Area = 180926			Recovery =	100.00%		
32) 1,4-difluorobenzene	12.56	114	520889	10.000	ppbV	0.00
Standard Area = 520889			Recovery =	100.00%		
49) chlorobenzene-D5	16.90	54	100941	10.000	ppbV	0.00
Standard Area = 100941			Recovery =	100.00%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	139806	9.960	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.60%		
51) toluene-D8	15.25	98	377771	10.048	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.48%		
64) bromofluorobenzene	18.08	95	279710	10.083	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.83%		
Target Compounds						
					Qvalue	
6) vinyl chloride	4.93	62	61689	5.061	ppbV	100
9) chloroethane	5.77	64	29871	5.168	ppbV	99
16) 1,1-dichloroethene	7.65	61	104315	4.926	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	99761	4.206	ppbV	98
23) 1,1-dichloroethane	9.21	63	118610	5.044	ppbV	99
27) cis-1,2-dichloroethene	10.19	61	96203	5.374	ppbV	94
42) trichloroethene	13.35	130	114877	5.549	ppbV	100
55) tetrachloroethene	16.38	166	144986	5.499	ppbV	98

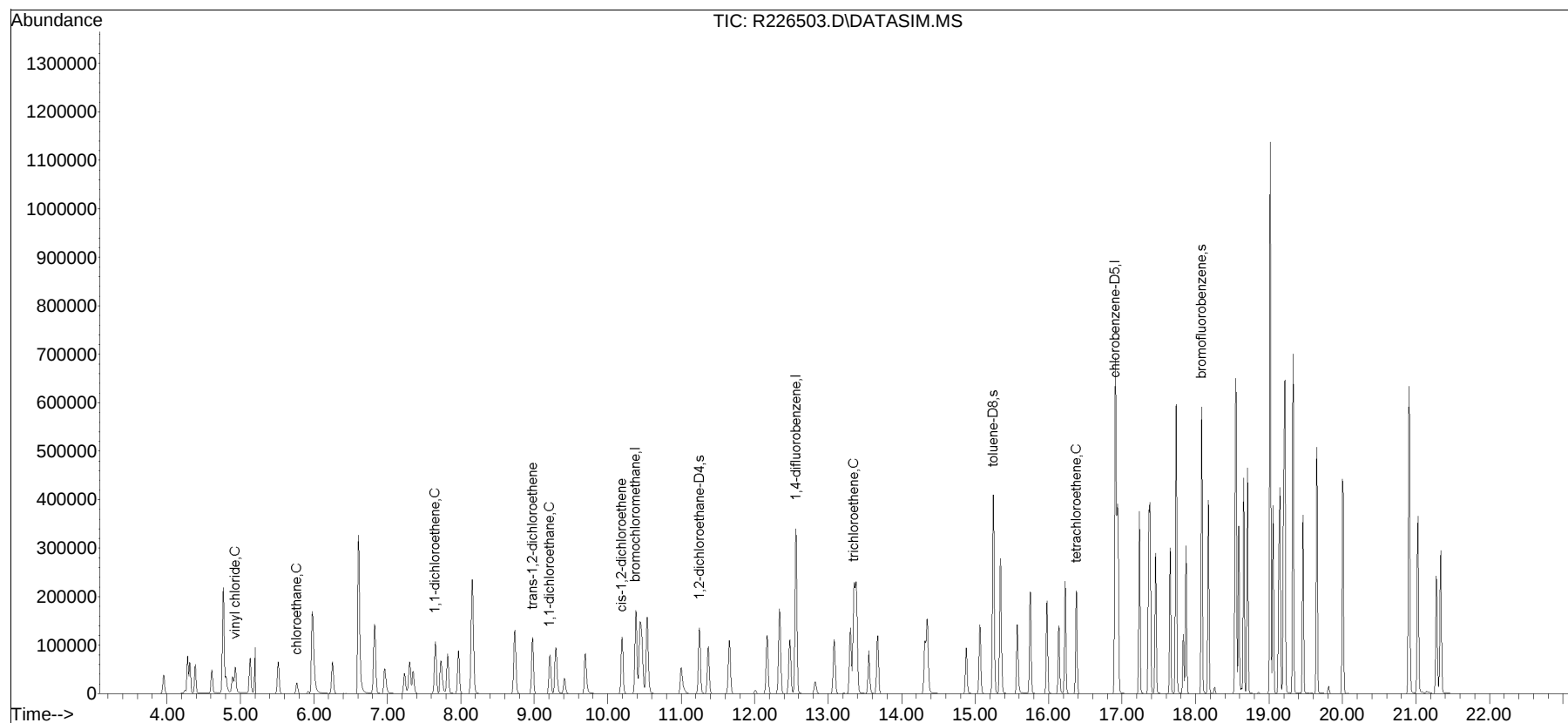
(#) = qualifier out of range (m) = manual integration (+) = signals summed

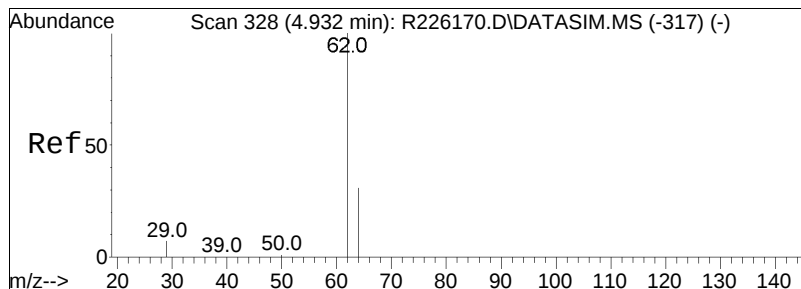
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226503.D
 Acq On : 27 Nov 2013 11:54 am
 Operator : AIRPIAN02:RY
 Sample : WG655026-3,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:33:25 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

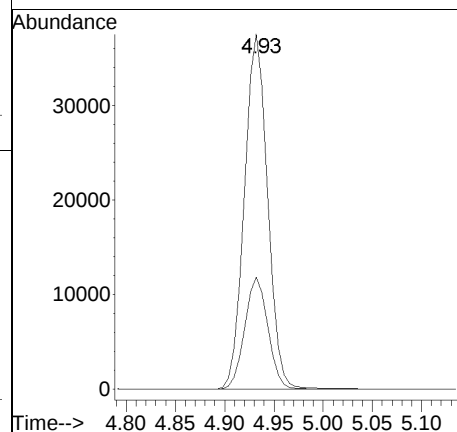
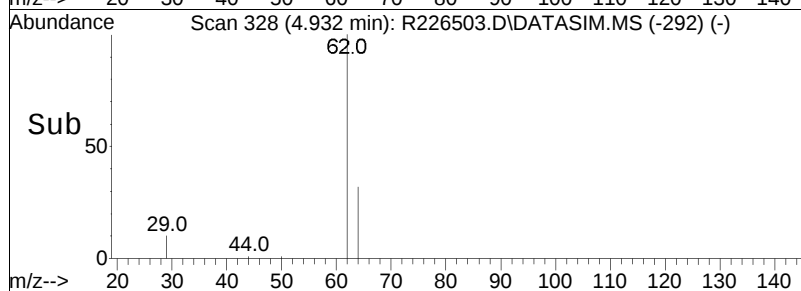
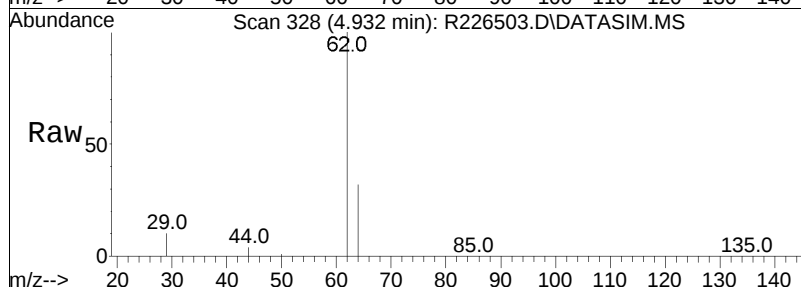
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

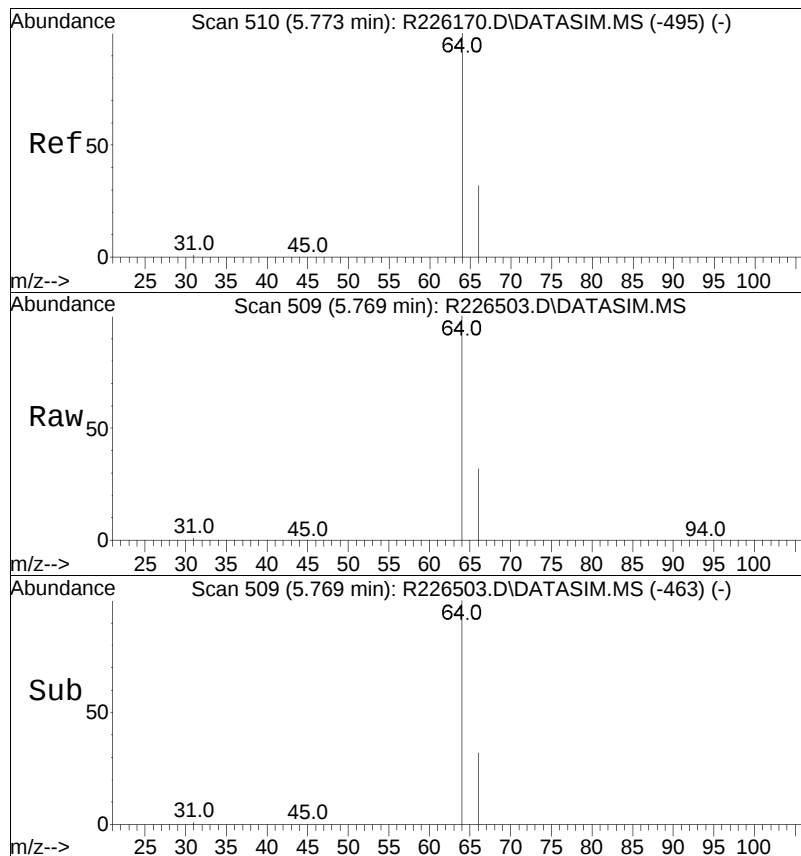




#6
 vinyl chloride
 Concen: 5.06 ppbV
 RT: 4.93 min Scan# 328
 Delta R.T. 0.000 min
 Lab File: R226503.D
 Acq: 27 Nov 2013 11:54 am

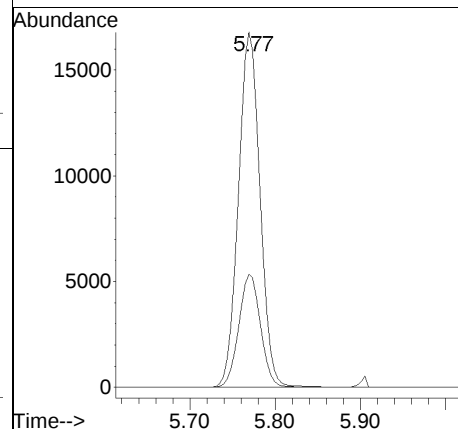
Tgt Ion: 62 Resp: 61689
 Ion Ratio Lower Upper
 62 100
 64 31.6 25.2 37.8

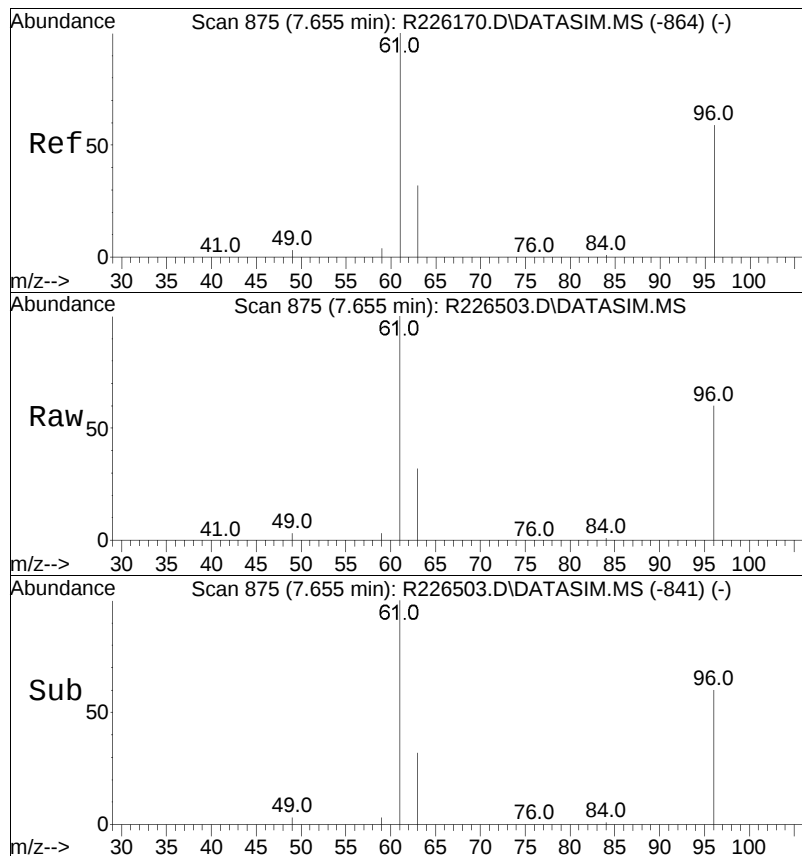




#9
 chloroethane
 Concen: 5.17 ppbV
 RT: 5.77 min Scan# 509
 Delta R.T. -0.004 min
 Lab File: R226503.D
 Acq: 27 Nov 2013 11:54 am

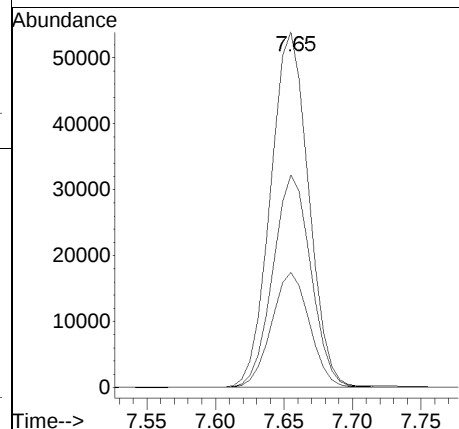
Tgt Ion	Ratio	Lower	Upper
64	100		
66	31.9	25.8	38.8

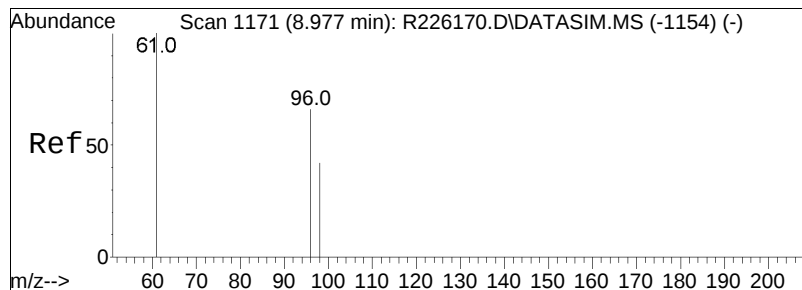




#16
 1,1-dichloroethene
 Concen: 4.93 ppbV
 RT: 7.65 min Scan# 875
 Delta R.T. 0.000 min
 Lab File: R226503.D
 Acq: 27 Nov 2013 11:54 am

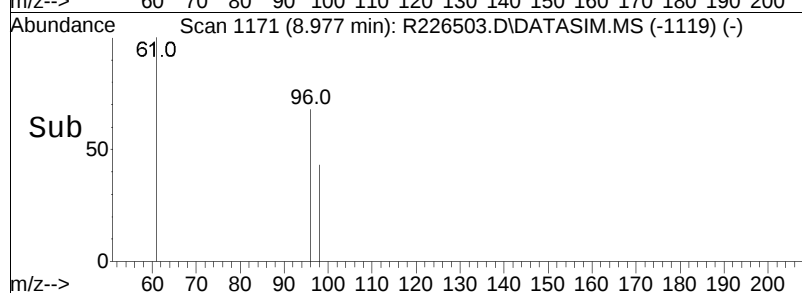
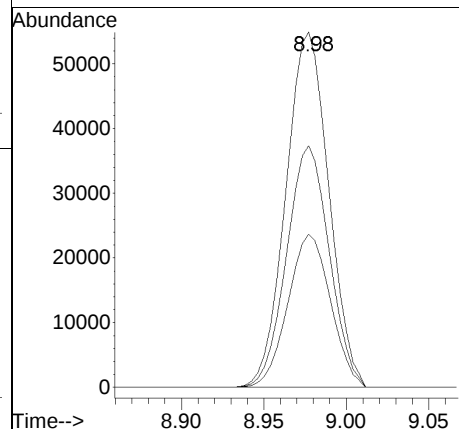
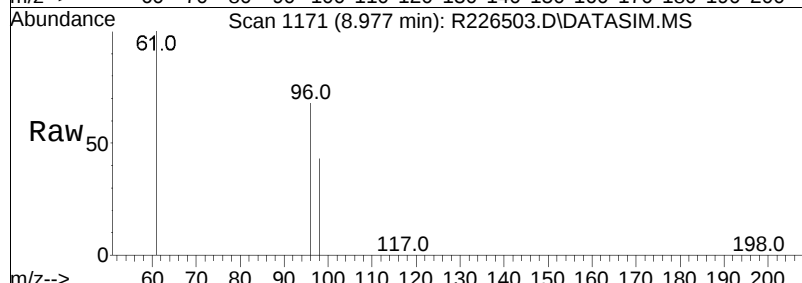
Tgt Ion:	61	Resp:	104315
Ion Ratio	Lower	Upper	
61	100		
96	59.8	47.2	70.8
63	32.4	25.7	38.5

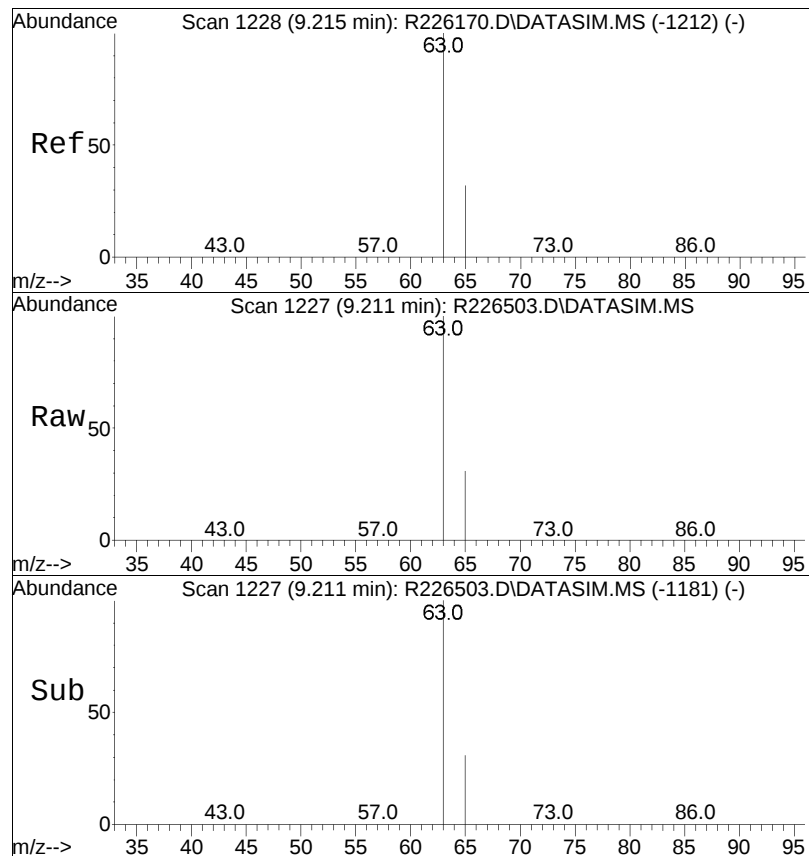




#22
 trans-1,2-dichloroethene
 Concen: 4.21 ppbV
 RT: 8.98 min Scan# 1171
 Delta R.T. 0.000 min
 Lab File: R226503.D
 Acq: 27 Nov 2013 11:54 am

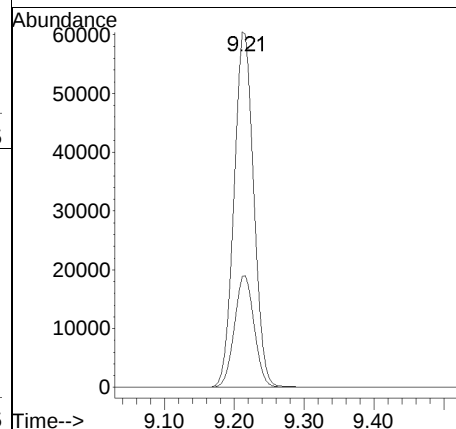
Tgt Ion	Ratio	Lower	Upper
61	100		
96	68.1	53.0	79.6
98	43.1	33.4	50.2

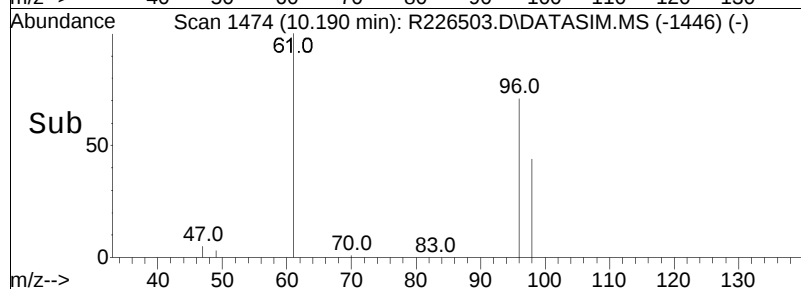
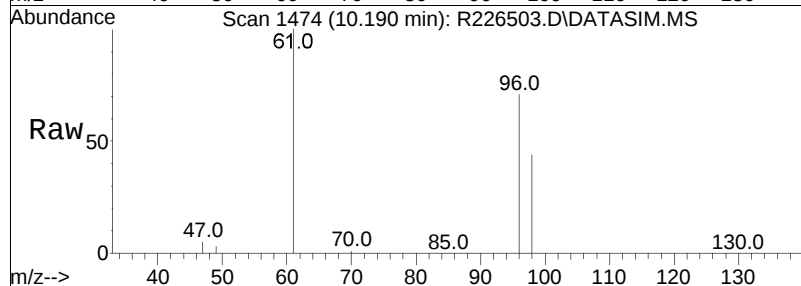
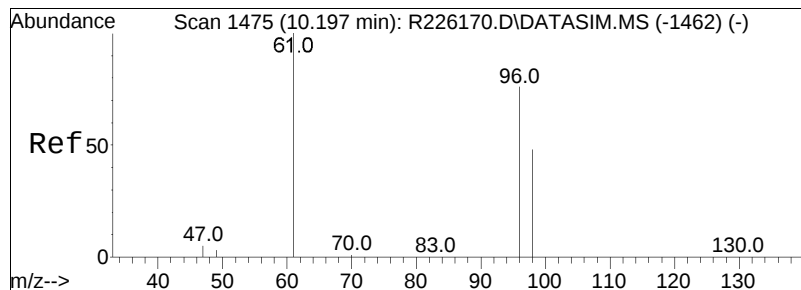




#23
 1,1-dichloroethane
 Concen: 5.04 ppbV
 RT: 9.21 min Scan# 1227
 Delta R.T. -0.004 min
 Lab File: R226503.D
 Acq: 27 Nov 2013 11:54 am

Tgt Ion	Ratio	Lower	Upper
63	100		
65	31.3	25.3	37.9





#27

cis-1,2-dichloroethene

Concen: 5.37 ppbV

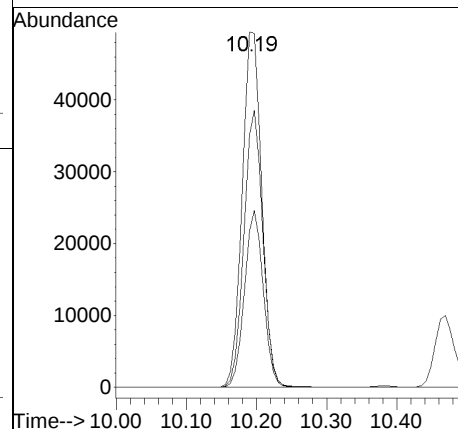
RT: 10.19 min Scan# 1474

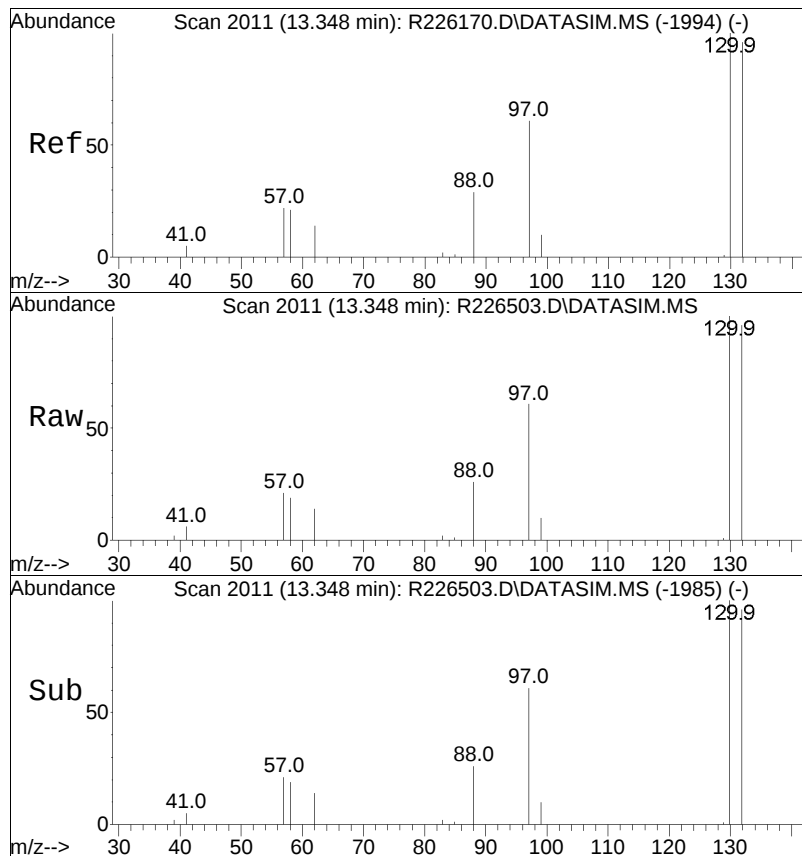
Delta R.T. -0.007 min

Lab File: R226503.D

Acq: 27 Nov 2013 11:54 am

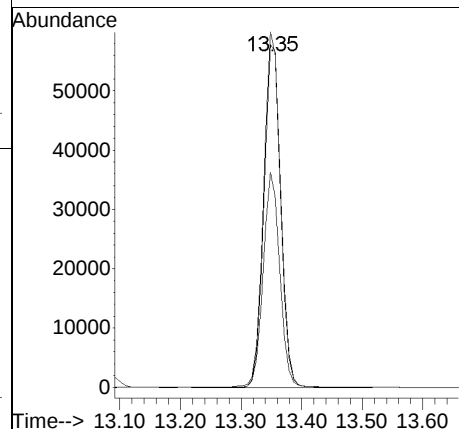
Tgt Ion:	61	Resp:	96203
Ion Ratio	Lower	Upper	
61	100		
96	71.0	60.6	91.0
98	44.0	38.6	58.0

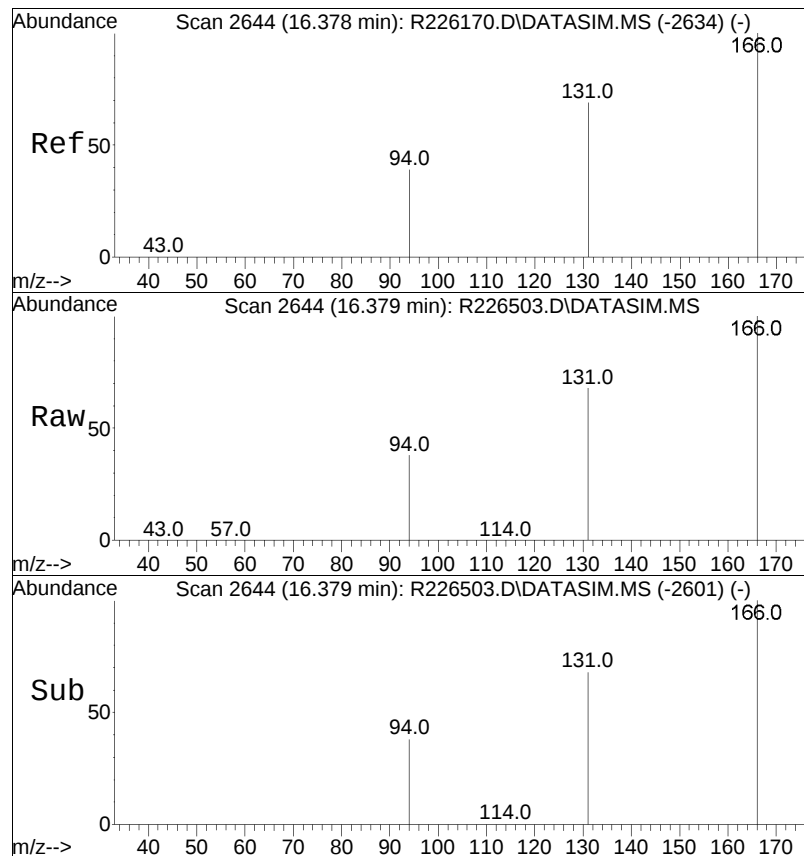




#42
trichloroethene
Concen: 5.55 ppbV
RT: 13.35 min Scan# 2011
Delta R.T. 0.000 min
Lab File: R226503.D
Acq: 27 Nov 2013 11:54 am

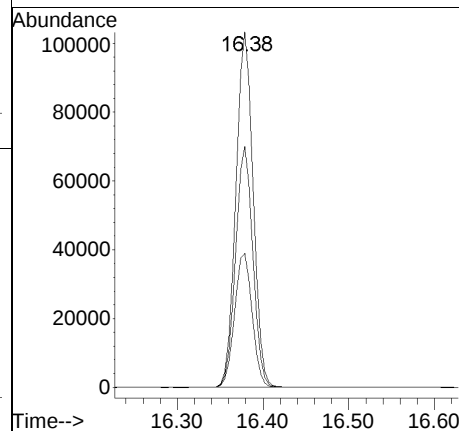
Tgt Ion	Ratio	Lower	Upper
130	100		
132	96.4	77.1	115.7
97	60.5	49.0	73.4





#55
 tetrachloroethene
 Concen: 5.50 ppbV
 RT: 16.38 min Scan# 2644
 Delta R.T. 0.000 min
 Lab File: R226503.D
 Acq: 27 Nov 2013 11:54 am

Tgt Ion	Ratio	Lower	Upper
166	100		
131	67.8	55.1	82.7
94	37.7	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226503.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 11:54 am	Instrument	: Air Piano 2
Sample	: WG655026-3,3,250,250	Quant Date	: 11/27/2013 12:33 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226523.D
 Acq On : 2 Dec 2013 11:10 am
 Operator : AIRPIAN02:MB
 Sample : WG655026-9,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 11:47:33 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131202SIM\R226523.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

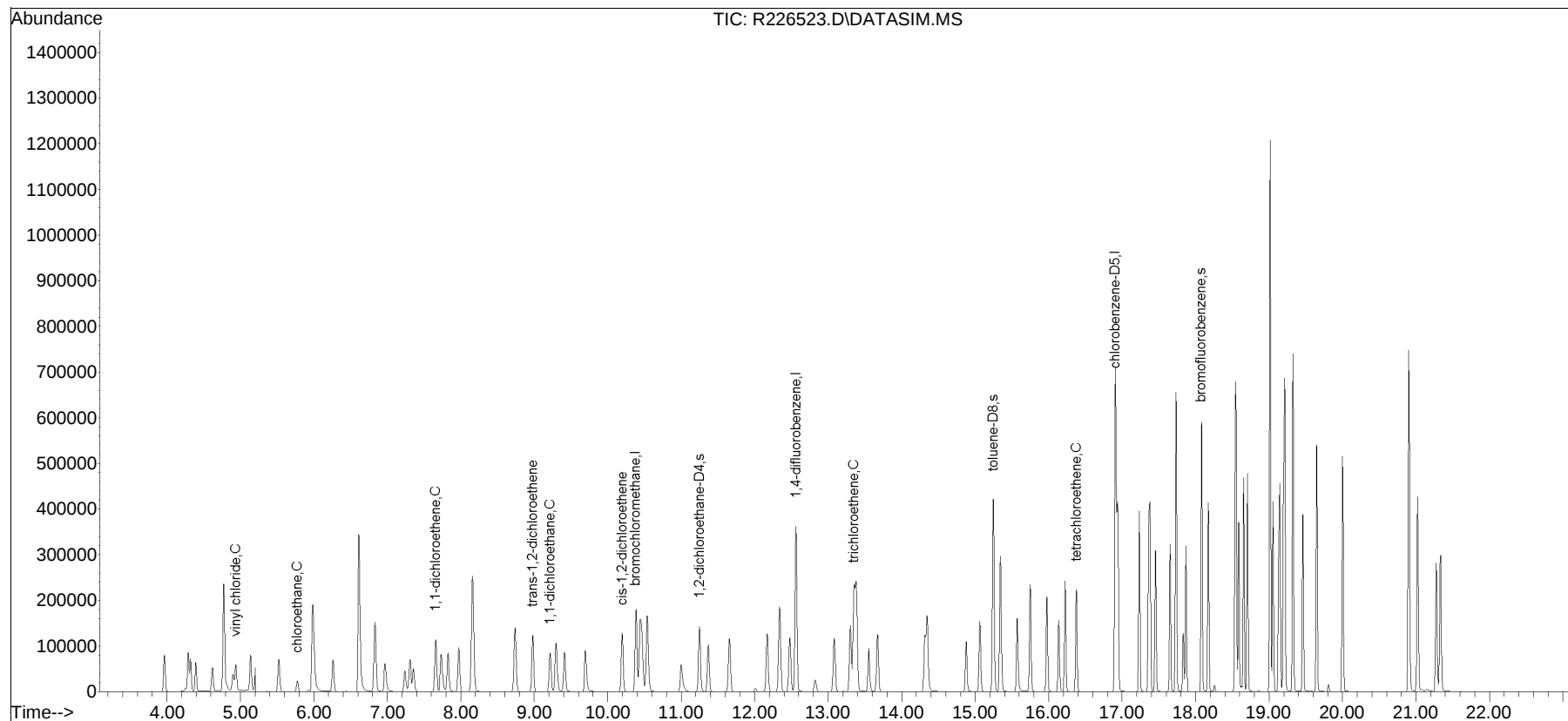
Internal Standards						
1) bromochloromethane	10.38	49	188847	10.000	ppbV	0.00
Standard Area = 188847			Recovery =	100.00%		
32) 1,4-difluorobenzene	12.56	114	548831	10.000	ppbV	0.00
Standard Area = 548831			Recovery =	100.00%		
49) chlorobenzene-D5	16.90	54	104381	10.000	ppbV	0.00
Standard Area = 104381			Recovery =	100.00%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	144789	9.790	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.90%		
51) toluene-D8	15.25	98	393038	10.110	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.10%		
64) bromofluorobenzene	18.08	95	289627	10.096	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.96%		
Target Compounds						Qvalue
6) vinyl chloride	4.94	62	67117	5.275	ppbV	100
9) chloroethane	5.78	64	31594	5.237	ppbV	100
16) 1,1-dichloroethene	7.66	61	110240	4.988	ppbV	98
22) trans-1,2-dichloroethene	8.98	61	106465	4.301	ppbV	98
23) 1,1-dichloroethane	9.22	63	127097	5.178	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	102912	5.508	ppbV	99
42) trichloroethene	13.35	130	114371	5.243	ppbV	99
55) tetrachloroethene	16.38	166	154464	5.665	ppbV	97

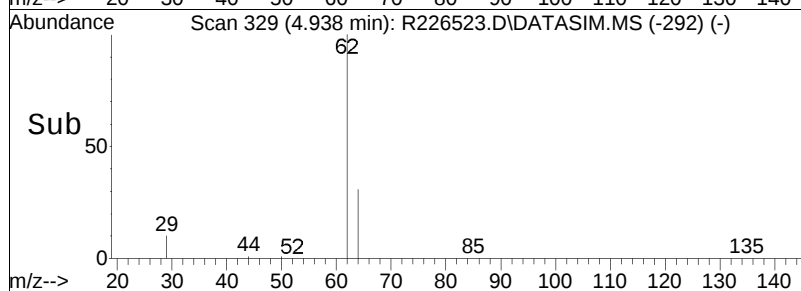
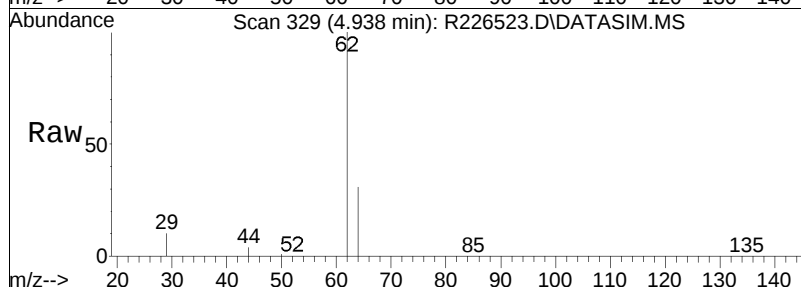
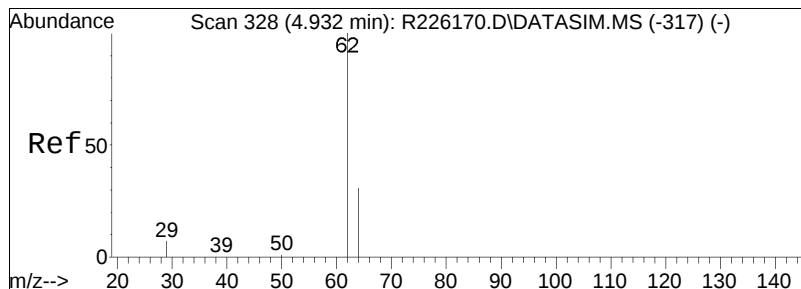
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IBM-POK - .s\Data\AIR2\2013\131202SIM\R226523.D

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
Data File : R226523.D
Acq On : 2 Dec 2013 11:10 am
Operator : AIRPIAN02:MB
Sample : WG655026-9,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 2 Sample Multiplier: 1

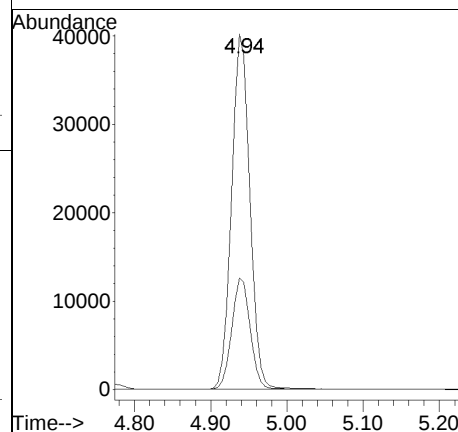
Quant Time: Dec 02 11:47:33 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

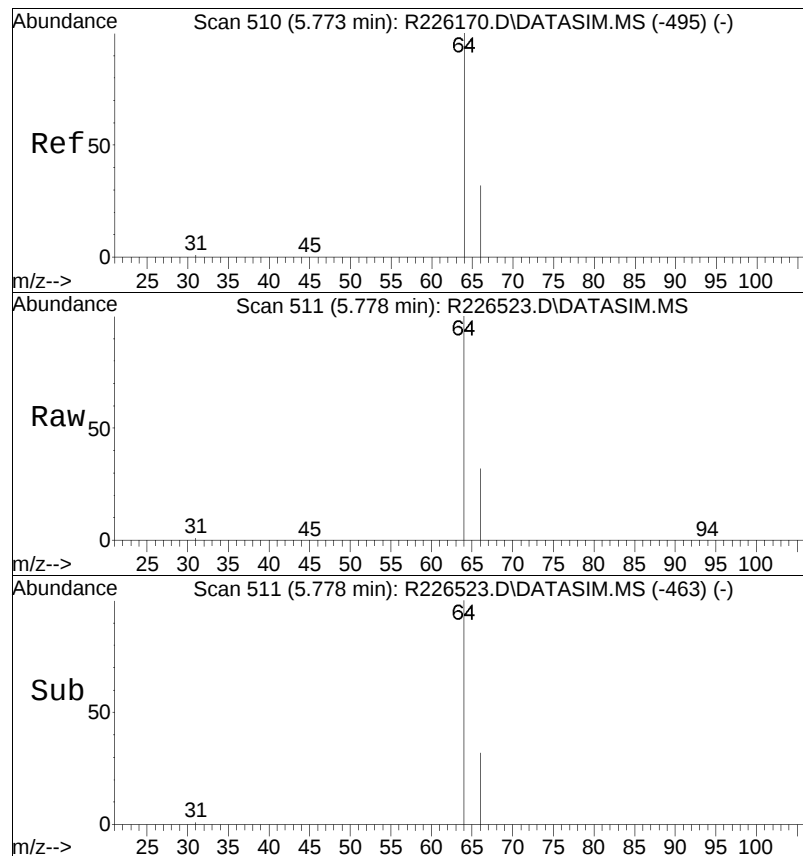




#6
 vinyl chloride
 Concen: 5.28 ppbV
 RT: 4.94 min Scan# 329
 Delta R.T. 0.006 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

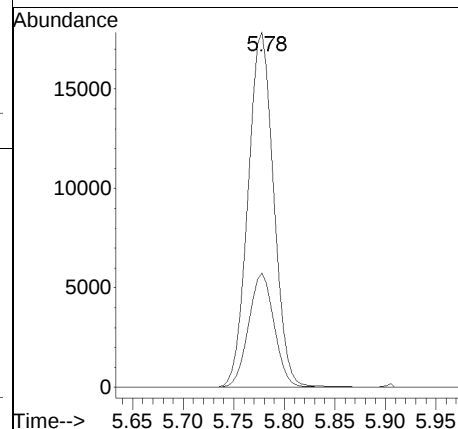
Tgt Ion: 62 Resp: 67117
 Ion Ratio Lower Upper
 62 100
 64 31.4 25.2 37.8

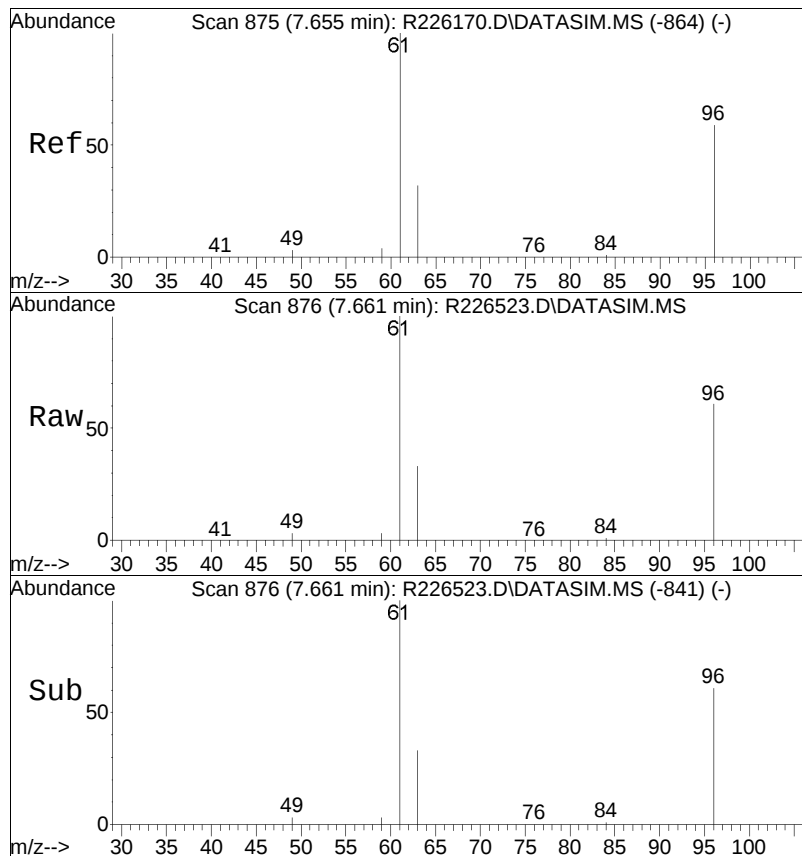




#9
 chloroethane
 Concen: 5.24 ppbV
 RT: 5.78 min Scan# 511
 Delta R.T. 0.004 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

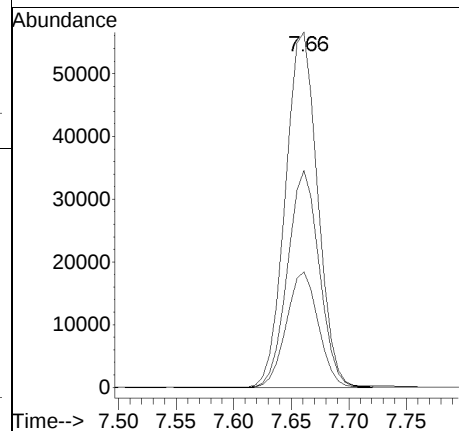
Tgt Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.8	38.8

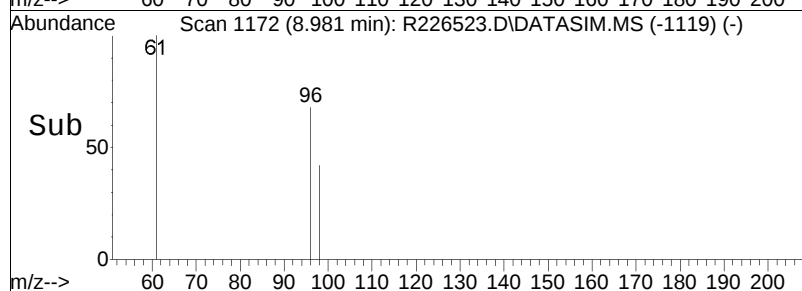
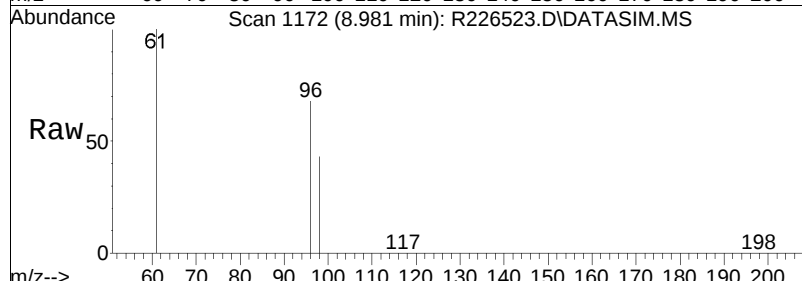
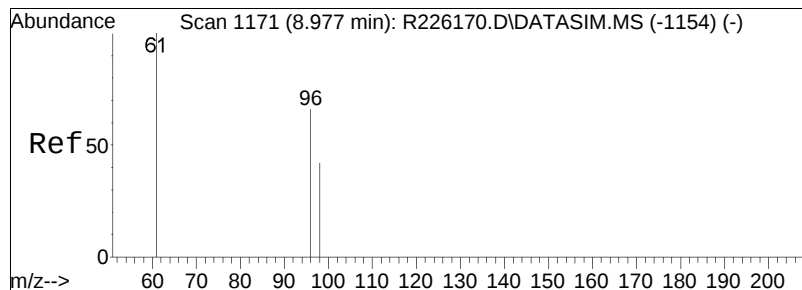




#16
 1,1-dichloroethene
 Concen: 4.99 ppbV
 RT: 7.66 min Scan# 876
 Delta R.T. 0.006 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

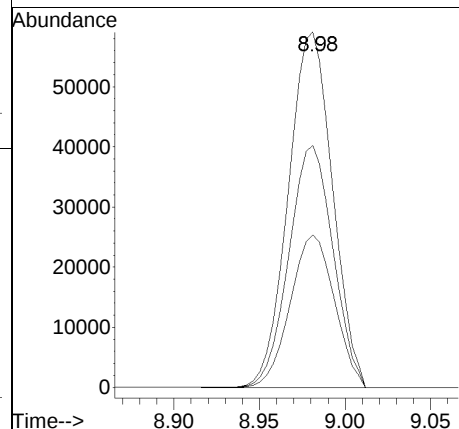
Tgt Ion:	61	Resp:	110240
Ion Ratio	Lower	Upper	
61	100		
96	61.1	47.2	70.8
63	32.5	25.7	38.5

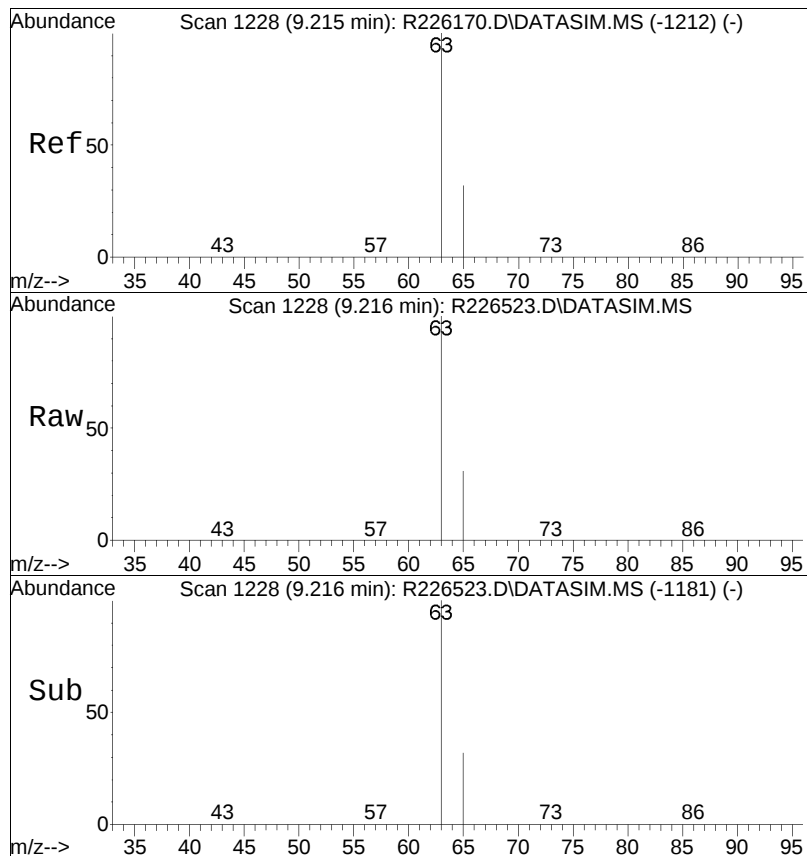




#22
 trans-1,2-dichloroethene
 Concen: 4.30 ppbV
 RT: 8.98 min Scan# 1172
 Delta R.T. 0.004 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

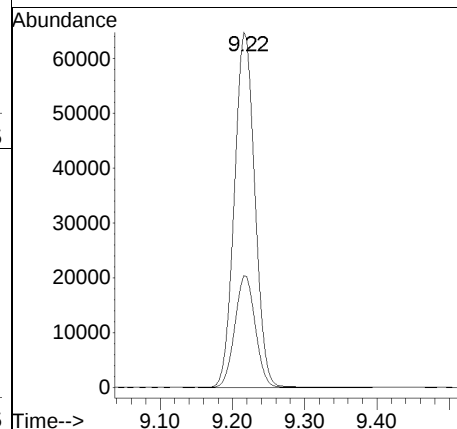
Tgt Ion	Ratio	Lower	Upper
61	100		
96	68.1	53.0	79.6
98	43.0	33.4	50.2

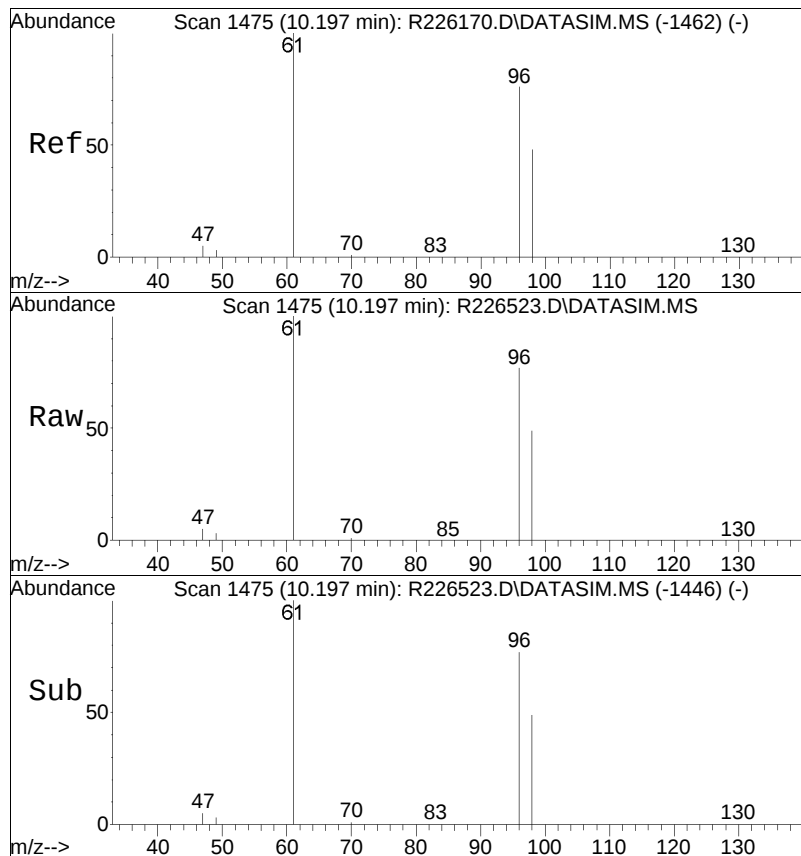




#23
 1,1-dichloroethane
 Concen: 5.18 ppbV
 RT: 9.22 min Scan# 1228
 Delta R.T. 0.000 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

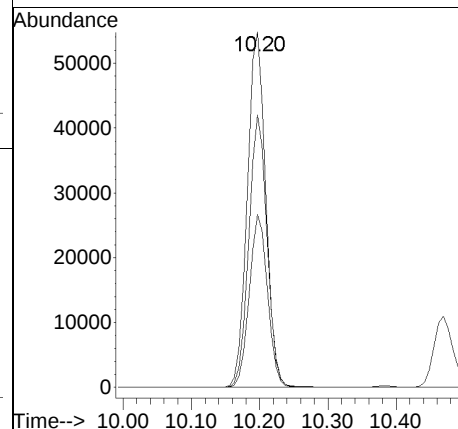
Tgt Ion	Ratio	Lower	Upper
63	100		
65	31.5	25.3	37.9

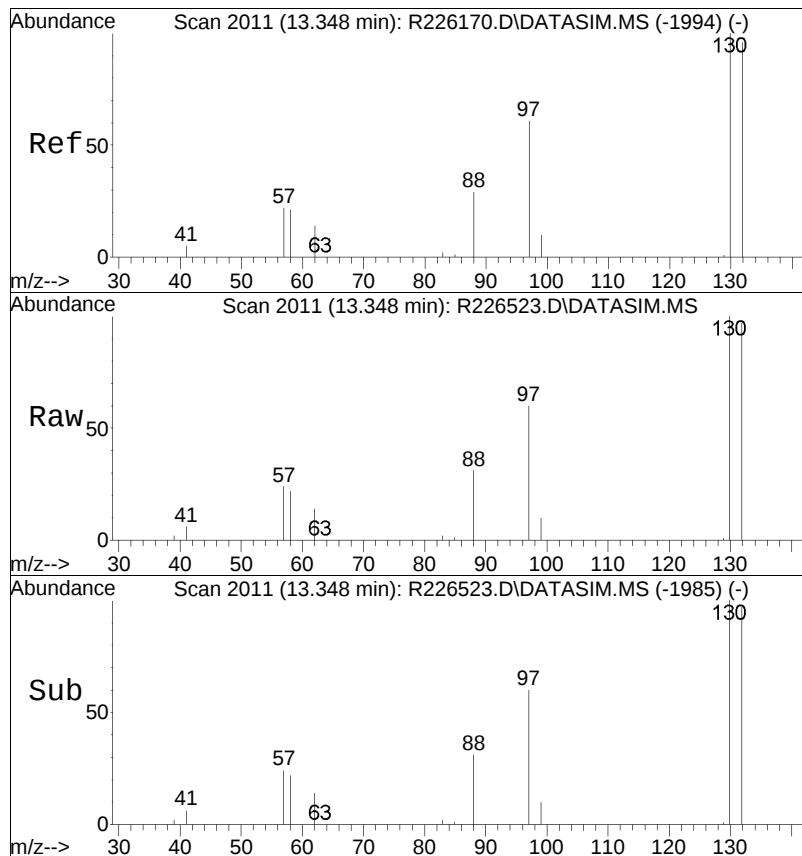




#27
 cis-1,2-dichloroethene
 Concen: 5.51 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.000 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

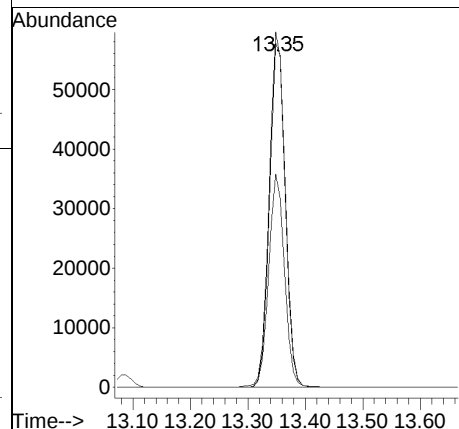
Tgt Ion:	61	Resp:	102912
Ion Ratio	Lower	Upper	
61	100		
96	76.7	60.6	91.0
98	48.7	38.6	58.0

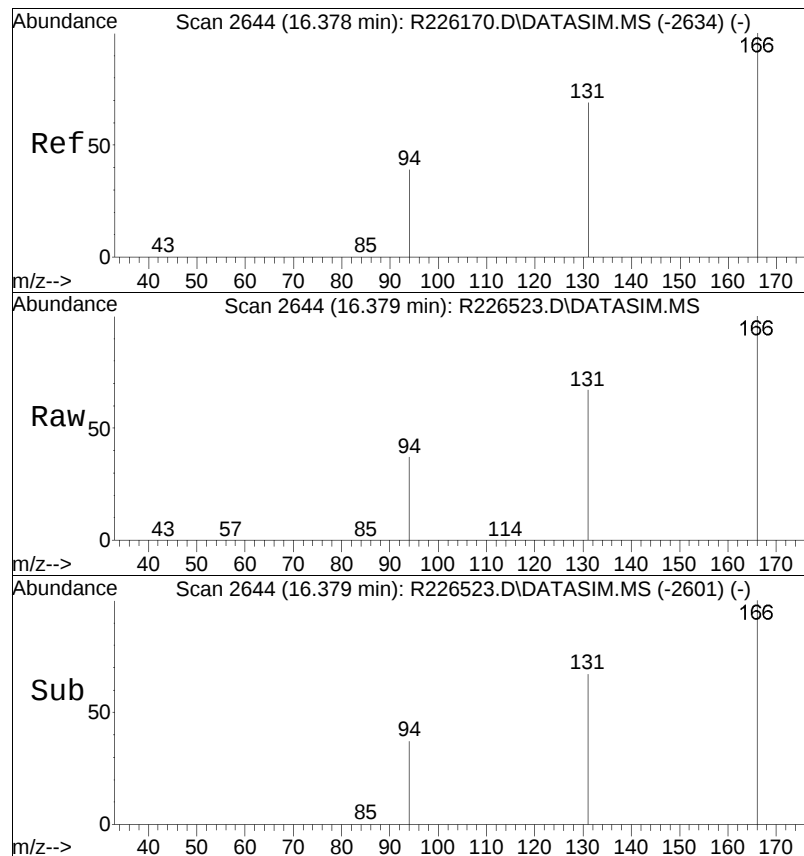




#42
trichloroethene
Concen: 5.24 ppbV
RT: 13.35 min Scan# 2011
Delta R.T. 0.000 min
Lab File: R226523.D
Acq: 2 Dec 2013 11:10 am

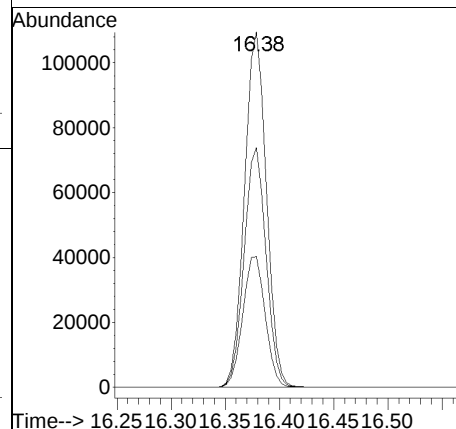
Tgt Ion	Ratio	Lower	Upper
130	100		
132	96.8	77.1	115.7
97	60.1	49.0	73.4





#55
 tetrachloroethene
 Concen: 5.67 ppbV
 RT: 16.38 min Scan# 2644
 Delta R.T. 0.000 min
 Lab File: R226523.D
 Acq: 2 Dec 2013 11:10 am

Tgt Ion	Ratio	Lower	Upper
166	100		
131	67.5	55.1	82.7
94	36.8	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226523.D	Operator	: AIRPIAN02:MB
Date Inj'd	: 12/2/2013 11:10 am	Instrument	: Air Piano 2
Sample	: WG655026-9,3,250,250	Quant Date	: 12/2/2013 11:45 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226504.D
 Acq On : 27 Nov 2013 12:26 pm
 Operator : AIRPIAN02:RY
 Sample : WG655026-4,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:57:46 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) bromochloromethane	10.38	49	180581	10.000	ppbV	0.00
Standard Area = 180926			Recovery =	99.81%		
32) 1,4-difluorobenzene	12.56	114	524851	10.000	ppbV	0.00
Standard Area = 520889			Recovery =	100.76%		
49) chlorobenzene-D5	16.91	54	101090	10.000	ppbV	0.00
Standard Area = 100941			Recovery =	100.15%		
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	139894	9.891	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.91%		
51) toluene-D8	15.24	98	375991	9.986	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	99.86%		
64) bromofluorobenzene	18.08	95	278974	10.041	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.41%		
Target Compounds						
					Qvalue	
6) vinyl chloride	4.93	62	63627	5.230	ppbV	100
9) chloroethane	5.77	64	29983	5.197	ppbV	100
16) 1,1-dichloroethene	7.66	61	106157	5.023	ppbV	100
22) trans-1,2-dichloroethene	8.98	61	101614	4.293	ppbV	99
23) 1,1-dichloroethane	9.22	63	120199	5.121	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	97919	5.480	ppbV	98
42) trichloroethene	13.35	130	115409	5.533	ppbV	99
55) tetrachloroethene	16.38	166	147040	5.569	ppbV	97

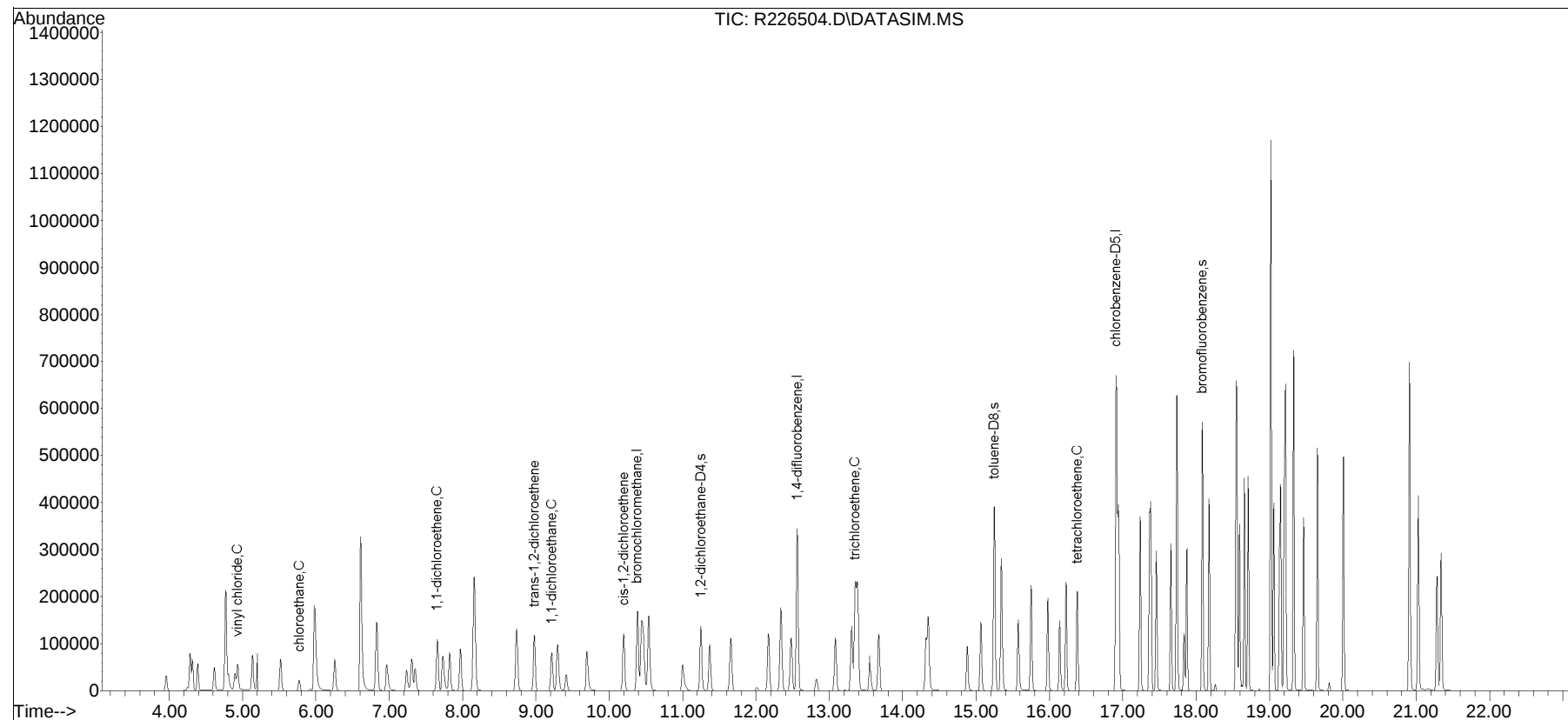
(#) = qualifier out of range (m) = manual integration (+) = signals summed

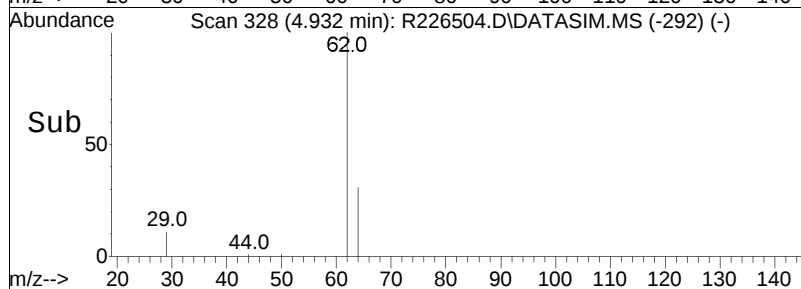
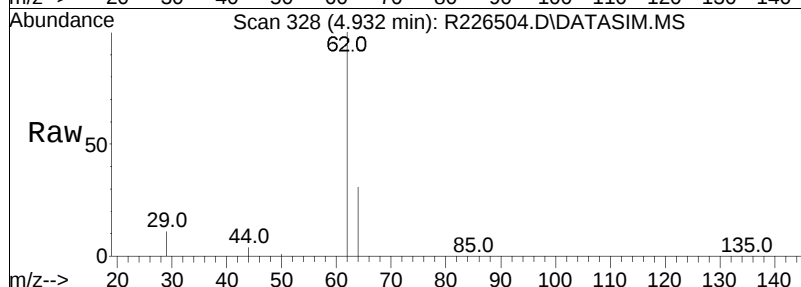
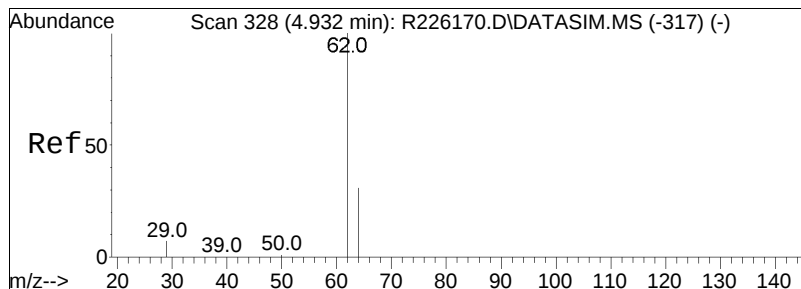
Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226504.D
 Acq On : 27 Nov 2013 12:26 pm
 Operator : AIRPIAN02:RY
 Sample : WG655026-4,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 27 12:57:46 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

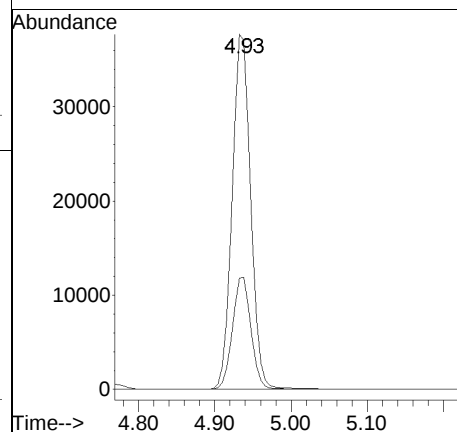
Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

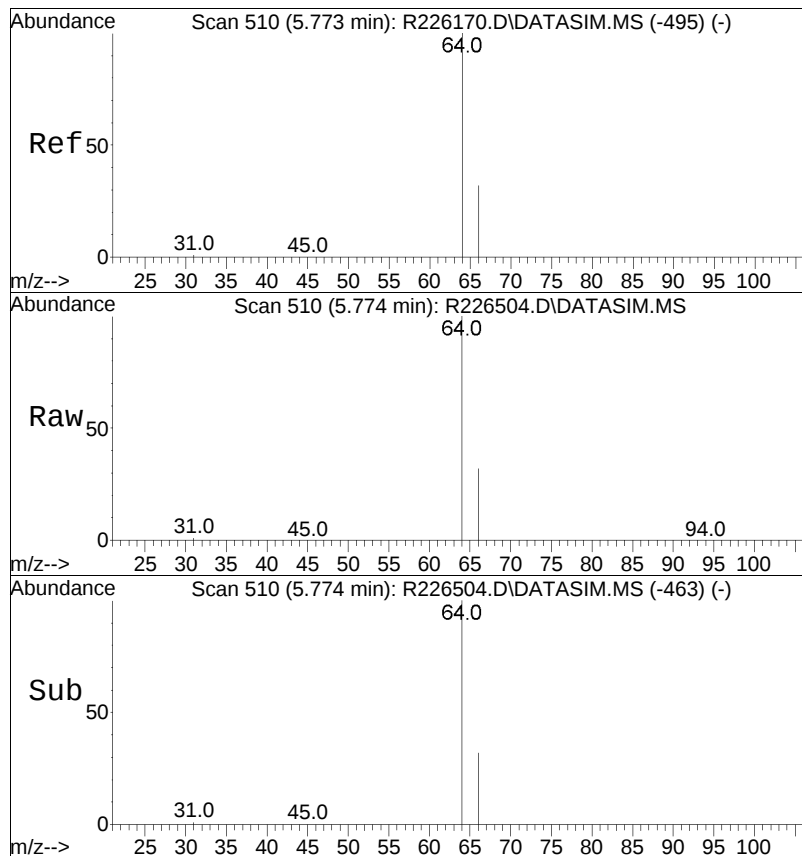




#6
vinyl chloride
Concen: 5.23 ppbV
RT: 4.93 min Scan# 328
Delta R.T. 0.000 min
Lab File: R226504.D
Acq: 27 Nov 2013 12:26 pm

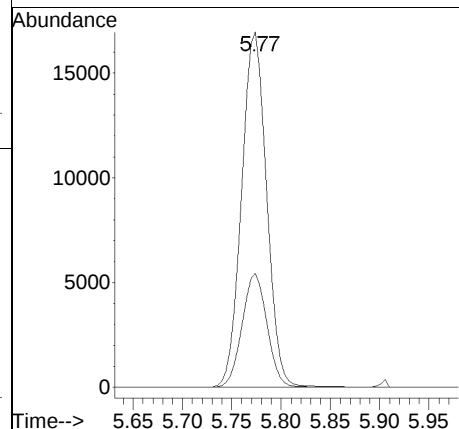
Tgt Ion: 62 Resp: 63627
Ion Ratio Lower Upper
62 100
64 31.3 25.2 37.8

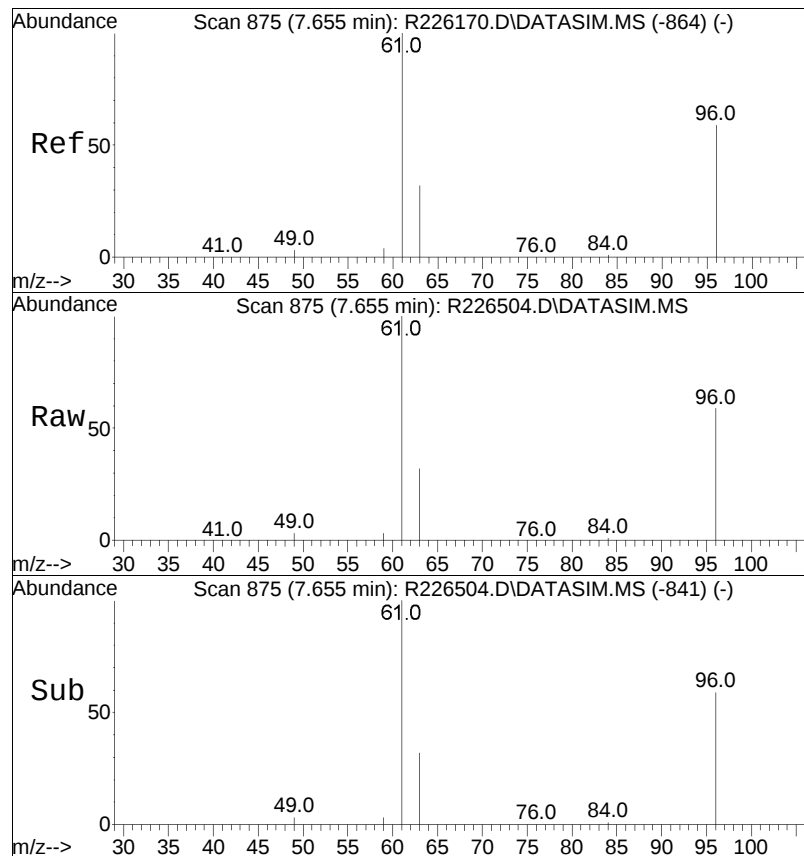




#9
 chloroethane
 Concen: 5.20 ppbV
 RT: 5.77 min Scan# 510
 Delta R.T. 0.000 min
 Lab File: R226504.D
 Acq: 27 Nov 2013 12:26 pm

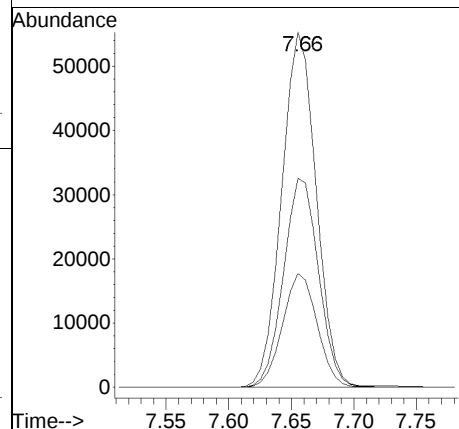
Tgt Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.8	38.8

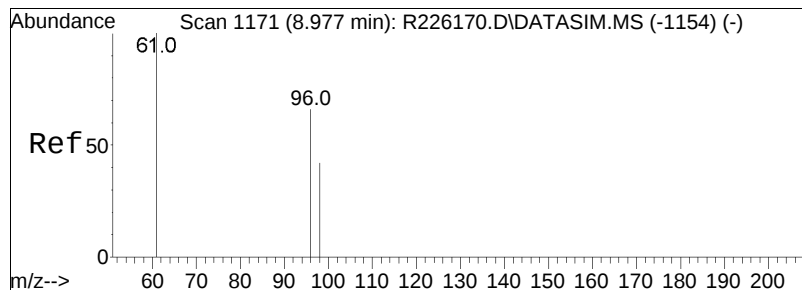




#16
 1,1-dichloroethene
 Concen: 5.02 ppbV
 RT: 7.66 min Scan# 875
 Delta R.T. 0.000 min
 Lab File: R226504.D
 Acq: 27 Nov 2013 12:26 pm

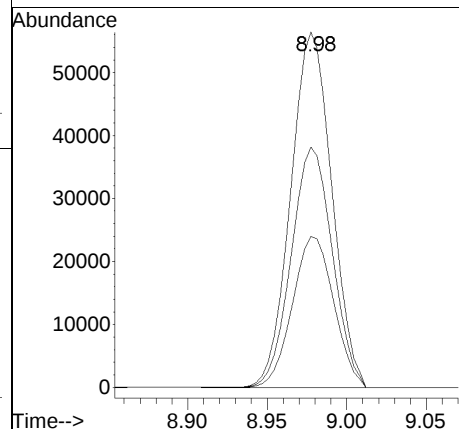
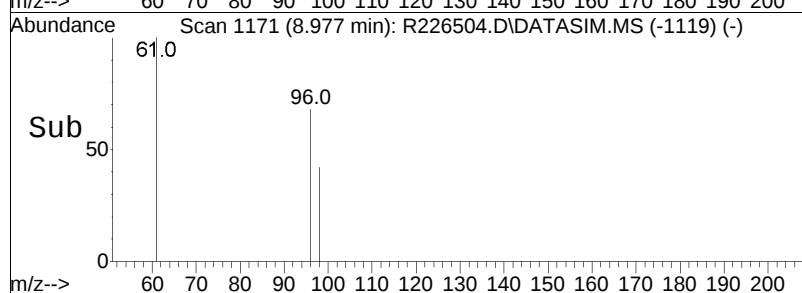
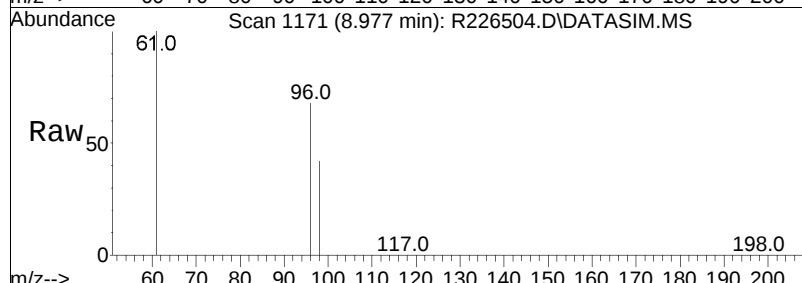
Tgt Ion:	61	Resp:	106157
Ion Ratio	Lower	Upper	
61	100		
96	58.8	47.2	70.8
63	32.1	25.7	38.5

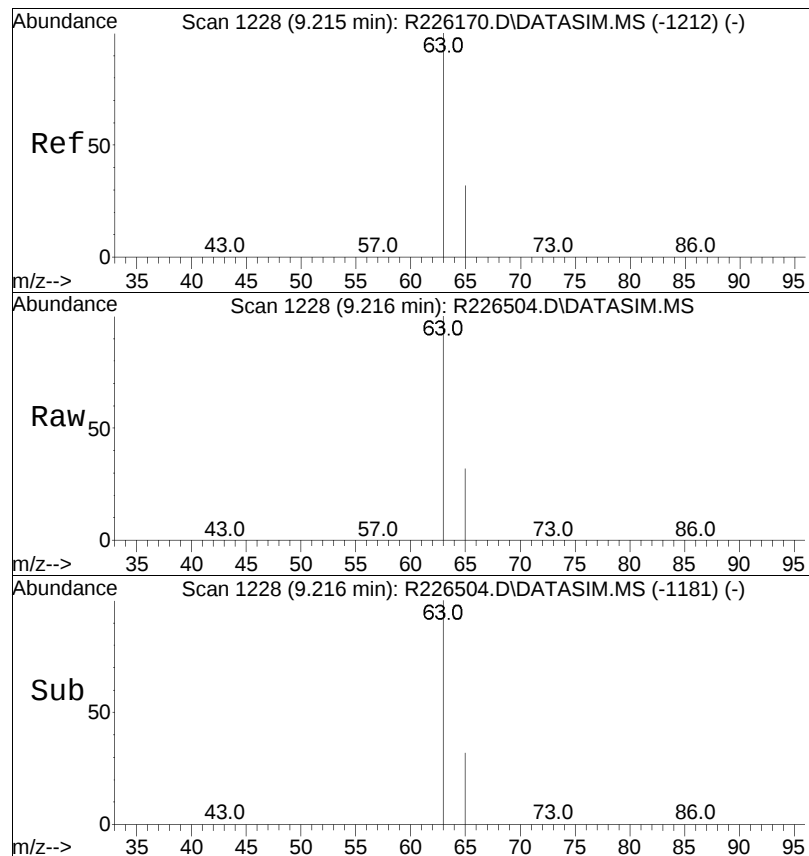




#22
 trans-1,2-dichloroethene
 Concen: 4.29 ppbV
 RT: 8.98 min Scan# 1171
 Delta R.T. 0.000 min
 Lab File: R226504.D
 Acq: 27 Nov 2013 12:26 pm

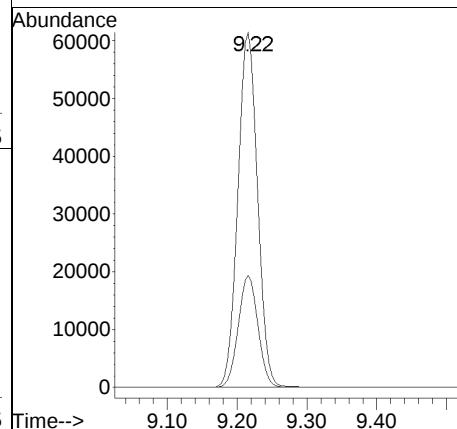
Tgt Ion	Ratio	Lower	Upper
61	100		
96	67.6	53.0	79.6
98	42.5	33.4	50.2

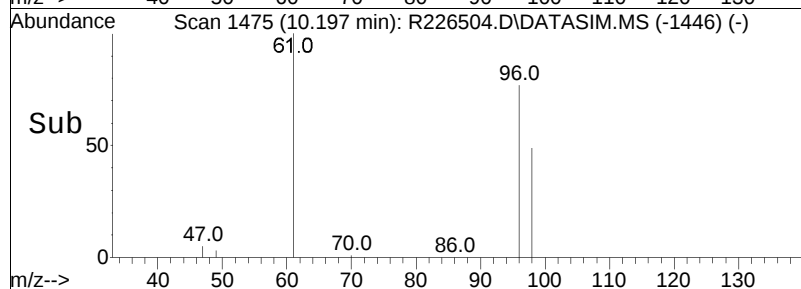
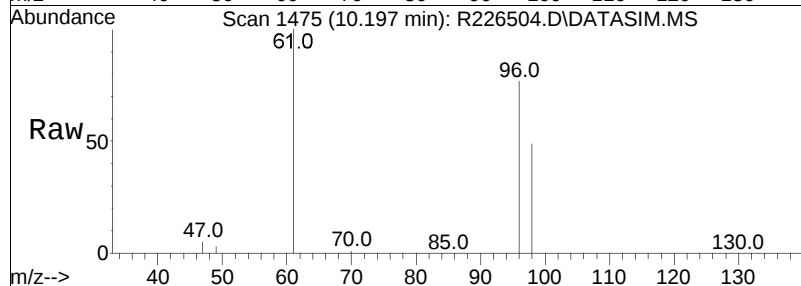
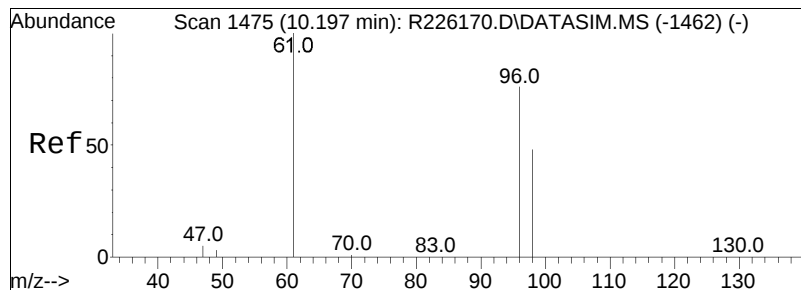




#23
 1,1-dichloroethane
 Concen: 5.12 ppbV
 RT: 9.22 min Scan# 1228
 Delta R.T. 0.000 min
 Lab File: R226504.D
 Acq: 27 Nov 2013 12:26 pm

Tgt Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.3	37.9





#27

cis-1,2-dichloroethene

Concen: 5.48 ppbV

RT: 10.20 min Scan# 1475

Delta R.T. 0.000 min

Lab File: R226504.D

Acq: 27 Nov 2013 12:26 pm

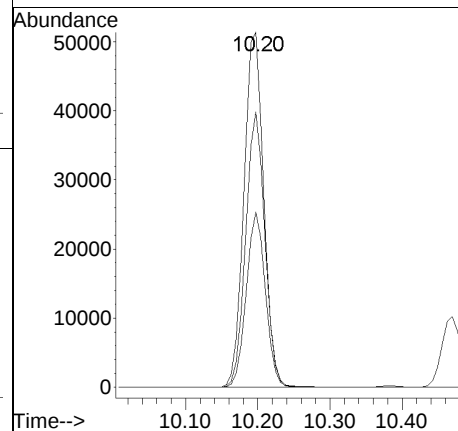
Tgt Ion: 61 Resp: 97919

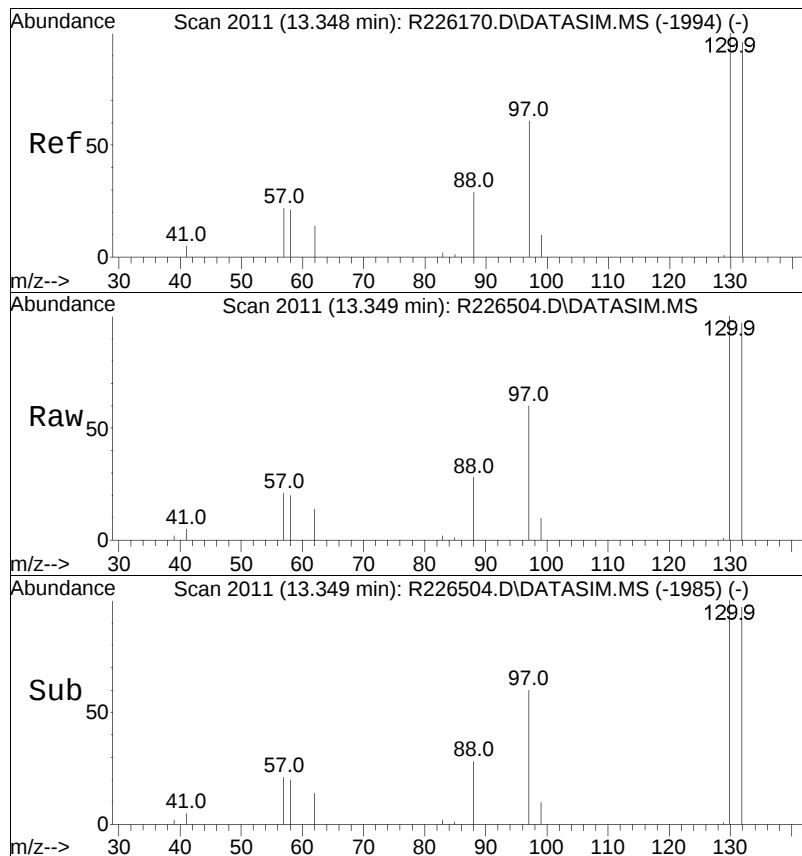
Ion Ratio Lower Upper

61 100

96 77.5 60.6 91.0

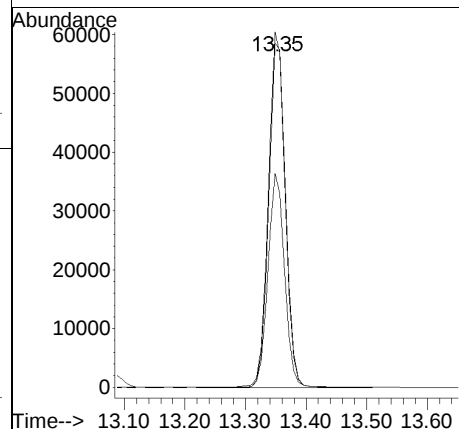
98 49.4 38.6 58.0

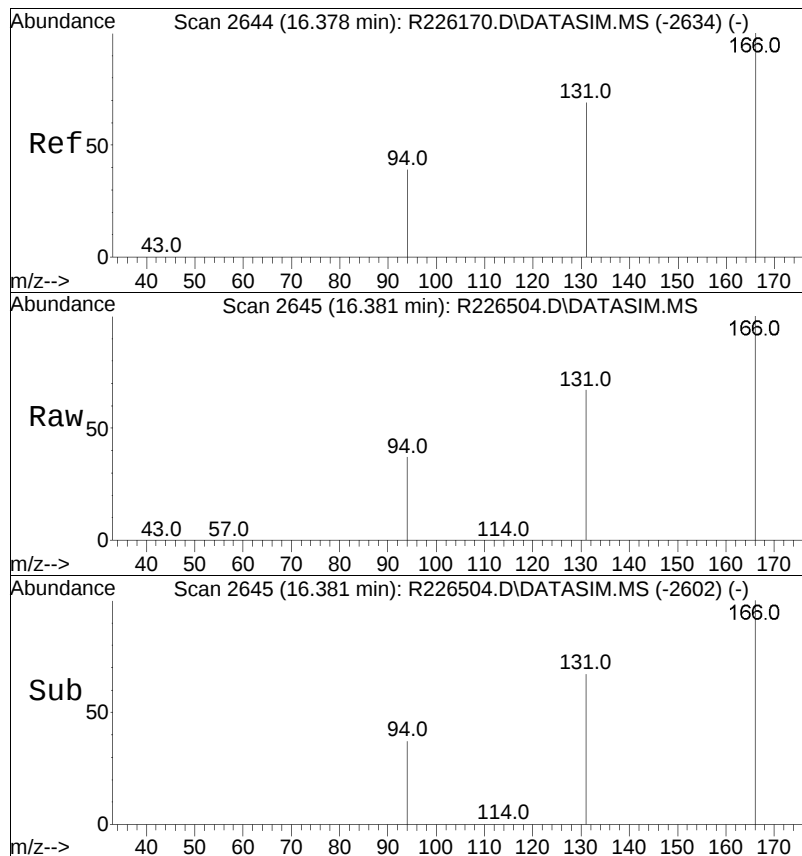




#42
trichloroethene
Concen: 5.53 ppbV
RT: 13.35 min Scan# 2011
Delta R.T. 0.000 min
Lab File: R226504.D
Acq: 27 Nov 2013 12:26 pm

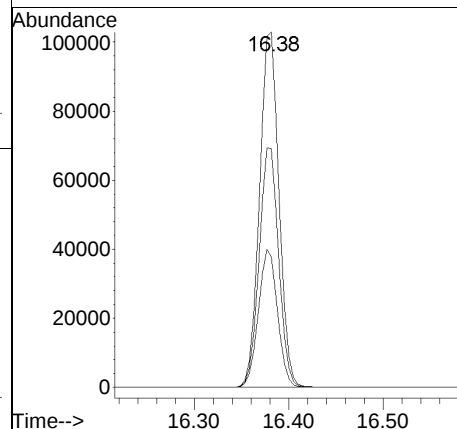
Tgt Ion	Ratio	Lower	Upper
130	100		
132	96.9	77.1	115.7
97	60.2	49.0	73.4





#55
 tetrachloroethene
 Concen: 5.57 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.003 min
 Lab File: R226504.D
 Acq: 27 Nov 2013 12:26 pm

Tgt	Ion:166	Resp:	147040
Ion	Ratio	Lower	Upper
166	100		
131	67.2	55.1	82.7
94	36.8	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226504.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 12:26 pm	Instrument	: Air Piano 2
Sample	: WG655026-4,3,250,250	Quant Date	: 11/27/2013 12:57 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR2\2013\131202SIM\
 Data File : R226524.D
 Acq On : 2 Dec 2013 11:41 am
 Operator : AIRPIAN02:MB
 Sample : WG655026-10,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 02 12:06:26 2013
 Quant Method : O:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR2\2013\131202SIM\R226523.D
 Sub List : IBM-POK - .

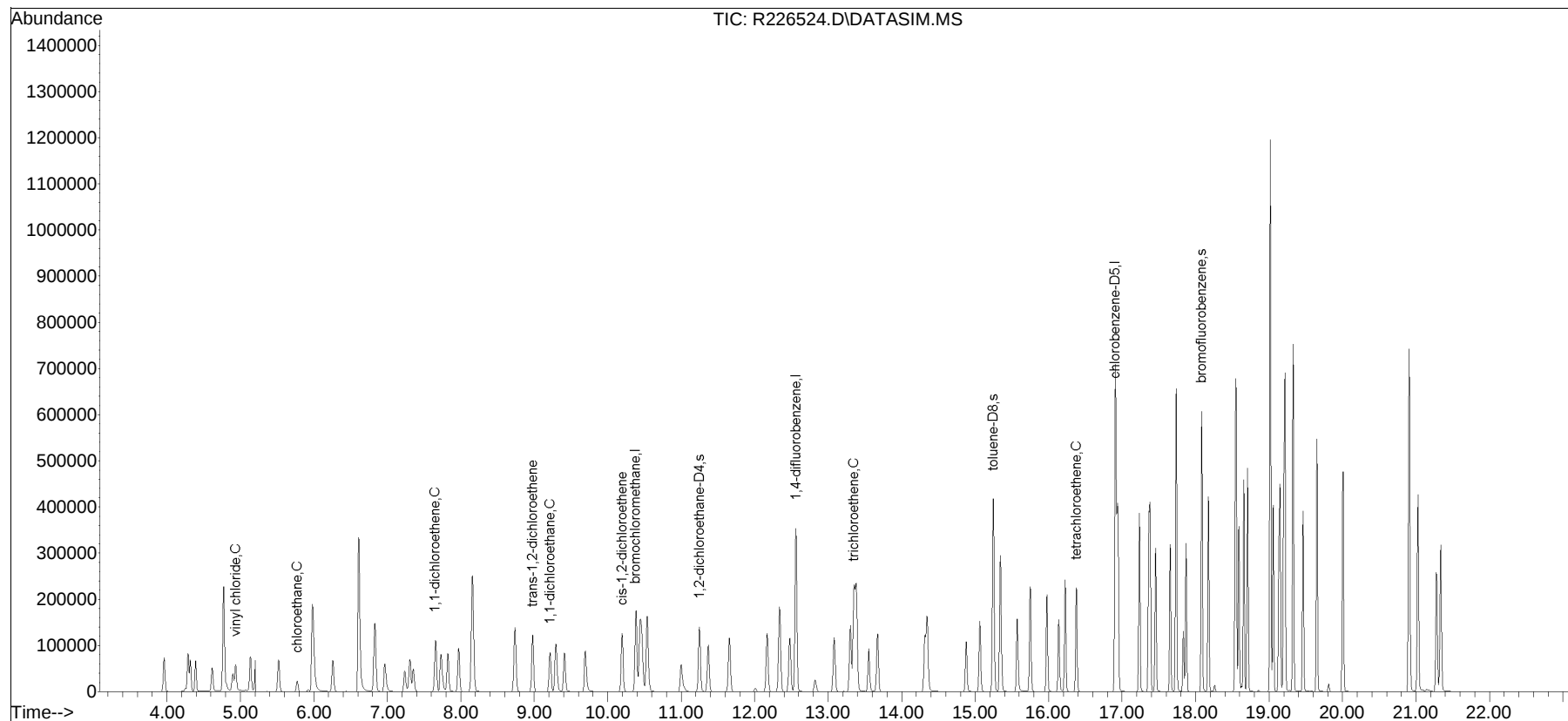
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.38	49	185484	10.000	ppbV	0.00
Standard Area = 188847			Recovery =		98.22%	
32) 1,4-difluorobenzene	12.56	114	542691	10.000	ppbV	0.00
Standard Area = 548831			Recovery =		98.88%	
49) chlorobenzene-D5	16.90	54	103442	10.000	ppbV	0.00
Standard Area = 104381			Recovery =		99.10%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	143887	9.839	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.39%	
51) toluene-D8	15.25	98	388716	10.089	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		100.89%	
64) bromofluorobenzene	18.08	95	288120	10.135	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		101.35%	
Target Compounds						
					Qvalue	
6) vinyl chloride	4.94	62	65714	5.258	ppbV	100
9) chloroethane	5.77	64	31443	5.306	ppbV	99
16) 1,1-dichloroethene	7.65	61	109041	5.023	ppbV	99
22) trans-1,2-dichloroethene	8.98	61	105566	4.342	ppbV	99
23) 1,1-dichloroethane	9.22	63	125238	5.195	ppbV	100
27) cis-1,2-dichloroethene	10.20	61	101921	5.553	ppbV	97
42) trichloroethene	13.35	130	113098	5.244	ppbV	99
55) tetrachloroethene	16.38	166	153336	5.675	ppbV	97

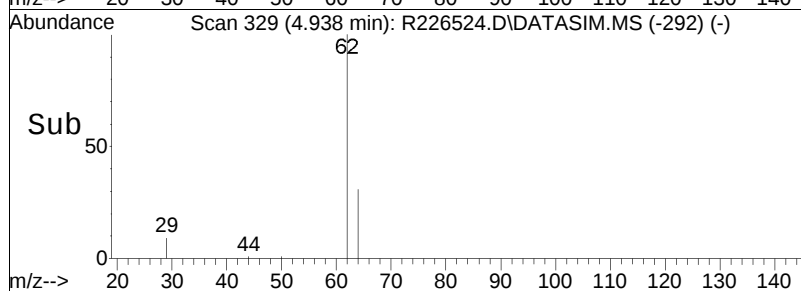
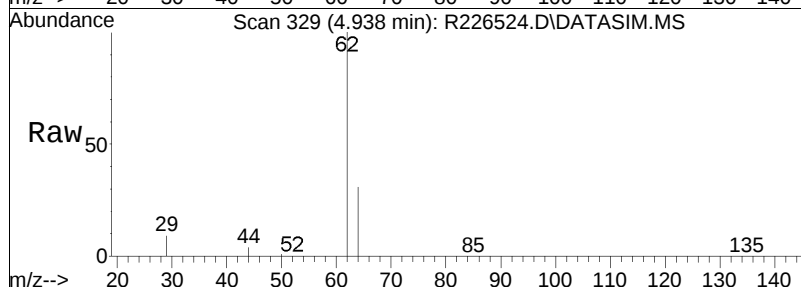
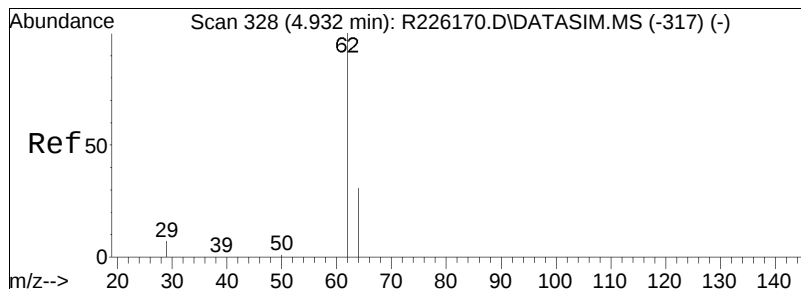
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IBM-POK - .s\Data\AIR2\2013\131202SIM\R226523.D

Data Path : 0:\Forensics\Data\AIR2\2013\131202SIM\
Data File : R226524.D
Acq On : 2 Dec 2013 11:41 am
Operator : AIRPIAN02:MB
Sample : WG655026-10,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 2 Sample Multiplier: 1

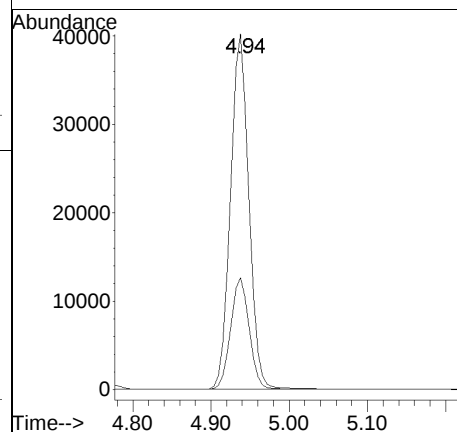
Quant Time: Dec 02 12:06:26 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131202SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

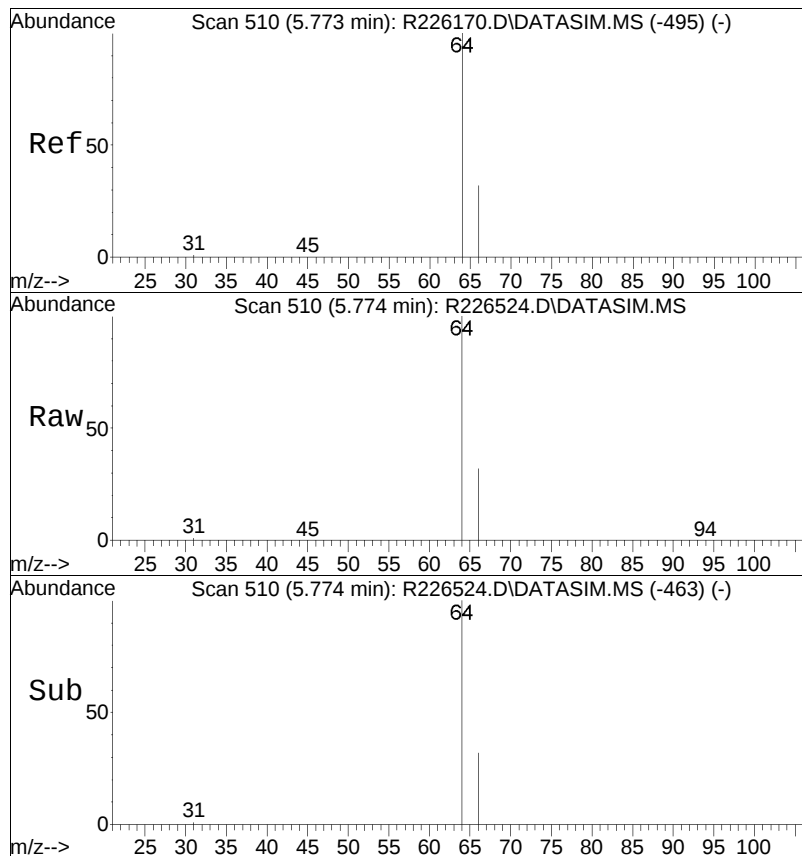




#6
vinyl chloride
Concen: 5.26 ppbV
RT: 4.94 min Scan# 329
Delta R.T. 0.006 min
Lab File: R226524.D
Acq: 2 Dec 2013 11:41 am

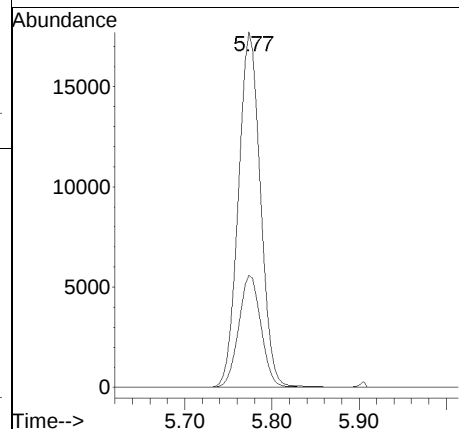
Tgt Ion: 62 Resp: 65714
Ion Ratio Lower Upper
62 100
64 31.5 25.2 37.8

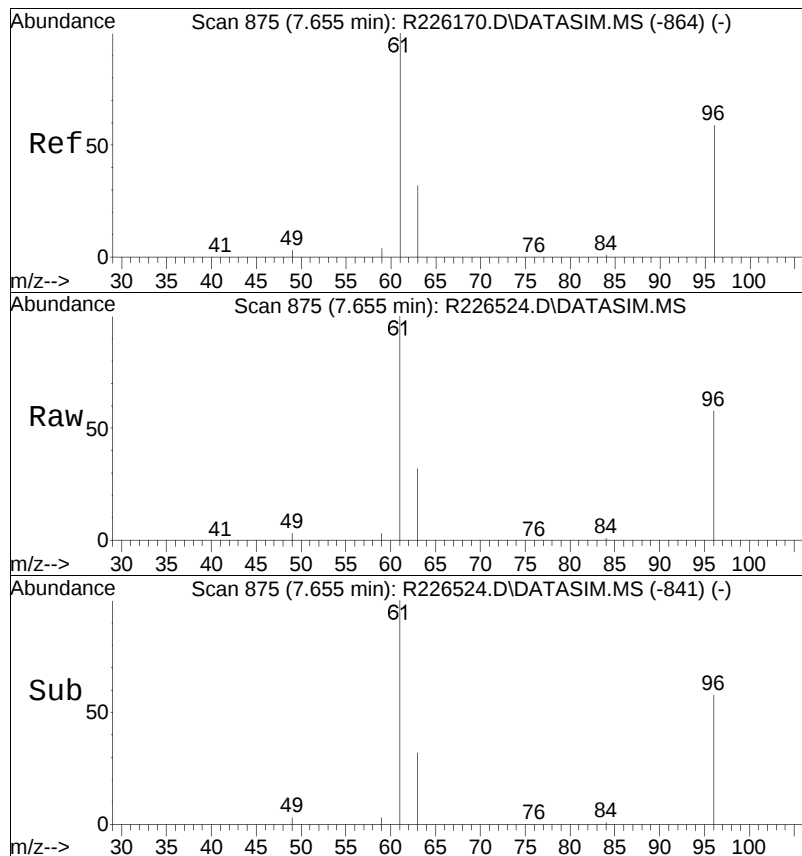




#9
chloroethane
Concen: 5.31 ppbV
RT: 5.77 min Scan# 510
Delta R.T. 0.000 min
Lab File: R226524.D
Acq: 2 Dec 2013 11:41 am

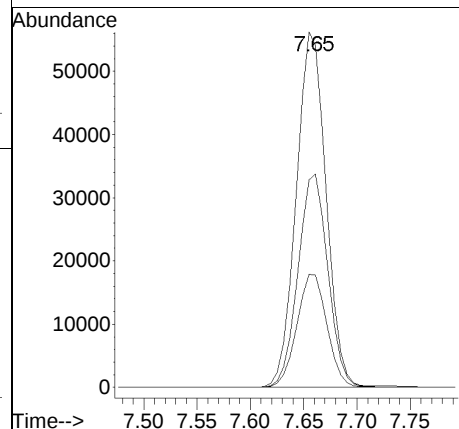
Tgt Ion	Ratio	Lower	Upper
64	100		
66	31.6	25.8	38.8

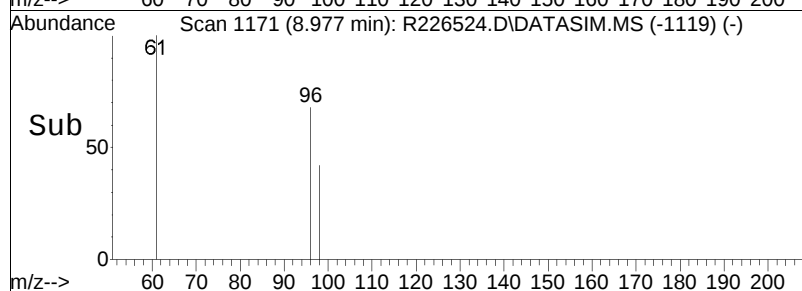
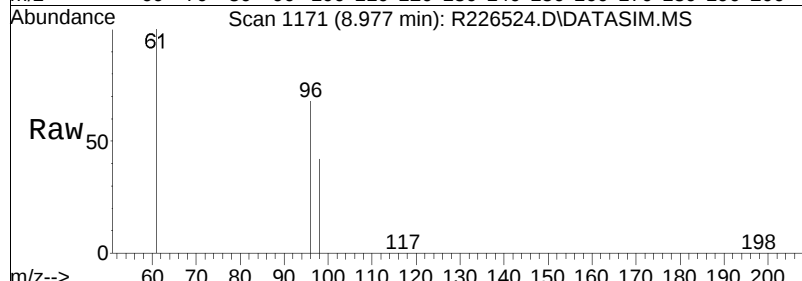
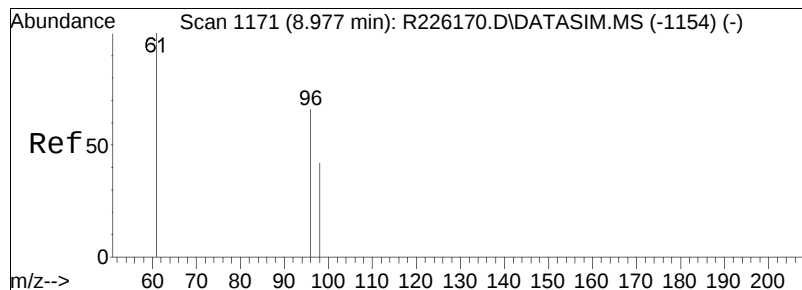




#16
 1,1-dichloroethene
 Concen: 5.02 ppbV
 RT: 7.65 min Scan# 875
 Delta R.T. 0.000 min
 Lab File: R226524.D
 Acq: 2 Dec 2013 11:41 am

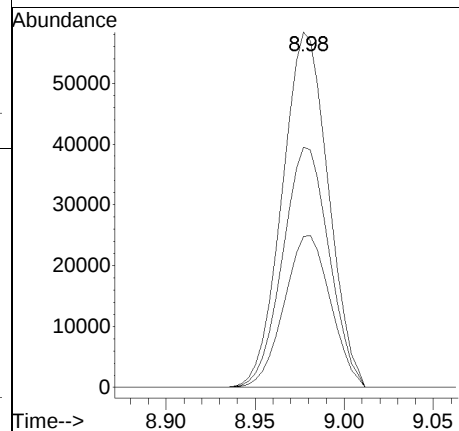
Tgt Ion	Ratio	Lower	Upper
61	100		
96	58.4	47.2	70.8
63	31.8	25.7	38.5

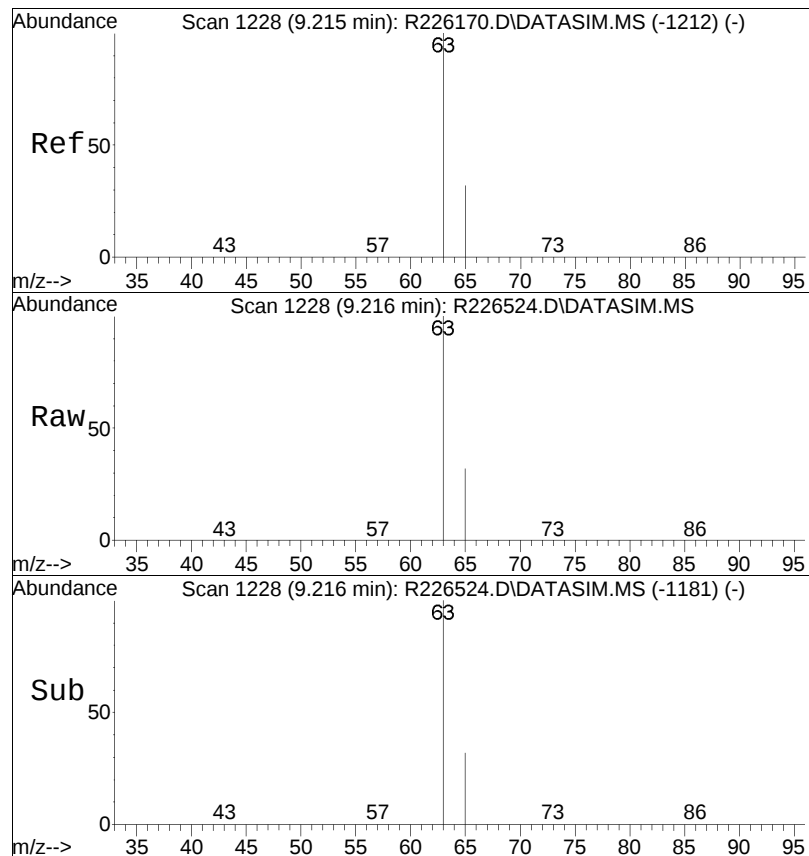




#22
 trans-1,2-dichloroethene
 Concen: 4.34 ppbV
 RT: 8.98 min Scan# 1171
 Delta R.T. 0.000 min
 Lab File: R226524.D
 Acq: 2 Dec 2013 11:41 am

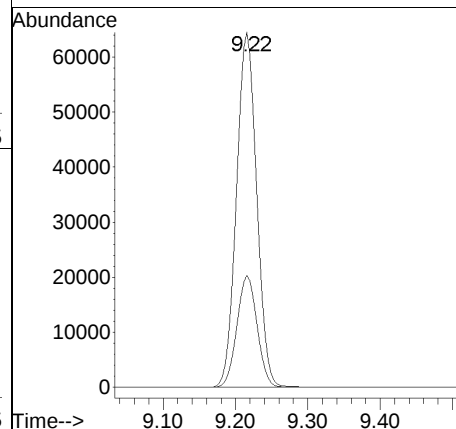
Tgt Ion	Ratio	Lower	Upper
61	100		
96	67.7	53.0	79.6
98	42.5	33.4	50.2

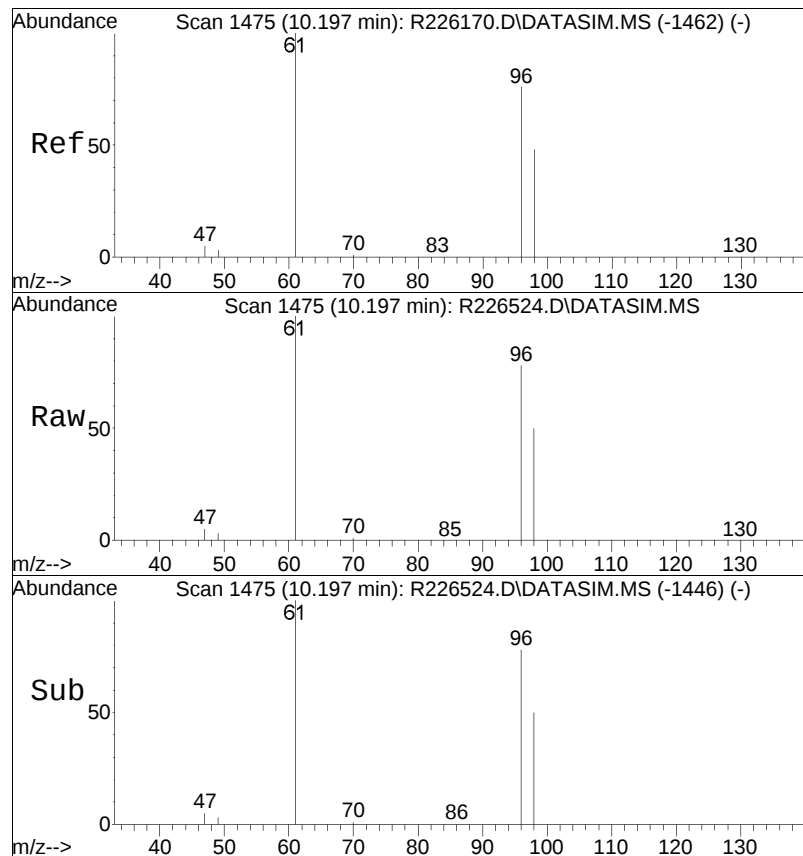




#23
 1,1-dichloroethane
 Concen: 5.19 ppbV
 RT: 9.22 min Scan# 1228
 Delta R.T. 0.000 min
 Lab File: R226524.D
 Acq: 2 Dec 2013 11:41 am

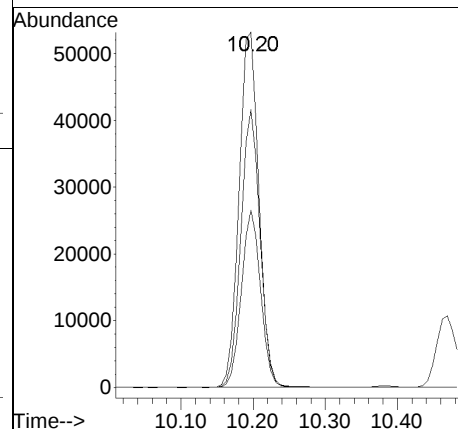
Tgt Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.3	37.9

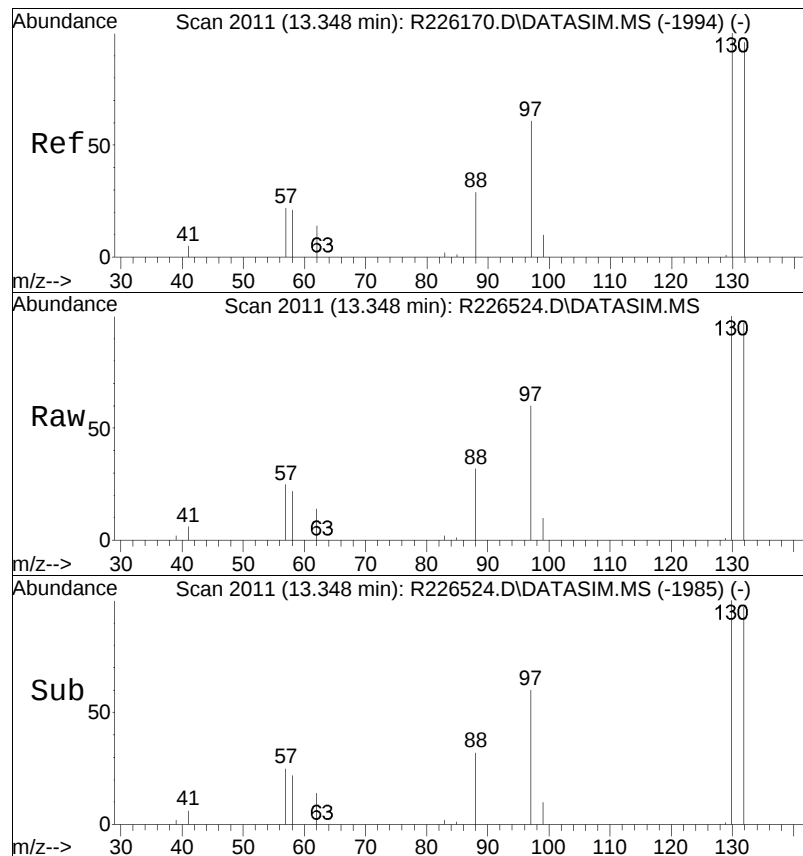




#27
 cis-1,2-dichloroethene
 Concen: 5.55 ppbV
 RT: 10.20 min Scan# 1475
 Delta R.T. 0.000 min
 Lab File: R226524.D
 Acq: 2 Dec 2013 11:41 am

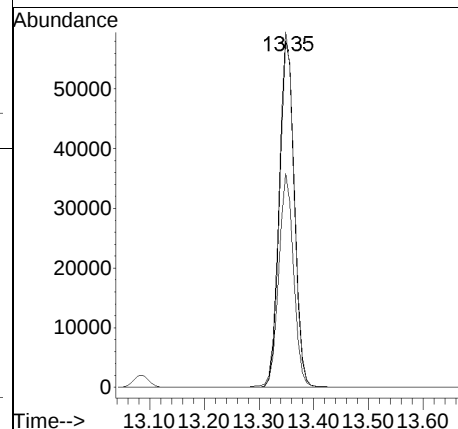
Tgt Ion:	61	Resp:	101921
Ion Ratio	Lower	Upper	
61	100		
96	78.1	60.6	91.0
98	49.9	38.6	58.0

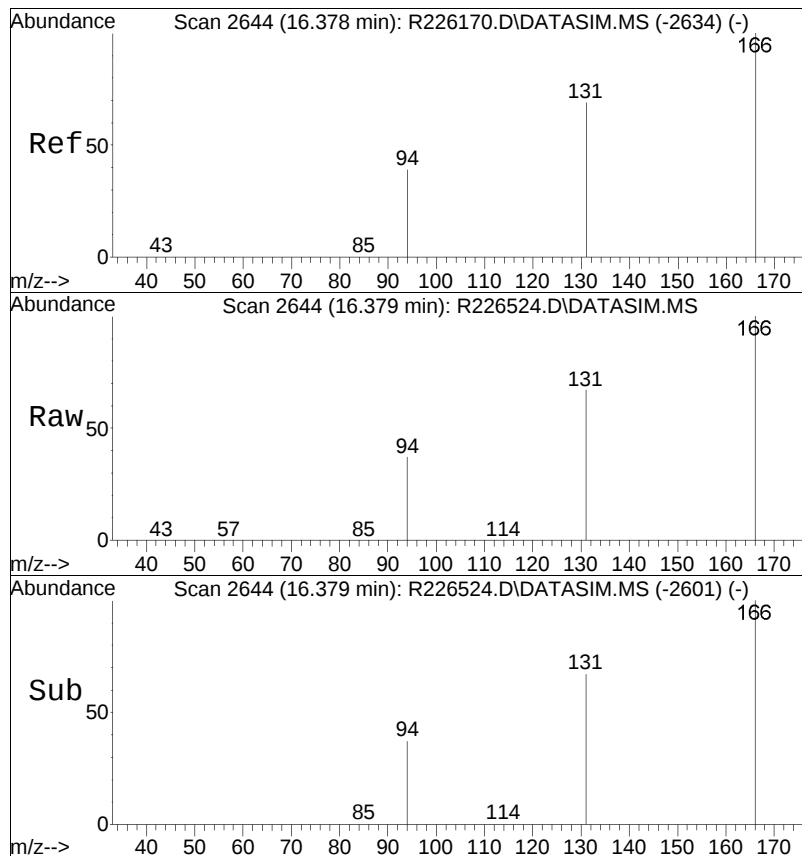




#42
trichloroethene
Concen: 5.24 ppbV
RT: 13.35 min Scan# 2011
Delta R.T. 0.000 min
Lab File: R226524.D
Acq: 2 Dec 2013 11:41 am

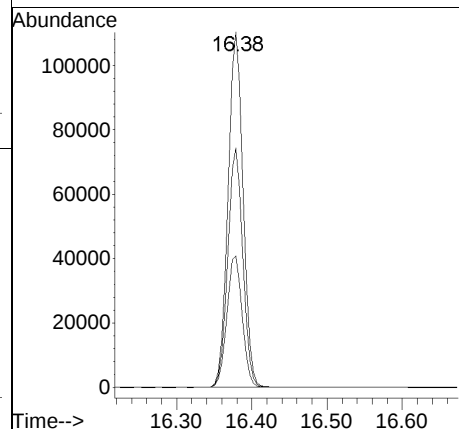
Tgt Ion	Ratio	Lower	Upper
130	100		
132	97.4	77.1	115.7
97	60.2	49.0	73.4





#55
 tetrachloroethene
 Concen: 5.68 ppbV
 RT: 16.38 min Scan# 2644
 Delta R.T. 0.000 min
 Lab File: R226524.D
 Acq: 2 Dec 2013 11:41 am

Tgt Ion	Ratio	Lower	Upper
166	100		
131	67.3	55.1	82.7
94	37.0	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226524.D	Operator	: AIRPIAN02:MB
Date Inj'd	: 12/2/2013 11:41 am	Instrument	: Air Piano 2
Sample	: WG655026-10,3,250,250	Quant Date	: 12/2/2013 12:06 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
 Data File : R226509.D
 Acq On : 27 Nov 2013 5:48 pm
 Operator : AIRPIAN02:RY
 Sample : WG655026-6,3,250,250
 Misc : WG655026,ICAL8844
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 28 07:02:13 2013
 Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
 QLast Update : Thu Nov 14 16:11:26 2013
 Response via : Initial Calibration

CCAL FILE : 0:\Forensics\Data\AIR2\2013\131127SIM\R226503.D
 Sub List : IBM-POK - .

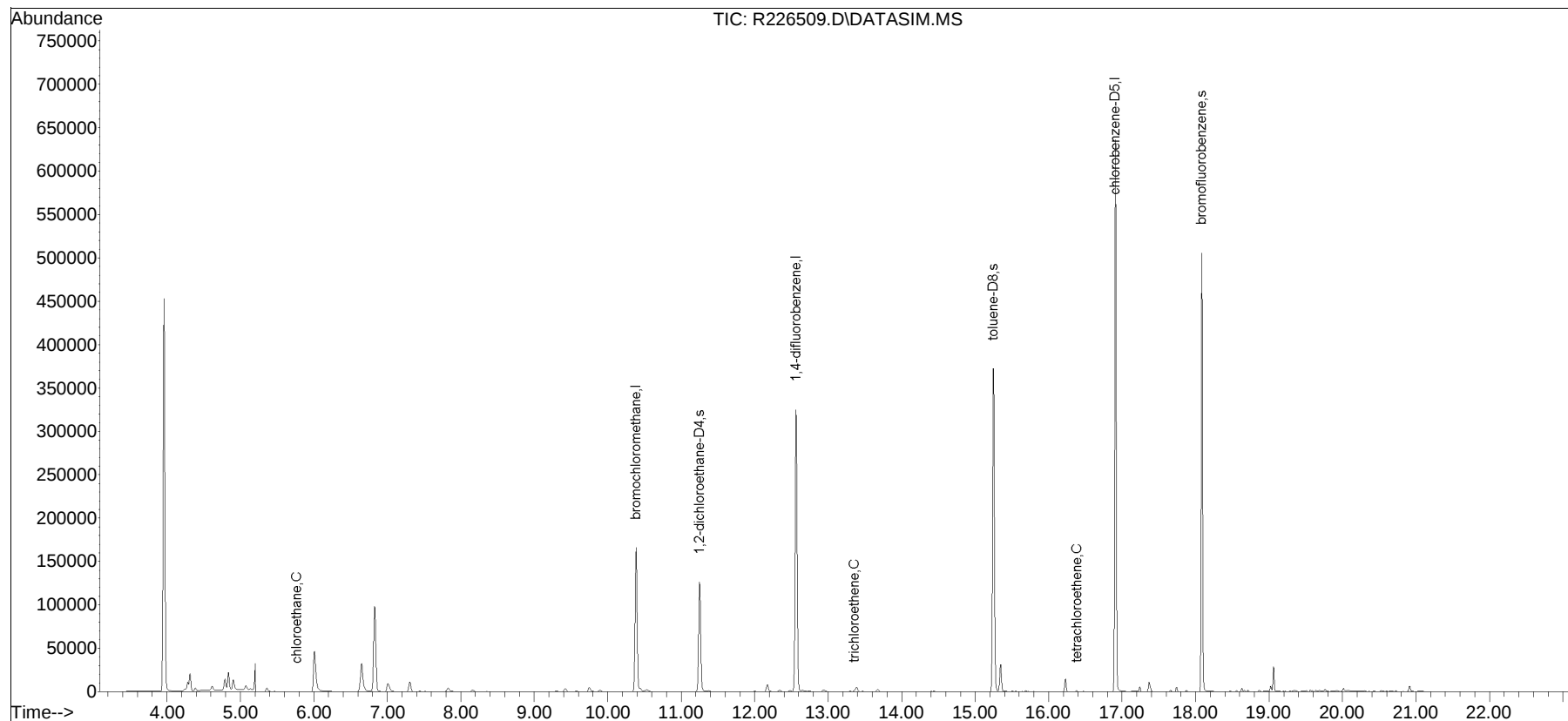
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.39	49	173667	10.000	ppbV	0.00
Standard Area = 180926			Recovery =		95.99%	
32) 1,4-difluorobenzene	12.56	114	493601	10.000	ppbV	0.00
Standard Area = 520889			Recovery =		94.76%	
49) chlorobenzene-D5	16.91	54	96946	10.000	ppbV	0.00
Standard Area = 100941			Recovery =		96.04%	
System Monitoring Compounds						
34) 1,2-dichloroethane-D4	11.25	65	131434	9.882	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		98.82%	
51) toluene-D8	15.25	98	348307	9.646	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		96.46%	
64) bromofluorobenzene	18.08	95	244849	9.190	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		91.90%	
Target Compounds						
6) vinyl chloride	4.94		0	N.D.		
9) chloroethane	5.77	64	58	0.010	ppbV #	62
16) 1,1-dichloroethene	7.70		0	N.D.		
22) trans-1,2-dichloroethene	8.98		0	N.D.		
23) 1,1-dichloroethane	9.21		0	N.D.		
27) cis-1,2-dichloroethene	10.19		0	N.D.		
42) trichloroethene	13.36	130	446	0.023	ppbV	99
55) tetrachloroethene	16.38	166	910	0.036	ppbV	96

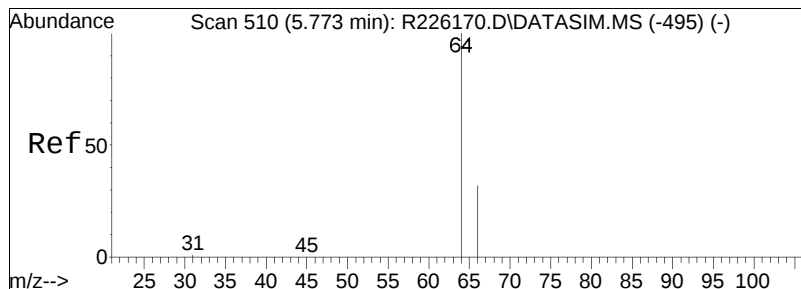
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : IBM-POK - .s\Data\AIR2\2013\131127SIM\R226503.D

Data Path : 0:\Forensics\Data\AIR2\2013\131127SIM\
Data File : R226509.D
Acq On : 27 Nov 2013 5:48 pm
Operator : AIRPIAN02:RY
Sample : WG655026-6,3,250,250
Misc : WG655026,ICAL8844
ALS Vial : 3 Sample Multiplier: 1

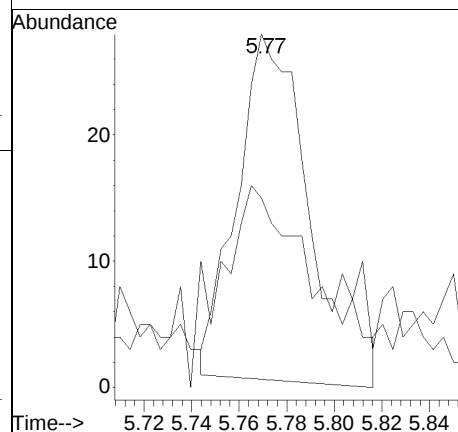
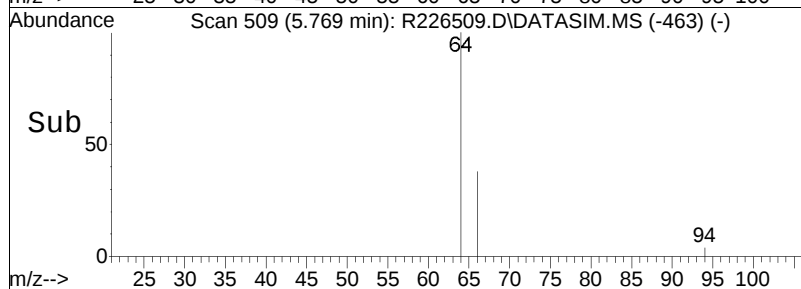
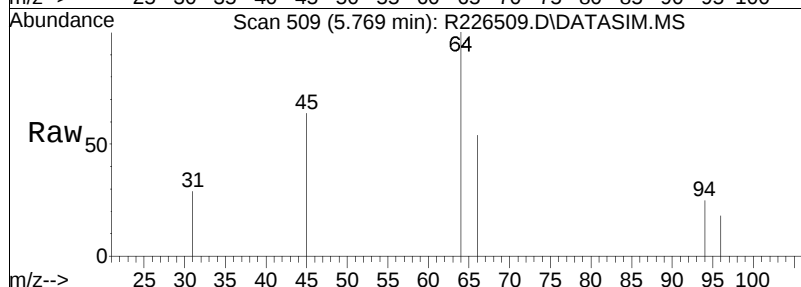
Quant Time: Nov 28 07:02:13 2013
Quant Method : 0:\Forensics\Data\AIR2\2013\131127SIM\TSIM131110.M
Quant Title : T0-14A/T0-15 SIM/Full Scan Analysis
QLast Update : Thu Nov 14 16:11:26 2013
Response via : Initial Calibration

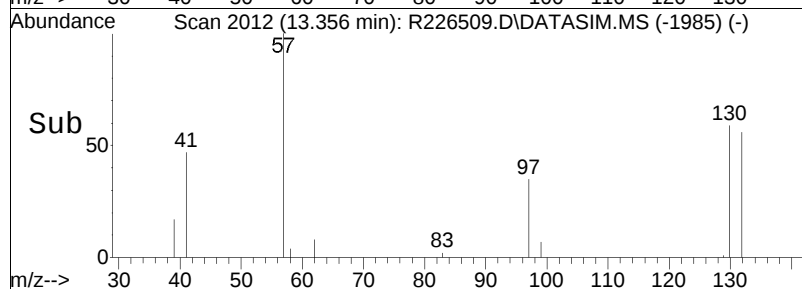
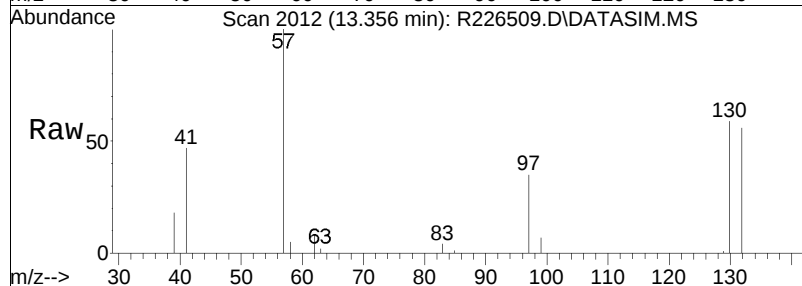
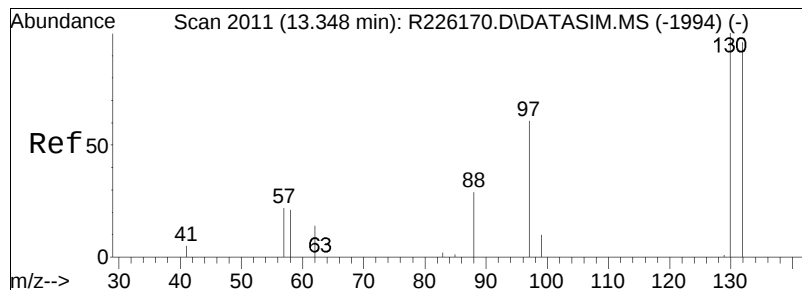




#9
 chloroethane
 Concen: 0.01 ppbV
 RT: 5.77 min Scan# 509
 Delta R.T. -0.004 min
 Lab File: R226509.D
 Acq: 27 Nov 2013 5:48 pm

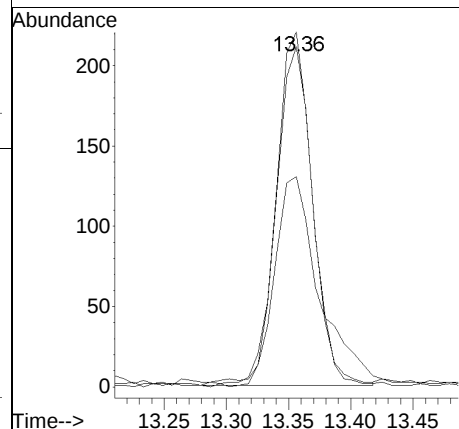
Tgt Ion: 64 Resp: 58
 Ion Ratio Lower Upper
 64 100
 66 53.6 25.8 38.8#

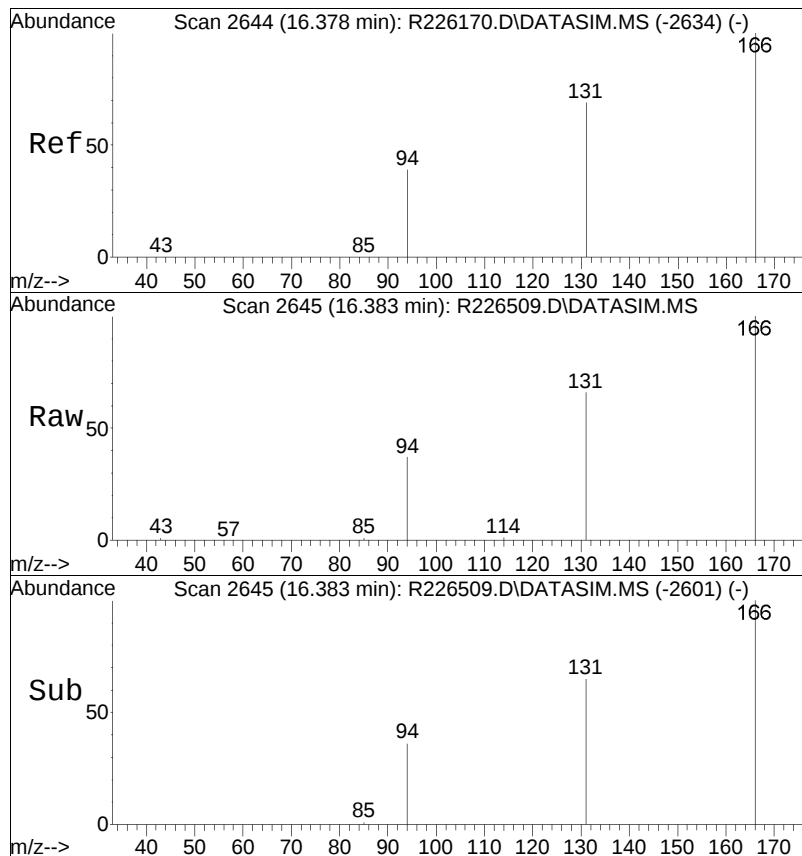




#42
trichloroethene
Concen: 0.02 ppbV
RT: 13.36 min Scan# 2012
Delta R.T. 0.008 min
Lab File: R226509.D
Acq: 27 Nov 2013 5:48 pm

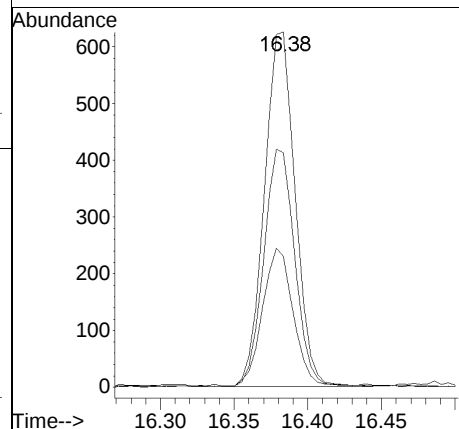
Tgt Ion	Ratio	Lower	Upper
130	100		
132	95.9	77.1	115.7
97	59.3	49.0	73.4





#55
 tetrachloroethene
 Concen: 0.04 ppbV
 RT: 16.38 min Scan# 2645
 Delta R.T. 0.005 min
 Lab File: R226509.D
 Acq: 27 Nov 2013 5:48 pm

Tgt Ion:	166	Resp:	910
Ion Ratio	Lower	Upper	
166	100		
131	66.0	55.1	82.7
94	36.9	31.4	47.0



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR2\2013Q	Method	: TSIM131110.M
Data File	: R226509.D	Operator	: AIRPIAN02:RY
Date Inj'd	: 11/27/2013 5:48 pm	Instrument	: Air Piano 2
Sample	: WG655026-6,3,250,250	Quant Date	: 11/28/2013 7:02 am

There are no manual integrations or false positives in this file.

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

C_s = Concentration of sample (ppbv)

DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor

$$\text{DF} = V_{\text{cf}} / V_{\text{ci}}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

P =

Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) \times \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI / 14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF / 14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

V_{ci} = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

V_{cf} = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Dec 12 2013, 02:54 pm

Work Group: WG655026 for Department: 3 GC/MS

Created: 27-NOV-13 Due: Operator: MB

Sample	Account #	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	CollectDate	Location
L1323970-02	EESTIBM	IA1034	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:11	Can-2.7
L1323970-03	EESTIBM	IA1030	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:19	Can-2.7
L1323970-04	EESTIBM	IA1018	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:24	Can-2.7
L1323970-05	EESTIBM	DUP1	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:26	Can-2.7
L1323970-06	EESTIBM	IA1065	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:30	Can-2.7
L1323970-07	EESTIBM	IA1064	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:34	Can-2.7
L1323970-08	EESTIBM	IA1062	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:37	Can-2.7
L1323970-09	EESTIBM	IA1061	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:40	Can-2.7
L1323970-10	EESTIBM	IA1001	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:44	Can-2.7
L1323970-11	EESTIBM	IA1063	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 18:47	Can-2.7
L1323970-12	EESTIBM	FB1	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 19:09	Can-2.7
L1323970-13	EESTIBM	AA1001	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 19:05	Can-2.7
L1323970-14	EESTIBM	IA1012	S NYSDEC-T015-SIM	AIR	DONE	U	1221	1202	S0	1121 19:19	Can-2.7
L1324967-01	EESTIBM	IA8005\G	S NYSDEC-T015-SIM	AIR	SEC	U	1220	1202	S0	1120 20:44	Can-2.7
WG655026-1	BFB	MS BFB Tune Standard	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-10	LCSD	LCS Duplicate	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-11	BLANK	Laboratory Method Bl	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-2	CCAL	Continuing Calibrati	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-3	LCS	Laboratory Control S	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-4	LCSD	LCS Duplicate	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-5	BLANK	Laboratory Method Bl	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-6	DUP	Duplicate Sample	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-7	BFB	MS BFB Tune Standard	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-8	CCAL	Continuing Calibrati	S NYSDEC-T015-SIM	AIR	DONE	U					
WG655026-9	LCS	Laboratory Control S	S NYSDEC-T015-SIM	AIR	DONE	U					
Comments:											
L1323970-02	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-03	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-04	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-05	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-06	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-07	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-08	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-09	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-10	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-11	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-12	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-13	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1323970-14	Log NYSDEC-T015-SIM. See QAPP. Run LCS/LCSD run LCS/LCSD, and report surrogates. J Qual as per Andy's instruction ASP-B Package Due Date: 12/03/13										
L1324967-01	See scanned info for reporting list (built) Need to narrate Freon 123a (see scanned info for associated ions) Re-log of L1323970-01										
WG655026-10	WG655026-9										
WG655026-4	WG655026-3										
WG655026-6	L1324967-01										

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-007

Date: 11/10/13

Internal Standard/Surrogate Volume: NA

Analyst Initials: MB/AR

Sequence File Name: 131110.S

SIM ICAL#8844

Full Scan ICAL# 8789

TO-12 ICAL#

APH ICAL#

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Leak Check Pass ? Y/N
1	TA2111001	TO15_SFS	R226162	250ml	TUNE	NA
5	ITO15-SIMSTD0.02	TO15_SFS	R226163	SS13-039F 125ML 0.02	SIM ONLY	NA
5	ITO15-SIMSTD0.04	TO15_SFS	R226164	SS13-039F 250ML 0.04	SIM ONLY	NA
6	ITO15-SIMSTD0.1	TO15_SFS	R226165	SS13-039E 125ML 0.1	SIM ONLY	NA
6	ITO15-SIMSTD0.2	TO15_SFS	R226166	SS13-039E 250ML 0.2		NA
7	ITO15-SIMSTD0.5	TO15_SFS	R226167	SS13-039D 125ML 0.5		NA
7	ITO15-SIMSTD1.0	TO15_SFS	R226168	SS13-039D 250ML 1.0		NA
8	ITO15-SIMSTD2.5	TO15_SFS	R226169	SS13-039C 125ML 2.5		NA
8	ITO15-SIMSTD5.0	TO15_SFS	R226170	SS13-039C 250ML 5.0		NA
9	ITO15-SIMSTD10.0	TO15_SFS	R226171	SS13-039B 125ML 10.0		NA
9	ITO15-SIMSTD20.0	TO15_SFS	R226172	SS13-039B 250ML 20.0		NA
10	ITO15-SIMSTD50.0	TO15_SFS	R226173	SS13-039A 125ML 50.0		NA
10	ITO15-LLSTD100.0	TO15_SFS	R226174	SS13-039A 250ML 100.0	FULL SCAN ONLY	NA
1	BA2111001	TO15_SFS	R226175	250ml		NA
		Pause				
1	BA2111002	TO15_SFS	R226176	250ml	SIM TUNE	NA
2	CTO15-LLSTD10.0	TO15_SFS	R226177	SS13-036A 250ML 10.0	FULL SCAN ICV	NA
2	CTO15-SIMSTD5.0	TO15_SFS	R226178	SS13-036A 125ML 5.0	SIM ICV	NA

Alpha Analytical Air Lab Instrument Run Log

NJDEP Additional Sequence log Information:

Data File Path: refer to quantitation report header section and/or chromatogram

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-007

Date: 11/27/13

Internal Standard/Surrogate Volume: NA

Analyst Initials: MB/RV

Sequence File Name: 131127.S

SIM ICAL# 8844

Full Scan ICAL# 8789

TO-12 ICAL#

APH ICAL#

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Leak Check Pass ? Y/N
1	TA2112701	TO15_SFS	R226501	250ml	TUNE, DO NOT USE	NA
2	CTO15-SIMSTD5.0	TO15_SFS	R226502	125ml SS13-036F	USE FOR TUNE	NA
2	CTO15-SIMSTD5.0	TO15_SFS	R226503	125ml SS13-036F	SIM LCS	NA
2	CTO15-SIMSTD5.0	TO15_SFS	R226504	125ml SS13-036F	SIM LCSD	NA
1	BA2112701	TO15_SFS	R226505	250ml	BLANK	NA
1	L1323970-12,3,250,250	TO15_SFS	R226506	WG655026,ICAL8844		Y
2	L1323970-13,3,250,250	TO15_SFS	R226507	WG655026,ICAL8844		Y
3	L1323970-01,3,250,250	TO15_SFS	R226508	WG655026,ICAL8844		Y
3	L1323970-01DUP,3,250,250	TO15_SFS	R226509	WG655026,ICAL8844	NYSDEC-TO15-SIM DUP	Y
4	L1323970-02,3,250,250	TO15_SFS	R226510	WG655026,ICAL8844	LEAK CHECK FAILED	N
5	L1323970-03,3,250,250	TO15_SFS	R226511	WG655026,ICAL8844		Y
6	L1323970-04,3,250,250	TO15_SFS	R226512	WG655026,ICAL8844		Y
7	L1323970-05,3,250,250	TO15_SFS	R226513	WG655026,ICAL8844		Y
8	L1323970-06,3,250,250	TO15_SFS	R226514	WG655026,ICAL8844		Y
9	L1323970-07,3,250,250	TO15_SFS	R226515	WG655026,ICAL8844		Y
10	L1323970-08,3,250,250	TO15_SFS	R226516	WG655026,ICAL8844		Y
11	L1323970-09,3,250,250	TO15_SFS	R226517	WG655026,ICAL8844		Y
12	L1323970-10,3,250,250	TO15_SFS	R226518	WG655026,ICAL8844		Y
13	L1323970-11,3,250,250	TO15_SFS	R226519	WG655026,ICAL8844		Y
14	L1323970-14,3,250,250	TO15_SFS	R226520	WG655026,ICAL8844	RR, OUTSIDE OF TUNE TIME	Y

Alpha Analytical Air Lab Instrument Run Log

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab Instrument Run Log

Instrument ID: Airpiano 2

Internal Standard/Surrogate IDs: CSS13-005/CSS12-007

Date: 12/02/13

Internal Standard/Surrogate Volume: NA

Analyst
Initials: MB

Sequence File Name: 131202.S

SIM ICAL# 8844

Full Scan ICAL# 8789

TO-12 ICAL#

APHICAL#

[illegible]

Alpha Analytical Air Lab Instrument Run Log

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Supporting Documentation

Project Name: IBM-POK

Project Number: 3463.00

Serial_No:12041316:52
Lab Number: L1323970

Report Date: 12/04/13

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1323970-01	IA8005\IG	231	2.7L Can	10/30/13	94781	L1321611-15	Pass	-30.0	-4.2	-	-	-	-
L1323970-02	IA1034	0285	#16 AMB	10/30/13	94781		-	-	-	Pass	4.3	4.1	5
L1323970-02	IA1034	1768	2.7L Can	10/30/13	94781	L1321611-11	Pass	-29.5	-7.2	-	-	-	-
L1323970-03	IA1030	0285	#16 AMB	10/30/13	94781		-	-	-	Pass	4.3	4.1	5
L1323970-03	IA1030	255	2.7L Can	10/30/13	94781	L1321611-09	Pass	-30.0	-5.8	-	-	-	-
L1323970-04	IA1018	0129	#16 AMB	10/30/13	94781		-	-	-	Pass	4.5	4.5	0
L1323970-04	IA1018	147	2.7L Can	10/30/13	94781	L1321611-07	Pass	-30.0	-5.8	-	-	-	-
L1323970-05	DUP1	0292	#16 AMB	10/30/13	94781		-	-	-	Pass	4.3	4.4	2
L1323970-05	DUP1	185	2.7L Can	10/30/13	94781	L1321611-17	Pass	-30.0	-7.0	-	-	-	-
L1323970-06	IA1065	0188	#16 AMB	10/30/13	94781		-	-	-	Pass	4.0	3.6	11
L1323970-06	IA1065	555	2.7L Can	10/30/13	94781	L1321611-05	Pass	-29.5	-9.9	-	-	-	-
L1323970-07	IA1064	0483	#16 AMB	10/30/13	94781		-	-	-	Pass	4.2	4.3	2
L1323970-07	IA1064	140	2.7L Can	10/30/13	94781	L1321611-18	Pass	-30.0	-7.0	-	-	-	-
L1323970-08	IA1062	0484	#16 AMB	10/30/13	94781		-	-	-	Pass	4.4	4.7	7
L1323970-08	IA1062	488	2.7L Can	10/30/13	94781	L1321611-13	Pass	-30.0	-5.4	-	-	-	-

Project Name: IBM-POK

Project Number: 3463.00

Serial_No:12041316:52
Lab Number: L1323970

Report Date: 12/04/13

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1323970-09	IA1061	0562	#20 AMB	10/30/13	94781		-	-	-	Pass	4.3	3.9	10
L1323970-09	IA1061	109	2.7L Can	10/30/13	94781	L1321611-21	Pass	-30.0	-11.0	-	-	-	-
L1323970-10	IA1001	0291	#16 AMB	10/30/13	94781		-	-	-	Pass	4.5	4.6	2
L1323970-10	IA1001	187	2.7L Can	10/30/13	94781	L1321611-16	Pass	-30.0	-5.4	-	-	-	-
L1323970-11	IA1063	0139	#16 AMB	10/30/13	94781		-	-	-	Pass	4.1	4.2	2
L1323970-11	IA1063	464	2.7L Can	10/30/13	94781	L1321611-14	Pass	-30.0	-7.3	-	-	-	-
L1323970-12	FB1	0541	#16 AMB	10/30/13	94781		-	-	-	Pass	4.5	4.9	9
L1323970-12	FB1	456	2.7L Can	10/30/13	94781	L1321611-12	Pass	-30.0	-12.8	-	-	-	-
L1323970-13	AA1001	0412	#16 AMB	10/30/13	94781		-	-	-	Pass	4.5	4.8	6
L1323970-13	AA1001	446	2.7L Can	10/30/13	94781	L1321611-04	Pass	-30.0	-2.4	-	-	-	-
L1323970-14	IA1012	0280	#16 AMB	10/30/13	94781		-	-	-	Pass	4.2	4.5	7
L1323970-14	IA1012	457	2.7L Can	10/30/13	94781	L1321611-02	Pass	-30.0	-6.7	-	-	-	-
L1323970-15	UNUSED CAN 177	177	2.7L Can	10/30/13	94781	L1321611-19	Pass	+2.0	-12.3	-	-	-	-
L1323970-16	UNUSED CAN 120	120	2.7L Can	10/30/13	94781	L1321611-10	Pass	-29.9	-29.9	-	-	-	-
L1323970-17	UNUSED CAN 381	381	2.7L Can	10/30/13	94781	L1321611-08	Pass	-30.0	-29.3	-	-	-	-

Project Name: IBM-POK
Project Number: 3463.00

Serial_No:12041316:52
Lab Number: L1323970
Report Date: 12/04/13

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1323970-18	UNUSED CAN 258	258	2.7L Can	10/30/13	94781	L1321611-06	Pass	-30.0	-29.7	-	-	-	-



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-02
 Client ID: CAN 457 FC 280
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 13:45
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-04
Client ID: CAN 446 FC 412
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 14:17
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-05
 Client ID: CAN 555 FC 188
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 17:33
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	79		60-140
chlorobenzene-d5	82		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-06
 Client ID: CAN 258 FC 285
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 14:50
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	89		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-07
 Client ID: CAN 147 FC 129
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 15:22
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	87		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-08
 Client ID: CAN 381 FC 145
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 15:54
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	85		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-09
Client ID: CAN 255 FC 234
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 16:25
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	83		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-10
Client ID: CAN 120 FC 447
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 16:58
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	80		60-140
chlorobenzene-d5	81		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-11
 Client ID: CAN 1768 FC 491
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 18:05
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	77		60-140
bromochloromethane	79		60-140
chlorobenzene-d5	81		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-12
Client ID: CAN 456 FC 541
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 18:37
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	77		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	81		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-13
Client ID: CAN 488 FC 484
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 19:09
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	76		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	80		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-14
 Client ID: CAN 464 FC 139
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 19:41
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	75		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	79		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-15
Client ID: CAN 231 FC 034
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 20:13
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	74		60-140
bromochloromethane	77		60-140
chlorobenzene-d5	79		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-16
Client ID: CAN 187 FC 291
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 20:45
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	74		60-140
bromochloromethane	77		60-140
chlorobenzene-d5	78		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-17
 Client ID: CAN 185 FC 292
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 10/28/13 21:17
 Analyst: MB

Date Collected: 10/25/13 16:38
 Date Received: 10/25/13
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	73		60-140
bromochloromethane	77		60-140
chlorobenzene-d5	78		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-18
Client ID: CAN 140 FC 483
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 21:49
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	73		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	77		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-19
Client ID: CAN 177
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 22:20
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	73		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	77		60-140



Project Name:
Project Number: Not Specified

Lab Number: L1321611
Report Date: 12/02/13

Air Canister Certification Results

Lab ID: L1321611-21
Client ID: CAN 109 FC 562
Sample Location:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 10/28/13 23:25
Analyst: MB

Date Collected: 10/25/13 16:38
Date Received: 10/25/13
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
Chloroethane	ND	0.020	0.020	ND	0.053	0.053		1
1,1-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
trans-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
1,1-Dichloroethane	ND	0.020	0.020	ND	0.081	0.081		1
cis-1,2-Dichloroethene	ND	0.020	0.020	ND	0.079	0.079		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
Tetrachloroethene	ND	0.020	0.020	ND	0.136	0.136		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	72		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	76		60-140



APPENDIX D

DATA VALIDATION REPORT



Data Usability Report Method TO-15 Analysis

Client/Company: Sanborn, Head, & Associates, Inc., Concord, New Hampshire (SHA)

Site/Project Name: IBM Poughkeepsie Facility, Poughkeepsie, New York

Laboratory: Alpha Analytical, Mansfield, Massachusetts

Sample Delivery Group: L1323970

Date(s) of Collection: November 21, 2013

**Number and type
Samples & analyses:** 11 Indoor Air samples, 1 Ambient Air sample, and 1 Field Blank for 8 project-specific VOCs by Method TO-15

Senior Data Reviewers: Dr. Nancy C. Rothman, New Environmental Horizons, Inc.
Susan D. Chapnick, New Environmental Horizons, Inc.

Date Completed: January 6, 2014

A Data Validation Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *RFI Work Plan, VOC Source Assessment, IBM Poughkeepsie Facility, Poughkeepsie, New York, prepared by Sanborn, Head & Associates, October 2012*; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), EPA Method TO-15, (January 1999), 01/21/2000 revision*; NYSDEC *Analytical Services Protocol, June 2005, with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008*; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006*; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999*; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of MS/MSD/MD, FD, EB, TB, if applicable, and the analytical parameters reviewed are listed in Table 1. Any deviations noted for sample collection or receipt (*e.g.*, temperature or preservation issues) are included in Section II, below.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA1034	L1323970-02	11/21/13	Indoor Air	VOCs	Field Sample
IA1030	L1323970-03	11/21/13	Indoor Air	VOCs	Field Sample
IA1018	L1323970-04	11/21/13	Indoor Air	VOCs	Field Sample
DUP1	L1323970-05	11/21/13	Indoor Air	VOCs	Field Duplicate of IA1018
IA1065	L1323970-06	11/21/13	Indoor Air	VOCs	Field Sample
IA1064	L1323970-07	11/21/13	Indoor Air	VOCs	Field Sample
IA1062	L1323970-08	11/21/13	Indoor Air	VOCs	Field Sample
IA1061	L1323970-09	11/21/13	Indoor Air	VOCs	Field Sample
IA1001	L1323970-10	11/21/13	Indoor Air	VOCs	Field Sample
IA1063	L1323970-11	11/21/13	Indoor Air	VOCs	Field Sample
FB1	L1323970-12	11/21/13	Air	VOCs	Field Blank
AA1001	L1323970-13	11/21/13	Ambient Air	VOCs	Field Sample
IA1012	L1323970-14	11/21/13	Indoor Air	VOCs	Field Sample

Analytical method references:

VOC: Method TO-15 operated in the Selected Ion Monitoring (SIM) mode for 8 project-specific VOCs

II. Data Discussion

An In-Depth Data Usability Review was performed on SDG L1221714. This review indicated, overall, that the laboratory met project DQOs. Therefore, compliant with the Work Plan requirements for data validation, an abbreviated checklist review of subsequent air data was performed. Please see the Data Usability Report for SDG L1221714 for complete details on the in-depth TO-15 review. The Data Review Checklist, attached, was completed during this abbreviated assessment to document the review of this SDG.

The samples were received intact and the canister vacuums (initial field, field final, and lab receipt) were considered acceptable for all samples except IA1065, IA1061 and FB1. The final field and lab receipt vacuums for IA1065, IA1061 and FB1 were > 10.0 "Hg, which is above the highest acceptable vacuum specified in the Work Plan. All results for these three samples were estimated (J or UJ) with indeterminate bias due to high receipt vacuum.

A grab sample IA8005\G (lab ID L1323970-01) was collected on November 20, 2013 and originally reported in this SDG; however, on December 6, 2013, SHA requested that the results for this sample be eliminated from the data package.

The field equipment blank (FB1) reported a low level detect for trichloroethene. A comparison was made between the level of this compound in the blank and samples and the following actions were taken (as listed in Table2):

- Trichloroethene was estimated (EB) in samples AA1001 and IA1030 since the sample results may be biased high, unless other QC issues affect the data, based on the presence of trichloroethene in the associated equipment blank.

Laboratory Duplicate (LD) precision evaluation was performed on sample IA8005\G. Precision was acceptable for all target VOCs.

There was one field duplicate (FD) pair: IA1018 / DUP1. FD precision was acceptable for all target VOCs. The sample/LD and FD results are an indication of acceptable precision and representativeness of the samples to the locations collected for all target VOCs in these air samples.

Sensitivity requirements compared to the Reporting Limits (RLs) defined in Table B.1 of the Work Plan were met for all samples.

All other quality control information associated with accuracy, precision, and sensitivity for the VOCs reported met project criteria for these samples with the exceptions summarized in Table 2, below. The attached Data Review Checklist includes all QA/QC reviewed during validation (including QC results that were acceptable) and details on the justification for actions taken.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
IA1030	Trichloroethene	EB	H	Equipment Blank Action
AA1001	Trichloroethene	JEB	I	Equipment Blank Action + Result uncertain below the calibration range
FB1	Trichloroethene	J	I	High Receipt Vacuum + Result uncertain below the calibration range
FB1	All VOCs except Trichloroethene	J / UJ	I	High Receipt Vacuum
IA1065 IA1061	All VOCs	J / UJ	I	High Receipt Vacuum

Qualifiers: U = Analyte is non-detect at the "Analyte-Reporting Limit" value; UJ = Non-detect is estimated; J = Result is estimated; EB = detected in field equipment blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

IBM Poughkeepsie Facility, Pughkeepsie, New York
Air Data Review Checklist - Method TO-15

Work Order # L1323970

Lab: Alpha Analytical

Date Sampled: 11/21/2013

Method of Analysis: TO-15 SIM

No. Samples 10 IA + 1FD, 1 AA, & 1 FB

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes		√	√	√	√	√	√	
No	Estimate (J or UJ) all results in 3 samples							Accept 2 "J" results

Other Issues : "EB" added to Trichloroethene in 2 samples (see page 2)

Samples were collected in 2.7 L Summa Canisters for approximately 8 hours. The vacuum for all samples was > 28" Hg in field prior to sample collection (acceptable). COC clearly indicates dates of collection, start and stop times for collection, initial and final vacuum in the field, matrix, samplers initials, canister ID and Flow Controller IDs. The samples were received intact on 11/23/13 and there were no COC issues noted; however, the COC ID for the grab sample is listed as IA7005\G while the narrative indicates this sample as IA8005\G. On December 6, 2013, the data package was re-issued and the results for sample IA8005\G (L1323970-01) were eliminated from the data package at SHA's request; therefore, the COC sample ID issue for this one sample was not discussed.

Canisters were Certified pre-cleaned - certificates of analysis were reported and indicate that all Target compounds were non-detect in the canisters prior to being sent to the field. Four canisters were unused and were returned to the laboratory with the canisters reported in this SDG.

The canister vacuums (field initial, field final and lab receipt) were all acceptable except IA1065, IA1061 and FB1 field final and lab receipt vacuums were greater than 10 "Hg (10.56 "Hg, 11.61 "Hg, and 13.5 "Hg, respectively). All Flow Controller checks had RPDs < 20% - acceptable. ***ACTION: All results for IA1065, IA1061 and FB1 estimated (J or UJ) with indeterminate bias due to high sample receipt vacuum.**

Samples were analyzed by 12/2/13 (within 12 days of collection); therefore HT was met. No Action required.

BFB Tunes: Instrument Airpiano2 3 Tunes (1 for ICAL + 2 for CCAL) - all criteria in all tunes were met and all samples were analyzed within 12 hours of tune; therefore, No Action Required.

ICALs : Instrument Airpiano2 SIM performed on 11/10/13. Full Scan = 11-level calibration from 0.02 to 50 ppbV for 8 Target compounds plus several non-target compounds. %RSD ≤ 15% for all 8 Target Compounds. RLs reported were supported by the ICALs.

Date: 1/3/2014

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Alpha Analytical

Method of Analysis: TO-15 SIM

Associated Blanks: Method Blank: WG655026-5BLANK & WG655026-11BLANK
Field Blanks: FB1

Blank ID	Contaminant / Level	Action Level DF=	Sample and reported result	Corrected Database Result
WG655026-5BLANK	None		No Blank Action Required	
WG655026-11BLANK	None		No Blank Action Required	
FB1	Trichloroethene 0.011J ppbV	0.055 ppbV	AA1001 0.012 J ppbV	0.012 JEB
			IA1030 0.023 ppbV	0.023 EB
			All other samples >> BAL - No Action	
FB1	Trichloroethene 0.059J $\mu\text{g}/\text{m}^3$	0.295 $\mu\text{g}/\text{m}^3$	AA1001 0.065 J $\mu\text{g}/\text{m}^3$	0.065 JEB
			IA1030 0.124 $\mu\text{g}/\text{m}^3$	0.124 EB
			All other samples >> BAL - No Action	

Additional Notes:

CCALs: file R226503 on 11/27/13 & file R226523 on 12/2/13 - %D $\leq \pm 30\%$ for all 8 Target compounds - No Action required.

Internal Standards: All 3 IS' had areas and RTs within criteria. Alpha does not also add surrogates (not required by method or QAPP) - No Action required.

LCS/LCSD: WG655026-3/-4 & WG655026-9/-10 - %Recovery acceptable for all 8 Targets in LCS and LCSD and LCS/LCSD RPDs all acceptable - lab demonstrated acceptable accuracy and precision for analysis. No Action required.

LD analysis performed on sample IA8005\G - sample/LD precision (Form 3) summary indicates acceptable precision obtained - No Action required.

Date: 1/3/2014

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Alpha Analytical

Method of Analysis: TO-15 SIM

Additional Notes:

Field Duplicate Evaluation_ Sample IDs:

Sample = IA1018

FD = DUP1

Analyte Name	DF = 1 RL (µg/m ³)	Sample Result µg/m ³	Q	FD Level	FD Result µg/m ³	Q	Level	RPD	Action
1,1-Dichloroethane	0.081	0.081	U	RL	0.081	U	RL	NA	None
1,1-Dichloroethene	0.079	0.079	U	RL	0.079	U	RL	NA	None
Chloroethane	0.053	0.053	U	RL	0.053	U	RL	NA	None
cis-1,2-Dichloroethene	0.079	0.083		< 5xRL	0.083		< 5xRL	0.0	None
Tetrachloroethene	0.136	0.149		< 5xRL	0.149		< 5xRL	0.0	None
trans-1,2-Dichloroethene	0.079	0.079	U	RL	0.079	U	RL	NA	None
Trichloroethene	0.107	0.494		< 5xRL	0.489		< 5xRL	1.0	None
Vinyl chloride	0.051	0.051	U	RL	0.051	U	RL	NA	None

FD precision was acceptable for all target VOCs in FD pair of IA1018 / DUP1 - No Action required.

There were 2 "J" results reported. These "J" were accepted with indeterminate bias due to uncertainty in quantitation below the instrument calibration range. There were no other qualifiers (except "U") reported on the data.

All reporting limits were at or below the RLs required in Table B.1 of the RFI Workplan (as shown on page 4); therefore, sensitivity was acceptable for all results.

The narrative did not raise any additional issues that may affect data quality.

Date: 1/3/2014

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Alpha Analytical

Table B.1 Compound List and Project-required Reporting Limits (RL)

Target Analyte Name	RL (µg/m ³)
Tetrachloroethene (PCE)	1.4
Trichloroethene (TCE) *	0.22
cis-1,2-Dichloroethene (cDCE)	0.8
trans-1,2-Dichloroethene (tDCE)	0.8
1,1-Dichloroethene (DCE)	0.8
Vinyl chloride (VC) *	0.052
1,1-Dichloroethane (DCA)	0.81
Chloroethane	2.6

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 10" Hg or < 3"Hg, J/UJ results (QAPP criteria); Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ results; Flow Controller RPD > 20%, J/UJ results

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported

Equipment Blank (EB): Result<Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25%< Area < 60% of CCV Area, J/UJ associated results;

Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *RFI Work Plan, VOC Source Assessment, IBM Poughkeepsie Facility, Poughkeepsie, New York, prepared by Sanborn, Head & Associates, October 2012*; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999

Date: 1/3/2014

Data Reviewer: Nancy C. Rothman, Ph.D.