REPORT ON
REVISED SOIL VAPOR INVESTIGATION RESULTS REPORT ADDENDUM
COOPERVISION, INC.
SCOTTSVILLE, NEW YORK
(VCA SITE #V00175-8)

by

Haley & Aldrich of New York
Rochester, New York

for

New York State Department of Environmental Conservation
Avon, New York

File No. 70665-017
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New York State Department of Environmental Conservation
Division of Environmental Remediation Region 8
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Attention: Mr. Frank Sowers, P.E.

Subject: *Revised* Soil Vapor Investigation Results Report Addendum
CooperVision, Inc.
Scottsville, New York
(VCA Site #V00175-8)

Dear Mr. Sowers:

On behalf of CooperVision, Inc., Haley & Aldrich is pleased to submit this Soil Vapor Investigation (SVI) Results Report Addendum for the CooperVision Facility in Scottsville, New York. This work was pursued under a Voluntary Cleanup Agreement (VCA) between CooperVision, Inc, and the New York State Department of Environmental Protection (NYSDEC), which was executed by NYSDEC in May 2001 for the above referenced site ("the Site") and is an addendum to the 28 October 2009 Soil Vapor Investigation Results Report. This report summarizes the activities and results of those activities described in the following NYSDEC-approved work plans:

- 27 March 2008 Soil Vapor Investigation Work Plan
- 1 August 2008 Interim Remedial Measure (IRM) Work Plan *(Soil Vapor Sampling portion only)*
- 10 December 2008 Soil Vapor Investigation Work Plan – Second Phase
- 4 February 2009 Sub Slab Vapor & Indoor Air Investigation Work Plan

This report contains the following:

- A site description summary and recent project history summary that relate to the vapor intrusion investigation activities,
- A summary of the vapor intrusion investigation activities and results.

This report is intended to conclude the investigation of potential offsite vapor impacts to the residential properties located adjacent to the east side of the Site. *This report has been revised as per NYSDEC*

comments dated 28 August 2009. This report subsequently supersedes the Soil Vapor Investigation Results Addendum dated 12 June 2009. Significant revisions are shown herein in italics.

Please contact the undersigned with any questions you may have.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

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Enclosures

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EXECUTIVE SUMMARY

Multiple phases of a vapor intrusion investigation occurred at the CooperVision property, adjacent eastern right-of-way, and on the adjacent eastern residential properties between April 2008 and March 2009. The investigation was in response to concentrations of 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), and 1,1-dichloroethane (1,1-DCA) existing in onsite groundwater well MW-204 above the New York State Ambient Water Quality Standards and Guidance Values (TOGS 1.1.1.). MW-204 is located on the eastern property line of the CooperVision Site (Figure 2). The purpose of the investigation was to evaluate whether or not concentrations of vapors from the contaminants of concern (1,1,1-TCA, 1,1,-DCE, 1,1-DCA, Chloroethane, and vinyl chloride) were migrating offsite to the east and potentially impacting the residential properties.

The investigation occurred in three stages with an Interim Remedial Measure (IRM) conducted in-between the first and second stages as follows:

1. **First Phase Soil Vapor Sampling (April 2008 – June 2008)** – This stage consisted of a soil vapor investigation at both shallow and deep intervals in the source area of groundwater contamination and on the eastern property line of the Site as well as within the right-of-way of Briarwood Lane. The first phase soil vapor points are shown on Figure 2.

   The results of the first phase sampling indicated that concentrations of chlorinated compounds of concern in vapor were present along the property line and right-of-way; most notably in the vicinity of a natural gas utility line that traverses from the contaminant source area of the CooperVision property to the eastern property line where it meets the main gas utility line in the street on the east side of the property. An additional natural gas line connects to that main line and extends towards the residential properties to the east. Based on those results, it appeared that the natural gas utility line was *potentially* acting as a preferential pathway for vapor migration (Figure 2).

2. **Interim Remedial Measure (August 2008 – October 2008)** – As described in the NYSDEC-approved IRM work plan, dated 1 August 2008, the IRM consisted of the installation of soil/bentonite/cement (SBC) trench collars in five locations along the natural gas utility line and on a water line to act as barriers to vapor migration.

   Following installation of the collars, additional soil vapor sampling was conducted and was used to evaluate the effectiveness of the collars. Though concentrations of vapors on the property line and right-of-way decreased, they did not decrease to non-actionable levels.

3. **Second Phase Soil Vapor Sampling (December 2008)** – This stage consisted of the installation and sampling of additional soil vapor points on the CooperVision property and on the residential properties to the east. The second phase soil vapor points are shown on Figure 2.

   The results of the second phase sampling indicated that chlorinated compounds of concern were detected in vapor on the adjacent eastern property, though at much lower concentrations than previously seen on the CooperVision property and in the right-of-way. This was likely a result of a combination of factors including distance from the source area of contamination, distance away from the utility line, *temporal and seasonal variability*, and the *potential* effectiveness of the trench collars previously installed that were acting as a barrier to vapor migration.

4. **Indoor Air & Sub-Slab Vapor Sampling (January 2009 – March 2009)** – In order to evaluate the potential presence of vapor from the contaminants of concern in the residential buildings themselves, indoor air and sub-slab vapor sampling occurred within eight of the residential units on the east side of the CooperVision property.

   There were no vapor detections above laboratory detection limits of the contaminants of concern within the indoor air or sub-slab vapor samples from the eight sampled locations.

In general, the soil vapor intrusion investigation indicated that though vapor concentrations of the contaminants of concern were present on the CooperVision property boundary and within the right-of-way, they had not adversely impacted the residential properties.

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1. INTRODUCTION

1.1 Project Description

The CooperVision facility is located at 711 North Road in Scottsville, New York on an approximately 5.4 acre parcel of land (See Figures 1 and 2). As summarized in past submittals to the NYSDEC, volatile organic compounds (VOCs), primarily 1,1,1-trichloroethane (1,1,1-TCA) have been found in soil and groundwater on some portions of the property.

CooperVision, Inc. applied to the NYSDEC for participation in New York State's Voluntary Cleanup Program (VCP) for the CooperVision facility, and was deemed eligible to be a volunteer in 18 March 1999 (investigation VCA). A separate remediation VCA was initiated on 22 March 2001.

1.2 Recent Activities

The Draft FER and Operations Maintenance and Monitoring (OM&M) Plan, both dated 7 May 2007 were submitted to the NYSDEC for review in June 2007. The NYSDEC provided comments to the documents in a letter dated 21 August 2007 to which Haley & Aldrich responded on behalf of CooperVision in a letter dated 11 October 2007. A meeting with the NYSDEC, the New York State Department of Health (NYSDOH), CooperVision, and Haley & Aldrich followed on 30 October 2007. The purpose of the meeting and associated correspondence was to discuss the remaining two main NYSDEC concerns with the project:

1. Residual source area concentrations.

2. The potential for offsite migration of contaminated groundwater and vapor as a result of contaminant concentrations detected in MW-204 on the easternmost side of the Site.

Groundwater monitoring has occurred at the Site since 1997. In October 2006, concentrations of chlorinated compounds, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), and 1,1,1-TCA were detected in MW-204, the easternmost downgradient well located along the eastern property boundary (see Figure 2) at levels higher than what had historically been detected in this well. Haley & Aldrich attributed these increases to the presence of lower groundwater elevations than was normal (due to a summer with low precipitation). Since the 2006 sampling and results, the chlorinated compound detections have decreased to low ppb levels; consistent with what otherwise historically had been detected in this well.

Even though the chlorinated compound concentrations have decreased, the NYSDEC and NYSDOH felt it was prudent to evaluate the soil vapor conditions in this general area of the groundwater plume.

To address the NYSDEC's concerns, a first phase soil vapor investigation was conducted on the CooperVision Site in May and June of 2008 as per the 27 March Soil Vapor Investigation Work Plan. The results of the first phase of investigation were summarized in the Soil Vapor Investigation Results Report dated 28 October 2008, and are briefly summarized herein in Section 2.

The remainder of this report summarizes the activities and results of the soil vapor intrusion related activities that occurred following the first phase of soil vapor investigation until the conclusion of the soil vapor investigation as a whole. Those activities included:

- Confirmatory Soil vapor sampling performed following installation of the IRM (Soil-Bentonite-Cement (SBC) trench collars).

- A second phase soil vapor investigation, which included offsite soil vapor sampling to the east of the CooperVision Site.

- Indoor air and sub-slab vapor sampling within the residential buildings to the east of the CooperVision Site.

2. SOIL VAPOR INVESTIGATION - FIRST PHASE

Fourteen (14) permanent soil vapor points were installed at eight (8) locations on the Site and in the adjacent eastern right-of-way on 29 April 2008 by Nothnagle Drilling of Scottsville, New York. The points were sampled on 1 May and a confirmatory re-sampling event was conducted on 12 and 16 June 2008. In addition, ambient air sampling was conducted during each day that soil vapor samples were collected for both the initial and confirmatory sampling events.

Soil vapor point installation, soil vapor sampling, and ambient are sampling were conducted in conformance to the New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006 (NYSDOH Guidance).

The first phase of the soil vapor investigation is summarized herein for reference and context. Additional information regarding soil vapor point installation and field activities associated with the first phase of the soil vapor investigation is included in the 28 October 2008 Soil Vapor Investigation Results Report.

2.1 Point Location

The locations of the soil vapor points installed during the first phase are described below.

One soil vapor point was installed in two source area locations as shown on Figure 2:

- **SV-1:** 3 ft. bgs.
- **SV-2:** 3 ft. bgs.

Though high groundwater was also present along the property line and right-of-way, nested points were installed at each of the following locations with the understanding that the deeper points could be sampled when the groundwater was lower due to seasonal fluctuations. Two nested soil vapor points were installed at the following property line and right-of-way locations as shown on Figure 2:

- **SV-3S/SV-3D:** 2.7 ft. bgs and 4.7 ft. bgs, respectively.
- **SV-4S/SV-4D:** 4.3 ft. bgs and 6.3 ft. bgs, respectively.
- **SV-5S/SV-5D:** 2.7 ft. bgs and 4.7 ft bgs, respectively.
- **SV-6S/SV-6D:** 3.0 ft. bgs and 4.8 ft bgs, respectively.
- **SV-7S/SV-7D:** 3.0 ft. bgs and 5.0 ft. bgs, respectively.
- **SV-8S/SV-8D:** 3.0 ft. bgs and 5.0 ft. bgs, respectively.

2.2 Sampling and Sample Locations

Initial soil vapor samples were collected from select soil vapor points on 1 May 2008, at least 24 hours after the soil vapor points were installed. A confirmatory re-sampling event was conducted on 12 and 16 June 2008. In addition, an ambient air sample was collected from an upwind location each day that soil vapor sampling occurred. Sampling procedure is described in the 28 October 2008 Soil Vapor Investigation Results Report. The samples were collected in conformance with the 27 March 2008 Soil Vapor Investigation Work Plan, as approved, and the NYSDOH Guidance.

Due to high groundwater in the vicinity of the CooperVision facility, not all of the points could be sampled during each of the sampling events as the point screens were located below groundwater. The following points were sampled during the May 2008 and June 2008 sampling events.

- **Initial sampling – May 2008:** SV-1, SV-2, SV-3S, SV-4S, SV-5S, SV-6S, and SV-7S
- **Confirmatory sampling – June 2008:** SV-1, SV-2, SV-3S, SV-3D, SV-4S, SV-4D, SV-5S, SV-5D, SV-6S, SV-6D, SV-7S, and SV-8S

The soil vapor samples were submitted to Columbia Analytical Services Air Lab in Simi Valley, CA for analysis of target compounds using EPA Method TO-15. The target compound list consisted of 1,1-DCA, 1,1-DCE, 1,1,1-TCA, chloroethane, and vinyl chloride. The ambient air sample was also submitted to Columbia Analytical Services Air Lab in Simi Valley, CA for VOCs using EPA Method TO-15.

2.3 Sampling Results

The analytical results are briefly summarized below. Refer to Tables I and II for a complete summary of the analytical data. The laboratory analytical data reports are included in Appendix D.

2.3.1 Source Area Points (SV-1 and SV-2)

As shown on Table I, the results for SV-1 and SV-2 were variable. One would have expected the results from SV-1 and SV-2 to be similar because those sampling points are located relatively near one another in the source area. However, the results were not consistent with each other. SV-2 had a higher result in the May sampling event compared with SV-1 and the exact opposite was true during the June sampling event. We suspected that there are two potential reasons for these results.

1. SV-1 and SV-2 were likely within the radius of influence of the sub-slab depressurization system installed within the CooperVision building. The negative pressure gradient generated beneath the ground surface as a result of the system may have produced the inconsistent results.

2. The samples may have been inadvertently switched either in the laboratory or field during either sampling event (review of field data and conversations with laboratory personnel did not indicate this had occurred, though subsequent sampling in October 2008 (see Section 3 and Table I) indicated that this was the likely reason for the variability).

One of the original purposes of sampling those points (other than assessing the conditions nearer the source area) was to use them in comparison with the April 2008 groundwater analytical data to determine a site-specific vapor attenuation factor. Because the results were so variable however, they were not be used for this purpose.

2.3.2 Property Line (SV-3, SV-4, SV-5) and Right-of-Way Points (SV-6, SV-7, and SV-8)

In general, the results of the sampling along the property line and the right-of-way showed a decreasing trend from north to south, with SV-3 and SV-6 indicating the highest concentration

of VOC impacted vapors. Also, there generally appeared to be higher concentrations of vapor in the deeper points than the shallower points which would be consistent with vapor generating from affected groundwater at depth.

However, based on the groundwater data collected thus far, there was not compelling evidence that groundwater was the proximate source for the vapor detections observed at the property line, and following additional evaluation, the most compelling reason for the high VOC vapor concentrations present in SV-3 and SV-6 was suggested to be the presence of underground utilities that originate from the source area, transect the Site, and connect to the main line in the right-of-way and split again to connect to the adjacent eastern properties (See Figure 2).

Based on the existing groundwater data and the determined location of utility lines, it was concluded that the existing natural gas pipeline bedding/utility trench may be acting as a preferential vapor or groundwater conduit and following the circuitous route presented by the utility trenches to the eastern properties. Refer to the 28 October 2008 Soil Vapor Investigation Report for additional information regarding this evaluation.

In order to address the utilities as being a potential vapor migration pathway, an Interim Remedial Measure (IRM) Work Plan was submitted to the NYSDEC on 1 August 2008, which is described briefly in the Section 3. The IRM included an additional round of soil vapor sampling of existing points which is also described in Section 3 below.

3. SOIL VAPOR INVESTIGATION – INTERIM REMEDIAL MEASURE

The IRM Work Plan was submitted to the NYSDEC on 1 August 2008 to address the utilities as a potential vapor migration pathway to the residential properties east of the Site. The IRM generally consisted of installing Soil-Bentonite-Cement (SBC) trench collars in five locations along the existing natural gas and water lines present on both the CooperVision property and the adjacent eastern right-of-way. The locations of the SBC trench collars are shown on Figure 2.

Also included as part of the IRM was a third round of soil vapor sampling at the existing soil vapor points (those installed in the first phase).

3.1 Sampling and Sample Locations

Soil vapor samples were collected from select soil vapor points on 14 October 2008, concurrently with regularly scheduled semi-annual groundwater sampling. The samples were collected in conformance with the 27 March Soil Vapor Investigation Work Plan (referenced in the 1 August IRM Work Plan), as approved, and the NYSDOH October 2006 Guidance. Samples were collected from all points installed as part of first phase soil vapor sampling except SV-7D, SV-8S, and SV-8D due to the presence of high groundwater.

Prior to sampling, each of the soil vapor points were briefly evacuated to purge any stagnant vapors within the probe. Additionally, during the purging process, a tracer compound (helium) was released around the probe at the ground surface, and the vapor point was then screened for helium vapors to analyze for potential short-circuiting and to ensure that the surface seal was intact (helium test). Each of the points passed the helium test showing no short-circuiting of vapors.

The soil vapor samples were collected in dedicated, laboratory-supplied "batch certified clean" stainless steel Summa canisters at rates no greater than 0.2 L/min (i.e., an estimated 30 minutes completion time to fill one 6L Summa canister), with an average target fill-time of approximately 2 hours per canister. Some samples had to be sampled twice due to faulty cans and/or flow controllers.

The samples were submitted to Columbia Analytical Services Air Lab in Simi Valley, CA for analysis of target compounds using EPA Method TO-15. The target compound list consisted of 1,1-DCA, 1,1-DCE, 1,1,1-TCA, Chloroethane, and vinyl chloride.

Concurrent with soil vapor sampling, one ambient air sample was collected at the CooperVision Site at one upwind location. The sample was collected using a "batch certified-clean" 6.0-liter canister equipped with an 8-hour flow controller. The ambient air sample was also submitted to Columbia Analytical Services Air Lab in Simi Valley, CA for VOCs using EPA Method TO-15.

3.2 Sampling Results

The results of the soil vapor sampling conducted in October 2008 are summarized in Tables I and II. In general, compared to the results from the May and June sampling events, the following were noted:

1. The soil vapor concentrations in both shallow and deep points at location SV-3 had decreased by almost half.

2. The vapor concentration in the deep point at SV-6 decreased significantly, though the vapor concentrations in the shallow point at SV-6 increased.

3. The vapor concentrations decreased slightly overall in the deep point at SV-4, the deep point at SV-5, and the shallow point at SV-7 (to non-detect).

Overall, the utility trench collars that were installed under the 1 August 2008 IRM Work Plan appeared to *potentially be a contributing factor to* the notable soil vapor concentration decreases between the *June* 2008 and October 2008 sampling events. *While other factors may have also contributed to the decrease in vapor concentrations, including seasonal and temporal variability,* the findings supported the site model that the utility lines, particularly the natural gas line, provided a preferential pathway for vapor. While the concentrations of soil vapor did decrease following installation of the trench collars, they did not decrease to below actionable levels. As a result, the second phase of soil vapor sampling was conducted, which included soil vapor sampling on the adjacent eastern properties.

4. SOIL VAPOR INVESTIGATION – SECOND PHASE

The second phase of the soil vapor sampling occurred in response to the soil vapor sampling results from October 2008. This phase included additional installation of soil vapor sampling points both on the CooperVision property and on the adjacent properties to the east of the Site with the purpose of further understanding the nature and extent of the potential vapor plume, and to further understand the impact that the utility lines may have been having on the migration of the vapor. The installation and sampling activities took place in between 23 and 30 December 2008 and are described in the sections below. The work was completed in accordance was with the 10 December Soil Vapor Investigation Work Plan – Second Phase. Vapor point installation reports are included in Appendix A, and field sampling forms are included in Appendix B.

4.1 Soil Vapor Point Installation

Sixteen (16) temporary soil vapor points were installed at eight (8) locations on the Site and on the adjacent eastern residential properties by Nothnagle Drilling of Scottsville, New York. Soil vapor point installation was overseen by Haley & Aldrich and NYSDEC representatives.

Soil vapor point installation was conducted in conformance to the NYSDOH Guidance.

4.1.1 Point Location

The locations of the installed soil vapor points are described below. Based on what was observed during the installation of the first phase soil vapor points, high groundwater was anticipated to be present during installation of the second phase points. Regardless, as with the first phase, nested points were installed at each location with the understanding that the deeper points could be sampled when the groundwater was lower due to seasonal fluctuations. Two nested soil vapor points were installed in the locations shown on Figure 2, and to the following depths:

- **SV-101S/SV-101D:** 3 ft. bgs and 5 ft. bgs, respectively.
- **SV-102S/SV-102D:** 3.5 ft. bgs and 5.5 ft. bgs, respectively.
- **SV-103S/SV-103D:** 3 ft. bgs and 5 ft bgs, respectively.
- **SV-104S/SV-104D:** 4 ft. bgs and 6 ft bgs, respectively.
- **SV-105S/SV-105D:** 3.5 ft. bgs and 6 ft. bgs, respectively.
- **SV-106S/SV-106D:** 3 ft. bgs and 6 ft. bgs, respectively.
- **SV-107S/SV-107D:** 4 ft. bgs and 7 ft. bgs, respectively.
- **SV-108S/SV-108D:** 4.2 ft. bgs and 5.8 ft bgs, respectively.

4.1.2 Installation Method

Each sample point was installed in accordance with the 10 December Soil Vapor Investigation Work Plan – Second Phase, as approved, and the October 2006 NYSDOH guidance Figure 2.2. Each point location was installed using a direct push, GeoProbe rig. The depths of the points were determined in the field based on the depth of groundwater. Two and one quarter inch (2.25 in.), woven steel wire screens attached to Teflon tubing was installed in each sample point. The points were then backfilled with quartz sand allowing a 1 to 2 foot length sampling zone, then filled to 1 foot below the ground surface using hydrated bentonite.

The soil vapor points were sealed at the ground surface with 1 foot of concrete to prevent any inflow from ambient surface air. Each soil vapor point opening was capped and encased and secured in a bolted cast aluminum flush-mount roadway box. The soil vapor point installation including the surface seal installation method was observed and approved in the field by NYSDEC personnel.

4.2 Soil Vapor & Ambient Air Sample Collection

Soil vapor samples were collected from select soil vapor points on 30 December 2008. The samples were collected in conformance with the 10 December Soil Vapor Investigation Work Plan – Second Phase, as approved, and the NYSDOH Guidance. Samples were planned to be collected from all of the newly installed 100-series vapor points as well as from the vapor point couplets at SV-3, SV-5, SV-6, and SV-8 in order to provide a concurrent sample set from those previously sampled locations and further data on the performance of the SBC trench collars. Ultimately, due to high groundwater in some locations, samples were only collected from the previously-existing and new vapor points noted on the table below.

Points Sampled	Point planned to be sampled, but could not be due to high groundwater	Points not planned to be sampled
SV-3S, SV-6S, SV-6D, SV-101S, SV-102S, SV-102D, SV-103S, SV-104S, SV-104D, SV-106S, SV-107S, SV-108S, SV-108D	SV-3D, SV-5S, SV-5D, SV-8S, SV-8D, SV-101D, SV-103D, SV-105S, SV-105D, SV-106D, SV-107D	SV-1, SV-2, SV-4S, SV-4D, SV-7S, SV-7D

Soil vapor samples were collected in a manner consistent with previous sampling events (described in Section 3.1 above), and in accordance with the NYSDOH Guidance.

The samples were submitted to Columbia Analytical Services Air Lab in Simi Valley, CA for analysis of target compounds using EPA Method TO-15. The target compound list consisted of 1,1-DCA, 1,1-DCE, 1,1,1-TCA, Chloroethane, and vinyl chloride.

Concurrent with soil vapor sampling, one ambient air sample was collected at the CooperVision Site at one upwind location. The sample was collected using a "batch certified-clean" 6.0-liter canister equipped with an 8-hour flow controller. The ambient air sample was also submitted to Columbia Analytical Services Air Lab in Simi Valley, CA for VOCs using EPA Method TO-15.

4.3 Sampling Results

The analytical results are briefly summarized below. Refer to Tables I and II for a complete summary of the analytical data. The laboratory analytical data reports are included in Appendix D.

4.3.1 Onsite and Right-of-Way Points (SV-3, SV-6, SV-101, SV-108)

Since the sampling event prior (October 2008), the concentrations of contaminants of concern in SV-3 and SV-6, both shallow and deep, decreased markedly as described below:

- Shallow Points:

  The concentrations of nearly all of the contaminants of concern in SV-3S decreased by an order of magnitude or more. In SV-6S, the concentrations a majority of the contaminants of concern decreased by 2 to 5 times what was previously detected in October 2008.

- Deep Points:

  Concentrations of the contaminants of concern were either not detected or decreased by approximately half in SV-6D since the previous sampling event.

  The substantial decrease in concentration of the contaminants of concern in SV-3 and SV-6, both located in close proximity to the natural gas utility line, suggest that the SBC trench collars installed on that line *may have contributed to* mitigating soil vapor migration from the Site to the adjacent properties to the east.

  SV-101 and SV-108 was sampled for the first time in December 2008, and were intended to be used to define the northern (SV-101) and southern (SV-108) boundary of the vapor plume. Contaminants of concern were not detected in SV-101S (SV-101D could not be sampled due to high groundwater). 1,1,1-TCA was detected at low levels in SV-108S. 1,1,1-TCA was also detected in SV-108D one order of magnitude higher that SV-108S. A low level detection of 1,1-DCA was also present in SV-108D. The higher contaminant detections in the deeper sample is consistent with the assumption that vapor is generating from affected groundwater at depth.

4.3.2 Offsite Locations (SV-102, SV-103, SV-104, SV-106, SV-107)

Detections of the contaminants of concern were substantially less than what was seen on the property boundary and in the right-of-way. Vinyl chloride, Chloroethane, and 1,1-DCA were not detected in any of the offsite points sampled. 1,1-DCA was detected at a low level in SV-104D. 1,1,1-TCA was detected in the shallow samples between non-detect and 21 ug/m^3, and was detected in deep samples between 2.8 ug/m^3 and 27 ug/m^3.

The low level detections indicated that vapors from the CooperVision facility were migrating onto the adjacent properties. At the request of the NYSDOH and the NYSDEC a sub-slab and indoor air investigation was conducted within the six apartment buildings closest to SV-3 and SV-6 to determine if migrating soil vapors were impacting the adjacent residences. Information pertaining to that investigation is described in Section 5 below.

5. INDOOR AIR AND SUB-SLAB VAPOR INVESTIGATION

The indoor air and sub-slab vapor investigation occurred in response to concerns of potential soil vapor migration to the adjacent residential properties (North Road Townhomes and Briarwood Place). The sub-slab vapor point installation and sampling activities took place in three events 28-30 January 2009, 8-10 February 2009, and 25-27 February 2009 as per access agreements with property owners. The work was completed in accordance with the 4 February 2009 Indoor Air Investigation Work Plan and in conformance with the NYSDOH Guidance. Note that due to access restrictions, the 28-30 January sampling event occurred before the Work Plan was completed and approved.

5.1 Sampling Locations

The below described work scope was completed in connection with the indoor air investigations on the bottommost level at the following locations:

North Road Townhomes (sampled 25-27 February 2009):

- Unit #705-1 (Basement)
- Unit #709-2 (First Floor – No basement present)

Briarwood Place (sampled 8-10 February 2009, except where noted):

- Unit #2 (Utility Closet)
- Unit #8 (Basement)
- Unit #10 (Basement) (sampled 28-30 January 2009)
- Unit #16 (Utility Closet)
- Unit #60 (Basement)
- Unit #64 (Utility Closet)

The above-listed locations are shown on Figure 3.

5.2 Pre-Sampling Inventory

A pre-sampling survey consisting of a building inspection and product inventory as described in the 4 February 2009 Indoor Air Investigation Work Plan was completed prior to sub-slab and indoor air sampling in each of the units sampled. Inventory forms are included in Appendix C.

The building inventory was used to identify potential VOC sources from interior materials (e.g., residential construction materials, household products) that may affect the sample analysis. If a chemical known to contain site-specific compounds of concern was identified in the residence (e.g. products containing 1,1,1-TCA or other target compounds), that product was placed in containment for the duration of the testing and then replaced afterward.

Although there was no control over activities conducted in the residences throughout the sampling duration, a reasonable attempt was made to select a sampling location away from VOC sources inside the structure and avoiding resident activities, to mitigate analytical interference to the extent feasible.

5.3 Sub-Slab Residential Vapor Sampling

5.3.1 Point Installation

A temporary soil vapor point was installed in each of the locations noted in Section 5.1 above. Where there was a basement present, the point was installed beneath the basement slab (approximately 2 inches). For locations where there was no basement, including the utility closets, the point was installed beneath the first floor slab. The locations of the sub-slab points were determined based upon residence construction, foundation type, information concerning utilities, and discussions/access from the property owners.

The points were constructed of inert tubing of approximately 1/8 inch in diameter. The sampling points were sealed at the surface using hydrated bentonite to prevent infiltration of indoor air during sampling.

5.3.2 Sub-slab Sampling

Twenty-four hours after installation of the sub-slab points, sub-slab vapor sampling was conducted in accordance with the NYSDOH Guidance at each location as follows:

- The sub-slab vapors were briefly evacuated to purge any stagnant vapors from within the point (approximately three probe volumes were purged). During the purging process, Helium tracer gas was released around the point at the ground surface, and a helium detector was used at the vapor point to assess potential short-circuiting and ensure the surface seal was intact. Purging occurred at a rate of less than 0.2 L/m. All points passed the tracer gas test and were found to have adequate surface seals.

- Samples were collected immediately after purging using dedicated, laboratory-supplied "batch certified clean" stainless steel SUMMA® canisters with dedicated flow controllers. The cans had an average target fill time of approximately 24-hours per canister. Initial and final vacuum measurements were documented during sampling. Field forms are included in Appendix B.

- The samples were shipped at ambient temperature under a chain of custody to Columbia Analytical Services Air Lab in Simi Valley, California, with the exception of the sample from Briarwood Place Unit #10, which was submitted to Columbia Analytical Services in Rochester, New York. The samples were analyzed for target VOCs via EPA Method TO-15 and TO-15 SIM. The target list consisted of 1,1,1-TCA, 1,1-DCA, 1,1-DCE, Chloroethane, and vinyl chloride, consistent with what was analyzed for previously in soil vapor, and the compounds detected in groundwater at the CooperVision property line. The SIM Method was used for some compounds (e.g. – Vinyl Chloride) to allow the laboratory to achieve detection limits consistent with what is required by the NYSDOH Guidance.

- After completion of the sub-slab vapor sampling, the soil vapor point was removed, and the location was sealed using cement.

5.4 Residential Indoor Air Sampling

Concurrent with sub-slab vapor sampling, an indoor air sample was collected in the basement level, first floor, or utility area of each unit sampled in accordance with the NYSDOH Guidance as follows:

- Samples were collected using dedicated, laboratory-supplied "batch certified clean" stainless steel SUMMA® canisters with dedicated flow controllers. The cans had an average target fill time of approximately 24-hours per canister. Initial and final vacuum measurements were documented during sampling. Field forms are included in Appendix B.

- The canisters were placed roughly 3-5 feet above floor level, to approximate the breathing zone of residents. If a sump was present, the canister was placed in the general vicinity of the sump.

- The samples were shipped at ambient temperature under a chain of custody to Columbia Analytical Services Air Lab in Simi Valley, California, with the exception of the sample from Briarwood Place Unit #10, which was submitted to Columbia Analytical Services in Rochester, New York. The samples were analyzed for target VOCs via EPA Method TO-15 and TO-15 SIM. The target list consisted of 1,1,1-TCA, 1,1-DCA, 1,1-DCE, Chloroethane, and vinyl chloride, consistent with what was analyzed for previously in soil vapor, and the compounds detected in groundwater at the CooperVision property line. The SIM Method was used for some compounds (e.g. – Vinyl Chloride) to allow the laboratory to achieve detection limits consistent with what is required by the NYSDOH Guidance.

5.5 Outdoor Ambient Air Sampling

Concurrent with sub-slab vapor and indoor air sampling, one ambient air sample was collected from an upwind outdoor location during every day sampling was conducted. As with the sub-slab and indoor air samples, ambient air samples were collected using "batch certified clean" 6-Liter SUMMA® canisters equipped with an integrated flow controller over a 24-hour period. Initial and final vacuum measurements were documented during sampling. Field forms are included in Appendix B.

The samples were shipped at ambient temperature under a chain of custody to Columbia Analytical Services in Simi Valley, California, with the exception of the sample from Briarwood Place Unit #10, which was submitted to Columbia Analytical Services in Rochester, New York. The samples were analyzed for target volatile organic compounds (VOCs) via EPA Method TO-15 and TO-15 SIM. The target list consisted of 1,1,1-TCA, 1,1-DCA, 1,1-DCE, Chloroethane, and vinyl chloride, consistent with what was analyzed for previously in soil vapor, and the compounds detected in groundwater at the CooperVision property line. The SIM Method was used for some compounds (e.g. – Vinyl Chloride) to allow the laboratory to achieve detection limits consistent with what is required by the NYSDOH Guidance.

5.6 Sampling Results

5.6.1 Analytical Results Summary

Laboratory results are summarized in Table III and Table IV and the laboratory analytical data is included in Appendix D. In summary, target VOCs, (vinyl chloride, Chloroethane, 1,1-DCE, 1,1-DCA, and 1,1,1-TCA, were not detected above laboratory reporting limits. According to the Soil Vapor/Indoor Air Matrices included as part of the NYSDOH Guidance, no further

action is necessary with respect to vapor intrusion monitoring or mitigating with in the adjacent residential properties.

5.6.2 Data Usability

The indoor air, sub-slab, and ambient air data were evaluated in accordance with the NYSDEC "Guidance for the Development of Quality Assurance Plans and Data Usability Summary Reports (DUSR)," dated September 1997, and the United States Environmental Protection Agency (USEPA) "*National Functional Guidelines for Organic Data Review*" (EPA 540/R-99/008), and "*National Functional Guidelines for Inorganic Data Review, Final*" (EPA 540-R-01-008).

A review of the data indicated that all data generated during the indoor air investigation activities were properly analyzed by the laboratories, and the analytical results were found to be compliant with the data quality objectives for the project and 100% usable. The data usability summary report is included in Appendix E.

6. WASTE MANAGEMENT

One drum of soil cuttings was generated during each phase of soil vapor point installation (two drums total). A confirmatory sample was collected from each of the drums for evaluation of disposal characteristics. Based on the results, the drum from the first phase was removed on 23 September 2008 and transported to EQ Detroit, Inc. in Detroit, Michigan (waste removal documentation was included in Appendix E of the 28 October Soil Vapor Investigation Report). The drum from the second phase *was removed on 23 April 2009 and transported to the Clean Harbors facility in Chattanooga, Tennessee by Franks Vacuum Truck Service, Inc. (see disposal documentation in Appendix F and analytical data in Appendix D)*.

No waste that required offsite management was generated during the soil vapor sampling associated with the IRM or during the Indoor Air/Sub-Slab Vapor investigation.

7. CONCLUSIONS

In order to address potential vapor intrusion at the residential properties located to the east of the CooperVision property, the following actions occurred:

1. A first phase onsite and right-of-way soil vapor investigation (May and June 2008).

2. An Interim Remedial Measure (IRM) and re-sampling of the first phase soil vapor points (August 2008 (IRM) and October 2008 (sampling)).

3. A second phase onsite and offsite (on eastern residential properties) soil vapor investigation (December 2008).

4. An indoor air and sub-slab vapor investigation within the adjacent residential properties (January – February 2009).

The first phase soil vapor investigation indicated that vapors from target VOCs were migrating offsite, *apparently* via a preferential pathway created by the presence of utility lines that traversed the site from the source area to the eastern roadway, and then continued to the eastern residential properties. As a result, the IRM was completed to mitigate the *apparently* migrating vapors. The soil vapor sampling that occurred subsequent to the IRM and the second phase soil vapor sampling indicated that the IRM *appeared to contribute to* mitigating the spread of vapor via the utility line, however did not provide conclusive evidence that the indoor air within the adjacent residences were not impacted by vapors originating from the CooperVision Site. The indoor air and sub-slab vapor investigation revealed that target VOCs were not detected in the indoor air or sub-slabs of the adjacent properties. Soil vapor, indoor air, and sub-slab vapor investigations were conducted in accordance with the 2006 NYSDOH Vapor Intrusion Guidance. *In summary, the soil vapor intrusion investigation indicated that though vapor concentrations of the contaminants of concern were present on the CooperVision property boundary and within the right-of-way, they had not adversely impacted the residential properties.*

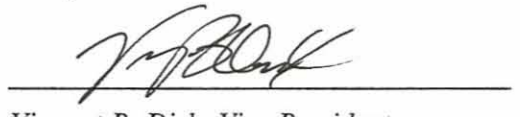
8. *CERTIFICATION*

On behalf of Haley & Aldrich of New York, the undersigned state that the investigation work described in this document "Revised Soil Vapor Investigation Report Addendum", dated 4 September 2009, was conducted in conformance with:

- *Voluntary Cleanup Agreement (Remediation) dated 31 May 2001;*
- *"Soil Vapor Investigation Work Plan – Second Phase," dated 10 December 2008;*
- *"Sub Slab Vapor & Indoor Air Investigation Work Plan," dated 4 February 2009;*
- *Field modifications made to the Soil Vapor Investigation Work Plan and approved by the NYSDEC during remediation activities, as summarized in the text of this report.*

This report is a true and accurate summary of the work performed. Haley & Aldrich of New York was the firm responsible for the day to day performance of activities that comprised this site's investigation. The undersigned certify that the aforementioned 10 December 2008 and 4 February 2009 Work Plans were implemented and that investigation activities were completed in accordance with the Department-approved aforementioned 10 December 2008 and 4 February 2009 Work Plans and were personally witnessed by me (or by persons under my direct supervision).

Mark N. Ramsdell, P.E., Project Manager
Haley & Aldrich



Vincent B. Dick, Vice President
Haley & Aldrich

REFERENCES

1. "Draft Final Engineering Report, CooperVision Inc., Scottsville, New York (VCA Site #V00175-8)" dated 7 May 2007. Prepared by Haley & Aldrich of New York.

2. "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006. Prepared by the New York State Department of Health

3. "Interim Remedial Measure (IRM) Work Plan, CooperVision Inc., Scottsville, New York (VCA Site #V00175-8)" dated 1 August 2008. Prepared by Haley & Aldrich of New York.

4. "Soil Vapor Investigation Results Report, CooperVision Inc., Scottsville, New York (VCA Site #V00175-8)" dated 28 October 2008. Prepared by Haley & Aldrich of New York.

5. "Soil Vapor Investigation Work Plan, CooperVision Inc., Scottsville, New York (VCA Site #V00175-8)" dated 27 March 2008. Prepared by Haley & Aldrich of New York.

6. "Soil Vapor Investigation Work Plan – Second Phase, CooperVision Inc., Scottsville, New York (VCA Site #V00175-8)" dated 10 December 2008. Prepared by Haley & Aldrich of New York.

7. "Sub Slab Vapor & Indoor Air Investigation Work Plan, CooperVision Inc., Scottsville, New York (VCA Site #V00175-8)" dated 4 February 2009. Prepared by Haley & Aldrich of New York.

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TABLE I
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN SOIL VAPOR

All values expressed in ug/m^3

Location	SV-1			SV-2			SV-3					
Sample ID	SV-1			SV-2			SV-3 (S)				SV-3 (D)	
Sample Depth	3.0 ft.			3.0 ft.			2.7 ft.				4.7 ft.	
Initial Pressure/Final Pressure (psig)	-1.7/3.5	-1.4/3.5	-1.1/3.5	-1.5/3.5	1.9/3.5	-0.6/3.5	-1.7/3.5	0.8/3.5	-2.1/3.5	-1.5/3.5	-1.3/3.5	-1.9/3.5
Date Sampled:	5/1/2008	6/16/2008	10/14/2008	5/1/2008	6/12/2008	10/14/2008	5/1/2008	6/12/2008	10/14/2008	12/30/2008	6/12/2008	10/14/2008
Compound:												
VOLATILE ORGANICS	1.4x Dil.	1.37x Dil.	1.34x Dil.	1.38x Dil.	1.42x Dil.	1.29x Dil.	1.40x Dil.	1.31x Dil.	1.44x Dil.	1.38x Dil.	1.36x Dil.	1.42x Dil.
Vinyl Chloride	ND	**7.7**	ND	ND	ND	ND	**2.4**	**19**	**6.9**	**0.39**	**62**	**16**
Chloroethane	ND	ND	ND	ND	ND	**2.0**	ND	ND	ND	**1.5**	**59**	**28**
1,1-Dichloroethene	ND	**300**	**160**	**390**	ND	ND	**1,800**	**3,600**	**1,600**	**200**	**8,000**	**4,000**
1,1-Dichloroethane	ND	**290**	**120**	**230**	ND	ND	**270**	**1,200**	**680**	**38**	**4,000**	**2,200**
1,1,1-Trichloroethane	**3.7**	**5,200**	**3,800**	**2,300**	**3.7**	**1.9**	**990**	**2,800**	**1,400**	**100**	**6,400**	**3,400**

Notes & Abbreviations:

ND: Not Detected Above laboratory Detection Limits

1. Volatile organic compounds were collected using 2-hour, 6 Liter Summa Cansiters and analyzed via method TO-15.

2. The tables represent all data as reported from the lab in concentration format (ug/m3).

3. Deep (D) sample locations and SV-8 were not sampled in May 2008; and SV-7 (D) and SV-8 (D) were not sampled during June 2008 due to high groundwater. SV-7 (D) and SV-8(S & D) were not sampled October 2008 due to high groundwater.

TABLE I
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN SOIL VAPOR

All values expressed in ug/m^3

Location	SV-4					SV-5				
Sample ID	SV-4 (S)			SV-4 (D)		SV-5 (S)			SV-5 (D)	
Sample Depth	4.3 ft.			6.3 ft.		2.7 ft.			4.7 ft.	
Initial Pressure/Final Pressure (psig)	-1.4/3.5	-2.2/3.5	-1.4/3.5	-1.4/3.7	-1.3/3.5	-1.5/3.5	-1.0/3.5	-1.0/3.5	-2.1/3.5	-1.6/3.6
Date Sampled:	5/1/2008	6/12/2008	10/14/2008	6/16/2008	10/14/2008	5/1/2008	6/12/2008	10/14/2008	6/16/2008	10/14/2008
Compound:										
VOLATILE ORGANICS	1.37x Dil.	1.46x Dil	1.37x Dil	1.38x Dil	1.36x Dil	1.38x Dil.	1.33x Dil.	1.33x Dil.	1.44x Dil.	1.40x Dil.
Vinyl Chloride	**0.41**	**0.33**	ND	**0.98**	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	**35**	**57**	**20**	**50**	**34**	**0.96**	**5.7**	**4.3**	**6.3**	**3.0**
1,1-Dichloroethane	**30**	**39**	**11**	**52**	**28.0**	**1.4**	**1.7**	**1.2**	**3.9**	ND
1,1,1-Trichloroethane	**200**	**370**	**290**	**410**	**340**	**82**	**140**	**130**	**240**	**150**

Notes & Abbreviations:

ND: Not Detected Above laboratory Detection Limits

1. Volatile organic compounds were collected using 2-hour, 6 Liter Summa Cansiters and analyzed via method TO-15.

2. The tables represent all data as reported from the lab in concentration format (ug/m3).

3. Deep (D) sample locations and SV-8 were not sampled in May 2008; and SV-7 (D) and SV-8 (D) were not sampled during June 2008 due to high groundwater. SV-7 (D) and SV-8(S & D) were not sampled October 2008 due to high groundwater.

TABLE I
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN SOIL VAPOR

All values expressed in ug/m^3

Location	SV-6							SV-7			SV-8	SV-101	SV-102	
Sample ID	SV-6 (S)				SV-6 (D)			SV-7 (S)			SV-8 (S)	SV-101(S)	SV-102(S)	SV-102(D)
Sample Depth	3.0 ft.				4.8 ft.			3.0 ft.			3.0 ft.	3.0 ft.	3.5 ft.	5.5 ft.
Initial Pressure/Final Pressure (psig)	-2.1/3.5	-2.8/3.5	-1.9/3.9	-0.8/3.5	-1.3/3.6	-2.1/3.5	-0.8/3.5	-2.9/3.5	-2.3/3.5	-2.2/3.5	-1.8/3.5	-0.8/3.6	-1.6/3.5	-0.1/.35
Date Sampled:	5/1/2008	6/12/2008	10/14/2008	12/30/2008	6/16/2008	10/14/2008	12/30/2008	5/1/2008	6/12/2008	10/14/2008	6/12/2008	12/30/2008	12/30/2008	12/30/2008
Compound:														
VOLATILE ORGANICS	1.44x Dil.	1.53x Dil.	1.45x Dil.	1.31x Dil.	1.37x Dil.	1.44x Dil.	1.31x Dil	1.54x Dil.	1.47x Dil.	1.46x Dil.	1.41x Dil.	1.32x Dil.	1.39x Dil.	1.25x Dil.
Vinyl Chloride	**10**	**29**	**23**	**7.2**	**82**	**34**	**15**	ND	ND	ND	**1.1**	ND	ND	ND
Chloroethane	**36**	**28**	ND	**11**	**56**	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	**4,500**	**4,500**	**5,100**	**2,400**	**9,200**	**5,600**	**3,800**	ND	**1.4**	ND	**3.8**	ND	ND	ND
1,1-Dichloroethane	**1,000**	**2,900**	**3,200**	**680**	**5,900**	**3,900**	**2,100**	**1.6**	**3.2**	ND	**120**	ND	ND	ND
1,1,1-Trichloroethane	**2,700**	**4,200**	**5,100**	**1,700**	**8,200**	**5,900**	**3,100**	**23**	**29**	ND	**130**	ND	**1.9**	**2.8**

Notes & Abbreviations:

ND: Not Detected Above laboratory Detection Limits

1. Volatile organic compounds were collected using 2-hour, 6 Liter Summa Cansiters and analyzed via method TO-15.

2. The tables represent all data as reported from the lab in concentration format (ug/m3).

3. Deep (D) sample locations and SV-8 were not sampled in May 2008; and SV-7 (D) and SV-8 (D) were not sampled during June 2008 due to high groundwater. SV-7 (D) and SV-8(S & D) were not sampled October 2008 due to high groundwater.

TABLE I
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN SOIL VAPOR

All values expressed in ug/m^3

Location	SV-103	SV-104		SV-106	SV-107	SV-108	
Sample ID	**SV-103(S)**	**SV-104(S)**	**SV-104(D)**	**SV-106(S)**	**SV-107(S)**	**SV-108(S)**	**SV-108(D)**
Sample Depth	3.0 ft.	4.0 ft.	6.0 ft.	3.0 ft.	4.0 ft.	4.2 ft.	5.8 ft.
Initial Pressure/Final Pressure (psig)	-0.4/3.5	1.1/3.5	-0.4/3.5	-0.7/3.5	-0.6/3.5	-0.8/3.6	0.7/3.5
Date Sampled:	12/30/2008	12/30/2008	12/30/2008	12/30/2008	12/30/2008	12/30/2008	12/30/2008
Compound:							
VOLATILE ORGANICS	1.27x Dil.	1.32x Dil.	1.27x Dil.	1.30x Dil.	1.29x Dil.	1.32x Dil.	1.30x Dil.
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	**0.73**	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	**0.68**
1,1,1-Trichloroethane	**4.1**	**21**	**27**	ND	**12**	**8.7**	**29**

Notes & Abbreviations:

ND: Not Detected Above laboratory Detection Limits

1. Volatile organic compounds were collected using 2-hour, 6 Liter Summa Cansiters and analyzed via method TO-15.

2. The tables represent all data as reported from the lab in concentration format (ug/m3).

3. Deep (D) sample locations and SV-8 were not sampled in May 2008; and SV-7 (D) and SV-8 (D) were not sampled during June 2008 due to high groundwater. SV-7 (D) and SV-8(S & D) were not sampled October 2008 due to high groundwater.

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN AMBIENT AIR
(DURING SOIL VAPOR SAMPLING)
All values expressed in ug/m^3

Location	Ambient			
Sample ID				
Sample Depth	NA	NA	NA	NA
Initial Pressure/Final Pressure (psig)	-2.2/3.5	-3.2/3.5	-3.3/3.6	-2.5/3.5
Date Sampled:	5/1/2008	6/12/2008	6/16/2008	12/30/2008
Compound:				
VOLATILE ORGANICS	1.46x Dil.	1.58x Dil.	1.61x Dil.	1.49x Dil.
Propene	**3.1**	ND	**1.3**	ND
Dichlorodifluoromethane (CFC 12)	**2.1**	**2.3**	**2.3**	**2.3**
Chloromethane	ND	ND	ND	ND
1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
Ethanol	**9.4**	ND	**15**	ND
Acetonitrile	ND	ND	ND	ND
Acrolein	**4.1**	**0.85**	ND	ND
Acetone	**80**	**10**	**9.1**	**1.3**
Trichlorofluoromethane	**1.2**	**1.1**	**1.1**	ND
2-Propanol (Isopropyl Alcohol)	**0.84**	ND	**4.1**	NA
Acrylonitrile	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND
3-Chloro-1-propene (Allyl Chloride)	ND	ND	ND	ND
Trichlorotrifluoroethane	ND	ND	ND	ND
Carbon Disulfide	**0.96**	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
Methyl tert-Butyl Ether	ND	ND	ND	ND
Vinyl Acetate	ND	ND	ND	ND
2-Butanone (MEK)	**20**	**1.4**	**2.5**	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND
Ethyl Acetate	**1.2**	**4.1**	**2.2**	ND
n-Hexane	**1.2**	ND	ND	ND
Chloroform	ND	ND	ND	ND
Tetrahydrofuran (THF)	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
Benzene	**0.79**	ND	ND	ND
Carbon Tetrachloride	**0.27**	**0.44**	**0.42**	**0.51**

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN AMBIENT AIR
(DURING SOIL VAPOR SAMPLING)
All values expressed in ug/m^3

Location	Ambient			
Sample ID				
Sample Depth	NA	NA	NA	NA
Initial Pressure/Final Pressure (psig)	-2.2/3.5	-3.2/3.5	-3.3/3.6	-2.5/3.5
Date Sampled:	5/1/2008	6/12/2008	6/16/2008	12/30/2008
Compound:				
VOLATILE ORGANICS	1.46x Dil.	1.58x Dil.	1.61x Dil.	1.49x Dil.
Cyclohexane	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
1,4-Dioxane	ND	ND	**3.7**	ND
Methyl Methacrylate	ND	ND	ND	ND
n-Heptane	**1.1**	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND
4-Methyl-2-pentanone	ND	ND	**0.84**	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Toluene	**2.5**	**2**	**1.2**	**0.88**
2-Hexanone	**1.1**	ND	**2.1**	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dibromoethane	ND	ND	ND	ND
n-Butyl Acetate	ND	ND	ND	ND
n-Octane	**1.4**	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND
m,p-Xylenes	**2.4**	ND	ND	ND
Bromoform	ND	ND	ND	ND
Styrene	ND	ND	ND	ND
o-Xylene	**0.88**	ND	ND	ND
n-Nonane	**0.75**	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Cumene	ND	ND	ND	ND
alpha-Pinene	**4.4**	ND	ND	ND
n-Propylbenzene	ND	ND	ND	ND
4-Ethyltoluene	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND
1,2,4-Trimethylbenzene	**1**	ND	ND	ND
Benzyl Chloride	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN AMBIENT AIR
(DURING SOIL VAPOR SAMPLING)
All values expressed in ug/m^3

Location	Ambient			
Sample ID				
Sample Depth	NA	NA	NA	NA
Initial Pressure/Final Pressure (psig)	-2.2/3.5	-3.2/3.5	-3.3/3.6	-2.5/3.5
Date Sampled:	5/1/2008	6/12/2008	6/16/2008	12/30/2008
Compound:				
VOLATILE ORGANICS	1.46x Dil.	1.58x Dil.	1.61x Dil.	1.49x Dil.
1,4-Dichlorobenzene	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
d-Limonene	**2.5**	ND	ND	ND
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND

Notes & Abbreviations:

ND: Not Detected Above laboratory Detection Limits

NA: Not Analysed

1. Volatile organic compounds were collected using 8-hour, 6 Liter Summa Cansiters and analyzed via method TO-15.

2. The tables represent all data as reported from the lab in concentration format (ug/m^3).

TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE GASSES IN INDOOR AIR AND SUB-SLAB VAPOR

All values expressed in ug/m^3

Location	**Unit 2**		**Unit 8**		**Unit 10**	
Sample ID	**SV-InA-2**	**SV-SS-2**	**SV-InA-8**	**SV-SS-8**	**SV-INA10**	**SV-SS10**
Sample Type	Indoor Air	Sub-Slab	Indoor Air	Sub-Slab	Indoor Air	Sub-Slab
Initial Pressure/Final Pressure (psig)	1.6/3.5	-0.3/3.5	-3.9/3.6	-1.5/3.5	-2.3/3.5	-2.3/3.5
Date Sampled:	2/10/2009	2/10/2009	2/10/2009	2/10/2009	1/30/2009	1/30/2009
Compound:						
VOLATILE ORGANICS	1.39x Dil.	1.26x Dil.	1.69x Dil.	1.38x Dil.	1.47x Dil.	1.47x Dil.
Vinyl Chloride	ND (0.14)	ND (0.13)	ND (0.17)	ND (0.14)	ND (0.41)	ND (0.41)
Chloroethane	ND (0.7)	ND (0.63)	ND (0.85)	ND (0.69)	ND (0.85)	ND (0.85)
1,1-Dichloroethene	ND (0.7)	ND (0.63)	ND (0.85)	ND (0.69)	ND (0.65)	ND (0.65)
1,1-Dichloroethane	ND (0.7)	ND (0.63)	ND (0.85)	ND (0.69)	ND (0.66)	ND (0.66)
1,1,1-Trichloroethane	ND (0.7)	ND (0.63)	ND (0.85)	ND (0.69)	ND (0.88)	ND (0.88)

Notes & Abbreviations:

ND: Not Detected Above laboratory reporting limits. The number in parentheses is the reporting limit

1. Volatile organic compounds were collected using 24-hour, 6 Liter Summa Cansiters and analyzed via method TO-15 or TO-15 Sim where applicable.
2. The tables represent all data as reported from the lab in concentration format (ug/m^3).

TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE GASSES IN INDOOR AIR AND SUB-SLAB VAPOR

All values expressed in ug/m^3

Location	**Unit 16**		**Unit 58**		**Unit 64**	
Sample ID	**SV-InA-16**	**SV-SS-16**	**SV-InA-58**	**SV-SS-58**	**SV-InA-64**	**SV-SS-64**
Sample Type	Indoor Air	Sub-Slab	Indoor Air	Sub-Slab	Indoor Air	Sub-Slab
Initial Pressure/Final Pressure (psig)	-3.7/3.5	-1.3/3.5	-4.3/3.5	-1.1/3.5	-4.4/3.5	0.5/3.8
Date Sampled:	2/10/2009	2/10/2009	2/10/2009	2/10/2009	2/10/2009	2/10/2009
Compound:						
VOLATILE ORGANICS	1.65x Dil.	1.36x Dil.	1.78x Dil.	1.34xDil.	1.77x Dil.	1.22x Dil.
Vinyl Chloride	ND (0.17)	ND (0.14)	ND (0.18)	ND (0.13)	ND (0.18)	ND (0.12)
Chloroethane	ND (0.83)	ND (0.68)	ND (0.88)	ND (0.67)	ND (0.89)	ND (0.61)
1,1-Dichloroethene	ND (0.83)	ND (0.68)	ND (0.88)	ND (0.67)	ND (0.89)	ND (0.61)
1,1-Dichloroethane	ND (0.83)	ND (0.68)	ND (0.88)	ND (0.67)	ND (0.89)	ND (0.61)
1,1,1-Trichloroethane	ND (0.83)	ND (0.68)	ND (0.88)	ND (0.67)	ND (0.89)	ND (0.61)

Notes & Abbreviations:

ND: Not Detected Above laboratory reporting limits. The number in parentheses is the reporting limit

1. Volatile organic compounds were collected using 24-hour, 6 Liter Summa Cansiters and analyzed via method TO-15 or TO-15 Sim where applicable.

2. The tables represent all data as reported from the lab in concentration format (ug/m^3).

TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE GASSES IN INDOOR AIR AND SUB-SLAB VAPOR

All values expressed in ug/m^3

Location	**Unit 705-1**		**Unit 709-2**	
Sample ID	**SV-InA-704-1**	**SV-SS-705-1**	**SV-InA-709-2**	**SV-SS-709-2**
Sample Type	Indoor Air	Sub-Slab	Indoor Air	Sub-Slab
Initial Pressure/Final Pressure (psig)	0.3/3.5	-0.8/3.7	-0.8/3.5	-1.1/3.5
Date Sampled:	2/27/2009	2/27/2009	2/27/2009	2/27/2009
Compound:				
VOLATILE ORGANICS	1.21x Dil.	1.32x Dil.	1.31x Dil.	1.34x Dil.
Vinyl Chloride	ND (0.12)	ND (0.13)	ND (0.13)	ND (0.13)
Chloroethane	ND (0.61)	ND (0.66)	ND (0.66)	ND (0.67)
1,1-Dichloroethene	ND (0.61)	ND (0.66)	ND (0.66)	ND (0.67)
1,1-Dichloroethane	ND (0.61)	ND (0.66)	ND (0.66)	ND (0.67)
1,1,1-Trichloroethane	ND (0.61)	ND (0.66)	ND (0.66)	ND (0.67)

Notes & Abbreviations:

ND: Not Detected Above laboratory reporting limits. The number in parentheses is the reporting limit

1. Volatile organic compounds were collected using 24-hour, 6 Liter Summa Cansiters and analyzed via method TO-15 or TO-15 Sim where applicable.
2. The tables represent all data as reported from the lab in concentration format (ug/m^3).

TABLE IV
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES IN AMBIENT AIR
(DURING INDOOR AIR AND SUB-SLAB SAMPLING)
All values expressed in ug/m^3

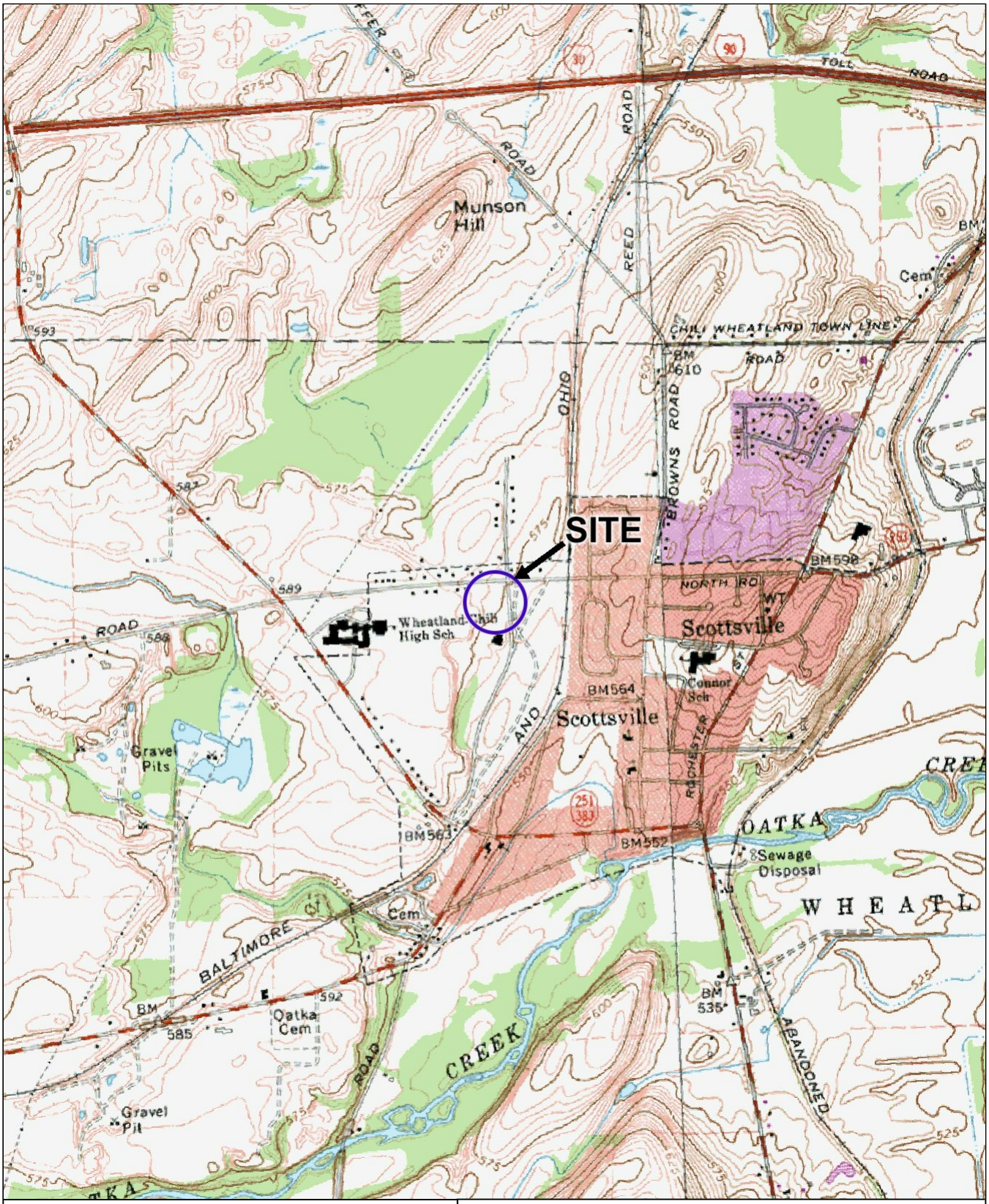
Location	**Outdoor/Ambient Air**		
Sample ID	**SV-OUTA10**	**SV-OutA-020909**	**SV-OutA-022609**
Sample Type	Outdoor Air	Outdoor Air	Outdoor Air
Initial Pressure/Final Pressure (psig)	-0.8/3.5	-1.3/3.5	-2.1/3.5
Date Sampled:	1/30/2009	2/10/2009	2/27/2009
Compound:			
VOLATILE ORGANICS	1.31x Dil.	1.36x Dil	1.44x Dil.
Vinyl Chloride	ND (0.37)	ND (0.14)	ND (0.14)
Chloroethane	ND (0.76)	ND (0.68)	ND (0.72)
1,1-Dichloroethene	ND (0.58)	ND (0.68)	ND (0.72)
1,1-Dichloroethane	ND (0.59)	ND (0.68)	ND (0.72)
1,1,1-Trichloroethane	ND (0.79)	ND (0.68)	ND (0.72)

Notes & Abbreviations:

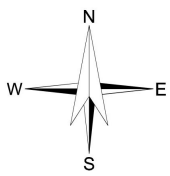
ND: Not Detected Above laboratory reporting limits. The number in parentheses is the reporting limit.

1. Volatile organic compounds were collected using 24-hour, 6 Liter Summa Cansiters and analyzed via method TO-15 or TO-15 Sim where applicable.

2. The tables represent all data as reported from the lab in concentration format (ug/m^3).



SITE COORDINATES:43°1'46"N 77°45'27"W



U.S.G.S. QUADRANGLE: CLIFTON, NY

HALEY & ALDRICH

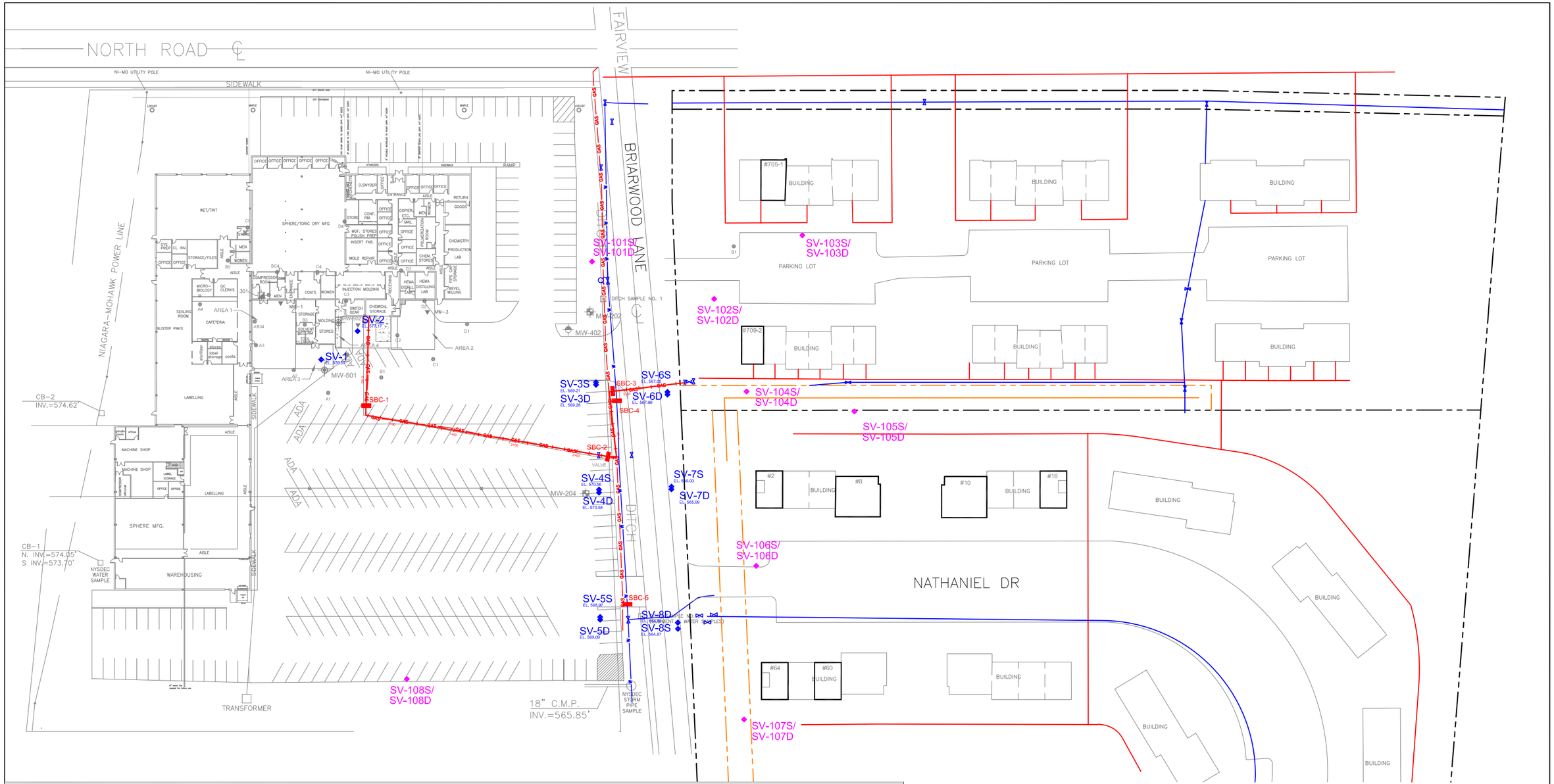
COOPERVISION, INC.
711 NORTH ROAD
SCOTTSVILLE, NEW YORK

PROJECT LOCUS

SCALE: 1:24,000
JUNE 2009

FIGURE 1

70665-014_Project Locus 1.PDF



LEGEND

- LOCATION OF SOIL VAPOR POINTS INSTALLED APRIL 2008
- SV-1 LOCATION OF SOIL VAPOR POINTS INSTALLED DECEMBER 2008
- LOCATION OF KNOWN NATURAL GAS PIPELINE UTILITIES
- LOCATION OF KNOWN WATER UTILITIES
- LOCATION OF SANITARY SEWER EASEMENT
- LOCATION OF STORM SEWER EASEMENT
- RESIDENTIAL PROPERTY BOUNDARY
- BUILDING UNITS FOR INTERIOR SUBSLAB AND INDOOR AIR SAMPLING (2 LOCATIONS / BLDG.)
- VALVE
- SBC COLLARS

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE AND NOT TO SCALE.
2. GAS PIPELINE LOCATIONS BASED ON RECORDS PROVIDED BY RG&E AND ATLANTIC SURVEYING & MAPPING.
3. PROPERTY BOUNDARIES BASED ON RECORDS FROM MONROE COUNTY AND ATLANTIC SURVEYING & MAPPING.

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S

0 80 160
SCALE IN FEET

HALEY & ALDRICH

COOPERVISION, INC -
711 NORTH ROAD
SCOTTSVILLE, NEW YORK

SITE PLAN

SCALE: AS SHOWN
JUNE 2009

FIGURE 2

G:\PROJECTS\70665\014 - VCA CLOSEOUT - 2008-09\70665-014-SITEPLAN-SV LOCATIONS AND DATA5.DWG

G:\PROJECTS\70665\014 - VCA CLOSEOUT - 2008-09\70665-014-SITEPLAN-SV LOCATIONS AND DATA5.DWG

FAIRVIEW

BRIARWOOD LANE

DITCH

NATHANIEL DR

PARKING LOT

PARKING LOT

#705-1

BUILDING

BUILDING

#709-2

BUILDING

BUILDING

#2

BUILDING

#8

#10

BUILDING

#16

BUILDING

#64

#60

BUILDING

BUILDING

BUILDING

B1

01S/
01D

SV-103S/
SV-103D

SV-102S/
SV-102D

SV-6S
EL. 567.05

SBC-3

SV-6D
EL. 567.00

SBC-4

SV-104S/
SV-104D

SV-105S/
SV-105D

SV-7S
EL. 566.03

SV-7D
EL. 565.99

SV-106S/
SV-106D

SBC-5

SV-8D
EL. 564.89

SV-8S
EL. 564.87

SV-107S/
SV-107D

N

W

E

S

0 50 100

SCALE IN FEET

LEGEND

- SV-1 LOCATION OF SOIL VAPOR POINTS INSTALLED APR 2008
- SV-1 LOCATION OF SOIL VAPOR POINTS INSTALLED DEC 2008
- LOCATION OF KNOWN NATURAL GAS PIPELINE UTILITIES
- LOCATION OF KNOWN WATER UTILITIES
- LOCATION OF SANITARY SEWER EASEMENT
- LOCATION OF STORM SEWER EASEMENT
- RESIDENTIAL PROPERTY BOUNDARY
- BUILDING UNITS WHERE SAMPLES WERE TAKEN.
- VALVE
- BASEMENT SUBSLAB SAMPLE TAKEN
- FLOOR SUBSLAB SAMPLE TAKEN (NO BASEMENT PRESENT)
- UTILITY CLOSET SAMPLE TAKEN

NOTES:

1. ALL LOCATIONS ARE APPROXIMATE AND NOT TO SCALE.
2. GAS PIPELINE LOCATIONS BASED ON RECORDS PROVIDED BY RG&E AND ATLANTIC SURVEYING & MAPPING.
3. PROPERTY BOUNDARIES BASED ON RECORDS FROM MONROE COUNTY AND ATLANTIC SURVEYING & MAPPING.

HALEY & ALDRICH

COOPERVISION, INC -
711 NORTH ROAD
SCOTTSVILLE, NEW YORK

DETAIL - OFF-SITE SAMPLING LOCATIONS

SCALE: AS SHOWN
JUNE 2009

FIGURE 3

APPENDIX A

Soil Vapor Point Installation Reports – Second Phase

SOIL VAPOR POINT INSTALLATION REPORT

Well No.	**SV-101S**
Boring No.	**SV-101S**

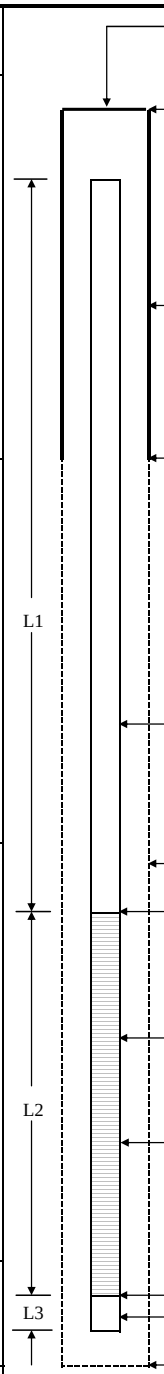
PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/22/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El.	ft	**Location**	See Plan
El. Datum			

☐ **Guard Pipe**
☑ **Roadway Box**

SOIL/ROCK CONDITIONS	**BOREHOLE BACKFILL**
	CONCRETE
0.8	
	HYDRATED BENTONITE
2.2	
	QUARTZ SAND
3.0	
	4

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Bolted Cast Aluminum	
Height of top of roadway box above ground surface	0.0	**ft**
Type of protective casing:	Flushmount Roadbox	
Length	1.0	**ft**
Inside Diameter	4.0	**in**
Depth of bottom of roadway box	1.0	**ft**

Type of Seals	**Top of Seal (ft)**	**Thickness (ft)**
Concrete	0.0	0.8
Bentonite Seal	0.8	1.4

Type of Soil VaporPoint Tubing:	HDPE	
Inside diameter of vapor point tubing	0.25	**in**
Type of backfill around tubing	See Diagram	
Diameter of borehole	3.2	**in**
Depth to top of Soil Vapor Point Screen	2.3	**ft**
Type of screen	Woven Stainless Steel Wire	
Pore diameter or size of openings	0.0057	**in**
Diameter of screen	0.4	**in**
Type of backfill around screen	No.0 Quartz Sand	
Depth of bottom of Soil Vapor Point Screen	2.8	**ft**
Bottom of Soil Vapor Point	3.0	**ft**
Depth of bottom of borehole	4.0	**ft**

COMMENTS:
N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

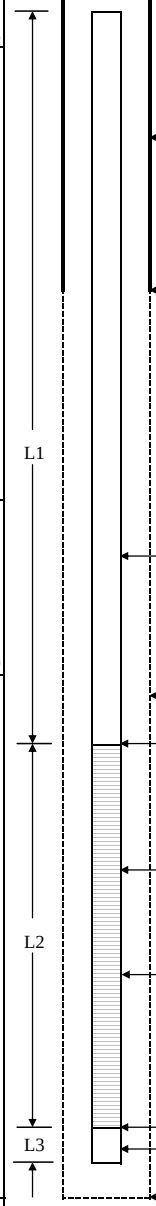
Well No. SV-101D
Boring No. SV-101D

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/22/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El. ft **Location** See Plan ☐ **Guard Pipe**
El. Datum ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	4.2
	QUARTZ SAND
	5.0
	8

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox
Length: 1.0 ft
Inside Diameter: 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	3.4

Type of Soil VaporPoint Tubing: HDPE
Inside diameter of vapor point tubing: 0.25 in
Type of backfill around tubing: See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 4.3 ft

Type of screen: Woven Stainless Steel Wire
Pore diameter or size of openings: 0.0057 in
Diameter of screen: 0.4 in
Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 4.8 ft

Bottom of Soil Vapor Point: 5.0 ft

Depth of bottom of borehole: 8.0 ft

COMMENTS: Observed DTW at 6.5 ft., 6.20 ft., 6.13 ft., 6.13 ft.-monitored over 25 hours
N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

Well No.
SV-102S
Boring No.
SV-102S

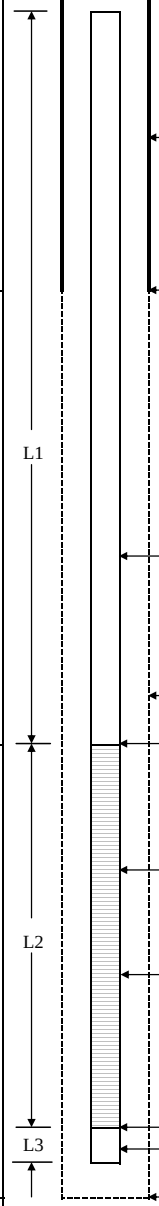
PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El.	ft	**Location**	See Plan
El. Datum			

☐ **Guard Pipe**
☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	2.7
	QUARTZ SAND
	3.5

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Bolted Cast Aluminum	
Height of top of roadway box above ground surface	0.0	**ft**
Type of protective casing:	Flushmount Roadbox	
Length	1.0	**ft**
Inside Diameter	4.0	**in**
Depth of bottom of roadway box	1.0	**ft**

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	1.5

Type of Soil VaporPoint Tubing:	HDPE	
Inside diameter of vapor point tubing	0.25	**in**
Type of backfill around tubing	See Diagram	
Diameter of borehole	3.2	**in**
Depth to top of Soil Vapor Point Screen	2.8	**ft**
Type of screen	Woven Stainless Steel Wire	
Pore diameter or size of openings	0.0057	**in**
Diameter of screen	0.4	**in**
Type of backfill around screen	No.0 Quartz Sand	
Depth of bottom of Soil Vapor Point Screen	3.3	**ft**
Bottom of Soil Vapor Point	3.5	**ft**
Depth of bottom of borehole	3.5	**ft**

COMMENTS: Borehole installed with blind probe. Observed borehole dry at 4.0 ft. prior to installing vapor point.

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.
SV-102D
Boring No.
SV-102D

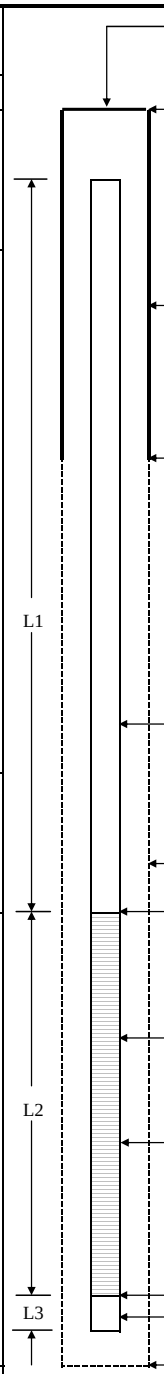
PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El.	ft	**Location**	See Plan
El. Datum			

☐ **Guard Pipe**
☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	4.8
	QUARTZ SAND
	5.5
	8

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox
- **Length:** 1.0 ft
- **Inside Diameter:** 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	4.0

Type of Soil VaporPoint Tubing: HDPE
- **Inside diameter of vapor point tubing:** 0.25 in
- **Type of backfill around tubing:** See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 4.8 ft

Type of screen: Woven Stainless Steel Wire
- **Pore diameter or size of openings:** 0.0057 in
- **Diameter of screen:** 0.4 in

Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 5.3 ft

Bottom of Soil Vapor Point: 5.5 ft

Depth of bottom of borehole: 8.0 ft

COMMENTS: Observed DTW at 6.9 ft. for .5 hrs. due to sand layer at 6.2 ft., decision to set vapor point at 5.8 ft. to avoid permiable layer

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SV-103S	SV-103S

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

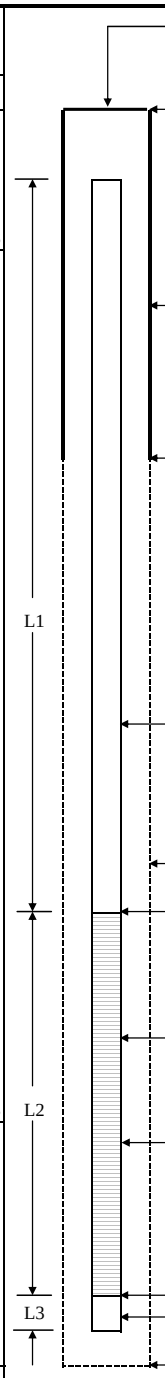
Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	2.3
	QUARTZ SAND
	3

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside Diameter: 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	1.5

Type of Soil VaporPoint Tubing: HDPE

Inside diameter of vapor point tubing: 0.25 in

Type of backfill around tubing: See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 2.3 ft

Type of screen: Woven Stainless Steel Wire

Pore diameter or size of openings: 0.0057 in

Diameter of screen: 0.4 in

Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 2.8 ft

Bottom of Soil Vapor Point: 3.0 ft

Depth of bottom of borehole: 3.0 ft

COMMENTS: Soil vapor point boring installed with blind probe. Observed borehole, dry at 4.0 ft. prior to installing soil vapor point.

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SV-103D	SV-103D

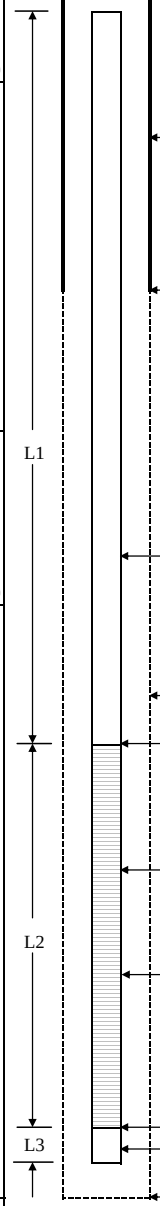
PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	1.0
	HYDRATED BENTONITE
	4.2
	QUARTZ SAND
	5.0
	8
	(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Bolted Cast Aluminum	
Height of top of roadway box above ground surface	0.0	ft
Type of protective casing:	Flushmount Roadbox	
Length	1.0	ft
Inside Diameter	4.0	in
Depth of bottom of roadway box	1.0	ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	1.0
Bentonite Seal	1.0	3.2

Type of Soil VaporPoint Tubing:	HDPE	
Inside diameter of vapor point tubing	0.25	in
Type of backfill around tubing	See Diagram	
Diameter of borehole	3.2	in
Depth to top of Soil Vapor Point Screen	4.3	ft
Type of screen	Woven Stainless Steel Wire	
Pore diameter or size of openings	0.0057	in
Diameter of screen	0.4	in
Type of backfill around screen	No.0 Quartz Sand	
Depth of bottom of Soil Vapor Point Screen	4.8	ft
Bottom of Soil Vapor Point	5.0	ft
Depth of bottom of borehole	8.0	ft

COMMENTS: Borehole checked for presence of water for .5 hrs. Moist soil at 5.6 ft. (borehole caved from 8.0 ft. to 5.6 ft.) no free water observed.

N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.
SV-104S
Boring No.
SV-104S

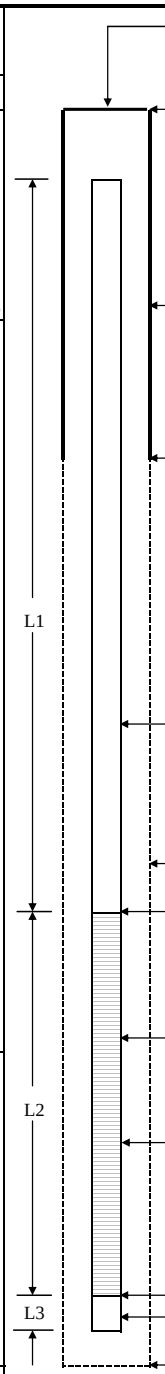
PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El.	ft	**Location**	See Plan
El. Datum			

☐ **Guard Pipe**
☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	3.2
	QUARTZ SAND
	4

(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Bolted Cast Aluminum
Height of top of roadway box above ground surface	0.0 ft
Type of protective casing:	Flushmount Roadbox
Length	1.0 ft
Inside Diameter	4.0 in
Depth of bottom of roadway box	1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	3.2

Type of Soil VaporPoint Tubing:	HDPE
Inside diameter of vapor point tubing	0.25 in
Type of backfill around tubing	See Diagram
Diameter of borehole	3.2 in
Depth to top of Soil Vapor Point Screen	3.3 ft
Type of screen	Woven Stainless Steel Wire
Pore diameter or size of openings	0.0057 in
Diameter of screen	0.4 in
Type of backfill around screen	No.0 Quartz Sand
Depth of bottom of Soil Vapor Point Screen	3.8 ft
Bottom of Soil Vapor Point	4.0 ft
Depth of bottom of borehole	4.0 ft

COMMENTS: Borhole installed using a blind probe. Borehole dry when checked prior to installing vapor point.
N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

Well No.	**SV-104D**
Boring No.	**SV-104D**

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

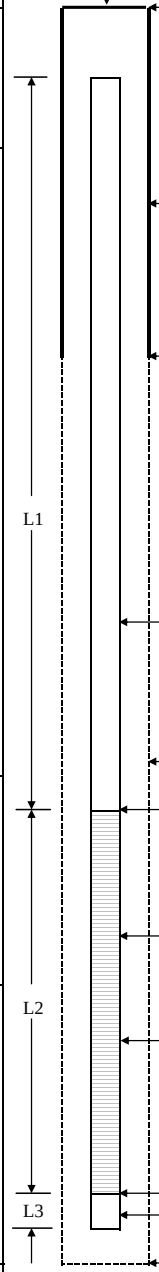
Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	5.2
	QUARTZ SAND
	6.0
	8

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside Diameter: 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	4.4

Type of Soil VaporPoint Tubing: HDPE

Inside diameter of vapor point tubing: 0.25 in

Type of backfill around tubing: See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 5.3 ft

Type of screen: Woven Stainless Steel Wire

Pore diameter or size of openings: 0.0057 in

Diameter of screen: 0.4 in

Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 5.8 ft

Bottom of Soil Vapor Point: 6.0 ft

Depth of bottom of borehole: 8.0 ft

COMMENTS:

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SV-105S	SV-105S

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

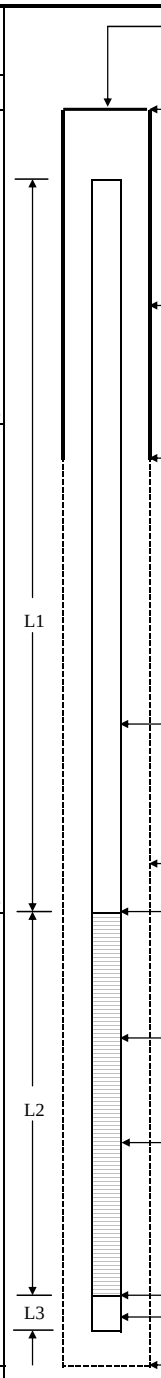
Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	2.8
	QUARTZ SAND
	3.5

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside Diameter: 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	2.0

Type of Soil VaporPoint Tubing: HDPE

Inside diameter of vapor point tubing: 0.25 in

Type of backfill around tubing: See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 2.8 ft

Type of screen: Woven Stainless Steel Wire

Pore diameter or size of openings: 0.0057 in

Diameter of screen: 0.4 in

Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 3.3 ft

Bottom of Soil Vapor Point: 3.5 ft

Depth of bottom of borehole: 3.5 ft

COMMENTS: Boring installed with blind probe. Observed moist tip of water level probe at 4.6 ft.

N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

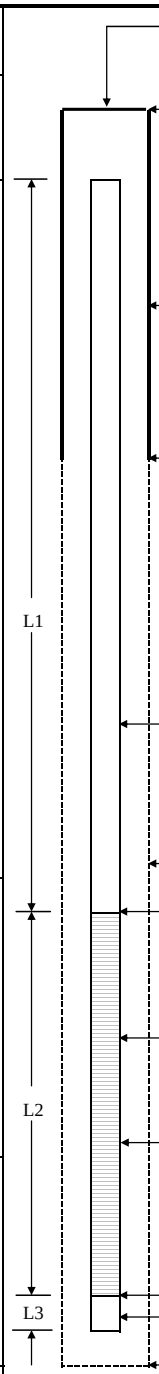
Well No.
SV-105D
Boring No.
SV-105D

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El.	ft	**Location**	See Plan
El. Datum			

☐ **Guard Pipe**
☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	CONCRETE (0.0 – 0.8)
	HYDRATED BENTONITE (0.8 – 5.2)
	QUARTZ SAND (5.2 – 6.0)
	8



(Bottom of Exploration)
(Numbers refer to depth from ground surface in feet)

(Not to Scale)

Type of protective cover/lock	Bolted Cast Aluminum
Height of top of roadway box above ground surface	0.0 ft
Type of protective casing:	Flushmount Roadbox
Length	1.0 ft
Inside Diameter	4.0 in
Depth of bottom of roadway box	1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	4.4

Type of Soil VaporPoint Tubing:	HDPE
Inside diameter of vapor point tubing	0.25 in
Type of backfill around tubing	See Diagram
Diameter of borehole	3.2 in
Depth to top of Soil Vapor Point Screen	5.3 ft
Type of screen	Woven Stainless Steel Wire
Pore diameter or size of openings	0.0057 in
Diameter of screen	0.4 in
Type of backfill around screen	No.0 Quartz Sand
Depth of bottom of Soil Vapor Point Screen	5.8 ft
Bottom of Soil Vapor Point	6.0 ft
Depth of bottom of borehole	8.0 ft

COMMENTS: DTW at 7.5 ft. after 0.5 hours

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SV-106S	SV-106S

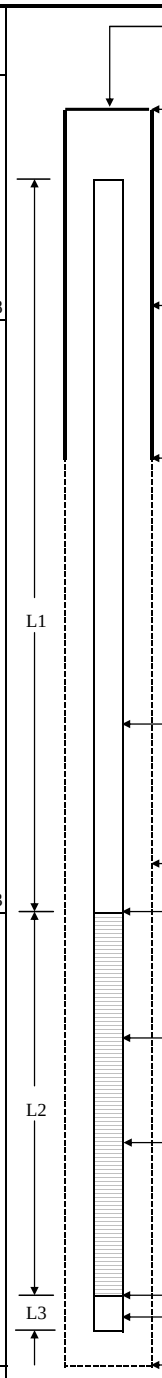
PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL		
	CONCRETE		
	0.8		
	HYDRATED BENTONITE	L1	
	2.3		
	QUARTZ SAND	L2	
		L3	
	3 (Bottom of Exploration)		

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock	Bolted Cast Aluminum
Height of top of roadway box above ground surface	0.0 ft
Type of protective casing:	Flushmount Roadbox
Length	1.0 ft
Inside Diameter	4.0 in
Depth of bottom of roadway box	1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	1.5

Type of Soil VaporPoint Tubing:	HDPE
Inside diameter of vapor point tubing	0.25 in
Type of backfill around tubing	See Diagram
Diameter of borehole	3.2 in
Depth to top of Soil Vapor Point Screen	2.3 ft
Type of screen	Woven Stainless Steel Wire
Pore diameter or size of openings	0.0057 in
Diameter of screen	0.4 in
Type of backfill around screen	No.0 Quartz Sand
Depth of bottom of Soil Vapor Point Screen	2.8 ft
Bottom of Soil Vapor Point	3.0 ft
Depth of bottom of borehole	3.0 ft

COMMENTS: Moist to wet tip of water level at 4.0 ft.

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.	Boring No.
SV-106D	SV-106D

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

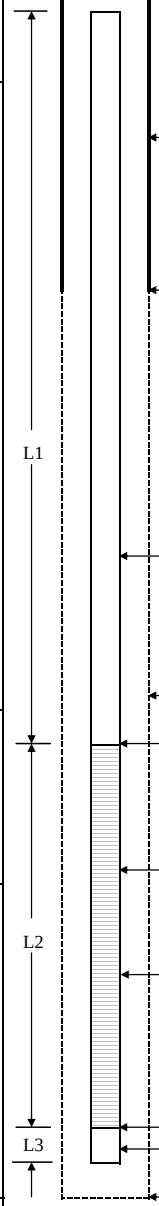
Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	CONCRETE
0.8	
	HYDRATED BENTONITE
5.2	
	QUARTZ SAND
6.0	
8	

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside Diameter: 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	4.4

Type of Soil VaporPoint Tubing: HDPE

Inside diameter of vapor point tubing: 0.25 in

Type of backfill around tubing: See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 5.3 ft

Type of screen: Woven Stainless Steel Wire

Pore diameter or size of openings: 0.0057 in

Diameter of screen: 0.4 in

Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 5.8 ft

Bottom of Soil Vapor Point: 6.0 ft

Depth of bottom of borehole: 8.0 ft

COMMENTS: DTW at 7.6 ft., 7.4 ft., 7.2 ft., 7.1 ft. -monitored over 0.5 hour

N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

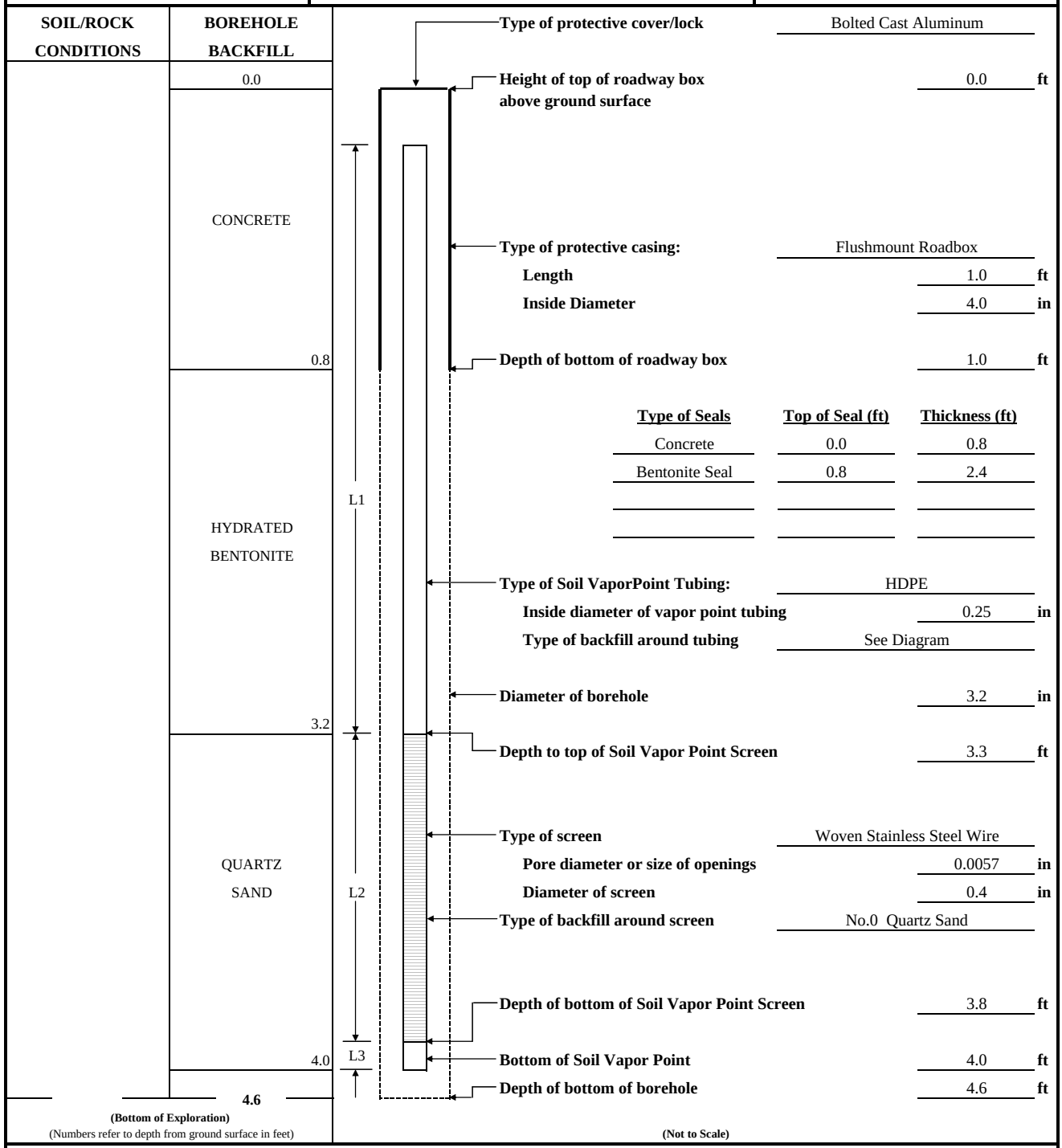
HALEY & ALDRICH

Well No.	Boring No.
SV-107S	SV-107S

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**



COMMENTS: Boring completed with blind probe. Tip of water level probe slightly moist at 4.6 ft.

N/A-not applicable

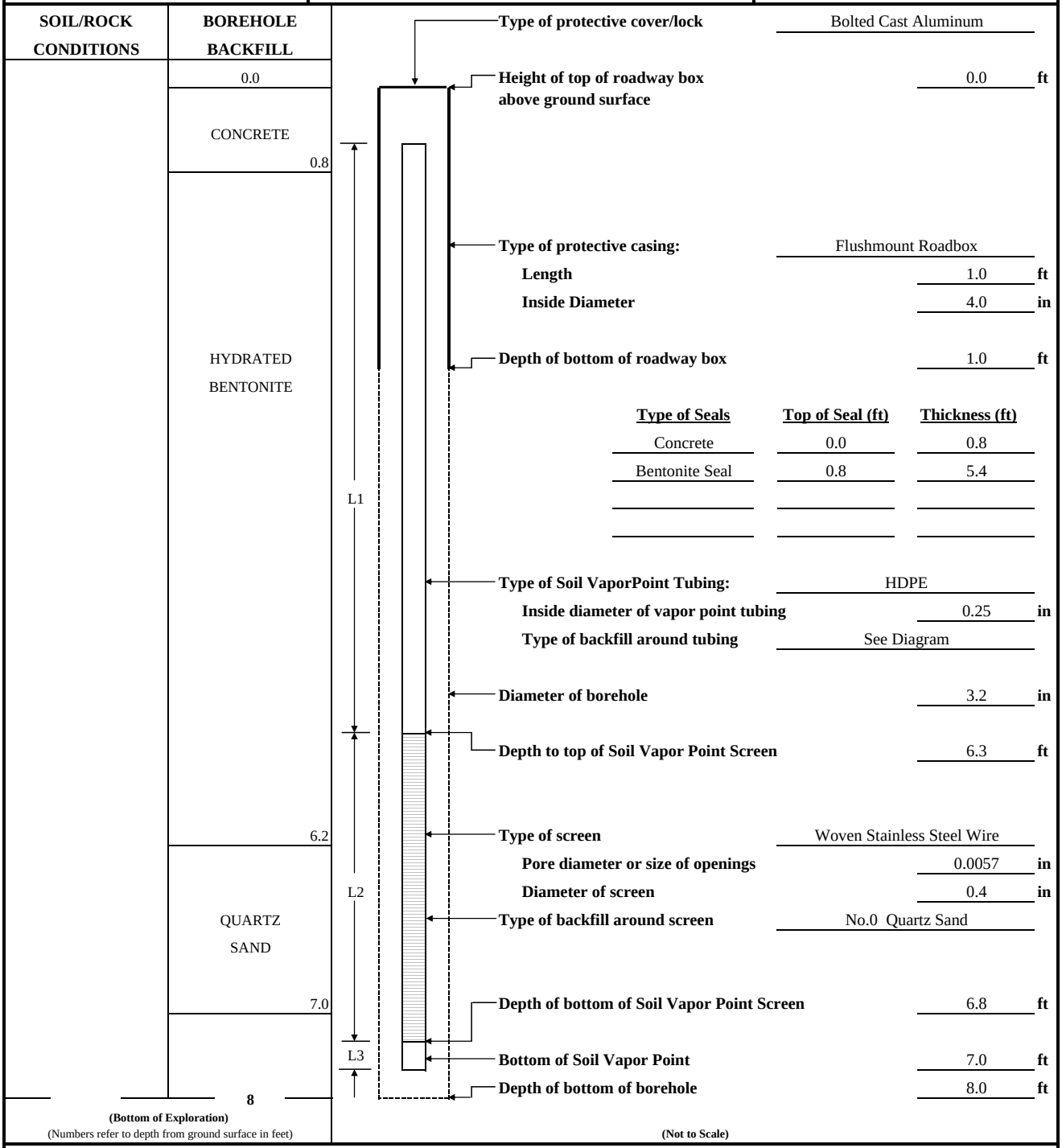
SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No. SV-107D
Boring No. SV-107D

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

Ground El. ft **Location** See Plan ☐ **Guard Pipe**
El. Datum ☑ **Roadway Box**



COMMENTS: Moist tip of water level probe at 8.0 ft.-no free water, rechecked following 15 minutes-same condition.

N/A-not applicable

Form # 3010

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.
SV-108S
Boring No.
SV-108S

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

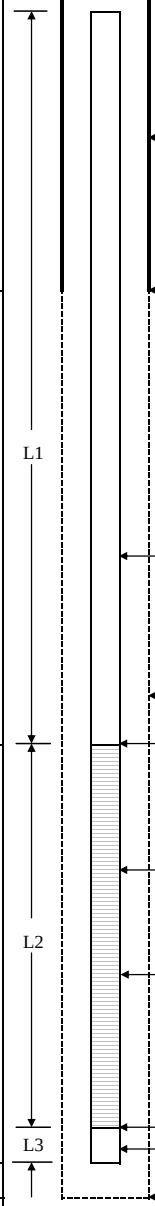
Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	3.4
	QUARTZ SAND
	4.2
	4.5

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock: Bolted Cast Aluminum

Height of top of roadway box above ground surface: 0.0 ft

Type of protective casing: Flushmount Roadbox

Length: 1.0 ft

Inside Diameter: 4.0 in

Depth of bottom of roadway box: 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	2.6

Type of Soil VaporPoint Tubing: HDPE

Inside diameter of vapor point tubing: 0.25 in

Type of backfill around tubing: See Diagram

Diameter of borehole: 3.2 in

Depth to top of Soil Vapor Point Screen: 3.5 ft

Type of screen: Woven Stainless Steel Wire

Pore diameter or size of openings: 0.0057 in

Diameter of screen: 0.4 in

Type of backfill around screen: No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen: 4.0 ft

Bottom of Soil Vapor Point: 4.2 ft

Depth of bottom of borehole: 4.5 ft

COMMENTS: Boring completed with blind probe. Tip of water level probe slightly moist at 4.6 ft.

N/A-not applicable

SOIL VAPOR POINT INSTALLATION REPORT

HALEY & ALDRICH

Well No.
SV-108D
Boring No.
SV-108D

PROJECT	Soil Vapor Point Installations	**H&A FILE NO.**	70665-014
LOCATION	Scottsville, NY	**PROJECT MGR.**	S. Boyle
CLIENT	Coopervision	**FIELD REP.**	D. Nostrant
CONTRACTOR	Nothnagle Drilling	**DATE INSTALLED**	12/23/2008
DRILLER	J. Schweitzer	**WATER LEVEL**	N/A

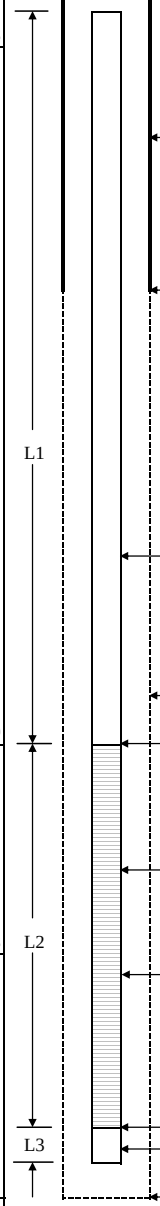
Ground El. _____ ft **Location** See Plan ☐ **Guard Pipe**

El. Datum _____ ☑ **Roadway Box**

SOIL/ROCK CONDITIONS	BOREHOLE BACKFILL
	0.0
	CONCRETE
	0.8
	HYDRATED BENTONITE
	5.0
	QUARTZ SAND
	5.8
	8

(Bottom of Exploration)

(Numbers refer to depth from ground surface in feet)



(Not to Scale)

Type of protective cover/lock Bolted Cast Aluminum

Height of top of roadway box above ground surface 0.0 ft

Type of protective casing: Flushmount Roadbox

Length 1.0 ft

Inside Diameter 4.0 in

Depth of bottom of roadway box 1.0 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.0	0.8
Bentonite Seal	0.8	4.2

Type of Soil VaporPoint Tubing: HDPE

Inside diameter of vapor point tubing 0.25 in

Type of backfill around tubing See Diagram

Diameter of borehole 3.2 in

Depth to top of Soil Vapor Point Screen 5.1 ft

Type of screen Woven Stainless Steel Wire

Pore diameter or size of openings 0.0057 in

Diameter of screen 0.4 in

Type of backfill around screen No.0 Quartz Sand

Depth of bottom of Soil Vapor Point Screen 5.6 ft

Bottom of Soil Vapor Point 5.8 ft

Depth of bottom of borehole 8.0 ft

COMMENTS: Borehole caved to 7.0 ft. standing water at 6.9 ft. checked for 1/2 hour, remained at 6.9 ft.

N/A-not applicable

APPENDIX B

Field Sampling Forms

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 0840 1050
Purge Rate: 200 ml/min Purge Time: 26 sec Helium Trace Test Performed: (Yes) / No passed
Canister ID: SC00366 Flow Controller ID: OA00177 Volume Extracted: _____ ml # of implant volumes: 0.0
Weather Conditions: sunny, breezy, 60s Sample Time: 2 hr Purge Device: Bi Air
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-1	0840	35			1050	5.5	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: ~~0847~~ 0852

Purge Rate: 200 ml/min Purge Time: 26 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00655 Flow Controller ID: 0A00451 Sample Time: 2 hr Purge Device: _____

Helium Trace Test Performed: (Yes) / No passed

Weather Conditions: sunny, breezy, 60's

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-2	0852	30.5			1049	2.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 1212 Helium Trace Test Performed: (Yes) / No Passed

Purge Rate: 200 ml/min Purge Time: 23 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00960 Flow Controller ID: OA00122 Sample Time: 2 hr Purge Device: _____

Weather Conditions: Cloudy, breezy, 60s

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-3 (5)	1212	31.0	1307	17.0	1415	7.0	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 1216 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 41 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00519 Flow Controller ID: OA00168 Sample Time: _____ hr Purge Device: _____

Weather Conditions: Cloudy, breezy, 60s

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-3(D)	1216	31.0	1307	17.0	1416	6.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 0954 Helium Trace Test Performed: Yes / No passed
Purge Rate: 200 ml/min Purge Time: 37 sec Volume Extracted: _____ ml # of implant volumes: 0.0
Canister ID: SC00669 Flow Controller ID: 0A00429 Sample Time: _____ hr Purge Device: _____
Weather Conditions: _____
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-4 (S)	0954	31.0			1153	5.5	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 0950 Helium Trace Test Performed: (Yes) / No passed
Purge Rate: 200 ml/min Purge Time: 55 sec Volume Extracted: _____ ml # of implant volumes: 0.0
Canister ID: SC01037 Flow Controller ID: 0A00093 Sample Time: 2 hr Purge Device: _____
Weather Conditions: partly sunny, breezy, 60s
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-4 (D)	0950	28.0			1152	5.0	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 0920 Helium Trace Test Performed: (Yes) No passed

Purge Rate: 200 ml/min Purge Time: 23 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00473 Flow Controller ID: OA00418 Sample Time: 2 hr Purge Device: _____

Weather Conditions: partly sunny, breezy, 60s

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-5 (5)	0920	29.5			1056	3.5	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 0915 Helium Trace Test Performed: (Yes) / No Passed
Purge Rate: 200 ml/min Purge Time: 41 sec Volume Extracted: _____ ml # of implant volumes: 0.0
Canister ID: SC00037 Flow Controller ID: OA00175 Sample Time: 2 hr Purge Device: _____
Weather Conditions: Partly Sunny, breezy, 60s
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-5(D)	0915	30			1057	5.0	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 1123 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 26 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00984 Flow Controller ID: OA00059 Sample Time: 2 hr Purge Device: _____

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-6 (5)	1123	30.5	1223	15.5	1323	6.5	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 1127 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 42 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00847 Flow Controller ID: 0A00208 Sample Time: 2 hr Purge Device: _____

Weather Conditions: partly sunny, breezy, 60s

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-6(D)	1127	30.0	1223	16.0	1326	6.25	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 1221 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 26 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00714 Flow Controller ID: OA00403 Sample Time: 2 hr Purge Device: _____

Weather Conditions: partly sunny, breezy, 60s

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-7 (5)	1029	28.5	~1146	9.0	1221	4.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 10/14/08 Time: 0808 Helium Trace Test Performed: Yes / (No) N/A

Purge Rate: — ml/min Purge Time: — sec Volume Extracted: — ml # of implant volumes: 0.0

Canister ID: AC00796 Flow Controller ID: FC00097 Sample Time: 8 hr Purge Device: —

Weather Conditions: breezy, sunny, 60°

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
AA-101408	0808	29.0	1305	13.0	1501	7.5	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 0910 Helium Trace Test Performed: (Yes) / No Passed

Purge Rate: 200 ml/min Purge Time: 23 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00709 Flow Controller ID: OA00167 Sample Time: 2 hr Purge Device: G.T Air

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-3 S	0910	30.0	1040	9.0	1110	6.0	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 0932 Helium Trace Test Performed: (Yes) / No passed
Purge Rate: 200 ml/min Purge Time: 76 sec Volume Extracted: _____ ml # of implant volumes: 0.0
Canister ID: SC00536 Flow Controller ID: 0200014 Sample Time: 2 hr Purge Device: GILAIR
Weather Conditions: _____
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-6 S	0932	30.5	1044	13.5	1130	7.5	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 0941 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 42 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00957 Flow Controller ID: 0A00386 Sample Time: 2 hr Purge Device: GMA-C

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-6 D	0941	29.5	1044	12.0	1130	5.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 1004 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 26 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00351 Flow Controller ID: OA00093 Sample Time: 2 hr Purge Device: Gil Air

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-101 S	1001	27.0	1115	7.0	1138	4.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 1151 Helium Trace Test Performed: (Yes) / No Dossed

Purge Rate: 200 ml/min Purge Time: 30 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00299 Flow Controller ID: 0A00406 Sample Time: 2 hr Purge Device: GILAIR

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-102S	1151	27.5	1309	8.0	1330	4.5	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 1159 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 48 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00333 Flow Controller ID: OA00387 Sample Time: 2 hr Purge Device: GIA5

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-102 D	1159	29.5	1308	11.0	1356	4.0	

Form 3010a

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 1215 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 26 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SG00315 Flow Controller ID: OA00177 Sample Time: 2 hr Purge Device: GIAV

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-103S	1215	31.0	1304	15.0	1413	4.0	

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: ~~1234~~ 1243 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: ~~35~~ sec Volume Extracted: _____ ml # of implant volumes: 0.0

SC02565 Canister ID: ~~SC00767~~ Flow Controller ID: ~~OA00047~~ OA00388 Sample Time: 2 hr Purge Device: GilAir

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
~~SV-104S~~	~~1234~~	~~30.0~~					
SV-104S	1243	30.0	1353	9.0	1420	3.0	

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Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/04 Time: 1241 Helium Trace Test Performed: Yes / No Passed

Purge Rate: 200 ml/min Purge Time: 57 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00141 Flow Controller ID: 0400450 Sample Time: 2 hr Purge Device: GIAir

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-104 D	1241	29.5	1353	10.5	1427	5.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO. 70665-014
PROJECT MGR. Sue Boyle
FIELD REP EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 1323 Helium Trace Test Performed: Yes / No passed
Purge Rate: 200 ml/min Purge Time: 26 sec Volume Extracted: _____ ml # of implant volumes: 0.0
Canister ID: SL00683 Flow Controller ID: 0400207 Sample Time: 2 hr Purge Device: GilAir
Weather Conditions: _____
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-106 S	1323	28.5	1433	9.5	1518	3.5	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 1347 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 35 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00432 Flow Controller ID: OA00354 Sample Time: 2 hr Purge Device: GilAir

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-107 S	1347	35.0	1435	23.0	1540	12.0	

HALEY & ALDRICH

Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

947

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 0825 Helium Trace Test Performed: (Yes) / No passed

Purge Rate: 200 ml/min Purge Time: 36 sec Volume Extracted: _____ ml # of implant volumes: 0.0

Canister ID: SC00828 Flow Controller ID: OA00122 Sample Time: 2 hr Purge Device: GilAir

Weather Conditions: _____

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-1085	0825	33.0	0922	18.5	1026	8.0	

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Soil Gas SUMMA Canister Sampling Form

PROJECT: Coopervision Soil Vapor Sampling
LOCATION: Rochester, NY
CLIENT: Coopervision

H&A FILE NO.: 70665-014
PROJECT MGR.: Sue Boyle
FIELD REP: EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long.
Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary
Install. Method: Geoprobe Slambar Other: _____
Implant Depth: _____ in Weather Conditions: _____
Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 0840 Helium Trace Test Performed: (Yes) No passed
Purge Rate: 200 ml/min Purge Time: 50 sec Volume Extracted: _____ ml # of implant volumes: 0.0
Canister ID: SC00903 Flow Controller ID: OA00389 Sample Time: 2 hr Purge Device: GilAir
Weather Conditions: _____
Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
SV-108 D	0840	29.0	0922	18.0	1040	4.5	

Form 3010a

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Soil Gas SUMMA Canister Sampling Form

PROJECT	Coopervision Soil Vapor Sampling	H&A FILE NO.	70665-014
LOCATION	Rochester, NY	PROJECT MGR.	Sue Boyle
CLIENT	Coopervision	FIELD REP	EGL

Implant Installation Data:

Well ID: _____ GPS Coordinates: _____ Lat. _____ Long. _____

Date: _____ Time: _____ Implant Type: **permanent** semi-permanent temporary

Install. Method: Geoprobe Slambar Other: _____

Implant Depth: _____ in Weather Conditions: _____

Other pertinent observations: _____

Sampling Data:

Date: 12/30/08 Time: 08:00 Helium Trace Test Performed: Yes / (No) NA

Purge Rate: — ml/min Purge Time: — sec Volume Extracted: — ml # of implant volumes: 0.0

Canister ID: AC00719 Flow Controller ID: FC00672 Sample Time: 8 hr Purge Device: —

Weather Conditions: 20s-30s, Windy - SW

Other pertinent observations: _____

Sample Location	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments
AA-123008	0804	29.5	1436	12.0	1545	9.0	

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H&A FILE NO.

PROJECT MGR.

FIELD REP

DATE 01/30/09

Sampling Data:

Sample ID: SV-SS10 Sample Depth: 24 in Purging Device: gilair Tracer Test Pass: Y/N

Purge Start: 1426 Single Well Volume: 10.8 ml. Purge Rate: 200 ml/min

Purge End: 1426 Purge Volume: 34 ml. Purge Time: 10 sec Slab thickness: 3in

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SLC 00041	FC 00729	1430	30			1615	4	

Sampling Data:

Sample ID: Sample Depth: in Purging Device: Tracer Test Pass: Y/N

Purge Start: Single Well Volume: ml. Purge Rate: ml/min

Purge End: Purge Volume: ml. Purge Time: sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading

Form 3010

Chris Norton - 303-4787

HALEY & ALDRICH

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74°F

H&A FILE NO.
PROJECT MGR.
FIELD REP
DATE 01/30/09

Sampling Data:

Sample ID: SV-InA10 Sample Depth: in Purging Device: Tracer Test Pass: Y/N
Purge Start: Single Well Volume: ml. Purge Rate: ml/min
Purge End: Purge Volume: ml. Purge Time: sec Slab thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SLC 00100	FC 00783	1416	29			1610	4	

Sampling Data:

Sample ID: SV-OutA-10 Sample Depth: in Purging Device: Tracer Test Pass: Y/N
Purge Start: Single Well Volume: ml. Purge Rate: ml/min
Purge End: Purge Volume: ml. Purge Time: sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SLC 00039	FC 00724	1419	28			1605	3	

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO/DMN
DATE 08/08/08

Sampling Data:

Sample ID: SV-SS58
Purge Start: 1335
Purge End: 1235
Sample Depth: 24 in
Single Well Volume: 10.8 ml.
Purge Volume: 34 ml.
Purging Device: qilair
Purge Rate: 200 ml/min
Purge Time: 10 sec
Tracer Test Pass: Y/N
200/60 34/
Slab thickness: 2
75° temp

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00119	OA 00912	1337	29			1200	03	

Sampling Data:

Sample ID: SV-InA58
Purge Start:
Purge End:
Sample Depth: in
Single Well Volume: ml.
Purge Volume: ml.
Purging Device:
Purge Rate: ml/min
Purge Time: sec
Tracer Test Pass: Y/N
Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 00845	FC 00490	1330	29			1200	08	

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO/DMV
DATE 02/09/05

Sampling Data:

Sample ID: SV-SS64 Utility closet Sample Depth: 48 in Purging Device: pump Tracer Test Pass: Y/N
Purge Start: Single Well Volume: 22 ml. Purge Rate: 200 ml/min
Purge End: Purge Volume: 66 ml. Purge Time: 20 sec Slab thickness: 2 inches

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00931	CA 00542	1500	30			1215	0	no glass beads used open void 2 inches below slab
								Ran out early

Sampling Data:

Sample ID: SV-INAIR Sample Depth: in Purging Device: Tracer Test Pass: Y/N
Purge Start: Single Well Volume: ml. Purge Rate: ml/min
Purge End: Purge Volume: ml. Purge Time: sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 009416	FC 00591	1500	30			1215	11	shut off early to remain consistent w/ SS sample

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO/DMN
DATE 03/09/05

Sampling Data:

Sample ID: SV-SS8 Sample Depth: 24 in Purging Device: gilair Tracer Test Pass: Y/N
Purge Start: 1535 Single Well Volume: 10.9 ml. Purge Rate: 200 ml/min
Purge End: 1535 Purge Volume: 34 ml. Purge Time: 10 sec Slab thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00641	OA 00930	1545	730			1335	05	

Sampling Data:

Sample ID: SV-InAir Sample Depth: in Purging Device: Tracer Test Pass: Y/N
Purge Start: Single Well Volume: ml. Purge Rate: ml/min
Purge End: Purge Volume: ml. Purge Time: sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 01435	FC 00378	1540	730			1335	11	

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO/JMN
DATE 02/04/09

Sampling Data:

Sample ID: SV-552 Utility Closet
Purge Start:
Purge End:

Sample Depth: 24 in
Single Well Volume: 10.8 ml.
Purge Volume: 34 ml.

Purging Device: gil air
Purge Rate: 200 ml/min
Purge Time: 10 sec

Tracer Test Pass: Y/N
Slab thickness: 2 inches

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00160	QA 00898	1625	29			1525	3	

Sampling Data:

Sample ID: SV-InA2
Purge Start:
Purge End:

Sample Depth: in
Single Well Volume: ml.
Purge Volume: ml.

Purging Device:
Purge Rate: ml/min
Purge Time: sec

Tracer Test Pass: Y/N
Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 01423	FC 00215	1615	730			1525	5	

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO / DMN
DATE 02/04/09

Sampling Data:

Sample ID: SV-SS16 Sample Depth: 24 in Purging Device: gil air Tracer Test Pass: (Y)/N

Purge Start: Single Well Volume: 10.8 ml. Purge Rate: 200 ml/min

Purge End: Purge Volume: 34 ml. Purge Time: 100 sec Slab thickness: 3-4 inches

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00932	OA 00548	1655	27			1745	03	

Sampling Data:

Sample ID: SV-INA-16 Sample Depth: in Purging Device: Tracer Test Pass: Y/N

Purge Start: Single Well Volume: ml. Purge Rate: ml/min

Purge End: Purge Volume: ml. Purge Time: sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 01351	FC 05307	1655	730			1745	8	

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H&A FILE NO.

PROJECT MGR.

FIELD REP

DATE 02/09/09

Sampling Data:

Sample ID: SV-OUTA-020909 Sample Depth: in Purging Device: Tracer Test Pass: Y/N

Purge Start: Single Well Volume: ml. Purge Rate: ml/min

Purge End: Purge Volume: ml. Purge Time: sec Slab thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 01179	FC 00545	1347	30			1520	5	

Sampling Data:

Sample ID: Sample Depth: in Purging Device: Tracer Test Pass: Y/N

Purge Start: Single Well Volume: ml. Purge Rate: ml/min

Purge End: Purge Volume: ml. Purge Time: sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading

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LOCATION CooperVision

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H&A FILE NO.

PROJECT MGR.

FIELD REP 02/26/09

DATE CSO / EOL

Sampling Data: [redacted] SS-705-1

Sample ID: SV-[redacted] Sample Depth: 24 in Purging Device: gilair Tracer Test Pass: Y/N pass

Purge Start: 1305 Single Well Volume: 10.9 ml. Purge Rate: 200 ml/min

Purge End: 1305 Purge Volume: 34 ml. Purge Time: 10 sec Slab thickness: 4in

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00615	OA 00857	1307	28.5			1200	4	

Sampling Data:

Sample ID: SV-InA-705-1 Sample Depth: n/a in Purging Device: n/a Tracer Test Pass: Y/N

Purge Start: n/a Single Well Volume: n/a ml. Purge Rate: n/a ml/min

Purge End: n/a Purge Volume: n/a ml. Purge Time: n/a sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 00365	FC 00695	1257	30			1200	4	

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO/EOZ
DATE 02/26/2009

Sampling Data:

Sample ID: SV-InA-709-2 Sample Depth: ____ in Purging Device: ____ Tracer Test Pass: Y/N

Purge Start: ____ Single Well Volume: ____ ml. Purge Rate: ____ ml/min

Purge End: ____ Purge Volume: ____ ml. Purge Time: ____ sec Slab thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 00989	FC 00384	1413	730			1200	03	

Sampling Data:

Sample ID: ____ Sample Depth: ____ in Purging Device: ____ Tracer Test Pass: Y/N

Purge Start: ____ Single Well Volume: ____ ml. Purge Rate: ____ ml/min

Purge End: ____ Purge Volume: ____ ml. Purge Time: ____ sec Slab Thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading

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HALEY & ALDRICH

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H&A FILE NO.
PROJECT MGR.
FIELD REP CSO/EGL
DATE 02/26/09

Sampling Data:

Sample ID: SVOutA-022609 Sample Depth: in Purging Device:
Purge Start: Single Well Volume: ml. Purge Rate: ml/min Tracer Test Pass: Y N
Purge End: Purge Volume: ml. Purge Time: sec Slab thickness:

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
AC 00977	FC 00266	1400	30			1140	04	

Sampling Data:

Sample ID: SV-SS-709-2 Sample Depth: 24 in Purging Device: gil air
Purge Start: 1408 Single Well Volume: 10.8 ml. Purge Rate: 200 ml/min Tracer Test Pass: Y N
Purge End: 1408 Purge Volume: 34 ml. Purge Time: 10 sec Slab Thickness: 4

Canister ID #	Flow Control ID #	Start Time (24hrs)	Initial Vacuum (inHg)	Interim Time (24hrs)	Interim Vacuum (inHg)	Final Time (24hrs)	Final Vacuum (inHg)	Comments/ PID reading
SC 00196	00846	1410	26			1200	03	

Form 3010

APPENDIX C

Pre-Sampling Inventory Forms

INDOOR AIR ASSESSMENT QUESTIONNAIRE AND BUILDING INVENTORY FOR RESIDENTIAL STRUCTURES

Form Completed by: DAVID M. NORTHCOTT
Date/Time Initial Call/Visit: 1/29/09 1430
Date/Time Follow-up Call/Visit: _____

1. OWNER OR LANDLORD _____(Check if same as occupant)
Interviewed: Y/N

First Name: _____ Last Name: _____

Address: UNIT 10

Contact information:
Home Phone: _____ Cell Phone: _____
Work Location/Phone: _____

Preferred means and time(s) to contact:
In person _____ At Home by Phone _____
At Work by Phone _____ By Cell Phone X

How long have you owned the house?_____

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

Permission to contact the current tenants? **Y/N**

How long have current tenants lived in the house (per unit, if multiple units)? Vacant

If property is occupied by the owner and is a single-family house, skip to Question 3.

If property is a rental house, get contact information for tenants and contact them to answer Question 2.

Comments:

2a. RENTER/OCCUPANT: [Note: for multi-tenant structures, please collect information for each address as possible] **Interviewed: Y/N**

Name: _____

Address: _____

Home Phone: _____ Office Phone: _____ Cell Phone: _____

Preferred means and time(s) to contact:
_____ In person _____ Home Phone
_____ Office Phone _____ Cell Phone

How long have you lived there? _____ Number living at this location: _____
Age of Occupants: _____

2b. RENTER/OCCUPANT:
Interviewed: Y/N

Name: _____

Address: _____

Home Phone: _____ Office Phone: _____ Cell Phone: _____

Preferred means and time(s) to contact:
_____ In person _____ Home Phone
_____ Office Phone _____ Cell Phone

How long have you lived there? _____ Number living at this location: _____
Age of Occupants: _____

2c. RENTER/OCCUPANT:
Interviewed: Y/N

Name: _____

Address: _____

Home Phone: _____ Office Phone: _____ Cell Phone: _____

Preferred means and time(s) to contact:
_____ In person _____ Home Phone
_____ Office Phone _____ Cell Phone

How long have you lived there? _____ Number living at this location: _____
Age of Occupants: _____

3. RESIDENTIAL STRUCTURE CHARACTERISTICS

Residential type: (Circle appropriate responses)

Ranch	Multi-story	Multi-Family	
Raised Ranch	Apartment	Modular	(Townhouse/Condo)
Split Level	Mobile Home		

If structure includes multiple units, number of units: 4
Number of stories: 2
Comments: _____
Any historic use of structure: RESIDENTIAL HOUSING

If the property is also or has been used as a commercial establishment, what type?
Business Type(s) NO

4. RESIDENTIAL STRUCTURE CONSTRUCTION

House construction: (wood frame) concrete stone brick
Comments: _____

Year Constructed _____

Is there an attic: Yes / No
Is the attic occupied? **Yes / No** Comments _____

Is there a basement: (Yes) / **No**
Is the basement occupied? **Yes /** (No) Comments: _____

Is there a crawl space: Yes / No Where located? _____
Construction: (Circle appropriate responses) Dirt Gravel Plastic lining Insulation

5. OCCUPANCY

Level	General Use of Each Floor (e.g., family room, bedroom, laundry, workshop)
Basement	STORAGE, WASHER DRYER
1st Floor	LIVING, KITCHEN, LAUNDRY, BATHROOM
2nd Floor	BEDROOMS
3rd Floor	
4th Floor	

6. BASEMENT CHARACTERISTICS (circle all that apply)

a. Insulation: Describe: Cellulose Blanket Type ½ wall (upper)

b. Basement type: NA (full) partial unfinished partially finished finished
Comments: _____

c. Basement floor: (concrete) dirt stone
Comments: _____

d. Concrete floor: (unsealed) sealed carpet painted
Generally describe condition (e.g. cracks, damaged areas): _____
Floating Slab, Foam Exp. Joint Material in Gap between Floor edge and walls, loose, Gaps are open at Exp. Joint Material and Floor/wall

e. Describe the condition of the basement floor: (circle any relevant key words that describe the response)
(**Good** (no cracks or very minor cracking)
Fair (numerous small cracks, chips in several areas)
Poor (many cracks 1/8" or greater, heaved in areas)
Comments: _____

f. The condition of the basement is: (circle any relevant key words that describe the response)
(**Dry** regardless of rainfall)
Damp (feels humid, moisture evident on walls and floor, moldy, musty odor)
Leaks/Seeps (water enters only during heavy rain events)
Wet (small pools/puddles/streams of water most of the time, water seepage through floors and or walls)
Comments: _____

g. Most recent weather or sewer related flood event, if any _____
h. Sump present? (Yes) / No Location SE Corner
i. Water in sump? (Yes) / No NA DTW 0.9'
j. Foundation walls: (poured (Lower) (block (upper) stone other _____
k. Foundation walls: ~~unsealed~~ sealed/painted: _____

7. HEATING, VENTING and AIR CONDITIONING (circle all that apply)

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

(Hot air circulation)	Heat pump	Hot water baseboard
Space Heaters	Steam radiation	Radiant floor
Electric baseboard	Wood stove/Fireplace	Outdoor wood boiler
Other _____		

The primary type of fuel used is: (Natural Gas) Electric Fuel Oil Kerosene Propane Solar Wood Coal

Where is the hot water tank located? 3' S. of heating unit
Fueled by: NAT GAS

Where is the boiler/furnace located?: 5'S. of center of basement

Air conditioning: Central Air Window units None

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY
(Circle appropriate responses. Provide comments and or specify where response is "other")

a. Is there smoking in the residence? Yes / No

b. Has the residence ever had a fire? Yes / No
When/Cause_____

c. Is there a garage? Yes / No Attached Detached Outbuilding
Garage Use: _____
Outbuilding Use: _____

d. If an attached garage:
Is it heated? Yes / No NA
How heated? Furnace (Electric/Natural Gas) Stove (Wood/Pellets/Coal/Other)
Space Heater (Electric/Kerosene/Propane) Boiler (Natural Gas/Other)
Comments: _____
Are petroleum-powered machines or vehicles stored in it? (lawnmower, ATV, car)
Yes / No NA Comments_____
Has the attached garage had a fire? Yes / No NA
When/Cause_____

e. Is there a workshop or hobby craft area in the house or attached garage? Yes / No
Where_____
How used_____

f. Has there been any painting, furniture refinishing or staining in the house or attached garage in the past 6 months? Yes / No Where/When/Type (latex, oil, solvent)_____
_____

g. Has any new carpet, drapes or other textiles been installed in the past several months? Yes / No Where/When/Type_____

h. Do you have a kitchen exhaust fan? Yes / No If yes, where vented ATTIC

i. Do you have bathroom exhaust fan(s)? Yes / No If yes, where vented (e.g. attic, outside)?_____

j. Do you have a clothes dryer? Yes / No If yes, where vented? THROUGH S. WALL

k. Have any pesticides been used at the house? Yes / No Describe:_____
_____

l. Do you notice any odors in the building? Yes / No
Describe
New Carpet Odor

m. Do any of the building occupants use solvents at work? Yes / No
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, nail technician, hair stylist, other)

Types of solvents used/comments: _____

If yes, are their clothes washed at work? Yes / No

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

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

o. Is there a radon mitigation system built for the building structure? Yes (No)
Date of Installation: _____
Is the system active or passive? Active/Passive
Comments: _____

p. Have cleaning products been used recently? (Yes) / No
When/Type Floor Wax Stripper, Wax (Kitchen Floor)

q. Have cosmetic products been used recently? Yes / No
When/Type _____

r. Do you regularly use air fresheners? Yes / No Describe where/type/frequency _____

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well
Other: _____
If groundwater well, location and depth: _____

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

10. PRODUCT INVENTORY – Request information concerning the types, quantities, and locations of household and other chemicals and petroleum-type products that may be located at the residence and document information, below. Additional information concerning chemical/product inventory is to be documented based upon on-site observations.

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

Location	Product Description	Size(units)	Condition[1]	Chemical Ingredients
NONE OBSERVED				

Location	Product Description	Size(units)	Condition[1]	Chemical Ingredients

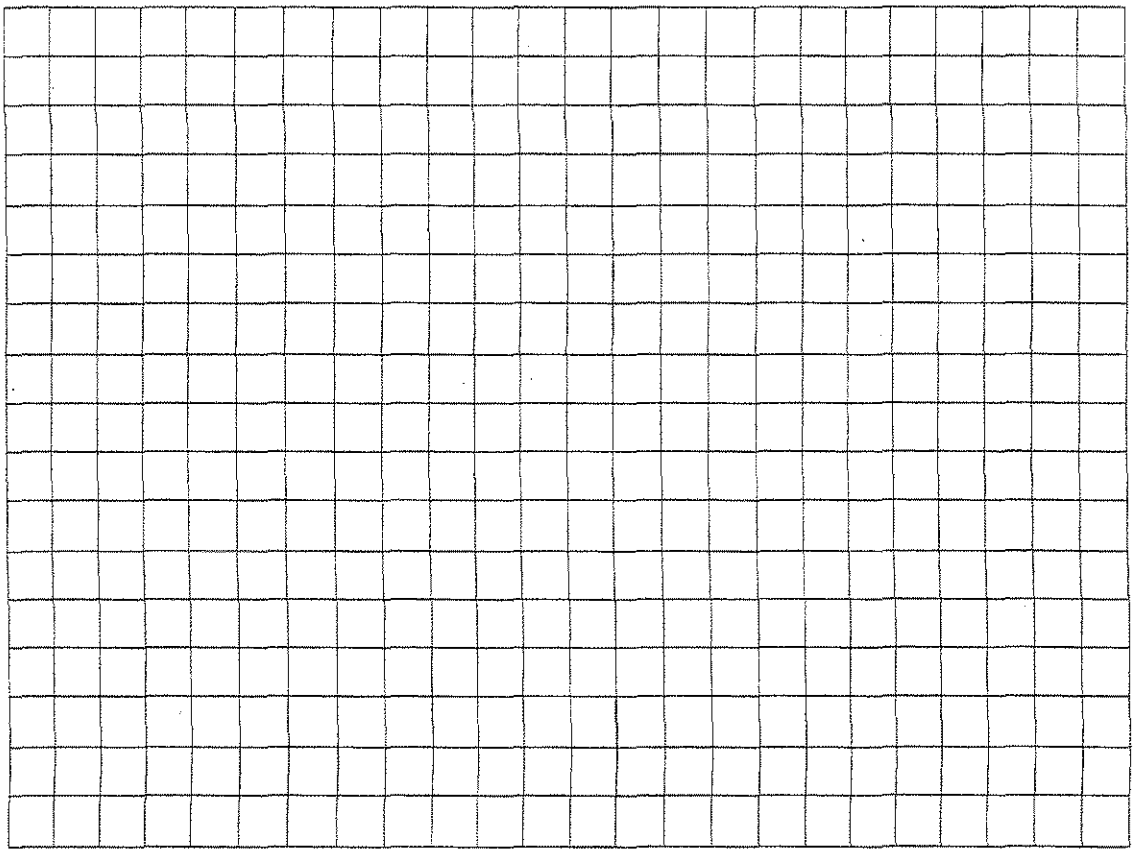
Notes: 1. Describe the condition of the containers as Closed (C), Open (O), new or used (N or U), or Deteriorated (D).

11. ADDITIONAL NOTES a Weather conditions

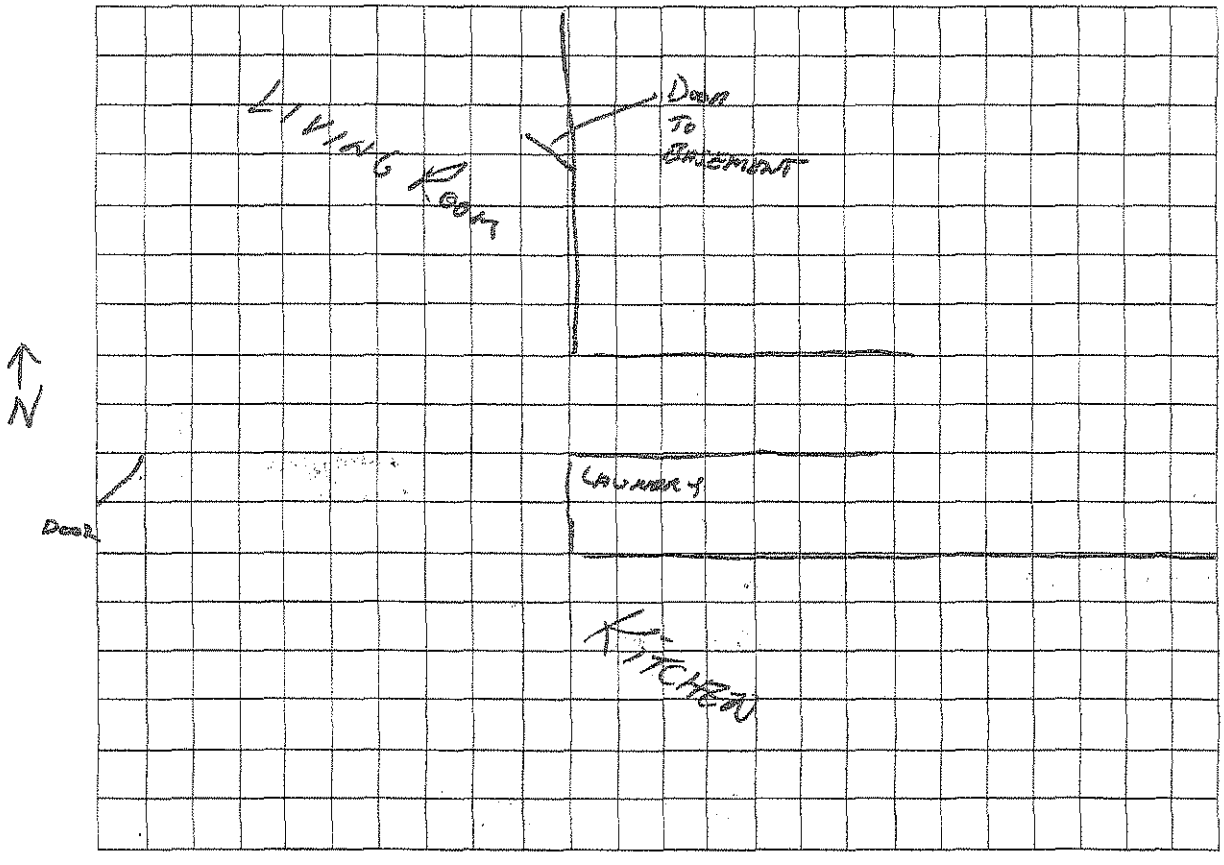
12. FLOOR PLANS – TO BE COMPLETED ON-SITE, BY SAMPLING TEAM

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

BASEMENT:



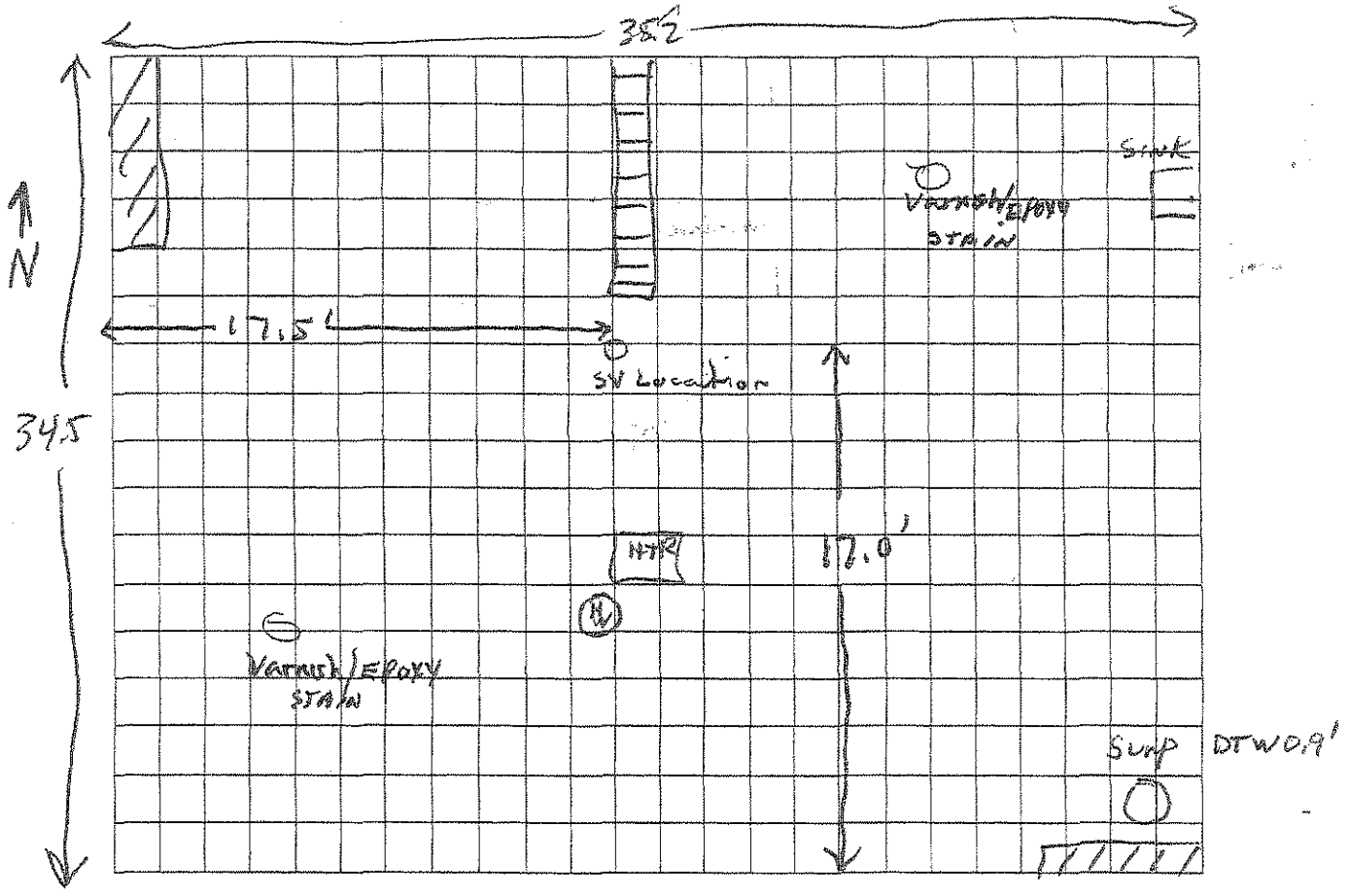
FIRST FLOOR:



13. ~~OUTDOOR PLOT:~~ BASEMENT

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

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



12pm pickup scheduled for tues

OSR – 3

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

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

Preparer's Name Christina Dudak Date/Time Prepared 2/09/09

Preparer's Affiliation H+A Phone No. 331-4217

Purpose of Investigation Cooper Vision SVE

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: #58 Bernadette

County: Monroe

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location 4 Age of Occupants 30's (2), 1-Teen, 1-2yrs old

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors 1 Building age 1999

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	~~sealed with~~ fiberglass insul. blanket (upper ½ of wall)	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

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

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

Open seam at wall/floor joint

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

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

Hot air circulation	Heat pump	Hot water baseboard	forced air
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Gas

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

sometimes window units

Are there air distribution ducts present? Y / N

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

floor ducts

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	storage
1st Floor	living room, kitchen, beds
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

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

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

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

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

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

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

h. Have cleaning products been used recently? (Y) / N When & Type? once a week

i. Have cosmetic products been used recently? (Y) / N When & Type? a long ago

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

k. Is there new carpet, drapes or other textiles? Y (N) Where & When? _____

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

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

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

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

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

Are there odors in the building? Y / N
If yes, please describe: funny smell in water on first floor

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

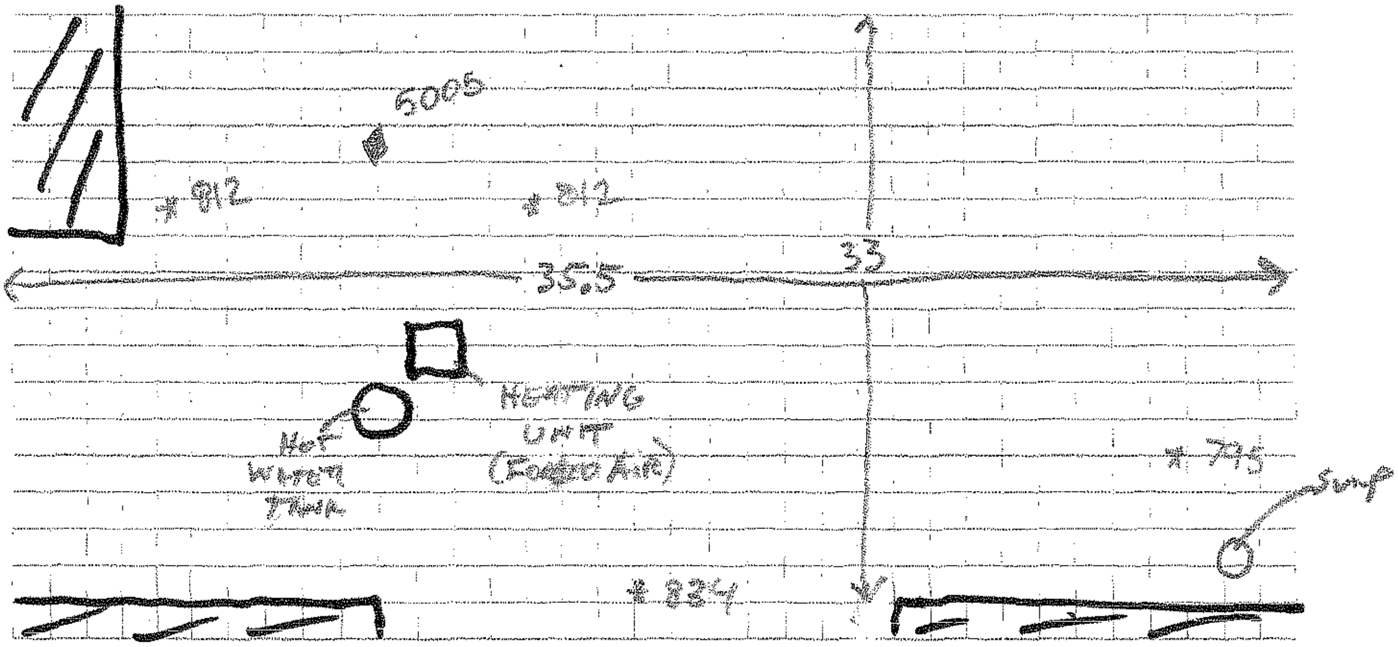
d. Relocation package provided and explained to residents? Y / N

call # 360-9791

11. FLOOR PLANS

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

Basement:



~~First Floor~~:

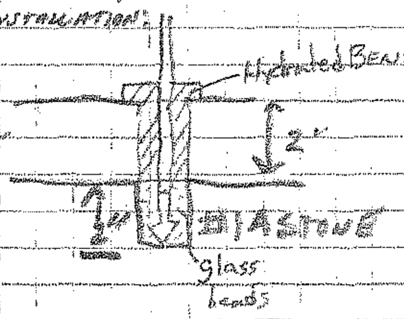
Basement NOTES

1) Sanitary Sewer exits through e. wall @ 6' from floor

2) Open seam at Floor-Wall base (all walls)

3) Concrete cracks at lower half of N. Wall (2 observed), W. wall (lower)

4) SV Point Installation:



* PID ppb readings

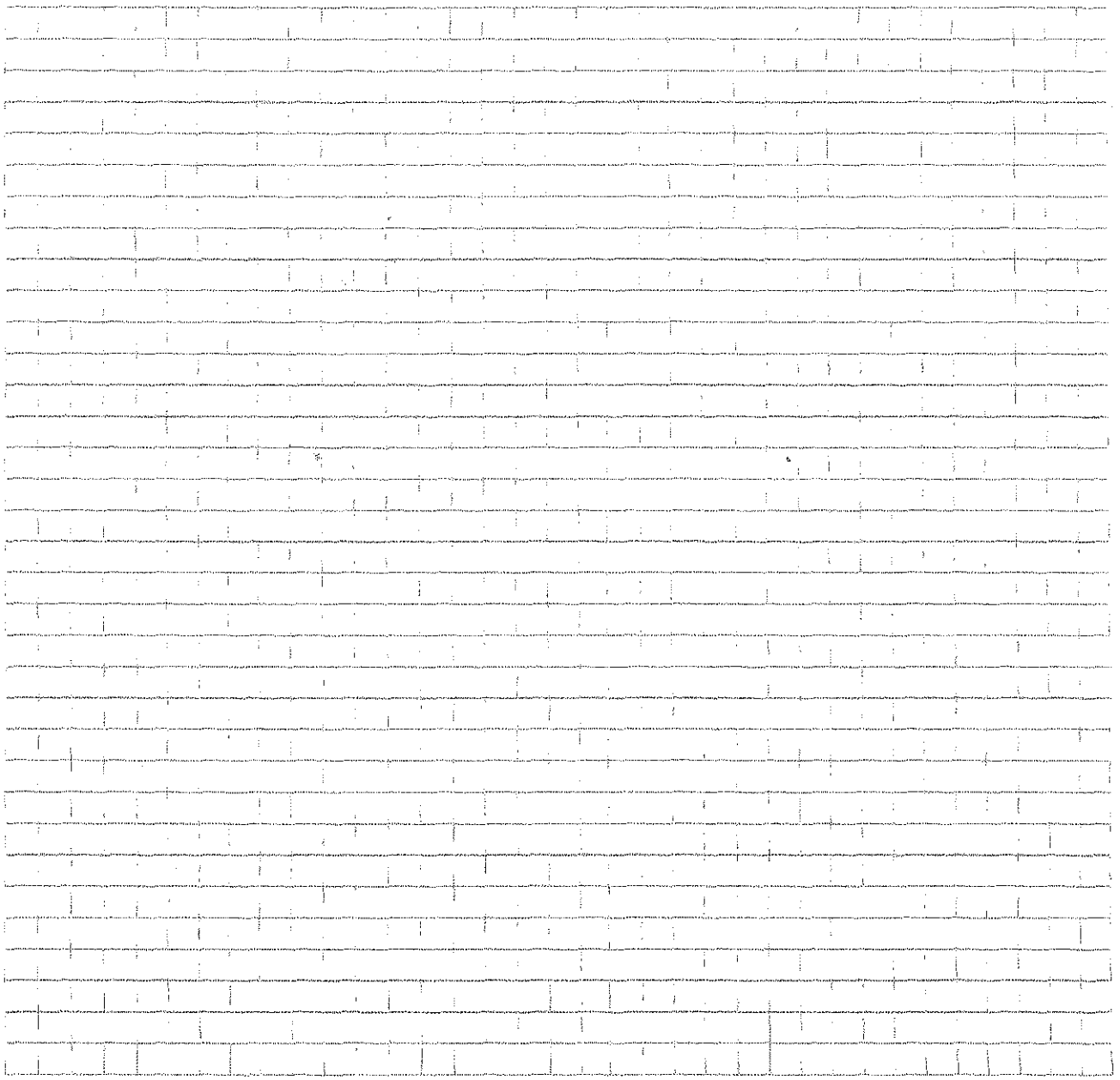
◆ subslab location

◇ ambient location

12. OUTDOOR PLOT

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

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



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

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

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

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

Preparer's Name Chrishna Ondak Date/Time Prepared 02/09/09 1600

Preparer's Affiliation HiP Phone No. _____

Purpose of Investigation _____

1. OCCUPANT: Utility Closet #2

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

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

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors_____ Building age_____

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

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

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

_____

_____

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

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

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other None

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: NA

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

Are there air distribution ducts present? Y / N

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

_____

_____

_____

_____

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	_____
1st Floor	_____
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

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

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

e. Is a kerosene or unvented gas space heater present? Y / N Where? _____

f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____

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

h. Have cleaning products been used recently? Y / N When & Type? _____

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

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

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

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

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

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

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

Are there odors in the building? Y / N
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

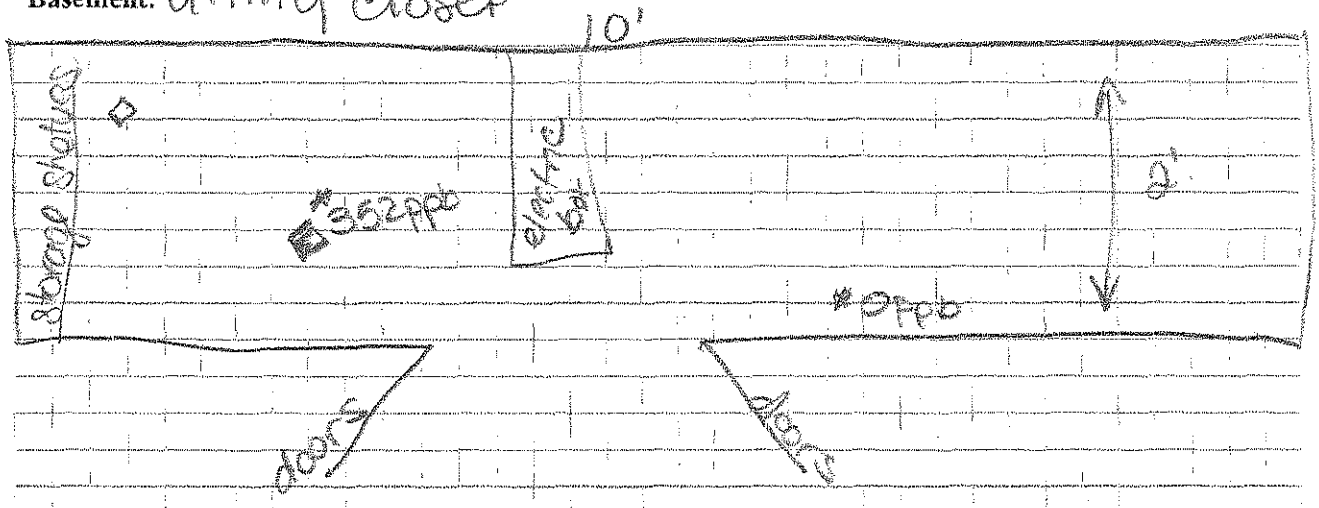
c. Responsibility for costs associated with reimbursement explained? Y / N

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

11. FLOOR PLANS

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

~~Basement~~: Utility closet

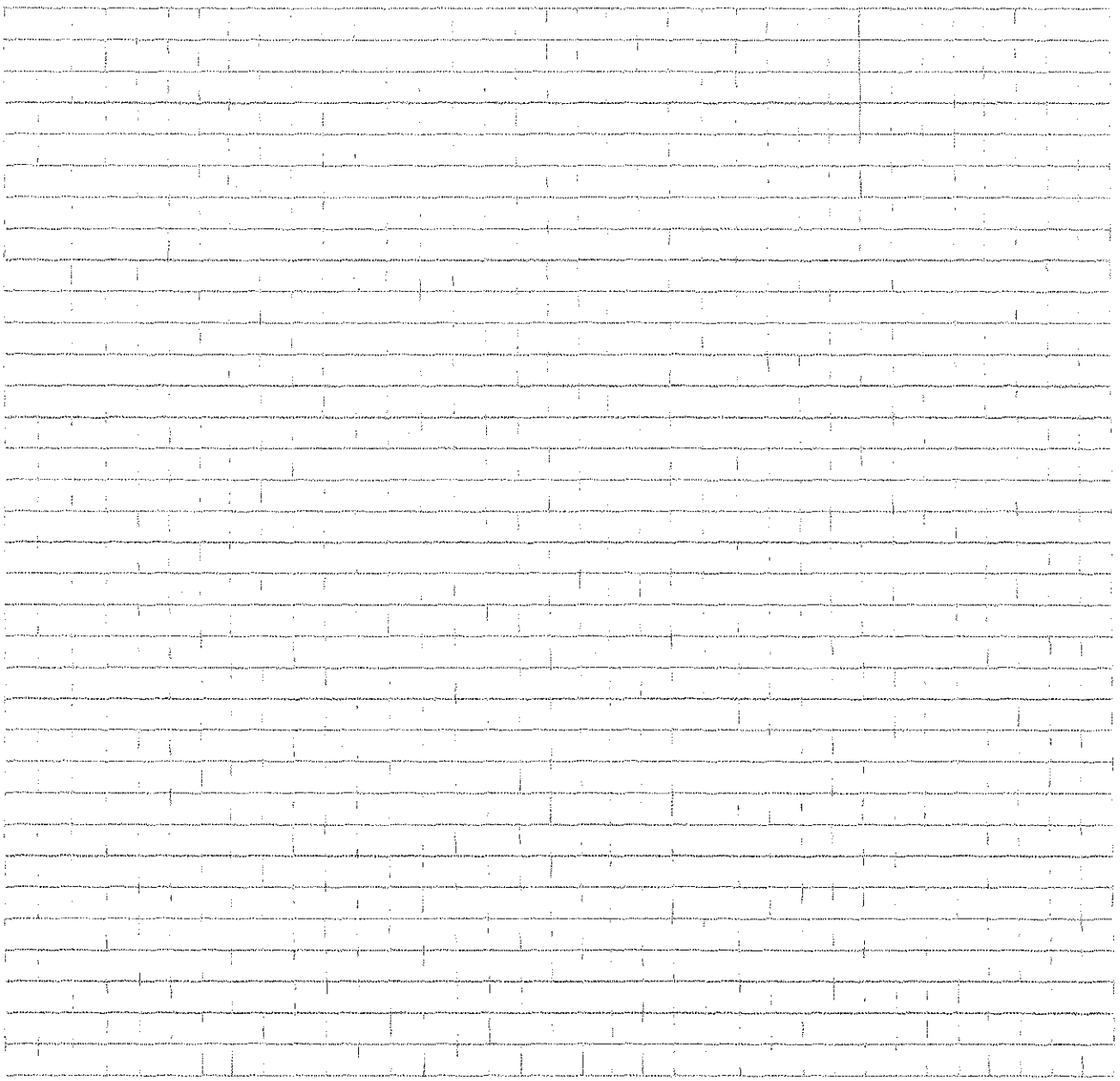


First Floor: ◆ subslab point ◇ ambient location * ppb reading

12. OUTDOOR PLOT

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

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



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

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

OSR – 3

pick up at 1330 hrs

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

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

Preparer's Name Christina Ondak Date/Time Prepared 02/09/09 1515

Preparer's Affiliation HHA Phone No. _____

Purpose of Investigation _____

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: #8 Brunswood, Scottsville, NY

County: Monroe

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location 4 Age of Occupants 20s(2) Kids (1-5yrs, 1-infant)

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors 1 Building age 1998

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

E, S, W - walls - fiberglass insul. blanket on upper half.

Basement/Lowest level depth below grade: 8ft (feet)

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

Some mortar cracks at wall corners, open seam at floor-wall joint

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

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

Hot air circulation	Heat pump	Hot water baseboard	forced air gas
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: gas

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

Are there air distribution ducts present? Y / N

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

floor returns

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	pool table; smoking cigarette?
1st Floor	living room, kitchen bath
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

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

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

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

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

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

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

h. Have cleaning products been used recently? (Y) N When & Type? winter

i. Have cosmetic products been used recently? Y / N When & Type? 2 mos

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

k. Is there new carpet, drapes or other textiles? Y (N) Where & When? _____

l. Have air fresheners been used recently? (Y) / N When & Type? Spray Febreeze

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

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

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

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

Are there odors in the building? Y (N)
If yes, please describe: _____

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

If yes, what types of solvents are used? cooking oil, bleach - pizza cook

If yes, are their clothes washed at work? Y / N clean w/ bleach/waste

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

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

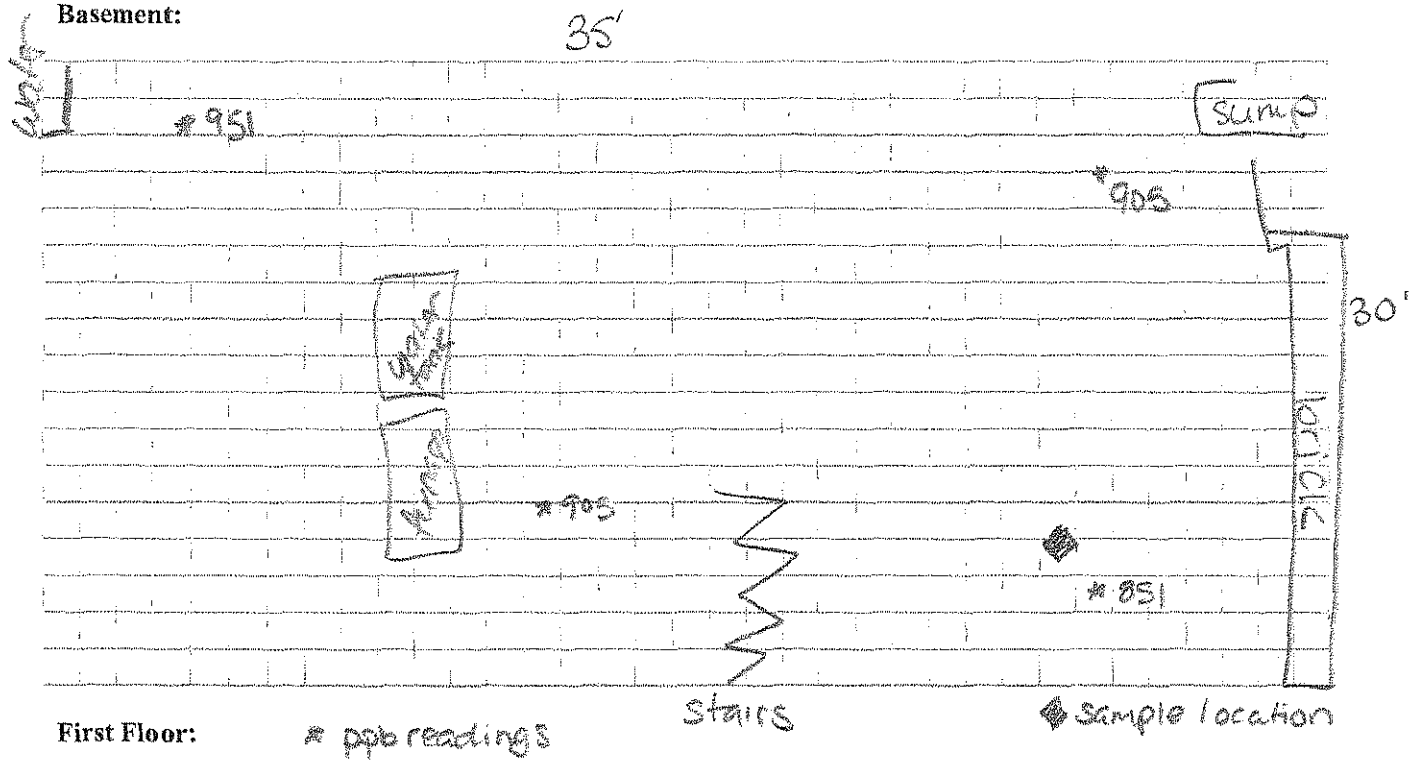
c. Responsibility for costs associated with reimbursement explained? Y / N

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

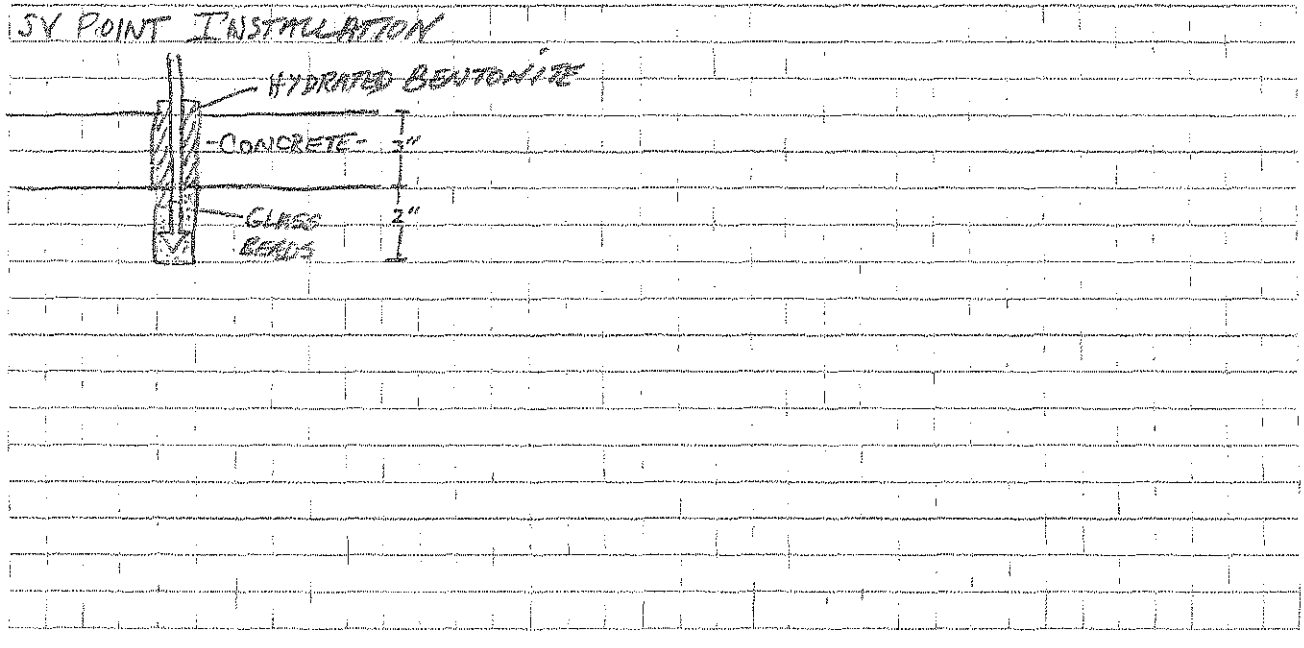
11. FLOOR PLANS

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

Basement:



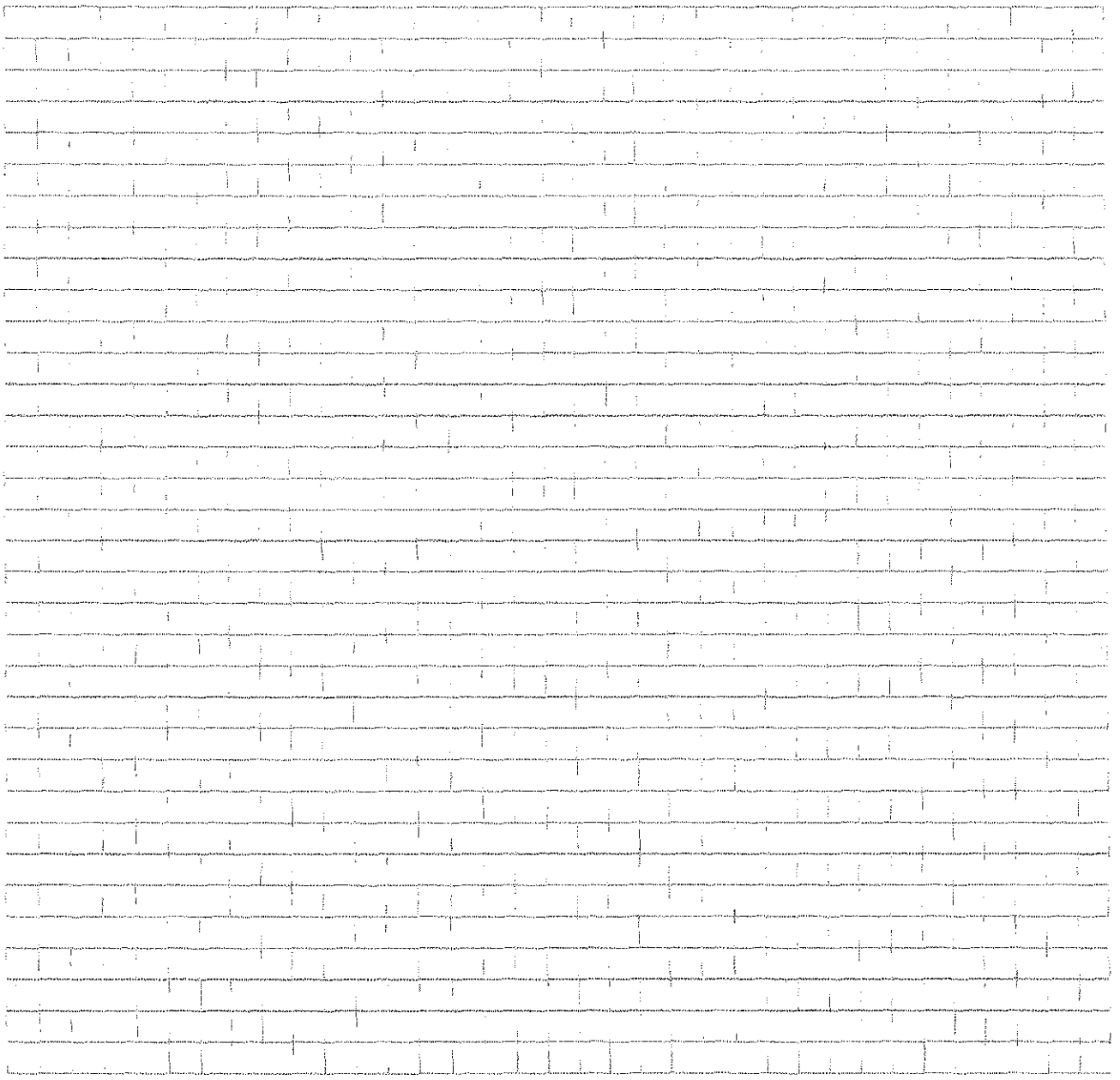
First Floor:



12. OUTDOOR PLOT

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

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



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

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

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

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

Preparer's Name Christina Onclak Date/Time Prepared 02/09/09 1400

Preparer's Affiliation _____ Phone No. _____

Purpose of Investigation _____

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: Utility Closet #104

County: _____

Home Phone: _____ Office Phone: _____

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

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors_____ Building age_____

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

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

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

_____

_____

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

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

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other NONE

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: N/A

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

Are there air distribution ducts present? Y / N

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

_____

_____

_____

_____

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	_____
1st Floor	_____
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

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

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

e. Is a kerosene or unvented gas space heater present? Y / N Where?_____

f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____

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

h. Have cleaning products been used recently? Y / N When & Type? _____

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

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

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

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

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

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

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

Are there odors in the building? Y / N
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply:	Public Water	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

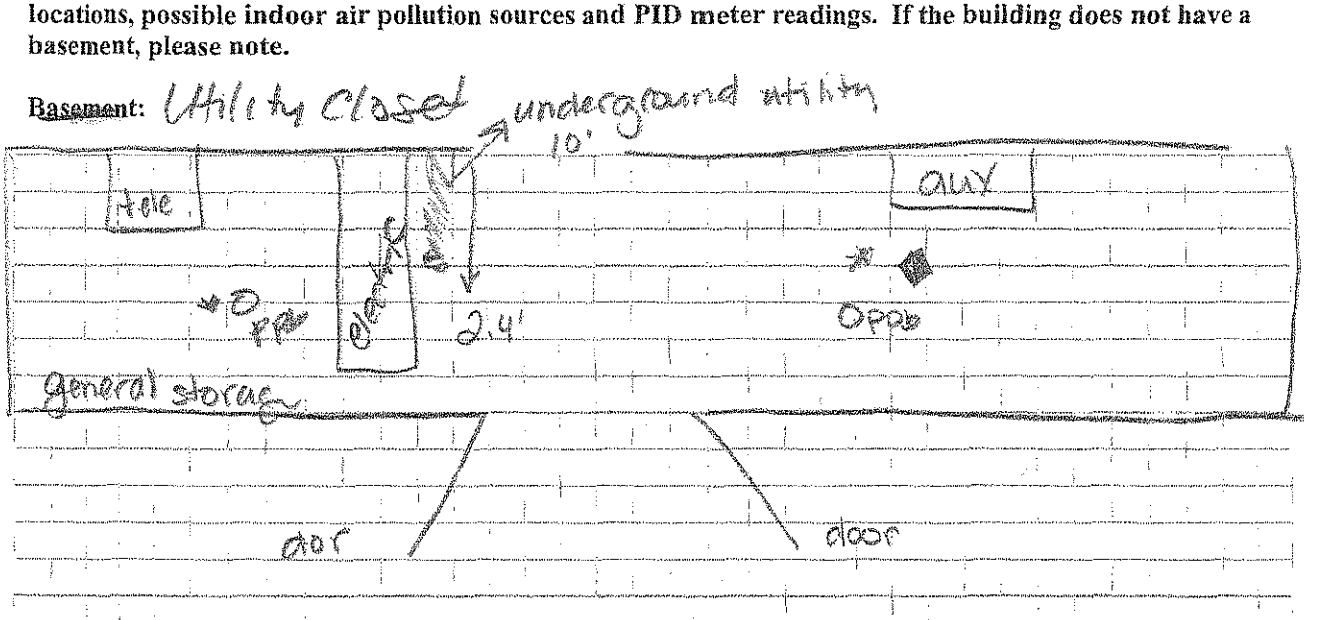
c. Responsibility for costs associated with reimbursement explained? Y / N

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

11. FLOOR PLANS

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

Basement:

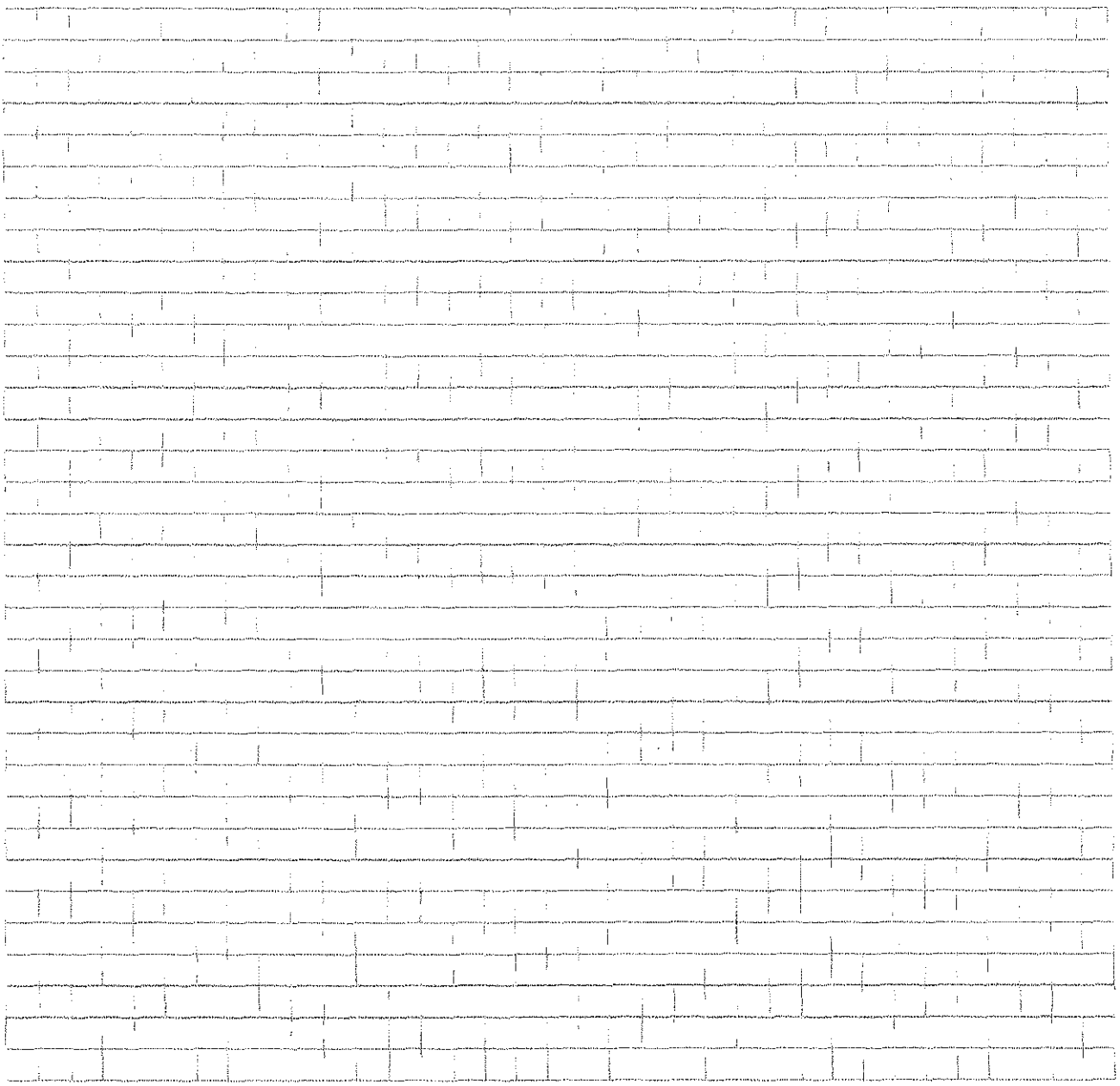


First Floor:

12. OUTDOOR PLOT

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

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



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N
	Lakeforenamel	5g	good		Oppb	

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

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

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

Preparer's Name Christina Ondaic Date/Time Prepared 03/09/09 1640

Preparer's Affiliation HSA Phone No. _____

Purpose of Investigation _____

1. OCCUPANT: Utility Closet #16

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

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

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors_____ Building age_____

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

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

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

_____

_____

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

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

Are there air distribution ducts present? Y / N

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

_____

_____

_____

_____

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	_____
1st Floor	_____
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

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

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

e. Is a kerosene or unvented gas space heater present? Y / N Where?_____

f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____

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

h. Have cleaning products been used recently? Y / N When & Type? _____

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

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

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

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

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

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

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

Are there odors in the building? Y / N
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

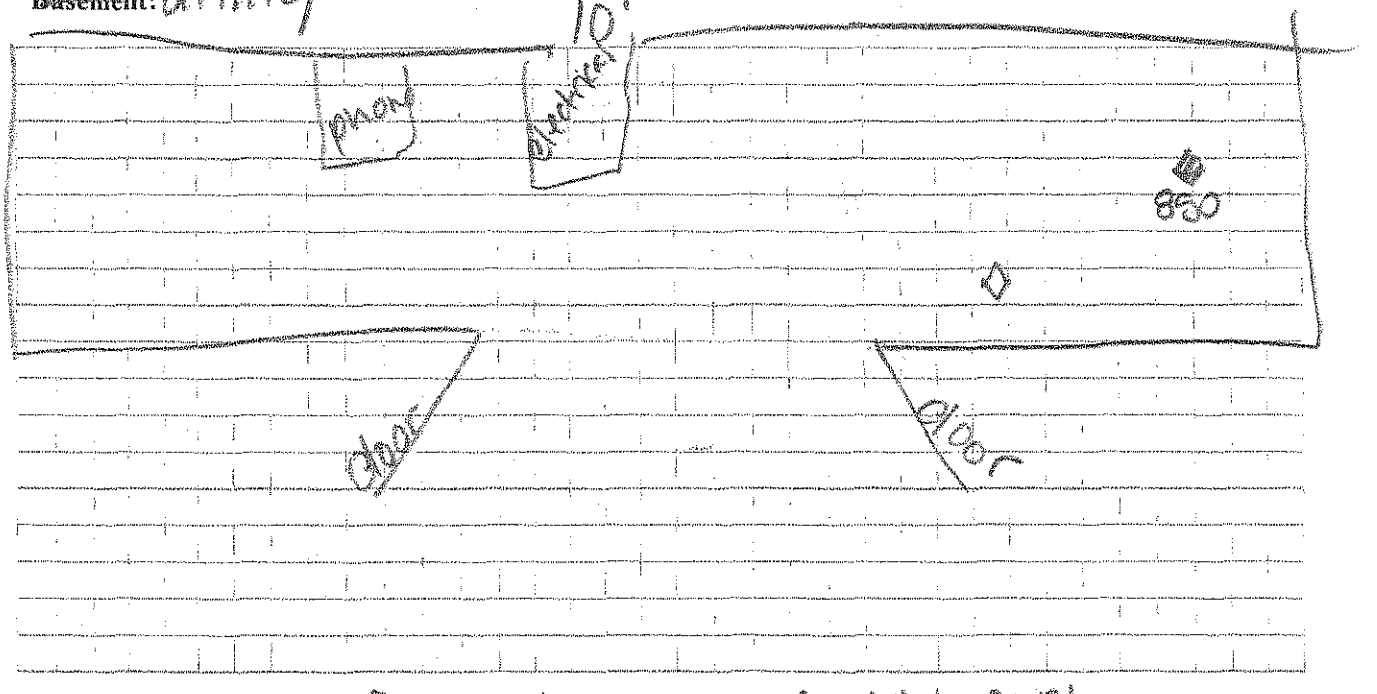
c. Responsibility for costs associated with reimbursement explained? Y / N

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

11. FLOOR PLANS

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

Basement: Utility

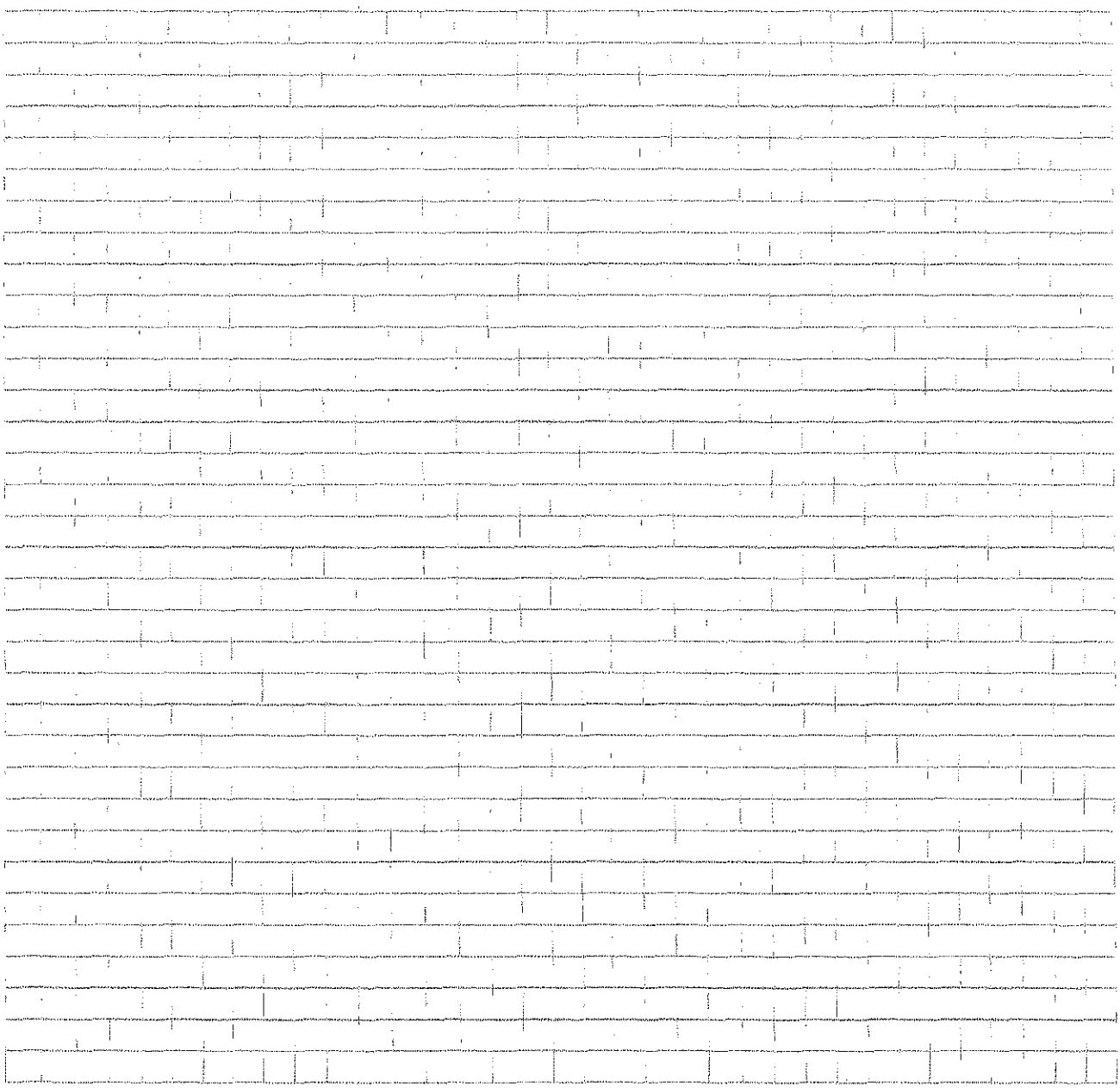


First Floor: ◻ ambient ◆ subslab point

12. OUTDOOR PLOT

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

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



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

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

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

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

Preparer's Name Christina Ondak Date/Time Prepared 02/26/09

Preparer's Affiliation Haley & Aldrich Phone No. _____

Purpose of Investigation SVI

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: 709-2

County: _____

Home Phone: _____ Office Phone: _____

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

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors 2 Building age 1996

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type: No basement	full	crawlspace	slab	other none
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N not applicable			

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

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

laundry room drain, kitchen drains
utility room condensation drain

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

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

Ceilings

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	none
1st Floor	living area
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

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

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

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

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

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

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

h. Have cleaning products been used recently? (Y) / N When & Type? smelled

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

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? (Y) / N Where & When? carpet 2001

l. Have air fresheners been used recently? (Y) / N When & Type? poporii

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

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

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

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

Are there odors in the building? Y / N
If yes, please describe: cleaning products

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

If yes, what types of solvents are used? _____

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

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

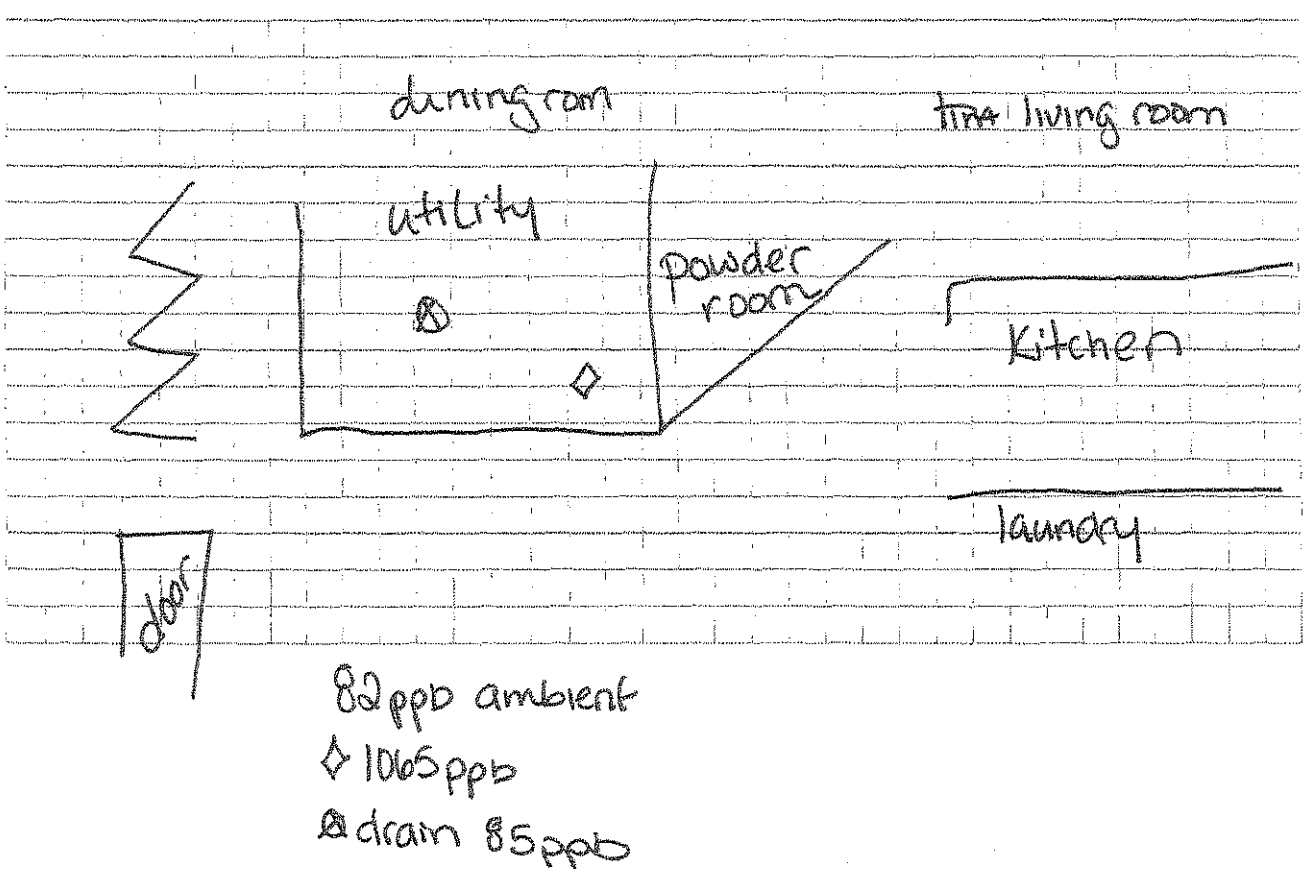
d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

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

Basement:

First Floor:



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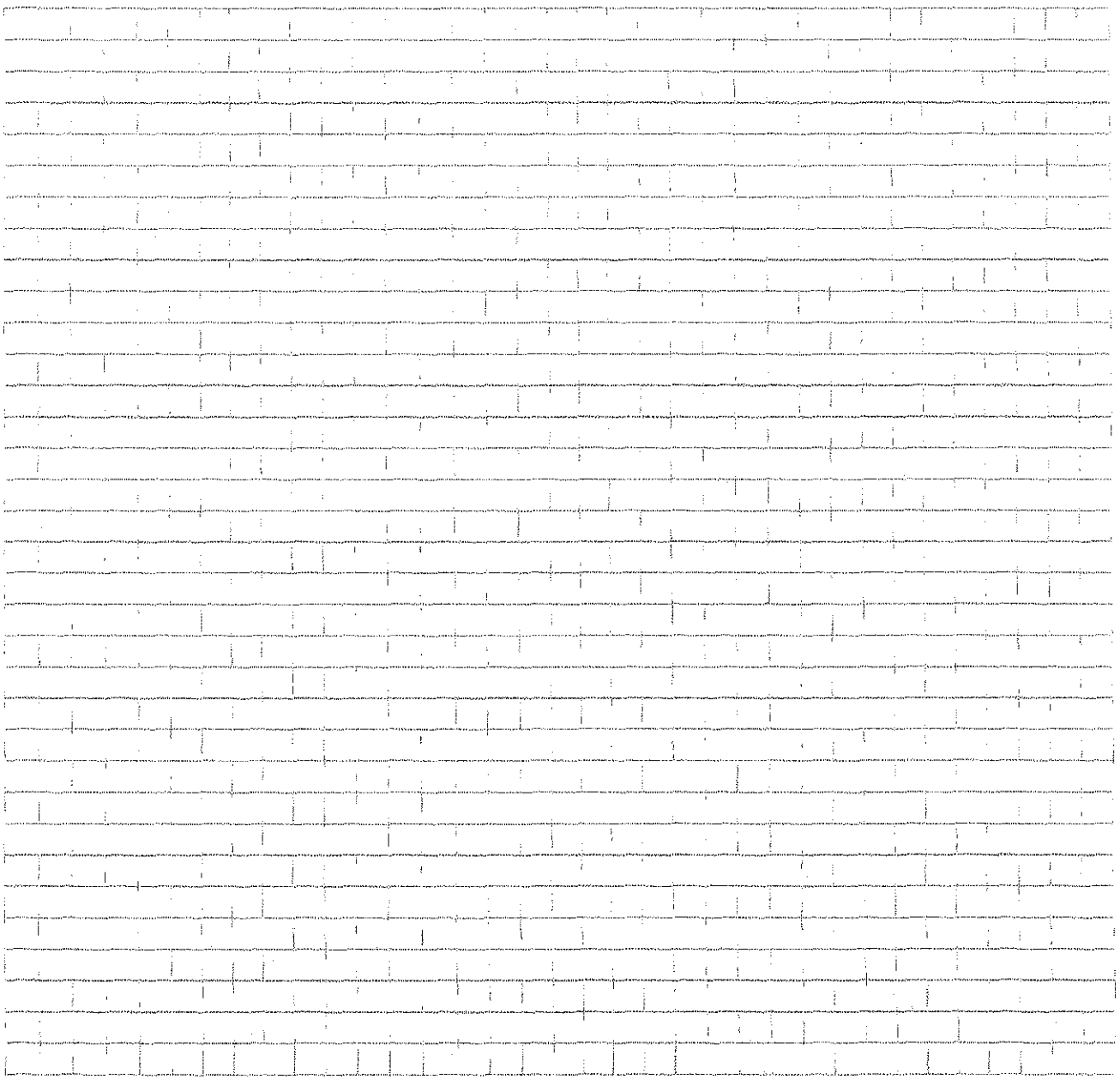

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* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs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

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

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

Preparer's Name Christina Ondak Date/Time Prepared 02/26/09

Preparer's Affiliation Haley+Aldrich Phone No. _____

Purpose of Investigation SVI

1. OCCUPANT:

Interviewed: Y / N tennant not home

Last Name: _____ First Name: _____

Address: # 75-1

County: _____

Home Phone: _____ Office Phone: _____

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

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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

If multiple units, how many? 1

If the property is commercial, type?

Business Type(s) _____

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

Other characteristics:

Number of floors 3 Building age ~~1999~~ 1991

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

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

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

_____

_____

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

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

Are there air distribution ducts present? Y / N

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

_____

_____

_____

_____

7. OCCUPANCY

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

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	_____
1st Floor	_____
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y /(N)

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

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

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

e. Is a kerosene or unvented gas space heater present? Y /(N) Where?_____

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

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

h. Have cleaning products been used recently? Y / N When & Type? dont Know

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

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

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

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

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

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

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

p. Has there been a pesticide application? (Y) / N When & Type? lawns in summer

Are there odors in the building? Y / (N)
If yes, please describe: _____

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply:	(Public Water)	Drilled Well	Driven Well	Dug Well	Other: _____
Sewage Disposal:	(Public Sewer)	Septic Tank	Leach Field	Dry Well	Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. *Provide reasons why relocation is recommended:* _____

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

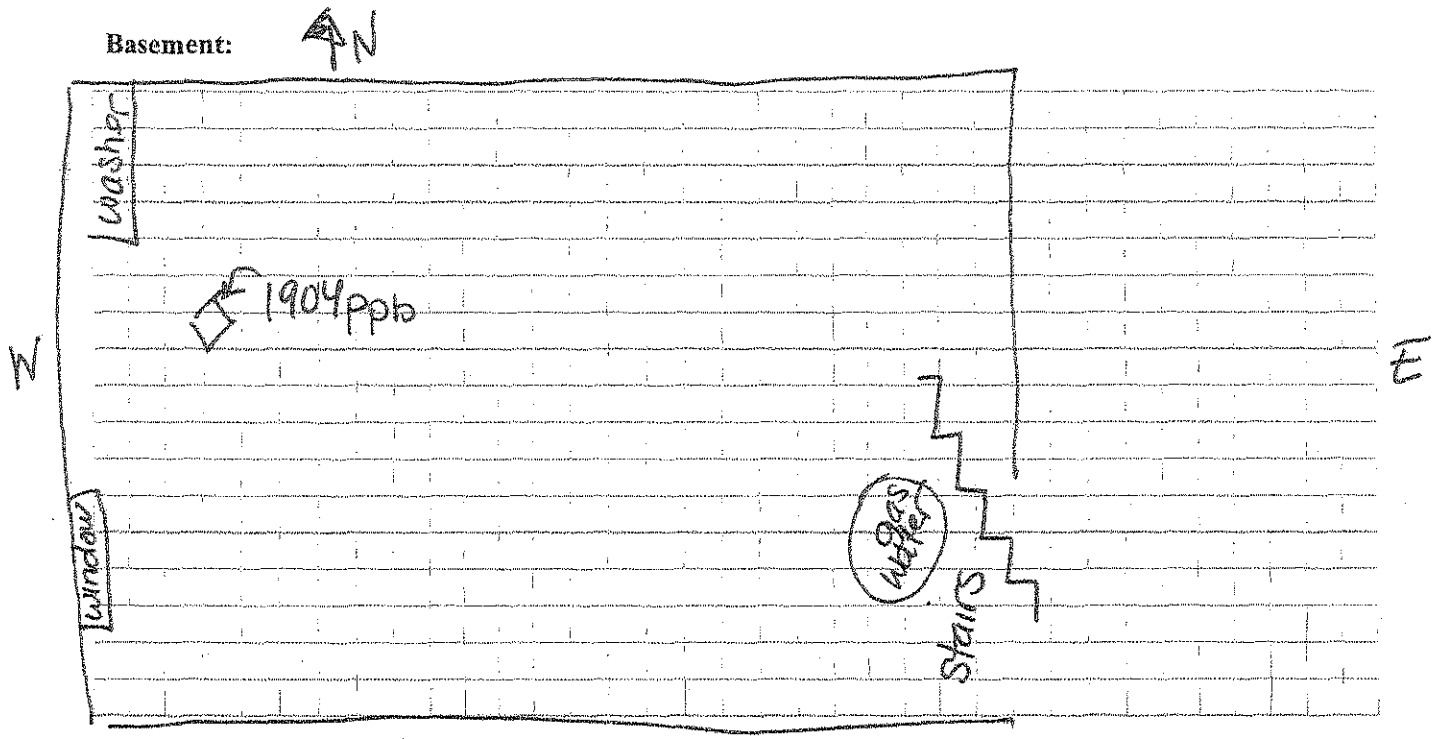
c. Responsibility for costs associated with reimbursement explained? Y / N

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

11. FLOOR PLANS

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

Basement:



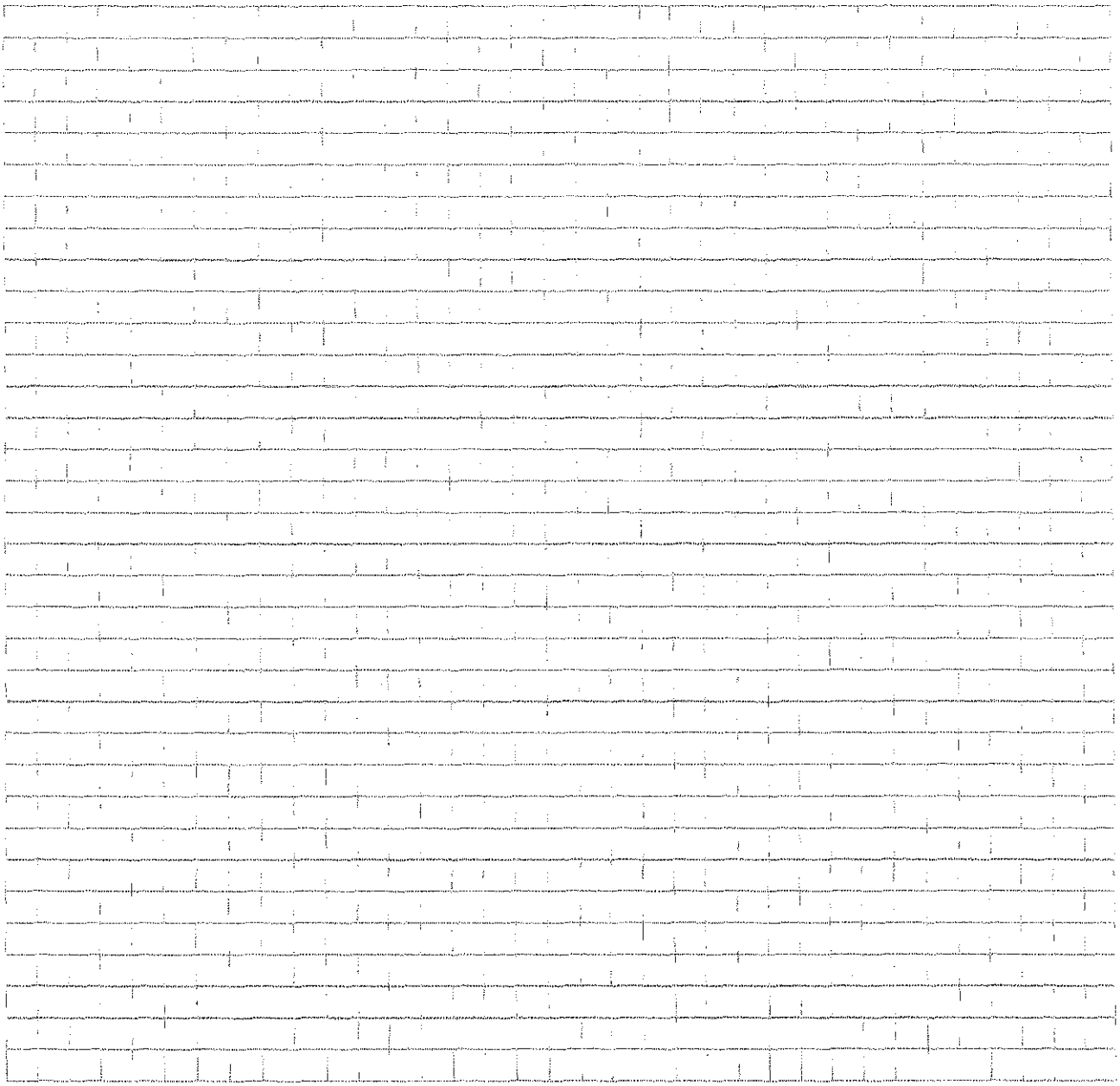
First Floor:

#112 under sink

12. OUTDOOR PLOT

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

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



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

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

APPENDIX D

Laboratory Analytical Data

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

May 20, 2008

Susan Boyle
Haley & Aldrich, Incorporated
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Cooper Vision / 70665-012

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on May 5, 2008. For your reference, these analyses have been assigned our service request number P0801298.

All analyses were performed in accordance with our laboratory's quality assurance program. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 21 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

Client:	Haley & Aldrich, Incorporated	CAS Project No:	P0801298
Project:	Cooper Vision / 70665-012	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on May 5, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Project: Cooper Vision 70665-012

Folder: P0801298

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Order #
P0801298-001.01	SV-1	6.0 L-Summa Canister Source	-3.5	-1.7	3.5				SC00554	**8595**	OA00167	**8595**
P0801298-002.01	SV-2	6.0 L-Summa Canister Source	-3.0	-1.5	3.5				SC00945	**8595**	OA00386	**8595**
P0801298-003.01	SV-3 (S)	6.0 L-Summa Canister Source	-3.4	-1.7	3.5				SC00758	**8595**	oa00143	
P0801298-004.01	SV-4 (S)	6.0 L-Summa Canister Source	-2.9	-1.4	3.5				SC00611	**8595**	oa00207	
P0801298-005.01	SV-5 (S)	6.0 L-Summa Canister Source	-3.0	-1.5	3.5				SC00391	**8595**	oa00406	
P0801298-006.01	SV-6 (S)	6.0 L-Summa Canister Source	-4.2	-2.1	3.5				SC00590	**8595**	OA00283	**8595**
P0801298-007.01	SV-7 (S)	6.0 L-Summa Canister Source	-6.0	-2.9	3.5				SC00361	**8595**	OA00177	**8595**
P0801298-008.01	Ambient	6.0 L-Summa Canister Ambient	-4.5	-2.2	3.5				AC01499	**8595**	FC00525	**8595**

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Order #

Miscellaneous Items - received

OA00403
FC00564
SC00977
AVG00676
SC00693
AVG00571
FC00599
AC01427
OA00059
SC00883
FC00572
AVG00744
AVG00729
SC00616
AVG00437
AVG00227
OA00093
AVG00640
AVG00722
AVG00593
AC00594
AVG00236
AVG00245
AVG00513
FC00163
AVG00566
FC00533
AVG00367
SC00951
AC00871

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Order #
AVG00809												
AVG00543												
AVG00689												
AVG00657												
SC00306												
AVG00601												
OA00450												
OA00014												
AVG00287												
AC00564												
AVG00503												
AC00764												
OA00047												
OA00176												
OA00417												
AVG00533												
SC00837												
AVG00629												
SC00085												
SC00027												
OA00451												

Air - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services INC.
An Employee - Owned Company

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. P080198

Company Name & Address (Reporting Information)	Haley & Aldrich 200 Town Centre Dr. Suite 2 Rochester, NY 14623
Project Name	Cooper Vision
Project Number	70665-012
Project Manager	Sue Boyle
P.O. # / Billing Information	70665-012 Bill to address above attn: Sue Boyle
Phone	585-321-4219
Fax	585-486-8219
Email Address for Result Reporting	cdebergalis@haleyaldrich.com
Sampler (Print & Sign)	Claire L. DeBergalis Claire L. DeBergalis
CAS Contact	Karen Bunker / Kate Aguilera

Analysis Method and/or Analytes

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	TO-15 1,1-DCA, 1,1-DCE, Chloroethane, VC ONLY	TO-15 TCL VOCs			Comments e.g. Actual Preservative or specific instructions
SV-1	1 -3.5	5/1/08	1032	Air	SC00557	OA00167	6L	1				
SV-2	2 -3.0	5/1/08	1245	Air	SC00977	OA00384	6L	1				Please Run
SV-3 (S)	3 -3.4	5/1/08	1120	Air	SC00758	OA00143	6L	1				TCE, Carbon
SV-4 (S)	4 -2.9	5/1/08	1239	Air	SC00306	OA00207	6L	1				Tetrachloride,
SV-5 (S)	5 -3.0	5/1/08	1145	Air	SC00391	OA00406	6L	1				& Vinyl Chloride
SV-6 (S)	6 -4.2	5/1/08	1221	Air	SC00591	OA00283	6L	1				@ low det. limit
SV-7 (S)	7 -6.0	5/1/08	1150	Air	SC00361	OA00177	6L	1				(0.25 ug/m3)
Ambient	8 -4.5	5/1/08	1609	Air	AC04499	FC22A5LK	6L		1			

Report Tier Levels - please select

Tier I - (Results/Default if not specified) X
Tier II - (Results + QC) ____
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) ____

EDD required (Yes) / No
Type: ____
EDD Units: ug/m3 & ppb

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Claire L. DeBergalis	5/2/08	1340		5/3/08	0815
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank
Temperature °C

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Incorporated Work order: P0801298

Project: Cooper Vision / 70665-012

Sample(s) received on: 5/5/2008 Date opened: 5/5/2008 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☐	☒	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☐	☒	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
9	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: Serial # _____ -TB _____			
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0801298-001.01	6.0 L Source Can					
P0801298-002.01	6.0 L Source Can					
P0801298-003.01	6.0 L Source Can					
P0801298-004.01	6.0 L Source Can					
P0801298-005.01	6.0 L Source Can					
P0801298-006.01	6.0 L Source Can					
P0801298-007.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers):

Samples -001 & -002 are missing the (S) suffix on the COC, it is on the container tags.

Sample -002 has canister SN SC00977 listed on the COC,we received canister SN SC00945.

Sample -004 has canister SN SC00306 listed on the COC,we received canister SN SC00611

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);

Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Incorporated Work order: P0801298

Project: Cooper Vision / 70665-012

Sample(s) received on: 5/5/2008 Date opened: 5/5/2008 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0801298-008.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-1**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P0801298-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00554

Date Collected: 5/1/08
Date Received: 5/5/08
Date Analyzed: 5/7/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.7 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.055	
75-00-3	Chloroethane	ND	0.70	ND	0.27	
75-35-4	1,1-Dichloroethene	ND	0.70	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.70	ND	0.17	
71-55-6	**1,1,1-Trichloroethane**	**3.7**	0.70	**0.67**	0.13	

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

Verified By: Re Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-2**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P0801298-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00945

Date Collected: 5/1/08
Date Received: 5/5/08
Date Analyzed: 5/7/08
Volume(s) Analyzed: 0.10 Liter(s)
0.025 Liter(s)

Initial Pressure (psig): -1.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	1.4	ND	0.54	
75-00-3	Chloroethane	ND	6.9	ND	2.6	
75-35-4	**1,1-Dichloroethene**	**390**	6.9	**100**	1.7	
75-34-3	**1,1-Dichloroethane**	**230**	6.9	**56**	1.7	
71-55-6	**1,1,1-Trichloroethane**	**2,300**	6.9	**430**	1.3	

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

Verified By: RG Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-3 (S)**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P0801298-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00758

Date Collected: 5/1/08
Date Received: 5/5/08
Date Analyzed: 5/7/08
Volume(s) Analyzed: 0.075 Liter(s)

Initial Pressure (psig): -1.7 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**2.4**	1.9	**0.93**	0.73	
75-00-3	Chloroethane	ND	9.3	ND	3.5	
75-35-4	**1,1-Dichloroethene**	**1,800**	9.3	**470**	2.4	
75-34-3	**1,1-Dichloroethane**	**270**	9.3	**67**	2.3	
71-55-6	**1,1,1-Trichloroethane**	**990**	9.3	**180**	1.7	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-4 (S)**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P0801298-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00611

Date Collected: 5/1/08
Date Received: 5/5/08
Date Analyzed: 5/8/08
Volume(s) Analyzed: 0.50 Liter(s)

Initial Pressure (psig): -1.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**0.41**	0.27	**0.16**	0.11	
75-00-3	Chloroethane	ND	1.4	ND	0.52	
75-35-4	**1,1-Dichloroethene**	**35**	1.4	**8.9**	0.35	
75-34-3	**1,1-Dichloroethane**	**30**	1.4	**7.3**	0.34	
71-55-6	**1,1,1-Trichloroethane**	**200**	1.4	**37**	0.25	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-5 (S)**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P0801298-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00391

Date Collected: 5/1/08
Date Received: 5/5/08
Date Analyzed: 5/7/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
75-00-3	Chloroethane	ND	0.69	ND	0.26	
75-35-4	**1,1-Dichloroethene**	**0.96**	0.69	**0.24**	0.17	
75-34-3	**1,1-Dichloroethane**	**1.4**	0.69	**0.35**	0.17	
71-55-6	**1,1,1-Trichloroethane**	**82**	0.69	**15**	0.13	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-6 (S)**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P0801298-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00590

Date Collected: 5/1/08
Date Received: 5/5/08
Date Analyzed: 5/7 - 5/8/08
Volume(s) Analyzed: 0.050 Liter(s)
0.020 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**10**	2.9	**4.0**	1.1	
75-00-3	**Chloroethane**	**36**	14	**14**	5.5	
75-35-4	**1,1-Dichloroethene**	**4,500**	14	**1,100**	3.6	
75-34-3	**1,1-Dichloroethane**	**1,000**	14	**250**	3.6	
71-55-6	**1,1,1-Trichloroethane**	**2,700**	14	**490**	2.6	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-7 (S)** CAS Project ID: P0801298
Client Project ID: **Cooper Vision / 70665-012** CAS Sample ID: P0801298-007

Test Code: EPA TO-15 Date Collected: 5/1/08
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 5/5/08
Analyst: Wida Ang Date Analyzed: 5/8/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 0.70 Liter(s)
Test Notes:
Container ID: SC00361

Initial Pressure (psig): -2.9 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.54

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.22	ND	0.086	
75-00-3	Chloroethane	ND	1.1	ND	0.42	
75-35-4	1,1-Dichloroethene	ND	1.1	ND	0.28	
75-34-3	**1,1-Dichloroethane**	**1.6**	1.1	**0.38**	0.27	
71-55-6	**1,1,1-Trichloroethane**	**23**	1.1	**4.1**	0.20	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Ambient** CAS Project ID: P0801298
Client Project ID: **Cooper Vision / 70665-012** CAS Sample ID: P0801298-008

Test Code: EPA TO-15 Date Collected: 5/1/08
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 5/5/08
Analyst: Wida Ang Date Analyzed: 5/7/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01499

Initial Pressure (psig): -2.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	**Propene**	**3.1**	0.73	**1.8**	0.42	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.1**	0.73	**0.43**	0.15	
74-87-3	Chloromethane	ND	0.73	ND	0.35	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.73	ND	0.10	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.057	
106-99-0	1,3-Butadiene	ND	0.73	ND	0.33	
74-83-9	Bromomethane	ND	0.73	ND	0.19	
75-00-3	Chloroethane	ND	0.73	ND	0.28	
64-17-5	**Ethanol**	**9.4**	7.3	**5.0**	3.9	
75-05-8	Acetonitrile	ND	0.73	ND	0.43	
107-02-8	**Acrolein**	**4.1**	0.73	**1.8**	0.32	
67-64-1	**Acetone**	**80**	7.3	**34**	3.1	
75-69-4	**Trichlorofluoromethane**	**1.2**	0.73	**0.21**	0.13	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**0.84**	0.73	**0.34**	0.30	
107-13-1	Acrylonitrile	ND	0.73	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.73	ND	0.18	
75-09-2	Methylene Chloride	ND	0.73	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.73	ND	0.23	
76-13-1	Trichlorotrifluoroethane	ND	0.73	ND	0.095	
75-15-0	**Carbon Disulfide**	**0.96**	0.73	**0.31**	0.23	
156-60-5	trans-1,2-Dichloroethene	ND	0.73	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.73	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.73	ND	0.20	
108-05-4	Vinyl Acetate	ND	7.3	ND	2.1	
78-93-3	**2-Butanone (MEK)**	**20**	0.73	**6.7**	0.25	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Ambient** CAS Project ID: P0801298
Client Project ID: **Cooper Vision / 70665-012** CAS Sample ID: P0801298-008

Test Code: EPA TO-15 Date Collected: 5/1/08
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 5/5/08
Analyst: Wida Ang Date Analyzed: 5/7/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01499

Initial Pressure (psig): -2.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.73	ND	0.18	
141-78-6	**Ethyl Acetate**	**1.2**	0.73	**0.34**	0.20	
110-54-3	**n-Hexane**	**1.2**	0.73	**0.33**	0.21	
67-66-3	Chloroform	ND	0.73	ND	0.15	
109-99-9	Tetrahydrofuran (THF)	ND	0.73	ND	0.25	
107-06-2	1,2-Dichloroethane	ND	0.73	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.73	ND	0.13	
71-43-2	**Benzene**	**0.79**	0.73	**0.25**	0.23	
56-23-5	**Carbon Tetrachloride**	**0.27**	0.15	**0.043**	0.023	
110-82-7	Cyclohexane	ND	0.73	ND	0.21	
78-87-5	1,2-Dichloropropane	ND	0.73	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.73	ND	0.11	
79-01-6	Trichloroethene	ND	0.15	ND	0.027	
123-91-1	1,4-Dioxane	ND	0.73	ND	0.20	
80-62-6	Methyl Methacrylate	ND	0.73	ND	0.18	
142-82-5	**n-Heptane**	**1.1**	0.73	**0.27**	0.18	
10061-01-5	cis-1,3-Dichloropropene	ND	0.73	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.73	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.73	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.73	ND	0.13	
108-88-3	**Toluene**	**2.5**	0.73	**0.66**	0.19	
591-78-6	**2-Hexanone**	**1.1**	0.73	**0.28**	0.18	
124-48-1	Dibromochloromethane	ND	0.73	ND	0.086	
106-93-4	1,2-Dibromoethane	ND	0.73	ND	0.095	
123-86-4	n-Butyl Acetate	ND	0.73	ND	0.15	

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

Verified By: RC Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated** CAS Project ID: P0801298
Client Sample ID: **Ambient** CAS Sample ID: P0801298-008
Client Project ID: **Cooper Vision / 70665-012**

Test Code: EPA TO-15 Date Collected: 5/1/08
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 5/5/08
Analyst: Wida Ang Date Analyzed: 5/7/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01499

Initial Pressure (psig): -2.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	**n-Octane**	**1.4**	0.73	**0.30**	0.16	
127-18-4	Tetrachloroethene	ND	0.73	ND	0.11	
108-90-7	Chlorobenzene	ND	0.73	ND	0.16	
100-41-4	Ethylbenzene	ND	0.73	ND	0.17	
179601-23-1	**m,p-Xylenes**	**2.4**	0.73	**0.56**	0.17	
75-25-2	Bromoform	ND	0.73	ND	0.071	
100-42-5	Styrene	ND	0.73	ND	0.17	
95-47-6	**o-Xylene**	**0.88**	0.73	**0.20**	0.17	
111-84-2	**n-Nonane**	**0.75**	0.73	**0.14**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.73	ND	0.11	
98-82-8	Cumene	ND	0.73	ND	0.15	
80-56-8	**alpha-Pinene**	**4.4**	0.73	**0.78**	0.13	
103-65-1	n-Propylbenzene	ND	0.73	ND	0.15	
622-96-8	4-Ethyltoluene	ND	0.73	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.73	ND	0.15	
95-63-6	**1,2,4-Trimethylbenzene**	**1.0**	0.73	**0.21**	0.15	
100-44-7	Benzyl Chloride	ND	0.73	ND	0.14	
541-73-1	1,3-Dichlorobenzene	ND	0.73	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.73	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.73	ND	0.12	
5989-27-5	**d-Limonene**	**2.5**	0.73	**0.45**	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.73	ND	0.076	
120-82-1	1,2,4-Trichlorobenzene	ND	0.73	ND	0.098	
91-20-3	Naphthalene	ND	0.73	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.73	ND	0.068	

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

Verified By: RG Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank** CAS Project ID: P0801298
Client Project ID: **Cooper Vision / 70665-012** CAS Sample ID: P080507-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 5/7/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

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

Verified By: RC Date: 5/15/08

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank** CAS Project ID: P0801298
Client Project ID: **Cooper Vision / 70665-012** CAS Sample ID: P080507-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 5/7/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	0.50	ND	0.12	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

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

Verified By: Rc Date: 5/15/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-012**

CAS Project ID: P0801298
CAS Sample ID: P080507-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 5/7/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

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

Verified By: Rc Date: 5/15/08

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

June 19, 2008

Susan Boyle
Haley & Aldrich, Incorporated
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Coopervision / 70665-014

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on June 13, 2008. For your reference, these analyses have been assigned our service request number P0801808.

All analyses were performed in accordance with our laboratory's quality assurance program. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 22 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera
Project Manager

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

Client:	Haley & Aldrich, Incorporated	CAS Project No:	P0801808
Project:	Coopervision / 70665-014	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on June 13, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Project: Coopervision 70665-014

Folder: P0801808

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Order #
P0801808-001.01	SV-2	6.0 L-Summa Canister Source	-3.8	-1.9	3.5				SC00592	**9044**	OA00168	**9044**
P0801808-002.01	SV-3 (S)	6.0 L-Summa Canister Source	-1.7	-0.8	3.5				SC00870	**9044**	OA00175	**9044**
P0801808-003.01	SV-3 (D)	6.0 L-Summa Canister Source	-2.7	-1.3	3.5				SC00260	**9044**	OA00011	**9044**
P0801808-004.01	SV-4 (S)	6.0 L-Summa Canister Source	-4.5	-2.2	3.5				SC00798	**9044**	OA00178	**9044**
P0801808-005.01	SV-5 (S)	6.0 L-Summa Canister Source	-2.1	-1.0	3.5				SC00588	**9044**	OA00121	**9044**
P0801808-006.01	SV-6 (S)	6.0 L-Summa Canister Source	-5.8	-2.8	3.5				SC00920	**9044**	OA00298	**7758**
P0801808-007.01	SV-7 (S)	6.0 L-Summa Canister Source	-4.7	-2.3	3.5				SC00745	**9044**	OA00122	**9044**
P0801808-008.01	SV-8 (S)	6.0 L-Summa Canister Source	-3.6	-1.8	3.5				SC00849	**9044**	OA00405	**9044**
P0801808-009.01	Ambient-061208	6.0 L-Summa Canister Ambient	-6.6	-3.2	3.5				AC01481	**9044**	FC00288	**9044**
P0801808-010.01	SC00286	6.0 L-Summa Canister Source	-28.0	-13.8					SC00286	**9044**		
P0801808-011.01	SC00063	6.0 L-Summa Canister Source	-27.1	-13.3					SC00063	**9044**		
P0801808-012.01	SC00777	6.0 L-Summa Canister Source	-26.9	-13.2					SC00777	**9044**		
P0801808-013.01	SC00270	6.0 L-Summa Canister Source	-24.1	-11.8					SC00270	**9044**		
P0801808-014.01	SC00756	6.0 L-Summa Canister Source	-0.5	-0.2					SC00756	**9044**		
P0801808-015.01	SC00807	6.0 L-Summa Canister Source		0.3					SC00807	**9044**		

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Order #

Miscellaneous Items - received

OA00209
AVG00064
AVG00607
OA00144
AVG00517
AVG00623
AVG00666
OA00448
AVG00661
AVG00797
OA00418
AVG00431
AVG00630
OA00206
AVG00695
OA00429
AVG00356

Air - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services INC.
An Employee - Owned Company

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. P0601808

Company Name & Address (Reporting Information)	Haley + Aldrich 200 Town Centre Dr, Suite 2 Rochester, NY 14623
Project Name	Cooperviston
Project Number	70665-014
Project Manager	Sue Boyle
P.O. # / Billing Information	70665-014 Bill to address above attn: Sue Boyle
Phone	585-321-4219
Fax	585-486-8219
Email Address for Result Reporting	cdebergalis@haleyaldrich.com
Sampler (Print & Sign)	Ethan Lee Et Lee
CAS Contact	Kate Aguilera

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/ Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	Analysis Method and/or Analytes: TO-15 1,1-DCE, 1,1,1-TCA, chloroethane, + vinyl chloride only	Analysis Method and/or Analytes: TO-15 TCL VOCs			Comments e.g. Actual Preservative or specific instructions
SV-2	①-3.8	6/12/08	1045	Air	SC00592	OA00168	6L	X				Please run
SV-3 (S)	②-1.7	↓	1100	↓	SC00870	OA00175	↓	X				TCE, Carbon
SV-3 (D)	③-2.7		1117		SC00260	OA00011		X				Tetrachloride,
SV-4 (S)	④-4.5		1113		SC00798	OA00178		X				+ Vinyl Chloride
SV-5 (S)	⑤-2.1		1202		SC00588	OA00121		X				@ Low detection
SV-6 (S)	⑥-5.8		1452		SC00920	OA00298		X				limit (0.25 ug/m3)
SV-7 (S)	⑦-4.7		1334		SC00745	OA00122		X				
SV-8 (S)	⑧-3.6		1209		SC00849	OA00405		X				
Ambient-061208	⑨-6.6		1530		AC01481	FC00288			X			
	-28.0											
	-27.1											
	-26.9											
	-29.1											
	-0.5											
	-0.3											

Report Tier Levels - please select
Tier I - (Results/Default if not specified) X
Tier II - (Results + QC) _____
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) _____
EDD required (Yes / No)
Type: _____
EDD Units: ug/m3 + ppbv

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature) Et Lee	Date: 6/12/08	Time: 1600	Received by: (Signature)	Date: 6/13/08	Time: 0945	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Cooler / Blank
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Temperature _____ °C

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Incorporated Work order: P0801808

Project: Coopervision / 70665-014

Sample(s) received on: 06/13/08 Date opened: 06/13/08 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
9	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: Serial # _____ -TB _____			
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0801808-001.01	6.0 L Source Can					
P0801808-002.01	6.0 L Source Can					
P0801808-003.01	6.0 L Source Can					
P0801808-004.01	6.0 L Source Can					
P0801808-005.01	6.0 L Source Can					
P0801808-006.01	6.0 L Source Can					
P0801808-007.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Incorporated Work order: P0801808

Project: Coopervision / 70665-014

Sample(s) received on: 06/13/08 Date opened: 06/13/08 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0801808-008.01	6.0 L Source Can					
P0801808-009.01	6.0 L Ambient Can					
P0801808-010.01	6.0 L Source Can					Returned canister
P0801808-011.01	6.0 L Source Can					Returned canister
P0801808-012.01	6.0 L Source Can					Returned canister
P0801808-013.01	6.0 L Source Can					Returned canister
P0801808-014.01	6.0 L Source Can					Returned canister
P0801808-015.01	6.0 L Source Can					Returned canister

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);
Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-2**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00592

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.9 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.056	
75-00-3	Chloroethane	ND	0.71	ND	0.27	
75-35-4	1,1-Dichloroethene	ND	0.71	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.71	ND	0.18	
71-55-6	**1,1,1-Trichloroethane**	**3.7**	0.71	**0.67**	0.13	

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

Verified By: LA Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-3 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00870

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16 - 6/17/08
Volume(s) Analyzed: 0.040 Liter(s)
0.020 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.31

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**19**	3.3	**7.3**	1.3	
75-00-3	Chloroethane	ND	16	ND	6.2	
75-35-4	**1,1-Dichloroethene**	**3,600**	16	**900**	4.1	
75-34-3	**1,1-Dichloroethane**	**1,200**	16	**300**	4.0	
71-55-6	**1,1,1-Trichloroethane**	**2,800**	16	**510**	3.0	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-3 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00260

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16 - 6/17/08
Volume(s) Analyzed: 0.020 Liter(s)
0.0050 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**62**	6.8	**24**	2.7	
75-00-3	**Chloroethane**	**59**	34	**22**	13	
75-35-4	**1,1-Dichloroethene**	**8,000**	34	**2,000**	8.6	
75-34-3	**1,1-Dichloroethane**	**4,000**	34	**990**	8.4	
71-55-6	**1,1,1-Trichloroethane**	**6,400**	34	**1,200**	6.2	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-4 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00798

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16 - 6/17/08
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Initial Pressure (psig): -2.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**0.33**	0.15	**0.13**	0.057	
75-00-3	Chloroethane	ND	0.73	ND	0.28	
75-35-4	**1,1-Dichloroethene**	**57**	0.73	**14**	0.18	
75-34-3	**1,1-Dichloroethane**	**39**	0.73	**9.6**	0.18	
71-55-6	**1,1,1-Trichloroethane**	**370**	0.73	**69**	0.13	

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

Verified By: CW Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-5 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00588

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.0 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.33

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
75-00-3	Chloroethane	ND	0.67	ND	0.25	
75-35-4	**1,1-Dichloroethene**	**5.7**	0.67	**1.4**	0.17	
75-34-3	**1,1-Dichloroethane**	**1.7**	0.67	**0.43**	0.16	
71-55-6	**1,1,1-Trichloroethane**	**140**	0.67	**25**	0.12	

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

Verified By: CH Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-6 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00920

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16 - 6/17/08
Volume(s) Analyzed: 0.10 Liter(s)
0.015 Liter(s)

Initial Pressure (psig): -2.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**29**	1.5	**11**	0.60	
75-00-3	**Chloroethane**	**28**	7.7	**11**	2.9	
75-35-4	**1,1-Dichloroethene**	**4,500**	7.7	**1,100**	1.9	
75-34-3	**1,1-Dichloroethane**	**2,900**	7.7	**710**	1.9	
71-55-6	**1,1,1-Trichloroethane**	**4,200**	7.7	**780**	1.4	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-7 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00745

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.15	ND	0.058	
75-00-3	Chloroethane	ND	0.74	ND	0.28	
75-35-4	**1,1-Dichloroethene**	**1.4**	0.74	**0.36**	0.19	
75-34-3	**1,1-Dichloroethane**	**3.2**	0.74	**0.80**	0.18	
71-55-6	**1,1,1-Trichloroethane**	**29**	0.74	**5.3**	0.13	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-8 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00849

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**1.1**	0.14	**0.42**	0.055	
75-00-3	Chloroethane	ND	0.71	ND	0.27	
75-35-4	**1,1-Dichloroethene**	**3.8**	0.71	**0.97**	0.18	
75-34-3	**1,1-Dichloroethane**	**120**	0.71	**30**	0.17	
71-55-6	**1,1,1-Trichloroethane**	**130**	0.71	**23**	0.13	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Ambient-061208**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01481

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.58

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.79	ND	0.46	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.3**	0.79	**0.46**	0.16	
74-87-3	Chloromethane	ND	0.79	ND	0.38	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.79	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.16	ND	0.062	
106-99-0	1,3-Butadiene	ND	0.79	ND	0.36	
74-83-9	Bromomethane	ND	0.79	ND	0.20	
75-00-3	Chloroethane	ND	0.79	ND	0.30	
64-17-5	Ethanol	ND	7.9	ND	4.2	
75-05-8	Acetonitrile	ND	0.79	ND	0.47	
107-02-8	**Acrolein**	**0.85**	0.79	**0.37**	0.34	
67-64-1	**Acetone**	**10**	7.9	**4.2**	3.3	
75-69-4	**Trichlorofluoromethane**	**1.1**	0.79	**0.20**	0.14	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.79	ND	0.32	
107-13-1	Acrylonitrile	ND	0.79	ND	0.36	
75-35-4	1,1-Dichloroethene	ND	0.79	ND	0.20	
75-09-2	Methylene Chloride	ND	0.79	ND	0.23	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.79	ND	0.25	
76-13-1	Trichlorotrifluoroethane	ND	0.79	ND	0.10	
75-15-0	Carbon Disulfide	ND	0.79	ND	0.25	
156-60-5	trans-1,2-Dichloroethene	ND	0.79	ND	0.20	
75-34-3	1,1-Dichloroethane	ND	0.79	ND	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	0.79	ND	0.22	
108-05-4	Vinyl Acetate	ND	7.9	ND	2.2	
78-93-3	**2-Butanone (MEK)**	**1.4**	0.79	**0.47**	0.27	

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

Verified By: _____ Date: 6/18/08

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Ambient-061208**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P0801808-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01481

Date Collected: 6/12/08
Date Received: 6/13/08
Date Analyzed: 6/16/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.58

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.79	ND	0.20	
141-78-6	**Ethyl Acetate**	**4.1**	0.79	**1.1**	0.22	
110-54-3	n-Hexane	ND	0.79	ND	0.22	
67-66-3	Chloroform	ND	0.79	ND	0.16	
109-99-9	Tetrahydrofuran (THF)	ND	0.79	ND	0.27	
107-06-2	1,2-Dichloroethane	ND	0.79	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	0.79	ND	0.14	
71-43-2	Benzene	ND	0.79	ND	0.25	
56-23-5	**Carbon Tetrachloride**	**0.44**	0.16	**0.070**	0.025	
110-82-7	Cyclohexane	ND	0.79	ND	0.23	
78-87-5	1,2-Dichloropropane	ND	0.79	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.79	ND	0.12	
79-01-6	Trichloroethene	ND	0.16	ND	0.029	
123-91-1	1,4-Dioxane	ND	0.79	ND	0.22	
80-62-6	Methyl Methacrylate	ND	0.79	ND	0.19	
142-82-5	n-Heptane	ND	0.79	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.79	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.79	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.79	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.79	ND	0.14	
108-88-3	**Toluene**	**2.0**	0.79	**0.53**	0.21	
591-78-6	2-Hexanone	ND	0.79	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.79	ND	0.093	
106-93-4	1,2-Dibromoethane	ND	0.79	ND	0.10	
123-86-4	n-Butyl Acetate	ND	0.79	ND	0.17	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated** CAS Project ID: P0801808
Client Sample ID: **Ambient-061208** CAS Sample ID: P0801808-009
Client Project ID: **Coopervision / 70665-014**

Test Code: EPA TO-15 Date Collected: 6/12/08
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 6/13/08
Analyst: Wida Ang Date Analyzed: 6/16/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01481

Initial Pressure (psig): -3.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.58

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.79	ND	0.17	
127-18-4	Tetrachloroethene	ND	0.79	ND	0.12	
108-90-7	Chlorobenzene	ND	0.79	ND	0.17	
100-41-4	Ethylbenzene	ND	0.79	ND	0.18	
179601-23-1	m,p-Xylenes	ND	0.79	ND	0.18	
75-25-2	Bromoform	ND	0.79	ND	0.076	
100-42-5	Styrene	ND	0.79	ND	0.19	
95-47-6	o-Xylene	ND	0.79	ND	0.18	
111-84-2	n-Nonane	ND	0.79	ND	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.79	ND	0.12	
98-82-8	Cumene	ND	0.79	ND	0.16	
80-56-8	alpha-Pinene	ND	0.79	ND	0.14	
103-65-1	n-Propylbenzene	ND	0.79	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.79	ND	0.16	
108-67-8	1,3,5-Trimethylbenzene	ND	0.79	ND	0.16	
95-63-6	1,2,4-Trimethylbenzene	ND	0.79	ND	0.16	
100-44-7	Benzyl Chloride	ND	0.79	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	0.79	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.79	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.79	ND	0.13	
5989-27-5	d-Limonene	ND	0.79	ND	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.79	ND	0.082	
120-82-1	1,2,4-Trichlorobenzene	ND	0.79	ND	0.11	
91-20-3	Naphthalene	ND	0.79	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.79	ND	0.074	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank** CAS Project ID: P0801808
Client Project ID: **Coopervision / 70665-014** CAS Sample ID: P080616-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/16/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

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

Verified By: _____ Date: 6/18/08

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank** CAS Project ID: P0801808
Client Project ID: **Coopervision / 70665-014** CAS Sample ID: P080616-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/16/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	0.50	ND	0.12	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

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

Verified By: CA Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated** CAS Project ID: P0801808
Client Sample ID: **Method Blank** CAS Sample ID: P080616-MB
Client Project ID: **Coopervision / 70665-014**

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/16/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

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

Verified By: _____ Date: 6/18/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801808
CAS Sample ID: P080617-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/17/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	

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

Verified By: _____ Date: 6/18/08

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

June 23, 2008

Susan Boyle
Haley & Aldrich, Incorporated
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Coopervision / 70665-014

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on June 17, 2008. For your reference, these analyses have been assigned our service request number P0801831.

All analyses were performed in accordance with our laboratory's quality assurance program. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 15 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera
Project Manager

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

Client:	Haley & Aldrich, Incorporated	CAS Project No:	P0801831
Project:	Coopervision / 70665-014	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on June 17, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Project: Coopervision 70665-014

Folder: P0801831

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Order #
P0801831-001.01	SV-1	6.0 L-Summa Canister Source	-2.9	-1.4	3.5				SC00806	**9123**	OA00283	**9123**
P0801831-002.01	SV-4 (D)	6.0 L-Summa Canister Source	-2.8	-1.4	3.7				SC00987	**9123**	OA00014	**9123**
P0801831-003.01	SV-5 (D)	6.0 L-Summa Canister Source	-4.2	-2.1	3.5				SC00978	**9123**	OA00387	**9123**
P0801831-004.01	SV-6 (D)	6.0 L-Summa Canister Source	-2.7	-1.3	3.6				SC00943	**9123**	OA00047	**9123**
P0801831-005.01	Ambient 061608	6.0 L-Summa Canister Ambient	-6.8	-3.3	3.6				AC01191	**9123**	FC00056	**8747**
P0801831-006.01	SC00989	6.0 L-Summa Canister Source	-29.1	-14.3					SC00989	**9123**		
P0801831-007.01	SC00799	6.0 L-Summa Canister Source	-25.3	-12.4					SC00799	**9123**		

Miscellaneous Items - received

AVG00463
AVG00758
AVG00742
OA00450
AVG00120
OA00449
OA00106
AVG00697
OA00388
AVG00627
AVG00320
AVG00602
AVG00649

Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

Columbia Analytical Services INC.
An Employee - Owned Company

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in ~~Business~~ Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) (3 Day (50%)) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. P0801831

CAS Contact: Kate Aguilera

Company Name & Address (Reporting Information): Haley + Aldrich, 200 Town Centre Dr., Suite 2, Rochester, NY 14623

Project Name: Coopervision

Project Number: 70665-014

Project Manager: Sue Boyle

P.O. # / Billing Information: 70665-014 Bill to address above attn: Sue Boyle

Phone: 585-321-4219 Fax: 585-486-8219

Email Address for Result Reporting: cdebergalis@haleyaldrich.com

Sampler (Print & Sign): Ethan Lee

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/ Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	Analysis Method and/or Analytes: TO-15 1,1-DCA, 1,1-DCE, 1,1,1-TCA, Chloroethane, Vinyl chloride only	Analysis Method and/or Analytes: TO-15 TCL VOCs	Comments e.g. Actual Preservative or specific instructions
SV-1	(1)-29	6/16/08	1037	Air	SC00806	OA00283	6L	X		Please run
SV-4 (D)	(2)-25	↓	1100	↓	SC00987	OA00014	↓	X		TCE, Carbon
SV-5 (D)	(3)-4.2		1120		SC00978	OA00387		X		Tetrachloride,
SV-6 (D)	(4)-2.7		1151		SC00943	OA00047		X		+ Vinyl Chloride
Ambient-061608	(5)-6.8		1500		AC01191	FC00056			X	@ Low
	-29.1									detection
	-25.3									limit
										(0.25 ug/m3)
										★3 day TAT★

Report Tier Levels - please select
Tier I - (Results/Default if not specified) X
Tier II - (Results + QC) ____
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) ____

EDD required (Yes) / No
Type: ____
EDD Units: ug/m3 - ppbv

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ethan Lee	6/16/08	1530		6/17/08	0440
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank
Temperature °C

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Incorporated Work order: P0801831

Project: Coopervision / 70665-014

Sample(s) received on: 06/17/08 Date opened: 06/17/08 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
9	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: Serial # _____ -TB _____			
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0801831-001.01	6.0 L Source Can					
P0801831-002.01	6.0 L Source Can					
P0801831-003.01	6.0 L Source Can					
P0801831-004.01	6.0 L Source Can					
P0801831-005.01	6.0 L Ambient Can					
P0801831-006.01	6.0 L Source Can					
P0801831-007.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-1**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P0801831-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00806

Date Collected: 6/16/08
Date Received: 6/17/08
Date Analyzed: 6/18/08
Volume(s) Analyzed: 0.020 Liter(s)

Initial Pressure (psig): -1.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**7.7**	6.9	**3.0**	2.7	
75-00-3	Chloroethane	ND	34	ND	13	
75-35-4	**1,1-Dichloroethene**	**300**	34	**76**	8.6	
75-34-3	**1,1-Dichloroethane**	**290**	34	**71**	8.5	
71-55-6	**1,1,1-Trichloroethane**	**5,200**	34	**960**	6.3	

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

Verified By: _____ Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-4 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P0801831-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00987

Date Collected: 6/16/08
Date Received: 6/17/08
Date Analyzed: 6/18/08
Volume(s) Analyzed: 0.40 Liter(s)
0.050 Liter(s)

Initial Pressure (psig): -1.4 Final Pressure (psig): 3.7

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**0.98**	0.35	**0.38**	0.14	
75-00-3	Chloroethane	ND	1.7	ND	0.65	
75-35-4	**1,1-Dichloroethene**	**50**	1.7	**13**	0.44	
75-34-3	**1,1-Dichloroethane**	**52**	1.7	**13**	0.43	
71-55-6	**1,1,1-Trichloroethane**	**410**	1.7	**75**	0.32	

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

Verified By: CH Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-5 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P0801831-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00978

Date Collected: 6/16/08
Date Received: 6/17/08
Date Analyzed: 6/18/08
Volume(s) Analyzed: 0.50 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.29	ND	0.11	
75-00-3	Chloroethane	ND	1.4	ND	0.55	
75-35-4	**1,1-Dichloroethene**	**6.3**	1.4	**1.6**	0.36	
75-34-3	**1,1-Dichloroethane**	**3.9**	1.4	**0.97**	0.36	
71-55-6	**1,1,1-Trichloroethane**	**240**	1.4	**45**	0.26	

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

Verified By: _____ Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **SV-6 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P0801831-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00943

Date Collected: 6/16/08
Date Received: 6/17/08
Date Analyzed: 6/18/08
Volume(s) Analyzed: 0.015 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**82**	9.1	**32**	3.6	
75-00-3	**Chloroethane**	**56**	46	**21**	17	
75-35-4	**1,1-Dichloroethene**	**9,200**	46	**2,300**	12	
75-34-3	**1,1-Dichloroethane**	**5,900**	46	**1,500**	11	
71-55-6	**1,1,1-Trichloroethane**	**8,200**	46	**1,500**	8.4	

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

Verified By: CAS Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Ambient 061608**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P0801831-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01191

Date Collected: 6/16/08
Date Received: 6/17/08
Date Analyzed: 6/18/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.3 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.61

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	**Propene**	**1.3**	0.81	**0.77**	0.47	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.3**	0.81	**0.46**	0.16	
74-87-3	Chloromethane	ND	0.81	ND	0.39	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.81	ND	0.12	
75-01-4	Vinyl Chloride	ND	0.16	ND	0.063	
106-99-0	1,3-Butadiene	ND	0.81	ND	0.36	
74-83-9	Bromomethane	ND	0.81	ND	0.21	
75-00-3	Chloroethane	ND	0.81	ND	0.31	
64-17-5	**Ethanol**	**15**	8.1	**7.7**	4.3	
75-05-8	Acetonitrile	ND	0.81	ND	0.48	
107-02-8	Acrolein	ND	0.81	ND	0.35	
67-64-1	**Acetone**	**9.1**	8.1	**3.8**	3.4	
75-69-4	**Trichlorofluoromethane**	**1.1**	0.81	**0.20**	0.14	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**4.1**	0.81	**1.7**	0.33	
107-13-1	Acrylonitrile	ND	0.81	ND	0.37	
75-35-4	1,1-Dichloroethene	ND	0.81	ND	0.20	
75-09-2	Methylene Chloride	ND	0.81	ND	0.23	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.81	ND	0.26	
76-13-1	Trichlorotrifluoroethane	ND	0.81	ND	0.11	
75-15-0	Carbon Disulfide	ND	0.81	ND	0.26	
156-60-5	trans-1,2-Dichloroethene	ND	0.81	ND	0.20	
75-34-3	1,1-Dichloroethane	ND	0.81	ND	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	0.81	ND	0.22	
108-05-4	Vinyl Acetate	ND	8.1	ND	2.3	
78-93-3	**2-Butanone (MEK)**	**2.5**	0.81	**0.85**	0.27	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
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Verified By: _____ Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Ambient 061608**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P0801831-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01191

Date Collected: 6/16/08
Date Received: 6/17/08
Date Analyzed: 6/18/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.3 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.61

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.81	ND	0.20	
141-78-6	**Ethyl Acetate**	**2.2**	0.81	**0.61**	0.22	
110-54-3	n-Hexane	ND	0.81	ND	0.23	
67-66-3	Chloroform	ND	0.81	ND	0.16	
109-99-9	Tetrahydrofuran (THF)	ND	0.81	ND	0.27	
107-06-2	1,2-Dichloroethane	ND	0.81	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	0.81	ND	0.15	
71-43-2	Benzene	ND	0.81	ND	0.25	
56-23-5	**Carbon Tetrachloride**	**0.42**	0.16	**0.066**	0.026	
110-82-7	Cyclohexane	ND	0.81	ND	0.23	
78-87-5	1,2-Dichloropropane	ND	0.81	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.81	ND	0.12	
79-01-6	Trichloroethene	ND	0.16	ND	0.030	
123-91-1	**1,4-Dioxane**	**3.7**	0.81	**1.0**	0.22	
80-62-6	Methyl Methacrylate	ND	0.81	ND	0.20	
142-82-5	n-Heptane	ND	0.81	ND	0.20	
10061-01-5	cis-1,3-Dichloropropene	ND	0.81	ND	0.18	
108-10-1	**4-Methyl-2-pentanone**	**0.84**	0.81	**0.20**	0.20	
10061-02-6	trans-1,3-Dichloropropene	ND	0.81	ND	0.18	
79-00-5	1,1,2-Trichloroethane	ND	0.81	ND	0.15	
108-88-3	**Toluene**	**1.2**	0.81	**0.31**	0.21	
591-78-6	**2-Hexanone**	**2.1**	0.81	**0.52**	0.20	
124-48-1	Dibromochloromethane	ND	0.81	ND	0.095	
106-93-4	1,2-Dibromoethane	ND	0.81	ND	0.10	
123-86-4	n-Butyl Acetate	ND	0.81	ND	0.17	

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

Verified By: _____ Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated** CAS Project ID: P0801831
Client Sample ID: **Ambient 061608** CAS Sample ID: P0801831-005
Client Project ID: **Coopervision / 70665-014**

Test Code: EPA TO-15 Date Collected: 6/16/08
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 6/17/08
Analyst: Wida Ang Date Analyzed: 6/18/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01191

Initial Pressure (psig): -3.3 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.61

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.81	ND	0.17	
127-18-4	Tetrachloroethene	ND	0.81	ND	0.12	
108-90-7	Chlorobenzene	ND	0.81	ND	0.17	
100-41-4	Ethylbenzene	ND	0.81	ND	0.19	
179601-23-1	m,p-Xylenes	ND	0.81	ND	0.19	
75-25-2	Bromoform	ND	0.81	ND	0.078	
100-42-5	Styrene	ND	0.81	ND	0.19	
95-47-6	o-Xylene	ND	0.81	ND	0.19	
111-84-2	n-Nonane	ND	0.81	ND	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.81	ND	0.12	
98-82-8	Cumene	ND	0.81	ND	0.16	
80-56-8	alpha-Pinene	ND	0.81	ND	0.14	
103-65-1	n-Propylbenzene	ND	0.81	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.81	ND	0.16	
108-67-8	1,3,5-Trimethylbenzene	ND	0.81	ND	0.16	
95-63-6	1,2,4-Trimethylbenzene	ND	0.81	ND	0.16	
100-44-7	Benzyl Chloride	ND	0.81	ND	0.16	
541-73-1	1,3-Dichlorobenzene	ND	0.81	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.81	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.81	ND	0.13	
5989-27-5	d-Limonene	ND	0.81	ND	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.81	ND	0.083	
120-82-1	1,2,4-Trichlorobenzene	ND	0.81	ND	0.11	
91-20-3	Naphthalene	ND	0.81	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.81	ND	0.075	

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

Verified By: LM Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P080618-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/18/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

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

Verified By: CH Date: 6/19/08

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank** CAS Project ID: P0801831
Client Project ID: **Coopervision / 70665-014** CAS Sample ID: P080618-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 6/18/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	0.50	ND	0.12	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

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

Verified By: CH Date: 6/19/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Incorporated**
Client Sample ID: **Method Blank**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0801831
CAS Sample ID: P080618-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 6/18/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

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

Verified By: _____ Date: 6/19/08

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

September 4, 2008

Ms. Sue Boyle
Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

PROJECT:COOPERVISION #70665-014
Submission #:R2845311

Dear Ms. Boyle

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (585) 288-5380.

Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Karen Bunker
Project Manager

Enc.

Columbia Analytical Services inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client	: Haley & Aldrich of New York
Project Reference	: COOPERVISION #70665-014
Lab Submission #	: R2845311
Contact Person	: Karen Bunker
Phone Number	: (585) 288-5380
Reported	: 09/04/08

Report Contains a total of 14 pages

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K Perry

Columbia Analytical Services inc.

CASE NARRATIVE

This report contains analytical results for the following samples:

Submission #: R2845311

Lab ID	Client ID
1125793	CONT. DRUM 1A-1D COMPOSITE

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.

Columbia Analytical Services INC.
An Employee - Owned Company

ACCREDITED IN ACCORDANCE WITH nelac

Ethics Service Quality Environmental
ACIL
2005 SEAL OF EXCELLENCE PROGRAM

ORGANIC QUALIFIERS

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit and greater than the MDL. This flag is also used for DoD instead of "P" as indicated below.

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

P - This flag is used for a pesticide/Aroclor target analyte when there is a greater than 40% (25% for CLP) difference for detected concentrations between the two GC columns. The concentration is reported on the Form I and flagged with a "P" ("J" for DoD).

Q - for DoD only – indicates a pesticide/Aroclor target is not confirmed. This flag is used when there is ≥ 100% difference for the detected concentrations between the two GC columns.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and ALL concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - As specified in Case Narrative.

* - This flag identifies compounds associated with a quality control parameter which exceeds laboratory limits.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158
West Virginia ID # 292

INORGANIC QUALIFIERS

C (Concentration) qualifier –

- B - if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). This qualifier may also be used to indicate that there was contamination above the reporting limit in the associated blank. See Narrative for details.
- U - if the analyte was analyzed for, but not detected

Q qualifier - Specified entries and their meanings are as follows:

- D - Spike was diluted out
- E - The reported value is estimated because the serial dilution did not meet criteria.
- J - Estimated Value
- M - Duplicate injection precision not met.
- N - Spiked sample recovery not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
- * - Duplicate analysis not within control limits.
- + - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "AF" for Automated Cold Vapor Atomic Fluorescence Spectrometry
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed.

CAS/Rochester Lab ID # for State Certifications

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID # 68-786
Rhode Island ID # 158
West Virginia ID # 292

COLUMBIA ANALYTICAL SERVICES

Reported: 09/04/08

Haley & Aldrich of New York
Project Reference: COOPERVISION #70665-014
Client Sample ID : CONT. DRUM 1A-1D COMPOSITE

Date Sampled : 08/12/08 11:30 **Order #:** 1125793 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 08/12/08 **Submission #:** R2845311

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	TIME ANALYZED	DILUTION
PERCENT SOLIDS	160.3M	1.00	78.8	%	08/18/08	12:15	1.0

COLUMBIA ANALYTICAL SERVICES

Reported: 09/04/08

Haley & Aldrich of New York
Project Reference: COOPERVISION #70665-014
Client Sample ID : CONT. DRUM 1A-1D COMPOSITE

Date Sampled : 08/12/08 11:30 **Order #:** 1125793 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 08/12/08 **Submission #:** R2845311

ANALYTE	METHOD	PQL	RESULT	DRY WEIGHT UNITS	DATE ANALYZED	DILUTION
ARSENIC	6010B	1.00	4.09	MG/KG	08/20/08	1.0
BARIUM	6010B	2.00	54.7	MG/KG	08/20/08	1.0
CADMIUM	6010B	0.500	0.635 U	MG/KG	08/20/08	1.0
CHROMIUM	6010B	1.00	18.1	MG/KG	08/20/08	1.0
LEAD	6010B	5.00	34.6	MG/KG	08/20/08	1.0
MERCURY	7471A	0.0500	0.0635 U	MG/KG	08/19/08	1.0
SELENIUM	6010B	1.00	1.27 U	MG/KG	08/20/08	1.0
SILVER	6010B	1.00	1.27 U	MG/KG	08/20/08	1.0

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 09/04/08

Haley & Aldrich of New York
Project Reference: COOPERVISION #70665-014
Client Sample ID : CONT. DRUM 1A-1D COMPOSITE

Date Sampled : 08/12/08 11:30 **Order #:** 1125793 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 08/12/08 **Submission #:** R2845311 **Percent Solid:** 78.8

DATE ANALYZED : 08/15/08
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
			Dry Weight
ACETONE	20	25 U	UG/KG
BENZENE	5.0	6.3 U	UG/KG
BROMODICHLOROMETHANE	5.0	6.3 U	UG/KG
BROMOFORM	5.0	6.3 U	UG/KG
BROMOMETHANE	5.0	6.3 U	UG/KG
2-BUTANONE (MEK)	10	13 U	UG/KG
CARBON DISULFIDE	10	13 U	UG/KG
CARBON TETRACHLORIDE	5.0	6.3 U	UG/KG
CHLOROBENZENE	5.0	6.3 U	UG/KG
CHLOROETHANE	5.0	6.3 U	UG/KG
CHLOROFORM	5.0	6.3 U	UG/KG
CHLOROMETHANE	5.0	6.3 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	6.3 U	UG/KG
1,1-DICHLOROETHANE	5.0	6.3 U	UG/KG
1,2-DICHLOROETHANE	5.0	6.3 U	UG/KG
1,1-DICHLOROETHENE	5.0	6.3 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	6.3 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	6.3 U	UG/KG
1,2-DICHLOROPROPANE	5.0	6.3 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	6.3 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	6.3 U	UG/KG
ETHYLBENZENE	5.0	6.3 U	UG/KG
2-HEXANONE	10	13 U	UG/KG
METHYLENE CHLORIDE	5.0	6.3 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	13 U	UG/KG
STYRENE	5.0	6.3 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	6.3 U	UG/KG
TETRACHLOROETHENE	5.0	6.3 U	UG/KG
TOLUENE	5.0	6.3 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	6.3 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	6.3 U	UG/KG
TRICHLOROETHENE	5.0	6.3 U	UG/KG
VINYL CHLORIDE	5.0	6.3 U	UG/KG
O-XYLENE	5.0	6.3 U	UG/KG
M+P-XYLENE	5.0	6.3 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(50 - 135 %)	104	%
TOLUENE-D8	(75 - 128 %)	100	%
DIBROMOFLUOROMETHANE	(58 - 133 %)	94	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 09/04/08

Haley & Aldrich of New York
Project Reference: COOPERVISION #70665-014
Client Sample ID : CONT. DRUM 1A-1D COMPOSITE

Date Sampled : 08/12/08 11:30 **Order #:** 1125793 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 08/12/08 **Submission #:** R2845311 **Percent Solid:** 78.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 08/19/08			
DATE ANALYZED : 08/22/08			
ANALYTICAL DILUTION: 5.00			Dry Weight
ACENAPHTHENE	330	2100 U	UG/KG
ACENAPHTHYLENE	330	2100 U	UG/KG
ANTHRACENE	330	2100 U	UG/KG
BENZO(A)ANTHRACENE	330	3900	UG/KG
BENZO(A)PYRENE	330	4200	UG/KG
BENZO(B)FLUORANTHENE	330	4900	UG/KG
BENZO(G,H,I)PERYLENE	330	3900	UG/KG
BENZO(K)FLUORANTHENE	330	3900	UG/KG
BENZYL ALCOHOL	330	2100 U	UG/KG
BUTYL BENZYL PHTHALATE	330	2100 U	UG/KG
DI-N-BUTYLPHTHALATE	330	2100 U	UG/KG
CARBAZOLE	330	2100 U	UG/KG
INDENO(1,2,3-CD)PYRENE	330	3100	UG/KG
4-CHLOROANILINE	330	2100 U	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	2100 U	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	2100 U	UG/KG
2-CHLORONAPHTHALENE	330	2100 U	UG/KG
2-CHLOROPHENOL	330	2100 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	2100 U	UG/KG
CHRYSENE	330	5100	UG/KG
DIBENZO(A,H)ANTHRACENE	330	2100 U	UG/KG
DIBENZOFURAN	330	2100 U	UG/KG
1,3-DICHLOROBENZENE	330	2100 U	UG/KG
1,2-DICHLOROBENZENE	330	2100 U	UG/KG
1,4-DICHLOROBENZENE	330	2100 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	2100 U	UG/KG
2,4-DICHLOROPHENOL	330	2100 U	UG/KG
DIETHYLPHTHALATE	330	2100 U	UG/KG
DIMETHYL PHTHALATE	330	2100 U	UG/KG
2,4-DIMETHYLPHENOL	330	2100 U	UG/KG
2,4-DINITROPHENOL	1700	11000 U	UG/KG
2,4-DINITROTOLUENE	330	2100 U	UG/KG
2,6-DINITROTOLUENE	330	2100 U	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	2100 U	UG/KG
FLUORANTHENE	330	14000	UG/KG
FLUORENE	330	2100 U	UG/KG
HEXACHLOROBENZENE	330	2100 U	UG/KG
HEXACHLOROBUTADIENE	330	2100 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	2100 U	UG/KG
HEXACHLOROETHANE	330	2100 U	UG/KG
ISOPHORONE	330	2100 U	UG/KG
2-METHYLNAPHTHALENE	330	2100 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	11000 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 09/04/08

Haley & Aldrich of New York
Project Reference: COOPERVISION #70665-014
Client Sample ID : CONT. DRUM 1A-1D COMPOSITE

Date Sampled : 08/12/08 11:30 **Order #:** 1125793 **Sample Matrix:** SOIL/SEDIMENT
Date Received: 08/12/08 **Submission #:** R2845311 **Percent Solid:** 78.8

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 08/19/08			
DATE ANALYZED : 08/22/08			
ANALYTICAL DILUTION: 5.00			Dry Weight
4-CHLORO-3-METHYLPHENOL	330	2100 U	UG/KG
2-METHYLPHENOL	330	2100 U	UG/KG
3+4-METHYLPHENOL	330	2100 U	UG/KG
NAPHTHALENE	330	2100 U	UG/KG
2-NITROANILINE	1700	11000 U	UG/KG
3-NITROANILINE	1700	11000 U	UG/KG
4-NITROANILINE	1700	11000 U	UG/KG
NITROBENZENE	330	2100 U	UG/KG
2-NITROPHENOL	330	2100 U	UG/KG
4-NITROPHENOL	1700	11000 U	UG/KG
N-NITROSODIMETHYLAMINE	330	2100 U	UG/KG
N-NITROSODIPHENYLAMINE	330	2100 U	UG/KG
DI-N-OCTYL PHTHALATE	330	2100 U	UG/KG
PENTACHLOROPHENOL	1700	11000 U	UG/KG
PHENANTHRENE	330	8200	UG/KG
PHENOL	330	2100 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	2100 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	2100 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	2100 U	UG/KG
PYRENE	330	9900	UG/KG
1,2,4-TRICHLOROBENZENE	330	2100 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	2100 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	2100 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	63	%
NITROBENZENE-d5	(27 - 130 %)	62	%
PHENOL-d6	(10 - 133 %)	54	%
2-FLUOROBIPHENYL	(32 - 130 %)	63	%
2-FLUOROPHENOL	(10 - 130 %)	56	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	62	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 09/04/08

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 1129292 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 08/15/08			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACETONE	20	20 U	UG/KG
BENZENE	5.0	5.0 U	UG/KG
BROMODICHLOROMETHANE	5.0	5.0 U	UG/KG
BROMOFORM	5.0	5.0 U	UG/KG
BROMOMETHANE	5.0	5.0 U	UG/KG
2-BUTANONE (MEK)	10	10 U	UG/KG
CARBON DISULFIDE	10	10 U	UG/KG
CARBON TETRACHLORIDE	5.0	5.0 U	UG/KG
CHLOROBENZENE	5.0	5.0 U	UG/KG
CHLOROETHANE	5.0	5.0 U	UG/KG
CHLOROFORM	5.0	5.0 U	UG/KG
CHLOROMETHANE	5.0	5.0 U	UG/KG
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,2-DICHLOROETHANE	5.0	5.0 U	UG/KG
1,1-DICHLOROETHENE	5.0	5.0 U	UG/KG
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/KG
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/KG
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/KG
ETHYLBENZENE	5.0	5.0 U	UG/KG
2-HEXANONE	10	10 U	UG/KG
METHYLENE CHLORIDE	5.0	5.0 U	UG/KG
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/KG
STYRENE	5.0	5.0 U	UG/KG
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/KG
TETRACHLOROETHENE	5.0	5.0 U	UG/KG
TOLUENE	5.0	5.0 U	UG/KG
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/KG
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/KG
TRICHLOROETHENE	5.0	5.0 U	UG/KG
VINYL CHLORIDE	5.0	5.0 U	UG/KG
O-XYLENE	5.0	5.0 U	UG/KG
M+P-XYLENE	5.0	5.0 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(50 - 135 %)	93	%
TOLUENE-D8	(75 - 128 %)	94	%
DIBROMOFLUOROMETHANE	(58 - 133 %)	102	%

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 09/04/08

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 1128423 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 08/19/08			
DATE ANALYZED : 08/22/08			
ANALYTICAL DILUTION: 1.00			Dry Weight
ACENAPHTHENE	330	330 U	UG/KG
ACENAPHTHYLENE	330	330 U	UG/KG
ANTHRACENE	330	330 U	UG/KG
BENZO(A)ANTHRACENE	330	330 U	UG/KG
BENZO(A)PYRENE	330	330 U	UG/KG
BENZO(B)FLUORANTHENE	330	330 U	UG/KG
BENZO(G,H,I)PERYLENE	330	330 U	UG/KG
BENZO(K)FLUORANTHENE	330	330 U	UG/KG
BENZYL ALCOHOL	330	330 U	UG/KG
BUTYL BENZYL PHTHALATE	330	330 U	UG/KG
DI-N-BUTYLPHTHALATE	330	330 U	UG/KG
CARBAZOLE	330	330 U	UG/KG
INDENO(1,2,3-CD)PYRENE	330	330 U	UG/KG
4-CHLOROANILINE	330	330 U	UG/KG
BIS(-2-CHLOROETHOXY)METHANE	330	330 U	UG/KG
BIS(2-CHLOROETHYL)ETHER	330	330 U	UG/KG
2-CHLORONAPHTHALENE	330	330 U	UG/KG
2-CHLOROPHENOL	330	330 U	UG/KG
2,2'-OXYBIS(1-CHLOROPROPANE)	330	330 U	UG/KG
CHRYSENE	330	330 U	UG/KG
DIBENZO(A,H)ANTHRACENE	330	330 U	UG/KG
DIBENZOFURAN	330	330 U	UG/KG
1,3-DICHLOROBENZENE	330	330 U	UG/KG
1,2-DICHLOROBENZENE	330	330 U	UG/KG
1,4-DICHLOROBENZENE	330	330 U	UG/KG
3,3'-DICHLOROBENZIDINE	330	330 U	UG/KG
2,4-DICHLOROPHENOL	330	330 U	UG/KG
DIETHYLPHTHALATE	330	330 U	UG/KG
DIMETHYL PHTHALATE	330	330 U	UG/KG
2,4-DIMETHYLPHENOL	330	330 U	UG/KG
2,4-DINITROPHENOL	1700	1700 U	UG/KG
2,4-DINITROTOLUENE	330	330 U	UG/KG
2,6-DINITROTOLUENE	330	330 U	UG/KG
BIS(2-ETHYLHEXYL)PHTHALATE	330	330 U	UG/KG
FLUORANTHENE	330	330 U	UG/KG
FLUORENE	330	330 U	UG/KG
HEXACHLOROBENZENE	330	330 U	UG/KG
HEXACHLOROBUTADIENE	330	330 U	UG/KG
HEXACHLOROCYCLOPENTADIENE	330	330 U	UG/KG
HEXACHLOROETHANE	330	330 U	UG/KG
ISOPHORONE	330	330 U	UG/KG
2-METHYLNAPHTHALENE	330	330 U	UG/KG
4,6-DINITRO-2-METHYLPHENOL	1700	1700 U	UG/KG
4-CHLORO-3-METHYLPHENOL	330	330 U	UG/KG

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 09/04/08

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 1128423 **Sample Matrix:** SOIL/SEDIMENT
Date Received: **Submission #:** **Percent Solid:** 100

ANALYTE	PQL	RESULT	UNITS
DATE EXTRACTED : 08/19/08			
DATE ANALYZED : 08/22/08			
ANALYTICAL DILUTION: 1.00			Dry Weight
2-METHYLPHENOL	330	330 U	UG/KG
3+4-METHYLPHENOL	330	330 U	UG/KG
NAPHTHALENE	330	330 U	UG/KG
2-NITROANILINE	1700	1700 U	UG/KG
3-NITROANILINE	1700	1700 U	UG/KG
4-NITROANILINE	1700	1700 U	UG/KG
NITROBENZENE	330	330 U	UG/KG
2-NITROPHENOL	330	330 U	UG/KG
4-NITROPHENOL	1700	1700 U	UG/KG
N-NITROSODIMETHYLAMINE	330	330 U	UG/KG
N-NITROSODIPHENYLAMINE	330	330 U	UG/KG
DI-N-OCTYL PHTHALATE	330	330 U	UG/KG
PENTACHLOROPHENOL	1700	1700 U	UG/KG
PHENANTHRENE	330	330 U	UG/KG
PHENOL	330	330 U	UG/KG
4-BROMOPHENYL-PHENYLETHER	330	330 U	UG/KG
4-CHLOROPHENYL-PHENYLETHER	330	330 U	UG/KG
N-NITROSO-DI-N-PROPYLAMINE	330	330 U	UG/KG
PYRENE	330	330 U	UG/KG
1,2,4-TRICHLOROBENZENE	330	330 U	UG/KG
2,4,6-TRICHLOROPHENOL	330	330 U	UG/KG
2,4,5-TRICHLOROPHENOL	330	330 U	UG/KG

SURROGATE RECOVERIES	QC LIMITS		
TERPHENYL-d14	(48 - 131 %)	84	%
NITROBENZENE-d5	(27 - 130 %)	75	%
PHENOL-d6	(10 - 133 %)	67	%
2-FLUOROBIPHENYL	(32 - 130 %)	75	%
2-FLUOROPHENOL	(10 - 130 %)	64	%
2,4,6-TRIBROMOPHENOL	(33 - 139 %)	80	%

Columbia Analytical Services Inc.
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www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475

PAGE 1 OF 1

SR #

CAS Contact K. Bunker

Project Name: CooperVision	Project Number: 70665-014
Project Manager: Sue Boyle	Report CC: Claire DeBergalis
Company/Address: Haley & Aldrich, 200 Town Centre Dr., Suite 2, Rochester, NY 14623	
Phone #: (585) 321-4219	FAX#: (585) 486-8219
Sampler's Signature: [signature]	Sampler's Printed Name: Luke A. Strauss

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608 ☐ CLP	PCB's ☐ 8082 ☐ 608 ☐ CLP	METALS, TOTAL (List in comments below) RCRA 8	METALS, DISSOLVED (List in comments below)								REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						0	0				0									
Cont. Drum 1A-1D	1125793	8/12/08	1130	soil	4	X	X				X									

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ______

SPECIAL INSTRUCTIONS/COMMENTS
Metals
Please composite four samples as necessary. Please call with questions.

See QAPP ☐

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
___ 24 hr ___ 48 hr ___ 5 day
X STANDARD
REQUESTED FAX DATE ______
REQUESTED REPORT DATE ______

REPORT REQUIREMENTS
X I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Specialized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:
SUBMISSION #: R2845311

SAMPLE RECEIPT: CONDITION/COOLER TEMP: 6°C CUSTODY SEALS: Y (N)

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature		Rachel Jones	[signature]			
Printed Name		Rachel Jones	Luke A. Strauss			
Firm		CAS	Haley & Aldrich			
Date/Time		8/12/08 1705	8/12/08 1705			

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1102-08

#230

Cooler Receipt And Preservation Check Form

ject/Client H & A Submission Number R284 5311

oler received on 8/12/08 by: RG COURIER: CAS UPS FEDEX VELOCITY CLIENT

Were custody seals on outside of cooler?	YES	NO			
Were custody papers properly filled out (ink, signed, etc.)?	YES	NO			
Did all bottles arrive in good condition (unbroken)?	YES	NO			
Did any VOA vials have significant* air bubbles?	YES	NO	N/A		
Were **Ice** or **Ice packs** present?	YES	NO			
Where did the bottles originate?	CAS/ROC, CLIENT				
Temperature of cooler(s) upon receipt:	5.7°				
Is the temperature within 0° - 6° C?:	Yes	Yes	Yes	Yes	Yes
If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 8/12/08 @ 1710

Thermometer ID: 161 / IR GUN#2 / IR GUN#3 Reading From: Temp Blank / Sample Bottle

f out of Temperature, note packing/ice condition, Client Approval to Run Samples: _____

C Secondary Review: KB 8/13/08

Cooler Breakdown: Date: 8/14/08 by: RG

.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
.	Did all bottle labels and tags agree with custody papers?	YES	NO
.	Were correct containers used for the tests indicated?	YES	NO
.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	$Na_2S_2O_3$	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: ID labels removed

Other Comments:

PC Secondary Review: MM 8/18/08 | KB

*significant air bubbles are greater than 5-6 mm

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
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LABORATORY REPORT

January 7, 2009

Susan Boyle
Haley & Aldrich, Inc.
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Cooper Vision / 70665-014

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on December 31, 2008. For your reference, these analyses have been assigned our service request number P0804386.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 28 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

Client:	Haley & Aldrich, Inc.	CAS Project No:	P0804386
Project:	Cooper Vision / 70665-014	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on December 31, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample(s) at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The isopropyl alcohol percent recovery in the initial calibration verification standard was outside the laboratory quality control limit of 70-130. This compound was not reported.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Project: Cooper Vision 70665-014

Folder: P0804386

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
P0804386-001.01	SV-108(S)	6.0 L-Summa Canister Source	-1.6	-0.8	3.6				SC00828	**11469**	OA00122	**11469**
P0804386-002.01	SV-108(D)	6.0 L-Summa Canister Source	-1.4	-0.7	3.5				SC00903	**11469**	OA00389	**11469**
P0804386-003.01	SV-3(S)	6.0 L-Summa Canister Source	-3.0	-1.5	3.5				SC00709	**11469**	OA00167	**11469**
P0804386-004.01	SV-6(S)	6.0 L-Summa Canister Source	-1.7	-0.8	3.5				SC00536	**11469**	OA00014	**11469**
P0804386-005.01	SV-6(D)	6.0 L-Summa Canister Source	-1.7	-0.8	3.5				SC00957	**11469**	OA00386	**11469**
P0804386-006.01	SV-101(S)	6.0 L-Summa Canister Source	-1.6	-0.8	3.6				SC00351	**11469**	OA00093	**11469**
P0804386-007.01	SV-102(S)	6.0 L-Summa Canister Source	-3.2	-1.6	3.5				SC00299	**11469**	OA00406	**11469**
P0804386-008.01	SV-102(D)	6.0 L-Summa Canister Source	-0.2	-0.1	3.5				SC00333	**11469**	OA00387	**11469**
P0804386-009.01	SV-103(S)	6.0 L-Summa Canister Source	-0.8	-0.4	3.5				SC00315	**11469**	OA00177	**11469**
P0804386-010.01	SV-104(D)	6.0 L-Summa Canister Source	-0.9	-0.4	3.5				SC00141	**11469**	OA00450	**11469**
P0804386-011.01	SV-104(S)	6.0 L-Summa Canister Source	0.0	1.1	3.5				SC00565	**11469**	OA00388	**11469**
P0804386-012.01	SV-106(S)	6.0 L-Summa Canister Source	-1.4	-0.7	3.5				SC00683	**11469**	OA00207	**11469**
P0804386-013.01	SV-107(S)	6.0 L-Summa Canister Source	-1.2	-0.6	3.5				SC00432	**11469**	OA00354	**11469**
P0804386-014.01	AA-123008	6.0 L-Summa Canister Ambient	-5.1	-2.5	3.5				AC00719	**11469**	FC00672	**11469**
P0804386-015.01	AC00701	6.0 L-Summa Canister Ambient	-29.7	-14.6					AC00701	**11469**		
P0804386-016.01	SC00977	6.0 L-Summa Canister Source	-29.7	-14.6					SC00977	**11469**		
P0804386-017.01	SC00222	6.0 L-Summa Canister Source	-29.7	-14.6					SC00222	**11469**		
P0804386-018.01	SC00612	6.0 L-Summa Canister Source	-29.7	-14.6					SC00612	**11469**		
P0804386-019.01	SC00593	6.0 L-Summa Canister Source	-29.7	-14.6					SC00593	**11469**		
P0804386-020.01	SC00942	6.0 L-Summa Canister Source	-29.6	-14.5					SC00942	**11469**		
P0804386-021.01	SC00665	6.0 L-Summa Canister Source	-29.6	-14.5					SC00665	**11469**		
P0804386-022.01	SC00980	6.0 L-Summa Canister Source	-29.6	-14.5					SC00980	**11469**		
P0804386-023.01	SC00562	6.0 L-Summa Canister Source	-29.6	-14.5					SC00562	**11469**		
P0804386-024.01	SC00163	6.0 L-Summa Canister Source	-29.5	-14.5					SC00163	**11469**		
P0804386-025.01	SC00367	6.0 L-Summa Canister Source	-29.3	-14.4					SC00367	**11469**		
P0804386-026.01	SC00987	6.0 L-Summa Canister Source	-29.1	-14.3					SC00987	**11469**		
P0804386-027.01	SC00767	6.0 L-Summa Canister Source	-12.4	-6.1					SC00767	**11469**		

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
Miscellaneous Items - received												
AVG00601												
AVG00502												
OA00403												
OA00417												
AVG00870												
AVG00869												
AVG01075												
AVG00679												
AVG00167												
AVG00802												
OA00429												
AVG00593												
OA00449												
AVG00460												
AVG00573												
AVG00696												
AVG00750												
AVG00959												
AVG00547												
AVG00379												
OA00448												
OA00451												
OA00059												
FC00695												
OA00283												
OA00418												
AVG00694												
AVG00136												
AVG00322												
AVG00043												

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
AVG00824												
OA00047												
AVG00752												
AVG00737												
AVG00675												
AVG00192												
AVG00800												
OA00404												
AVG00883												
OA00206												

Air - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. P0804386

Company Name & Address (Reporting Information)	Haley + Aldrich 200 Town Centre Dr, Suite 2 Rochester, NY 14623
Project Name	CooperVision
Project Number	70665-014
Project Manager	Sue Boyle
P.O. # / Billing Information	70665-014 Bill to address above attn: Sue Boyle
Phone	585-321-4219
Fax	585-486-8219
Email Address for Result Reporting	cbebergalis@haleyaldrich.com
Sampler (Print & Sign)	Ethan Lee
CAS Contact	Kate Aguilera

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/ Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	Analysis Method and/or Analytes: TO-15 w/ 1,1-DCE, 1,1-DCA, 1,1,1-TCA, chloroethane, + Vinyl chloride only	Analysis Method and/or Analytes: TO-15 TCL VOCs			Comments e.g. Actual Preservative or specific instructions
SV-108 (S)	1-1.6	12/30/08	1026	Air	SC00828	OA00122	6L	X				Please run
SV-108 (D)	2-1.4		1040	Air	SC00903	OA00384	6L	X				TCE, Carbon
SV-3 (S)	3-3.0		1110		SC00709	OA00167	6L	X				Tetrachloride,
SV-6 (S)	4-1.7		1130		SC00536	OA00014	6L	X				+ VC @ low
SV-6 (D)	5-1.7		1130		SC00957	OA00386	6L	X				detection
SV-101 (S)	6-1.6		1138		SC00351	OA00093	6L	X				limit (0.25 ug/m3)
SV-102 (S)	7-3.2		1330		SC00299	OA00406	6L	X				
SV-102 (D)	8-0.2		1356		SC00333	OA00387	6L	X				
SV-103 (S)	9-0.8		1413		SC00315	OA00177	6L	X				
SV-104 (D)	10-0.9		1427		SC00141	OA00450	6L	X				
SV-104 (S)	11-1.1		1420		SC00565	OA00388	6L	X				
SV-106 (S)	12-1.4		1518		SC00683	OA00207	6L	X				
SV-107 (S)	13-1.2		1540		SC00432	OA00354	6L	X				
AA-123008	14-5.1		1545		AC00719	FC00672	6L		X			Ambient

Report Tier Levels - please select
Tier I - (Results/Default if not specified) X
Tier II - (Results + QC) ____
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) ____
EDD required Yes / No
Type: ____
EDD Units: ug/m3 + ppbv

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature) Ethan Lee	Date: 12/30/08	Time: 1600	Received by: (Signature)	Date: 12/31/08	Time: 0950
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank
Temperature °C

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0804386

Project: Cooper Vision / 70665-014

Sample(s) received on: 12/31/08 Date opened: 12/31/08 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
9	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: Serial # _____ -TB _____			
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0804386-001.01	6.0 L Source Can					
P0804386-002.01	6.0 L Source Can					
P0804386-003.01	6.0 L Source Can					
P0804386-004.01	6.0 L Source Can					
P0804386-005.01	6.0 L Source Can					
P0804386-006.01	6.0 L Source Can					
P0804386-007.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);
Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0804386

Project: Cooper Vision / 70665-014

Sample(s) received on: 12/31/08 Date opened: 12/31/08 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0804386-008.01	6.0 L Source Can					
P0804386-009.01	6.0 L Source Can					
P0804386-010.01	6.0 L Source Can					
P0804386-011.01	6.0 L Source Can					
P0804386-012.01	6.0 L Source Can					
P0804386-013.01	6.0 L Source Can					
P0804386-014.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);
Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-108(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00828

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 0.30 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.32

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.44	ND	0.17	
75-00-3	Chloroethane	ND	2.2	ND	0.83	
75-35-4	1,1-Dichloroethene	ND	2.2	ND	0.56	
75-34-3	1,1-Dichloroethane	ND	2.2	ND	0.54	
71-55-6	**1,1,1-Trichloroethane**	**8.7**	2.2	**1.6**	0.40	

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

Verified By: Ro Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-108(D)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00903

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.7 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.30

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.051	
75-00-3	Chloroethane	ND	0.65	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.65	ND	0.16	
75-34-3	**1,1-Dichloroethane**	**0.68**	0.65	**0.17**	0.16	
71-55-6	**1,1,1-Trichloroethane**	**29**	0.65	**5.3**	0.12	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-3(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma/Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00709

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09 & 1/5/09
Volume(s) Analyzed: 1.00 Liter(s)
0.20 Liter(s)

Initial Pressure (psig): -1.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**0.39**	0.14	**0.15**	0.054	
75-00-3	**Chloroethane**	**1.5**	0.69	**0.58**	0.26	
75-35-4	**1,1-Dichloroethene**	**200**	0.69	**52**	0.17	
75-34-3	**1,1-Dichloroethane**	**38**	0.69	**9.4**	0.17	
71-55-6	**1,1,1-Trichloroethane**	**100**	0.69	**19**	0.13	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-6(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma/Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00536

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09 & 1/5/09
Volume(s) Analyzed: 0.070 Liter(s)
0.025 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.31

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**7.2**	1.9	**2.8**	0.73	
75-00-3	**Chloroethane**	**11**	9.4	**4.2**	3.5	
75-35-4	**1,1-Dichloroethene**	**2,400**	9.4	**600**	2.4	
75-34-3	**1,1-Dichloroethane**	**860**	9.4	**210**	2.3	
71-55-6	**1,1,1-Trichloroethane**	**1,700**	9.4	**310**	1.7	

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

Verified By: RC Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-6(D)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00957

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 0.035 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.31

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**15**	3.7	**6.0**	1.5	
75-00-3	Chloroethane	ND	19	ND	7.1	
75-35-4	**1,1-Dichloroethene**	**3,800**	19	**960**	4.7	
75-34-3	**1,1-Dichloroethane**	**2,100**	19	**510**	4.6	
71-55-6	**1,1,1-Trichloroethane**	**3,100**	19	**570**	3.4	

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

Verified By: RC Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-101(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00351

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.32

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
75-00-3	Chloroethane	ND	0.66	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.66	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.66	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.66	ND	0.12	

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

Verified By: Rc Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-102(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00299

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
75-00-3	Chloroethane	ND	0.70	ND	0.26	
75-35-4	1,1-Dichloroethene	ND	0.70	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.70	ND	0.17	
71-55-6	**1,1,1-Trichloroethane**	**1.9**	0.70	**0.35**	0.13	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-102(D)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00333

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.25

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.049	
75-00-3	Chloroethane	ND	0.63	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.63	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.63	ND	0.15	
71-55-6	**1,1,1-Trichloroethane**	**2.8**	0.63	**0.52**	0.11	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-103(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00315

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.27

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.050	
75-00-3	Chloroethane	ND	0.64	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.64	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.64	ND	0.16	
71-55-6	**1,1,1-Trichloroethane**	**4.1**	0.64	**0.75**	0.12	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-104(D)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00141

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.27

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.050	
75-00-3	Chloroethane	ND	0.64	ND	0.24	
75-35-4	**1,1-Dichloroethene**	**0.73**	0.64	**0.18**	0.16	
75-34-3	1,1-Dichloroethane	ND	0.64	ND	0.16	
71-55-6	**1,1,1-Trichloroethane**	**27**	0.64	**5.0**	0.12	

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

Verified By: Rc Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-104(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00565

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): 1.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.15

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.12	ND	0.045	
75-00-3	Chloroethane	ND	0.58	ND	0.22	
75-35-4	1,1-Dichloroethene	ND	0.58	ND	0.15	
75-34-3	1,1-Dichloroethane	ND	0.58	ND	0.14	
71-55-6	**1,1,1-Trichloroethane**	**21**	0.58	**3.9**	0.11	

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

Verified By: Rec Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-106(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00683

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.7 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.30

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.051	
75-00-3	Chloroethane	ND	0.65	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.65	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.65	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.65	ND	0.12	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-107(S)**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-013

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00432

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.29

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.050	
75-00-3	Chloroethane	ND	0.65	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.65	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.65	ND	0.16	
71-55-6	**1,1,1-Trichloroethane**	**12**	0.65	**2.2**	0.12	

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

Verified By: RC Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **AA-123008**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-014

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00719

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.75	ND	0.43	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.3**	0.75	**0.46**	0.15	
74-87-3	Chloromethane	ND	0.75	ND	0.36	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.75	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.058	
106-99-0	1,3-Butadiene	ND	0.75	ND	0.34	
74-83-9	Bromomethane	ND	0.75	ND	0.19	
75-00-3	Chloroethane	ND	0.75	ND	0.28	
64-17-5	Ethanol	ND	7.5	ND	4.0	
75-05-8	Acetonitrile	ND	0.75	ND	0.44	
107-02-8	Acrolein	ND	0.75	ND	0.33	
67-64-1	Acetone	ND	7.5	ND	3.1	
75-69-4	**Trichlorofluoromethane**	**1.3**	0.75	**0.23**	0.13	
107-13-1	Acrylonitrile	ND	0.75	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.75	ND	0.19	
75-09-2	Methylene Chloride	ND	0.75	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.75	ND	0.24	
76-13-1	Trichlorotrifluoroethane	ND	0.75	ND	0.097	
75-15-0	Carbon Disulfide	ND	0.75	ND	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	0.75	ND	0.19	
75-34-3	1,1-Dichloroethane	ND	0.75	ND	0.18	
1634-04-4	Methyl tert-Butyl Ether	ND	0.75	ND	0.21	
108-05-4	Vinyl Acetate	ND	7.5	ND	2.1	
78-93-3	2-Butanone (MEK)	ND	0.75	ND	0.25	

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

Verified By: Ro Date: 1/6/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **AA-123008**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-014

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00719

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.75	ND	0.19	
141-78-6	Ethyl Acetate	ND	1.5	ND	0.41	
110-54-3	n-Hexane	ND	0.75	ND	0.21	
67-66-3	Chloroform	ND	0.75	ND	0.15	
109-99-9	Tetrahydrofuran (THF)	ND	0.75	ND	0.25	
107-06-2	1,2-Dichloroethane	ND	0.75	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.75	ND	0.14	
71-43-2	Benzene	ND	0.75	ND	0.23	
56-23-5	**Carbon Tetrachloride**	**0.51**	0.15	**0.080**	0.024	
110-82-7	Cyclohexane	ND	1.5	ND	0.43	
78-87-5	1,2-Dichloropropane	ND	0.75	ND	0.16	
75-27-4	Bromodichloromethane	ND	0.75	ND	0.11	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.75	ND	0.21	
80-62-6	Methyl Methacrylate	ND	1.5	ND	0.36	
142-82-5	n-Heptane	ND	0.75	ND	0.18	
10061-01-5	cis-1,3-Dichloropropene	ND	0.75	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.75	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.75	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.75	ND	0.14	
108-88-3	**Toluene**	**0.88**	0.75	**0.23**	0.20	
591-78-6	2-Hexanone	ND	0.75	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.75	ND	0.087	
106-93-4	1,2-Dibromoethane	ND	0.75	ND	0.097	
123-86-4	n-Butyl Acetate	ND	0.75	ND	0.16	

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

Verified By: RC Date: 1/6/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **AA-123008**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P0804386-014

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00719

Date Collected: 12/30/08
Date Received: 12/31/08
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.75	ND	0.16	
127-18-4	Tetrachloroethene	ND	0.75	ND	0.11	
108-90-7	Chlorobenzene	ND	0.75	ND	0.16	
100-41-4	Ethylbenzene	ND	0.75	ND	0.17	
179601-23-1	m,p-Xylenes	ND	1.5	ND	0.34	
75-25-2	Bromoform	ND	0.75	ND	0.072	
100-42-5	Styrene	ND	0.75	ND	0.18	
95-47-6	o-Xylene	ND	0.75	ND	0.17	
111-84-2	n-Nonane	ND	0.75	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.75	ND	0.11	
98-82-8	Cumene	ND	0.75	ND	0.15	
80-56-8	alpha-Pinene	ND	0.75	ND	0.13	
103-65-1	n-Propylbenzene	ND	0.75	ND	0.15	
622-96-8	4-Ethyltoluene	ND	0.75	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.75	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.75	ND	0.15	
100-44-7	Benzyl Chloride	ND	0.75	ND	0.14	
541-73-1	1,3-Dichlorobenzene	ND	0.75	ND	0.12	
106-46-7	1,4-Dichlorobenzene	ND	0.75	ND	0.12	
95-50-1	1,2-Dichlorobenzene	ND	0.75	ND	0.12	
5989-27-5	d-Limonene	ND	0.75	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.75	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.75	ND	0.10	
91-20-3	Naphthalene	ND	0.75	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.75	ND	0.070	

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

Verified By: RG Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P090102-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

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

Verified By: Ee Date: 1/9/09

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P090102-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

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

Verified By: Re Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P090102-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/2/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

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

Verified By: RC Date: 1/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0804386
CAS Sample ID: P090105-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	

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

Verified By: Re Date: 1/6/09

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

October 31, 2008

Susan Boyle
Haley & Aldrich, Inc.
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Coopervision / 70665-014

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on October 16, 2008. For your reference, these analyses have been assigned our service request number P0803421.

All Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 26 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

Client:	Haley & Aldrich, Inc.	CAS Project No:	P0803421
Project:	Coopervision / 70665-014	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on October 16, 2008 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Project: Coopervision 70665-014

Folder: P0803421

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
P0803421-001.01	SV-1	6.0 L-Summa Canister Source	-2.3	-1.1	3.5				SC00366	**10567**	OA00177	**10567**
P0803421-002.01	SV-2	6.0 L-Summa Canister Source	-1.3	-0.6	3.5				SC00655	**10567**	OA00451	**10567**
P0803421-003.01	SV-3 (S)	6.0 L-Summa Canister Source	-4.2	-2.1	3.5				SC00960	**10567**	OA00122	**10567**
P0803421-004.01	SV-3 (D)	6.0 L-Summa Canister Source	-3.8	-1.9	3.5				SC00519	**10567**	OA00168	**10567**
P0803421-005.01	SV-4 (S)	6.0 L-Summa Canister Source	-2.8	-1.4	3.5				SC00669	**10567**	OA00429	**10567**
P0803421-006.01	SV-4 (D)	6.0 L-Summa Canister Source	-2.7	-1.3	3.5				SC01037	**10567**	OA00093	**10567**
P0803421-007.01	SV-5 (S)	6.0 L-Summa Canister Source	-2.1	-1.0	3.5				SC00473	**10567**	OA00418	**10567**
P0803421-008.01	SV-5 (D)	6.0 L-Summa Canister Source	-3.3	-1.6	3.6				SC00037	**10567**	OA00175	**10567**
P0803421-009.01	SV-6 (S)	6.0 L-Summa Canister Source	-3.8	-1.9	3.9				SC00984	**10567**	OA00059	**10567**
P0803421-010.01	SV-6 (D)	6.0 L-Summa Canister Source	-4.3	-2.1	3.5				SC00847	**10567**	OA00208	**10567**
P0803421-011.01	SV-7 (S)	6.0 L-Summa Canister Source	-4.5	-2.2	3.5				SC00714	**10567**	OA00403	**10567**
P0803421-012.01	AA-101408	6.0 L-Summa Canister Ambient	-7.0	-3.4	3.4				AC00796	**10567**	FC00097	**10567**
P0803421-013.01	SC00002	6.0 L-Summa Canister Source	-29.6	-14.5					SC00002	**10567**		
P0803421-014.01	SC00173	6.0 L-Summa Canister Source	-29.6	-14.5					SC00173	**10567**		
P0803421-015.01	SC00867	6.0 L-Summa Canister Source	-29.6	-14.5					SC00867	**10567**		
P0803421-016.01	SC00322	6.0 L-Summa Canister Source	-29.6	-14.5					SC00322	**10567**		
P0803421-017.01	AC01489	6.0 L-Summa Canister Ambient	-29.1	-14.3					AC01489	**10567**		
P0803421-018.01	SC00957	6.0 L-Summa Canister Source	-27.0	-13.3					SC00957	**10567**		
P0803421-019.01	SC01029	6.0 L-Summa Canister Source	-6.6	-3.2					SC01029	**10567**		
P0803421-020.01	SC00979	6.0 L-Summa Canister Source		0.3					SC00979	**10567**		

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #

Miscellaneous Items - received

FC00518
AVG00750
OA00144
OA00449
AVG00823
AVG00558
AVG00666
AVG00587
AVG01017
AVG00544
AVG00687
OA00178
AVG00652
AVG00331
AVG00644
AVG00214
OA00011
AVG00713
AVG00869
OA00448
OA00406
OA00405
AVG00728
AVG00126
AVG00102
AVG00256
AVG00496
AVG00682

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #

Air - Chain of Custody Record & Analytical Service Request

Columbia Analytical Services INC.
An Employee - Owned Company
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. P080321

Company Name & Address (Reporting Information): Haley + Aldrich, 200 Town Centre Dr, Suite 2, Rochester NY, 14623

Project Name: Coopervision

Project Number: 70665-014

Project Manager: Sue Boyle

P.O. # / Billing Information: 70665-014 Bill to address above attn: Sue Boyle

Phone: 585-321-4219 Fax: 585-486-8219

Email Address for Result Reporting: cdebergalis@haleyaldrich.com

Sampler (Print & Sign): Ethan Lee EtA Lee

CAS Contact: Karen Burker / Kate Aguilera

Analysis Method and/or Analytes: 1,1-DCA, 1,1-DCE, 1,1,1-TCA, chloroethane, VC only TO-15 VOCs — TO-15 TCL VOCs

Client Sample ID	Laboratory ID Number	Date Collected 2008	Time Collected	Sample Type (Air/Tube/Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	Comments e.g. Actual Preservative or specific instructions
SV-1	1-23	10/14	1050	Air	SC00366	OA00177	6L	Please Run
SV-2	2-1.3		1049		SC00665	OA00451		TCE, Carbon
SV-3(S)	3-4.2		1415		SC00960	OA00122		Tetrachloride,
SV-3 (D)	4-3.8		1416		SC00519	OA00168		& Vinyl Chloride
SV-4 (S)	5-2.8		1153		SC00669	OA00429		@ low det.
SV-4 (D)	6-2.7		1152		SC01037	OA00093		limit
SV-5 (S)	7-2.1		1056		SC00473	OA00418		(0.25 ug/m3)
SV-5 (D)	8-3.3		1057		SC00037	OA00175		
SV-6 (S)	9-3.8		1323		SC00984	OA00059		
SV-6 (D)	10-4.3		1326		SC00847	OA00208		
SV-7 (S)	11-4.5	↓	1224	↓	SC00714	OA00403	↓	
AA-101408	12-7.0	↓	1501	↓	AC00796	FC00097	↓	EDL
	-24.6							
	-29.1							
	-27.0 -6.6							

Report Tier Levels - please select X no3
Tier I - (Results/Default if not specified) X
Tier II - (Results + QC) _____
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) _____
EDD required Yes / No
Type: _____
EDD Units: ug/m3 - ppbv

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Ethan Lee	10/14/08	1600			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
				10/15/08	0940
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank

Temperature °C

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0803421

Project: Coopervision / 70665-014

Sample(s) received on: 10/16/08 Date opened: 10/16/08 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
5	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
6	Was **sample volume** received adequate for analysis?	☒	☐	☐
7	Are samples within specified holding times?	☒	☐	☐
8	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
9	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: Serial # _____ -TB _____			
10	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
11	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
12	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
13	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0803421-001.01	6.0 L Source Can					
P0803421-002.01	6.0 L Source Can					
P0803421-003.01	6.0 L Source Can					
P0803421-004.01	6.0 L Source Can					
P0803421-005.01	6.0 L Source Can					
P0803421-006.01	6.0 L Source Can					
P0803421-007.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0803421

Project: Coopervision / 70665-014

Sample(s) received on: 10/16/08 Date opened: 10/16/08 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0803421-008.01	6.0 L Source Can					
P0803421-009.01	6.0 L Source Can					
P0803421-010.01	6.0 L Source Can					
P0803421-011.01	6.0 L Source Can					
P0803421-012.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);
Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-1**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00366

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 0.045 Liter(s)
0.025 Liter(s)

Initial Pressure (psig): -1.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	3.0	ND	1.2	
75-00-3	Chloroethane	ND	15	ND	5.6	
75-35-4	**1,1-Dichloroethene**	**160**	15	**41**	3.8	
75-34-3	**1,1-Dichloroethane**	**120**	15	**31**	3.7	
71-55-6	**1,1,1-Trichloroethane**	**3,800**	15	**700**	2.7	

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-2**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00655

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.29

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.050	
75-00-3	**Chloroethane**	**2.0**	0.65	**0.74**	0.24	
75-35-4	1,1-Dichloroethene	ND	0.65	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.65	ND	0.16	
71-55-6	**1,1,1-Trichloroethane**	**1.9**	0.65	**0.35**	0.12	

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

Verified By: RC Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-3 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00960

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 0.080 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**6.9**	1.8	**2.7**	0.70	
75-00-3	Chloroethane	ND	9.0	ND	3.4	
75-35-4	**1,1-Dichloroethene**	**1,600**	9.0	**390**	2.3	
75-34-3	**1,1-Dichloroethane**	**680**	9.0	**170**	2.2	
71-55-6	**1,1,1-Trichloroethane**	**1,400**	9.0	**260**	1.7	

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

Verified By: Rc Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-3 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00519

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 0.035 Liter(s)

Initial Pressure (psig): -1.9 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.42

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**16**	4.1	**6.4**	1.6	
75-00-3	**Chloroethane**	**28**	20	**10**	7.7	
75-35-4	**1,1-Dichloroethene**	**4,000**	20	**1,000**	5.1	
75-34-3	**1,1-Dichloroethane**	**2,200**	20	**540**	5.0	
71-55-6	**1,1,1-Trichloroethane**	**3,400**	20	**620**	3.7	

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-4 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00669

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Initial Pressure (psig): -1.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
75-00-3	Chloroethane	ND	0.69	ND	0.26	
75-35-4	**1,1-Dichloroethene**	**20**	0.69	**4.9**	0.17	
75-34-3	**1,1-Dichloroethane**	**11**	0.69	**2.8**	0.17	
71-55-6	**1,1,1-Trichloroethane**	**290**	0.69	**53**	0.13	

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-4 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC01037

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/23/08
Volume(s) Analyzed: 0.35 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.39	ND	0.15	
75-00-3	Chloroethane	ND	1.9	ND	0.74	
75-35-4	**1,1-Dichloroethene**	**34**	1.9	**8.7**	0.49	
75-34-3	**1,1-Dichloroethane**	**28**	1.9	**7.0**	0.48	
71-55-6	**1,1,1-Trichloroethane**	**340**	1.9	**63**	0.36	

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

Verified By: RC Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-5 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00473

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.0 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.33

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
75-00-3	Chloroethane	ND	0.67	ND	0.25	
75-35-4	**1,1-Dichloroethene**	**4.3**	0.67	**1.1**	0.17	
75-34-3	**1,1-Dichloroethane**	**1.2**	0.67	**0.29**	0.16	
71-55-6	**1,1,1-Trichloroethane**	**130**	0.67	**24**	0.12	

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

Verified By: Rec Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-5 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00037

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22 - 10/23/08
Volume(s) Analyzed: 1.00 Liter(s)
0.10 Liter(s)

Initial Pressure (psig): -1.6 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.055	
75-00-3	Chloroethane	ND	0.70	ND	0.27	
75-35-4	**1,1-Dichloroethene**	**3.0**	0.70	**0.76**	0.18	
75-34-3	1,1-Dichloroethane	ND	0.70	ND	0.17	
71-55-6	**1,1,1-Trichloroethane**	**150**	0.70	**28**	0.13	

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

Verified By: RC Date: 10/24/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-6 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00984

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 0.025 Liter(s)

Initial Pressure (psig): -1.9 Final Pressure (psig): 3.9

Canister Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**23**	5.8	**9.0**	2.3	
75-00-3	Chloroethane	ND	29	ND	11	
75-35-4	**1,1-Dichloroethene**	**5,100**	29	**1,300**	7.3	
75-34-3	**1,1-Dichloroethane**	**3,200**	29	**800**	7.2	
71-55-6	**1,1,1-Trichloroethane**	**5,100**	29	**940**	5.3	

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

Verified By: _____ Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-6 (D)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-010

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00847

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 0.015 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	**Vinyl Chloride**	**34**	9.6	**13**	3.8	
75-00-3	Chloroethane	ND	48	ND	18	
75-35-4	**1,1-Dichloroethene**	**5,600**	48	**1,400**	12	
75-34-3	**1,1-Dichloroethane**	**3,900**	48	**950**	12	
71-55-6	**1,1,1-Trichloroethane**	**5,900**	48	**1,100**	8.8	

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

Verified By: RC Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-7 (S)**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00714

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.2 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.15	ND	0.057	
75-00-3	Chloroethane	ND	0.73	ND	0.28	
75-35-4	1,1-Dichloroethene	ND	0.73	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.73	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.73	ND	0.13	

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

Verified By: _____ Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **AA-101408**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00796

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.4 Final Pressure (psig): 3.4

Canister Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.80	ND	0.47	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.4**	0.80	**0.48**	0.16	
74-87-3	Chloromethane	ND	0.80	ND	0.39	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.80	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.16	ND	0.063	
106-99-0	1,3-Butadiene	ND	0.80	ND	0.36	
74-83-9	Bromomethane	ND	0.80	ND	0.21	
75-00-3	Chloroethane	ND	0.80	ND	0.30	
64-17-5	**Ethanol**	**12**	8.0	**6.6**	4.2	
75-05-8	Acetonitrile	ND	0.80	ND	0.48	
107-02-8	Acrolein	ND	0.80	ND	0.35	
67-64-1	**Acetone**	**18**	8.0	**7.7**	3.4	
75-69-4	**Trichlorofluoromethane**	**1.2**	0.80	**0.21**	0.14	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**1.6**	0.80	**0.65**	0.33	
107-13-1	Acrylonitrile	ND	0.80	ND	0.37	
75-35-4	1,1-Dichloroethene	ND	0.80	ND	0.20	
75-09-2	Methylene Chloride	ND	0.80	ND	0.23	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.80	ND	0.26	
76-13-1	Trichlorotrifluoroethane	ND	0.80	ND	0.10	
75-15-0	Carbon Disulfide	ND	0.80	ND	0.26	
156-60-5	trans-1,2-Dichloroethene	ND	0.80	ND	0.20	
75-34-3	1,1-Dichloroethane	ND	0.80	ND	0.20	
1634-04-4	Methyl tert-Butyl Ether	ND	0.80	ND	0.22	
108-05-4	Vinyl Acetate	ND	8.0	ND	2.3	
78-93-3	**2-Butanone (MEK)**	**1.5**	0.80	**0.51**	0.27	

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

Verified By: RC Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **AA-101408**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00796

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.4 Final Pressure (psig): 3.4

Canister Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.80	ND	0.20	
141-78-6	**Ethyl Acetate**	**3.6**	0.80	**0.99**	0.22	
110-54-3	n-Hexane	ND	0.80	ND	0.23	
67-66-3	Chloroform	ND	0.80	ND	0.16	
109-99-9	Tetrahydrofuran (THF)	ND	0.80	ND	0.27	
107-06-2	1,2-Dichloroethane	ND	0.80	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	0.80	ND	0.15	
71-43-2	Benzene	ND	0.80	ND	0.25	
56-23-5	**Carbon Tetrachloride**	**0.51**	0.16	**0.082**	0.025	
110-82-7	Cyclohexane	ND	0.80	ND	0.23	
78-87-5	1,2-Dichloropropane	ND	0.80	ND	0.17	
75-27-4	Bromodichloromethane	ND	0.80	ND	0.12	
79-01-6	Trichloroethene	ND	0.16	ND	0.030	
123-91-1	1,4-Dioxane	ND	0.80	ND	0.22	
80-62-6	Methyl Methacrylate	ND	0.80	ND	0.20	
142-82-5	n-Heptane	ND	0.80	ND	0.20	
10061-01-5	cis-1,3-Dichloropropene	ND	0.80	ND	0.18	
108-10-1	4-Methyl-2-pentanone	ND	0.80	ND	0.20	
10061-02-6	trans-1,3-Dichloropropene	ND	0.80	ND	0.18	
79-00-5	1,1,2-Trichloroethane	ND	0.80	ND	0.15	
108-88-3	**Toluene**	**1.1**	0.80	**0.29**	0.21	
591-78-6	2-Hexanone	ND	0.80	ND	0.20	
124-48-1	Dibromochloromethane	ND	0.80	ND	0.094	
106-93-4	1,2-Dibromoethane	ND	0.80	ND	0.10	
123-86-4	n-Butyl Acetate	ND	0.80	ND	0.17	

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

Verified By: Rc Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **AA-101408**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P0803421-012

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00796

Date Collected: 10/14/08
Date Received: 10/16/08
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.4 Final Pressure (psig): 3.4

Canister Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.80	ND	0.17	
127-18-4	Tetrachloroethene	ND	0.80	ND	0.12	
108-90-7	Chlorobenzene	ND	0.80	ND	0.17	
100-41-4	Ethylbenzene	ND	0.80	ND	0.18	
179601-23-1	m,p-Xylenes	ND	0.80	ND	0.18	
75-25-2	Bromoform	ND	0.80	ND	0.077	
100-42-5	Styrene	ND	0.80	ND	0.19	
95-47-6	o-Xylene	ND	0.80	ND	0.18	
111-84-2	n-Nonane	ND	0.80	ND	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.80	ND	0.12	
98-82-8	Cumene	ND	0.80	ND	0.16	
80-56-8	alpha-Pinene	ND	0.80	ND	0.14	
103-65-1	n-Propylbenzene	ND	0.80	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.80	ND	0.16	
108-67-8	1,3,5-Trimethylbenzene	ND	0.80	ND	0.16	
95-63-6	**1,2,4-Trimethylbenzene**	**1.4**	0.80	**0.28**	0.16	
100-44-7	Benzyl Chloride	ND	0.80	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	0.80	ND	0.13	
106-46-7	1,4-Dichlorobenzene	ND	0.80	ND	0.13	
95-50-1	1,2-Dichlorobenzene	ND	0.80	ND	0.13	
5989-27-5	d-Limonene	ND	0.80	ND	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.80	ND	0.083	
120-82-1	1,2,4-Trichlorobenzene	ND	0.80	ND	0.11	
91-20-3	Naphthalene	ND	0.80	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.80	ND	0.075	

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

Verified By: RC Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P081022-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

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

Verified By: RC Date: 10/29/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P081022-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 10/22/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	0.50	ND	0.12	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

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

Verified By: RC Date: 10/24/08

Client: **Haley & Aldrich, Inc.** CAS Project ID: P0803421
Client Sample ID: **Method Blank** CAS Sample ID: P081022-MB
Client Project ID: **Coopervision / 70665-014**

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 10/22/08
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

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

Verified By: RC Date: 10/24/08

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Coopervision / 70665-014**

CAS Project ID: P0803421
CAS Sample ID: P081023-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 10/23/08
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	

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

Verified By: RC Date: 10/24/08

1 Mustard Street, Suite 250 Rochester, NY 14609-6925 (585) 288-5380 (585) 288-8475 fax

Columbia Analytical Services INC.
An Employee - Owned Company

March 3, 2009

Ms. Sue Boyle
Haley & Aldrich of New York
200 Town Centre Drive Ste. 2
Rochester , NY 14623-4264

Re: Coopervision
CAS Submission #: R0900538
Revised: 3/3/09
Additional Data

Dear Ms. Boyle,

Enclosed is the analytical data report for the above referenced Project and Submission #. All samples were analyzed by the CAS- Rochester laboratory. All data was previously emailed to you on 2/19/09. At the request of Claire DeBergalis of H&A on 2/24/09, the package was upgraded to an ASPB package deliverables. All data has been reviewed prior to report submission. The full package is included here, the initial package II is equivalent to the summary package.

Please contact me at (585)-288-5380 if you have questions regarding this information.

Sincerely,
COLUMBIA ANALYTICAL SERVICES

Karen Bunker
Project Manager

Enc.

Report contians a total of 102 pages

SDG NARRATIVE

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Haley & Aldrich	**Service Request No.:**	R0900538
Project:	CooperVison #70665-014	**Date Received:**	1/30/09
Sample Matrix:	Air		

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier ASPB data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Three (3) SUMMA Canister Air samples were collected by H&A on 1/30/09 and received for analysis at Columbia Analytical Services on the same day. The samples were received in good condition and consistent with the accompanying chain of custody form.

Volatile Organic Compounds by Method TO-15

Three (3) air samples were analyzed for a client specific list of Volatile Organic compounds by GC/MS method TO-15.

The Initial and Continuing Calibration Criteria were met.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries for target compounds were within QC limits.

All data is reported in both UG/M3 and PPBv units.

All Surrogate recoveries are within acceptance limits.

All Laboratory Method Blanks were free from contamination.

Any hits between the Method Reporting Limit (MRL) and Minimum Detection Limit (MDL) are flagged as "J".

No other problems were encountered during the analysis of these samples.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details contained above Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Approved by Karen Bunker **Date** 3/3/09

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 70665-014 Airs	Batch Complete: Yes	Date Revised:
Submission: R0900538	Diskette Requested: No	Date Due: 2/16/09
Client: Haley & Aldrich, Incorporated	Date: 2/24/09	Protocol: EPA
Client Rep: KBUNKER	Custody Seal: Present/Absent:	Shipping No.:
Project: Coopervision	Chain of Custody: Present/Absent:	

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R0900538-001	SV-INA10	Air	TO-15	1/30/09	1/30/09			
R0900538-002	SV-OUTA10	Air	TO-15	1/30/09	1/30/09			
R0900538-003	SV-SS10	Air	TO-15	1/30/09	1/30/09			

Folder Comments:

Columbia Analytical Services™

REPORT QUALIFIERS

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. The flag is used either when estimating a concentration for tentatively identified compounds, or when the concentration is less than the reporting limit and greater than the MDL (concentrations are not verified within the initial calibration range).

For DoD reports, the J-flag may also be used to indicate that the concentration between two columns for pesticides/Aroclors is greater than 40% difference.

B - Indicates this compound was also detected in the associated method blank at a concentration that may have contributed to the sample result.

B- Metals - Indicates an estimated value. The concentration is less than the reporting limit and greater than the MDL (concentrations are not verified within the initial calibration range).

E - Indicates that the sample concentration had exceeded the calibration range for that specific analysis.

D - Indicates the sample concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range.

* - Indicates that a quality control parameter has exceeded laboratory limits.

X - See Case Narrative for discussion.

P - This flag is used for a pesticide/Aroclor target concentration when there is a greater than 40% (25% for CLP) difference for detected concentrations between the two GC columns.

For DoD reports, the J-flag is used instead of "P".

N - Inorganics- Indicates the matrix spike recovery was outside laboratory limits.

N- Organics- Indicates presumptive evidence of a compound (reported as a tentatively identified compound) based on the mass spectral library search.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for State Certifications[1]

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Navy Facilities Engineering Service Center Approved
Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158
West Virginia ID # 292

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

CHAINS OF CUSTODY

INTERNAL CHAINS

Air - Chain of Custody Record & Analysis

Columbia Analytical Services, Inc.
1 Mustard Street, Suite 250
Rochester, New York 14609-6925
Phone (585) 288-5380
Fax (585) 288-8475

Requested Turnaround Time in Business Days From Receipt, please circle
1 Day 2 Day 3 Day 4 Day 5 Day (10 Day-Standard)

CAS Project No.

Company Name & Address (Reporting Information)
Haley & Aldrich

Project Name: CooperVision
Project Number:

Project Manager: S. Boyle

P.O. # / Billing Information: 70665-014

Phone: 321-4922
Fax:

Email Address for Result Reporting:

Sampler (Print & Sign): Christina Ondak

CAS Contact:

Analysis Method and/or Analytes

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Sample Final Vacuum	TO-15				Comments Specific Instructions
SV-1nA1O	001	01/30	1416-1610	00100	00723	4	X				
SV-2nA1O	002	↓	1419-1605	00039	00724	3	X				
SV-SS1O	003		1430-1615	00041	00729	4	X				

Report Tier Levels - please select
Tier I - (Results/Default if not specified) ____
Tier II (Results + QC) ____
Tier III (CLP Forms Only) ____
Tier IV (Data Validation) ____

EDD required Yes / No
Type: ____
EDD Units: ____

Project Requirements (MRLs, QAPP)
R0900538

	Date	Time		Date	Time
Relinquished by: (Signature) Christina Ondak	01/30	1630	Received by: (Signature)	1-30-09	16:30
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler Receipt And Preservation Check Form

Project/Client H+A Submission Number R0900538

Cooler received on 1-30-09 by: KE COURIER: CAS UPS FEDEX VELOCITY (CLIENT)

1.	Were custody seals on outside of cooler?	YES	(NO)			
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO			
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO			
4.	Did any VOA vials have significant* air bubbles?	YES	(NO)	(N/A)		
5.	Were **Ice** or **Ice packs** present?	YES	(NO)			
6.	Where did the bottles originate?	(CAS/ROC)	CLIENT			
7.	Temperature of cooler(s) upon receipt:	____	____	____	____	____
	Is the temperature within 0° - 6° C?:	Yes	Yes	Yes	Yes	Yes
	If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 1-30-09 @ 17:10

Thermometer ID: 161 / IR GUN#2 / (IR GUN#3) Reading From: Temp Blank / (Sample Bottle)

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: ____

PC Secondary Review: KB 2/2/09

Cooler Breakdown: Date: 2/2/09 by: HP

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	(Canisters Pressurized)	Tedlar® Bags Inflated N/A

Explain any discrepancies: ____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	$Na_2S_2O_3$	-	-			*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: ____

Bottle lot numbers: ____

Other Comments:

PC Secondary Review: KB 2/9/09 *significant air bubbles are greater than 5-6 mm

Columbia Analytical Services, Inc.
Chain of Custody Report

Client: Haley & Aldrich, Inc.
Project: Coopervision/70665-014 Airs

Service Request: R0900538

Bottle ID	Tests	Date	Time	Sample Location / User	Disposed On
R0900538-001.01					
	TO-15				
		2/2/09	1312	SMO / AHENTSCHKE	
		2/2/09	1639	R-A02 / KCOOK	
		2/16/09	14:16	P-Disposed / TWALTON	
					2/16/09
R0900538-002.01					
	TO-15				
		2/2/09	1312	SMO / AHENTSCHKE	
		2/2/09	1639	R-A02 / KCOOK	
		2/16/09	14:16	P-Disposed / TWALTON	
					2/16/09
R0900538-003.01					
	TO-15				
		2/2/09	1312	SMO / AHENTSCHKE	
		2/2/09	1639	R-A02 / KCOOK	
		2/16/09	14:16	P-Disposed / TWALTON	
					2/16/09

VOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-014 Airs
Sample Matrix: Air

Service Request: R0900538
Date Analyzed: 2/ 5/09

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 142047

Analyte Name	Lab Control Sample RQ0900784-01 Result	Expected	% Rec	% Rec Limits
Vinyl Chloride	**5.40**	6.45	84	70 - 130
Chloroethane	**5.86**	6.66	88	70 - 130
1,1-Dichloroethene (1,1-DCE)	**8.54**	10.7	80	70 - 130
1,1-Dichloroethane (1,1-DCA)	**9.32**	10.7	87	70 - 130
1,1,1-Trichloroethane (TCA)	**15.2**	14.3	106	70 - 130

Comments:

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK1

Lab Name: CAS/ROCH Contract: H&A

Lab Code: 10145 Case No.: R900538 SAS No.: SDG No.: SV-INA10

Lab File ID: A6458.D Lab Sample ID: METBLK

Date Analyzed: 2/5/2009 Time Analyzed: 15:32

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MS#9

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS1	LCS	A6457.D	13:06
02	SV-INA10	R0900538-001	A6459.D	18:42
03	SV-OUTA10	R0900538-002	A6460.D	19:33
04	SV-SS10	R0900538-003	A6461.D	20:23

COMMENTS:

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: H&A

Lab Code: 10145 Case No.: R900538 SAS No.: SDG No.: SV-INA10

Lab File ID: A6069.D BFB Injection Date: 11/14/2008

Instrument ID: MS#9 BFB Injection Time: 12:40

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.2
75	30.0 - 66.0% of mass 95	49.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 - 120.0% of mass 95	75.7
175	4.0 - 9.0% of mass 174	5.4 (7.2)1
176	93.0 - 101.0% of mass 174	73.6 (97.3)1
177	5.0 - 9.0% of mass 176	4.9 (6.7)2

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

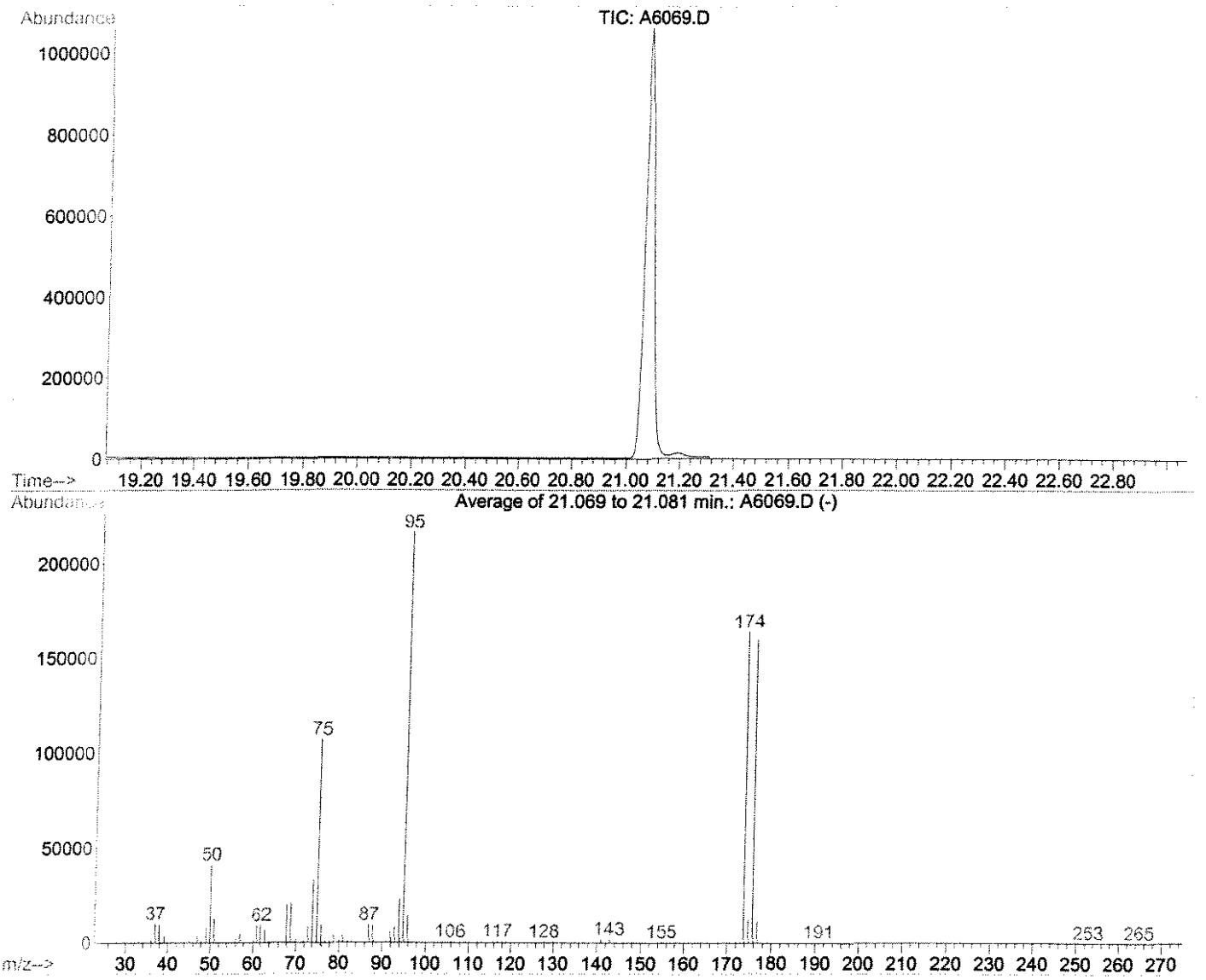
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VBLK	METBLK 1.0	A6071.D	11/14/2008	14:45
02	0.02 PPB	0.02 PPB	A6072.D	11/14/2008	15:31
03	0.095 PPB	0.095 PPB	A6073.D	11/14/2008	16:16
04	0.20 PPB	0.20 PPB	A6074.D	11/14/2008	17:01
05	0.50 PPB	0.50 PPB	A6075.D	11/14/2008	17:46
06	1.0 PPB	1.0 PPB	A6076.D	11/14/2008	18:31
07	2.5 PPB	2.5 PPB	A6077.D	11/14/2008	19:16
08	5.0 PPB	5.0 PPB	A6078.D	11/14/2008	20:02
09	7.5 PPB	7.5 PPB	A6079.D	11/14/2008	20:50
10	10.0 PPB	10.0 PPB	A6080.D	11/14/2008	21:41
11	ICV	ICV	A6081.D	11/14/2008	22:26

BFB

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6069.D Vial: 1
Acq On : 14 Nov 2008 12:40 Operator: T.WALTON
Sample : TUNE Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15

TW 11-14-08



AutoFind: Scans 2649, 2650, 2651; Background Corrected with Scan 2637

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.2	41519	PASS
75	95	30	66	49.3	106797	PASS
95	95	100	100	100.0	216683	PASS
96	95	5	9	6.8	14675	PASS
173	174	0.00	2	0.5	852	PASS
174	95	50	120	75.7	163989	PASS
175	174	4	9	7.2	11771	PASS
176	174	93	101	97.3	159531	PASS
177	176	5	9	6.7	10693	PASS

A6069.D 111408A.M Fri Nov 14 13:02:09 2008 OFFLINE

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: H&A

Lab Code: 10145 Case No.: R900538 SAS No.: SDG No.: SV-INA10

Lab File ID: A6455.D BFB Injection Date: 2/5/2009

Instrument ID: MS#9 BFB Injection Time: 11:36

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.3
75	30.0 - 66.0% of mass 95	50.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.7 (0.9)1
174	50.0 - 120.0% of mass 95	80.3
175	4.0 - 9.0% of mass 174	5.5 (6.8)1
176	93.0 - 101.0% of mass 174	76.8 (95.6)1
177	5.0 - 9.0% of mass 176	5.0 (6.6)2

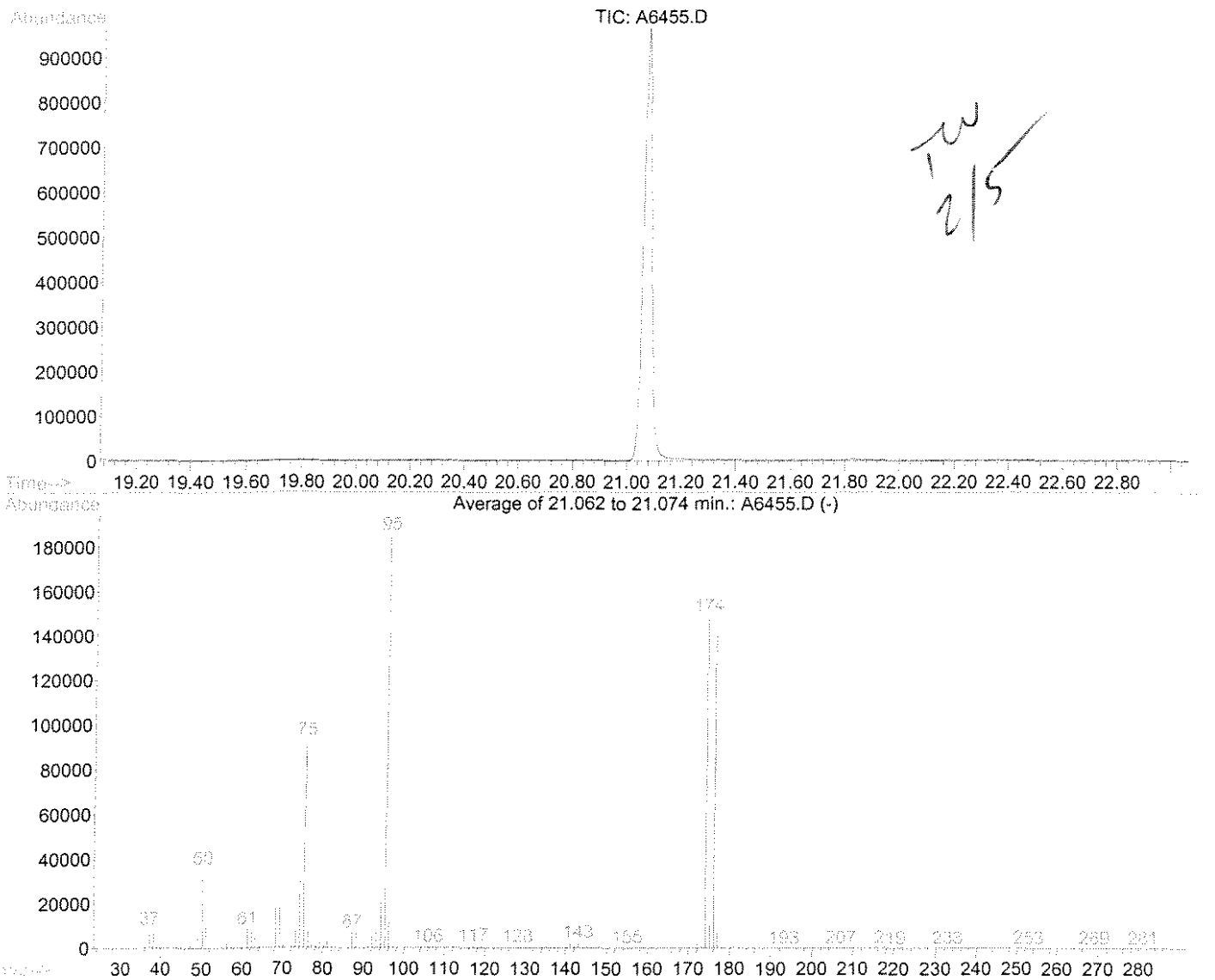
1-Value is % mass 174 2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD1	CCV	A6456.D	2/5/2009	12:21
02	LCS1	LCS	A6457.D	2/5/2009	13:06
03	VBLK1	METBLK	A6458.D	2/5/2009	15:32
04	SV-INA10	R0900538-001	A6459.D	2/5/2009	18:42
05	SV-OUTA10	R0900538-002	A6460.D	2/5/2009	19:33
06	SV-SS10	R0900538-003	A6461.D	2/5/2009	20:23

BFB

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6455.D Vial: 14
Acq On : 5 Feb 2009 11:36 Operator: T.WALTON
Sample : TUNE Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: LSCINT2.P
Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15



AutoFind: Scans 2648, 2649, 2650; Background Corrected with Scan 2636

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	35893	PASS
75	95	30	66	50.0	92909	PASS
95	95	100	100	100.0	185643	PASS
96	95	5	9	6.6	12296	PASS
173	174	0.00	2	0.9	1276	PASS
174	95	50	120	80.3	149056	PASS
175	174	4	9	6.8	10156	PASS
176	174	93	101	95.6	142507	PASS
177	176	5	9	6.6	9343	PASS

A6455.D 111408B.M Thu Feb 05 12:00:22 2009 OFFLINE

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: H&A

Lab Code: 10145 Case No.: R900538 SAS No.: SDG No.: SV-INA10

Lab File ID (Standard): A6456.D Date Analyzed: 2/5/2009

Instrument ID: MS#9 Time Analyzed: 12:21

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

		IS1		IS2		IS3	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	199630	12.23	721323	13.90	646352	18.97
	UPPER LIMIT	279482	12.73	1009852	14.40	904893	19.47
	LOWER LIMIT	119778	11.73	432794	13.40	387811	18.47
	EPA SAMPLE NO.						
01	LCS1	197552	12.23	711491	13.90	619207	18.98
02	VBLK1	194920	12.23	691141	13.90	613865	18.97
03	SV-INA10	187279	12.23	686506	13.90	606563	18.97
04	SV-OUTA10	194865	12.23	690165	13.90	608370	18.97
05	SV-SS10	193834	12.23	713308	13.90	646086	18.97

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 = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

VOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-014 Airs
Sample Matrix: Air

Service Request: R0900538
Date Collected: 1/30/09 1610
Date Received: 1/30/09

Sample Name: SV-INA10
Lab Code: R0900538-001

Analytical Method: TO-15

Date Analyzed: 2/5/09 1842
Canister Dilution Factor: 1.47

Initial Pressure (psig): -2.3 Final Pressure (psig): 3.5

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbv	MRL ppbv	MDL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.020	0.41	0.020	0.0077	0.16	0.0077	U
75-00-3	Chloroethane	1000	0.023	0.85	0.023	0.0087	0.32	0.0087	U
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	0.016	0.65	0.016	0.0040	0.16	0.0040	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.031	0.66	0.031	0.0076	0.16	0.0076	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.030	0.88	0.030	0.012	0.16	0.0056	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	2/5/09 1842	

Quantitation Report (~~Not~~ Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6459.D Vial: 2
Acq On : 5 Feb 2009 18:42 Operator: T.WALTON
Sample : R0900538-001 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 19:16 2009 Quant Results File: 111408B.RES

TW 2/13/09.

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

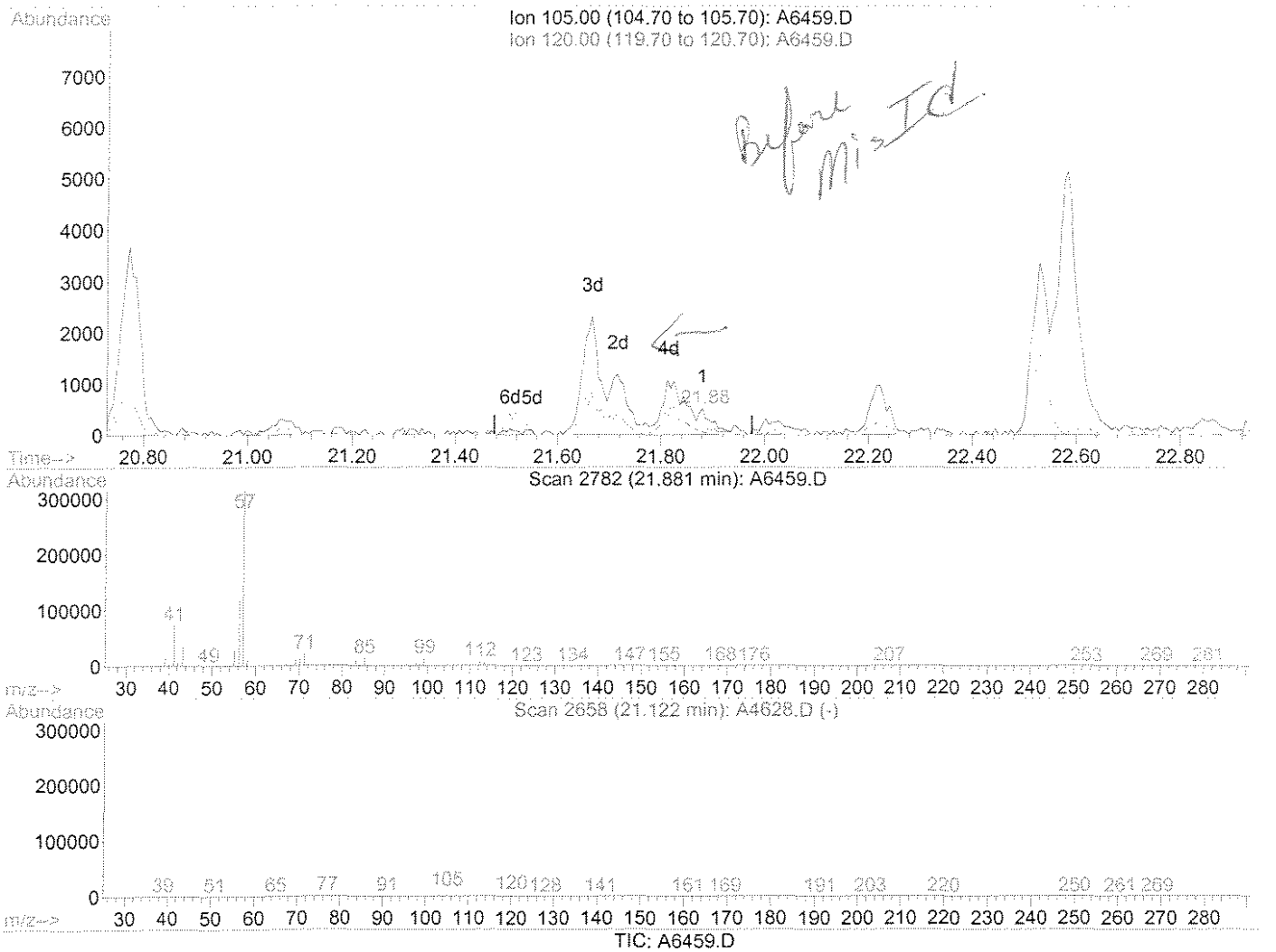
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	12.23	130	187279	13.2200	ng		0.00
28) 1,4-difluorobenzene	13.90	114	686506	11.6400	ng		0.00
48) chlorobenzene-d5	18.97	117	606563	12.0200	ng		-0.01
System Monitoring Compounds							
55) surr 1, bromofluorobenzene	21.07	174	376605	19.54	ng		-0.01
Spiked Amount 17.880	Range 70 - 130		Recovery = 109.30%				
Target Compounds							Qvalue
~~2) propylene~~	~~5.06~~	~~41~~	~~38201~~	~~0.5959~~	~~ng~~	~~#~~	~~77~~
3) dichlorodifluoromethane	5.16	85	98928	1.8391	ng		99
4) freon-114	5.51	85	4413	0.1087	ng		80
5) chloromethane	5.63	50	41118	0.8147	ng		97
7) 1,3-butadiene	6.03	54	3086	0.0754	ng		91
~~9) chloroethane~~	~~6.98~~	~~64~~	~~277~~	~~0.0133~~	~~ng~~	~~#~~	~~43~~
10) trichlorofluoromethane	7.56	101	47959	1.0288	ng		99
11) ethanol	7.97	45	171042	11.9093	ng		99
12) freon-113	8.64	101	11469	0.4737	ng		99
14) acetone	8.75	43	471487	6.2031	ng		94
15) isopropanol	9.03	45	104184	2.3358	ng		63
16) carbon disulfide	9.11	76	4960	0.0546	ng		85
17) methylene chloride	9.54	84	4158	0.1760	ng	#	76
20) hexane	10.57	57	11775	0.2410	ng		96
23) 2-butanone	11.85	43	41794	0.5100	ng		99
25) ethyl acetate	11.94	43	6123	0.0745	ng		94
26) chloroform	12.34	83	3350	0.0836	ng		99
~~27) tetrahydrofuran~~	~~12.41~~	~~72~~	~~318~~	~~0.0194~~	~~ng~~	~~#~~	~~1~~
29) 1,1,1-trichloroethane	12.70	97	1584	0.0454	ng		88
~~30) cyclohexane~~	~~12.84~~	~~56~~	~~7530~~	~~0.1498~~	~~ng~~	~~#~~	~~73~~
31) carbon tetrachloride	13.00	117	14693	0.4954	ng		99
32) 1,2-dichloroethane	13.33	62	2092	0.0648	ng		88
33) benzene	13.33	78	44853	0.4879	ng		97
34) heptane	13.71	71	6518	0.2501	ng		85
35) trichloroethene	14.39	130	439	0.0193	ng	#	87
~~36) 1,2-dichloropropane~~	~~14.77~~	~~63~~	~~1117~~	~~0.0455~~	~~ng~~	~~#~~	~~39~~
~~38) bromodichloromethane~~	~~15.18~~	~~83~~	~~398~~	~~0.0135~~	~~ng~~	~~#~~	~~18~~
~~40) 4-methyl-2-pentanone~~	~~16.20~~	~~43~~	~~1541~~	~~0.0227~~	~~ng~~	~~#~~	~~74~~
41) toluene	16.56	91	97849	1.1383	ng		96
~~43) 1,1,2-trichloroethane~~	~~17.20~~	~~97~~	~~253~~	~~0.0124~~	~~ng~~	~~#~~	~~7~~
44) tetrachloroethene	17.52	166	1433	0.0626	ng		96
45) 2-hexanone	17.62	43	1510	0.0230	ng		70
50) ethylbenzene	19.18	91	14380	0.1369	ng		99
51) M+P xylene	19.38	91	32299	0.3879	ng		97
52) O xylene	20.11	91	14243	0.1629	ng		85
53) styrene	20.12	104	32585	0.4846	ng		89
58) 1,3,5-trimethylbenzene	21.81	105	2914	0.0332	ng		92
59) 1,2,4-trimethylbenzene	22.53	105	7799	0.0908	ng		100
~~60) 1,3-dclbenz~~	~~23.27~~	~~146~~	~~30668~~	~~0.6682~~	~~ng~~		~~95~~
61) 1,4-dclbenz	23.27	146	30668	0.6769	ng		96
4-ethyl Toluene	21.72		2656	0.0249 ng (m)			TW 2/13 NT.

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6459.D Vial: 2
Acq On : 5 Feb 2009 18:42 Operator: T.WALTON
Sample : R0900538-001 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 13 14:39 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration



(57) 4-ethyltoluene

21.88min 0.0067ng

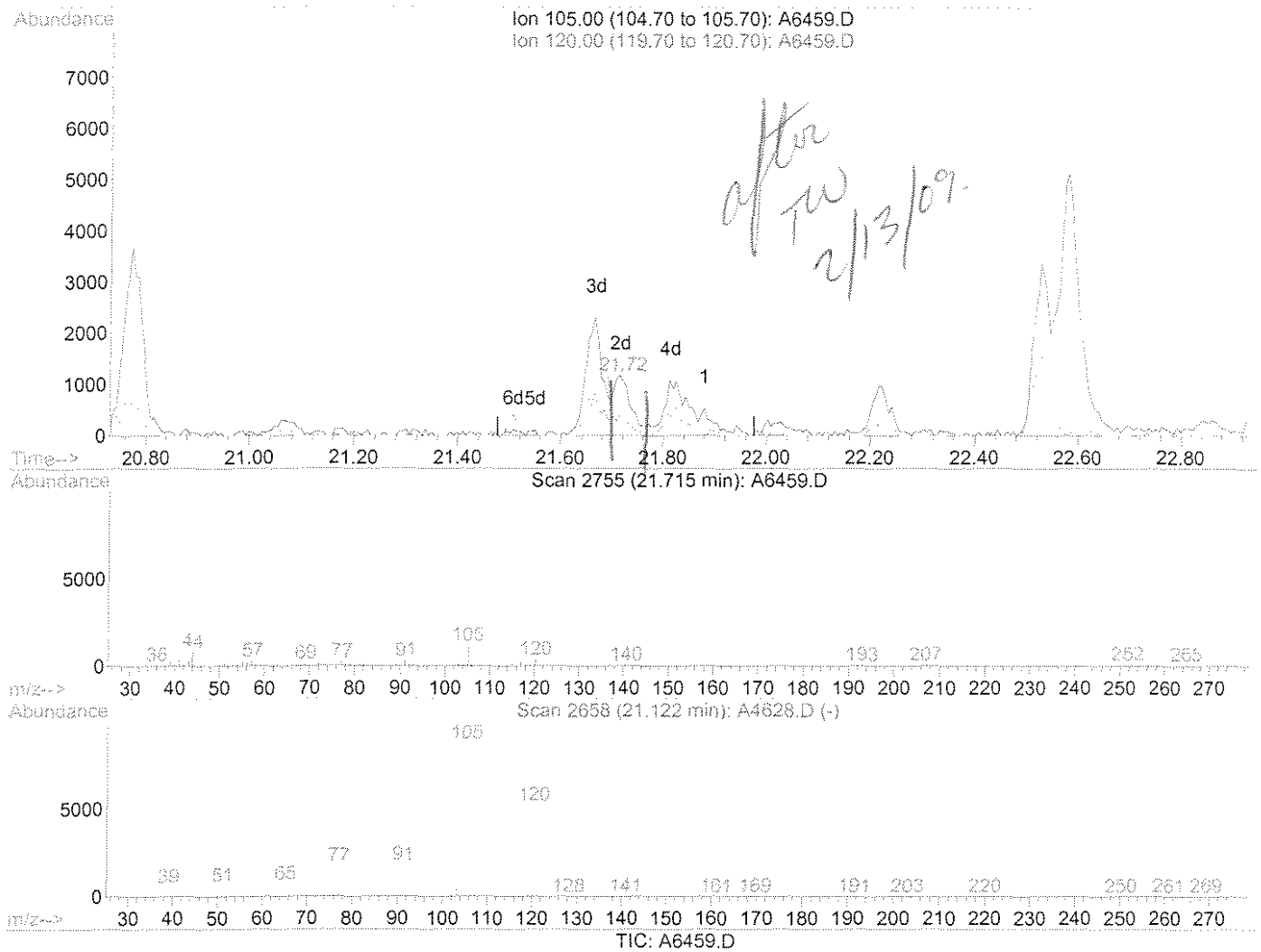
response 719

Ion	Exp%	Act%
105.00	100	100
120.00	30.20	17.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6459.D Vial: 2
Acq On : 5 Feb 2009 18:42 Operator: T.WALTON
Sample : R0900538-001 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 13 14:42 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration



(57) 4-ethyltoluene

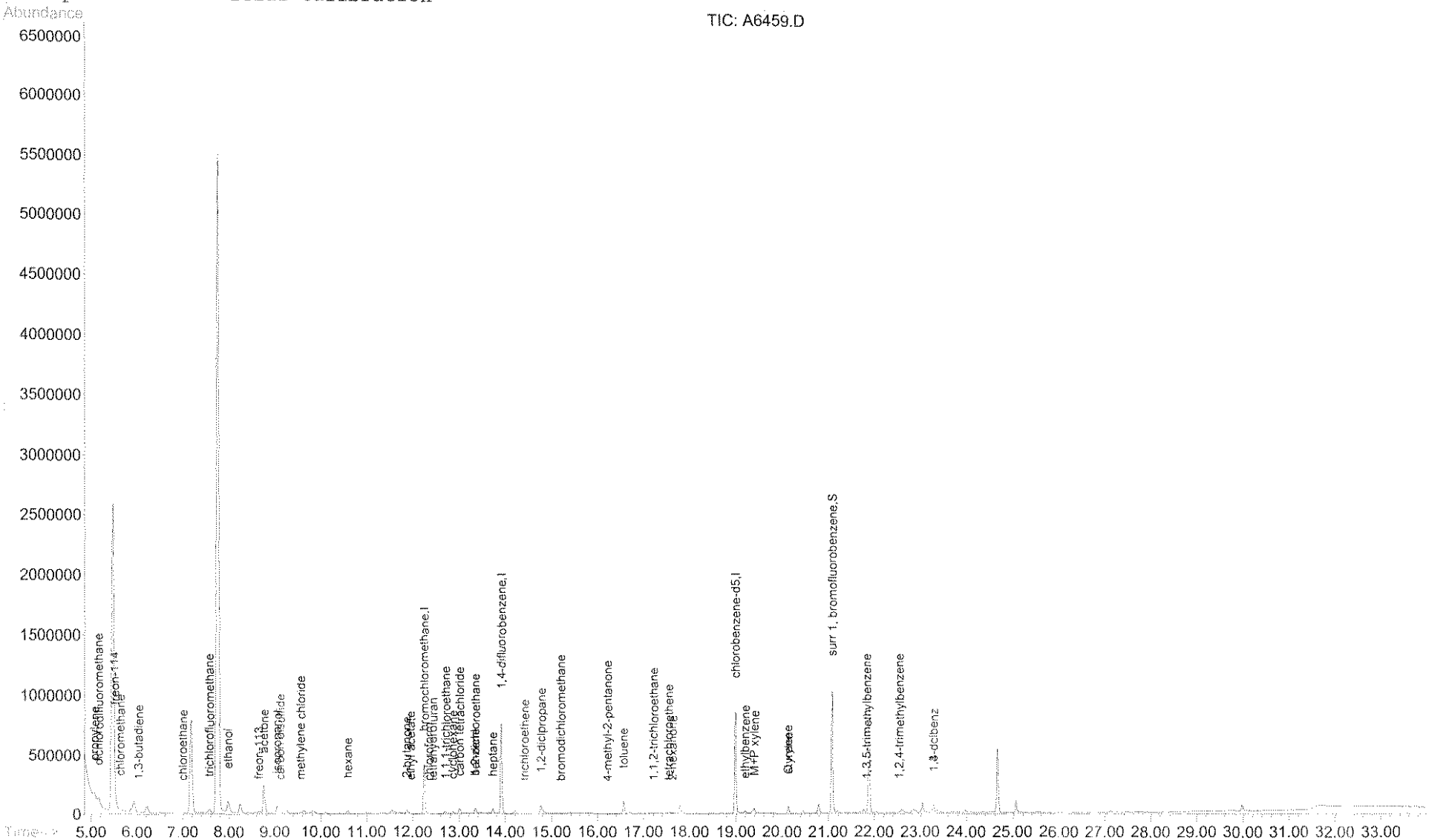
21.72min 0.0249ng m

response 2656

Ion	Exp%	Act%
105.00	100	100
120.00	30.20	4.71#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6459.D Vial: 2
Acq On : 5 Feb 2009 18:42 Operator: T.WALTON
Sample : R0900538-001 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 19:16 2009 Quant Results File: 111408B.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-014 Airs
Sample Matrix: Air

Service Request: R0900538
Date Collected: 1/30/09 1605
Date Received: 1/30/09

Sample Name: SV-OUTA10
Lab Code: R0900538-002

Analytical Method: TO-15

Date Analyzed: 2/5/09 1933
Canister Dilution Factor: 1.31

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.5

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbv	MRL ppbv	MDL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.017	0.37	0.017	0.0068	0.14	0.0068	U
75-00-3	Chloroethane	1000	0.020	0.76	0.020	0.0077	0.29	0.0077	U
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	0.014	0.58	0.014	0.0035	0.15	0.0035	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.028	0.59	0.028	0.0068	0.15	0.0068	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.027	0.79	0.027	0.012	0.14	0.0050	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	108	70-130	2/5/09 1933	

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6460.D Vial: 3
Acq On : 5 Feb 2009 19:33 Operator: T.WALTON
Sample : R0900538-002 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -1.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 20:07 2009 Quant Results File: 111408B.RES

TW 2/15

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) bromochloromethane	12.23	130	194865	13.2200 ng		0.00
28) 1,4-difluorobenzene	13.90	114	690165	11.6400 ng		0.00
48) chlorobenzene-d5	18.97	117	608370	12.0200 ng		0.00
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.07	174	374564	19.38 ng		0.00
Spiked Amount 17.880	Range 70 - 130		Recovery = 108.38%			
Target Compounds						Qvalue
~~2) propylene~~	~~5.07~~	~~41~~	~~48077~~	~~0.7207 ng~~	~~#~~	~~68~~
3) dichlorodifluoromethane	5.16	85	115892	2.0705 ng		100
4) freon-114	5.50	85	4459	0.1056 ng		92
5) chloromethane	5.62	50	40672	0.7745 ng		100
~~7) 1,3-butadiene~~	~~6.02~~	~~54~~	~~1001~~	~~0.0235 ng~~	~~#~~	~~18~~
8) bromomethane	6.73	94	404	0.0176 ng		89
10) trichlorofluoromethane	7.56	101	52880	1.0903 ng		100
11) ethanol	8.05	45	30470	2.0390 ng		96
12) freon-113	8.64	101	12736	0.5056 ng		98
14) acetone	8.77	43	220396	2.7867 ng		94
16) carbon disulfide	9.11	76	1005	0.0106 ng	#	75
17) methylene chloride	9.56	84	4187	0.1703 ng	#	75
20) hexane	10.57	57	5320	0.1047 ng		99
23) 2-butanone	11.86	43	28479	0.3340 ng		100
25) ethyl acetate	11.93	43	2792	0.0326 ng		97
26) chloroform	12.34	83	2028	0.0486 ng		93
29) 1,1,1-trichloroethane	12.70	97	1746	0.0498 ng		98
~~30) cyclohexane~~	~~12.84~~	~~56~~	~~4050~~	~~0.0801 ng~~	~~#~~	~~76~~
31) carbon tetrachloride	13.01	117	15357	0.5150 ng		99
32) 1,2-dichloroethane	13.33	62	1853	0.0571 ng		92
33) benzene	13.34	78	38346	0.4149 ng		97
34) heptane	13.72	71	1542	0.0588 ng		91
~~36) 1,2-diclpropane~~	~~14.76~~	~~63~~	~~939~~	~~0.0380 ng~~	~~#~~	~~67~~
~~40) 4-methyl-2-pentanone~~	~~16.20~~	~~43~~	~~1466~~	~~0.0215 ng~~	~~#~~	~~48~~
41) toluene	16.56	91	46560	0.5388 ng		92
~~43) 1,1,2-trichloroethane~~	~~17.04~~	~~97~~	~~240~~	~~0.0117 ng~~	~~#~~	~~7~~
44) tetrachloroethene	17.53	166	971	0.0422 ng	#	80
~~45) 2-hexanone~~	~~17.61~~	~~43~~	~~716~~	~~0.0109 ng~~	~~#~~	~~52~~
50) ethylbenzene	19.18	91	6756	0.0641 ng		97
51) M+P xylene	19.38	91	14957	0.1791 ng		97
52) O xylene	20.11	91	4858	0.0554 ng		100
~~53) styrene~~	~~20.12~~	~~104~~	~~1052~~	~~0.0156 ng~~	~~#~~	~~62~~
~~56) 1,1,2,2-tetrachloroethane~~	~~21.07~~	~~83~~	~~1631~~	~~0.0383 ng~~	~~#~~	~~18~~
57) 4-ethyltoluene	21.66	105	3041	0.0284 ng		96
58) 1,3,5-trimethylbenzene	21.72	105	1031	0.0117 ng		95
59) 1,2,4-trimethylbenzene	22.54	105	3259	0.0378 ng		91
~~60) 1,3-dclbenz~~	~~23.27~~	~~146~~	~~1129~~	~~0.0245 ng~~		~~97~~
61) 1,4-dclbenz	23.27	146	1129	0.0248 ng		96

0.0263 @ TW 2/15

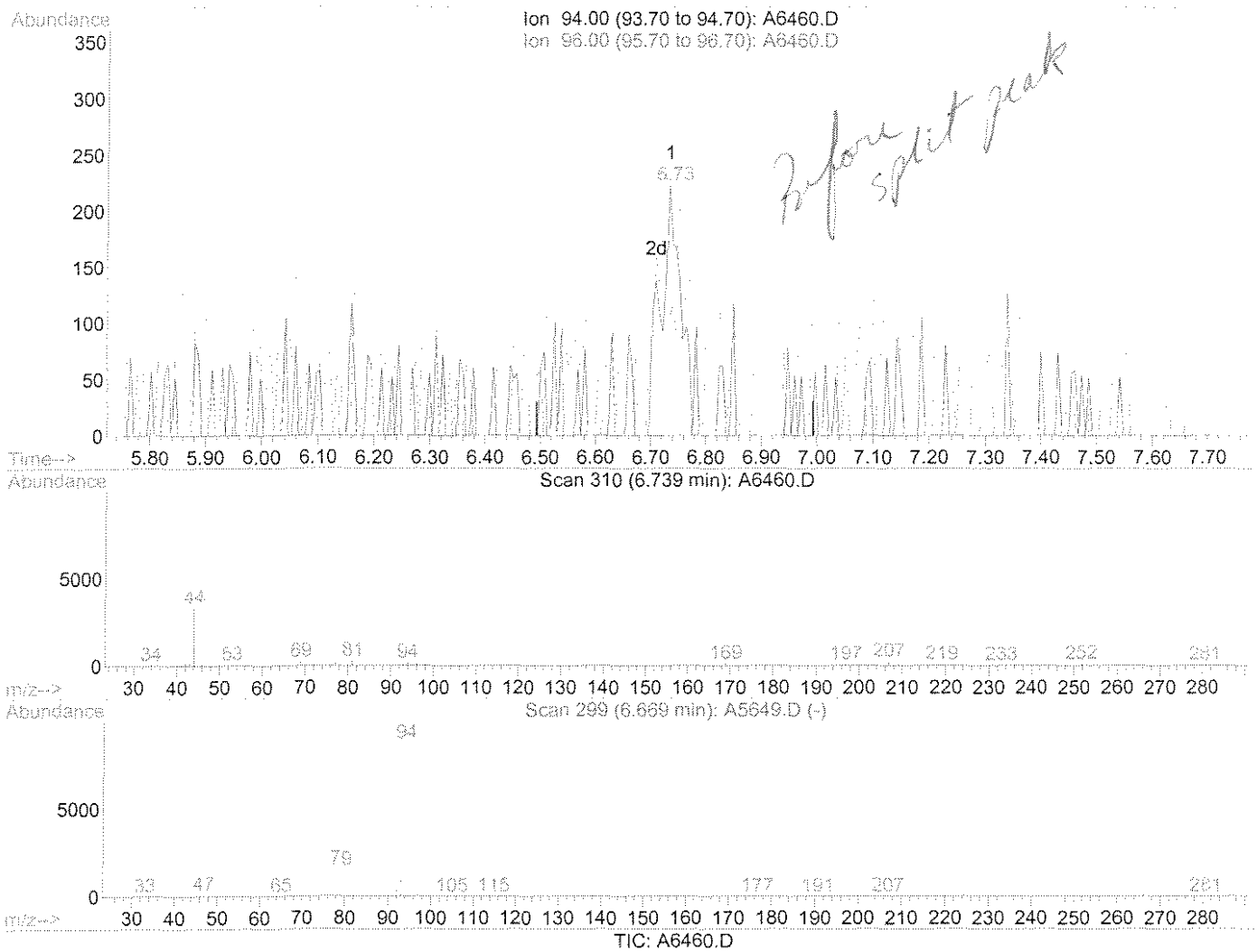
NT - mis Id.
NT - mis Id.

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6460.D Vial: 3
Acq On : 5 Feb 2009 19:33 Operator: T.WALTON
Sample : R0900538-002 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -1.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 15 12:48 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration



(8) bromomethane

6.73min 0.0176ng

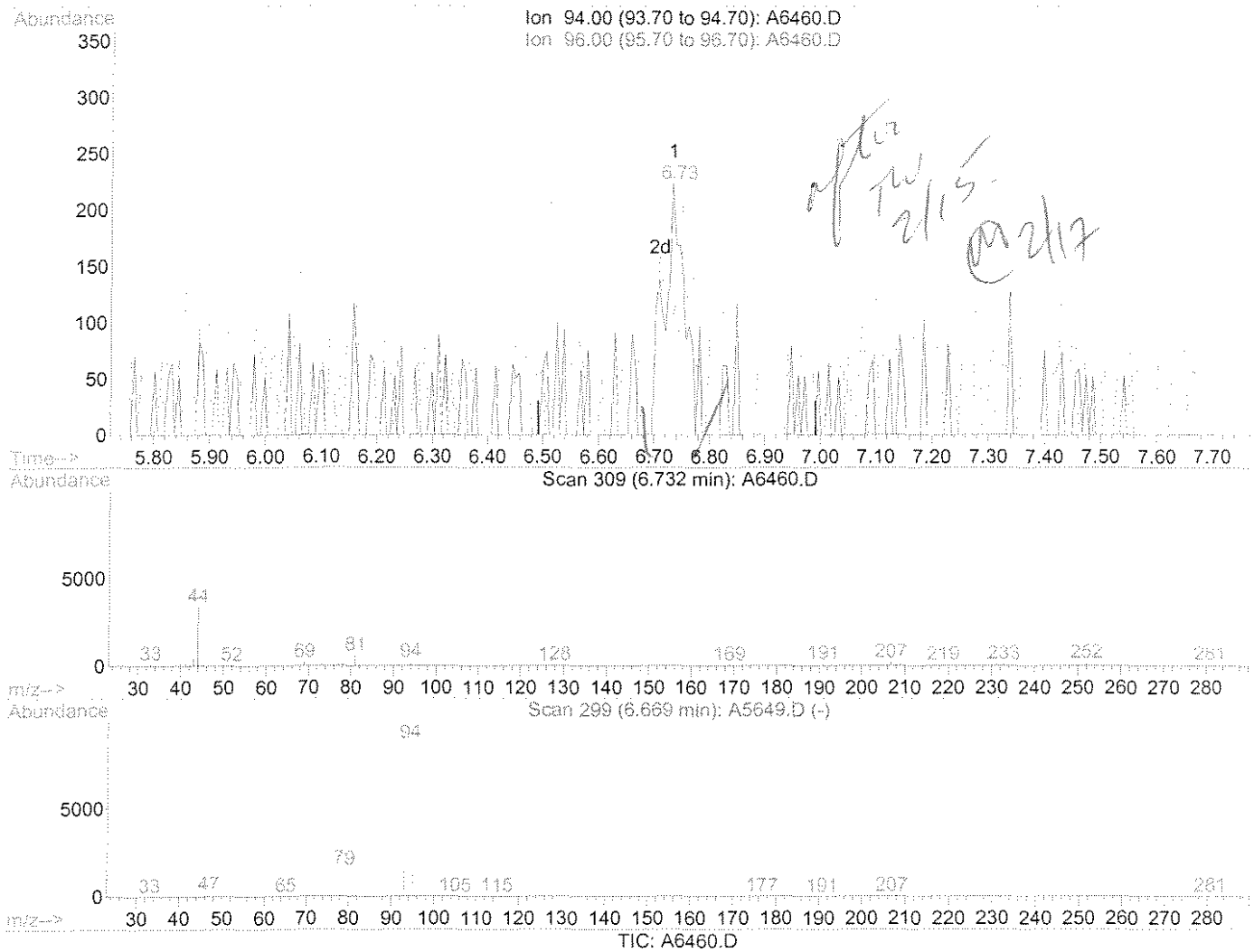
response 404

Ion	Exp%	Act%
94.00	100	100
96.00	94.40	104.95
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6460.D Vial: 3
Acq On : 5 Feb 2009 19:33 Operator: T.WALTON
Sample : R0900538-002 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -1.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 15 12:49 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration



(8) bromomethane

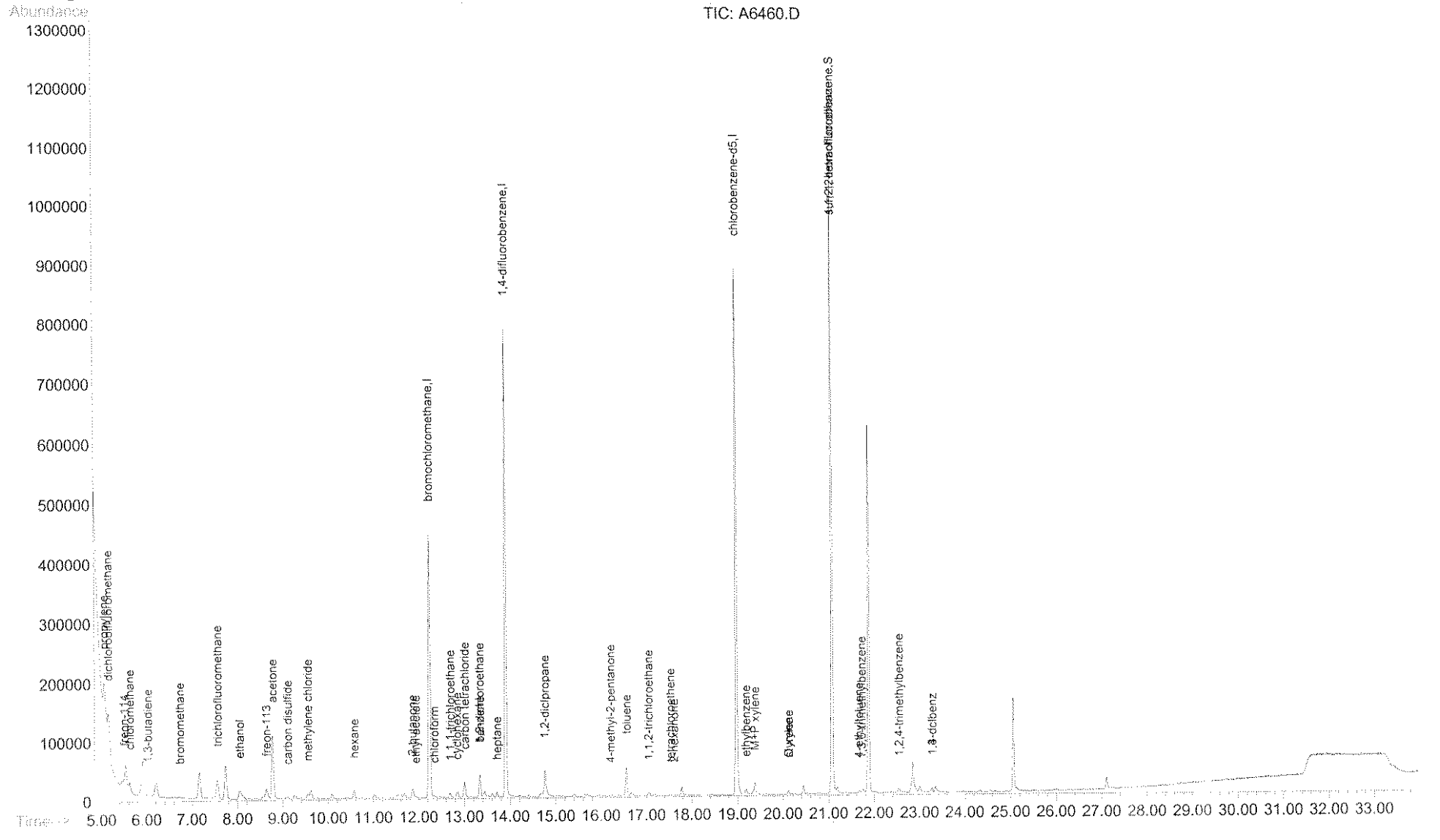
6.73min 0.0263ng m

response 604

Ion	Exp%	Act%
94.00	100	100
96.00	94.40	70.20#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6460.D Vial: 3
Acq On : 5 Feb 2009 19:33 Operator: T.WALTON
Sample : R0900538-002 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -1.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 20:07 2009 Quant Results File: 111408B.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Haley & Aldrich, Incorporated	**Service Request:**	R0900538
Project:	Coopervision/70665-014 Airs	**Date Collected:**	1/30/09 1615
Sample Matrix:	Air	**Date Received:**	1/30/09
Sample Name:	SV-SS10		
Lab Code:	R0900538-003		

Analytical Method: TO-15

Date Analyzed: 2/5/09 2023
Canister Dilution Factor: 1.47

Initial Pressure (psig): -2.3 Final Pressure (psig): 3.5

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbv	MRL ppbv	MDL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.020	0.41	0.020	0.0077	0.16	0.0077	U
75-00-3	Chloroethane	1000	0.023	0.85	0.023	0.0087	0.32	0.0087	U
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	0.016	0.65	0.016	0.0040	0.16	0.0040	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.031	0.66	0.031	0.0076	0.16	0.0076	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.030	0.88	0.030	0.0056	0.16	0.0056	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	115	70-130	2/5/09 2023	

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6461.D Vial: 4
Acq On : 5 Feb 2009 20:23 Operator: T.WALTON
Sample : R0900538-003 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 20:57 2009 Quant Results File: 111408B.RES

TW 2/15.

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	12.23	130	193834	13.2200	ng		0.00
28) 1,4-difluorobenzene	13.90	114	713308	11.6400	ng		0.00
48) chlorobenzene-d5	18.97	117	646086	12.0200	ng		-0.01
System Monitoring Compounds							
55) surr 1, bromofluorobenzene	21.07	174	420655	20.49	ng		-0.01
Spiked Amount 17.880	Range 70 - 130		Recovery = 114.62%				
Target Compounds							Qvalue
~~2) propylene~~	~~5.07~~	~~41~~	~~172521~~	~~2.5999~~	~~ng~~	~~#~~	~~55~~
3) dichlorodifluoromethane	5.16	85	100202	1.7997	ng		100
4) freon-114	5.50	85	4856	0.1156	ng	#	73
5) chloromethane	5.63	50	4705	0.0901	ng		93
~~7) 1,3-butadiene~~	~~6.03~~	~~54~~	~~566~~	~~0.0134~~	~~ng~~	~~#~~	~~2~~
10) trichlorofluoromethane	7.56	101	45049	0.9337	ng		98
11) ethanol	7.98	45	47067	3.1664	ng		99
12) freon-113	8.64	101	10851	0.4330	ng		96
14) acetone	8.74	43	1042660	13.2537	ng		95
15) isopropanol	9.03	45	25819	0.5593	ng	#	23
16) carbon disulfide	9.11	76	173234	1.8425	ng		99
17) methylene chloride	9.55	84	2281	0.0933	ng	#	54
~~19) methyl tert butyl ether~~	~~10.14~~	~~73~~	~~2306~~	~~0.0290~~	~~ng~~	~~#~~	~~50~~
20) hexane	10.57	57	127177	2.5151	ng		97
23) 2-butanone	11.85	43	229576	2.7066	ng		100
~~25) ethyl acetate~~	~~11.85~~	~~43~~	~~229576~~	~~2.6977~~	~~ng~~		~~78~~
26) chloroform	12.34	83	83953	2.0231	ng		100
~~27) tetrahydrofuran~~	~~12.40~~	~~72~~	~~8932~~	~~0.5255~~	~~ng~~	~~#~~	~~59~~
~~29) 1,1,1-trichloroethane~~	~~12.70~~	~~97~~	~~2106~~	~~0.0581~~	~~ng~~	~~#~~	~~77~~
30) cyclohexane	12.85	56	127953	2.4491	ng		94
31) carbon tetrachloride	13.00	117	9035	0.2932	ng		93
~~32) 1,2-dichloroethane~~	~~13.34~~	~~62~~	~~1000~~	~~0.0298~~	~~ng~~		~~96~~
33) benzene	13.34	78	82968	0.8687	ng		97
34) heptane	13.71	71	106162	3.9201	ng		98
~~36) 1,2-diclpropane~~	~~14.75~~	~~63~~	~~4301~~	~~0.1686~~	~~ng~~	~~#~~	~~57~~
38) bromodichloromethane	15.20	83	10409	0.3401	ng		100
40) 4-methyl-2-pentanone	16.20	43	31244	0.4426	ng		94
41) toluene	16.55	91	349107	3.9088	ng		96
~~43) 1,1,2-trichloroethane~~	~~17.22~~	~~97~~	~~15711~~	~~0.7396~~	~~ng~~	~~#~~	~~14~~
44) tetrachloroethene	17.53	166	4660	0.1959	ng		91
45) 2-hexanone	17.61	43	15656	0.2297	ng		99
46) dibromochloromethane	17.92	129	1279	0.0589	ng		98
~~47) 1,2-dibromoethane~~	~~18.33~~	~~107~~	~~1067~~	~~0.0478~~	~~ng~~		~~89~~
50) ethylbenzene	19.18	91	69155	0.6182	ng		100
51) M+P xylene	19.38	91	410292	4.6263	ng		99
52) O xylene	20.11	91	127333	1.3672	ng		99
~~53) styrene~~	~~20.12~~	~~104~~	~~13154~~	~~0.1836~~	~~ng~~	~~#~~	~~36~~
~~54) bromoform~~	~~20.52~~	~~173~~	~~365~~	~~0.0198~~	~~ng~~	~~#~~	~~28~~
57) 4-ethyltoluene	21.72	105	36882	0.3244	ng		99
58) 1,3,5-trimethylbenzene	21.82	105	69711	0.7457	ng		97
59) 1,2,4-trimethylbenzene	22.53	105	179505	1.9614	ng		95
~~60) 1,3-dclbenz~~	~~23.27~~	~~146~~	~~23184~~	~~0.4742~~	~~ng~~		~~95~~

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6461.D Vial: 4
Acq On : 5 Feb 2009 20:23 Operator: T.WALTON
Sample : R0900538-003 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 20:57 2009 Quant Results File: 111408B.RES

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

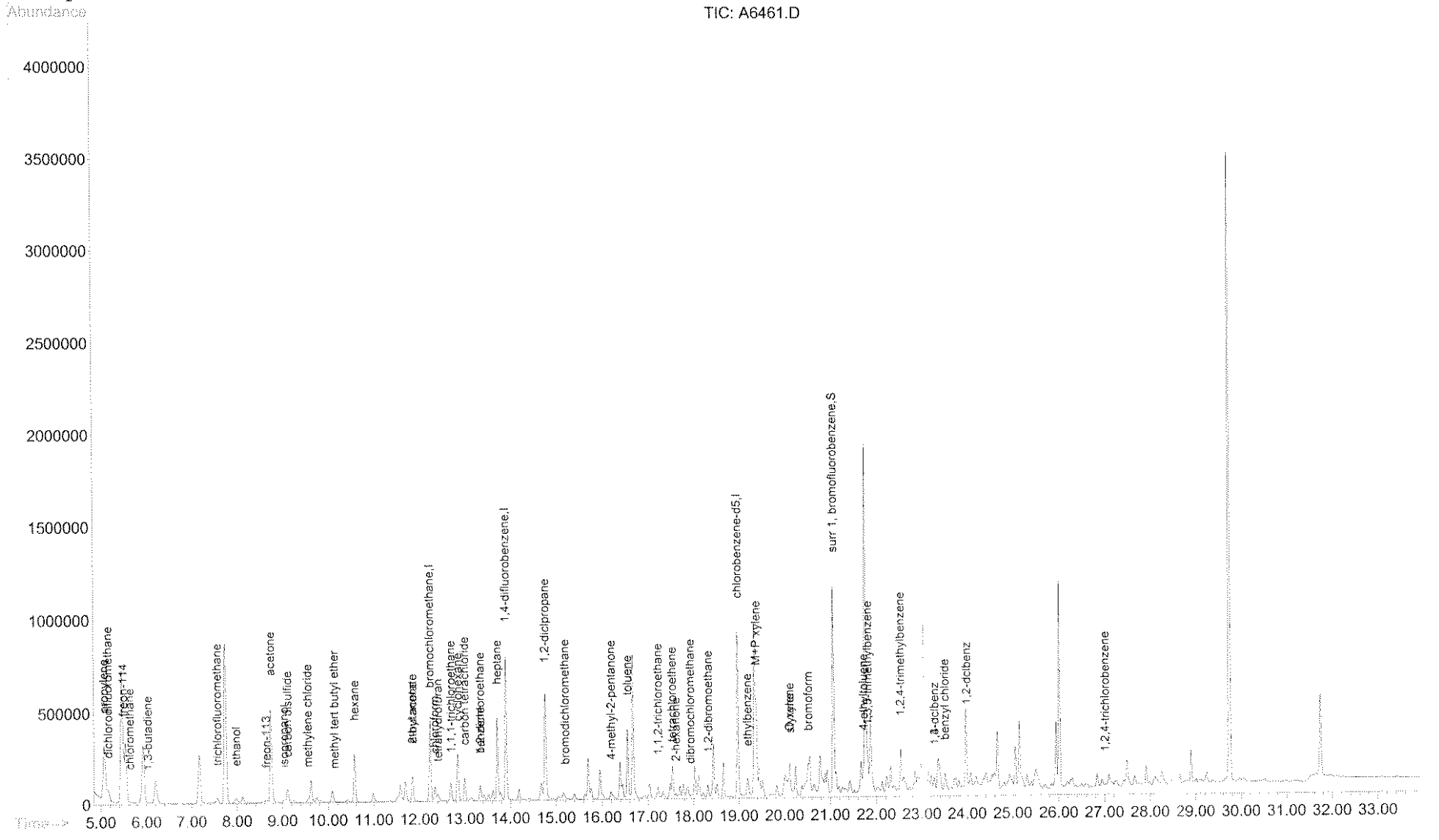
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
61) 1,4-dclbenz	23.27	146	23274	0.4822	ng		93
62) benzyl chloride	23.50	91	2636	0.0342	ng		70
63) 1,2-dclbenz	23.99	146	684	0.0147	ng	#	69
64) 1,2,4-trichlorobenzene	27.01	180	302	0.0115	ng	#	1

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6461.D Vial: 4
Acq On : 5 Feb 2009 20:23 Operator: T.WALTON
Sample : R0900538-003 Inst : GC/MS Ins
Misc : H&A-3901-T2 1000ML -4.7" +3.5PSI Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 20:57 2009 Quant Results File: 111408B.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration

TIC: A6461.D



VOLATILE ORGANICS

STANDARDS DATA

111408A PPBV.

TW 11-15-08.

CALRPT.TXT
Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 11:31:59 2008
Response via : Initial Calibration

Calibration Files

0.02	=A6072.D	0.1	=A6073.D	0.2	=A6074.D
0.5	=A6075.D	1.0	=A6076.D	2.5	=A6077.D
5.0	=A6078.D	7.5	=A6079.D	10.0	=A6080.D
	=		=		=

	Compound	0.02	0.1	0.2	0.5	1.0	2.5	Avg	%RSD
	Compound	5.0	7.5	10.0					
1) I	bromochloromethane	ISTD							
2)	propylene			1.735	1.559	1.405	1.402	1.472	8.94
		1.437	1.412	1.356					
3)	dichlorodifluoromet		3.606	3.685	3.595	3.544	3.521	3.549	2.46
		3.560	3.495	3.389					
4)	freon-114	3.738	3.713	3.921	3.820	3.826	3.782	3.787	2.16
		3.859	3.775	3.647					
5)	chloromethane		1.361	1.462	1.395	1.385	1.394	1.391	2.88
		1.413	1.391	1.323					
6)	vinyl chloride	1.460	1.462	1.531	1.509	1.482	1.511	1.491	3.70
		1.556	1.535	1.372					
7)	1,3-butadiene	1.313	1.149	1.178	1.190	1.200	1.227	1.209	5.60
		1.274	1.258	1.091					
8)	bromomethane		1.191	1.160	1.115	1.146	1.142	1.145	2.32
		1.157	1.142	1.106					
9)	chloroethane	0.809	0.707	0.735	0.721	0.697	0.736	0.733	4.47
		0.744	0.739	0.710					
10)	trichlorofluorometh	3.531	3.325	3.640	3.425	3.578	3.541	3.494	3.17
		3.580	3.494	3.335					
11)	ethanol				0.321	0.513	0.478	0.361	29.98
		0.274	0.326	0.254					
12)	freon-113	2.682	2.376	2.569	2.462	2.289	2.466	2.476	4.53
		2.521	2.491	2.427					
13)	1,1-dichloroethene	2.249	1.908	2.112	2.056	2.131	2.193	2.135	4.97
		2.230	2.214	2.123					
14)	acetone				2.828	2.115	2.386	2.409	9.67
		2.428	2.368	2.330					
15)	isopropanol				1.136	2.185	1.960	1.463	33.60
		1.010	1.367	1.120					
16)	carbon disulfide	4.178	3.612	3.772	3.655	3.791	3.773	3.774	4.55
		3.828	3.757	3.604					

NT 1st Eruption 140%.

17)	methylene chloride			1.131	1.108	1.085	1.022	1.091	1.095	3.08
		1.115	1.119	1.091						
18)	trans-1,2-dichloroe	2.196	1.947	2.074	2.048	1.945	2.106		2.075	4.18
		2.160	2.132	2.069						
19)	methyl tert butyl e	4.081	3.609	3.472	3.619	3.092	3.744		3.700	8.01
		3.948	3.899	3.831						
20)	hexane			2.149	2.217	2.089	2.364		2.298	6.34
		2.461	2.436	2.368						
21)	1,1-diclethane	2.694	2.510	2.538	2.546	2.294	2.551		2.535	4.21
		2.604	2.569	2.512						
22)	vinyl acetate	4.369	3.731	3.611	4.015	3.233	4.212		4.040	10.56
		4.460	4.400	4.325						
23)	2-butanone			3.404	3.178	3.299	2.799	3.268	3.225	5.90
		3.356	3.326	3.170						
24)	cis-1,2-dichloroeth			1.210	1.254	1.243	1.129	1.272	1.258	5.28
		1.330	1.324	1.303						
25)	ethyl acetate			3.996	3.901	4.093	3.480	4.084	3.954	5.39
		4.167	4.013	3.895						
26)	chloroform			2.640	2.642	2.625	2.377	2.639	2.612	3.76
		2.696	2.666	2.611						
27)	tetrahydrofuran	0.678	0.584	0.553	0.619	0.542	0.681		0.646	11.32
		0.728	0.721	0.710						
28) I	1,4-difluorobenzene	----------ISTD----------								
29)	1,1,1-trichloroetha	0.724	0.646	0.710	0.680	0.631	0.711		0.693	5.11
		0.726	0.723	0.682						
30)	cyclohexane			0.598	0.598	0.577	0.660		0.630	6.31
		0.673	0.672	0.632						
31)	carbon tetrachlorid	0.720	0.598	0.668	0.647	0.617	0.709		0.679	7.28
		0.728	0.732	0.693						
32)	1,2-dichloroethane	0.516	0.458	0.498	0.474	0.413	0.479		0.476	6.22
		0.492	0.489	0.461						
33)	benzene			1.072	1.099	1.065	0.933	1.096	1.069	5.67
		1.126	1.112	1.049						
34)	heptane			0.357	0.362	0.343	0.404		0.389	8.77
		0.426	0.426	0.403						
35)	trichloroethene	0.533	0.405	0.436	0.419	0.399	0.442		0.444	9.01
		0.460	0.464	0.442						
36)	1,2-diclpropane			0.399	0.416	0.413	0.347	0.424	0.413	7.38
		0.443	0.441	0.421						
37)	1,4-dioxane			0.105	0.145	0.108	0.176	0.173	0.132	23.70
		0.111	0.138	0.096						
38)	bromodichloromethan	0.822	0.643	0.693	0.689	0.638	0.736		0.718	8.31

			0.762	0.761	0.722					
39)		cis-1,3-dichloropro	0.674	0.512	0.552	0.553	0.484	0.604	0.586	10.92
			0.640	0.641	0.609					
40)		4-methyl-2-pentanon		0.937	0.986	0.992	0.949	1.078	1.013	6.14
			1.095	1.080	0.989					
41)		toluene		1.083	1.149	1.188	0.986	1.241	1.179	8.88
			1.299	1.281	1.206					
42)		trans-1,3-dichlorop		0.482	0.497	0.527	0.453	0.578	0.543	11.40
			0.612	0.613	0.585					
43)		1,1,2-trichloroetha		0.405	0.409	0.403	0.337	0.412	0.406	7.42
			0.433	0.433	0.415					
44)		tetrachloroethene	0.723	0.497	0.537	0.525	0.484	0.560	0.565	12.58
			0.591	0.598	0.573					
45)		2-hexanone		0.879	0.931	0.938	0.943	1.072	0.978	7.49
			1.072	1.044	0.948					
46)		dibromochloromethan	0.782	0.542	0.576	0.592	0.548	0.669	0.648	13.27
			0.715	0.722	0.688					
47)		1,2-dibromoethane	0.803	0.535	0.567	0.572	0.480	0.597	0.601	14.78
			0.626	0.628	0.602					
48)	I	chlorobenzene-d5	----------ISTD----------							
49)		chlorobenzene		1.060	1.121	1.117	0.928	1.148	1.108	7.66
			1.204	1.176	1.111					
50)		ethylbenzene			1.804	1.881	1.533	1.994	1.879	9.51
			2.076	1.997	1.868					
51)		M+P xylene			1.461	1.530	1.248	1.599	1.490	8.89
			1.637	1.547	1.405					
52)		O xylene			1.443	1.535	1.270	1.662	1.564	10.60
			1.752	1.696	1.592					
53)		styrene			1.055	1.127	0.943	1.257	1.180	12.19
			1.336	1.306	1.237					
54)		bromoform	0.869	0.556	0.604	0.644	0.589	0.787	0.736	18.38
			0.869	0.872	0.835					
55)	S	surr 1, bromofluoro	0.568	0.568	0.551	0.557	0.567	0.560	0.568	2.12
			0.569	0.582	0.590					
56)		1,1,2,2-tetrachloro	1.809	1.098	1.133	1.142	0.945	1.164	1.202	20.02
			1.216	1.189	1.117					
57)		4-ethyltoluene	2.649	1.791	1.931	2.077	1.778	2.316	2.162	13.73
			2.421	2.336	2.156					
58)		1,3,5-trimethylbenz	2.146	1.490	1.565	1.721	1.473	1.902	1.777	13.17
			1.981	1.927	1.792					
59)		1,2,4-trimethylbenz	2.079	1.423	1.517	1.654	1.439	1.873	1.740	13.93
			1.973	1.924	1.779					

60)	1,3-dclbenz	1.513	0.960	1.008	1.039	0.886	1.168	1.137	16.65
		1.245	1.239	1.174					
61)	1,4-dclbenz	1.438	0.933	0.993	1.022	0.877	1.164	1.122	16.03
		1.251	1.244	1.180					
62)	benzyl chloride				1.325	1.183	1.631	1.543	15.23
		1.760	1.739	1.620					
63)	1,2-dclbenz	1.479	0.898	0.950	0.990	0.831	1.096	1.079	17.91
		1.179	1.170	1.115					
64)	1,2,4-trichlorobenz	0.995	0.659	0.670	0.723	0.551	0.720	0.754	17.02
		0.808	0.828	0.827					
65)	hexachlorobutadiene	1.288	0.818	0.855	0.847	0.651	0.800	0.852	20.49
		0.819	0.820	0.767					

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

111408A.M Sat Nov 15 11:37:21 2008 OFFLINE

HP CHEMSTATION CUSTOM REPORT CALIBRATION SUMMARY

Calibration Table Concentrations (Level 1-20)

Method File : 111408A | Calibration Title : TO-15 | Last Calibration Update : Sat Nov 15 11:31:59 2008

file		A6072.D	A6073.D	A6074.D	A6075.D	A6076.D	A6077.D	A6078.D	A6079.D	A6080.D	
Level		1	2	3	4	5	6	7	8	9	#
ID	Compound	0.02	0.1	0.2	0.5	1.0	2.5	5.0	7.5	10.0	
1)	bromochloromethane	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	-1
2)	propylene	0.0206	0.0979	0.2060	0.5150	1.0300	2.5750	5.1500	7.7250	10.3000	-1
3)	dichlorodifluoromethane	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
4)	freon-114	0.0200	0.0950	0.2000	0.5000	1.0000	2.5000	5.0000	7.5000	10.0000	-1
5)	chloromethane	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
6)	vinyl chloride	0.0200	0.0950	0.2000	0.5000	1.0000	2.5000	5.0000	7.5000	10.0000	-1
7)	1,3-butadiene	0.0216	0.1026	0.2160	0.5400	1.0800	2.7000	5.4000	8.1000	10.8000	-1
8)	bromomethane	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
9)	chloroethane	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
10)	trichlorofluoromethane	0.0198	0.0941	0.1980	0.4950	0.9900	2.4750	4.9500	7.4250	9.9000	-1
11)	ethanol	0.0194	0.0922	0.1940	0.4850	0.9700	2.4250	4.8500	7.2750	9.7000	-1
12)	freon-113	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
13)	1,1-dichloroethene	0.0218	0.1036	0.2180	0.5450	1.0900	2.7250	5.4500	8.1750	10.9000	-1
14)	acetone	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
15)	isopropanol	0.0222	0.1055	0.2220	0.5550	1.1100	2.7750	5.5500	8.3250	11.1000	-1
16)	carbon disulfide	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
17)	methylene chloride	0.0218	0.1036	0.2180	0.5450	1.0900	2.7250	5.4500	8.1750	10.9000	-1
18)	trans-1,2-dichloroethene	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
19)	methyl tert butyl ether	0.0212	0.1007	0.2120	0.5300	1.0600	2.6500	5.3000	7.9500	10.6000	-1
20)	hexane	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
21)	1,1-diclethane	0.0212	0.1007	0.2120	0.5300	1.0600	2.6500	5.3000	7.9500	10.6000	-1
22)	vinyl acetate	0.0198	0.0941	0.1980	0.4950	0.9900	2.4750	4.9500	7.4250	9.9000	-1
23)	2-butanone	0.0216	0.1026	0.2160	0.5400	1.0800	2.7000	5.4000	8.1000	10.8000	-1
24)	cis-1,2-dichloroethene	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
25)	ethyl acetate	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
26)	chloroform	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
27)	tetrahydrofuran	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
28)	1,4-difluorobenzene	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	-1
29)	1,1,1-trichloroethane	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
30)	cyclohexane	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
31)	carbon tetrachloride	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
32)	1,2-dichloroethane	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
33)	benzene	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
34)	heptane	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1

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35)	trichloroethene	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
36)	1,2-diclpropane	0.0212	0.1007	0.2120	0.5300	1.0600	2.6500	5.3000	7.9500	10.6000	-1
37)	1,4-dioxane	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
38)	bromodichloromethane	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
39)	cis-1,3-dichloropropene	0.0204	0.0969	0.2040	0.5100	1.0200	2.5500	5.1000	7.6500	10.2000	-1
40)	4-methyl-2-pentanone	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
41)	toluene	0.0216	0.1026	0.2160	0.5400	1.0800	2.7000	5.4000	8.1000	10.8000	-1
42)	trans-1,3-dichloropropene	0.0222	0.1055	0.2220	0.5550	1.1100	2.7750	5.5500	8.3250	11.1000	-1
43)	1,1,2-trichloroethane	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
44)	tetrachloroethene	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
45)	2-hexanone	0.0214	0.1017	0.2140	0.5350	1.0700	2.6750	5.3500	8.0250	10.7000	-1
46)	dibromochloromethane	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
47)	1,2-dibromoethane	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
48)	chlorobenzene-d5	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	-1
49)	chlorobenzene	0.0212	0.1007	0.2120	0.5300	1.0600	2.6500	5.3000	7.9500	10.6000	-1
50)	ethylbenzene	0.0212	0.1007	0.2120	0.5300	1.0600	2.6500	5.3000	7.9500	10.6000	-1
51)	M+P xylene	0.0416	0.1976	0.4160	1.0400	2.0800	5.2000	10.4000	15.6000	20.8000	-1
52)	O xylene	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
53)	styrene	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
54)	bromoform	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
55)	surr 1, bromofluorobenzene	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	2.5000	-1
56)	1,1,2,2-tetrachloroethane	0.0210	0.0998	0.2100	0.5250	1.0500	2.6250	5.2500	7.8750	10.5000	-1
57)	4-ethyltoluene	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
58)	1,3,5-trimethylbenzene	0.0212	0.1007	0.2120	0.5300	1.0600	2.6500	5.3000	7.9500	10.6000	-1
59)	1,2,4-trimethylbenzene	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
60)	1,3-dclbenz	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
61)	1,4-dclbenz	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
62)	benzyl chloride	0.0208	0.0988	0.2080	0.5200	1.0400	2.6000	5.2000	7.8000	10.4000	-1
63)	1,2-dclbenz	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
64)	1,2,4-trichlorobenzene	0.0202	0.0960	0.2020	0.5050	1.0100	2.5250	5.0500	7.5750	10.1000	-1
65)	hexachlorobutadiene	0.0204	0.0969	0.2040	0.5100	1.0200	2.5500	5.1000	7.6500	10.2000	-1

 TW 11-17-08

111408B
ng/L
Quantitation
TW
2/19/09.

CALRPT.TXT
Response Factor Report GC/MS Ins

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration

Calibration Files

0.02	=A6072.D	0.1	=A6073.D	0.2	=A6074.D
0.5	=A6075.D	1.0	=A6076.D	2.5	=A6077.D
5.0	=A6078.D	7.5	=A6079.D	10.0	=A6080.D
	=		=		=

	Compound	0.02	0.1	0.2	0.5	1.0	2.5	Avg	%RSD
	Compound	5.0	7.5	10.0					
1) I	bromochloromethane	ISTD							
2)	propylene	4.417	4.341	4.169	5.332	4.791	4.318	4.311	4.526	8.94
3)	dichlorodifluoromet	3.809	3.739	3.625	3.859	3.942	3.846	3.791	3.767	3.797	2.47
4)	freon-114	2.921	2.857	2.760	2.828	2.810	2.968	2.891	2.896	2.862	2.866	2.16
5)	chloromethane	3.621	3.564	3.388	3.488	3.746	3.573	3.548	3.572	3.562	2.88
6)	vinyl chloride	3.220	3.177	2.840	3.023	3.027	3.168	3.122	3.067	3.126	3.085	3.70
7)	1,3-butadiene	3.045	3.007	2.609	3.138	2.746	2.818	2.846	2.871	2.933	2.890	5.59
8)	bromomethane	1.576	1.556	1.507	1.624	1.581	1.520	1.562	1.557	1.560	2.33
9)	chloroethane	1.493	1.482	1.424	1.621	1.418	1.474	1.447	1.397	1.476	1.470	4.45
10)	trichlorofluorometh	3.371	3.290	3.140	3.324	3.132	3.428	3.225	3.369	3.334	3.290	3.16
11)	ethanol	0.770	0.915	0.713				0.902	1.440	1.343	1.014	29.98
12)	freon-113	1.740	1.719	1.675	1.851	1.641	1.773	1.699	1.580	1.702	1.709	4.53
13)	1,1-dichloroethene	2.976	2.954	2.833	3.001	2.547	2.818	2.743	2.843	2.927	2.849	4.96
14)	acetone	5.407	5.274	5.189				6.299	4.709	5.315	5.365	9.67
15)	isopropanol	2.174	2.942	2.409				2.444	4.703	4.219	3.148	33.60
16)	carbon disulfide	6.503	6.383	6.122	7.102	6.137	6.407	6.209	6.440	6.409	6.412	4.57

17)	methylene chloride			1.724	1.687	1.652	1.556	1.662	1.668	3.09
		1.698	1.704	1.662						
18)	trans-1,2-dichloroe	2.931	2.599	2.767	2.732	2.595	2.810		2.769	4.18
		2.882	2.845	2.761						
19)	methyl tert butyl e	5.989	5.296	5.095	5.310	4.537	5.494		5.428	8.01
		5.793	5.722	5.621						
20)	hexane				3.225	3.328	3.135	3.549	3.449	6.34
		3.694	3.656	3.554						
21)	1,1-diclethane	3.520	3.281	3.317	3.327	2.998	3.334		3.314	4.20
		3.404	3.358	3.283						
22)	vinyl acetate	6.563	5.609	5.425	6.032	4.858	6.329		6.070	10.55
		6.701	6.611	6.498						
23)	2-butanone			6.106	5.701	5.918	5.020	5.863	5.785	5.90
		6.021	5.965	5.687						
24)	cis-1,2-dichloroeth			1.615	1.674	1.659	1.506	1.697	1.679	5.27
		1.774	1.767	1.739						
25)	ethyl acetate			5.870	5.727	6.008	5.108	5.995	5.804	5.39
		6.117	5.891	5.717						
26)	chloroform			2.862	2.862	2.844	2.576	2.860	2.830	3.77
		2.921	2.888	2.828						
27)	tetrahydrofuran	1.216	1.047	0.992	1.110	0.973	1.221		1.159	11.32
		1.306	1.294	1.274						
28) I	1,4-difluorobenzene	----------ISTD----------								
29)	1,1,1-trichloroetha	0.618	0.552	0.606	0.581	0.538	0.607		0.591	5.10
		0.620	0.617	0.583						
30)	cyclohexane				0.809	0.809	0.780	0.893	0.853	6.31
		0.911	0.910	0.856						
31)	carbon tetrachlorid	0.533	0.443	0.495	0.479	0.457	0.525		0.503	7.27
		0.539	0.542	0.513						
32)	1,2-dichloroethane	0.594	0.528	0.573	0.546	0.475	0.551		0.547	6.22
		0.566	0.562	0.531						
33)	benzene			1.563	1.602	1.553	1.360	1.598	1.559	5.67
		1.642	1.621	1.529						
34)	heptane				0.406	0.412	0.390	0.459	0.442	8.77
		0.484	0.484	0.458						
35)	trichloroethene	0.462	0.351	0.378	0.363	0.346	0.383		0.385	9.02
		0.399	0.402	0.383						
36)	1,2-diclpropane			0.402	0.420	0.416	0.349	0.427	0.416	7.38
		0.447	0.445	0.424						
37)	1,4-dioxane			0.136	0.187	0.140	0.228	0.223	0.170	23.70
		0.143	0.179	0.124						
38)	bromodichloromethan	0.571	0.447	0.481	0.479	0.443	0.512		0.499	8.31

			0.530	0.529	0.502					
39)		cis-1,3-dichloropro	0.692	0.526	0.567	0.567	0.497	0.620	0.601	10.91
			0.657	0.657	0.625					
40)		4-methyl-2-pentanon		1.066	1.121	1.127	1.079	1.226	1.152	6.13
			1.245	1.228	1.124					
41)		toluene		1.339	1.420	1.469	1.219	1.534	1.457	8.88
			1.606	1.583	1.491					
42)		trans-1,3-dichlorop		0.495	0.510	0.540	0.465	0.594	0.558	11.39
			0.628	0.629	0.600					
43)		1,1,2-trichloroetha		0.346	0.349	0.344	0.288	0.352	0.347	7.42
			0.370	0.370	0.354					
44)		tetrachloroethene	0.496	0.341	0.369	0.360	0.332	0.385	0.388	12.57
			0.406	0.411	0.394					
45)		2-hexanone		1.000	1.059	1.067	1.072	1.218	1.112	7.48
			1.219	1.187	1.078					
46)		dibromochloromethan	0.427	0.297	0.315	0.324	0.300	0.366	0.354	13.27
			0.391	0.395	0.376					
47)		1,2-dibromoethane	0.487	0.324	0.344	0.347	0.291	0.362	0.364	14.77
			0.380	0.381	0.365					
48)	I	chlorobenzene-d5	----------ISTD----------							
49)		chlorobenzene		1.108	1.171	1.167	0.969	1.200	1.158	7.66
			1.258	1.229	1.161					
50)		ethylbenzene			1.998	2.084	1.698	2.209	2.081	9.51
			2.300	2.212	2.069					
51)		M+P xylene			1.618	1.695	1.382	1.772	1.650	8.89
			1.814	1.713	1.556					
52)		O xylene			1.598	1.700	1.407	1.841	1.733	10.60
			1.940	1.879	1.763					
53)		styrene			1.191	1.273	1.064	1.420	1.333	12.19
			1.508	1.475	1.397					
54)		bromoform	0.405	0.259	0.281	0.300	0.274	0.366	0.343	18.38
			0.404	0.406	0.389					
55)	S	surr 1, bromofluoro	0.382	0.382	0.370	0.374	0.381	0.377	0.382	2.12
			0.383	0.391	0.397					
56)		1,1,2,2-tetrachloro	1.268	0.770	0.794	0.800	0.662	0.816	0.842	20.02
			0.852	0.833	0.783					
57)		4-ethyltoluene	2.591	1.754	1.889	2.032	1.740	2.266	2.115	13.71
			2.369	2.286	2.110					
58)		1,3,5-trimethylbenz	2.099	1.458	1.531	1.684	1.442	1.861	1.739	13.17
			1.938	1.886	1.753					
59)		1,2,4-trimethylbenz	2.034	1.393	1.485	1.618	1.408	1.833	1.703	13.93
			1.931	1.882	1.741					

60)	1,3-dclbenz	1.211	0.768	0.806	0.831	0.709	0.935	0.910	16.65
		0.996	0.991	0.939					
61)	1,4-dclbenz	1.150	0.747	0.794	0.817	0.702	0.931	0.898	16.03
		1.001	0.995	0.944					
62)	benzyl chloride				1.231	1.099	1.515	1.434	15.23
		1.635	1.616	1.505					
63)	1,2-dclbenz	1.183	0.719	0.760	0.792	0.665	0.877	0.863	17.90
		0.943	0.936	0.892					
64)	1,2,4-trichlorobenz	0.645	0.427	0.434	0.469	0.357	0.467	0.488	17.02
		0.524	0.537	0.536					
65)	hexachlorobutadiene	0.581	0.369	0.386	0.382	0.294	0.361	0.384	20.49
		0.369	0.370	0.346					

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

111408B.M Thu Feb 19 16:24:12 2009 OFFLINE

RT Order
Factors to convert from PPBV to ng/L
ng/L=un/m3=PPBV*MW/24.46

	cas#	MW	ppbv	ng/L
Internal standard				
propylene	115-07-1	42.08	1	1.7204
dichlorodifluoromethane	75-71-8	120.91	1	4.9432
freon-114	76-14-2	170.92	1	6.9877
chloromethane	74-87-3	50.49	1	2.0642
vinyl chloride	75-01-4	62.5	1	2.5552
1,3-butadiene	106-99-0	54.09	1	2.2114
bromomethane	74-83-9	94.9	1	3.8798
chloroethane	75-00-3	64.5	1	2.6370
trichlorofluoromethane	75-69-4	137.37	1	5.6161
ethanol	64-17-5	46.07	1	1.8835
freon-113	76-13-1	187.38	1	7.6607
1,1-dichloroethene	75-35-4	96.94	1	3.9632
acetone	67-64-1	58.08	1	2.3745
isopropanol	67-63-0	60.1	1	2.4571
carbon disulfide	75-15-0	76.14	1	3.1128
methylene chloride	75-09-2	84.93	1	3.4722
trans-1,2-dichloroethene	156-60-5	96.94	1	3.9632
methyl tert butyl ether	1634-04-4	88.15	1	3.6038
hexane	110-54-3	86.18	1	3.5233
1,1-dichloroethane	107-06-2	98.96	1	4.0458
vinyl acetate	108-05-4	86.09	1	3.5196
2-butanone	78-93-3	72.11	1	2.9481
cis-1,2-dichloroethene	156-59-2	96.94	1	3.9632
ethyl acetate	141-78-6	88.11	1	3.6022
chloroform	67-66-3	119.38	1	4.8806
tetrahydrofuran	109-99-9	72.11	1	2.9481
Internal standard				
1,1,1-trichloroethane	71-55-6	133.4	1	5.4538
cyclohexane	110-82-7	84.16	1	3.4407
carbon tetrachloride	56-23-5	153.82	1	6.2886
1,2-dichloroethane	107-06-2	98.96	1	4.0458
benzene	71-43-2	78.11	1	3.1934
heptane	142-82-5	100.2	1	4.0965
trichloroethylene	79-01-6	131.39	1	5.3716
1,2-dichloropropane	78-87-5	112.99	1	4.6194
1,4-dioxane	123-91-1	88.11	1	3.6022
bromodichloromethane	75-27-4	163.83	1	6.6979
cis-1,3-dichloro-1-propene	10061-01-5	110.97	1	4.5368
4-methyl-2-pentanone	108-10-1	100.16	1	4.0948
toluene	108-88-3	92.14	1	3.7670
trans-1,3-dichloro-1-propene	10061-02-6	110.97	1	4.5368
1,1,2-trichloroethane	79-00-5	133.4	1	5.4538
tetrachloroethene	127-18-4	165.83	1	6.7796
2-hexanone	591-78-6	100.16	1	4.0948
dibromochloromethane	124-48-1	208.28	1	8.5151
1,2-dibromoethane	106-93-4	187.86	1	7.6803
Internal standard				
chlorobenzene	108-90-7	112.56	1	4.6018
ethylbenzene	100-41-4	106.17	1	4.3406
M+P xylene	1330-20-7	106.17	1	4.3406
O xylene	95-47-6	106.17	1	4.3406
styrene	100-42-5	104.15	1	4.2580
bromoform	75-25-2	252.73	1	10.3324
Surrogate standard				
1,1,2,2-tetrachloroethane	79-34-5	167.85	1	6.8622
4-ethyltoluene	622-96-8	120.19	1	4.9137
1,3,5-trimethylbenzene	108-67-8	120.19	1	4.9137
1,2,4-trimethylbenzene	95-63-6	120.19	1	4.9137
1,3-dichlorobenzene	541-73-1	147	1	6.0098
1,4-dichlorobenzene	106-46-7	147	1	6.0098
benzyl chloride	100-44-7	126.59	1	5.1754
1,2-dichlorobenzene	95-50-1	147	1	6.0098
1,2,4-trichlorobenzene	120-82-1	181.45	1	7.4182
hexachlorobutadiene	87-68-3	260.76	1	10.6607

TW 2/19/09. For 111408B.

HP CHEMSTATION CUSTOM REPORT CALIBRATION SUMMARY

Method File : 111408B Calibration Title : TO-15 Last Calibration Update : Thu Jan 15 15:59:15 2009

TW 2/19/09 Ng/L calibration 111408B.

Calibration Table Concentrations (Level 1-20)

file		A6072.D	A6073.D	A6074.D	A6075.D	A6076.D	A6077.D	A6078.D	A6079.D	A6080.D		
Level		1	2	3	4	5	6	7	8	9	10	##########
ID	Compound	0.02	0.1	0.2	0.5	1.0	2.5	5.0	7.5	10.0		
1)	bromochloromethane	13.2200	13.2200	13.2200	13.2200	13.2200	13.2200	13.2200	13.2200	13.2200	-1	##########
2)	propylene	0.0354	0.1683	0.3544	0.8860	1.7720	4.4299	8.8599	13.2898	17.7197	-1	##########
3)	dichlorodifluoromethane	0.0999	0.4743	0.9985	2.4963	4.9926	12.4815	24.9630	37.4445	49.9260	-1	##########
4)	freon-114	0.1398	0.6638	1.3975	3.4939	6.9877	17.4693	34.9387	52.4080	69.8774	-1	##########
5)	chloromethane	0.0417	0.1981	0.4170	1.0424	2.0848	5.2121	10.4241	15.6362	20.8483	-1	##########
6)	vinyl chloride	0.0511	0.2427	0.5110	1.2776	2.5552	6.3880	12.7760	19.1639	25.5519	-1	##########
7)	1,3-butadiene	0.0478	0.2269	0.4777	1.1941	2.3883	5.9707	11.9414	17.9121	23.8827	-1	##########
8)	bromomethane	0.0784	0.3723	0.7837	1.9593	3.9186	9.7965	19.5930	29.3895	39.1860	-1	##########
9)	chloroethane	0.0533	0.2530	0.5327	1.3317	2.6633	6.6583	13.3166	19.9750	26.6333	-1	##########
10)	trichlorofluoromethane	0.1112	0.5282	1.1120	2.7800	5.5599	13.8999	27.7997	41.6996	55.5995	-1	##########
11)	ethanol	0.0365	0.1736	0.3654	0.9135	1.8270	4.5674	9.1349	13.7023	18.2698	-1	##########
12)	freon-113	0.1639	0.7787	1.6394	4.0985	8.1969	20.4923	40.9846	61.4769	81.9692	-1	##########
13)	1,1-dichloroethene	0.0864	0.4104	0.8640	2.1599	4.3199	10.7997	21.5995	32.3992	43.1989	-1	##########
14)	acetone	0.0499	0.2369	0.4986	1.2466	2.4932	6.2330	12.4661	18.6991	24.9321	-1	##########
15)	isopropanol	0.0545	0.2591	0.5455	1.3637	2.7274	6.8184	13.6368	20.4551	27.2735	-1	##########
16)	carbon disulfide	0.0647	0.3075	0.6475	1.6187	3.2374	8.0934	16.1868	24.2801	32.3735	-1	##########
17)	methylene chloride	0.0757	0.3595	0.7569	1.8923	3.7847	9.4617	18.9235	28.3852	37.8470	-1	##########
18)	trans-1,2-dichloroethene	0.0832	0.3953	0.8323	2.0807	4.1614	10.4034	20.8068	31.2102	41.6137	-1	##########
19)	methyl tert butyl ether	0.0764	0.3629	0.7640	1.9100	3.8201	9.5502	19.1004	28.6506	38.2007	-1	##########
20)	hexane	0.0754	0.3581	0.7540	1.8850	3.7699	9.4248	18.8497	28.2745	37.6993	-1	##########
21)	1,1-diclethane	0.0858	0.4074	0.8577	2.1443	4.2885	10.7213	21.4427	32.1640	42.8854	-1	##########
22)	vinyl acetate	0.0697	0.3310	0.6969	1.7422	3.4844	8.7111	17.4221	26.1332	34.8443	-1	##########
23)	2-butanone	0.0637	0.3025	0.6368	1.5920	3.1839	7.9598	15.9196	23.8794	31.8392	-1	##########
24)	cis-1,2-dichloroethene	0.0848	0.4029	0.8481	2.1203	4.2406	10.6016	21.2031	31.8047	42.4063	-1	##########
25)	ethyl acetate	0.0756	0.3593	0.7565	1.8912	3.7823	9.4558	18.9116	28.3674	37.8232	-1	##########
26)	chloroform	0.1025	0.4868	1.0249	2.5623	5.1247	12.8116	25.6233	38.4349	51.2465	-1	##########
27)	tetrahydrofuran	0.0631	0.2997	0.6309	1.5772	3.1544	7.8861	15.7722	23.6583	31.5444	-1	##########
28)	1,4-difluorobenzene	11.6400	11.6400	11.6400	11.6400	11.6400	11.6400	11.6400	11.6400	11.6400	-1	##########
29)	1,1,1-trichloroethane	0.1145	0.5440	1.1453	2.8632	5.7265	14.3162	28.6325	42.9487	57.2649	-1	##########
30)	cyclohexane	0.0736	0.3497	0.7363	1.8408	3.6816	9.2039	18.4078	27.6118	36.8157	-1	##########
31)	carbon tetrachloride	0.1321	0.6273	1.3206	3.3015	6.6031	16.5077	33.0153	49.5230	66.0307	-1	##########
32)	1,2-dichloroethane	0.0866	0.4113	0.8658	2.1645	4.3290	10.8225	21.6450	32.4675	43.2899	-1	##########
33)	benzene	0.0683	0.3246	0.6834	1.7085	3.4169	8.5423	17.0846	25.6268	34.1691	-1	##########

34)	heptane	0.0877	0.4164	0.8766	2.1916	4.3832	10.9581	21.9162	32.8743	43.8324	-1	########
35)	trichloroethene	0.1117	0.5307	1.1173	2.7932	5.5865	13.9662	27.9325	41.8987	55.8649	-1	########
36)	1,2-diclpropane	0.0979	0.4652	0.9793	2.4483	4.8965	12.2414	24.4827	36.7241	48.9654	-1	########
37)	1,4-dioxane	0.0749	0.3559	0.7493	1.8731	3.7463	9.3657	18.7315	28.0972	37.4630	-1	########
38)	bromodichloromethane	0.1393	0.6617	1.3932	3.4829	6.9658	17.4145	34.8289	52.2434	69.6579	-1	########
39)	cis-1,3-dichloropropene	0.0926	0.4396	0.9255	2.3138	4.6275	11.5688	23.1377	34.7065	46.2753	-1	########
40)	4-methyl-2-pentanone	0.0876	0.4162	0.8763	2.1907	4.3815	10.9537	21.9074	32.8612	43.8149	-1	########
41)	toluene	0.0814	0.3865	0.8137	2.0342	4.0683	10.1708	20.3416	30.5124	40.6832	-1	########
42)	trans-1,3-dichloropropene	0.1007	0.4784	1.0072	2.5179	5.0358	12.5896	25.1792	37.7688	50.3584	-1	########
43)	1,1,2-trichloroethane	0.1134	0.5388	1.1344	2.8360	5.6720	14.1799	28.3598	42.5397	56.7195	-1	########
44)	tetrachloroethene	0.1424	0.6763	1.4237	3.5593	7.1186	17.7966	35.5931	53.3897	71.1862	-1	########
45)	2-hexanone	0.0876	0.4162	0.8763	2.1907	4.3815	10.9537	21.9074	32.8612	43.8149	-1	########
46)	dibromochloromethane	0.1788	0.8494	1.7882	4.4704	8.9409	22.3522	44.7044	67.0566	89.4088	-1	########
47)	1,2-dibromoethane	0.1613	0.7661	1.6129	4.0322	8.0643	20.1608	40.3215	60.4823	80.6431	-1	########
48)	chlorobenzene-d5	12.0200	12.0200	12.0200	12.0200	12.0200	12.0200	12.0200	12.0200	12.0200	-1	########
49)	chlorobenzene	0.0976	0.4634	0.9756	2.4390	4.8779	12.1948	24.3895	36.5843	48.7791	-1	########
50)	ethylbenzene	0.0920	0.4371	0.9202	2.3005	4.6010	11.5025	23.0049	34.5074	46.0099	-1	########
51)	M+P xylene	0.1806	0.8577	1.8057	4.5142	9.0284	22.5709	45.1418	67.7127	90.2836	-1	########
52)	O xylene	0.0912	0.4330	0.9115	2.2788	4.5576	11.3940	22.7879	34.1819	45.5758	-1	########
53)	styrene	0.0894	0.4247	0.8942	2.2354	4.4709	11.1772	22.3544	33.5315	44.7087	-1	########
54)	bromoform	0.2149	1.0208	2.1491	5.3728	10.7457	26.8642	53.7284	80.5926	107.4567	-1	########
55)	surr 1, bromofluorobenzene	17.8800	17.8800	17.8800	17.8800	17.8800	17.8800	17.8800	17.8800	17.8800	-1	########
56)	1,1,2,2-tetrachloroethane	0.1441	0.6845	1.4411	3.6027	7.2053	18.0133	36.0267	54.0400	72.0534	-1	########
57)	4-ethyltoluene	0.0993	0.4715	0.9926	2.4814	4.9629	12.4072	24.8144	37.2216	49.6287	-1	########
58)	1,3,5-trimethylbenzene	0.1042	0.4948	1.0417	2.6043	5.2086	13.0214	26.0428	39.0642	52.0856	-1	########
59)	1,2,4-trimethylbenzene	0.1022	0.4855	1.0221	2.5551	5.1103	12.7757	25.5514	38.3271	51.1029	-1	########
60)	1,3-dclbenz	0.1250	0.5938	1.2500	3.1251	6.2502	15.6255	31.2510	46.8765	62.5020	-1	########
61)	1,4-dclbenz	0.1250	0.5938	1.2500	3.1251	6.2502	15.6255	31.2510	46.8765	62.5020	-1	########
62)	benzyl chloride	0.1076	0.5113	1.0765	2.6912	5.3824	13.4560	26.9120	40.3680	53.8240	-1	########
63)	1,2-dclbenz	0.1214	0.5766	1.2140	3.0350	6.0699	15.1748	30.3496	45.5243	60.6991	-1	########
64)	1,2,4-trichlorobenzene	0.1498	0.7118	1.4985	3.7462	7.4924	18.7310	37.4621	56.1931	74.9242	-1	########
65)	hexachlorobutadiene	0.2175	1.0330	2.1748	5.4369	10.8739	27.1847	54.3694	81.5541	108.7388	-1	########

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6072.D Vial: 2
Acq On : 14 Nov 2008 15:31 Operator: T.WALTON
Sample : 0.02 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:54 2008 Quant Results File: 111408A.RES

TW 11-15-08

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	12.24	130	213205	2.5000 ppbv	0.00
28) 1,4-difluorobenzene	13.91	114	862919	2.5000 ppbv	0.00
48) chlorobenzene-d5	18.98	117	732479	2.5000 ppbv	-0.03
System Monitoring Compounds					
55) surr 1, bromofluorobenzene	21.08	174	416308	2.50 ppbv	-0.02
Spiked Amount 2.500	Range 70 - 130		Recovery = 100.10%		
Target Compounds					Qvalue
2) propylene	5.06	41	7200	0.0467 ppbv #	66
3) dichlorodifluoromethane	5.16	85	7232	0.0234 ppbv	100
4) freon-114	5.49	85	6375	0.0197 ppbv	96
5) chloromethane	5.62	50	2885m	0.0237 ppbv	
6) vinyl chloride	5.92	62	2491	0.0196 ppbv	95
7) 1,3-butadiene	6.03	54	2419	0.0235 ppbv	97
8) bromomethane	6.74	94	2822	0.0274 ppbv	88
9) chloroethane	6.99	64	1393	0.0223 ppbv #	59
10) trichlorofluoromethane	7.56	101	5962	0.0200 ppbv	93
11) ethanol	0.00	45	0	N.D. d	
12) freon-113	8.64	101	4894	0.0232 ppbv	98
13) 1,1-dichloroethene	8.65	61	4182	0.0230 ppbv #	62
14) acetone	8.77	43	18748	0.0613 ppbv	92
15) isopropanol	0.00	45	0	N.D. d	
16) carbon disulfide	9.11	76	7411	0.0230 ppbv	87
17) methylene chloride	9.55	84	2761	0.0285 ppbv	91
18) trans-1,2-dichloroethene	10.09	61	3933	0.0222 ppbv	86
19) methyl tert butyl ether	10.16	73	7379	0.0233 ppbv	98
20) hexane	10.58	57	3979	0.0207 ppbv	96
21) 1,1-diclethane	10.83	63	4871	0.0225 ppbv	90
22) vinyl acetate	10.88	43	7377	0.0213 ppbv	98
23) 2-butanone	11.88	43	8915	0.0307 ppbv	97
24) cis-1,2-dichloroethene	11.83	96	3190	0.0280 ppbv	81
25) ethyl acetate	11.95	43	9459	0.0269 ppbv	100
26) chloroform	12.34	83	5219	0.0232 ppbv	98
27) tetrahydrofuran	12.44	72	1237	0.0225 ppbv	96
29) 1,1,1-trichloroethane	12.72	97	5248	0.0219 ppbv	96
30) cyclohexane	12.85	56	4912	0.0229 ppbv	97
31) carbon tetrachloride	13.01	117	5221	0.0223 ppbv	98
32) 1,2-dichloroethane	13.33	62	3815	0.0232 ppbv	98
33) benzene	13.34	78	11579	0.0295 ppbv	97
34) heptane	13.72	71	2915	0.0221 ppbv	99
35) trichloroethene	14.40	130	3828	0.0250 ppbv	96
36) 1,2-diclpropane	14.77	63	3814	0.0260 ppbv	91
37) 1,4-dioxane	0.00	88	0	N.D. d	
38) bromodichloromethane	15.20	83	5900	0.0238 ppbv	97
39) cis-1,3-dichloropropene	15.95	75	4749	0.0235 ppbv	94
40) 4-methyl-2-pentanone	16.21	43	10187	0.0279 ppbv	96
41) toluene	16.56	91	10954	0.0262 ppbv	99
42) trans-1,3-dichloropropene	16.87	75	5080	0.0264 ppbv	95
43) 1,1,2-trichloroethane	17.21	97	4014	0.0275 ppbv	93
44) tetrachloroethene	17.54	166	5240	0.0269 ppbv	94

(m) TW 11-15-08.

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6072.D Vial: 2
Acq On : 14 Nov 2008 15:31 Operator: T.WALTON
Sample : 0.02 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:54 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

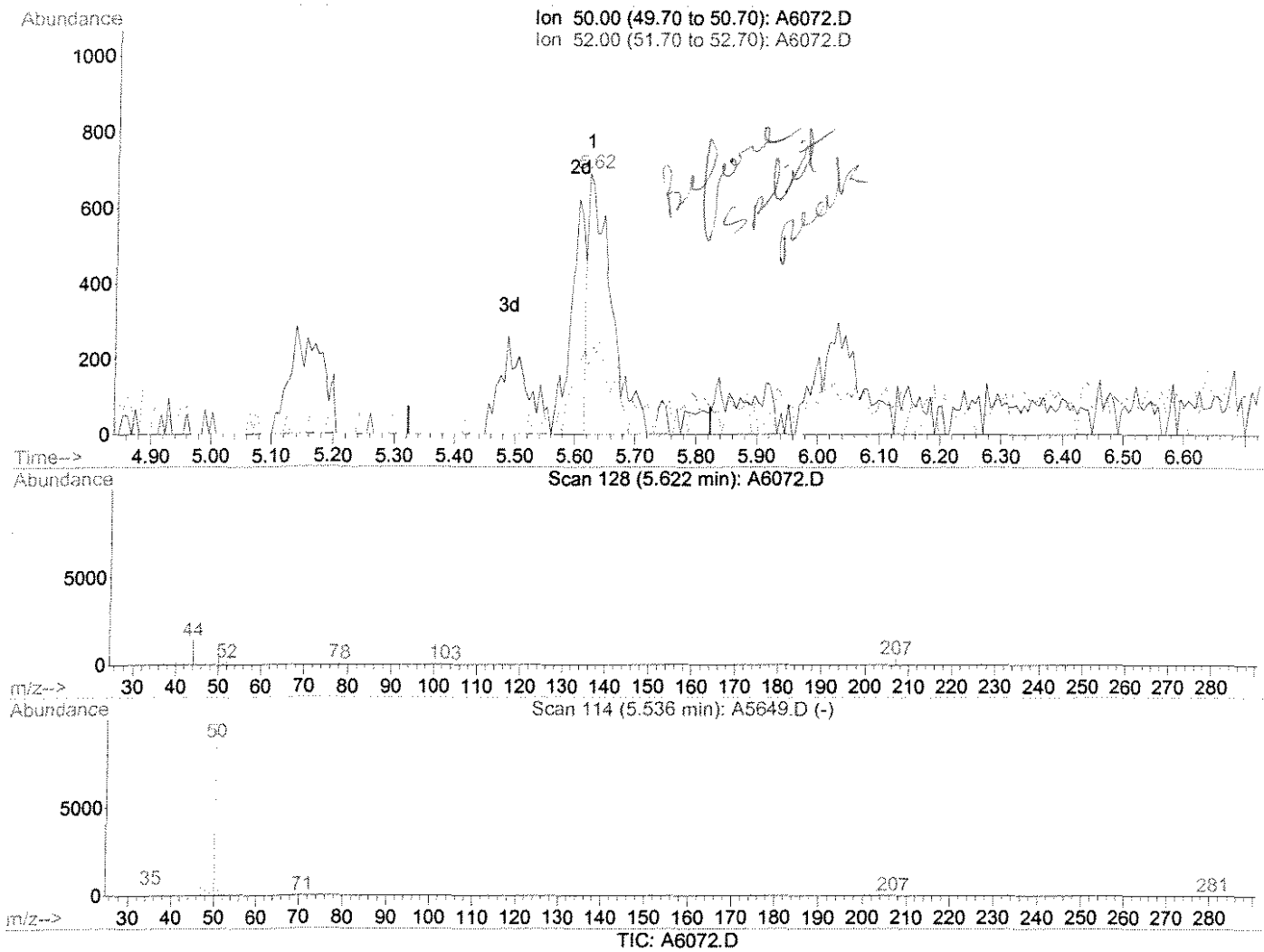
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.63	43	9229	0.0265	ppbv	96
46)	dibromochloromethane	17.93	129	5665	0.0253	ppbv	99
47)	1,2-dibromoethane	18.18	107	5820	0.0281	ppbv	98
49)	chlorobenzene	19.04	112	9643	0.0284	ppbv	95
50)	ethylbenzene	19.19	91	15045	0.0268	ppbv	98
51)	M+P xylene	19.39	91	23217	0.0522	ppbv	97
52)	O xylene	20.12	91	11760	0.0255	ppbv	97
53)	styrene	20.13	104	8264	0.0241	ppbv	98
54)	bromoform	20.50	173	5298	0.0246	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.27	83	11132	0.0316	ppbv	99
57)	4-ethyltoluene	21.72	105	15679	0.0248	ppbv	98
58)	1,3,5-trimethylbenzene	21.83	105	13329	0.0256	ppbv	99
59)	1,2,4-trimethylbenzene	22.54	105	12667	0.0249	ppbv	99
60)	1,3-dclbenz	23.12	146	9222	0.0277	ppbv	97
61)	1,4-dclbenz	23.28	146	8763	0.0266	ppbv	98
62)	benzyl chloride	23.50	91	9889	0.0229	ppbv	98
63)	1,2-dclbenz	23.99	146	8751	0.0277	ppbv	98
64)	1,2,4-trichlorobenzene	27.01	180	5891	0.0267	ppbv	98
65)	hexachlorobutadiene	27.31	225	7698	0.0309	ppbv	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6072.D Vial: 2
Acq On : 14 Nov 2008 15:31 Operator: T.WALTON
Sample : 0.02 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration



(5) chloromethane

5.62min 0.0150ppbv

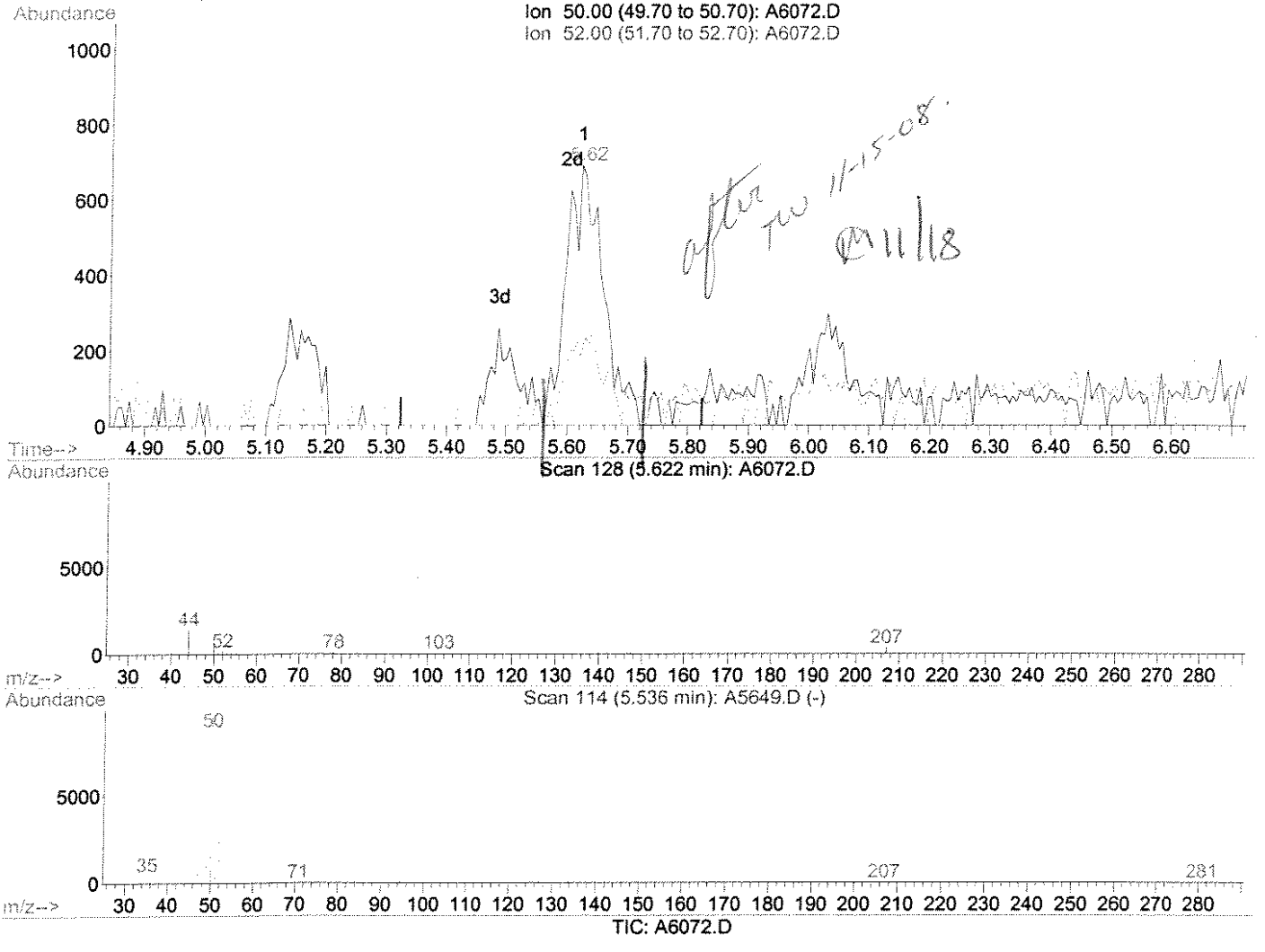
response 1819

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	23.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6072.D Vial: 2
Acq On : 14 Nov 2008 15:31 Operator: T.WALTON
Sample : 0.02 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:53 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration



(5) chloromethane

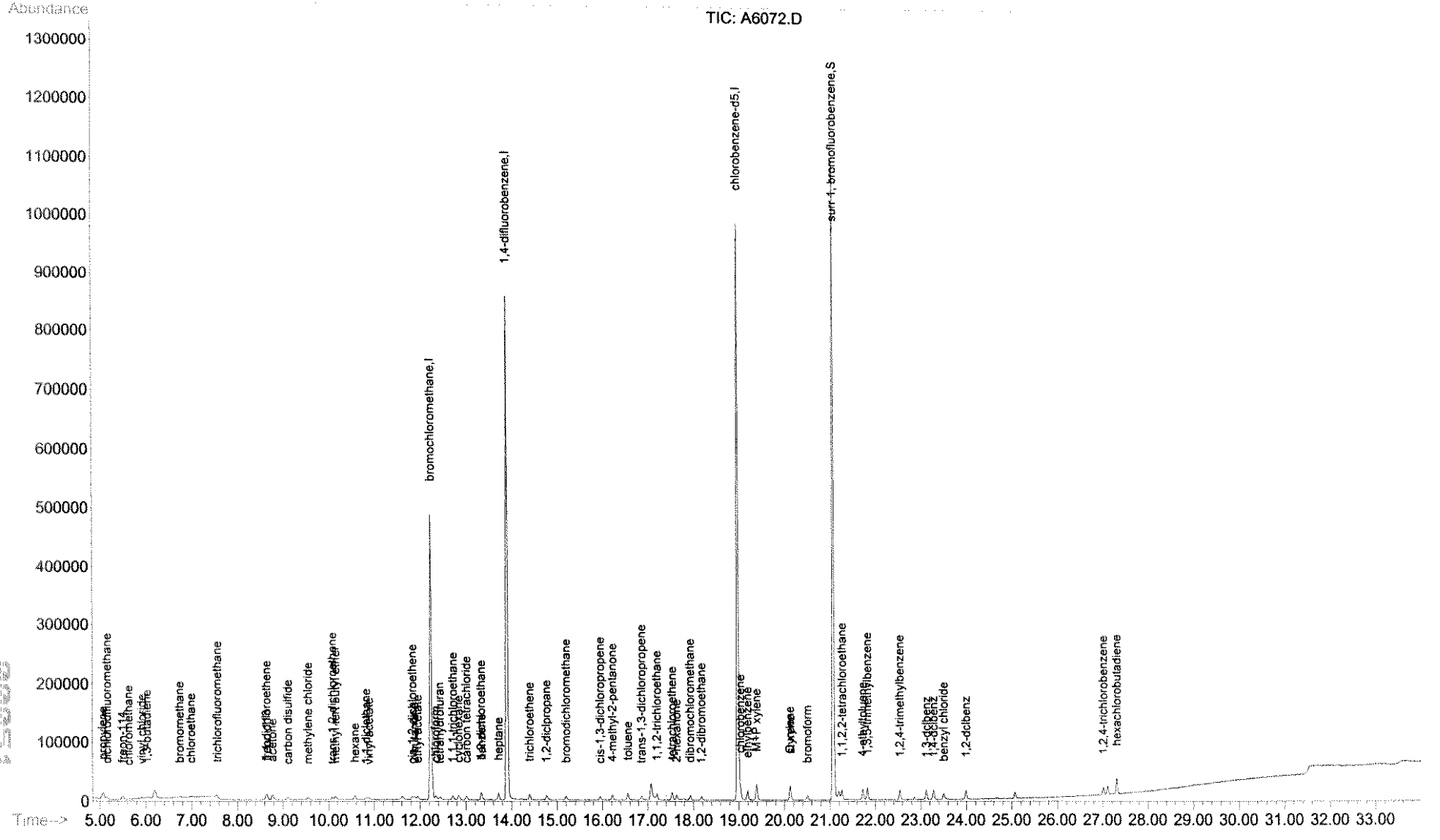
5.62min 0.0237ppbv m

response 2885

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	15.04
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6072.D Vial: 2
Acq On : 14 Nov 2008 15:31 Operator: T.WALTON
Sample : 0.02 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:54 2008 Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6073.D Vial: 3
Acq On : 14 Nov 2008 16:16 Operator: T.WALTON
Sample : 0.095 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	12.24	130	208026	2.5000	ppbv	0.00
28) 1,4-difluorobenzene	13.90	114	838041	2.5000	ppbv	-0.01
48) chlorobenzene-d5	18.98	117	710736	2.5000	ppbv	-0.02
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.08	174	403679	2.50	ppbv	-0.02
Spiked Amount 2.500	Range 70 - 130		Recovery = 100.04%			
Target Compounds						Qvalue
2) propylene	5.06	41	14859	0.0987	ppbv	87
3) dichlorodifluoromethane	5.16	85	28803	0.0957	ppbv	99
4) freon-114	5.49	85	29354	0.0931	ppbv	99
5) chloromethane	5.62	50	10872	0.0916	ppbv	92
6) vinyl chloride	5.91	62	11560	0.0933	ppbv	100
7) 1,3-butadiene	6.03	54	9806	0.0975	ppbv	99
8) bromomethane	6.74	94	9515	0.0949	ppbv	91
9) chloroethane	6.98	64	5644	0.0926	ppbv	79
10) trichlorofluoromethane	7.56	101	26036	0.0896	ppbv	97
11) ethanol	7.97	45	3533	0.0982	ppbv #	37
12) freon-113	8.64	101	20110	0.0977	ppbv	96
13) 1,1-dichloroethene	8.65	61	16451	0.0927	ppbv	81
14) acetone	8.77	43	33916	0.1137	ppbv	95
15) isopropanol	9.07	45	13220	0.1040	ppbv	97
16) carbon disulfide	9.11	76	29695	0.0946	ppbv	94
17) methylene chloride	9.55	84	9752	0.1030	ppbv	87
18) trans-1,2-dichloroethene	10.08	61	16168	0.0937	ppbv	88
19) methyl tert butyl ether	10.15	73	30243	0.0980	ppbv	98
20) hexane	10.58	57	17644	0.0939	ppbv	100
21) 1,1-diclethane	10.82	63	21035	0.0998	ppbv	100
22) vinyl acetate	10.88	43	29216	0.0866	ppbv	99
23) 2-butanone	11.86	43	29064	0.1027	ppbv	98
24) cis-1,2-dichloroethene	11.83	96	10241	0.0920	ppbv	95
25) ethyl acetate	11.94	43	33187	0.0967	ppbv	98
26) chloroform	12.35	83	21927	0.0997	ppbv	100
27) tetrahydrofuran	12.42	72	4938	0.0919	ppbv	99
29) 1,1,1-trichloroethane	12.72	97	21605	0.0930	ppbv	97
30) cyclohexane	12.85	56	17731	0.0851	ppbv	95
31) carbon tetrachloride	13.02	117	20015	0.0879	ppbv	100
32) 1,2-dichloroethane	13.34	62	15626	0.0980	ppbv	97
33) benzene	13.34	78	36532	0.0957	ppbv	98
34) heptane	13.72	71	10837	0.0847	ppbv	99
35) trichloroethene	14.40	130	13409	0.0900	ppbv	95
36) 1,2-diclpropane	14.77	63	13477	0.0945	ppbv	94
37) 1,4-dioxane	15.06	88	3493	0.1007	ppbv	98
38) bromodichloromethane	15.20	83	21290	0.0883	ppbv	99
39) cis-1,3-dichloropropene	15.94	75	16638	0.0847	ppbv	97
40) 4-methyl-2-pentanone	16.21	43	31935	0.0901	ppbv	99
41) toluene	16.56	91	37261	0.0918	ppbv	99
42) trans-1,3-dichloropropene	16.86	75	17059	0.0912	ppbv	98
43) 1,1,2-trichloroethane	17.20	97	13412	0.0946	ppbv	89
44) tetrachloroethene	17.54	166	16624	0.0878	ppbv	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6073.D Vial: 3
Acq On : 14 Nov 2008 16:16 Operator: T.WALTON
Sample : 0.095 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2-hexanone	17.62	43	29974	0.0885	ppbv	99
46) dibromochloromethane	17.93	129	18142	0.0835	ppbv	97
47) 1,2-dibromoethane	18.18	107	17895	0.0889	ppbv	100
49) chlorobenzene	19.03	112	30349	0.0923	ppbv	98
50) ethylbenzene	19.19	91	48333	0.0887	ppbv	98
51) M+P xylene	19.39	91	74242	0.1721	ppbv	100
52) O xylene	20.12	91	37304	0.0832	ppbv	100
53) styrene	20.13	104	26511	0.0797	ppbv	97
54) bromoform	20.51	173	15612	0.0746	ppbv	98
56) 1,1,2,2-tetrachloroethane	21.26	83	31154	0.0912	ppbv	99
57) 4-ethyltoluene	21.72	105	48890	0.0796	ppbv	97
58) 1,3,5-trimethylbenzene	21.83	105	42657	0.0843	ppbv	98
59) 1,2,4-trimethylbenzene	22.54	105	39979	0.0808	ppbv	99
60) 1,3-dclbenz	23.12	146	26956	0.0835	ppbv	98
61) 1,4-dclbenz	23.28	146	26215	0.0821	ppbv	98
62) benzyl chloride	23.50	91	31375	0.0750	ppbv	99
63) 1,2-dclbenz	23.99	146	24504	0.0799	ppbv	98
64) 1,2,4-trichlorobenzene	27.01	180	17989	0.0839	ppbv	97
65) hexachlorobutadiene	27.31	225	22524	0.0931	ppbv	98

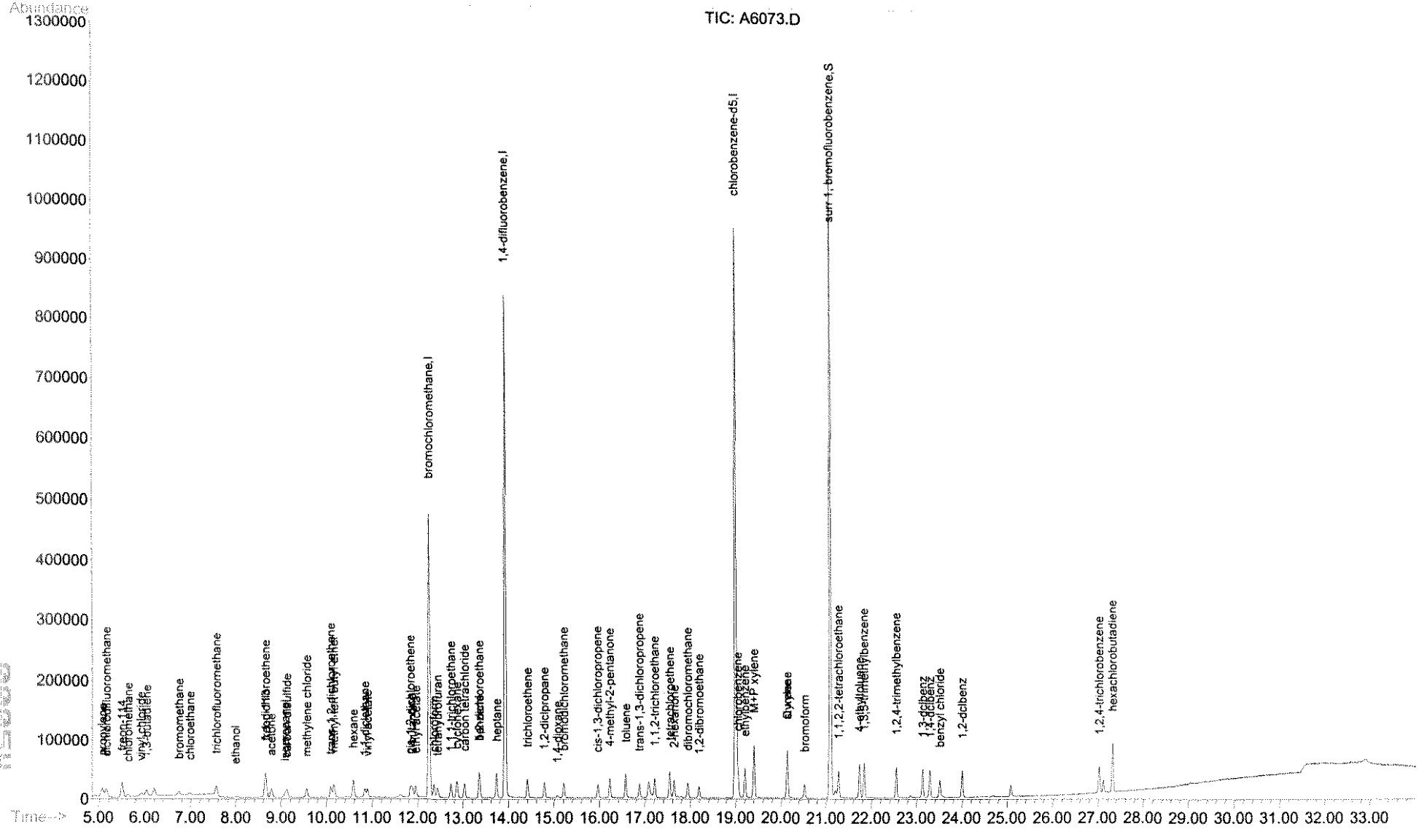
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6073.D
Acq On : 14 Nov 2008 16:16
Sample : 0.095 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008

Vial: 3
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

TW 11-15-08

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6074.D Vial: 3
Acq On : 14 Nov 2008 17:01 Operator: T.WALTON
Sample : 0.20 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	12.24	130	205921	2.5000	ppbv	0.00
28) 1,4-difluorobenzene	13.91	114	780689	2.5000	ppbv	-0.01
48) chlorobenzene-d5	18.98	117	646753	2.5000	ppbv	-0.02
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.07	174	356293	2.43	ppbv	-0.03
Spiked Amount 2.500	Range 70 - 130		Recovery = 97.03%			
Target Compounds						Qvalue
2) propylene	5.05	41	29435	0.1975	ppbv	95
3) dichlorodifluoromethane	5.15	85	61317	0.2058	ppbv	100
4) freon-114	5.49	85	64598	0.2070	ppbv	97
5) chloromethane	5.62	50	24333	0.2072	ppbv	98
6) vinyl chloride	5.92	62	25213	0.2055	ppbv	100
7) 1,3-butadiene	6.03	54	20966	0.2107	ppbv	99
8) bromomethane	6.74	94	19295	0.1943	ppbv	95
9) chloroethane	6.98	64	12233	0.2028	ppbv	95
10) trichlorofluoromethane	7.56	101	59370	0.2065	ppbv	100
11) ethanol	7.98	45	7490	0.2103	ppbv	99
12) freon-113	8.64	101	45278	0.2222	ppbv	100
13) 1,1-dichloroethene	8.64	61	37928	0.2159	ppbv	91
14) acetone	8.76	43	53055	0.1797	ppbv	94
15) isopropanol	9.05	45	29423	0.2338	ppbv	97
16) carbon disulfide	9.12	76	64619	0.2079	ppbv	98
17) methylene chloride	9.55	84	19887	0.2122	ppbv	92
18) trans-1,2-dichloroethene	10.08	61	35867	0.2101	ppbv	92
19) methyl tert butyl ether	10.14	73	60628	0.1985	ppbv	98
20) hexane	10.57	57	37882	0.2036	ppbv	100
21) 1,1-diclethane	10.82	63	44319	0.2124	ppbv	100
22) vinyl acetate	10.88	43	58894	0.1763	ppbv	99
23) 2-butanone	11.86	43	56547	0.2019	ppbv	97
24) cis-1,2-dichloroethene	11.84	96	22109	0.2007	ppbv	96
25) ethyl acetate	11.94	43	67479	0.1987	ppbv	98
26) chloroform	12.34	83	45691	0.2100	ppbv	100
27) tetrahydrofuran	12.41	72	9749	0.1833	ppbv	99
29) 1,1,1-trichloroethane	12.72	97	46577	0.2152	ppbv	96
30) cyclohexane	12.85	56	39972	0.2059	ppbv	96
31) carbon tetrachloride	13.01	117	43818	0.2066	ppbv	100
32) 1,2-dichloroethane	13.34	62	33250	0.2239	ppbv	98
33) benzene	13.34	78	73424	0.2065	ppbv	98
34) heptane	13.72	71	23852	0.2001	ppbv	99
35) trichloroethene	14.40	130	28339	0.2042	ppbv	95
36) 1,2-diclpropane	14.77	63	27562	0.2074	ppbv	97
37) 1,4-dioxane	15.05	88	9403	0.2910	ppbv	93
38) bromodichloromethane	15.20	83	44988	0.2003	ppbv	98
39) cis-1,3-dichloropropene	15.95	75	35186	0.1922	ppbv	99
40) 4-methyl-2-pentanone	16.21	43	65866	0.1996	ppbv	100
41) toluene	16.56	91	77485	0.2049	ppbv	97
42) trans-1,3-dichloropropene	16.87	75	34459	0.1978	ppbv	98
43) 1,1,2-trichloroethane	17.20	97	26556	0.2010	ppbv	93
44) tetrachloroethene	17.53	166	35206	0.1995	ppbv	99

(#) = qualifier out of range (m) = manual integration

20035

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6074.D Vial: 3
Acq On : 14 Nov 2008 17:01 Operator: T.WALTON
Sample : 0.20 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.62	43	62218	0.1971	ppbv	99
46)	dibromochloromethane	17.93	129	37783	0.1866	ppbv	100
47)	1,2-dibromoethane	18.18	107	37197	0.1983	ppbv	100
49)	chlorobenzene	19.03	112	61467	0.2054	ppbv	98
50)	ethylbenzene	19.19	91	98947	0.1996	ppbv	99
51)	M+P xylene	19.39	91	157215	0.4004	ppbv	99
52)	O xylene	20.12	91	78392	0.1922	ppbv	100
53)	styrene	20.13	104	57320	0.1894	ppbv	96
54)	bromoform	20.51	173	32481	0.1707	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.26	83	61555	0.1980	ppbv	100
57)	4-ethyltoluene	21.72	105	100892	0.1806	ppbv	100
58)	1,3,5-trimethylbenzene	21.83	105	85829	0.1865	ppbv	97
59)	1,2,4-trimethylbenzene	22.54	105	81651	0.1814	ppbv	99
60)	1,3-dclbenz	23.12	146	54214	0.1845	ppbv	97
61)	1,4-dclbenz	23.28	146	53412	0.1838	ppbv	98
62)	benzyl chloride	23.50	91	64875	0.1703	ppbv	99
63)	1,2-dclbenz	23.99	146	49626	0.1779	ppbv	98
64)	1,2,4-trichlorobenzene	27.02	180	35017	0.1795	ppbv	100
65)	hexachlorobutadiene	27.31	225	45116	0.2049	ppbv	96

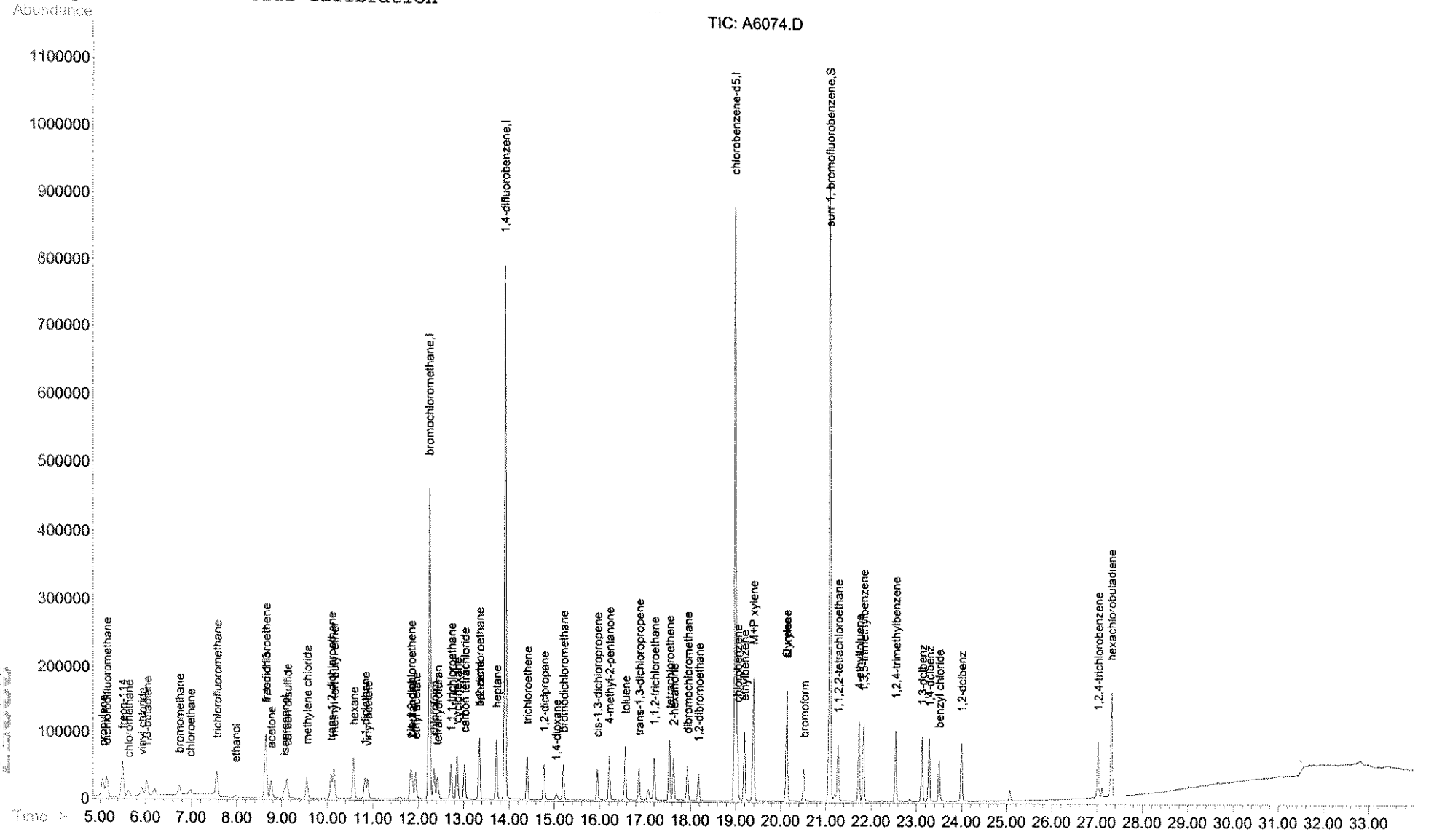
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6074.D
Acq On : 14 Nov 2008 17:01
Sample : 0.20 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008

Vial: 3
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

TW 11-15-08

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6075.D Vial: 3
Acq On : 14 Nov 2008 17:46 Operator: T.WALTON
Sample : 0.50 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:05 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	12.24	130	207599	2.5000	ppbv	0.00
28) 1,4-difluorobenzene	13.90	114	819303	2.5000	ppbv	-0.01
48) chlorobenzene-d5	18.98	117	685400	2.5000	ppbv	-0.02
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.07	174	381536	2.45	ppbv	-0.03
Spiked Amount 2.500	Range 70 - 130		Recovery = 98.04%			
Target Compounds						Qvalue
2) propylene	5.05	41	66658	0.4436	ppbv	100
3) dichlorodifluoromethane	5.15	85	150750	0.5018	ppbv	100
4) freon-114	5.49	85	158616	0.5041	ppbv	99
5) chloromethane	5.62	50	58489	0.4941	ppbv	100
6) vinyl chloride	5.92	62	62641	0.5064	ppbv	98
7) 1,3-butadiene	6.03	54	53358	0.5318	ppbv	97
8) bromomethane	6.74	94	46763	0.4671	ppbv	100
9) chloroethane	6.98	64	30253	0.4974	ppbv	98
10) trichlorofluoromethane	7.56	101	140770	0.4857	ppbv	99
11) ethanol	7.98	45	12939	0.3604	ppbv	98
12) freon-113	8.64	101	109356	0.5322	ppbv	100
13) 1,1-dichloroethene	8.65	61	93050	0.5253	ppbv	91
14) acetone	8.75	43	123309	0.4143	ppbv	96
15) isopropanol	9.05	45	52334	0.4125	ppbv	100
16) carbon disulfide	9.11	76	157815	0.5037	ppbv	99
17) methylene chloride	9.55	84	49096	0.5197	ppbv	88
18) trans-1,2-dichloroethene	10.08	61	89268	0.5186	ppbv	93
19) methyl tert butyl ether	10.13	73	159266	0.5172	ppbv	100
20) hexane	10.58	57	98508	0.5251	ppbv	99
21) 1,1-diclethane	10.82	63	112038	0.5326	ppbv	100
22) vinyl acetate	10.88	43	165019	0.4901	ppbv	99
23) 2-butanone	11.85	43	147949	0.5240	ppbv	98
24) cis-1,2-dichloroethene	11.83	96	55224	0.4972	ppbv	98
25) ethyl acetate	11.93	43	178420	0.5211	ppbv	100
26) chloroform	12.34	83	114438	0.5217	ppbv	100
27) tetrahydrofuran	12.41	72	27487	0.5125	ppbv	99
29) 1,1,1-trichloroethane	12.72	97	117054	0.5154	ppbv	96
30) cyclohexane	12.85	56	104763	0.5141	ppbv	97
31) carbon tetrachloride	13.02	117	111238	0.4998	ppbv	100
32) 1,2-dichloroethane	13.34	62	83121	0.5333	ppbv	98
33) benzene	13.35	78	186768	0.5005	ppbv	98
34) heptane	13.72	71	63542	0.5080	ppbv	99
35) trichloroethene	14.40	130	71408	0.4903	ppbv	96
36) 1,2-diclpropane	14.77	63	71732	0.5144	ppbv	96
37) 1,4-dioxane	15.03	88	18474m	0.5447	ppbv	
38) bromodichloromethane	15.20	83	117405	0.4982	ppbv	98
39) cis-1,3-dichloropropene	15.94	75	92377	0.4808	ppbv	99
40) 4-methyl-2-pentanone	16.20	43	173850	0.5020	ppbv	98
41) toluene	16.56	91	210279	0.5298	ppbv	99
42) trans-1,3-dichloropropene	16.86	75	95791	0.5240	ppbv	99
43) 1,1,2-trichloroethane	17.20	97	68642	0.4950	ppbv	93
44) tetrachloroethene	17.53	166	90277	0.4875	ppbv	98

(#) = qualifier out of range (m) = manual integration

TW 11-15-08

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6075.D Vial: 3
Acq On : 14 Nov 2008 17:46 Operator: T.WALTON
Sample : 0.50 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:05 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

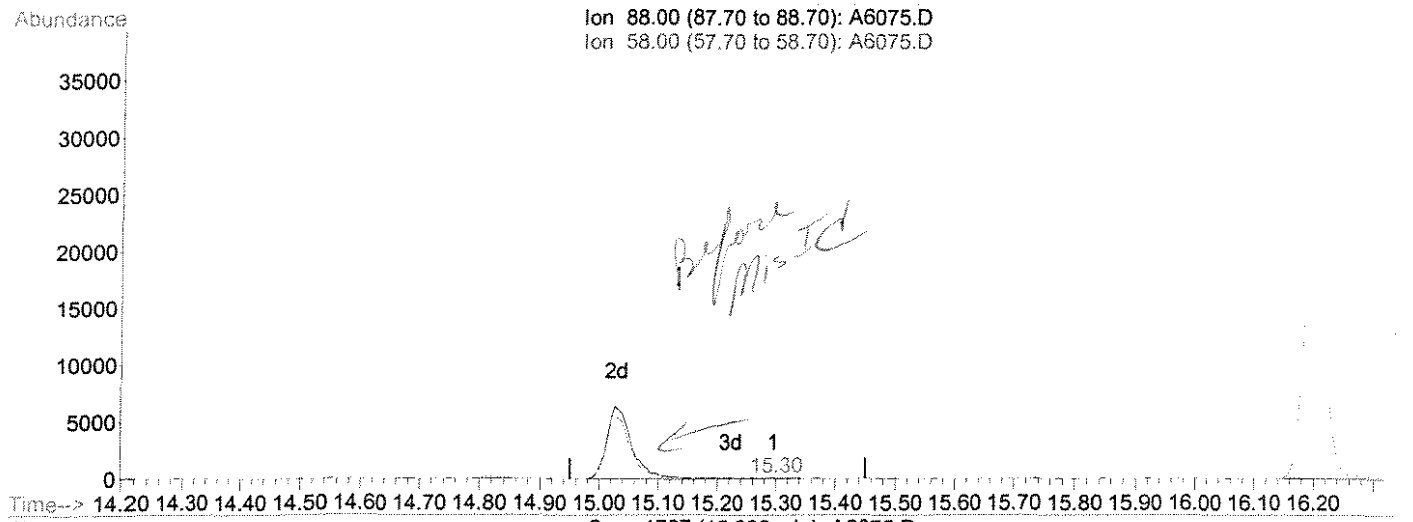
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2-hexanone	17.62	43	164492	0.4966	ppbv	97
46) dibromochloromethane	17.93	129	101926	0.4797	ppbv	100
47) 1,2-dibromoethane	18.17	107	98445	0.5000	ppbv	98
49) chlorobenzene	19.03	112	162325	0.5118	ppbv	99
50) ethylbenzene	19.19	91	273381	0.5203	ppbv	100
51) M+P xylene	19.39	91	436292	1.0486	ppbv	100
52) O xylene	20.12	91	220942	0.5112	ppbv	98
53) styrene	20.13	104	162217	0.5057	ppbv	95
54) bromoform	20.51	173	91816	0.4552	ppbv	98
56) 1,1,2,2-tetrachloroethane	21.26	83	164378	0.4989	ppbv	98
57) 4-ethyltoluene	21.72	105	287529	0.4856	ppbv	100
58) 1,3,5-trimethylbenzene	21.83	105	250071	0.5127	ppbv	98
59) 1,2,4-trimethylbenzene	22.54	105	235778	0.4943	ppbv	99
60) 1,3-dclbenz	23.12	146	148125	0.4757	ppbv	97
61) 1,4-dclbenz	23.28	146	145646	0.4730	ppbv	99
62) benzyl chloride	23.50	91	188907	0.4680	ppbv	100
63) 1,2-dclbenz	23.99	146	137067	0.4635	ppbv	98
64) 1,2,4-trichlorobenzene	27.01	180	100156	0.4845	ppbv	99
65) hexachlorobutadiene	27.31	225	118382	0.5072	ppbv	97

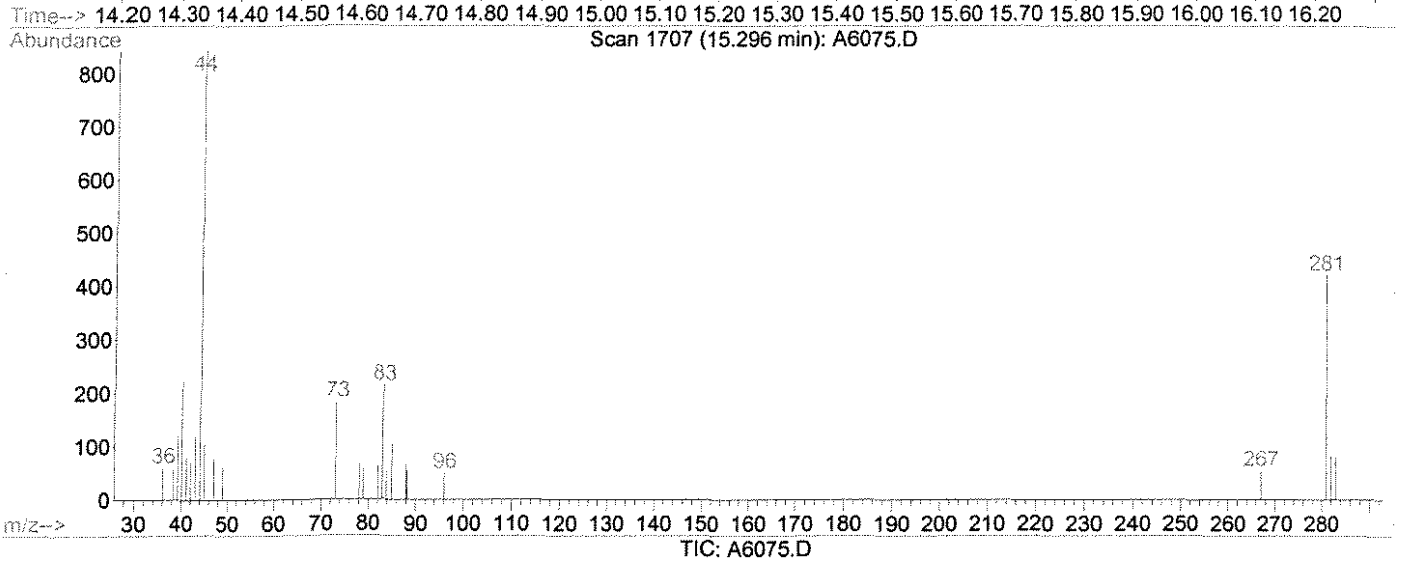
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6075.D Vial: 3
Acq On : 14 Nov 2008 17:46 Operator: T.WALTON
Sample : 0.50 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration





TIC: A6075.D

(37) 1,4-dioxane

15.30min 0.0056ppbv

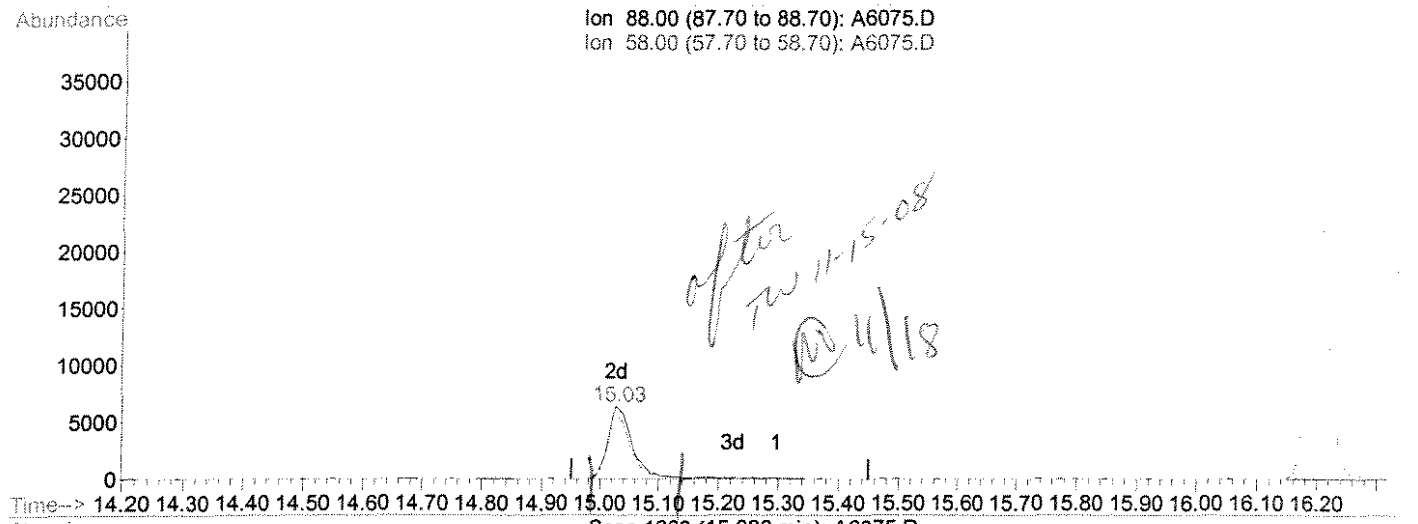
response 190

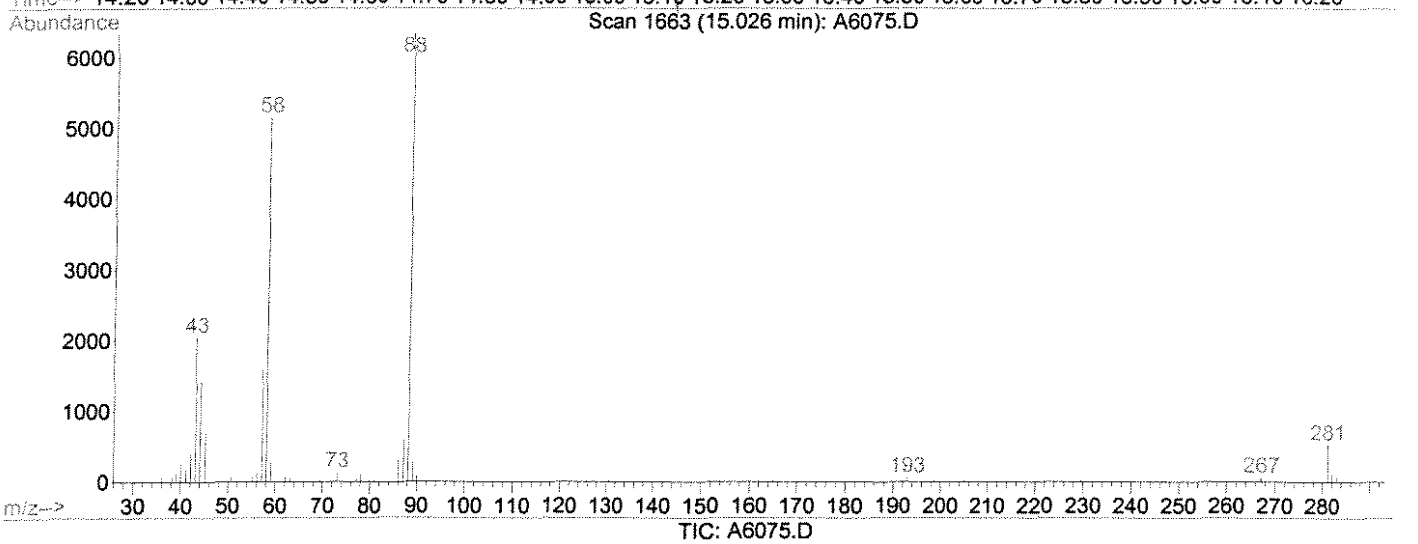
Ion	Exp%	Act%
88.00	100	100
58.00	91.80	94.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6075.D Vial: 3
Acq On : 14 Nov 2008 17:46 Operator: T.WALTON
Sample : 0.50 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:05 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration





(37) 1,4-dioxane

15.03min 0.5447ppbv m

response 18474

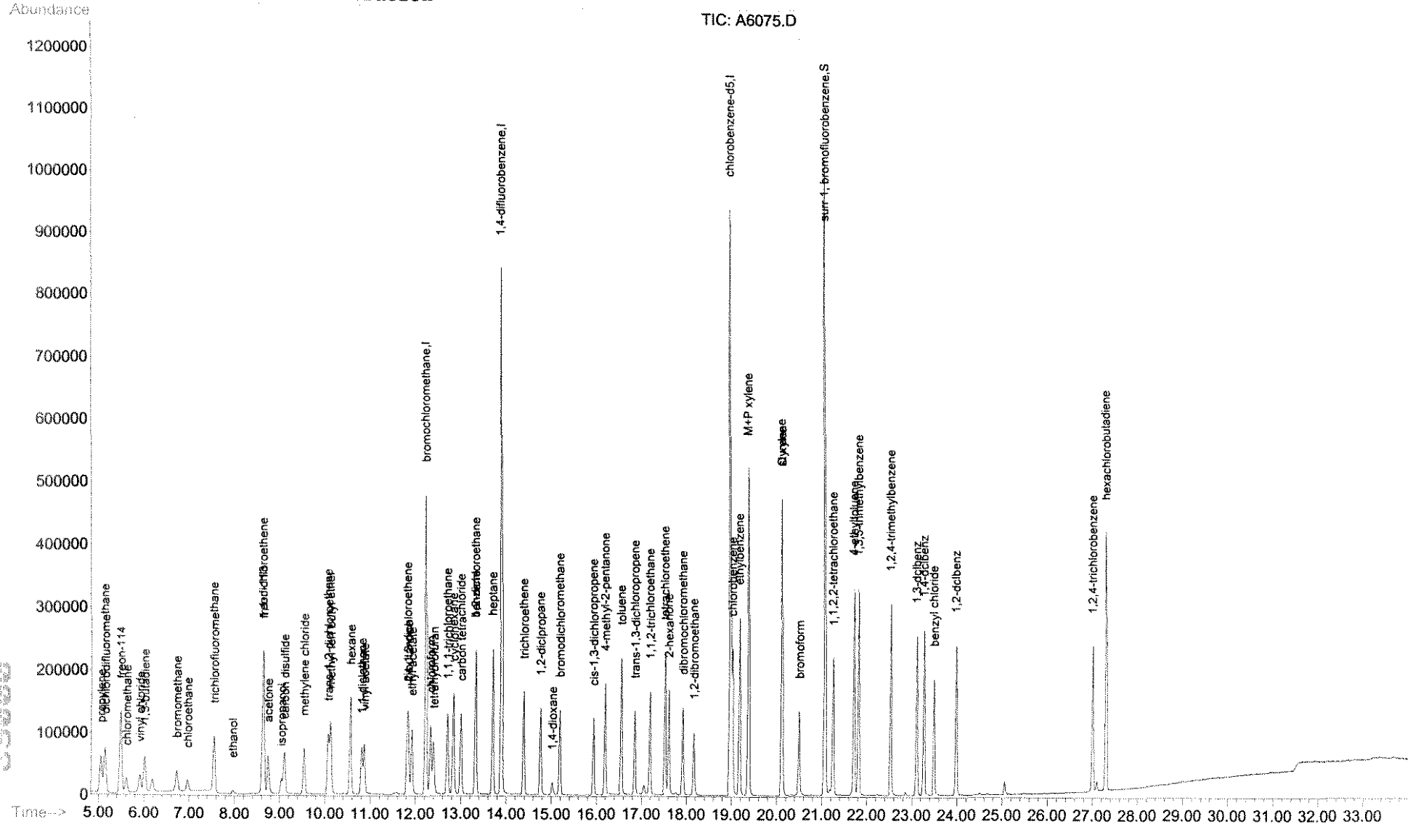
Ion	Exp%	Act%
88.00	100	100
58.00	91.80	0.97#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6075.D
Acq On : 14 Nov 2008 17:46
Sample : 0.50 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:05 2008

Vial: 3
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6076.D Vial: 4
Acq On : 14 Nov 2008 18:31 Operator: T.WALTON
Sample : 1.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	12.24	130	204544	2.5000	ppbv	0.00
28) 1,4-difluorobenzene	13.91	114	787639	2.5000	ppbv	0.00
48) chlorobenzene-d5	18.98	117	664084	2.5000	ppbv	-0.02
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.08	174	376680	2.50	ppbv	-0.02
Spiked Amount 2.500	Range 70 - 130		Recovery = 99.90%			
Target Compounds						Qvalue
2) propylene	5.05	41	118394	0.7996	ppbv	99
3) dichlorodifluoromethane	5.15	85	292870	0.9894	ppbv	99
4) freon-114	5.49	85	313051	1.0097	ppbv	98
5) chloromethane	5.62	50	114446	0.9812	ppbv	99
6) vinyl chloride	5.92	62	121242	0.9948	ppbv	100
7) 1,3-butadiene	6.03	54	106079	1.0730	ppbv	98
8) bromomethane	6.74	94	94717	0.9603	ppbv	100
9) chloroethane	6.98	64	57564	0.9606	ppbv	98
10) trichlorofluoromethane	7.56	101	289847	1.0149	ppbv	100
11) ethanol	7.97	45	40706	1.1507	ppbv	98
12) freon-113	8.64	101	200412	0.9900	ppbv	99
13) 1,1-dichloroethene	8.65	61	190050	1.0890	ppbv	93
14) acetone	8.75	43	181654	0.6195	ppbv	94
15) isopropanol	9.03	45	198446	1.5877	ppbv	96
16) carbon disulfide	9.12	76	322596	1.0450	ppbv	100
17) methylene chloride	9.55	84	91116	0.9789	ppbv	89
18) trans-1,2-dichloroethene	10.08	61	167089	0.9852	ppbv	92
19) methyl tert butyl ether	10.12	73	268172	0.8839	ppbv	99
20) hexane	10.58	57	182850	0.9892	ppbv	100
21) 1,1-diclethane	10.82	63	198921	0.9597	ppbv	99
22) vinyl acetate	10.88	43	261886	0.7894	ppbv	98
23) 2-butanone	11.85	43	247316	0.8890	ppbv	98
24) cis-1,2-dichloroethene	11.83	96	98841	0.9033	ppbv	99
25) ethyl acetate	11.93	43	298933	0.8862	ppbv	100
26) chloroform	12.34	83	204230	0.9449	ppbv	100
27) tetrahydrofuran	12.40	72	47482	0.8986	ppbv	98
29) 1,1,1-trichloroethane	12.72	97	208577	0.9552	ppbv	96
30) cyclohexane	12.84	56	194356	0.9921	ppbv	98
31) carbon tetrachloride	13.02	117	204126	0.9540	ppbv	100
32) 1,2-dichloroethane	13.33	62	139256	0.9293	ppbv	99
33) benzene	13.34	78	314443	0.8765	ppbv	98
34) heptane	13.72	71	115779	0.9628	ppbv	98
35) trichloroethene	14.40	130	130787	0.9340	ppbv	97
36) 1,2-diclpropane	14.77	63	115741	0.8634	ppbv	96
37) 1,4-dioxane	15.02	88	57692	1.7695	ppbv	90
38) bromodichloromethane	15.20	83	208995	0.9225	ppbv	99
39) cis-1,3-dichloropropene	15.95	75	155525	0.8420	ppbv	99
40) 4-methyl-2-pentanone	16.20	43	319925	0.9609	ppbv	98
41) toluene	16.56	91	335479	0.8792	ppbv	99
42) trans-1,3-dichloropropene	16.86	75	158373	0.9011	ppbv	98
43) 1,1,2-trichloroethane	17.20	97	110556	0.8293	ppbv	93
44) tetrachloroethene	17.54	166	160002	0.8987	ppbv	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6076.D Vial: 4
Acq On : 14 Nov 2008 18:31 Operator: T.WALTON
Sample : 1.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.62	43	317903	0.9983	ppbv	96
46)	dibromochloromethane	17.93	129	181269	0.8874	ppbv	99
47)	1,2-dibromoethane	18.18	107	158800	0.8389	ppbv	99
49)	chlorobenzene	19.03	112	261262	0.8501	ppbv	99
50)	ethylbenzene	19.18	91	431518	0.8476	ppbv	100
51)	M+P xylene	19.39	91	689344	1.7100	ppbv	100
52)	O xylene	20.12	91	354254	0.8460	ppbv	98
53)	styrene	20.13	104	262878	0.8458	ppbv	94
54)	bromoform	20.51	173	162722	0.8327	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.26	83	263554	0.8256	ppbv	99
57)	4-ethyltoluene	21.73	105	476982	0.8314	ppbv	100
58)	1,3,5-trimethylbenzene	21.82	105	414895	0.8779	ppbv	98
59)	1,2,4-trimethylbenzene	22.54	105	397401	0.8599	ppbv	99
60)	1,3-dclbenz	23.12	146	244775	0.8113	ppbv	98
61)	1,4-dclbenz	23.28	146	242262	0.8120	ppbv	98
62)	benzyl chloride	23.50	91	326879	0.8357	ppbv	98
63)	1,2-dclbenz	23.99	146	223065	0.7786	ppbv	98
64)	1,2,4-trichlorobenzene	27.01	180	147704	0.7375	ppbv	99
65)	hexachlorobutadiene	27.31	225	176356	0.7799	ppbv	96

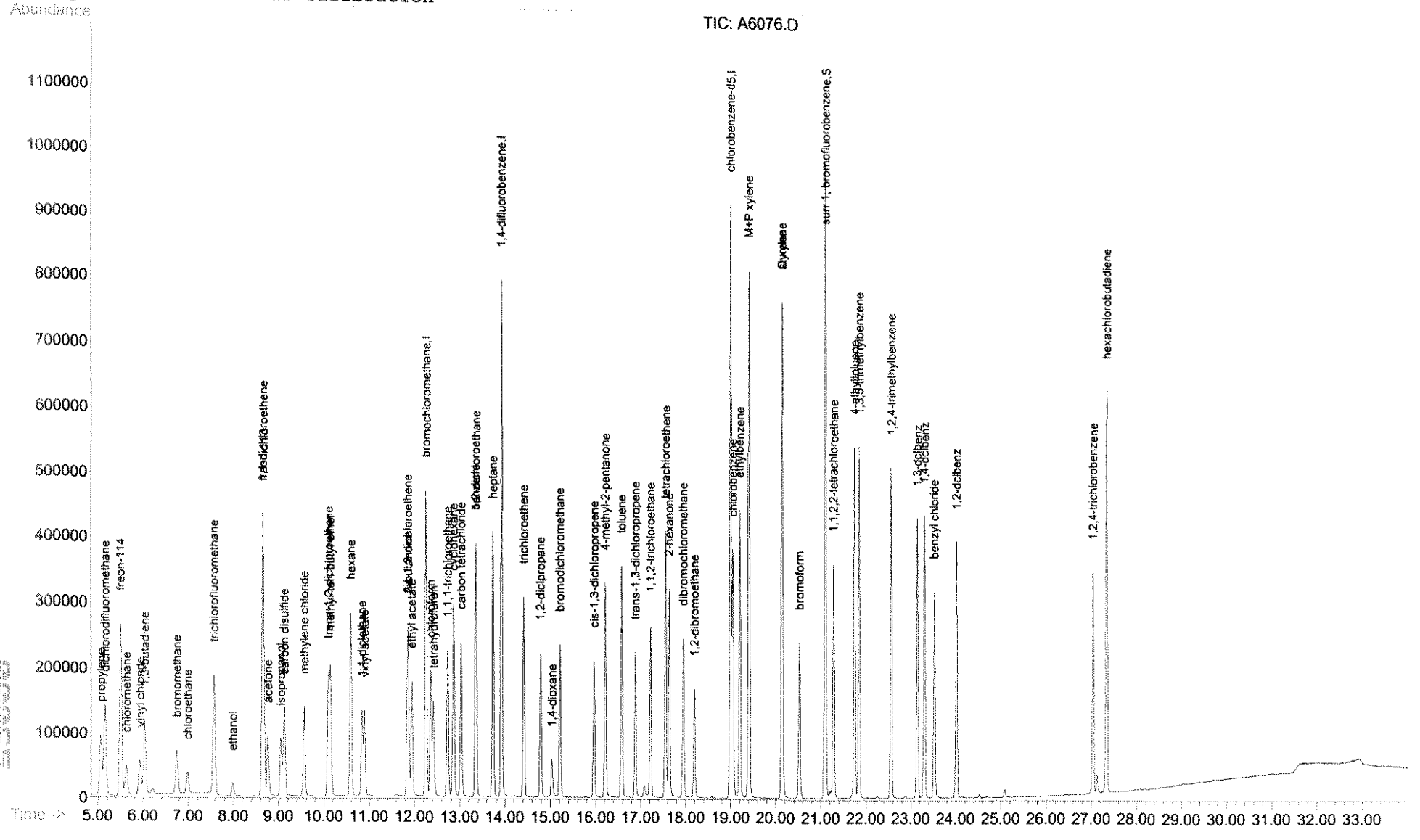
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6076.D
Acq On : 14 Nov 2008 18:31
Sample : 1.0 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008

Vial: 4
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6077.D Vial: 4
Acq On : 14 Nov 2008 19:16 Operator: T.WALTON
Sample : 2.5 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

TW 11-15-08

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	12.24	130	206387	2.5000	ppbv	0.00
28) 1,4-difluorobenzene	13.91	114	786696	2.5000	ppbv	0.00
48) chlorobenzene-d5	18.98	117	655993	2.5000	ppbv	-0.02
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.08	174	367473	2.47	ppbv	-0.03
Spiked Amount 2.500	Range 70 - 130		Recovery = 98.66%			
Target Compounds						Qvalue
2) propylene	5.06	41	298118	1.9954	ppbv	97
3) dichlorodifluoromethane	5.15	85	733965	2.4575	ppbv	100
4) freon-114	5.50	85	780587	2.4952	ppbv	97
5) chloromethane	5.63	50	290671	2.4697	ppbv	100
6) vinyl chloride	5.92	62	311758	2.5352	ppbv	100
7) 1,3-butadiene	6.02	54	273404	2.7408	ppbv	98
8) bromomethane	6.74	94	238111	2.3925	ppbv	98
9) chloroethane	6.98	64	153443	2.5378	ppbv	99
10) trichlorofluoromethane	7.56	101	723556	2.5110	ppbv	99
11) ethanol	7.97	45	95731	2.6821	ppbv	100
12) freon-113	8.64	101	544573	2.6661	ppbv	100
13) 1,1-dichloroethene	8.65	61	493427	2.8022	ppbv	92
14) acetone	8.74	43	517148	1.7478	ppbv	95
15) isopropanol	9.02	45	449081	3.5609	ppbv	94
16) carbon disulfide	9.12	76	809800	2.5999	ppbv	100
17) methylene chloride	9.55	84	245530	2.6142	ppbv	88
18) trans-1,2-dichloroethene	10.08	61	456319	2.6665	ppbv	92
19) methyl tert butyl ether	10.12	73	819091	2.6757	ppbv	100
20) hexane	10.58	57	522139	2.7994	ppbv	99
21) 1,1-diclethane	10.83	63	558041	2.6684	ppbv	100
22) vinyl acetate	10.88	43	860680	2.5710	ppbv	98
23) 2-butanone	11.84	43	728530	2.5954	ppbv	98
24) cis-1,2-dichloroethene	11.83	96	280890	2.5440	ppbv	99
25) ethyl acetate	11.92	43	884979	2.6001	ppbv	99
26) chloroform	12.35	83	571961	2.6226	ppbv	99
27) tetrahydrofuran	12.39	72	150330	2.8196	ppbv	98
29) 1,1,1-trichloroethane	12.71	97	587607	2.6943	ppbv	96
30) cyclohexane	12.85	56	555257	2.8378	ppbv	98
31) carbon tetrachloride	13.01	117	586068	2.7422	ppbv	99
32) 1,2-dichloroethane	13.33	62	403062	2.6931	ppbv	99
33) benzene	13.34	78	922373	2.5742	ppbv	98
34) heptane	13.72	71	339700	2.8282	ppbv	97
35) trichloroethene	14.40	130	361882	2.5876	ppbv	97
36) 1,2-diclpropane	14.77	63	353680	2.6415	ppbv	96
37) 1,4-dioxane	15.00	88	141458	4.3440	ppbv	94
38) bromodichloromethane	15.20	83	602353	2.6620	ppbv	100
39) cis-1,3-dichloropropene	15.95	75	484957	2.6288	ppbv	99
40) 4-methyl-2-pentanone	16.19	43	907426	2.7288	ppbv	96
41) toluene	16.56	91	1054523	2.7670	ppbv	100
42) trans-1,3-dichloropropene	16.86	75	505084	2.8773	ppbv	98
43) 1,1,2-trichloroethane	17.20	97	337110	2.5319	ppbv	93
44) tetrachloroethene	17.53	166	462489	2.6008	ppbv	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6077.D Vial: 4
Acq On : 14 Nov 2008 19:16 Operator: T.WALTON
Sample : 2.5 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.61	43	901958	2.8358	ppbv	95
46)	dibromochloromethane	17.93	129	552777	2.7094	ppbv	100
47)	1,2-dibromoethane	18.18	107	493387	2.6097	ppbv	100
49)	chlorobenzene	19.04	112	798351	2.6298	ppbv	100
50)	ethylbenzene	19.19	91	1386713	2.7576	ppbv	99
51)	M+P xylene	19.38	91	2182325	5.4804	ppbv	99
52)	O xylene	20.12	91	1144770	2.7677	ppbv	97
53)	styrene	20.13	104	866127	2.8211	ppbv	94
54)	bromoform	20.51	173	537128	2.7824	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.26	83	801749	2.5427	ppbv	100
57)	4-ethyltoluene	21.73	105	1534570	2.7078	ppbv	99
58)	1,3,5-trimethylbenzene	21.83	105	1322346	2.8326	ppbv	97
59)	1,2,4-trimethylbenzene	22.54	105	1277721	2.7989	ppbv	97
60)	1,3-dclbenz	23.12	146	797098	2.6744	ppbv	97
61)	1,4-dclbenz	23.27	146	793948	2.6940	ppbv	98
62)	benzyl chloride	23.50	91	1112805	2.8802	ppbv	97
63)	1,2-dclbenz	23.99	146	726003	2.5653	ppbv	98
64)	1,2,4-trichlorobenzene	27.01	180	477087	2.4115	ppbv	99
65)	hexachlorobutadiene	27.31	225	535297	2.3963	ppbv	97

(#) = qualifier out of range (m) = manual integration

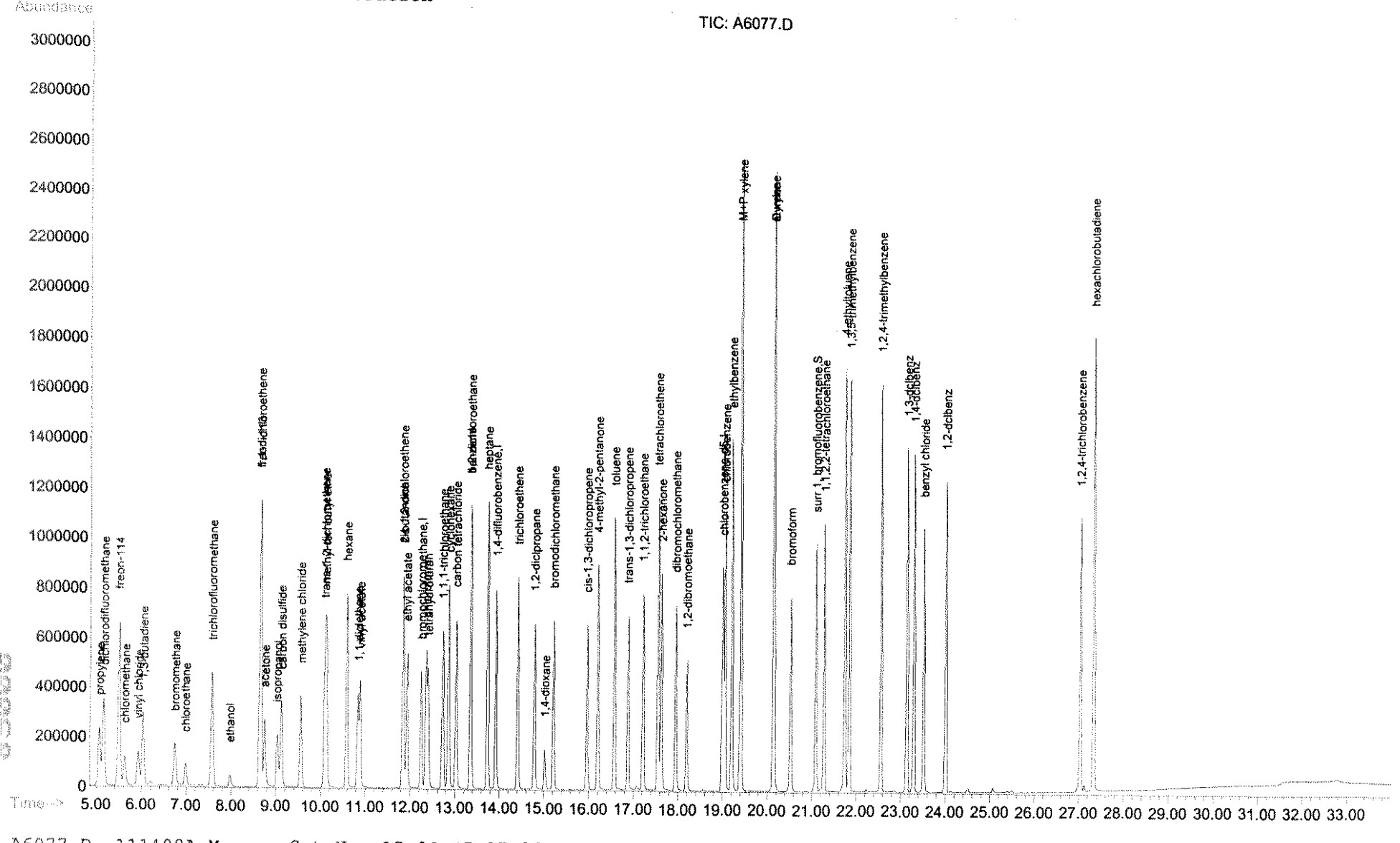
Quantitation Report

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6077.D
Acq On : 14 Nov 2008 19:16
Sample : 2.5 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008

Vial: 4
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6078.D Vial: 4
Acq On : 14 Nov 2008 20:02 Operator: T.WALTON
Sample : 5.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:08 2008 Quant Results File: 111408A.RES

TCW 11-15-08
updated RT from this standard.

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	12.24	130	200909	2.5000 ppbv	0.00
28) 1,4-difluorobenzene	13.90	114	773231	2.5000 ppbv	-0.01
48) chlorobenzene-d5	18.98	117	641830	2.5000 ppbv	-0.02
System Monitoring Compounds					
55) surr 1, bromofluorobenzene	21.08	174	365403	2.51 ppbv	-0.02
Spiked Amount 2.500	Range 70 - 130		Recovery = 100.27%		
Target Compounds					Qvalue
2) propylene	5.06	41	594738	4.0894 ppbv	97
3) dichlorodifluoromethane	5.16	85	1444892	4.9698 ppbv	99
4) freon-114	5.49	85	1550755	5.0922 ppbv	97
5) chloromethane	5.63	50	573624	5.0068 ppbv	100
6) vinyl chloride	5.92	62	625259	5.2232 ppbv	100
7) 1,3-butadiene	6.03	54	552662	5.6914 ppbv	96
8) bromomethane	6.74	94	469373	4.8448 ppbv	100
9) chloroethane	6.97	64	302105	5.1328 ppbv	99
10) trichlorofluoromethane	7.56	101	1424162	5.0771 ppbv	100
11) ethanol	7.96	45	106924	3.0773 ppbv	99
12) freon-113	8.64	101	1083790	5.4506 ppbv	99
13) 1,1-dichloroethene	8.64	61	976881	5.6990 ppbv	90
14) acetone	8.73	43	1024405	3.5565 ppbv	94
15) isopropanol	9.01	45	450647	3.6707 ppbv	94
16) carbon disulfide	9.11	76	1599797	5.2762 ppbv	100
17) methylene chloride	9.55	84	488194	5.3396 ppbv	88
18) trans-1,2-dichloroethene	10.08	61	911230	5.4700 ppbv	91
19) methyl tert butyl ether	10.11	73	1681571	5.6429 ppbv	100
20) hexane	10.58	57	1058129	5.8277 ppbv	98
21) 1,1-diclethane	10.82	63	1109296	5.4489 ppbv	100
22) vinyl acetate	10.87	43	1774315	5.4448 ppbv	98
23) 2-butanone	11.83	43	1456598	5.3306 ppbv	97
24) cis-1,2-dichloroethene	11.83	96	571634	5.3184 ppbv	99
25) ethyl acetate	11.92	43	1758070	5.3062 ppbv	98
26) chloroform	12.34	83	1137536	5.3582 ppbv	99
27) tetrahydrofuran	12.38	72	313111	6.0328 ppbv	97
29) 1,1,1-trichloroethane	12.72	97	1179093	5.5006 ppbv	97
30) cyclohexane	12.85	56	1114350	5.7944 ppbv	96
31) carbon tetrachloride	13.02	117	1182620	5.6298 ppbv	100
32) 1,2-dichloroethane	13.33	62	813431	5.5297 ppbv	99
33) benzene	13.34	78	1863727	5.2919 ppbv	99
34) heptane	13.72	71	704793	5.9699 ppbv	96
35) trichloroethene	14.40	130	740148	5.3844 ppbv	97
36) 1,2-diclpropane	14.77	63	726175	5.5180 ppbv	96
37) 1,4-dioxane	15.00	88	177852m	5.5567 ppbv	
38) bromodichloromethane	15.20	83	1226024	5.5125 ppbv	100
39) cis-1,3-dichloropropene	15.95	75	1009657	5.5682 ppbv	99
40) 4-methyl-2-pentanone	16.19	43	1811408	5.5420 ppbv	96
41) toluene	16.56	91	2169827	5.7926 ppbv	99
42) trans-1,3-dichloropropene	16.86	75	1050232	6.0869 ppbv	97
43) 1,1,2-trichloroethane	17.20	97	697185	5.3274 ppbv	92
44) tetrachloroethene	17.54	166	959438	5.4893 ppbv	98

(m) TCW 11-15-08

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6078.D Vial: 4
Acq On : 14 Nov 2008 20:02 Operator: T.WALTON
Sample : 5.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:08 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

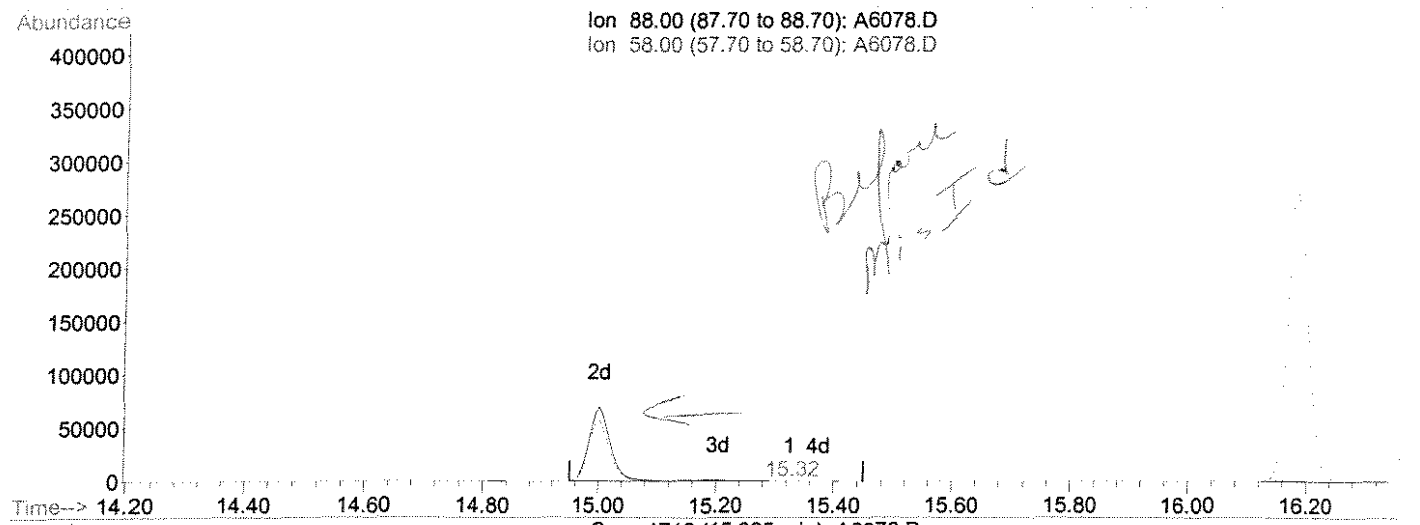
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.60	43	1773396	5.6728	ppbv	93
46)	dibromochloromethane	17.93	129	1160396	5.7866	ppbv	99
47)	1,2-dibromoethane	18.18	107	1016757	5.4717	ppbv	100
49)	chlorobenzene	19.03	112	1638309	5.5158	ppbv	100
50)	ethylbenzene	19.19	91	2824789	5.7412	ppbv	98
51)	M+P xylene	19.39	91	4371717	11.2207	ppbv	96
52)	O xylene	20.12	91	2360889	5.8338	ppbv	96
53)	styrene	20.13	104	1800369	5.9935	ppbv	94
54)	bromoform	20.51	173	1160376	6.1436	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.26	83	1638833	5.3121	ppbv	100
57)	4-ethyltoluene	21.73	105	3138812	5.6608	ppbv	97
58)	1,3,5-trimethylbenzene	21.83	105	2695598	5.9017	ppbv	96
59)	1,2,4-trimethylbenzene	22.54	105	2634401	5.8982	ppbv	96
60)	1,3-dclbenz	23.12	146	1662189	5.7000	ppbv	98
61)	1,4-dclbenz	23.28	146	1669900	5.7913	ppbv	98
62)	benzyl chloride	23.50	91	2349543	6.2154	ppbv	96
63)	1,2-dclbenz	23.99	146	1528887	5.5214	ppbv	98
64)	1,2,4-trichlorobenzene	27.01	180	1047908	5.4137	ppbv	99
65)	hexachlorobutadiene	27.31	225	1072484	4.9071	ppbv	96

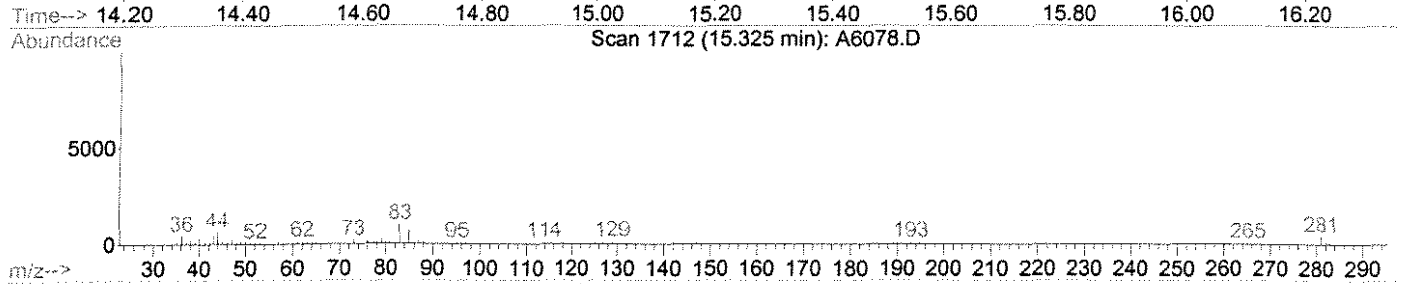
(#) = qualifier out of range (m) = manual integration

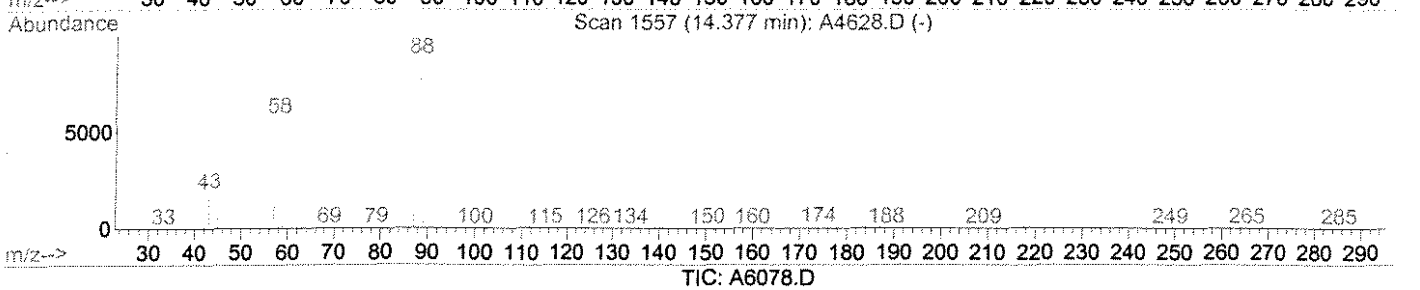
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6078.D Vial: 4
Acq On : 14 Nov 2008 20:02 Operator: T.WALTON
Sample : 5.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration







TIC: A6078.D

(37) 1,4-dioxane

15.32min 0.0043ppbv

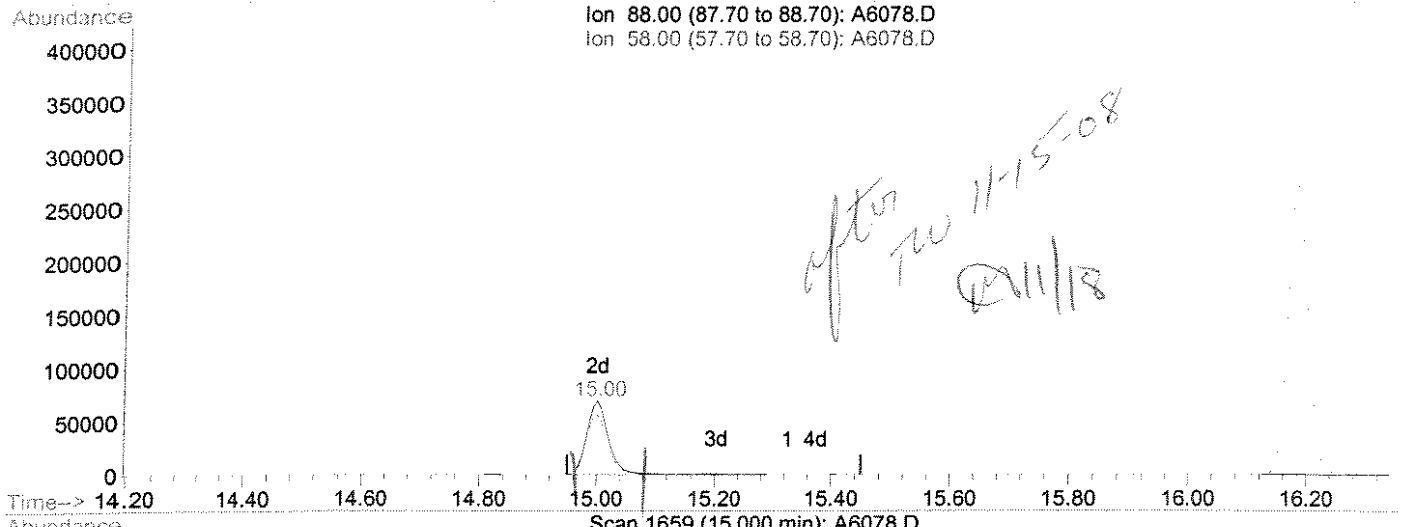
response 139

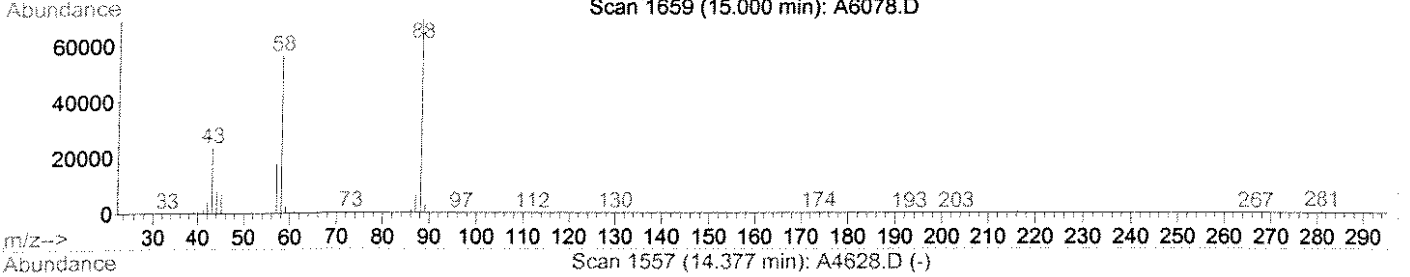
Ion	Exp%	Act%
88.00	100	100
58.00	91.80	84.89
0.00	0.00	0.00
0.00	0.00	0.00

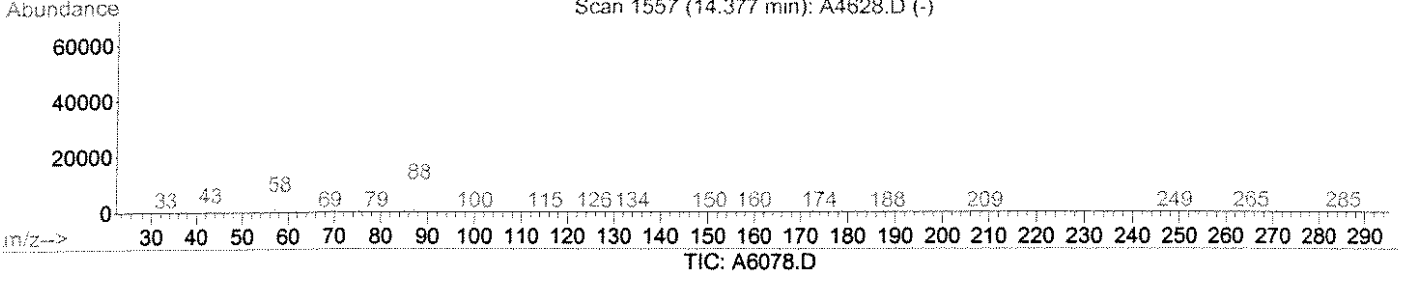
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6078.D Vial: 4
Acq On : 14 Nov 2008 20:02 Operator: T.WALTON
Sample : 5.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:08 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration







TIC: A6078.D

(37) 1,4-dioxane

15.00min 5.5567ppbv m

response 177852

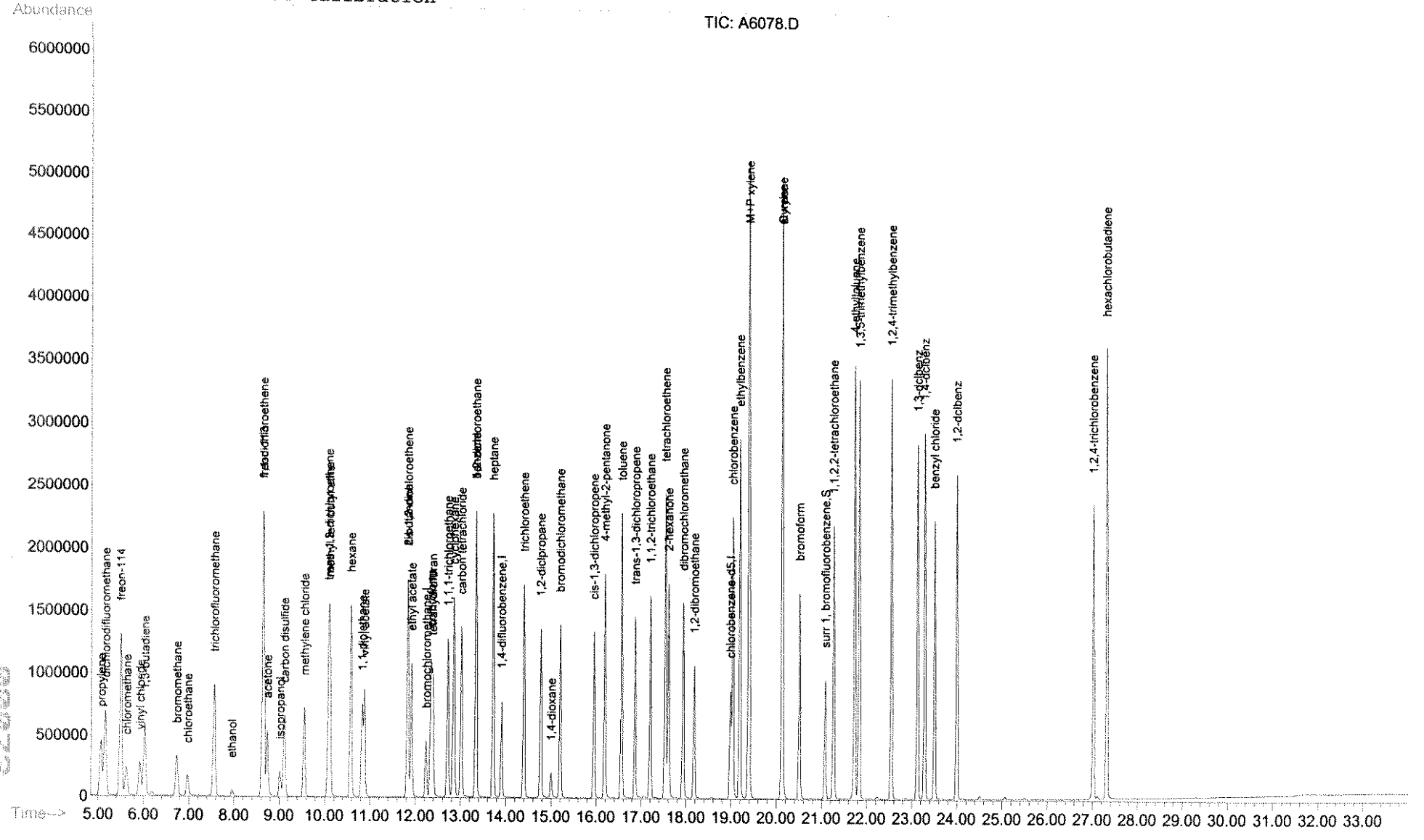
Ion	Exp%	Act%
88.00	100	100
58.00	91.80	0.07#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6078.D
Acq On : 14 Nov 2008 20:02
Sample : 5.0 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:08 2008

Vial: 4
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

TW 11-15-08

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6079.D Vial: 4
Acq On : 14 Nov 2008 20:50 Operator: T.WALTON
Sample : 7.5 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:10 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	12.24	130	203631	2.5000 ppbv	0.00
28) 1,4-difluorobenzene	13.91	114	777474	2.5000 ppbv	0.00
48) chlorobenzene-d5	18.98	117	657464	2.5000 ppbv	-0.02
System Monitoring Compounds					
55) surr 1, bromofluorobenzene	21.07	174	382580	2.56 ppbv	-0.03
Spiked Amount 2.500	Range 70 - 130		Recovery = 102.49%		
Target Compounds					Qvalue
2) propylene	5.05	41	888654	6.0286 ppbv	97
3) dichlorodifluoromethane	5.15	85	2156474	7.3182 ppbv	99
4) freon-114	5.50	85	2306292	7.4720 ppbv	96
5) chloromethane	5.62	50	858270	7.3911 ppbv	99
6) vinyl chloride	5.92	62	937718	7.7286 ppbv	100
7) 1,3-butadiene	6.03	54	829673	8.4299 ppbv	97
8) bromomethane	6.74	94	704399	7.1735 ppbv	100
9) chloroethane	6.98	64	456054	7.6448 ppbv	100
10) trichlorofluoromethane	7.56	101	2113406	7.4335 ppbv	99
11) ethanol	7.96	45	193140	5.4844 ppbv	99
12) freon-113	8.64	101	1627935	8.0777 ppbv	98
13) 1,1-dichloroethene	8.64	61	1474279	8.4858 ppbv	89
14) acetone	8.74	43	1519164	5.2037 ppbv	93
15) isopropanol	9.01	45	926888	7.4490 ppbv	92
16) carbon disulfide	9.12	76	2387015	7.7672 ppbv	100
17) methylene chloride	9.55	84	745181	8.0415 ppbv	86
18) trans-1,2-dichloroethene	10.08	61	1367803	8.1010 ppbv	90
19) methyl tert butyl ether	10.11	73	2525075	8.3602 ppbv	99
20) hexane	10.57	57	1592430	8.6532 ppbv	98
21) 1,1-diclethane	10.83	63	1663844	8.0636 ppbv	99
22) vinyl acetate	10.87	43	2661051	8.0567 ppbv	97
23) 2-butanone	11.84	43	2194058	7.9221 ppbv	97
24) cis-1,2-dichloroethene	11.82	96	865407	7.9440 ppbv	100
25) ethyl acetate	11.92	43	2574156	7.6654 ppbv	96
26) chloroform	12.34	83	1709793	7.9460 ppbv	99
27) tetrahydrofuran	12.38	72	471588	8.9647 ppbv	99
29) 1,1,1-trichloroethane	12.72	97	1770818	8.2159 ppbv	97
30) cyclohexane	12.85	56	1677928	8.6773 ppbv	96
31) carbon tetrachloride	13.01	117	1791754	8.4830 ppbv	100
32) 1,2-dichloroethane	13.33	62	1219837	8.2472 ppbv	100
33) benzene	13.34	78	2775457	7.8377 ppbv	100
34) heptane	13.72	71	1063708	8.9609 ppbv	96
35) trichloroethene	14.40	130	1124932	8.1390 ppbv	97
36) 1,2-diclpropane	14.77	63	1091440	8.2483 ppbv	97
37) 1,4-dioxane	15.00	88	335138m	10.4138 ppbv	@ TW 11-15-08
38) bromodichloromethane	15.20	83	1845861	8.2542 ppbv	99
39) cis-1,3-dichloropropene	15.95	75	1524060	8.3593 ppbv	98
40) 4-methyl-2-pentanone	16.19	43	2694350	8.1984 ppbv	94
41) toluene	16.56	91	3226001	8.5652 ppbv	98
42) trans-1,3-dichloropropene	16.86	75	1587640	9.1514 ppbv	97
43) 1,1,2-trichloroethane	17.20	97	1051241	7.9890 ppbv	92
44) tetrachloroethene	17.53	166	1465095	8.3366 ppbv	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6079.D Vial: 4
Acq On : 14 Nov 2008 20:50 Operator: T.WALTON
Sample : 7.5 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:10 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

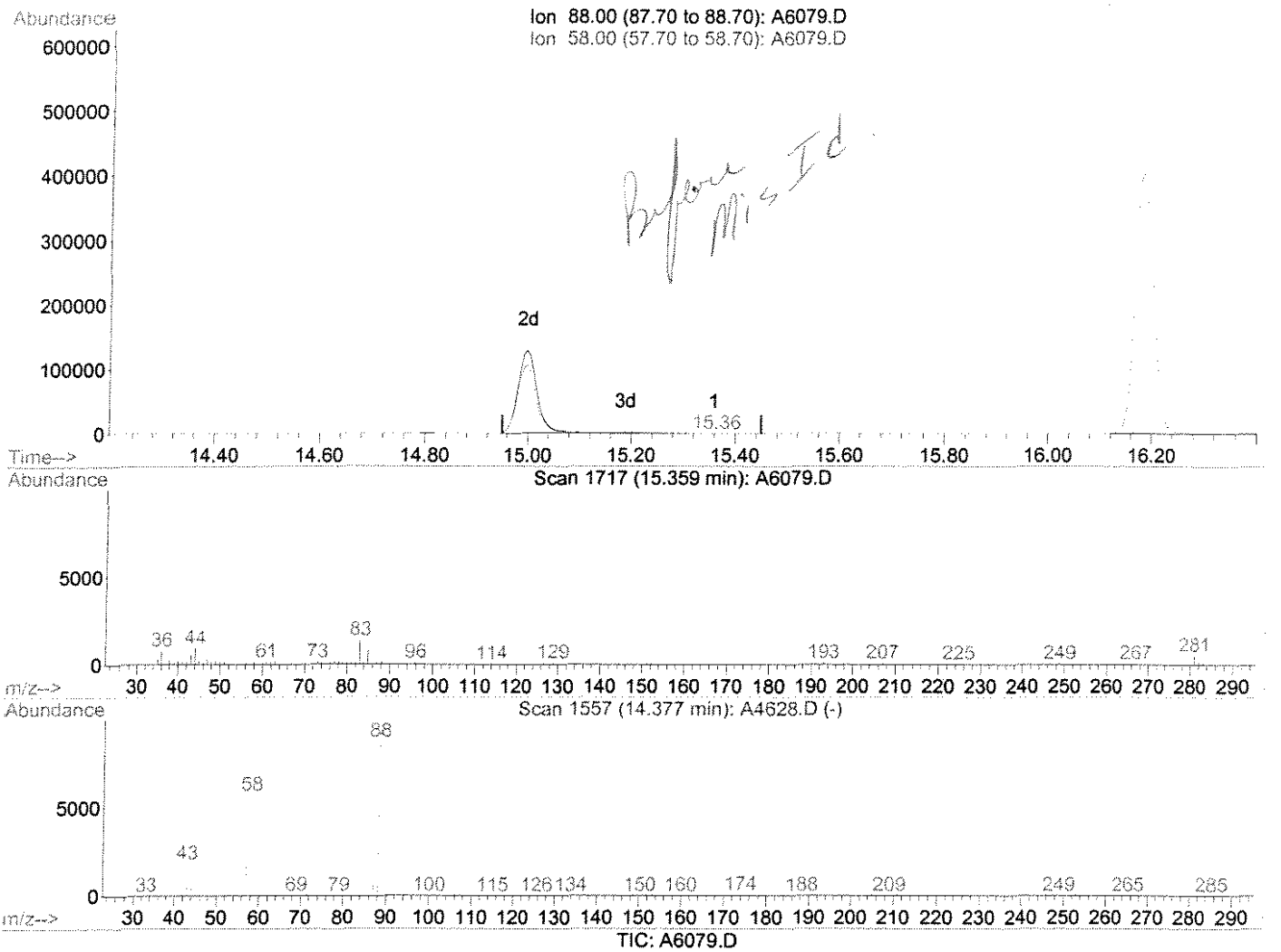
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.61	43	2605557	8.2892	ppbv	92
46)	dibromochloromethane	17.93	129	1768046	8.7688	ppbv	99
47)	1,2-dibromoethane	18.18	107	1538372	8.2335	ppbv	99
49)	chlorobenzene	19.03	112	2459216	8.0827	ppbv	99
50)	ethylbenzene	19.19	91	4174631	8.2829	ppbv	96
51)	M+P xylene	19.39	91	6345008	15.8982	ppbv	94
52)	O xylene	20.13	91	3513211	8.4748	ppbv	95
53)	styrene	20.13	104	2704595	8.7895	ppbv	95
54)	bromoform	20.51	173	1788004	9.2414	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.26	83	2462549	7.7922	ppbv	99
57)	4-ethyltoluene	21.72	105	4654069	8.1939	ppbv	95
58)	1,3,5-trimethylbenzene	21.83	105	4029644	8.6127	ppbv	94
59)	1,2,4-trimethylbenzene	22.54	105	3946207	8.6251	ppbv	95
60)	1,3-dclbenz	23.12	146	2540841	8.5059	ppbv	99
61)	1,4-dclbenz	23.28	146	2551530	8.6384	ppbv	98
62)	benzyl chloride	23.50	91	3568040	9.2143	ppbv	94
63)	1,2-dclbenz	23.99	146	2331398	8.2194	ppbv	98
64)	1,2,4-trichlorobenzene	27.02	180	1649891	8.3210	ppbv	99
65)	hexachlorobutadiene	27.31	225	1649859	7.3693	ppbv	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6079.D Vial: 4
Acq On : 14 Nov 2008 20:50 Operator: T.WALTON
Sample : 7.5 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration



(37) 1,4-dioxane

15.36min 0.0044ppbv

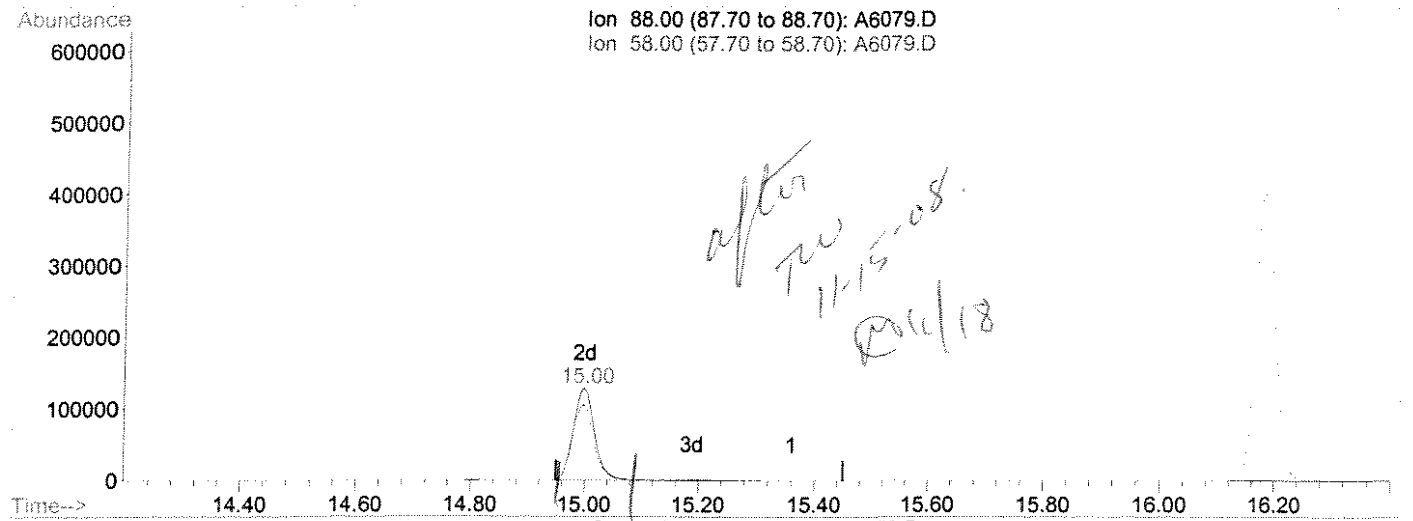
response 141

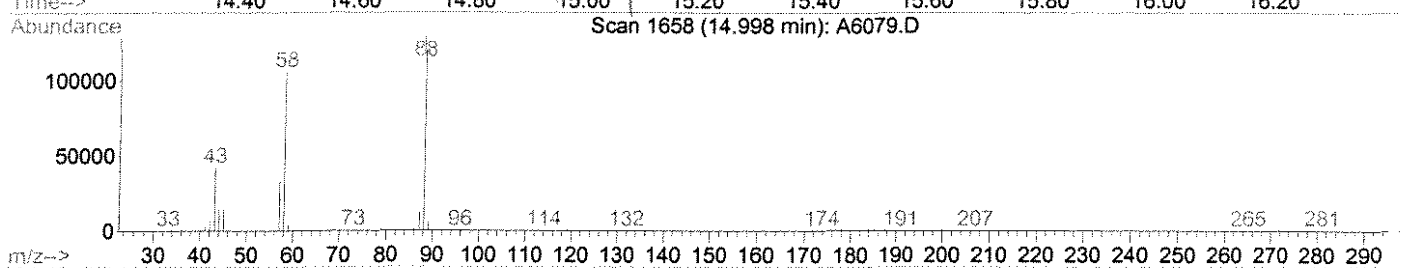
Ion	Exp%	Act%
88.00	100	100
58.00	91.80	85.82
0.00	0.00	0.00
0.00	0.00	0.00

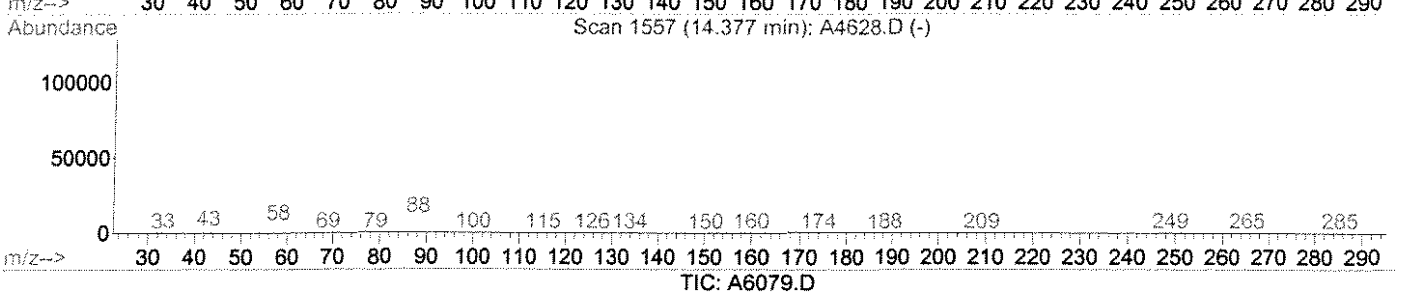
Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6079.D Vial: 4
Acq On : 14 Nov 2008 20:50 Operator: T.WALTON
Sample : 7.5 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:10 2008 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Multiple Level Calibration







TIC: A6079.D

(37) 1,4-dioxane

15.00min 10.4138ppbv m

response 335138

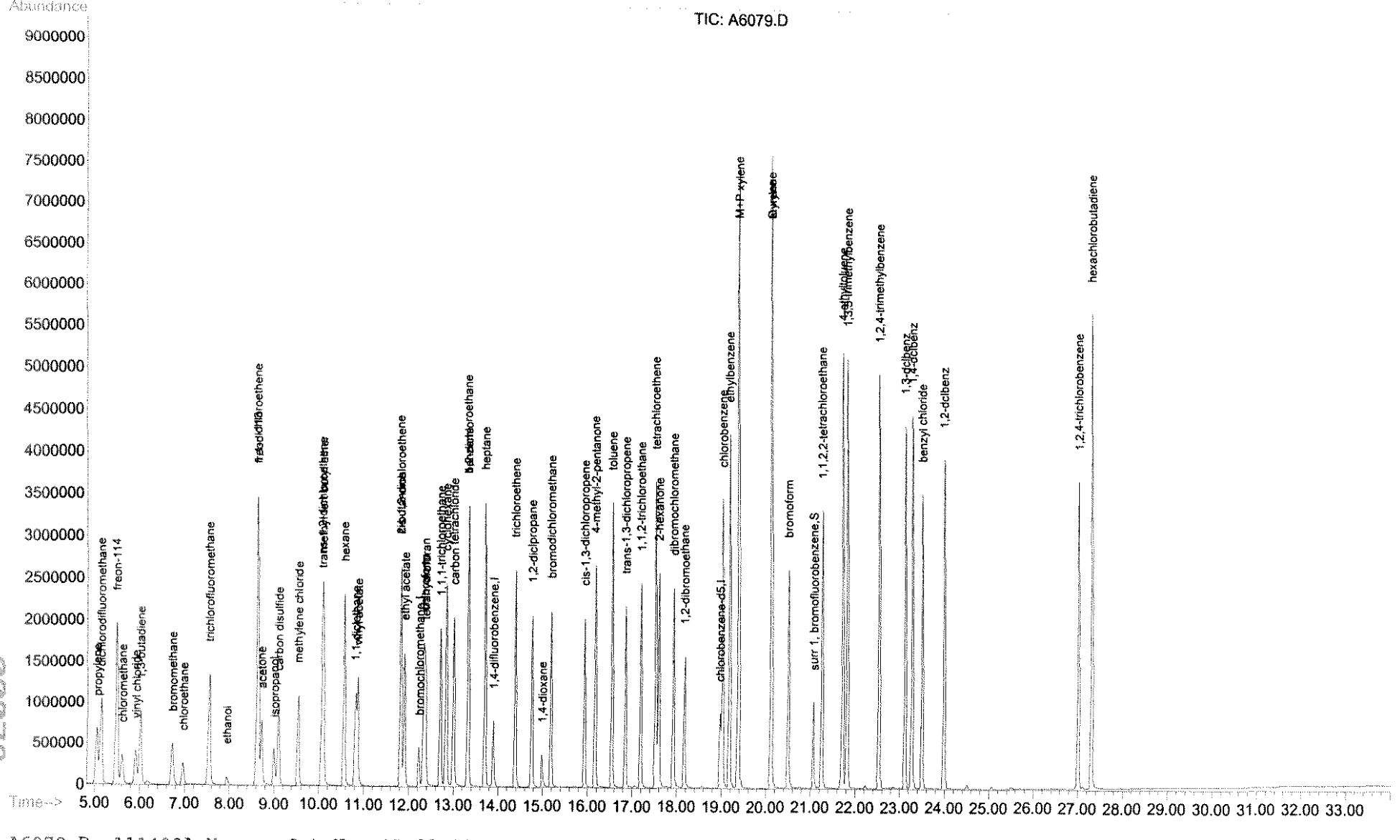
Ion	Exp%	Act%
88.00	100	100
58.00	91.80	0.04#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6079.D
Acq On : 14 Nov 2008 20:50
Sample : 7.5 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 9:10 2008

Vial: 4
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:48:57 2008
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

TLW 11-15-08

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6080.D Vial: 4
Acq On : 14 Nov 2008 21:41 Operator: T.WALTON
Sample : 10.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	12.24	130	209517	2.5000	ppbv	0.00
28) 1,4-difluorobenzene	13.91	114	828689	2.5000	ppbv	-0.01
48) chlorobenzene-d5	18.98	117	702296	2.5000	ppbv	-0.02
System Monitoring Compounds						
55) surr 1, bromofluorobenzene	21.07	174	414387	2.60	ppbv	-0.03
Spiked Amount 2.500	Range 70 - 130		Recovery = 103.92%			
Target Compounds						Qvalue
2) propylene	5.06	41	1170866	7.7200	ppbv	97
3) dichlorodifluoromethane	5.16	85	2868277	9.4603	ppbv	99
4) freon-114	5.50	85	3056376	9.6239	ppbv	96
5) chloromethane	5.62	50	1119550	9.3704	ppbv	99
6) vinyl chloride	5.91	62	1150024	9.2122	ppbv	99
7) 1,3-butadiene	6.02	54	987347	9.7501	ppbv	92
8) bromomethane	6.73	94	935901	9.2633	ppbv	99
9) chloroethane	6.97	64	600865	9.7893	ppbv	99
10) trichlorofluoromethane	7.55	101	2767220	9.4598	ppbv	99
11) ethanol	8.03	45	206458	5.6978	ppbv	99
12) freon-113	8.64	101	2176384	10.4957	ppbv	98
13) 1,1-dichloroethene	8.64	61	1939274	10.8487	ppbv	88
14) acetone	8.75	43	2050171	6.8253	ppbv	93
15) isopropanol	9.06	45	1041423	8.1344	ppbv	92
16) carbon disulfide	9.11	76	3141178	9.9341	ppbv	99
17) methylene chloride	9.55	84	996598	10.4524	ppbv	87
18) trans-1,2-dichloroethene	10.08	61	1820858	10.4814	ppbv	89
19) methyl tert butyl ether	10.11	73	3402972	10.9503	ppbv	99
20) hexane	10.57	57	2123575	11.2152	ppbv	98
21) 1,1-diclethane	10.83	63	2231424	10.5105	ppbv	99
22) vinyl acetate	10.87	43	3588511	10.5595	ppbv	97
23) 2-butanone	11.84	43	2869593	10.0702	ppbv	96
24) cis-1,2-dichloroethene	11.82	96	1168814	10.4277	ppbv	100
25) ethyl acetate	11.92	43	3427141	9.9187	ppbv	96
26) chloroform	12.34	83	2297201	10.3760	ppbv	99
27) tetrahydrofuran	12.39	72	637081	11.7705	ppbv	99
29) 1,1,1-trichloroethane	12.72	97	2375207	10.3390	ppbv	97
30) cyclohexane	12.85	56	2243279	10.8839	ppbv	95
31) carbon tetrachloride	13.01	117	2412020	10.7139	ppbv	100
32) 1,2-dichloroethane	13.33	62	1635747	10.3756	ppbv	100
33) benzene	13.34	78	3719855	9.8554	ppbv	100
34) heptane	13.72	71	1430097	11.3029	ppbv	95
35) trichloroethene	14.40	130	1522586	10.3352	ppbv	97
36) 1,2-diclpropane	14.77	63	1478843	10.4853	ppbv	97
37) 1,4-dioxane	15.02	88	332000	9.6787	ppbv	91
38) bromodichloromethane	15.20	83	2489869	10.4459	ppbv	99
39) cis-1,3-dichloropropene	15.95	75	2059619	10.5986	ppbv	97
40) 4-methyl-2-pentanone	16.19	43	3507186	10.0122	ppbv	93
41) toluene	16.56	91	4317744	10.7553	ppbv	97
42) trans-1,3-dichloropropene	16.87	75	2152636	11.6413	ppbv	96
43) 1,1,2-trichloroethane	17.20	97	1431449	10.2061	ppbv	92
44) tetrachloroethene	17.54	166	1995743	10.6543	ppbv	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6080.D Vial: 4
Acq On : 14 Nov 2008 21:41 Operator: T.WALTON
Sample : 10.0 PPB Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008 Quant Results File: 111408A.RES

Quant Method : J:\ACQUDATA\A...\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration
DataAcq Meth : 111408A

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.61	43	3361268	10.0325	ppbv	90
46)	dibromochloromethane	17.93	129	2395252	11.1452	ppbv	99
47)	1,2-dibromoethane	18.18	107	2093871	10.5140	ppbv	100
49)	chlorobenzene	19.03	112	3309563	10.1832	ppbv	98
50)	ethylbenzene	19.19	91	5560956	10.3292	ppbv	94
51)	M+P xylene	19.40	91	8208900	19.2554	ppbv	91
52)	O xylene	20.12	91	4695473	10.6037	ppbv	94
53)	styrene	20.13	104	3649391	11.1029	ppbv	96
54)	bromoform	20.51	173	2439230	11.8026	ppbv	99
56)	1,1,2,2-tetrachloroethane	21.26	83	3296215	9.7644	ppbv	98
57)	4-ethyltoluene	21.73	105	6117714	10.0832	ppbv	93
58)	1,3,5-trimethylbenzene	21.83	105	5335405	10.6756	ppbv	92
59)	1,2,4-trimethylbenzene	22.54	105	5198743	10.6373	ppbv	92
60)	1,3-dclbenz	23.13	146	3430814	10.7521	ppbv	99
61)	1,4-dclbenz	23.28	146	3446871	10.9247	ppbv	98
62)	benzyl chloride	23.50	91	4734123	11.4452	ppbv	92
63)	1,2-dclbenz	24.00	146	3162511	10.4378	ppbv	98
64)	1,2,4-trichlorobenzene	27.02	180	2347086	11.0815	ppbv	100
65)	hexachlorobutadiene	27.31	225	2198567	9.1933	ppbv	95

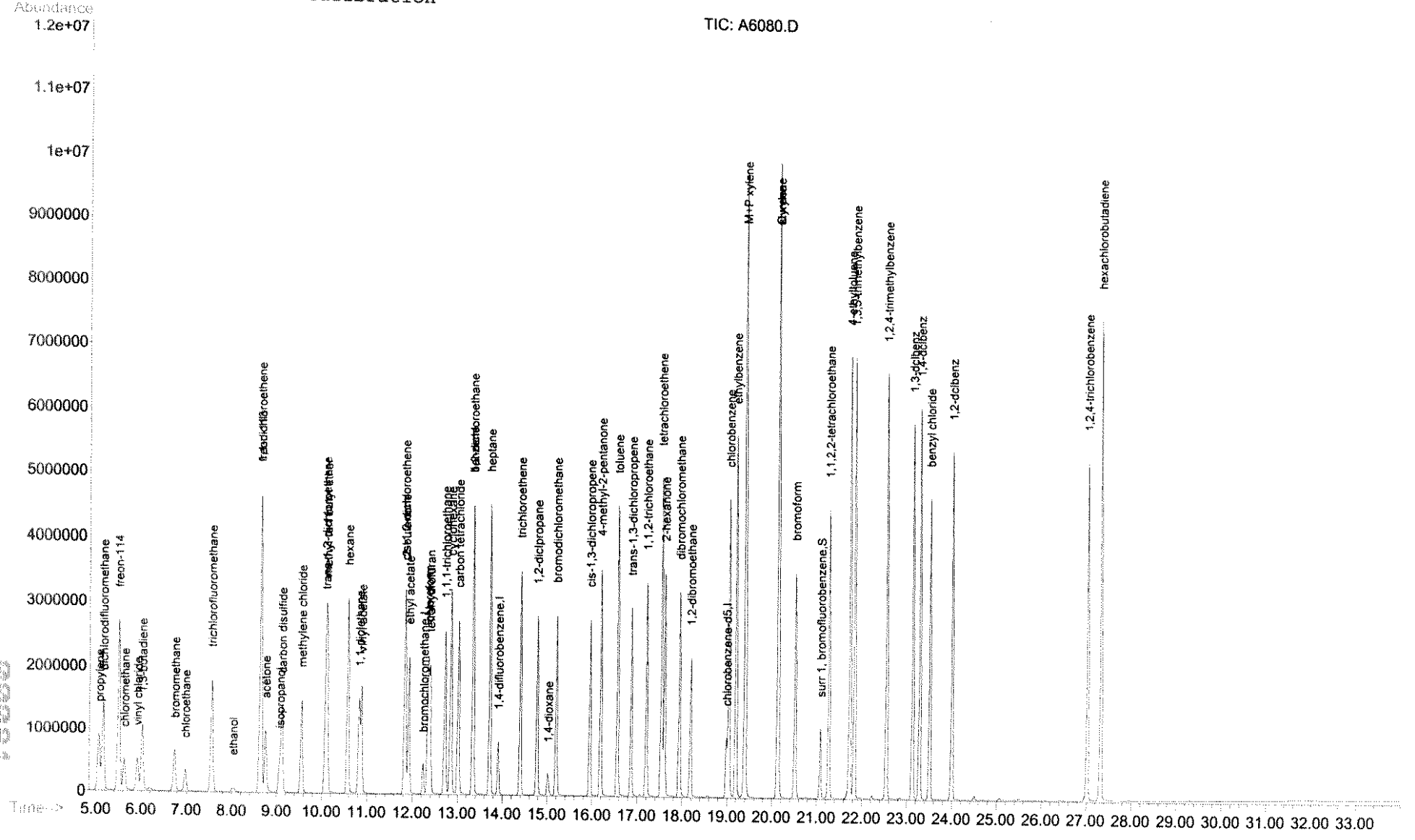
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6080.D
Acq On : 14 Nov 2008 21:41
Sample : 10.0 PPB
Misc : PI=0 PF=0
MS Integration Params: RTEINT.P
Quant Time: Nov 15 8:47 2008

Vial: 4
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408A.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15
Last Update : Sat Nov 15 08:27:05 2008
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6456.D Vial: 15
Acq On : 5 Feb 2009 12:21 Operator: T.WALTON
Sample : CCV Inst : GC/MS Ins
Misc : 500ML Multiplr: 1.00
MS Integration Params: LSCINT2.P

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	99	0.00
2		propylene	4.526	2.979	34.2#	67	0.00
3		dichlorodifluoromethane	3.797	3.454	9.0	90	0.00
4		freon-114	2.866	2.555	10.9	87	0.00
5		chloromethane	3.562	2.773	22.2	76	0.00
6		vinyl chloride	3.085	2.568	16.8	79	0.00
7		1,3-butadiene	2.890	2.298	20.5	75	0.00
8		bromomethane	1.560	1.511	3.1	95	0.00
9		chloroethane	1.470	1.260	14.3	84	0.00
10		trichlorofluoromethane	3.290	3.332	-1.3	98	0.00
11		ethanol	1.014	0.925	8.8	119	0.00
12		freon-113	1.709	1.649	3.5	94	0.00
13		1,1-dichloroethene	2.849	2.351	17.5	78	0.00
14		acetone	5.365	4.443	17.2	82	0.00
15		isopropanol	3.148	2.481	21.2	113	0.00
16		carbon disulfide	6.412	5.745	10.4	88	0.00
17		methylene chloride	1.668	1.497	10.3	88	0.00
18		trans-1,2-dichloroethene	2.769	2.343	15.4	81	0.00
19		methyl tert butyl ether	5.428	4.475	17.6	77	0.00
20		hexane	3.449	2.836	17.8	76	0.00
21		1,1-diclethane	3.314	2.858	13.8	83	0.00
22		vinyl acetate	6.070	4.813	20.7	71	0.00
23		2-butanone	5.785	4.879	15.7	81	0.00
24		cis-1,2-dichloroethene	1.679	1.512	9.9	85	0.00
25		ethyl acetate	5.804	4.781	17.6	78	0.00
26		chloroform	2.830	2.675	5.5	91	0.00
27		tetrahydrofuran	1.159	1.021	11.9	78	0.00
28	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00
29		1,1,1-trichloroethane	0.591	0.615	-4.1	92	0.00
30		cyclohexane	0.853	0.756	11.4	77	0.00
31		carbon tetrachloride	0.503	0.580	-15.3	100	0.00
32		1,2-dichloroethane	0.547	0.547	0.0	90	0.00
33		benzene	1.559	1.498	3.9	85	0.00
34		heptane	0.442	0.408	7.7	79	0.00
35		trichloroethene	0.385	0.369	4.2	86	0.00
36		1,2-diclpropane	0.416	0.376	9.6	78	0.00
37		1,4-dioxane	0.170	0.192	-12.9	126	0.00
38		bromodichloromethane	0.499	0.518	-3.8	91	0.00
39		cis-1,3-dichloropropene	0.601	0.549	8.7	78	0.00
40		4-methyl-2-pentanone	1.152	1.086	5.7	81	0.00
41		toluene	1.457	1.455	0.1	85	0.00
42		trans-1,3-dichloropropene	0.558	0.538	3.6	80	0.00
43		1,1,2-trichloroethane	0.347	0.348	-0.3	88	0.00
44		tetrachloroethene	0.388	0.397	-2.3	91	0.00
45		2-hexanone	1.112	1.018	8.5	78	0.00
46		dibromochloromethane	0.354	0.396	-11.9	95	0.00
47		1,2-dibromoethane	0.364	0.356	2.2	88	0.00
48	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00

(#) = Out of Range

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6456.D Vial: 15
Acq On : 5 Feb 2009 12:21 Operator: T.WALTON
Sample : CCV Inst : GC/MS Ins
Misc : 500ML Multiplr: 1.00
MS Integration Params: LSCINT2.P

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49		chlorobenzene	1.158	1.069	7.7	86	0.00
50		ethylbenzene	2.081	1.922	7.6	84	0.00
51		M+P xylene	1.650	1.572	4.7	87	0.00
52		O xylene	1.733	1.626	6.2	84	0.00
53		styrene	1.333	1.253	6.0	84	0.00
54		bromoform	0.343	0.394	-14.9	98	0.00
55	S	surr 1, bromofluorobenzene	0.382	0.438	-14.7	115	0.00
56		1,1,2,2-tetrachloroethane	0.842	0.706	16.2	84	0.00
57		4-ethyltoluene	2.115	1.920	9.2	82	0.00
58		1,3,5-trimethylbenzene	1.739	1.580	9.1	82	0.00
59		1,2,4-trimethylbenzene	1.703	1.531	10.1	80	0.00
60		1,3-dclbenz	0.910	0.808	11.2	82	0.00
61		1,4-dclbenz	0.898	0.809	9.9	81	0.00
62		benzyl chloride	1.434	1.220	14.9	75	0.00
63		1,2-dclbenz	0.863	0.754	12.6	80	0.00
64		1,2,4-trichlorobenzene	0.488	0.371	24.0	71	0.00
65		hexachlorobutadiene	0.384	0.310	19.3	85	0.00

Quantitation Report (Not Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6456.D Vial: 15
Acq On : 5 Feb 2009 12:21 Operator: T.WALTON
Sample : CCV Inst : GC/MS Ins
Misc : 500ML Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 12:55 2009 Quant Results File: 111408B.RES

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

TW 2/5

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	12.23	130	199630	13.2200	ng		0.00
28) 1,4-difluorobenzene	13.90	114	721323	11.6400	ng		0.00
48) chlorobenzene-d5	18.97	117	646352	12.0200	ng		0.00
System Monitoring Compounds							
55) surr 1, bromofluorobenzene	21.07	174	421245	20.51	ng		0.00
Spiked Amount 17.880	Range 70 - 130		Recovery = 114.73%				
Target Compounds							Qvalue
2) propylene	5.05	41	398549	5.8319	ng		99
3) dichlorodifluoromethane	5.15	85	1302050	22.7074	ng		99
4) freon-114	5.50	85	1347874	31.1475	ng		91
5) chloromethane	5.62	50	436524	8.1145	ng		99
6) vinyl chloride	5.92	62	495475	10.6343	ng		99
7) 1,3-butadiene	6.02	54	414346	9.4936	ng		96
8) bromomethane	6.74	94	447152	18.9770	ng		99
9) chloroethane	6.97	64	253329	11.4116	ng		100
10) trichlorofluoromethane	7.55	101	1398619	28.1477	ng		100
11) ethanol	7.96	45	127579	8.3335	ng		98
12) freon-113	8.64	101	1020612	39.5459	ng		97
13) 1,1-dichloroethene	8.64	61	766714	17.8202	ng		87
14) acetone	8.74	43	836302	10.3220	ng		94
15) isopropanol	9.02	45	510999	10.7479	ng		88
16) carbon disulfide	9.11	76	1404139	14.5007	ng		100
17) methylene chloride	9.54	84	427806	16.9840	ng	#	78
18) trans-1,2-dichloroethene	10.07	61	736233	17.6071	ng		87
19) methyl tert butyl ether	10.11	73	1290843	15.7472	ng		98
20) hexane	10.57	57	807244	15.5007	ng		97
21) 1,1-diclethane	10.82	63	925356	18.4926	ng		99
22) vinyl acetate	10.87	43	1266166	13.8147	ng		96
23) 2-butanone	11.84	43	1172854	13.4259	ng		96
24) cis-1,2-dichloroethene	11.82	96	483996	19.0915	ng		100
25) ethyl acetate	11.92	43	1365202	15.5765	ng		96
26) chloroform	12.34	83	1034980	24.2169	ng		99
27) tetrahydrofuran	12.39	72	243209	13.8936	ng		99
29) 1,1,1-trichloroethane	12.71	97	1090586	29.7587	ng		97
30) cyclohexane	12.84	56	862281	16.3215	ng		92
31) carbon tetrachloride	13.01	117	1186914	38.0877	ng		99
32) 1,2-dichloroethane	13.32	62	733230	21.6199	ng		100
33) benzene	13.34	78	1586196	16.4230	ng		100
34) heptane	13.71	71	554435	20.2454	ng		96
35) trichloroethene	14.39	130	638097	26.7250	ng		96
36) 1,2-diclpropane	14.76	63	569843	22.0864	ng		99
37) 1,4-dioxane	15.00	88	223328	21.1898	ng		89
38) bromodichloromethane	15.19	83	1118279	36.1337	ng		100
39) cis-1,3-dichloropropene	15.94	75	787038	21.1362	ng		97
40) 4-methyl-2-pentanone	16.18	43	1474856	20.6611	ng		95
41) toluene	16.55	91	1834651	20.3134	ng		99
42) trans-1,3-dichloropropene	16.85	75	839137	24.2786	ng		97
43) 1,1,2-trichloroethane	17.20	97	611260	28.4570	ng		91
44) tetrachloroethene	17.53	166	875402	36.3880	ng		96

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6456.D Vial: 15
Acq On : 5 Feb 2009 12:21 Operator: T.WALTON
Sample : CCV Inst : GC/MS Ins
Misc : 500ML Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 12:55 2009 Quant Results File: 111408B.RES

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	2-hexanone	17.60	43	1381715	20.0431	ng	94
46)	dibromochloromethane	17.93	129	1098315	49.9985	ng	100
47)	1,2-dibromoethane	18.17	107	889939	39.4040	ng	100
49)	chlorobenzene	19.03	112	1401498	22.5097	ng	99
50)	ethylbenzene	19.18	91	2377966	21.2475	ng	98
51)	M+P xylene	19.38	91	3815949	43.0095	ng	97
52)	O xylene	20.11	91	1993027	21.3902	ng	97
53)	styrene	20.12	104	1506557	21.0246	ng	95
54)	bromoform	20.50	173	1138175	61.7927	ng	100
56)	1,1,2,2-tetrachloroethane	21.26	83	1368520	30.2294	ng	99
57)	4-ethyltoluene	21.72	105	2562398	22.5289	ng	97
58)	1,3,5-trimethylbenzene	21.82	105	2212658	23.6597	ng	97
59)	1,2,4-trimethylbenzene	22.53	105	2104124	22.9814	ng	97
60)	1,3-dclbenz	23.11	146	1357036	27.7465	ng	98
61)	1,4-dclbenz	23.27	146	1360323	28.1750	ng	97
62)	benzyl chloride	23.49	91	1765221	22.8976	ng	96
63)	1,2-dclbenz	23.98	146	1229976	26.5060	ng	97
64)	1,2,4-trichlorobenzene	27.00	180	747908	28.4737	ng	99
65)	hexachlorobutadiene	27.30	225	907658	43.9486	ng	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

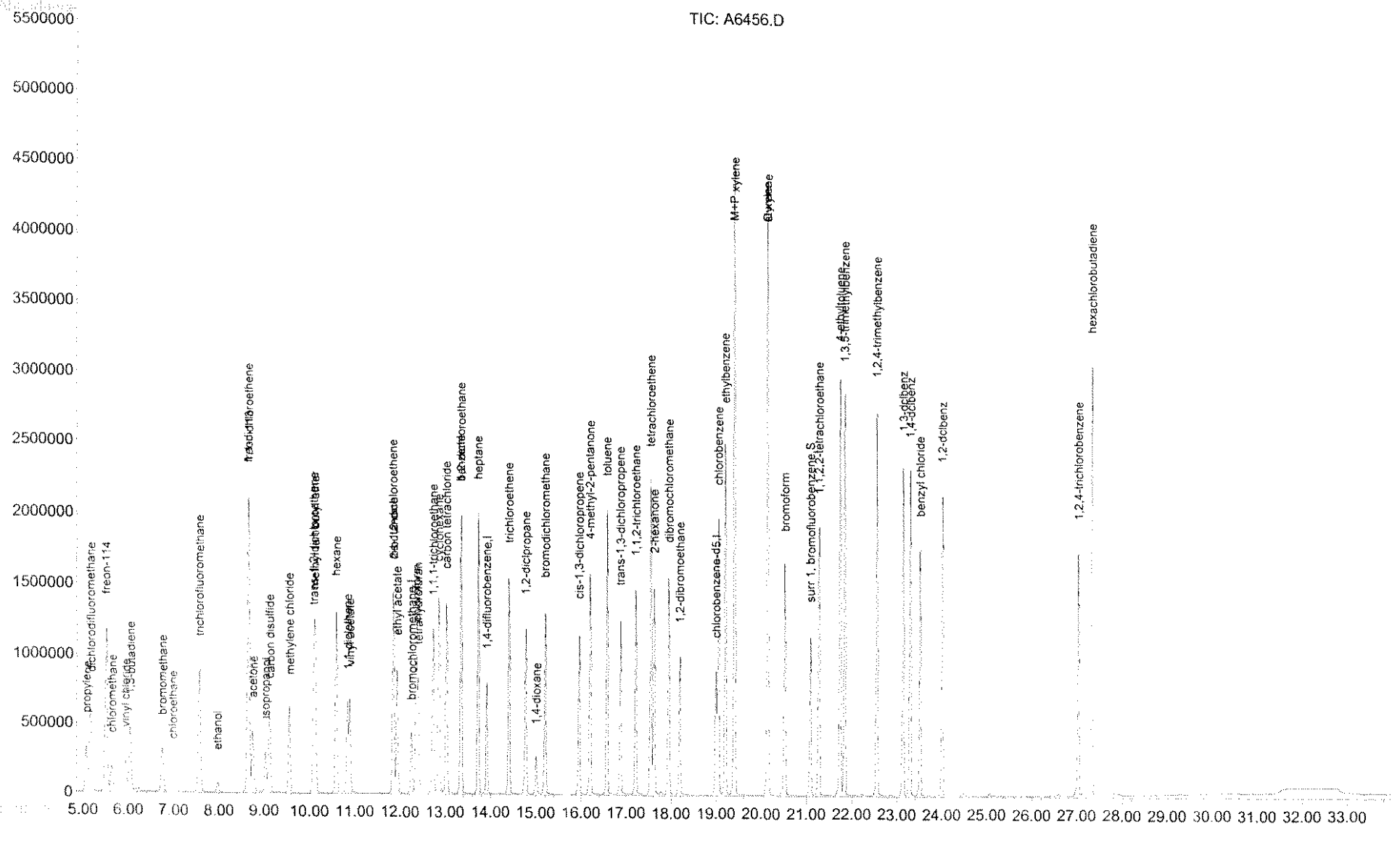
Data File : J:\ACQUDATA\AIR1\DATA\020509\A6456.D
Acq On : 5 Feb 2009 12:21
Sample : CCV
Misc : 500ML
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 12:55 2009

Vial: 15
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408B.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration

TIC: A6456.D



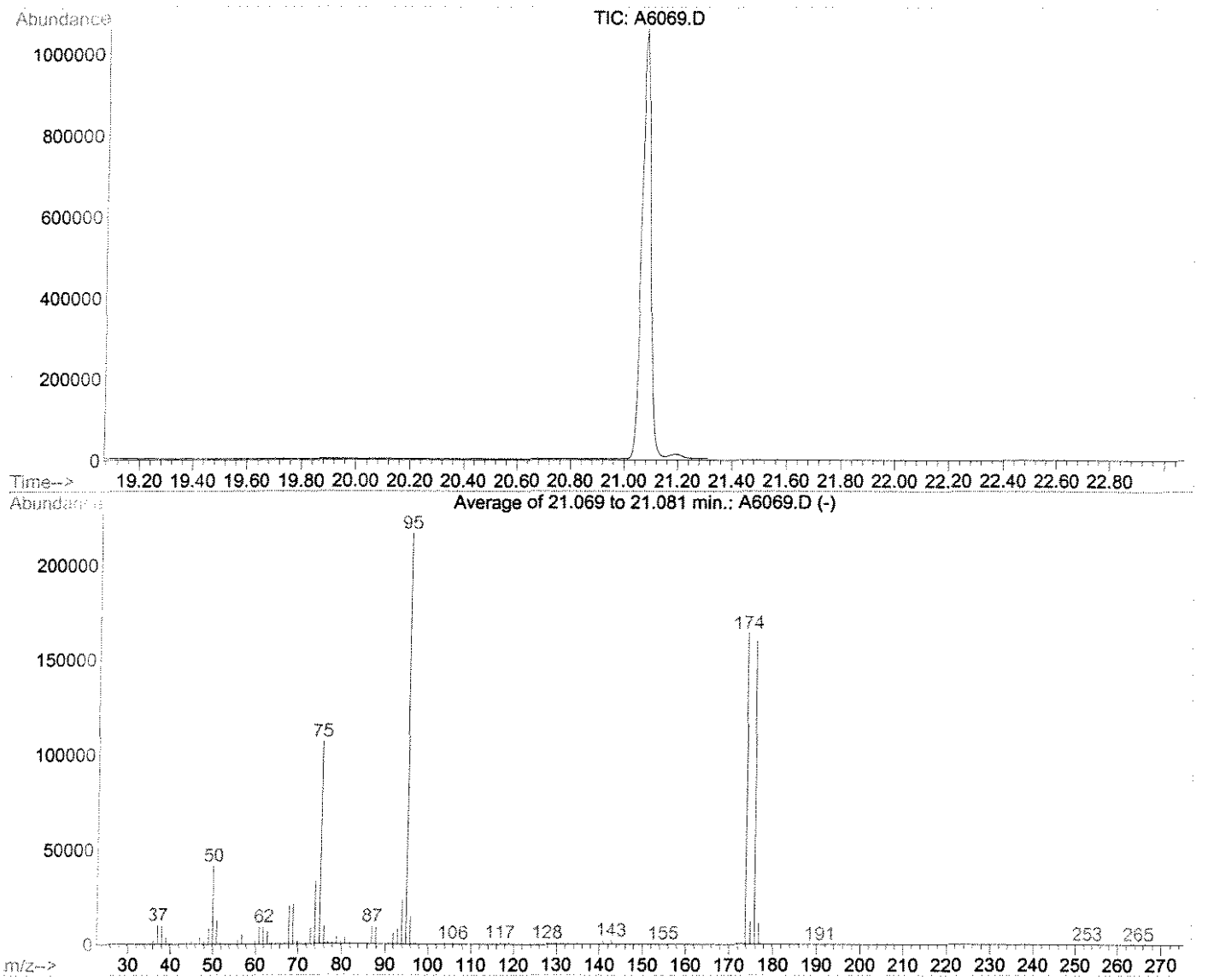
VOLATILE ORGANICS

RAW QC DATA

BFB

Data File : J:\ACQUDATA\AIR1\DATA\111408\A6069.D Vial: 1
Acq On : 14 Nov 2008 12:40 Operator: T.WALTON
Sample : TUNE Inst : GC/MS Ins
Misc : PI=0 PF=0 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\ACQUDATA\AIR1\METHODS\111408A.M (RTE Integrator)
Title : TO-15

TW 11-14-08



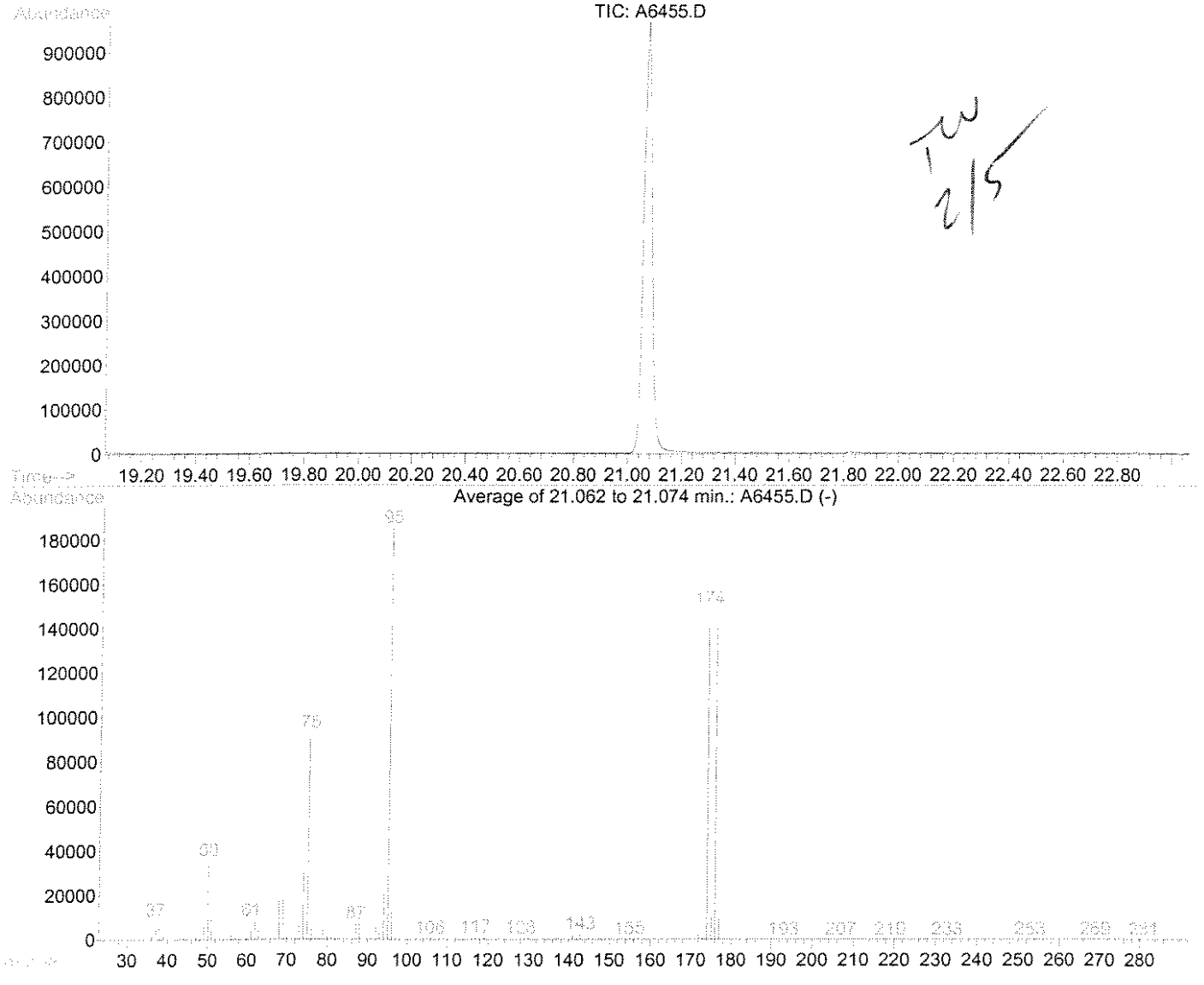
AutoFind: Scans 2649, 2650, 2651; Background Corrected with Scan 2637

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.2	41519	PASS
75	95	30	66	49.3	106797	PASS
95	95	100	100	100.0	216683	PASS
96	95	5	9	6.8	14675	PASS
173	174	0.00	2	0.5	852	PASS
174	95	50	120	75.7	163989	PASS
175	174	4	9	7.2	11771	PASS
176	174	93	101	97.3	159531	PASS
177	176	5	9	6.7	10693	PASS

A6069.D 111408A.M Fri Nov 14 13:02:09 2008 OFFLINE

BFB

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6455.D Vial: 14
Acq On : 5 Feb 2009 11:36 Operator: T.WALTON
Sample : TUNE Inst : GC/MS Ins
Misc : Multiplr: 1.00
MS Integration Params: LSCINT2.P
Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15



AutoFind: Scans 2648, 2649, 2650; Background Corrected with Scan 2636

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	35893	PASS
75	95	30	66	50.0	92909	PASS
95	95	100	100	100.0	185643	PASS
96	95	5	9	6.6	12296	PASS
173	174	0.00	2	0.9	1276	PASS
174	95	50	120	80.3	149056	PASS
175	174	4	9	6.8	10156	PASS
176	174	93	101	95.6	142507	PASS
177	176	5	9	6.6	9343	PASS

A6455.D 111408B.M Thu Feb 05 12:00:22 2009 OFFLINE

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Haley & Aldrich, Incorporated	**Service Request:**	R0900538
Project:	Coopervision/70665-014 Airs	**Date Collected:**	NA
Sample Matrix:	Air	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	RQ0900784-02		

Analytical Method: TO-15 **Date Analyzed:** 2/5/09 1532

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbv	MRL ppbv	MDL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.013	0.28	0.013	0.0052	0.11	0.0052	U
75-00-3	Chloroethane	1000	0.016	0.58	0.016	0.0059	0.22	0.0059	U
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	0.011	0.44	0.011	0.0027	0.11	0.0027	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.021	0.45	0.021	0.0052	0.11	0.0052	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.021	0.60	0.021	0.0038	0.11	0.0038	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	108	70-130	2/5/09 1532	

Quantitation Report (~~Not~~ Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6458.D Vial: 1
Acq On : 5 Feb 2009 15:32 Operator: T.WALTON
Sample : METBLK Inst : GC/MS Ins
Misc : 1000ML UZ AIR DIRECT R6090784-02 Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 16:06 2009 Quant Results File: 111408B.RES

TW 2/13.

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	12.23	130	194920	13.2200	ng		-0.01
28) 1,4-difluorobenzene	13.90	114	691141	11.6400	ng		0.00
48) chlorobenzene-d5	18.97	117	613865	12.0200	ng		-0.01

System Monitoring Compounds
55) surr 1, bromofluorobenzene 21.07 174 375876 19.27 ng -0.01
Spiked Amount 17.880 Range 70 - 130 Recovery = 107.79%

Target Compounds							Qvalue	
3) dichlorodifluoromethane	5.16	85	4059	0.0725	ng		92	NT
~~11) ethanol~~	~~8.01~~	~~45~~	~~552~~	~~0.0369~~	~~ng~~	~~#~~	~~37~~	
14) acetone	8.77	43	9356	0.1183	ng		100	LT
17) methylene chloride	9.53	84	484	0.0197	ng		94	J
~~23) 2-butanone~~	~~11.88~~	~~43~~	~~857~~	~~0.0100~~	~~ng~~	~~#~~	~~55~~	
~~25) ethyl acetate~~	~~11.88~~	~~43~~	~~857~~	~~0.0100~~	~~ng~~	~~#~~	~~75~~	
~~34) heptane~~	13.90	71	1085	~~0.0413~~	~~ng~~	~~#~~	~~1~~	
64) 1,2,4-trichlorobenzene	27.01	180	636	0.0255	ng		86	NT

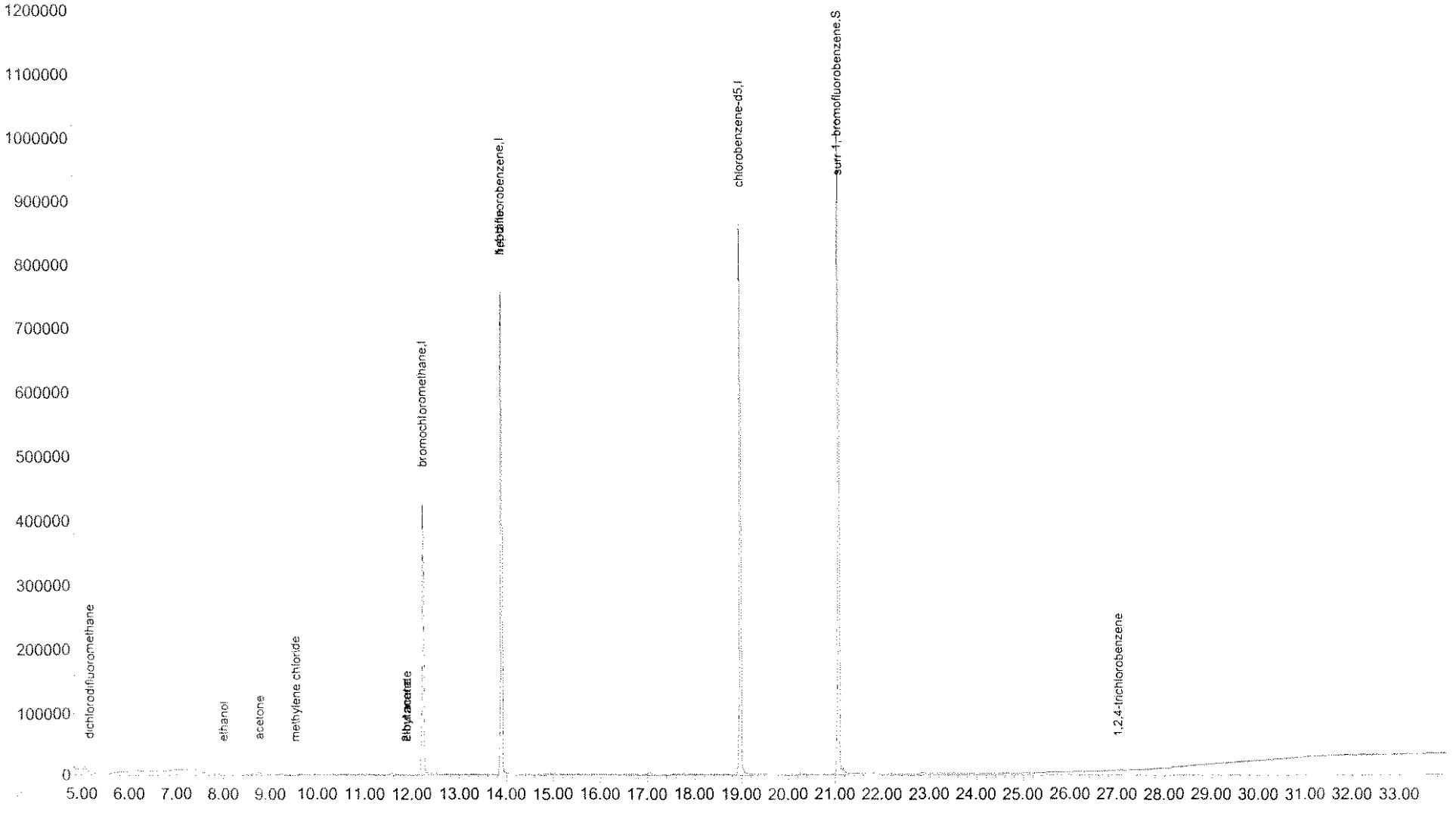
all NT for R0900542.
TW 2/15

(#) = qualifier out of range (m) = manual integration
A6458.D 111408B.M Thu Feb 05 16:06:27 2009 OFFLINE

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6458.D Vial: 1
Acq On : 5 Feb 2009 15:32 Operator: T.WALTON
Sample : METBLK Inst : GC/MS Ins
Misc : 1000ML UZ AIR DIRECT Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 16:06 2009 Quant Results File: 111408B.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration

TIC: A6458.D



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-014 Airs
Sample Matrix: Air

Service Request: R0900538
Date Collected: NA
Date Received: NA

Sample Name: Lab Control Sample
Lab Code: RQ0900784-01

Analytical Method: TO-15

Date Analyzed: 2/5/09 1306

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbv	MRL ppbv	MDL ppbv	Data Qualifier
75-01-4	**Vinyl Chloride**	1000	**5.40**	0.28	0.013	**2.11**	0.11	0.0052	
75-00-3	**Chloroethane**	1000	**5.86**	0.58	0.016	**2.22**	0.22	0.0059	
75-35-4	**1,1-Dichloroethene (1,1-DCE)**	1000	**8.54**	0.44	0.011	**2.16**	0.11	0.0027	
75-34-3	**1,1-Dichloroethane (1,1-DCA)**	1000	**9.32**	0.45	0.021	**2.30**	0.11	0.0052	
71-55-6	**1,1,1-Trichloroethane (TCA)**	1000	**15.2**	0.60	0.021	**2.78**	0.11	0.0038	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	113	70-130	2/5/09 1306	

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6457.D Vial: 16
Acq On : 5 Feb 2009 13:06 Operator: T.WALTON
Sample : LCS Inst : GC/MS Ins
Misc : 250ML RQ0900784-01 Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 14:12 2009 Quant Results File: 111408B.RES

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	12.23	130	197552	13.2200 ng	0.00
28) 1,4-difluorobenzene	13.90	114	711491	11.6400 ng	0.00
48) chlorobenzene-d5	18.98	117	619207	12.0200 ng	0.00
System Monitoring Compounds					
55) surr 1, bromofluorobenzene	21.07	174	397635	20.21 ng	0.00
Spiked Amount 17.880	Range 70 - 130		Recovery = 113.05%		
Target Compounds					Qvalue
2) propylene	5.05	41	198609	2.9368 ng	99
3) dichlorodifluoromethane	5.15	85	663335	11.6901 ng	100
4) freon-114	5.49	85	687865	16.0628 ng	92
5) chloromethane	5.62	50	218929	4.1124 ng	100
6) vinyl chloride	5.92	62	249116	5.4030 ng	99
7) 1,3-butadiene	6.03	54	203346	4.7081 ng	96
8) bromomethane	6.74	94	227448	9.7544 ng	97
9) chloroethane	6.97	64	128737	5.8602 ng	100
10) trichlorofluoromethane	7.56	101	713108	14.5025 ng	99
11) ethanol	7.97	45	71839	4.7419 ng	97
12) freon-113	8.64	101	507989	19.8902 ng	97
13) 1,1-dichloroethene	8.64	61	363707	8.5423 ng	88
14) acetone	8.74	43	400313	4.9928 ng	95
15) isopropanol	9.03	45	244866	5.2045 ng	80
16) carbon disulfide	9.11	76	682638	7.1238 ng	100
17) methylene chloride	9.55	84	210151m	8.4308 ng	(M) TW 2/5.
18) trans-1,2-dichloroethene	10.08	61	346138	8.3650 ng	87
19) methyl tert butyl ether	10.11	73	598999	7.3842 ng	100
20) hexane	10.57	57	369921	7.1779 ng	98
21) 1,1-diclethane	10.82	63	461635	9.3225 ng	100
22) vinyl acetate	10.87	43	629461	6.9401 ng	96
23) 2-butanone	11.84	43	570396	6.5981 ng	96
24) cis-1,2-dichloroethene	11.82	96	231992	9.2473 ng	100
25) ethyl acetate	11.92	43	600503	6.9236 ng	97
26) chloroform	12.34	83	516315	12.2080 ng	99
27) tetrahydrofuran	12.39	72	109986	6.3492 ng	99
29) 1,1,1-trichloroethane	12.71	97	548395	15.1708 ng	97
30) cyclohexane	12.84	56	399845	7.6730 ng	93
31) carbon tetrachloride	13.01	117	592637	19.2803 ng	100
32) 1,2-dichloroethane	13.33	62	366769	10.9639 ng	98
33) benzene	13.34	78	777381	8.1600 ng	100
34) heptane	13.71	71	259727	9.6151 ng	97
35) trichloroethene	14.39	130	306016	12.9938 ng	96
36) 1,2-diclpropane	14.76	63	276850	10.8786 ng	99
37) 1,4-dioxane	15.00	88	106332	10.2284 ng	91
38) bromodichloromethane	15.19	83	553571	18.1341 ng	100
39) cis-1,3-dichloropropene	15.94	75	360077	9.8036 ng	97
40) 4-methyl-2-pentanone	16.18	43	702607	9.9788 ng	97
41) toluene	16.56	91	875723	9.8301 ng	98
42) trans-1,3-dichloropropene	16.86	75	393293	11.5363 ng	98
43) 1,1,2-trichloroethane	17.19	97	304604	14.3767 ng	91
44) tetrachloroethene	17.53	166	426259	17.9633 ng	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6457.D Vial: 16
Acq On : 5 Feb 2009 13:06 Operator: T.WALTON
Sample : LCS Inst : GC/MS Ins
Misc : 250ML Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 14:12 2009 Quant Results File: 111408B.RES

Quant Method : J:\ACQUDATA\A...\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration
DataAcq Meth : 111408B

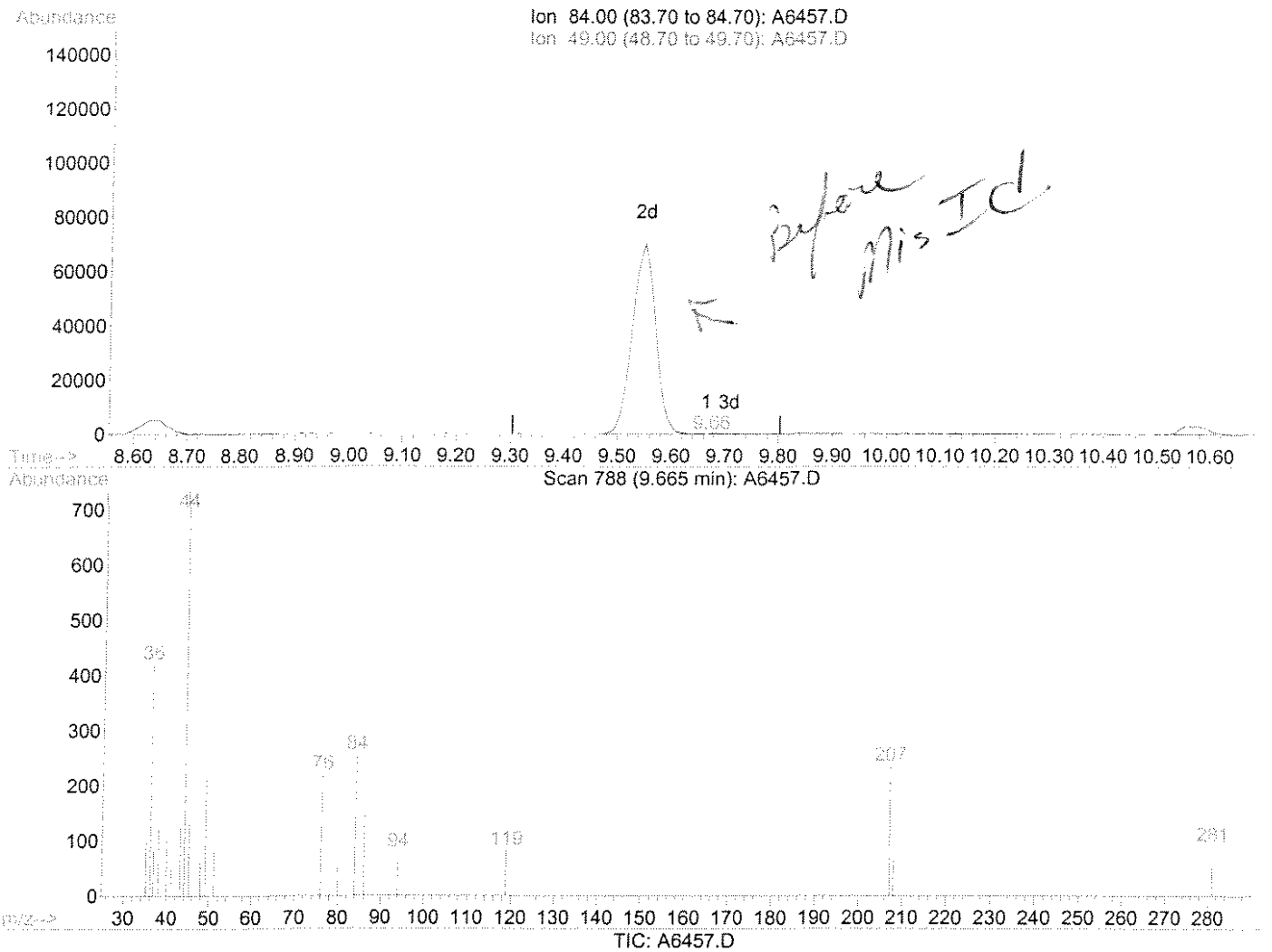
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2-hexanone	17.60	43	674812	9.9241	ng	97
46) dibromochloromethane	17.92	129	533192	24.6079	ng	99
47) 1,2-dibromoethane	18.17	107	431979	19.3911	ng	99
49) chlorobenzene	19.03	112	705578	11.8292	ng	99
50) ethylbenzene	19.18	91	1164479	10.8609	ng	99
51) M+P xylene	19.38	91	1937509	22.7950	ng	99
52) O xylene	20.11	91	997244	11.1721	ng	98
53) styrene	20.12	104	734966	10.7064	ng	95
54) bromoform	20.50	173	536705	30.4156	ng	99
56) 1,1,2,2-tetrachloroethane	21.26	83	702453	16.1968	ng	100
57) 4-ethyltoluene	21.72	105	1292460	11.8616	ng	98
58) 1,3,5-trimethylbenzene	21.82	105	1125060	12.5575	ng	97
59) 1,2,4-trimethylbenzene	22.53	105	1071187	12.2125	ng	98
60) 1,3-dclbenz	23.11	146	711985	15.1957	ng	97
61) 1,4-dclbenz	23.27	146	709296	15.3350	ng	97
62) benzyl chloride	23.49	91	825640	11.1793	ng	97
63) 1,2-dclbenz	23.99	146	648106	14.5789	ng	97
64) 1,2,4-trichlorobenzene	27.01	180	434724	17.2760	ng	99
65) hexachlorobutadiene	27.30	225	543972	27.4937	ng	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6457.D Vial: 16
Acq On : 5 Feb 2009 13:06 Operator: T.WALTON
Sample : LCS Inst : GC/MS Ins
Misc : 250ML Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 13:40 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration



(17) methylene chloride

9.66min 0.0086ng

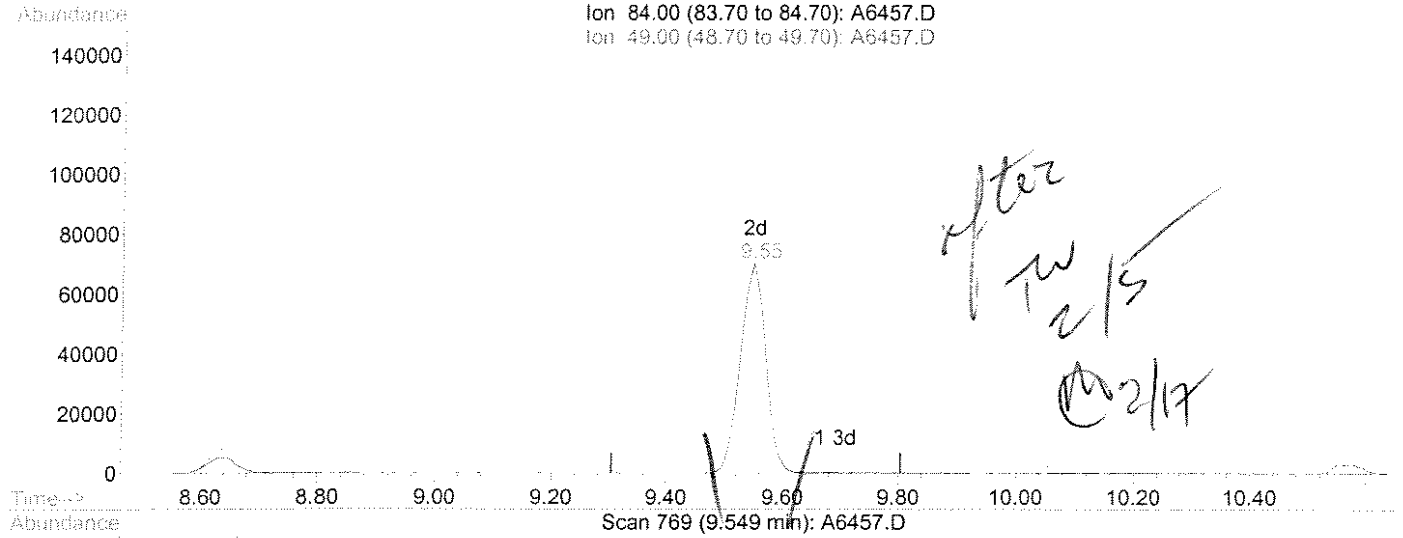
response 214

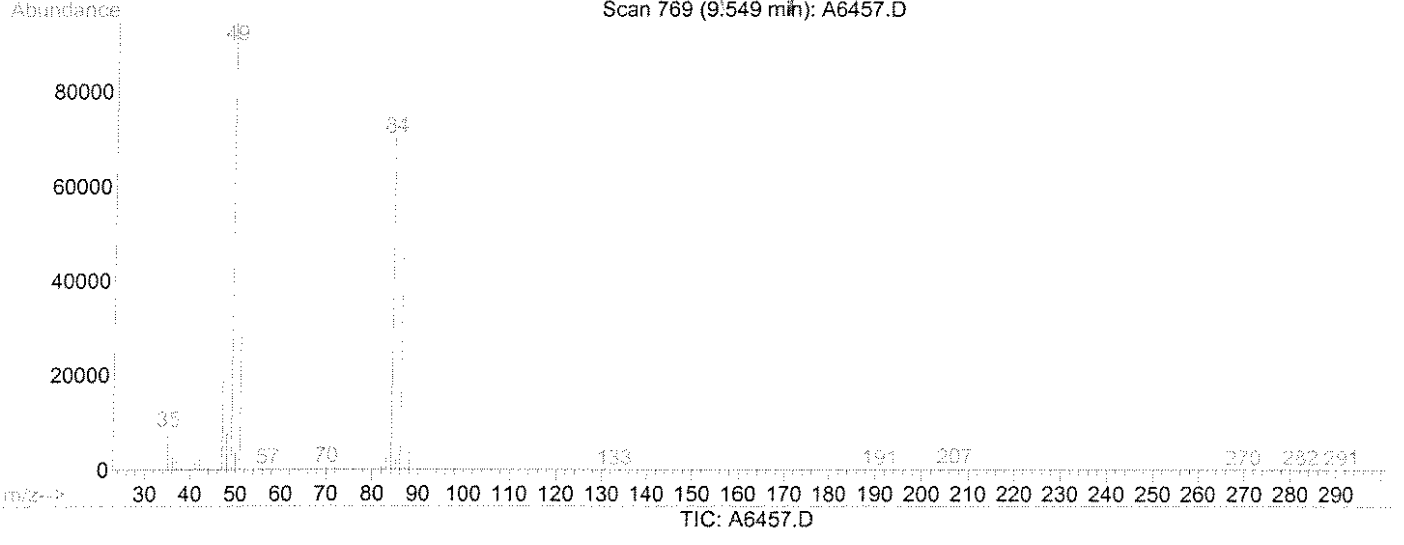
Ion	Exp%	Act%
84.00	100	100
49.00	168.40	159.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : J:\ACQUDATA\AIR1\DATA\020509\A6457.D Vial: 16
Acq On : 5 Feb 2009 13:06 Operator: T.WALTON
Sample : LCS Inst : GC/MS Ins
Misc : 250ML Multiplr: 1.00
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 14:12 2009 Quant Results File: temp.res

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Multiple Level Calibration





(17) methylene chloride

9.55min 8.4308ng m

response 210151

Ion	Exp%	Act%
84.00	100	100
49.00	168.40	0.16#
0.00	0.00	0.00
0.00	0.00	0.00

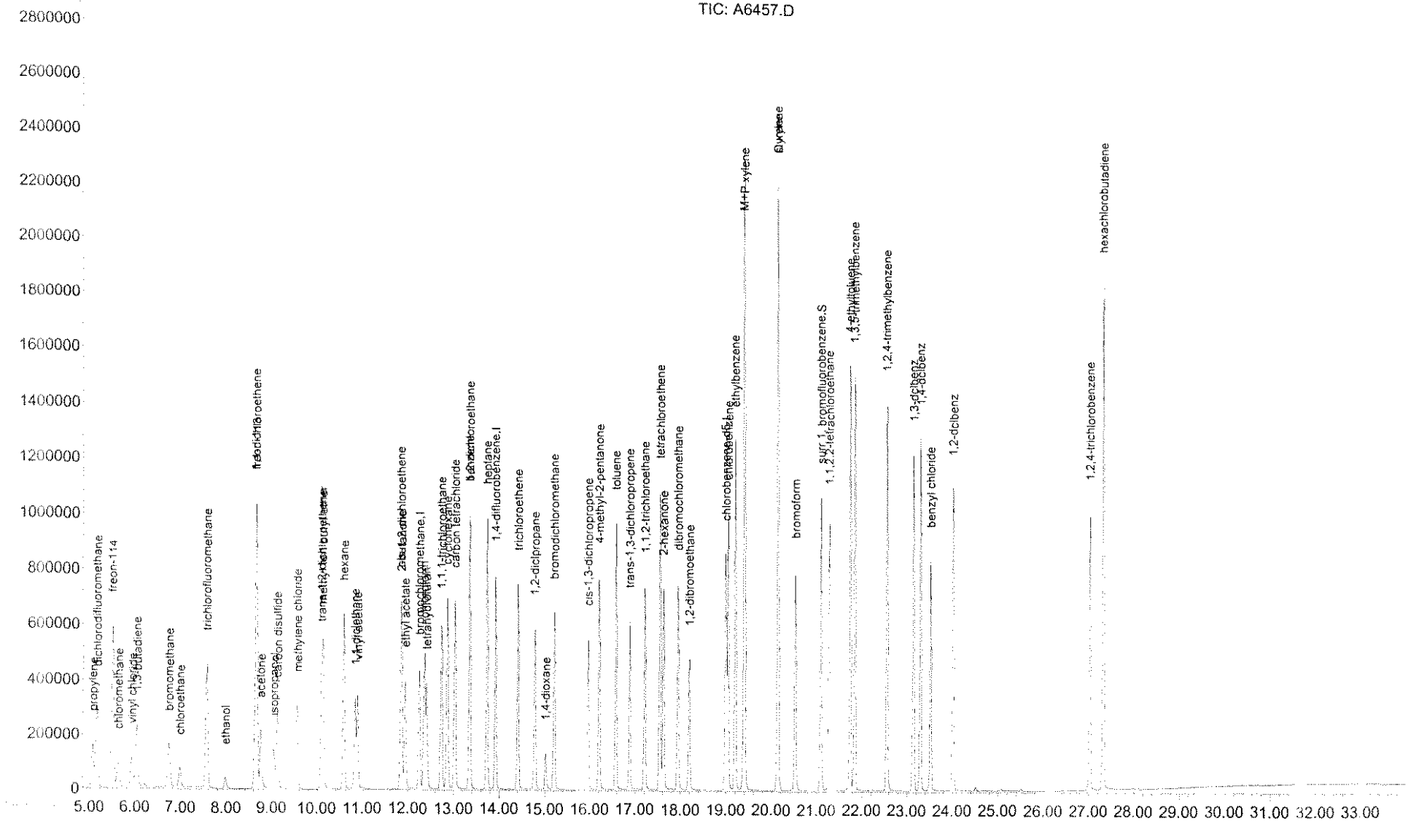
Data File : J:\ACQUDATA\AIR1\DATA\020509\A6457.D
Acq On : 5 Feb 2009 13:06
Sample : LCS
Misc : 250ML
MS Integration Params: LSCINT2.P
Quant Time: Feb 5 14:12 2009

Vial: 16
Operator: T.WALTON
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 111408B.RES

Method : J:\ACQUDATA\AIR1\METHODS\111408B.M (RTE Integrator)
Title : TO-15
Last Update : Thu Jan 15 15:59:15 2009
Response via : Initial Calibration

TIC: A6457.D



0-553
TO-15

1/14/08

Tom Welton

leak check 16-16 in 1240 sec
Pressures He = 23.0 IS = 28.9 ATM = 14.5
Volume IS = 250 Nominal Sample = 1000 ml
Methods Tune = BFB GC/MS = 11408A Entech = TO15

AS	Vol	Sample	Pi/Pf	File or Comments
1	0	Tune IS = 0-515-72E		A6069 Y 12:40
1	1000	Blank 1.0 we air direct		A6070 Y
1	1000	Met Blank 1.0 we air direct		A6071 Y
2	100	0.02 ppb 0-515-73A Exp ~~1/13~~ 12/13		A6072 Y
3	95	0.095 ppb 0-515-73B Exp ~~1/13~~ 12/13		A6073 Y
3	200	0.20 ppb		A6074 Y
3	500	0.50 ppb		A6075 Y
4	100	1.0 ppb 0-515-73C Exp ~~1/13~~ 12/13		A6076 Y
4	250	2.5 ppb		A6077 Y
4	500	5.0 ppb		A6078 Y
4	750	7.5 ppb		A6079 Y
4	1000	10.0 ppb		A6080 Y A6081 Y *
5	500	ICV 0-515-72D Exp 12/10		A6082 Y
5	250	LCS		
6	1000	Blk carry over check	0/0	A6083 Y
7	1000	Cln Blk 1.0 can ISC00662	0/0	A6084 Y Report as MB
8	1000	Cln Blk 1.0 can SLC00054	0/0	A6085 Y
9	1000	Cln Blk 1.0 can SLC00044	0/0	A6086 Y
10	1000	1146273 1.0 [redacted] R46655 TO15.IAQ	-3.6/7.5	A6087 Y
11	1000	1150201 1.0 [redacted] R46926 TO15.IMP ASPB	-6.5/7.5	A6088 Y
12	200	1150195 5.0	-8.7/8.4	A6089 Y
13	50	1150196 20.0	-8.1/7.5	A6090 Y
14	100	1150197 10.0	-6.5/7.6	A6091 Y
15	100	1150198 10.0	-7.7/7.4	A6092 Y
16	100	1146939 10.0 [redacted] TO15.IAQ R46698	-3.4/28.4	A6093 (Y) -E
16	100	1146939 10.0 Rep	-3.4/28.4	A6094 (Y) -E
~~1~~	~~1~~	~~Blk~~, TW 1-15 Purge + Bake prior to ↓		~~A6095~~
1	SyR	1146939 44.0 (25/1100)	-3.4/28.4	A6095 Y DL

*Valid calibration saved, updated RT from 5ppb. NT- Isopropanol fails ICV. Rerun fresh ICV prior to any samples requiring Isopropanol as target.

e.

ted tune
to get
50%.

... as CCV

 TO-15 2/5/09 MS #9

0-619 142047 Tom Walton

(1) leak check 1.1 → 1.1 in 792 sec < 0.0076 psi/min

Pressures (1) He = 23.1 (1) IS = 28.4 (3) Atm = 14.5

Volumes IS = 250 ml Nominal Sample = 1000 ml

Methods Tune = BFB GC/MS = 111408B Entech = TO15

Data \020509\

AS	Vol	Sample		Pi / Pf (psi, "Hg)	file		
14	0	TUNE IS = ~~0-515~~ TW 2/5 #7886 Exp 3/2			A6455	Y	
15	~~500~~ ~~250~~ TW 2/5	CCV # 0-515-76C Exp 2/14			A6456	Y	
16	250	LCS. # 0-515-76D #7384 ↓			A6457	Y	RG0900748-01
1	1000	Met Blk UZ air direct			A6458.	Y	RG0900748-02
2	1000	R0900538-001	H2A-3901-T2	-4.7" +3.5	A6459	Y	
3	1000	R0900538-002		-1.7" +3.5	A6460	Y	
4	1000	R0900538-003	↓	-4.7 +3.5	A6461	Y	
5	1000	R0900542-001	[redacted] 4676-T4	-5.1 +3.5	A6462	Y	
6	1000	-002		-5.3 +3.5	A6463	Y	
7	1000	↓ -003		-1.9 +3.5	A6464	Y	
7	1000	Duplicate. -003	↓	-1.9 +3.5	A6465	Y	RG0900748-03

TW 2/5

TO-15
0-619
leak check
Pressures
Volumes I
Methods
Data \

AS	Vol	Sample
14	100	~~Tune~~ TW 2/16
14	0	~~CCV~~ Tu
15	500	CCV
16	250	LCS
1	1000	Met Blk
2	1000	R0900571-0
3	↓	-0
4		-0
5		-0
6		-0
7		-0
7	↓	↓ -0

11-10-08 BP = 29.32 lab T = 23°C
TW Dilution air = 0-515-68F @ 30 psig + 3 L/min.

0-515-72A. diluted 2.4 ml of 0-515-66D Exp 9/4/09
0.2 ppb 1° into canister 8134 + Press to +29.3 "Hg.
= 2.4/12.000 Expires 12-10-08.

0-515-72B diluted 12 ml of 0-515-66D Exp 9/4/09
1.0 ppb 1° into canister 8132 + Press to +29.3 "Hg
= 12/12.000 Expires 12-10-08.

0-515-72C diluted 120 ml of 0-515-66D
10 ppb 1° into canister 8133 + Press to +29.3
= 120/12.000 Expires 12-10-08.

0-515-72D diluted 120 ml of 0-515-53A exp 2/25/09.
10 ppb 2° into canister 2337 + Press to +29.3
= 120/12.000 Expires 12-10-08.

filled Blanks can ISC00739 + ISC00662 TW.
11/12/08 BP = 29.60 Lab T = 23°C
Dilution Air = 0-515-68F @ 30 psig + 3 L/min

0-515-72E diluted 1.2 ml of 0-515-53C Exp 3/1/09
10 ppb IS into canister K1590 + Pressured to 29.6 "Hg
= 1.2/30,000 dilution Exp 12/12/08.

0-515-72F Prepared same ↑ into can K1591 exp 12/12/08
10 ppb IS filled Blanks can ISC00739 + ISC00662
11-12-08 TW

TW 11-13-08

Continued on Page

Read and Understood By

Tom Watson 11/13/08.
Signed Date Signed Date

11-13-08 BP = 29.20 lab T = 23°C
Dilution Air = 0-515-68F @ 30psig + 34/min.

0-515-73A diluted 2.4ml of 0-515-66D exp 9/4/09.
0.2 ppb 1° into canister 8134 + Press to + 29.2" Hg.
= 2.4/12.000 expires 12-13-08.

0-515-73B diluted 12ml of 0-515-66D
1.0 ppb 1° into canister 8132 + Press to + 29.2" Hg
= 12/12.000 expires 12-13-08.

0-515-73C diluted 120ml of 0-515-66D
10 ppb 1° into canister 8133 + Press to + 29.2" Hg.
= 120/12.000 expires 12-13-08.

0-515-73D diluted 120ml of 0-515-66D
10ppb 1° into Canister 2338 + Press to + 29.2" Hg
= 120/12,000 Expires 12-13-08.

TW 11-17-08

Continued on Page

Read and Understood By

Signed Date Signed

00182

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

March 9, 2009

Susan Boyle
Haley & Aldrich, Inc.
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Cooper Vision / 70665-014

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on February 12, 2009. For your reference, these analyses have been assigned our service request number P0900513.

All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 234 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

NARRATIVE

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Client:	Haley & Aldrich, Inc.	CAS Project No:	P0900513
Project:	Cooper Vision / 70665-014	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on February 12, 2009 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Folder: P0900513

Project: Cooper Vision 70665-014

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
P0900513-001.01	SV-SS-58	6.0 L-Summa Canister Source	-2.3	-1.1	3.5				SC00119	12000	OA00912	12000
P0900513-002.01	SV-InA-58	6.0 L-Summa Canister Ambient	-8.8	-4.3	3.5				AC00848	12000	FC00490	12000
P0900513-003.01	SV-SS-64	6.0 L-Summa Canister Source		0.5	3.8				SC00931	12000	OA00542	12000
P0900513-004.01	SV-InA-64	6.0 L-Summa Canister Ambient	-9.0	-4.4	3.5				AC00946	12000	FC00591	12000
P0900513-005.01	SV-SS-8	6.0 L-Summa Canister Source	-3.1	-1.5	3.5				SC00641	12000	OA00930	12000
P0900513-006.01	SV-InA-8	6.0 L-Summa Canister Ambient	-7.9	-3.9	3.6				AC01435	12000	FC00378	12000
P0900513-007.01	SV-OutA-020909	6.0 L-Summa Canister Ambient	-2.7	-1.3	3.5				AC01179	12000	FC00545	12000
P0900513-008.01	SV-SS-2	6.0 L-Summa Canister Source	-0.6	-0.3	3.5				SC00160	12000	OA00898	12000
P0900513-009.01	SV-InA-2	6.0 L-Summa Canister Ambient	-3.3	-1.6	3.5				AC01423	12000		
P0900513-010.01	SV-SS-16	6.0 L-Summa Canister Source	-2.7	-1.3	3.5				SC00932	12000	OA00543	12000
P0900513-011.01	SV-InA-16	6.0 L-Summa Canister Ambient	-7.6	-3.7	3.5				AC01351	12000	FC00367	12000

Miscellaneous Items - received

AVG00192
AVG00822
AVG00696
AVG01012
AVG01053
AVG00871
AVG00980
AVG00749
AVG00870
AVG00884

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0900513

Project: Cooper Vision / 70665-014

Sample(s) received on: 02/12/09 Date opened: 02/12/09 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Was a **chain-of-custody** provided?	☒	☐	☐
5	Was the **chain-of-custody** properly completed?	☒	☐	☐
6	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
7	Was **sample volume** received adequate for analysis?	☒	☐	☐
8	Are samples within specified holding times?	☒	☐	☐
9	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
10	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: _____			
11	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
12	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
13	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
14	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0900513-001.01	6.0 L Source Can					
P0900513-002.01	6.0 L Ambient Can					
P0900513-003.01	6.0 L Source Can					
P0900513-004.01	6.0 L Ambient Can					
P0900513-005.01	6.0 L Source Can					
P0900513-006.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);
Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0900513

Project: Cooper Vision / 70665-014

Sample(s) received on: 02/12/09 Date opened: 02/12/09 by: MZAMORA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0900513-007.01	6.0 L Ambient Can					
P0900513-008.01	6.0 L Source Can					
P0900513-009.01	6.0 L Ambient Can					Sample NOT received.
P0900513-010.01	6.0 L Source Can					
P0900513-011.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);
Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

NYSDEC DATA PACKAGE SUMMARY FORMS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
SV-SS-58	P0900513-001	EPA TO-15					
SV-InA-58	P0900513-002	EPA TO-15					
SV-SS-64	P0900513-003	EPA TO-15					
SV-InA-64	P0900513-004	EPA TO-15					
SV-SS-8	P0900513-005	EPA TO-15					
SV-InA-8	P0900513-006	EPA TO-15					
SV-OutA-020909	P0900513-007	EPA TO-15					
SV-SS-2	P0900513-008	EPA TO-15					
SV-InA-2	P0900513-009	EPA TO-15					
SV-SS-16	P0900513-010	EPA TO-15					
SV-InA-16	P0900513-011	EPA TO-15					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
P0900513-001	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-002	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-003	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-004	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-005	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-006	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-007	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-008	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-009	Air	2/10/09	2/16/09	NA	2/16/09
P0900513-010	Air	2/10/09	2/12/09	NA	2/13/09
P0900513-011	Air	2/10/09	2/12/09	NA	2/13/09

CHAIN OF CUSTODY FORMS

Columbia Analytical Services™

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day - Standard

CAS Project No. R0902513

CAS Contact: K. Aguilera

Company Name & Address (Reporting Information)
Haley & Aldrich
200 Town Centre Dr
Rochester NY 14623

Project Name: CooperVision

Project Number: 70665-014

Project Manager: S. Boyle

P.O. # / Billing Information

Phone: 585 321.4222 | Fax:

Email Address for Result Reporting

Sampler (Print & Sign): Christina Ondak

Analysis Method and/or Analytes

Comments
e.g. Actual Preservative or specific instructions

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/Solid)	Canister ID (Bar Code # - AC, SC, etc.)	Flow Controller (Bar Code - FC #)	Sample Volume	02/09/09 time start	02/10/09 time stop	(Vacuum) can start	can stop	Comments
SV-SS-58	(1)-2.3	02/09 02/10	24hr	air	00119	00912	6L	1337	1200	29	03	vinyl chloride
SV-InA-58	(2)-4.8				00848	00490		1330	1200	29	08	min reporting
SV-SS-64	(3)-0.5				00931	00548		1500	1215	30	01	limit for
SV-InA-64	(4)-9.0				00946	00591		1500	1215	30	11	subslab = 1µg/m³
SV-SS-8	(5)-3.1				00641	00930		1545	1335	30	05	indoor = .25
SV-InA-8	(6)-7.9				01435	00378		1540	1335	30	11	outdoor = .25
SV-OutA-020909	(7)-2.7				01179	00545		1347	1520	30	05	
SV-SS-2	(8)-0.6				00160	00898		1625	1505	29	03	all other
SV-InA-2	(9)				01423	00215		1615	1525	30	05	compounds
SV-SS-16	(10)-2.7				00932	00548		1655	1545	27	03	min reporting
SV-InA-16	(11)-7.6				01351	00367		1655	1545	30	08	limit = 1µg/m³
												analyze
												TO-15

please provide results ASP-B package

Report Tier Levels - please select
Tier I - (Results/Default if not specified) ____
Tier II - (Results + QC) ____
Tier III - (Data Validation Package) 10% Surcharge ____
Tier V - (client specified) ____

EDD required Yes / No
Type: ____ EDD Units: ____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature) Christina Ondak	Date: 02/10/09	Time: 1700	Received by: (Signature)	Date: 2/11/09	Time: 0840	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Cooler / Blank
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Temperature ____ °C

GC/MS VOLATILES DATA

QC Summary

COLUMBIA ANALYTICAL SERVICES, INC.

SURROGATE SPIKE RECOVERY RESULTS

Client: **Haley & Aldrich, Inc.**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 2/10/09
Date(s) Received: 2/12 - 2/16/09
Date(s) Analyzed: 2/13 - 2/16/09

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P090213-MB	99	70-130	97	70-130	103	70-130	
Method Blank	P090216-MB	100	70-130	99	70-130	103	70-130	
Lab Control Sample	P090213-LCS	98	70-130	96	70-130	109	70-130	
Lab Control Sample	P090216-LCS	98	70-130	97	70-130	108	70-130	
SV-SS-58	P0900513-001	101	70-130	90	70-130	106	70-130	
SV-InA-58	P0900513-002	98	70-130	96	70-130	106	70-130	
SV-InA-58	P0900513-002DUP	98	70-130	97	70-130	106	70-130	
SV-SS-64	P0900513-003	97	70-130	97	70-130	105	70-130	
SV-InA-64	P0900513-004	98	70-130	98	70-130	103	70-130	
SV-SS-8	P0900513-005	98	70-130	95	70-130	106	70-130	
SV-InA-8	P0900513-006	98	70-130	97	70-130	106	70-130	
SV-OutA-020909	P0900513-007	99	70-130	98	70-130	104	70-130	
SV-SS-2	P0900513-008	99	70-130	98	70-130	105	70-130	
SV-InA-2	P0900513-009	101	70-130	98	70-130	103	70-130	
SV-InA-2	P0900513-009DUP	101	70-130	98	70-130	101	70-130	
SV-SS-16	P0900513-010	98	70-130	98	70-130	104	70-130	
SV-InA-16	P0900513-011	99	70-130	98	70-130	103	70-130	

Verified By: _____ Date: 2/18/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client:	Haley & Aldrich, Inc.		
Client Sample ID:	Lab Control Sample	CAS Project ID:	P0900513
Client Project ID:	Cooper Vision / 70665-014	CAS Sample ID:	P090213-LCS
Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16	Date Received:	NA
Analyst:	Wida Ang	Date Analyzed:	2/13/09
Sampling Media:	6.0 L Summa Canister	Volume(s) Analyzed:	NA Liter(s)
Test Notes:			

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-01-4	Vinyl Chloride	25.5	22.4	88	57-132	
75-00-3	Chloroethane	25.8	25.0	97	68-123	
75-35-4	1,1-Dichloroethene	27.5	27.7	101	70-123	
75-34-3	1,1-Dichloroethane	26.8	27.3	102	72-130	
71-55-6	1,1,1-Trichloroethane	26.5	25.9	98	69-127	

Verified By: _____ Date: 2/19/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client:	Haley & Aldrich, Inc.		
Client Sample ID:	Lab Control Sample	CAS Project ID:	P0900513
Client Project ID:	Cooper Vision / 70665-014	CAS Sample ID:	P090216-LCS
Test Code:	EPA TO-15	Date Collected:	NA
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16	Date Received:	NA
Analyst:	Wida Ang	Date Analyzed:	2/16/09
Sampling Media:	6.0 L Summa Canister	Volume(s) Analyzed:	NA Liter(s)
Test Notes:			

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-01-4	Vinyl Chloride	25.5	21.5	84	57-132	
75-00-3	Chloroethane	25.8	24.3	94	68-123	
75-35-4	1,1-Dichloroethene	27.5	27.7	101	70-123	
75-34-3	1,1-Dichloroethane	26.8	26.9	100	72-130	
71-55-6	1,1,1-Trichloroethane	26.5	25.7	97	69-127	

Verified By: _____ Date: 2/18/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY DUPLICATE SUMMARY RESULTS

Client:	Haley & Aldrich, Inc.		
Client Sample ID:	SV-InA-58	CAS Project ID:	P0900513
Client Project ID:	Cooper Vision / 70665-014	CAS Sample ID:	P0900513-002DUP
Test Code:	EPA TO-15	Date Collected:	2/10/09
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16	Date Received:	2/12/09
Analyst:	Wida Ang	Date Analyzed:	2/13/09
Sampling Media:	6.0 L Summa Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			
Container ID:	AC00848		

Initial Pressure (psig): -4.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.75

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average ppbV	% RPD	RPD Limit	Data Qualifier
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	

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

Verified By: _____ Date: 2/18/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY DUPLICATE SUMMARY RESULTS

Client:	Haley & Aldrich, Inc.		
Client Sample ID:	SV-InA-2	CAS Project ID:	P0900513
Client Project ID:	Cooper Vision / 70665-014	CAS Sample ID:	P0900513-009DUP
Test Code:	EPA TO-15	Date Collected:	2/10/09
Instrument ID:	Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16	Date Received:	2/16/09
Analyst:	Wida Ang	Date Analyzed:	2/16/09
Sampling Media:	6.0 L Summa Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			
Container ID:	AC01423		

Initial Pressure (psig): -1.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.39

Compound	Sample Result		Duplicate Sample Result		Average	% RPD	RPD Limit	Data Qualifier
	µg/m³	ppbV	µg/m³	ppbV	ppbV			
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	

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

Verified By: _____ Date: 2/17/09

Client: **Haley & Aldrich, Inc.** CAS Project ID: P0900513
Client Project ID: **Cooper Vision / 70665-014**

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Lab File ID: 02130902.D
Analyst: Wida Ang Date Analyzed: 2/13/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 09:34
Test Notes:

Client Sample ID	CAS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P090213-LCS	02130903.D	10:15
SV-SS-58	P0900513-001	02130909.D	15:00
SV-InA-58	P0900513-002	02130910.D	15:47
SV-InA-58 (Lab Duplicate)	P0900513-002DUP	02130911.D	16:33
SV-SS-64	P0900513-003	02130912.D	17:35
SV-InA-64	P0900513-004	02130913.D	18:18
SV-SS-8	P0900513-005	02130914.D	19:01
SV-InA-8	P0900513-006	02130915.D	19:44
SV-OutA-020909	P0900513-007	02130916.D	20:27
SV-SS-2	P0900513-008	02130917.D	21:09
SV-SS-16	P0900513-010	02130918.D	21:52
SV-InA-16	P0900513-011	02130919.D	22:35

Verified By: _____ Date: 2/19/09

Client: Haley & Aldrich, Inc. CAS Project ID: P0900513
Client Project ID: Cooper Vision / 70665-014

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Lab File ID: 02160902.D
Analyst: Wida Ang Date Analyzed: 2/16/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 09:56
Test Notes:

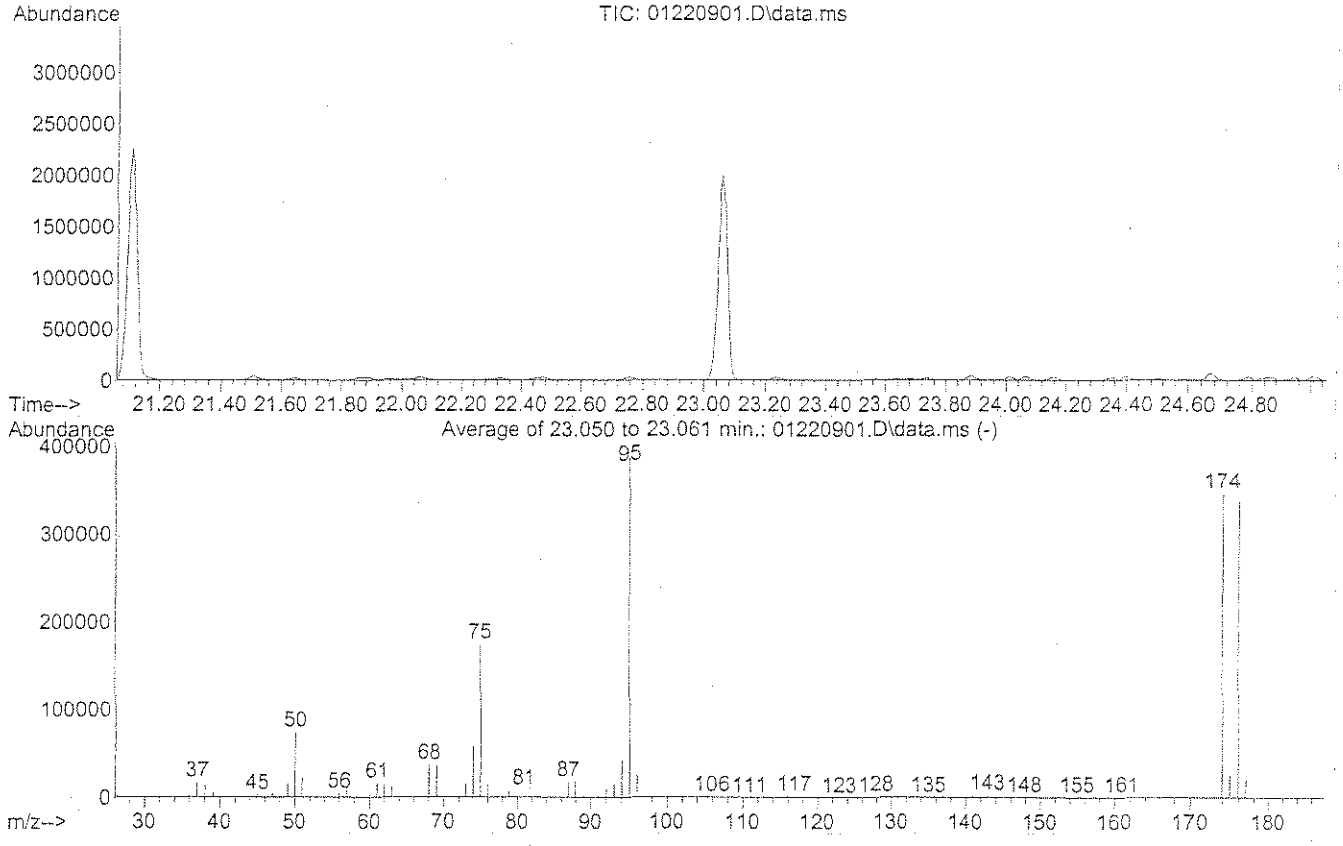
Client Sample ID	CAS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P090216-LCS	02160903.D	10:36
SV-InA-2	P0900513-009	02160906.D	12:54
SV-InA-2 (Lab Duplicate)	P0900513-009DUP	02160907.D	13:37

Verified By: _____ Date: 2/18/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220901.D
Acq On : 22 Jan 2009 12:23
Operator : WA/LH
Sample : 25ng BFB STD
Misc : S20-01050901
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS16\METHODS\R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Jan 14 10:48:15 2009



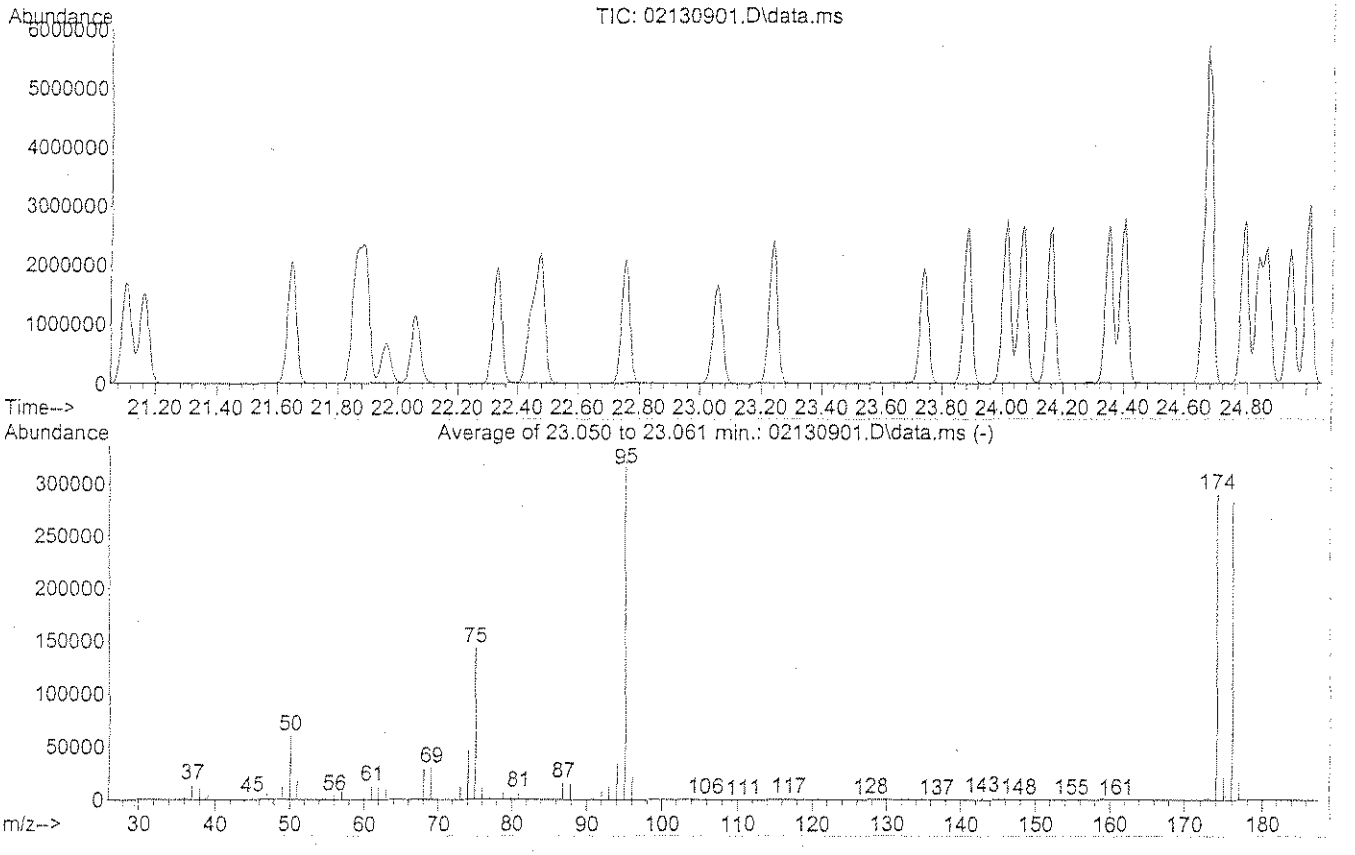
AutoFind: Scans 3420, 3421, 3422; Background Corrected with Scan 3409

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	74544	PASS
75	95	30	66	45.3	174848	PASS
95	95	100	100	100.0	385771	PASS
96	95	5	9	6.4	24733	PASS
173	174	0.00	2	0.8	2660	PASS
174	95	50	120	89.8	346496	PASS
175	174	4	9	7.4	25515	PASS
176	174	93	101	97.3	337152	PASS
177	176	5	9	6.5	22019	PASS

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS16\METHODS\R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Jan 23 08:54:57 2009



AutoFind: Scans 3420, 3421, 3422; Background Corrected with Scan 3409

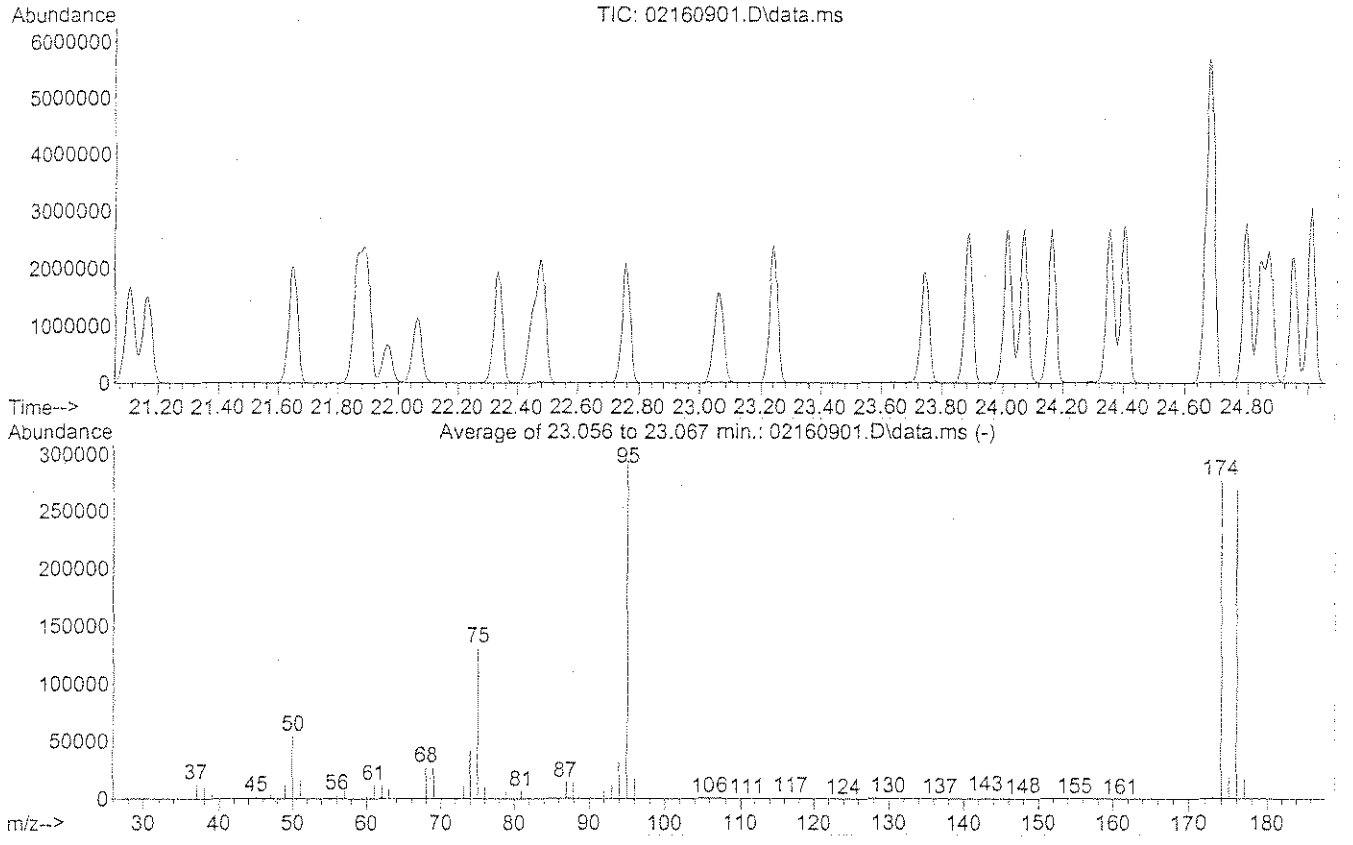
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.9	60608	PASS
75	95	30	66	44.9	144299	PASS
95	95	100	100	100.0	321301	PASS
96	95	5	9	6.6	21275	PASS
173	174	0.00	2	0.8	2264	PASS
174	95	50	120	90.4	290539	PASS
175	174	4	9	7.4	21421	PASS
176	174	93	101	97.2	282496	PASS
177	176	5	9	6.6	18635	PASS

2/16/09 2/13/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS16\METHODS\R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Jan 23 08:54:57 2009



AutoFind: Scans 3421, 3422, 3423; Background Corrected with Scan 3410

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.7	55179	PASS
75	95	30	66	44.8	131859	PASS
95	95	100	100	100.0	294421	PASS
96	95	5	9	6.5	19196	PASS
173	174	0.00	2	0.8	2115	PASS
174	95	50	120	94.2	277440	PASS
175	174	4	9	7.0	19352	PASS
176	174	93	101	97.4	270101	PASS
177	176	5	9	6.4	17252	PASS

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KM 2/17/09 MH 02/16/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900513
Client Project ID: Cooper Vision / 70665-014

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Lab File ID: 02130901.D
Analyst: Wida Ang Date Analyzed: 2/13/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 08:46
Test Notes:

	IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
24 Hour Standard	292784	12.31	1302929	15.22	652497	21.10
Upper Limit	409898	12.64	1824101	15.55	913496	21.43
Lower Limit	175670	11.98	781757	14.89	391498	20.77

	Client Sample ID						
01	Method Blank	284429	12.28	1305482	15.21	643376	21.10
02	Lab Control Sample	291926	12.31	1297420	15.23	649667	21.11
03	SV-SS-58	252921	12.29	1178644	15.22	658456	21.10
04	SV-InA-58	302189	12.28	1378004	15.22	691613	21.10
05	SV-InA-58 (Lab Duplicate)	306251	12.28	1398587	15.21	695931	21.10
06	SV-SS-64	307525	12.28	1399299	15.21	683757	21.10
07	SV-InA-64	295705	12.28	1353741	15.21	651687	21.10
08	SV-SS-8	293846	12.29	1333826	15.22	689543	21.10
09	SV-InA-8	299869	12.28	1350439	15.22	668943	21.10
10	SV-OutA-020909	298820	12.28	1377268	15.21	670624	21.10
11	SV-SS-2	290183	12.28	1338269	15.21	658768	21.10
12	SV-SS-16	296454	12.28	1340448	15.21	652867	21.10
13	SV-InA-16	287537	12.28	1323889	15.21	642037	21.10
14							
15							
16							
17							
18							
19							
20							

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

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

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

Verified By: _____ Date: 2/18/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900513
Client Project ID: Cooper Vision / 70665-014

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Lab File ID: 02160901.D
Analyst: Wida Ang Date Analyzed: 2/16/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 08:47
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	285040	12.31	1272496	15.23	627427	21.11
	Upper Limit	399056	12.64	1781494	15.56	878398	21.44
	Lower Limit	171024	11.98	763498	14.90	376456	20.78
	Client Sample ID						
01	Method Blank	276341	12.28	1277940	15.21	621270	21.10
02	Lab Control Sample	293871	12.31	1307508	15.23	644721	21.11
03	SV-InA-2	276686	12.28	1269109	15.21	624161	21.10
04	SV-InA-2 (Lab Duplicate)	267798	12.28	1235225	15.21	607502	21.10
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

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

Verified By: _____ Date: 2/16/09

COLUMBIA ANALYTICAL SERVICES

MDLs for TO-15 (LOW LEVEL - SCAN)

	?	10/02/08	10/03/08	10/03/08					FINAL	
	MS8	MS9	MS13	MS16	MAX				MDL_R	MDL_R
COMPOUND	MDL_R	MDL_R	MDL_R	MDL_R	MDL_R	µg/m³	ppbV	MW	µg/m³	ppbV
Propene		0.050	0.050	0.050	0.0500	0.050	0.02906	42.08	0.050	0.029
Dichlorodifluoromethane		0.050	0.050	0.050	0.0500	0.050	0.01012	120.90	0.050	0.010
Chloromethane		0.050	0.050	0.050	0.0500	0.050	0.02422	50.49	0.050	0.024
Freon 114		0.050	0.050	0.050	0.0500	0.050	0.00716	170.90	0.050	0.0072
Vinyl Chloride		0.050	0.050	0.050	0.0500	0.050	0.01957	62.50	0.050	0.020
1,3-Butadiene		0.050	0.050	0.050	0.0500	0.050	0.02261	54.09	0.050	0.023
Bromomethane		0.050	0.050	0.050	0.0500	0.050	0.01288	94.94	0.050	0.013
Chloroethane		0.050	0.072	0.050	0.0720	0.072	0.02730	64.52	0.072	0.027
Ethanol		0.140	0.133	0.133	0.1400	0.140	0.07433	46.07	0.14	0.074
Acetonitrile		0.050	0.050	0.050	0.0500	0.050	0.02979	41.05	0.050	0.030
Acrolein		0.056	0.110	0.050	0.1100	0.110	0.04800	56.06	0.11	0.048
Acetone		0.137	0.137	0.137	0.1370	0.140	0.05896	58.08	0.14	0.059
Trichlorofluoromethane		0.050	0.050	0.050	0.0500	0.050	0.00890	137.40	0.050	0.0089
Isopropanol		0.050	0.050	0.180	0.1800	0.180	0.07326	60.10	0.18	0.073
Acrylonitrile		0.050	0.050	0.050	0.0500	0.050	0.02305	53.06	0.050	0.023
1,1-Dichloroethene		0.050	0.056	0.050	0.0560	0.056	0.01413	96.94	0.056	0.014
tert-Butanol		0.051	0.051	0.051	0.0510	0.051	0.01683	74.12	0.051	0.017
Methylene Chloride		0.050	0.055	0.050	0.0550	0.055	0.01584	84.94	0.055	0.016
Allyl Chloride		0.050	0.050	0.050	0.0500	0.050	0.01598	76.53	0.050	0.016
Trichlorotrifluoroethane		0.050	0.058	0.050	0.0580	0.058	0.00757	187.38	0.058	0.0076
Carbon Disulfide		0.050	0.050	0.050	0.0500	0.050	0.01606	76.14	0.050	0.016
trans-1,2-Dichloroethene		0.050	0.050	0.050	0.0500	0.050	0.01262	96.94	0.050	0.013
1,1-Dichloroethane		0.050	0.050	0.050	0.0500	0.050	0.01236	98.96	0.050	0.012
Methyl tert-Butyl Ether		0.050	0.050	0.050	0.0500	0.050	0.01387	88.15	0.050	0.014
Vinyl Acetate		0.126	0.290	0.220	0.2900	0.290	0.08240	86.09	0.29	0.082
2-Butanone		0.050	0.096	0.057	0.0960	0.096	0.03256	72.11	0.096	0.033
cis-1,2-Dichloroethene		0.050	0.050	0.050	0.0500	0.050	0.01262	96.94	0.050	0.013
Diisopropyl Ether		0.050	0.050	0.052	0.0520	0.052	0.01245	102.18	0.052	0.012
Ethyl Acetate		0.076	0.120	0.054	0.1200	0.120	0.03331	88.11	0.12	0.033
n-Hexane		0.050	0.050	0.050	0.0500	0.050	0.01419	86.17	0.050	0.014
Chloroform		0.050	0.050	0.050	0.0500	0.050	0.01024	119.40	0.050	0.010
Tetrahydrofuran		0.050	0.085	0.064	0.0850	0.085	0.02883	72.11	0.085	0.029
Ethyl tert-Butyl Ether		0.050	0.050	0.050	0.0500	0.050	0.01197	102.18	0.050	0.012
1,2-Dichloroethane		0.050	0.050	0.050	0.0500	0.050	0.01236	98.96	0.050	0.012
1,1,1-Trichloroethane		0.050	0.050	0.050	0.0500	0.050	0.00917	133.40	0.050	0.0092
Isopropyl Acetate		0.053	0.053	0.053	0.0530	0.053	0.01269	102.13	0.053	0.013
1-Butanol		0.055	0.056	0.055	0.0560	0.056	0.01848	74.12	0.056	0.018
Benzene		0.050	0.050	0.050	0.0500	0.050	0.01566	78.11	0.050	0.016
Carbon Tetrachloride		0.050	0.050	0.050	0.0500	0.050	0.00795	153.80	0.050	0.0080
Cyclohexane		0.055	0.055	0.055	0.0550	0.055	0.01599	84.16	0.055	0.016
tert-Amyl Methyl Ether		0.050	0.050	0.050	0.0500	0.050	0.01197	102.18	0.050	0.012
1,2-Dichloropropane		0.050	0.050	0.050	0.0500	0.050	0.01082	113.00	0.050	0.011
Bromodichloromethane		0.050	0.050	0.050	0.0500	0.050	0.00747	163.80	0.050	0.0075
Trichloroethene		0.050	0.050	0.050	0.0500	0.050	0.00931	131.40	0.050	0.0093
1,4-Dioxane		0.050	0.060	0.050	0.0600	0.060	0.01666	88.11	0.060	0.017
Isooctane		0.050	0.050	0.050	0.0500	0.050	0.01071	114.23	0.050	0.011
Methyl Methacrylate		0.059	0.094	0.054	0.0940	0.094	0.02296	100.12	0.094	0.023
n-Heptane		0.050	0.050	0.050	0.0500	0.050	0.01221	100.20	0.050	0.012
cis-1,3-Dichloropropene		0.050	0.050	0.050	0.0500	0.050	0.01102	111.00	0.050	0.011
4-Methyl-2-pentanone		0.050	0.050	0.050	0.0500	0.050	0.01221	100.20	0.050	0.012
trans-1,3-Dichloropropene		0.050	0.050	0.050	0.0500	0.050	0.01102	111.00	0.050	0.011
1,1,2-Trichloroethane		0.050	0.050	0.050	0.0500	0.050	0.00917	133.40	0.050	0.0092
Toluene		0.050	0.050	0.050	0.0500	0.050	0.01327	92.14	0.050	0.013
2-Hexanone		0.050	0.050	0.050	0.0500	0.050	0.01221	100.16	0.050	0.012
Dibromochloromethane		0.050	0.050	0.050	0.0500	0.050	0.00587	208.30	0.050	0.0059
1,2-Dibromoethane		0.050	0.050	0.050	0.0500	0.050	0.00651	187.90	0.050	0.0065
Butyl Acetate		0.050	0.050	0.050	0.0500	0.050	0.01053	116.16	0.050	0.011

COLUMBIA ANALYTICAL SERVICES

MDLs for TO-15 (LOW LEVEL - SCAN)

	?	10/02/08	10/03/08	10/03/08					FINAL	
	MS8	MS9	MS13	MS16	MAX				MDL_R	MDL_R
COMPOUND	MDL_R	MDL_R	MDL_R	MDL_R	MDL_R	µg/m³	ppbV	MW	µg/m³	ppbV
n-Octane		0.050	0.050	0.050	0.0500	0.050	0.01071	114.23	0.050	0.011
Tetrachloroethene		0.050	0.050	0.050	0.0500	0.050	0.00738	165.80	0.050	0.0074
Chlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.01086	112.60	0.050	0.011
Ethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01152	106.20	0.050	0.012
m- & p-Xylene		0.053	0.053	0.053	0.0530	0.053	0.01221	106.20	0.053	0.012
Bromoform		0.050	0.050	0.053	0.0530	0.053	0.00513	252.80	0.053	0.0051
Styrene		0.050	0.050	0.050	0.0500	0.050	0.01175	104.10	0.050	0.012
o-Xylene		0.050	0.050	0.050	0.0500	0.050	0.01152	106.20	0.050	0.012
n-Nonane		0.050	0.050	0.050	0.0500	0.050	0.00954	128.26	0.050	0.0095
1,1,2,2-Tetrachloroethane		0.050	0.050	0.050	0.0500	0.050	0.00728	167.90	0.050	0.0073
Cumene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
alpha-Pinene		0.050	0.050	0.050	0.0500	0.050	0.00898	136.24	0.050	0.0090
n-Propylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01018	120.19	0.050	0.010
3-Ethyltoluene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
4-Ethyltoluene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
1,3,5-Trimethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
alpha-Methylstyrene		0.050	0.050	0.050	0.0500	0.050	0.01035	118.19	0.050	0.010
2-Ethyltoluene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
1,2,4-Trimethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
n-Decane		0.050	0.050	0.050	0.0500	0.050	0.00860	142.28	0.050	0.0086
Benzyl Chloride		0.050	0.050	0.050	0.0500	0.050	0.00966	126.59	0.050	0.0097
1,3-Dichlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.00832	147.00	0.050	0.0083
1,4-Dichlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.00832	147.00	0.050	0.0083
sec-Butylbenzene		0.050	0.050	0.050	0.0500	0.050	0.00911	134.22	0.050	0.0091
p-Isopropyltoluene		0.050	0.050	0.050	0.0500	0.050	0.00911	134.22	0.050	0.0091
1,2,3-Trimethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01018	120.19	0.050	0.010
1,2-Dichlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.00832	147.00	0.050	0.0083
d-Limonene		0.050	0.029	0.050	0.0500	0.050	0.00898	136.24	0.050	0.0090
1,2-Dibromo-3-Chloropropane		0.050	0.043	0.050	0.0500	0.050	0.00517	236.33	0.050	0.0052
n-Undecane		0.050	0.050	0.050	0.0500	0.050	0.00782	156.31	0.050	0.0078
1,2,4-Trichlorobenzene		0.083	0.053	0.076	0.0830	0.083	0.01119	181.50	0.083	0.011
Naphthalene		0.050	0.050	0.050	0.0500	0.050	0.00954	128.17	0.050	0.0095
n-Dodecane		0.050	0.050	0.050	0.0500	0.050	0.00718	170.34	0.050	0.0072
Hexachloro-1,3-butadiene		0.050	0.050	0.050	0.0500	0.050	0.00469	260.80	0.050	0.0047

Sample Data

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-58**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00119

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
75-00-3	Chloroethane	ND	0.67	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.67	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.67	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.67	ND	0.12	

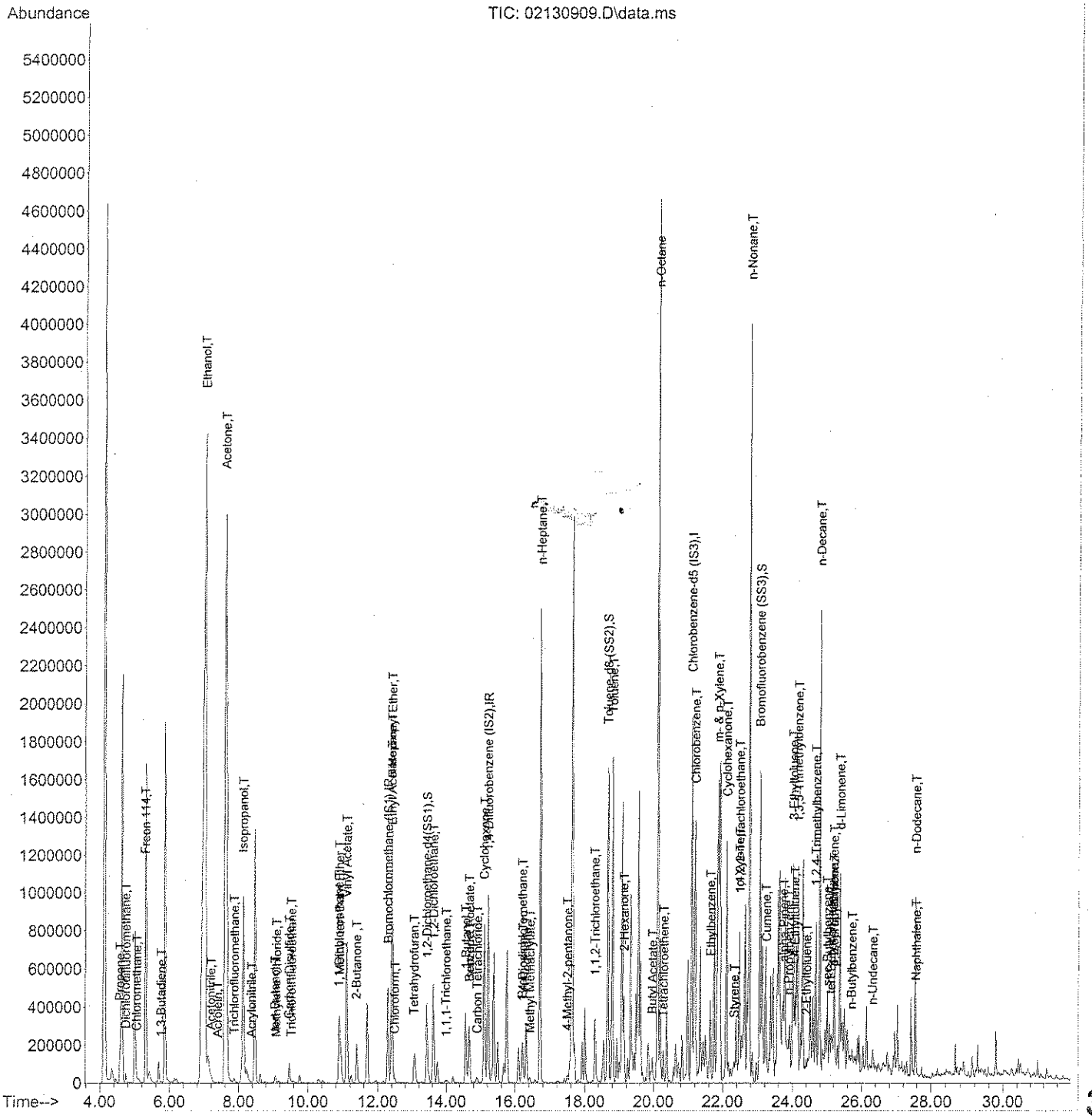
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130909.D
Acq On : 13 Feb 2009 15:00
Operator : WA/LH
Sample : P0900513-001 (1000mL)
Misc : Haley & Aldrich SV-SS-58 (-1.1, 3.5)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 13 15:37:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130909.D
Acq On : 13 Feb 2009 15:00
Operator : WA/LH
Sample : P0900513-001 (1000mL)
Misc : Haley & Aldrich SV-SS-58 (-1.1, 3.5) ✓
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 13 15:37:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.29	130	252921	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.22	114	1178644	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	658456	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.43	65	409097	25.293	ng		-0.03
Spiked Amount 25.000			Recovery =	101.16% ✓			
57) Toluene-d8 (SS2)	18.67	98	1391218	22.442	ng		-0.01
Spiked Amount 25.000			Recovery =	89.76% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	618862	26.578	ng		0.00
Spiked Amount 25.000			Recovery =	106.32% ✓			
Target Compounds							Qvalue
2) Propene	4.58	42	91551	6.466	ng	#	81
3) Dichlorodifluoromethane	4.75	85	53267	2.155	ng		100
4) Chloromethane	5.06	50	4159	0.206	ng		91
5) Freon 114	5.30	135	734	0.062	ng		68
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.77	54	3554	0.296	ng		90
8) Bromomethane	6.26	94	56	N.D.			
9) Chloroethane	6.56	64	233	N.D. ✓			
10) Ethanol	7.02	45	11136389	1268.277	ng		93
11) Acetonitrile	7.20	41	49948	2.101	ng		90
12) Acrolein	7.40	56	5778	0.785	ng		85
13) Acetone	7.61	58	1922683	192.049	ng	#	75
14) Trichlorofluoromethane	7.88	101	23203	1.080	ng		97
15) Isopropanol	8.14	45	2047545	57.013	ng		97
16) Acrylonitrile	8.38	53	4790	0.292	ng		96
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.06	59	71968	2.125	ng		94
19) Methylene Chloride	9.11	84	1392	0.110	ng	#	54
20) Allyl Chloride	9.27	41	418	N.D.			
21) Trichlorotrifluoroethane	9.53	151	4634	0.481	ng		90
22) Carbon Disulfide	9.47	76	231656	5.212	ng		98
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	10.88	63	1388	~~0.067 ng~~		#	1
25) Methyl tert-Butyl Ether	10.91	73	8632	0.277	ng		85
26) Vinyl Acetate	11.10	86	22622	10.893	ng	#	1
27) 2-Butanone	11.39	72	84166	11.009	ng	#	38
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.41	87	8407	0.909	ng	#	1
30) Ethyl Acetate	12.40	61	28801	6.516	ng	#	53
31) n-Hexane	12.41	57	873912	41.826	ng		89

2/17/09 2/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130909.D
Acq On : 13 Feb 2009 15:00
Operator : WA/LH
Sample : P0900513-001 (1000mL)
Misc : Haley & Aldrich SV-SS-58 (-1.1, 3.5)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 13 15:37:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.50	83	18034	0.939 ng		99
34) Tetrahydrofuran	13.06	72	40451	5.711 ng		94
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.63	62	3418	0.211 ng	#	45
38) 1,1,1-Trichloroethane	13.99	97	1298	~~0.070 ng~~		85
39) Isopropyl Acetate	14.68	61	2522	0.301 ng	#	1
40) 1-Butanol	14.56	56	323726	25.004 ng		87
41) Benzene	14.68	78	382952	7.578 ng		99
42) Carbon Tetrachloride	14.91	117	3925	0.239 ng		97
43) Cyclohexane	15.11	84	434477	25.867 ng	#	67
44) tert-Amyl Methyl Ether	15.52	73	1319	N.D.		
45) 1,2-Dichloropropane	15.90	63	287	N.D.		
46) Bromodichloromethane	16.21	83	23522	1.497 ng	#	20
47) Trichloroethene	16.26	130	56	N.D.		
48) 1,4-Dioxane	16.22	88	16223	1.664 ng	#	78
49) Isooctane	16.32	57	38720	0.677 ng	#	1
50) Methyl Methacrylate	16.43	100	5809	1.171 ng	#	1
51) n-Heptane	16.72	71	725870	58.078 ng	#	74
52) cis-1,3-Dichloropropene	17.32	75	111	N.D.		
53) 4-Methyl-2-pentanone	17.51	58	15813	1.329 ng		81
54) trans-1,3-Dichloropropene	18.23	75	264	N.D.		
55) 1,1,2-Trichloroethane	18.29	97	13773	1.163 ng	#	70
58) Toluene	18.80	91	1615979	25.867 ng		99
59) 2-Hexanone	19.13	43	277886	7.325 ng	#	29
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.96	43	16179	0.372 ng	#	1
63) n-Octane	20.12	57	1022865	71.224 ng	#	71
64) Tetrachloroethene	20.30	166	2931	0.168 ng		98
65) Chlorobenzene	21.21	112	147948	3.578 ng	#	44
66) Ethylbenzene	21.64	91	326100	4.683 ng		100
67) m- & p-Xylene	21.86	91	1368379	25.059 ng		97
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.33	104	9964	0.238 ng		91
70) o-Xylene	22.48	91	407194	7.285 ng		98
71) n-Nonane	22.75	43	1867795	54.026 ng		91
72) 1,1,2,2-Tetrachloroethane	22.48	83	3869	0.156 ng	#	18
74) Cumene	23.24	105	74070	1.002 ng		97
75) alpha-Pinene	23.74	93	134835	4.232 ng		99
76) n-Propylbenzene	23.88	91	91595	1.022 ng		90
77) 3-Ethyltoluene	24.01	105	179329	2.647 ng		96
78) 4-Ethyltoluene	24.06	105	65189	0.983 ng		96
79) 1,3,5-Trimethylbenzene	24.15	105	129187	2.256 ng		93

RH 2/17/09 LH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130909.D
Acq On : 13 Feb 2009 15:00
Operator : WA/LH
Sample : P0900513-001 (1000mL)
Misc : Haley & Aldrich SV-SS-58 (-1.1, 3.5)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 13 15:37:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1321	N.D.			
81) 2-Ethyltoluene	24.40	105	53891	0.775	ng		95
82) 1,2,4-Trimethylbenzene	24.67	105	177691	2.893	ng		97
83) n-Decane	24.79	57	894332	24.767	ng		82
84) Benzyl Chloride	24.88	91	1203	N.D.			
85) 1,3-Dichlorobenzene	24.87	146	186	N.D.			
86) 1,4-Dichlorobenzene	24.95	146	1226	N.D.			
87) sec-Butylbenzene	25.00	105	27093	0.338	ng		98
88) p-Isopropyltoluene	25.20	119	31621	0.406	ng		96
89) 1,2,3-Trimethylbenzene	25.20	105	35995	0.586	ng		93
90) 1,2-Dichlorobenzene	25.36	146	1752	N.D.			
91) d-Limonene	25.37	68	258716	10.850	ng		99
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	26.32	57	43734	1.122	ng	#	47
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.			
95) Naphthalene	27.57	128	94654	1.069	ng		98
96) n-Dodecane	27.55	57	312753	7.118	ng		78
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.11	55	137083	5.215	ng	#	41
99) tert-Butylbenzene	25.12	119	22234	0.373	ng		92
100) n-Butylbenzene	25.71	91	14115	0.222	ng	#	15

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

KM 2/17/09 MH 02/16/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-58**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00848

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.18	ND	0.068	
75-00-3	Chloroethane	ND	0.88	ND	0.33	
75-35-4	1,1-Dichloroethene	ND	0.88	ND	0.22	
75-34-3	1,1-Dichloroethane	ND	0.88	ND	0.22	
71-55-6	1,1,1-Trichloroethane	ND	0.88	ND	0.16	

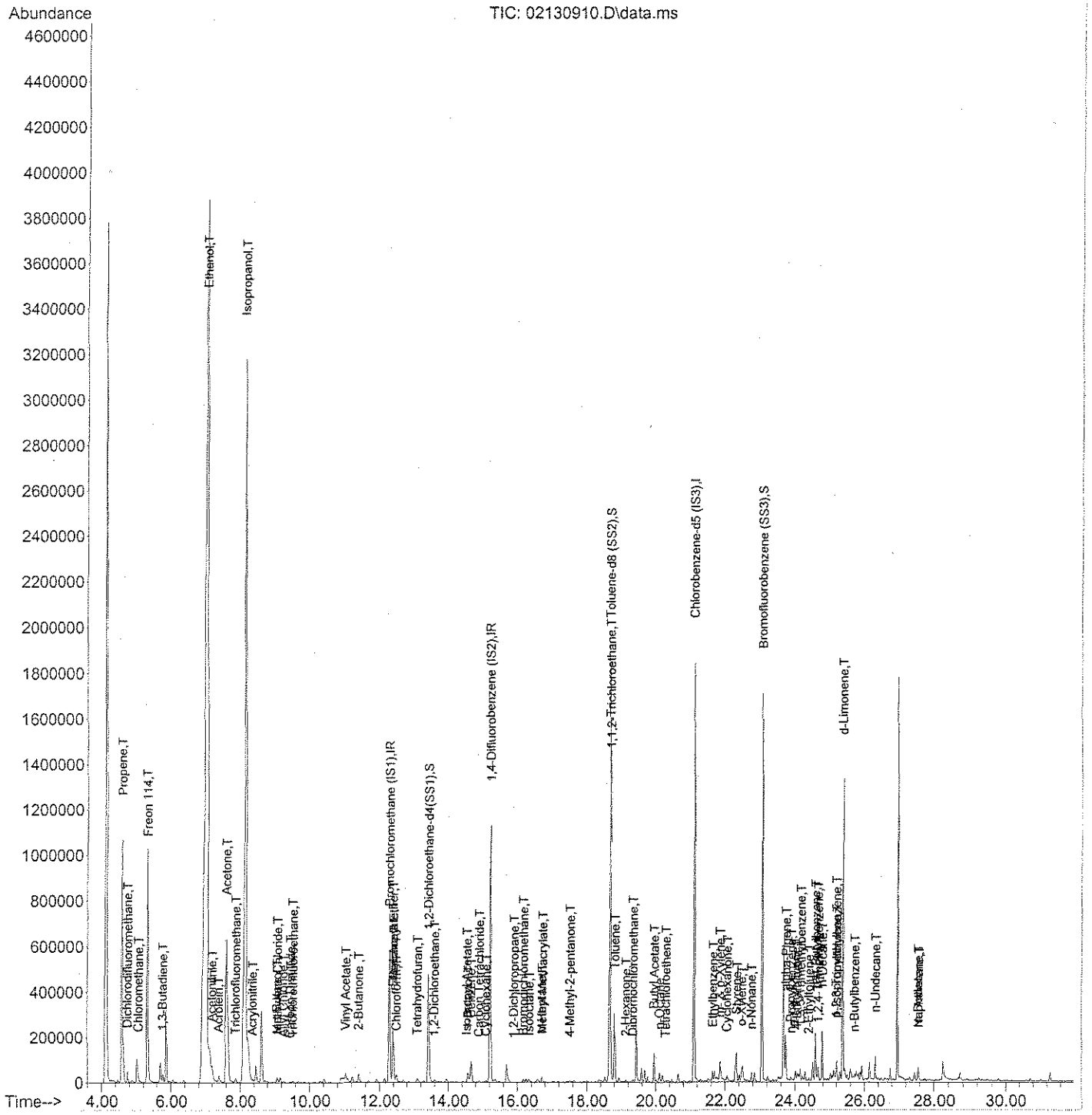
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/19/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130910.D
Acq On : 13 Feb 2009 15:47
Operator : WA/LH
Sample : P0900513-002 (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5) ✓
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 16:22:48 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130910.D
Acq On : 13 Feb 2009 15:47
Operator : WA/LH
Sample : P0900513-002 (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5) ✓
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 16:22:48 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	302189	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.22	114	1378004	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	691613	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	473561	24.505	ng		-0.04
Spiked Amount 25.000			Recovery =	98.04% ✓			
57) Toluene-d8 (SS2)	18.67	98	1565338	24.040	ng		-0.01
Spiked Amount 25.000			Recovery =	96.16% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	646175	26.420	ng		0.00
Spiked Amount 25.000			Recovery =	105.68% ✓			
Target Compounds							Qvalue
2) Propene	4.58	42	519516	30.710	ng		90
3) Dichlorodifluoromethane	4.75	85	48566	1.644	ng		100
4) Chloromethane	5.06	50	21493	0.891	ng		97
5) Freon 114	5.31	135	883	0.063	ng		63
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.77	54	19955	1.391	ng		98
8) Bromomethane	6.24	94	467	N.D.			
9) Chloroethane	6.57	64	134	N.D. ✓			
10) Ethanol	7.03	45	13333835	1270.957	ng		93
11) Acetonitrile	7.19	41	103978	3.660	ng		94
12) Acrolein	7.39	56	36057	4.099	ng		82
13) Acetone	7.60	58	412779	34.509	ng		91
14) Trichlorofluoromethane	7.87	101	20629	0.803	ng		96
15) Isopropanol	8.16	45	7895023	183.992	ng		100
16) Acrylonitrile	8.37	53	9349	0.476	ng		95
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.07	59	19931	0.493	ng	#	36
19) Methylene Chloride	9.08	84	4089	0.269	ng	#	49
20) Allyl Chloride	9.26	41	2236	0.122	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	4367	0.379	ng		91
22) Carbon Disulfide	9.46	76	7325	0.138	ng		94
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	10.91	73	453	N.D.			
26) Vinyl Acetate	11.03	86	12666	5.105	ng	#	1
27) 2-Butanone	11.40	72	15395	1.685	ng	#	39
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.40	87	859	0.078	ng	#	1
30) Ethyl Acetate	12.39	61	50686	9.598	ng		84
31) n-Hexane	12.40	57	13023	0.522	ng		91

AM 2/17/09 LH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130910.D
Acq On : 13 Feb 2009 15:47
Operator : WA/LH
Sample : P0900513-002 (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 16:22:48 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.49	83	32504	1.417 ng		98
34) Tetrahydrofuran	13.10	72	515	0.061 ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	6129	0.317 ng		98
38) 1,1,1-Trichloroethane	13.98	97	631	N.D. ✓		
39) Isopropyl Acetate	14.55	61	1686	0.172 ng	#	1
40) 1-Butanol	14.57	56	37921	2.505 ng		88
41) Benzene	14.67	78	114151	1.932 ng		99
42) Carbon Tetrachloride	14.90	117	5407	0.282 ng		98
43) Cyclohexane	15.09	84	3746	0.191 ng	#	72
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	15.90	63	900	0.060 ng		96
46) Bromodichloromethane	16.18	83	11537	0.628 ng		93
47) Trichloroethene	16.24	130	550	N.D.		
48) 1,4-Dioxane	16.23	88	117	N.D.		
49) Isooctane	16.34	57	15286	0.228 ng		95
50) Methyl Methacrylate	16.72	100	2131	0.367 ng	#	1
51) n-Heptane	16.70	71	6948	0.475 ng	#	79
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.51	58	1802	0.130 ng		79
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	133917	9.673 ng	#	8
58) Toluene	18.80	91	245179	3.736 ng		99
59) 2-Hexanone	19.13	43	7841	0.197 ng		86
60) Dibromochloromethane	19.34	129	4035	0.248 ng		95
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.95	43	122883	2.689 ng		94
63) n-Octane	20.11	57	9182	0.609 ng	#	86
64) Tetrachloroethene	20.28	166	1368	0.075 ng		99
65) Chlorobenzene	21.17	112	444	N.D.		
66) Ethylbenzene	21.64	91	40616	0.555 ng		100
67) m- & p-Xylene	21.86	91	79830	1.392 ng		98
68) Bromoform	21.95	173	238	N.D.		
69) Styrene	22.33	104	22785	0.517 ng		97
70) o-Xylene	22.48	91	24018	0.409 ng		98
71) n-Nonane	22.75	43	18408	0.507 ng		95
72) 1,1,2,2-Tetrachloroethane	22.48	83	1011	N.D.		
74) Cumene	23.23	105	4296	N.D.		
75) alpha-Pinene	23.74	93	95123	2.843 ng		96
76) n-Propylbenzene	23.88	91	11035	0.117 ng	#	76
77) 3-Ethyltoluene	24.01	105	20509	0.288 ng		95
78) 4-Ethyltoluene	24.06	105	9717	0.139 ng		92
79) 1,3,5-Trimethylbenzene	24.16	105	7053	0.117 ng		90

AH 2/17/09 LH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130910.D
Acq On : 13 Feb 2009 15:47
Operator : WA/LH
Sample : P0900513-002 (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 16:22:48 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1647	N.D.		
81) 2-Ethyltoluene	24.39	105	8420	0.115 ng		99
82) 1,2,4-Trimethylbenzene	24.67	105	23845	0.370 ng		96
83) n-Decane	24.79	57	84766	2.235 ng		75
84) Benzyl Chloride	24.85	91	399	N.D.		
85) 1,3-Dichlorobenzene	24.94	146	2143	N.D.		
86) 1,4-Dichlorobenzene	24.94	146	2143	N.D.		
87) sec-Butylbenzene	25.01	105	940	N.D.		
88) p-Isopropyltoluene	25.20	119	34526	0.422 ng		93
89) 1,2,3-Trimethylbenzene	25.20	105	9704	0.150 ng	#	63
90) 1,2-Dichlorobenzene	25.37	146	262	N.D.		
91) d-Limonene	25.37	68	344842	13.769 ng		99
92) 1,2-Dibromo-3-Chloropr...	26.32	157	61	N.D.		
93) n-Undecane	26.32	57	40713	0.995 ng		80
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	24087	0.259 ng		97
96) n-Dodecane	27.55	57	17776	0.385 ng		77
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.05	55	15204	0.551 ng	#	93
99) tert-Butylbenzene	24.59	119	4214	0.067 ng		93
100) n-Butylbenzene	25.71	91	4291	0.064 ng	#	27

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

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-64**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00931

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): 0.5 Final Pressure (psig): 3.8

Canister Dilution Factor: 1.22

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.12	ND	0.048	
75-00-3	Chloroethane	ND	0.61	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.61	ND	0.15	
75-34-3	1,1-Dichloroethane	ND	0.61	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.61	ND	0.11	

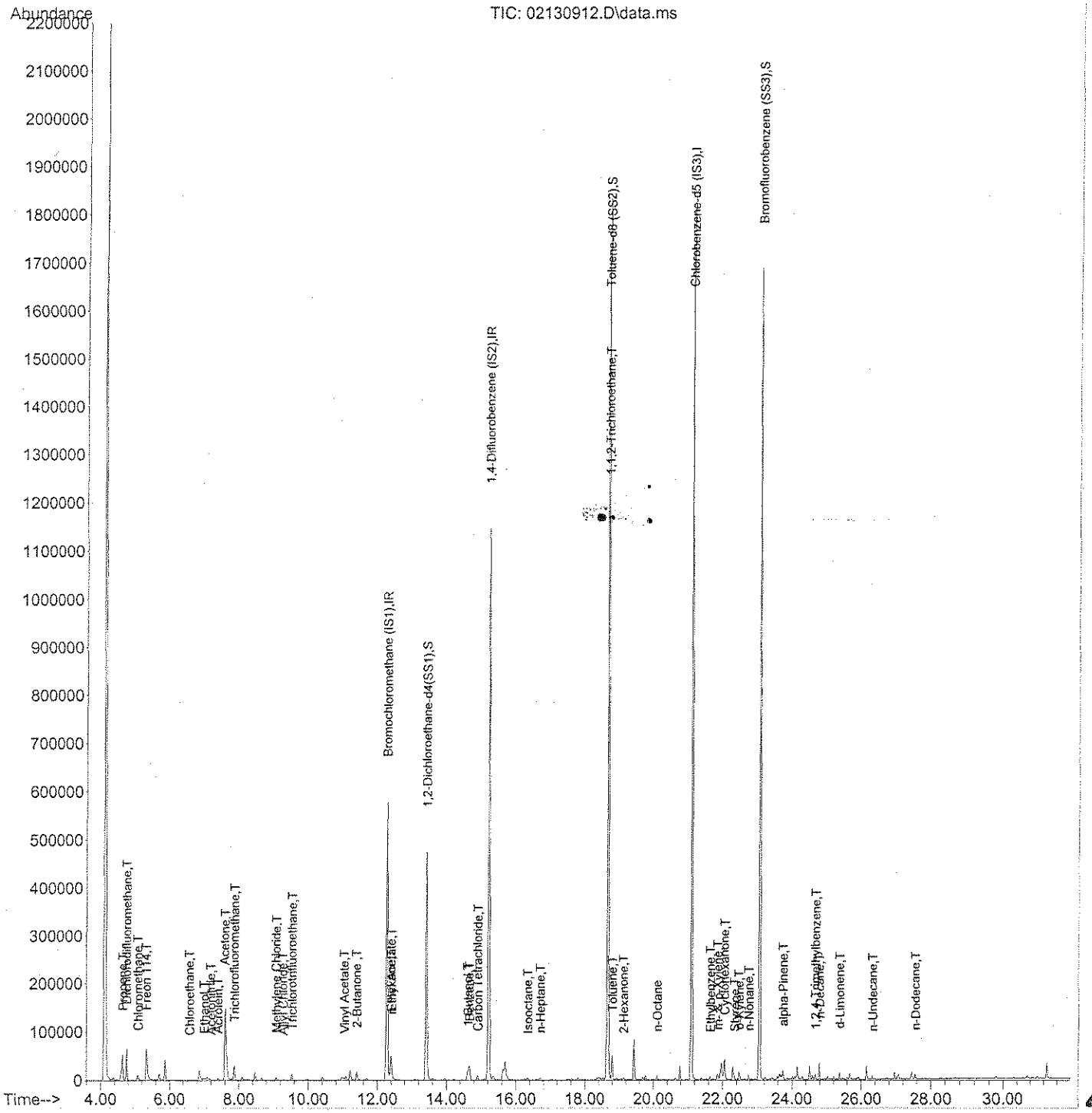
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130912.D
Acq On : 13 Feb 2009 17:35
Operator : WA/LH
Sample : P0900513-003 (1000mL)
Misc : Haley & Aldrich SV-SS-64 (0.5, 3.8) ✓
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 09:09:51 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130912.D
Acq On : 13 Feb 2009 17:35
Operator : WA/LH
Sample : P0900513-003 (1000mL)
Misc : Haley & Aldrich SV-SS-64 (0.5, 3.8) ✓
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 09:09:51 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	307525	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1399299	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	683757	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	478323	24.322	ng		-0.04
Spiked Amount 25.000			Recovery =	97.28% ✓			
57) Toluene-d8 (SS2)	18.66	98	1568592	24.367	ng		-0.02
Spiked Amount 25.000			Recovery =	97.48% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	632656	26.165	ng		0.00
Spiked Amount 25.000			Recovery =	104.64% ✓			
Target Compounds							Qvalue
2) Propene	4.63	42	8899	0.517	ng	#	29
3) Dichlorodifluoromethane	4.76	85	69054	2.297	ng		99
4) Chloromethane	5.08	50	14471	0.589	ng		98
5) Freon 114	5.32	135	1269	0.089	ng		83
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	6.25	94	263	N.D.			
9) Chloroethane	6.57	64	1460	0 ~~0.149~~	ng		76
10) Ethanol	7.00	45	11393	1.067	ng		95
11) Acetonitrile	7.19	41	2690	0.093	ng	#	63
12) Acrolein	7.40	56	5878	0.657	ng		81
13) Acetone	7.60	58	104432	8.579	ng		87
14) Trichlorofluoromethane	7.87	101	30458	1.166	ng		96
15) Isopropanol	8.20	45	1913	N.D.			
16) Acrylonitrile	8.47	53	71	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.03	59	888	N.D.			
19) Methylene Chloride	9.08	84	2822	0.183	ng	#	54
20) Allyl Chloride	9.27	41	1339	0.072	ng		83
21) Trichlorotrifluoroethane	9.53	151	6517	0.556	ng		91
22) Carbon Disulfide	9.47	76	2871	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	10.94	73	54	N.D.			
26) Vinyl Acetate	11.04	86	1554	0.615	ng	#	1
27) 2-Butanone	11.40	72	7899	0.850	ng	#	44
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.40	61	9542	1.775	ng		88
31) n-Hexane	12.41	57	5919	0.233	ng		92

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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130912.D
Acq On : 13 Feb 2009 17:35
Operator : WA/LH
Sample : P0900513-003 (1000mL)
Misc : Haley & Aldrich SV-SS-64 (0.5, 3.8)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 09:09:51 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.48	83	1076	N.D.		
34) Tetrahydrofuran	13.09	72	198	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.58	62	993	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	829	N.D. ✓		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.62	56	9149	0.595 ng		94
41) Benzene	14.67	78	29187	0.486 ng		96
42) Carbon Tetrachloride	14.89	117	8316	0.427 ng		99
43) Cyclohexane	15.11	84	575	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	15.90	63	514	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	16.25	130	795	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	5372	0.079 ng		81
50) Methyl Methacrylate	16.70	100	334	N.D.		
51) n-Heptane	16.70	71	1549	0.104 ng	#	73
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.52	58	696	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	132422	9.420 ng	#	8
58) Toluene	18.80	91	41616	0.642 ng		98
59) 2-Hexanone	19.12	43	4904	0.124 ng		90
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	1539	N.D.		
63) n-Octane	20.11	57	1891	0.127 ng		88
64) Tetrachloroethene	20.30	166	974	N.D.		
65) Chlorobenzene	21.17	112	53	N.D.		
66) Ethylbenzene	21.64	91	6139	0.085 ng		99
67) m- & p-Xylene	21.86	91	12058	0.213 ng		94
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	2666	0.061 ng		99
70) o-Xylene	22.47	91	4559	0.079 ng		99
71) n-Nonane	22.75	43	5417	0.151 ng		85
72) 1,1,2,2-Tetrachloroethane	22.48	83	548	N.D.		
74) Cumene	23.24	105	4006	N.D.		
75) alpha-Pinene	23.73	93	8444	0.255 ng		95
76) n-Propylbenzene	23.88	91	2986	N.D.		
77) 3-Ethyltoluene	24.01	105	3907	N.D.		
78) 4-Ethyltoluene	24.06	105	1917	N.D.		
79) 1,3,5-Trimethylbenzene	24.16	105	1464	N.D.		

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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130912.D
Acq On : 13 Feb 2009 17:35
Operator : WA/LH
Sample : P0900513-003 (1000mL)
Misc : Haley & Aldrich SV-SS-64 (0.5, 3.8)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 16 09:09:51 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	24.40	105	1480	N.D.		
82) 1,2,4-Trimethylbenzene	24.67	105	4384	0.069 ng		94
83) n-Decane	24.79	57	13725	0.366 ng		81
84) Benzyl Chloride	24.67	91	545	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	395	N.D.		
86) 1,4-Dichlorobenzene	24.95	146	395	N.D.		
87) sec-Butylbenzene	25.00	105	336	N.D.		
88) p-Isopropyltoluene	25.20	119	1241	N.D.		
89) 1,2,3-Trimethylbenzene	25.20	105	1135	N.D.		
90) 1,2-Dichlorobenzene	24.95	146	395	N.D.		
91) d-Limonene	25.37	68	3728	0.151 ng		97
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	2941	0.073 ng	#	52
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	3152	N.D.		
96) n-Dodecane	27.55	57	4146	0.091 ng		90
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.05	55	26808	0.982 ng		95
99) tert-Butylbenzene	24.66	119	621	N.D.		
100) n-Butylbenzene	25.74	91	172	N.D.		

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

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-64**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00946

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.77

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.18	ND	0.069	
75-00-3	Chloroethane	ND	0.89	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.89	ND	0.22	
75-34-3	1,1-Dichloroethane	ND	0.89	ND	0.22	
71-55-6	1,1,1-Trichloroethane	ND	0.89	ND	0.16	

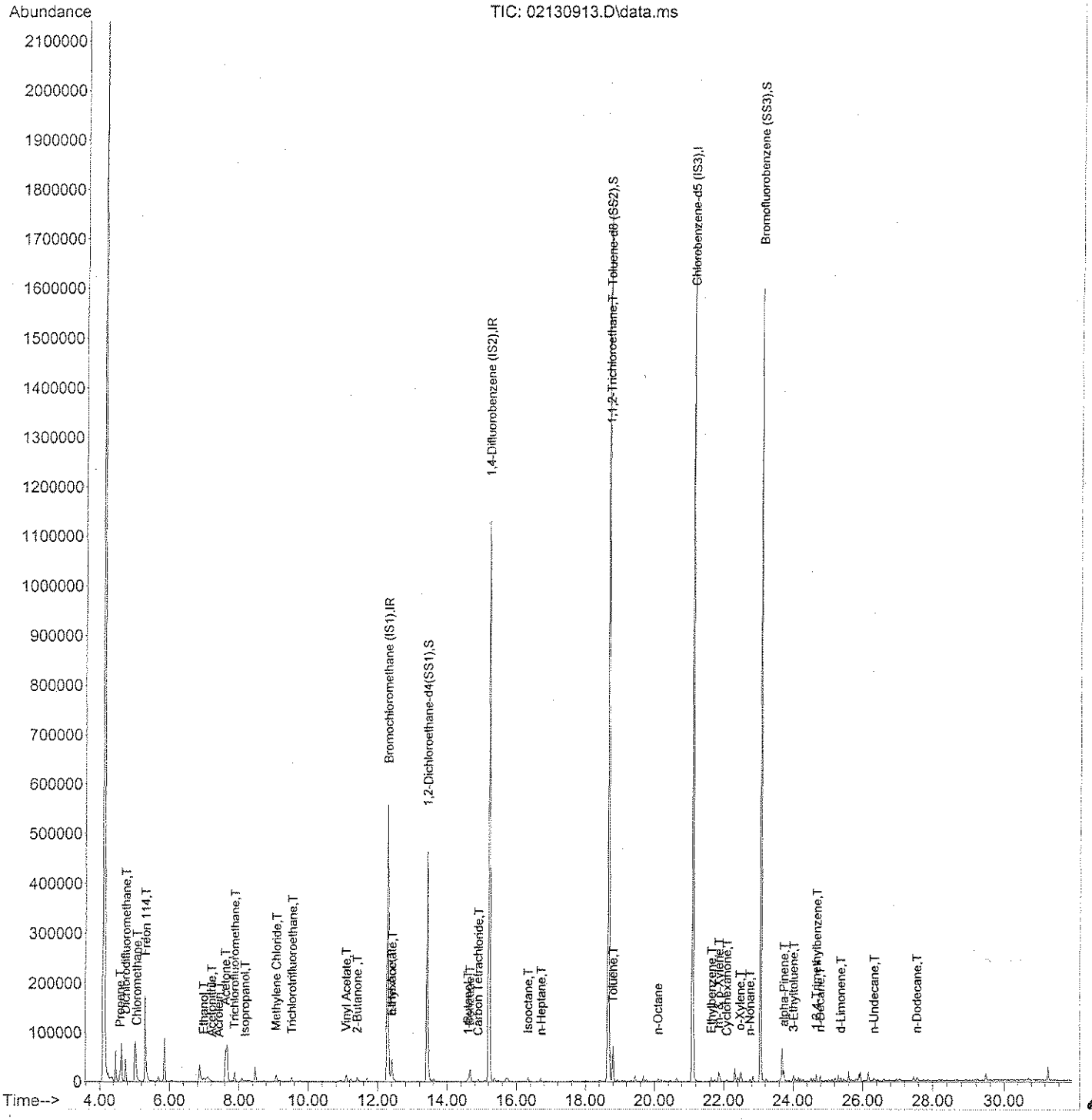
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130913.D
Acq On : 13 Feb 2009 18:18
Operator : WA/LH
Sample : P0900513-004 (1000mL)
Misc : Haley & Aldrich SV-InA-64 (-4.4, 3.5) ✓
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 16 09:09:58 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130913.D
Acq On : 13 Feb 2009 18:18
Operator : WA/LH
Sample : P0900513-004 (1000mL)
Misc : Haley & Aldrich SV-InA-64 (-4.4, 3.5) ✓
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 16 09:09:58 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	295705	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1353741	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	651687	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	463323	24.501	ng		-0.04
Spiked Amount 25.000			Recovery =	98.00% ✓			
57) Toluene-d8 (SS2)	18.67	98	1508673	24.589	ng		-0.01
Spiked Amount 25.000			Recovery =	98.36% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	594512	25.797	ng		0.00
Spiked Amount 25.000			Recovery =	103.20% ✓			
Target Compounds							Qvalue
2) Propene	4.59	42	5753	0.348	ng	#	1
3) Dichlorodifluoromethane	4.75	85	46917	1.623	ng		99
4) Chloromethane	5.07	50	8888	0.376	ng		96
5) Freon 114	5.31	135	833	0.061	ng		64
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.79	54	234	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D. ✓			
10) Ethanol	6.98	45	17728	1.727	ng		94
11) Acetonitrile	7.22	41	1962	0.071	ng	#	44
12) Acrolein	7.42	56	1639	0.190	ng	#	75
13) Acetone	7.61	58	41401	3.537	ng	#	68
14) Trichlorofluoromethane	7.87	101	21021	0.837	ng		97
15) Isopropanol	8.19	45	2850	0.068	ng		60
16) Acrylonitrile	8.48	53	360	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.03	59	119	N.D.			
19) Methylene Chloride	9.08	84	7959	0.536	ng	#	53
20) Allyl Chloride	9.17	41	837	N.D.			
21) Trichlorotrifluoroethane	9.54	151	4361	0.387	ng		97
22) Carbon Disulfide	9.47	76	2161	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.10	86	281	0.116	ng	#	1
27) 2-Butanone	11.41	72	4076	0.456	ng	#	51
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.41	61	7731	1.496	ng		87
31) n-Hexane	12.40	57	6893	0.282	ng		95

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KH 2/17/09 UH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130913.D
Acq On : 13 Feb 2009 18:18
Operator : WA/LH
Sample : P0900513-004 (1000mL)
Misc : Haley & Aldrich SV-InA-64 (-4.4, 3.5)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 16 09:09:58 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.49	83	1129	N.D.		
34) Tetrahydrofuran	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	681	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	545	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.61	56	7597	0.511 ng		97
41) Benzene	14.67	78	29315	0.505 ng		99
42) Carbon Tetrachloride	14.90	117	3771	0.200 ng		100
43) Cyclohexane	15.11	84	1078	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	10749	0.164 ng		91
50) Methyl Methacrylate	16.70	100	332	N.D.		
51) n-Heptane	16.72	71	1643	0.114 ng	#	66
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	129158	9.497 ng	#	8
58) Toluene	18.80	91	54577	0.883 ng		100
59) 2-Hexanone	19.14	43	1997	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	463	N.D.		
63) n-Octane	20.11	57	1296	0.091 ng	#	78
64) Tetrachloroethene	20.30	166	996	N.D.		
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.65	91	9059	0.131 ng		99
67) m- & p-Xylene	21.86	91	21179	0.392 ng		97
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	1460	N.D.		
70) o-Xylene	22.48	91	8512	0.154 ng		100
71) n-Nonane	22.75	43	2548	0.074 ng		98
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.24	105	1215	N.D.		
75) alpha-Pinene	23.74	93	9016	0.286 ng	#	43
76) n-Propylbenzene	23.89	91	2835	N.D.		
77) 3-Ethyltoluene	24.01	105	6839	0.102 ng		98
78) 4-Ethyltoluene	24.06	105	3482	N.D.		
79) 1,3,5-Trimethylbenzene	24.16	105	2731	N.D.		

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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130913.D
Acq On : 13 Feb 2009 18:18
Operator : WA/LH
Sample : P0900513-004 (1000mL)
Misc : Haley & Aldrich SV-InA-64 (-4.4, 3.5)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 16 09:09:58 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.36	118	132	N.D.		
81) 2-Ethyltoluene	24.40	105	2686	N.D.		
82) 1,2,4-Trimethylbenzene	24.67	105	8584	0.141 ng		92
83) n-Decane	24.79	57	5467	0.153 ng		74
84) Benzyl Chloride	24.67	91	827	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	1125	N.D.		
86) 1,4-Dichlorobenzene	24.95	146	1125	N.D.		
87) sec-Butylbenzene	25.01	105	290	N.D.		
88) p-Isopropyltoluene	25.20	119	977	N.D.		
89) 1,2,3-Trimethylbenzene	25.20	105	2239	N.D.		
90) 1,2-Dichlorobenzene	24.95	146	1125	N.D.		
91) d-Limonene	25.37	68	2391	0.101 ng		95
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	3309	0.086 ng	#	35
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.58	128	4405	N.D.		
96) n-Dodecane	27.55	57	3530	0.081 ng		95
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.08	55	2366	0.091 ng		88
99) tert-Butylbenzene	24.68	119	1105	N.D.		
100) n-Butylbenzene	25.67	91	1342	N.D.		

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

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KSH 2/17/09 LH 02/16/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-8**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00641

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
75-00-3	Chloroethane	ND	0.69	ND	0.26	
75-35-4	1,1-Dichloroethene	ND	0.69	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.69	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.69	ND	0.13	

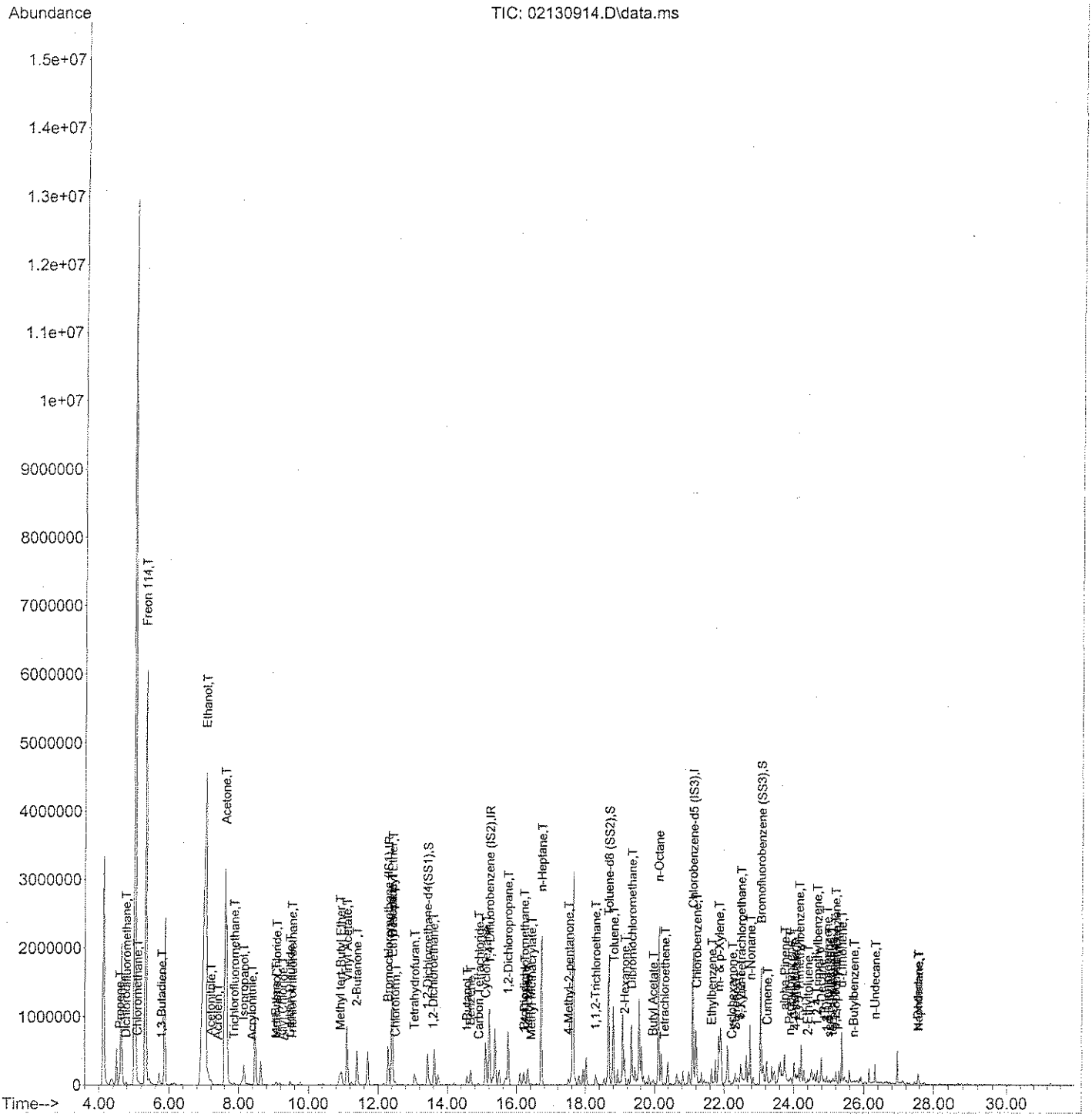
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130914.D
Acq On : 13 Feb 2009 19:01
Operator : WA/LH
Sample : P0900513-005 (1000mL)
Misc : Haley & Aldrich SV-SS-8 (-1.5, 3.5) ✓
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 16 09:10:02 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130914.D
Acq On : 13 Feb 2009 19:01
Operator : WA/LH
Sample : P0900513-005 (1000mL)
Misc : Haley & Aldrich SV-SS-8 (-1.5, 3.5) ✓
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 16 09:10:02 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.29	130	293846	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.22	114	1333826	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	689543	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.43	65	458243	24.386	ng		-0.03
Spiked Amount 25.000			Recovery =	97.56% ✓			
57) Toluene-d8 (SS2)	18.67	98	1539442	23.713	ng		-0.01
Spiked Amount 25.000			Recovery =	94.84% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	643343	26.384	ng		0.00
Spiked Amount 25.000			Recovery =	105.52% ✓			
Target Compounds							Qvalue
2) Propene	4.59	42	71843	4.367	ng	#	1
3) Dichlorodifluoromethane	4.78	85	59437	2.069	ng		99
4) Chloromethane	5.09	50	18960	0.808	ng		97
5) Freon 114	5.33	135	1016	0.074	ng		91
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.79	54	16670	1.195	ng		97
8) Bromomethane	6.25	94	518	N.D.			
9) Chloroethane	6.58	64	146	N.D. ✓			
10) Ethanol	7.06	45	16986275	1665.072	ng		93
11) Acetonitrile	7.20	41	96755	3.503	ng		94
12) Acrolein	7.41	56	16648	1.946	ng		84
13) Acetone	7.62	58	2014381	173.185	ng	#	76
14) Trichlorofluoromethane	7.88	101	26232	1.051	ng		96
15) Isopropanol	8.15	45	675380	16.186	ng		97
16) Acrylonitrile	8.39	53	8474	0.444	ng		94
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.07	59	67859	1.725	ng	#	77
19) Methylene Chloride	9.09	84	4239	0.287	ng	#	56
20) Allyl Chloride	9.27	41	1838	0.103	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	5400	0.482	ng		89
22) Carbon Disulfide	9.47	76	112673	2.182	ng		99
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	10.88	63	1170	N.D. ✓			
25) Methyl tert-Butyl Ether	10.92	73	9871	0.273	ng		93
26) Vinyl Acetate	11.10	86	31734	13.153	ng	#	2
27) 2-Butanone	11.39	72	213371	24.022	ng	#	33
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.41	87	9772	0.909	ng	#	1
30) Ethyl Acetate	12.40	61	54211	10.557	ng	#	68
31) n-Hexane	12.41	57	926043	38.148	ng		88

2/17/09 LH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130914.D
Acq On : 13 Feb 2009 19:01
Operator : WA/LH
Sample : P0900513-005 (1000mL)
Misc : Haley & Aldrich SV-SS-8 (-1.5, 3.5)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 16 09:10:02 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.50	83	50403	2.260	ng		98
34) Tetrahydrofuran	13.06	72	64158	7.797	ng	#	64
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.60	62	4088	0.217	ng		97
38) 1,1,1-Trichloroethane	13.98	97	850	N.D.			
39) Isopropyl Acetate	14.54	61	54	N.D.			
40) 1-Butanol	14.57	56	124690	8.510	ng		85
41) Benzene	14.67	78	283348	4.955	ng		99
42) Carbon Tetrachloride	14.91	117	5400	0.291	ng		99
43) Cyclohexane	15.11	84	330557	17.390	ng	#	64
44) tert-Amyl Methyl Ether	15.75	73	52	N.D.			
45) 1,2-Dichloropropane	15.75	63	1498	0.104	ng	#	58
46) Bromodichloromethane	16.22	83	26008	1.463	ng	#	18
47) Trichloroethene	16.26	130	629	N.D.			
48) 1,4-Dioxane	16.23	88	1839	0.167	ng	#	80
49) Isooctane	16.33	57	46295	0.715	ng	#	1
50) Methyl Methacrylate	16.43	100	2793	0.497	ng	#	1
51) n-Heptane	16.72	71	638719	45.159	ng	#	73
52) cis-1,3-Dichloropropene	17.33	75	179	N.D.			
53) 4-Methyl-2-pentanone	17.50	58	34129	2.536	ng		81
54) trans-1,3-Dichloropropene	18.24	75	65	N.D.			
55) 1,1,2-Trichloroethane	18.29	97	5900	0.440	ng	#	72
58) Toluene	18.80	91	1008044	15.409	ng		100
59) 2-Hexanone	19.13	43	231833	5.835	ng	#	41
60) Dibromochloromethane	19.34	129	2121	0.131	ng		96
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) Butyl Acetate	19.95	43	21862	0.480	ng	#	1
63) n-Octane	20.11	57	516329	34.332	ng	#	69
64) Tetrachloroethene	20.30	166	3246	0.178	ng		100
65) Chlorobenzene	21.21	112	87799	2.028	ng	#	43
66) Ethylbenzene	21.64	91	196082	2.689	ng		99
67) m- & p-Xylene	21.86	91	606659	10.609	ng		97
68) Bromoform	21.96	173	350	N.D.			
69) Styrene	22.33	104	24445	0.556	ng		95
70) o-Xylene	22.48	91	169783	2.901	ng		99
71) n-Nonane	22.75	43	406087	11.217	ng		91
72) 1,1,2,2-Tetrachloroethane	22.48	83	2410	0.093	ng	#	18
74) Cumene	23.24	105	38409	0.496	ng		95
75) alpha-Pinene	23.74	93	194934	5.843	ng		98
76) n-Propylbenzene	23.88	91	46554	0.496	ng		94
77) 3-Ethyltoluene	24.01	105	63990	0.902	ng		95
78) 4-Ethyltoluene	24.06	105	26561	0.382	ng		97
79) 1,3,5-Trimethylbenzene	24.15	105	25329	0.422	ng		96

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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130914.D
Acq On : 13 Feb 2009 19:01
Operator : WA/LH
Sample : P0900513-005 (1000mL)
Misc : Haley & Aldrich SV-SS-8 (-1.5, 3.5)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 16 09:10:02 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1189	N.D.		
81) 2-Ethyltoluene	24.40	105	22571	0.310 ng		94
82) 1,2,4-Trimethylbenzene	24.67	105	66414	1.032 ng		97
83) n-Decane	24.79	57	172934	4.573 ng		68
84) Benzyl Chloride	24.87	91	543	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	27231	0.725 ng		99
86) 1,4-Dichlorobenzene	24.95	146	27231	0.708 ng		99
87) sec-Butylbenzene	25.00	105	7821	0.093 ng		98
88) p-Isopropyltoluene	25.20	119	37881	0.465 ng		95
89) 1,2,3-Trimethylbenzene	25.20	105	21273	0.330 ng		82
90) 1,2-Dichlorobenzene	24.95	146	27231	0.766 ng		100
91) d-Limonene	25.37	68	199454	7.988 ng		99
92) 1,2-Dibromo-3-Chloropr...	26.31	157	431	N.D.		
93) n-Undecane	26.32	57	104224	2.554 ng		67
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	85462	0.921 ng		97
96) n-Dodecane	27.55	57	38567	0.838 ng		77
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.23	55	1796	0.065 ng		94
99) tert-Butylbenzene	25.12	119	5433	0.087 ng		98
100) n-Butylbenzene	25.71	91	18943	0.285 ng	#	59

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-8**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-006

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01435

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.9 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.69

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.17	ND	0.066	
75-00-3	Chloroethane	ND	0.85	ND	0.32	
75-35-4	1,1-Dichloroethene	ND	0.85	ND	0.21	
75-34-3	1,1-Dichloroethane	ND	0.85	ND	0.21	
71-55-6	1,1,1-Trichloroethane	ND	0.85	ND	0.15	

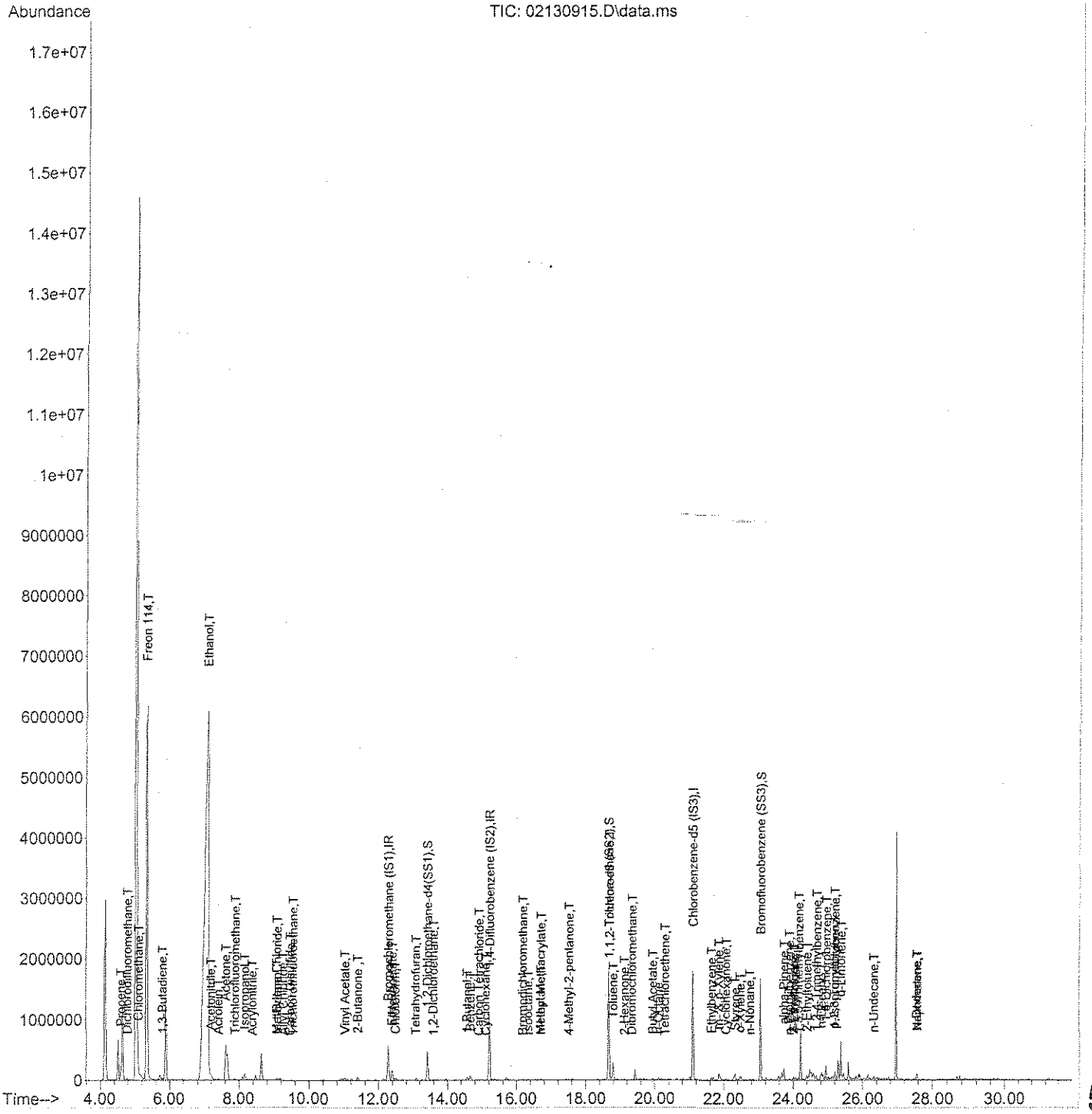
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130915.D
Acq On : 13 Feb 2009 19:44
Operator : WA/LH
Sample : P0900513-006 (1000mL)
Misc : Haley & Aldrich SV-InA-8 (-3.9, 3.6) ✓
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 16 09:10:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130915.D
Acq On : 13 Feb 2009 19:44
Operator : WA/LH
Sample : P0900513-006 (1000mL)
Misc : Haley & Aldrich SV-InA-8 (-3.9, 3.6) ✓
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 16 09:10:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	299869	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.22	114	1350439	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	668943	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	469229	24.469	ng		-0.04
Spiked Amount 25.000			Recovery =	97.88% ✓			
57) Toluene-d8 (SS2)	18.67	98	1533579	24.351	ng		-0.01
Spiked Amount 25.000			Recovery =	97.40% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	625487	26.441	ng		0.00
Spiked Amount 25.000			Recovery =	105.76% ✓			
Target Compounds							Qvalue
2) Propene	4.59	42	72939	4.345	ng	#	1
3) Dichlorodifluoromethane	4.78	85	48827	1.666	ng		99
4) Chloromethane	5.09	50	22808	0.952	ng		98
5) Freon 114	5.33	135	851	0.061	ng		64
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.79	54	18673	1.312	ng		96
8) Bromomethane	6.26	94	440	N.D.			
9) Chloroethane	0.00	64	0	N.D. ✓			
10) Ethanol	7.10	45	28238952	2712.511	ng		92
11) Acetonitrile	7.19	41	110750	3.929	ng		92
12) Acrolein	7.40	56	22973	2.632	ng		80
13) Acetone	7.61	58	359991	30.328	ng	#	81
14) Trichlorofluoromethane	7.88	101	21850	0.858	ng		94
15) Isopropanol	8.16	45	190403	4.472	ng		94
16) Acrylonitrile	8.38	53	8203	0.421	ng		94
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.08	59	23201	0.578	ng	#	26
19) Methylene Chloride	9.08	84	4641	0.308	ng	#	55
20) Allyl Chloride	9.26	41	1676	0.092	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	4627	0.405	ng		89
22) Carbon Disulfide	9.46	76	9670	0.184	ng		95
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	10.92	73	374	N.D.			
26) Vinyl Acetate	11.03	86	12707	5.161	ng	#	1
27) 2-Butanone	11.40	72	22679	2.502	ng	#	37
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.39	87	571	N.D.			
30) Ethyl Acetate	12.40	61	35561	6.786	ng		82
31) n-Hexane	12.40	57	17052	0.688	ng		88

MS# 2/17/09 MH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130915.D
Acq On : 13 Feb 2009 19:44
Operator : WA/LH
Sample : P0900513-006 (1000mL)
Misc : Haley & Aldrich SV-InA-8 (-3.9, 3.6)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 16 09:10:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.49	83	36173	1.589 ng		96
34) Tetrahydrofuran	13.08	72	3559	0.424 ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	3178	0.166 ng		94
38) 1,1,1-Trichloroethane	13.98	97	623	N.D.		
39) Isopropyl Acetate	14.56	61	473	N.D.		
40) 1-Butanol	14.57	56	49904	3.364 ng		86
41) Benzene	14.67	78	93623	1.617 ng		100
42) Carbon Tetrachloride	14.91	117	5298	0.282 ng		98
43) Cyclohexane	15.10	84	4224	0.219 ng	#	68
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.17	83	9169	0.509 ng		98
47) Trichloroethene	16.25	130	567	N.D.		
48) 1,4-Dioxane	16.24	88	527	N.D.		
49) Isooctane	16.34	57	14016	0.214 ng		88
50) Methyl Methacrylate	16.70	100	1775	0.312 ng	#	1
51) n-Heptane	16.70	71	6093	0.425 ng	#	74
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.51	58	3365	0.247 ng		87
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	130818	9.643 ng	#	8
58) Toluene	18.80	91	257668	4.060 ng		98
59) 2-Hexanone	19.13	43	8664	0.225 ng		76
60) Dibromochloromethane	19.34	129	3398	0.216 ng		99
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.95	43	25383	0.574 ng		91
63) n-Octane	20.11	57	5959	0.408 ng	#	79
64) Tetrachloroethene	20.30	166	2459	0.139 ng		90
65) Chlorobenzene	21.17	112	417	N.D.		
66) Ethylbenzene	21.64	91	44090	0.623 ng		100
67) m- & p-Xylene	21.85	91	102739	1.852 ng		96
68) Bromoform	21.96	173	394	N.D.		
69) Styrene	22.33	104	34034	0.799 ng		97
70) o-Xylene	22.48	91	34132	0.601 ng		100
71) n-Nonane	22.75	43	12413	0.353 ng		92
72) 1,1,2,2-Tetrachloroethane	22.49	83	694	N.D.		
74) Cumene	23.24	105	4252	N.D.		
75) alpha-Pinene	23.74	93	89880	2.777 ng		97
76) n-Propylbenzene	23.88	91	10485	0.115 ng	#	76
77) 3-Ethyltoluene	24.01	105	24758	0.360 ng		95
78) 4-Ethyltoluene	24.06	105	11788	0.175 ng		96
79) 1,3,5-Trimethylbenzene	24.15	105	9353	0.161 ng		99

2/17/09 2/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130915.D
Acq On : 13 Feb 2009 19:44
Operator : WA/LH
Sample : P0900513-006 (1000mL)
Misc : Haley & Aldrich SV-InA-8 (-3.9, 3.6)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 16 09:10:08 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1735	N.D.		
81) 2-Ethyltoluene	24.40	105	9418	0.133 ng		97
82) 1,2,4-Trimethylbenzene	24.67	105	31149	0.499 ng		97
83) n-Decane	24.82	57	48558	1.324 ng	#	1
84) Benzyl Chloride	24.85	91	1234	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	99470	2.730 ng		99
86) 1,4-Dichlorobenzene	24.95	146	99470	2.665 ng		99
87) sec-Butylbenzene	25.01	105	1219	N.D.		
88) p-Isopropyltoluene	25.20	119	35156	0.445 ng		95
89) 1,2,3-Trimethylbenzene	25.20	105	13028	0.209 ng		70
90) 1,2-Dichlorobenzene	25.37	146	292	N.D.		
91) d-Limonene	25.37	68	161823	6.680 ng		96
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	17280	0.437 ng	#	51
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	50418	0.560 ng		98
96) n-Dodecane	27.55	57	28907	0.648 ng		74
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.06	55	17698	0.663 ng	#	93
99) tert-Butylbenzene	25.12	119	2677	N.D.		
100) n-Butylbenzene	25.71	91	3278	N.D.		

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-OutA-020909**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-007

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01179

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.053	
75-00-3	Chloroethane	ND	0.68	ND	0.26	
75-35-4	1,1-Dichloroethene	ND	0.68	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.68	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.68	ND	0.12	

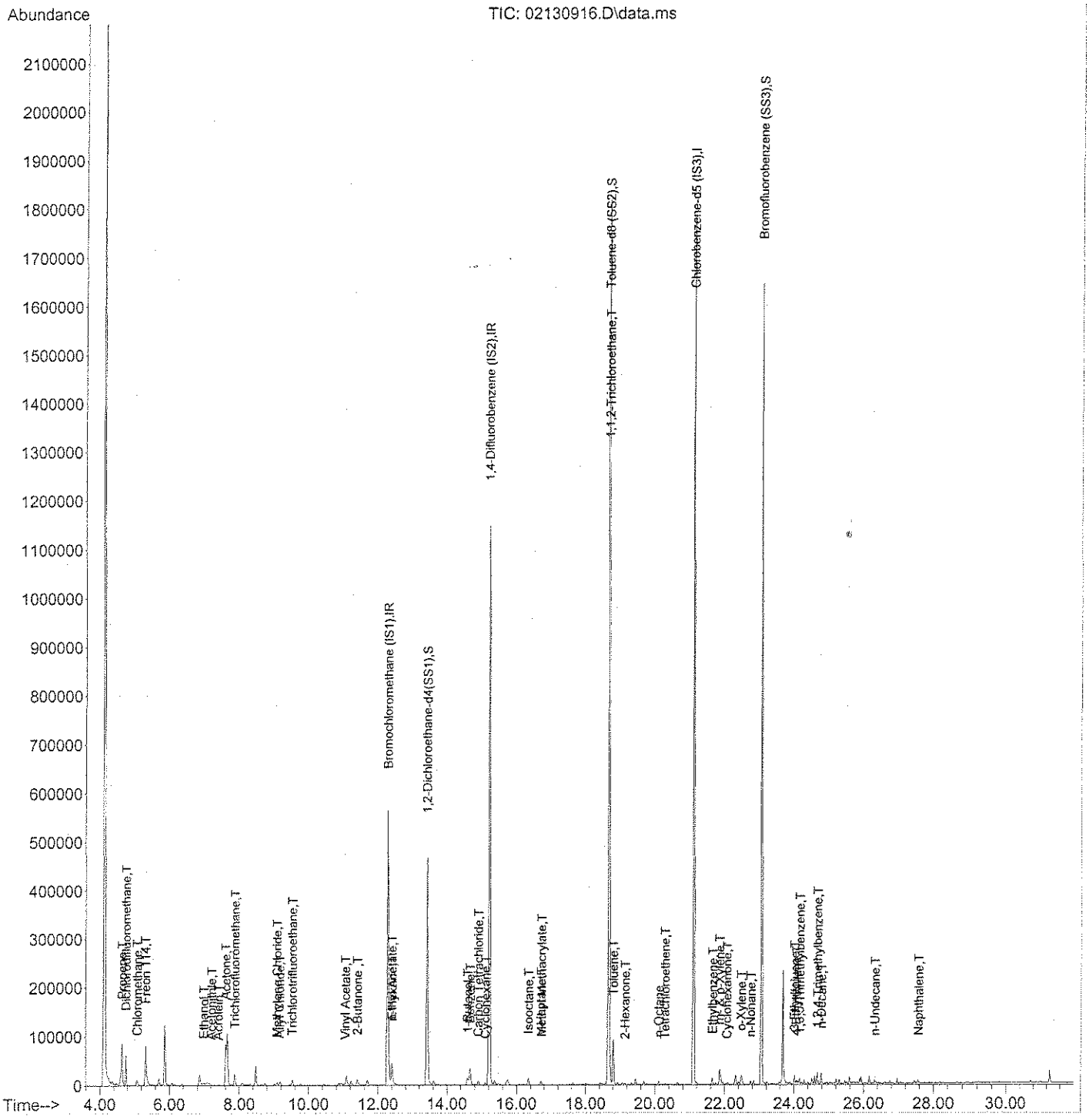
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130916.D
Acq On : 13 Feb 2009 20:27
Operator : WA/LH
Sample : P0900513-007 (1000mL)
Misc : Haley & Aldrich SV-OutA-020909 (-1.3, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 16 09:10:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130916.D
Acq On : 13 Feb 2009 20:27
Operator : WA/LH
Sample : P0900513-007 (1000mL)
Misc : Haley & Aldrich SV-OutA-020909 (-1.3, 3.5) ✓
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 16 09:10:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	298820	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1377268	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	670624	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	473818	24.795	ng		-0.04
Spiked Amount 25.000			Recovery =	99.16% ✓			
57) Toluene-d8 (SS2)	18.67	98	1546800	24.499	ng		-0.01
Spiked Amount 25.000			Recovery =	98.00% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	617456	26.036	ng		0.00
Spiked Amount 25.000			Recovery =	104.16% ✓			
Target Compounds							Qvalue
2) Propene	4.63	42	14367	0.859	ng	#	25
3) Dichlorodifluoromethane	4.76	85	63155	2.162	ng		98
4) Chloromethane	5.08	50	11852	0.497	ng		96
5) Freon 114	5.31	135	1166	0.084	ng		69
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.78	54	529	N.D.			
8) Bromomethane	6.25	94	182	N.D.			
9) Chloroethane	0.00	64	0	N.D. ✓			
10) Ethanol	6.98	45	9350	0.901	ng		97
11) Acetonitrile	7.21	41	2751	0.098	ng		90
12) Acrolein	7.41	56	2605	0.299	ng	#	78
13) Acetone	7.61	58	51776	4.377	ng	#	58
14) Trichlorofluoromethane	7.88	101	27817	1.096	ng		95
15) Isopropanol	8.18	45	2197	N.D.			
16) Acrylonitrile	8.48	53	357	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.08	59	295	N.D.			
19) Methylene Chloride	9.08	84	3289	0.219	ng	#	54
20) Allyl Chloride	9.16	41	2083	0.115	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	6037	0.530	ng		88
22) Carbon Disulfide	9.48	76	2132	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.06	86	567	0.231	ng	#	1
27) 2-Butanone	11.41	72	5452	0.604	ng	#	60
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.41	61	6109	1.170	ng		86
31) n-Hexane	12.41	57	10348	0.419	ng		91

2/17/09 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130916.D
Acq On : 13 Feb 2009 20:27
Operator : WA/LH
Sample : P0900513-007 (1000mL)
Misc : Haley & Aldrich SV-OutA-020909 (-1.3, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 16 09:10:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.49	83	1146	N.D.		
34) Tetrahydrofuran	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.58	62	860	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	910	N.D. ✓		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.59	56	18468	1.221 ng		89
41) Benzene	14.67	78	42113	0.713 ng		100
42) Carbon Tetrachloride	14.89	117	6950	0.363 ng		94
43) Cyclohexane	15.11	84	1544	0.079 ng	#	74
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	17242	0.258 ng		94
50) Methyl Methacrylate	16.72	100	641	0.111 ng	#	1
51) n-Heptane	16.70	71	2303	0.158 ng	#	72
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.83	58	57	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	131038	9.471 ng	#	8
58) Toluene	18.80	91	77467	1.218 ng		98
59) 2-Hexanone	19.14	43	2349	0.061 ng	#	55
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	1704	N.D.		
63) n-Octane	20.11	57	1317	0.090 ng	#	76
64) Tetrachloroethene	20.29	166	1168	0.066 ng		94
65) Chlorobenzene	21.16	112	55	N.D.		
66) Ethylbenzene	21.65	91	13354	0.188 ng		95
67) m- & p-Xylene	21.86	91	33149	0.596 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	1319	N.D.		
70) o-Xylene	22.48	91	12885	0.226 ng		97
71) n-Nonane	22.75	43	3431	0.097 ng		79
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.24	105	1761	N.D.		
75) alpha-Pinene	23.74	93	1662	N.D.		
76) n-Propylbenzene	23.88	91	3860	N.D.		
77) 3-Ethyltoluene	24.01	105	10882	0.158 ng		99
78) 4-Ethyltoluene	24.06	105	5352	0.079 ng		99
79) 1,3,5-Trimethylbenzene	24.16	105	4262	0.073 ng		98

2/17/09 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130916.D
Acq On : 13 Feb 2009 20:27
Operator : WA/LH
Sample : P0900513-007 (1000mL)
Misc : Haley & Aldrich SV-OutA-020909 (-1.3, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 16 09:10:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.58	118	53	N.D.		
81) 2-Ethyltoluene	24.40	105	4010	N.D.		
82) 1,2,4-Trimethylbenzene	24.67	105	12831	0.205 ng		100
83) n-Decane	24.79	57	9711	0.264 ng		76
84) Benzyl Chloride	24.85	91	54	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	1619	N.D.		
86) 1,4-Dichlorobenzene	24.95	146	1619	N.D.		
87) sec-Butylbenzene	25.00	105	368	N.D.		
88) p-Isopropyltoluene	25.20	119	1107	N.D.		
89) 1,2,3-Trimethylbenzene	25.20	105	3253	N.D.		
90) 1,2-Dichlorobenzene	24.95	146	1619	N.D.		
91) d-Limonene	25.37	68	709	N.D.		
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	3316	0.084 ng	#	65
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	5558	0.062 ng		95
96) n-Dodecane	27.55	57	2471	N.D.		
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.07	55	2013	0.075 ng	#	92
99) tert-Butylbenzene	24.67	119	1504	N.D.		
100) n-Butylbenzene	25.67	91	1718	N.D.		

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

RH 2/17/09 LH 02/16/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-2**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-008

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00160

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.26

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.049	
75-00-3	Chloroethane	ND	0.63	ND	0.24	
75-35-4	1,1-Dichloroethene	ND	0.63	ND	0.16	
75-34-3	1,1-Dichloroethane	ND	0.63	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.63	ND	0.12	

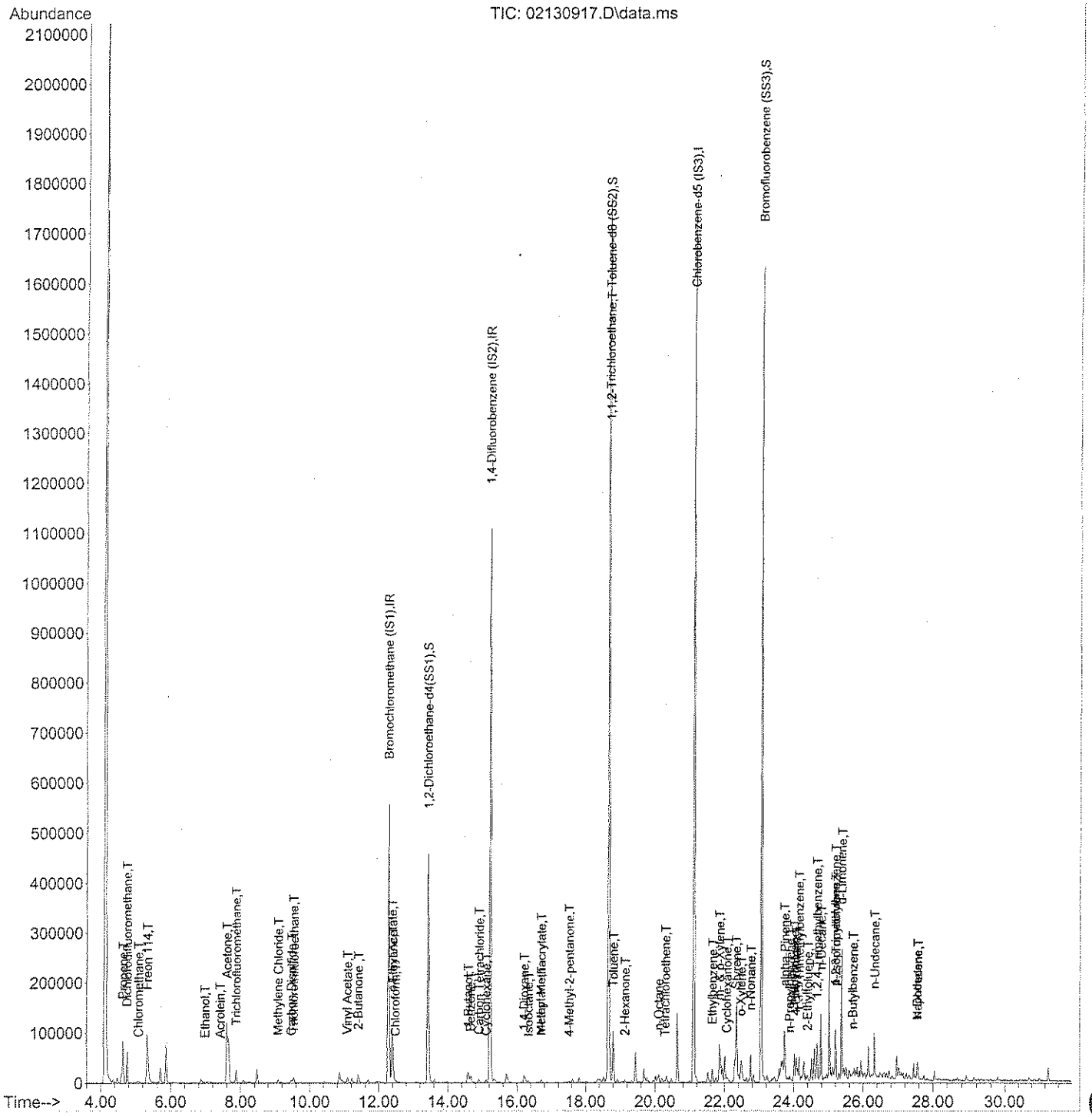
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130917.D
Acq On : 13 Feb 2009 21:09
Operator : WA/LH
Sample : P0900513-008 (1000mL)
Misc : Haley & Aldrich SV-SS-2 (-0.3, 3.5)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 16 09:10:20 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130917.D
Acq On : 13 Feb 2009 21:09
Operator : WA/LH
Sample : P0900513-008 (1000mL)
Misc : Haley & Aldrich SV-SS-2 (-0.3, 3.5) ✓
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 16 09:10:20 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	290183	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1338269	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	658768	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	460851	24.834	ng		-0.04
Spiked Amount 25.000			Recovery =	99.32% ✓			
57) Toluene-d8 (SS2)	18.67	98	1513501	24.403	ng		-0.01
Spiked Amount 25.000			Recovery =	97.60% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	610324	26.199	ng		0.00
Spiked Amount 25.000			Recovery =	104.80% ✓			
Target Compounds							Qvalue
2) Propene	4.64	42	12594	0.775	ng	#	15
3) Dichlorodifluoromethane	4.76	85	65434	2.307	ng		99
4) Chloromethane	5.08	50	2422	0.105	ng		93
5) Freon 114	5.32	135	1123	0.083	ng		97
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.70	54	475	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	6.57	64	266	N.D. ✓			
10) Ethanol	6.98	45	5050	0.501	ng		88
11) Acetonitrile	7.19	41	1552	N.D.			
12) Acrolein	7.42	56	1719	0.203	ng	#	73
13) Acetone	7.60	58	76626	6.671	ng	#	85
14) Trichlorofluoromethane	7.88	101	28682	1.163	ng		97
15) Isopropanol	8.18	45	1772	N.D.			
16) Acrylonitrile	8.48	53	118	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.10	59	604	N.D.			
19) Methylene Chloride	9.08	84	3520	0.242	ng	#	57
20) Allyl Chloride	9.18	41	836	N.D.			
21) Trichlorotrifluoroethane	9.53	151	6084	0.550	ng		87
22) Carbon Disulfide	9.47	76	14363	0.282	ng		97
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	10.86	73	115	N.D.			
26) Vinyl Acetate	11.09	86	396	0.166	ng	#	1
27) 2-Butanone	11.41	72	8409	0.959	ng	#	44
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.40	61	23957	4.724	ng		89
31) n-Hexane	12.41	57	6184	0.258	ng		93

DM 2/17/09 WH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130917.D
Acq On : 13 Feb 2009 21:09
Operator : WA/LH
Sample : P0900513-008 (1000mL)
Misc : Haley & Aldrich SV-SS-2 (-0.3, 3.5)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 16 09:10:20 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.48	83	1512	0.069 ng		94
34) Tetrahydrofuran	13.10	72	360	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	731	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	867	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.59	56	29609	2.014 ng		90
41) Benzene	14.67	78	13460	0.235 ng		98
42) Carbon Tetrachloride	14.91	117	6918	0.372 ng		99
43) Cyclohexane	15.10	84	2749	0.144 ng	#	65
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	16.25	130	132	N.D.		
48) 1,4-Dioxane	16.21	88	17569	1.587 ng	#	72
49) Isooctane	16.34	57	5037	0.078 ng		79
50) Methyl Methacrylate	16.70	100	447	0.079 ng	#	1
51) n-Heptane	16.70	71	1617	0.114 ng	#	81
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.52	58	1045	0.077 ng	#	46
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	128441	9.553 ng	#	8
58) Toluene	18.80	91	74467	1.191 ng		98
59) 2-Hexanone	19.14	43	5735	0.151 ng		95
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.96	43	2434	N.D.		
63) n-Octane	20.11	57	3539	0.246 ng	#	82
64) Tetrachloroethene	20.30	166	1390	0.080 ng		99
65) Chlorobenzene	21.20	112	251	N.D.		
66) Ethylbenzene	21.64	91	24363	0.350 ng		99
67) m- & p-Xylene	21.86	91	76727	1.404 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.33	104	6740	0.161 ng		98
70) o-Xylene	22.48	91	24438	0.437 ng		98
71) n-Nonane	22.75	43	25679	0.742 ng		93
72) 1,1,2,2-Tetrachloroethane	22.44	83	63	N.D.		
74) Cumene	23.23	105	3268	N.D.		
75) alpha-Pinene	23.74	93	47060	1.476 ng		97
76) n-Propylbenzene	23.88	91	8664	0.097 ng		95
77) 3-Ethyltoluene	24.01	105	23439	0.346 ng		96
78) 4-Ethyltoluene	24.06	105	11631	0.175 ng		98
79) 1,3,5-Trimethylbenzene	24.15	105	9076	0.158 ng		94

2/17/09 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130917.D
Acq On : 13 Feb 2009 21:09
Operator : WA/LH
Sample : P0900513-008 (1000mL)
Misc : Haley & Aldrich SV-SS-2 (-0.3, 3.5)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 16 09:10:20 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	906	N.D.		
81) 2-Ethyltoluene	24.40	105	8624	0.124 ng		95
82) 1,2,4-Trimethylbenzene	24.67	105	29368	0.478 ng		97
83) n-Decane	24.79	57	49691	1.375 ng		75
84) Benzyl Chloride	24.84	91	698	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	320	N.D.		
86) 1,4-Dichlorobenzene	24.95	146	320	N.D.		
87) sec-Butylbenzene	25.01	105	1022	N.D.		
88) p-Isopropyltoluene	25.20	119	44326	0.569 ng		90
89) 1,2,3-Trimethylbenzene	25.20	105	9151	0.149 ng	#	45
90) 1,2-Dichlorobenzene	24.95	146	320	N.D.		
91) d-Limonene	25.37	68	64524	2.705 ng		97
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	30464	0.781 ng	#	58
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	20596	0.232 ng		99
96) n-Dodecane	27.55	57	9577	0.218 ng	#	64
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.07	55	5143	0.196 ng	#	75
99) tert-Butylbenzene	25.12	119	2106	N.D.		
100) n-Butylbenzene	25.70	91	4772	0.075 ng	#	38

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-2**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-009

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01423

Date Collected: 2/10/09
Date Received: 2/16/09
Date Analyzed: 2/16/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
75-00-3	Chloroethane	ND	0.70	ND	0.26	
75-35-4	1,1-Dichloroethene	ND	0.70	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.70	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.70	ND	0.13	

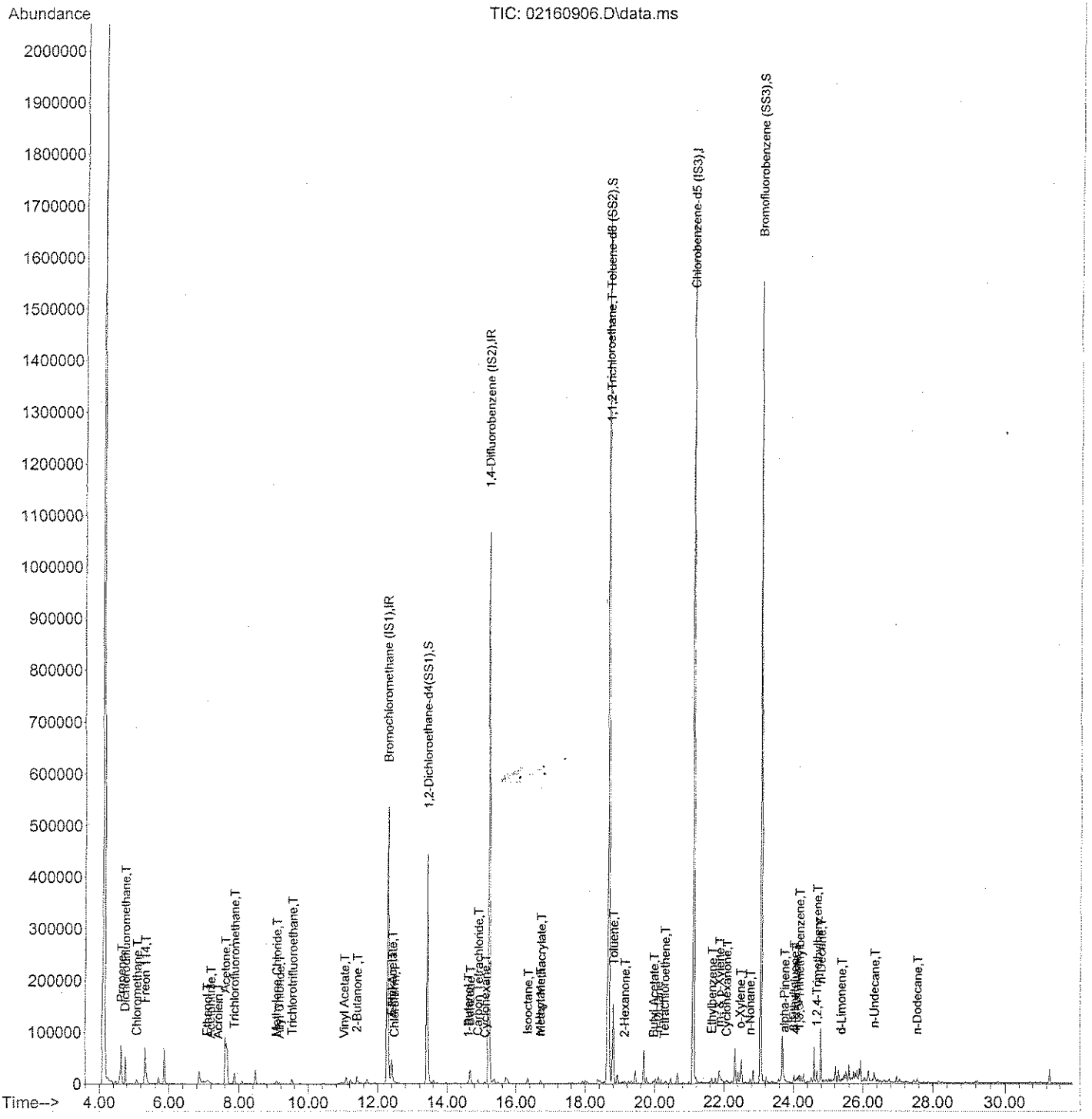
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160906.D
Acq On : 16 Feb 2009 12:54
Operator : WA/LH
Sample : P0900513-009 (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5) ✓
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 13:27:52 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160906.D
Acq On : 16 Feb 2009 12:54
Operator : WA/LH
Sample : P0900513-009 (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5) ✓
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 13:27:52 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	276686	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1269109	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	624161	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	446597	25.240	ng		-0.04
Spiked Amount 25.000			Recovery =	100.96%	✓		
57) Toluene-d8 (SS2)	18.67	98	1443468	24.564	ng		-0.01
Spiked Amount 25.000			Recovery =	98.24%	✓		
73) Bromofluorobenzene (SS3)	23.06	174	566996	25.688	ng		0.00
Spiked Amount 25.000			Recovery =	102.76%	✓		
Target Compounds							Qvalue
2) Propene	4.63	42	12330	0.796	ng	#	24
3) Dichlorodifluoromethane	4.75	85	55256	2.043	ng		99
4) Chloromethane	5.08	50	10515	0.476	ng		93
5) Freon 114	5.32	135	979	0.076	ng		87
6) Vinyl Chloride	0.00	62	0	N.D.	✓		
7) 1,3-Butadiene	5.78	54	420	N.D.			
8) Bromomethane	6.25	94	54	N.D.			
9) Chloroethane	0.00	64	0	N.D.	✓		
10) Ethanol	7.10	45	24184	2.518	ng		93
11) Acetonitrile	7.19	41	2719	0.105	ng		76
12) Acrolein	7.41	56	2798	0.347	ng		88
13) Acetone	7.60	58	57345	5.236	ng	#	76
14) Trichlorofluoromethane	7.87	101	24553	1.044	ng		98
15) Isopropanol	8.18	45	809	N.D.			
16) Acrylonitrile	8.46	53	56	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.	✓		
18) tert-Butanol	9.07	59	405	N.D.			
19) Methylene Chloride	9.08	84	3096	0.223	ng	#	50
20) Allyl Chloride	9.16	41	1178	0.070	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	5077	0.482	ng		91
22) Carbon Disulfide	9.48	76	2740	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.	✓		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.04	86	693	0.305	ng	#	1
27) 2-Butanone	11.41	72	6314	0.755	ng	#	57
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.40	61	7304	1.511	ng		89
31) n-Hexane	12.41	57	7309	0.320	ng		94

2/17/09 02/17/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160906.D
Acq On : 16 Feb 2009 12:54
Operator : WA/LH
Sample : P0900513-009 (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 13:27:52 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.48	83	1603	0.076 ng		94
34) Tetrahydrofuran	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	671	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	705	N.D. ✓		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.62	56	4238	0.304 ng		93
41) Benzene	14.67	78	33640	0.618 ng		98
42) Carbon Tetrachloride	14.90	117	6542	0.370 ng		93
43) Cyclohexane	15.10	84	1393	0.077 ng	#	66
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	16.25	130	110	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	12404	0.201 ng		87
50) Methyl Methacrylate	16.71	100	401	0.075 ng	#	1
51) n-Heptane	16.70	71	1866	0.139 ng	#	70
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.52	58	534	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	122016	9.570 ng	#	8
58) Toluene	18.80	91	63083	1.065 ng		99
59) 2-Hexanone	19.13	43	4414	0.123 ng		82
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	3080	0.075 ng		70
63) n-Octane	20.11	57	2524	0.185 ng		85
64) Tetrachloroethene	20.29	166	1156	0.070 ng		92
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.64	91	10154	0.154 ng		98
67) m- & p-Xylene	21.86	91	23846	0.461 ng		100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	1580	N.D.		
70) o-Xylene	22.48	91	9532	0.180 ng		98
71) n-Nonane	22.75	43	4083	0.125 ng		96
72) 1,1,2,2-Tetrachloroethane	22.48	83	370	N.D.		
74) Cumene	23.24	105	1839	N.D.		
75) alpha-Pinene	23.74	93	3666	0.121 ng	#	43
76) n-Propylbenzene	23.89	91	3115	N.D.		
77) 3-Ethyltoluene	24.01	105	7608	0.118 ng		95
78) 4-Ethyltoluene	24.07	105	4243	0.067 ng		92
79) 1,3,5-Trimethylbenzene	24.16	105	3260	0.060 ng		93

KSA 2/17/09 MH 02/17/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160906.D
Acq On : 16 Feb 2009 12:54
Operator : WA/LH
Sample : P0900513-009 (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 13:27:52 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.59	118	1117	N.D.			
81) 2-Ethyltoluene	24.40	105	2993	N.D.			
82) 1,2,4-Trimethylbenzene	24.67	105	9640	0.166	ng		92
83) n-Decane	24.79	57	41239	1.205	ng		77
84) Benzyl Chloride	24.84	91	55	N.D.			
85) 1,3-Dichlorobenzene	24.95	146	1923	N.D.			
86) 1,4-Dichlorobenzene	24.95	146	1923	N.D.			
87) sec-Butylbenzene	25.01	105	276	N.D.			
88) p-Isopropyltoluene	25.20	119	1315	N.D.			
89) 1,2,3-Trimethylbenzene	25.20	105	2391	N.D.			
90) 1,2-Dichlorobenzene	24.95	146	1923	N.D.			
91) d-Limonene	25.37	68	1681	0.074	ng		85
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	26.32	57	7550	0.204	ng	#	39
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.			
95) Naphthalene	27.58	128	3833	N.D.			
96) n-Dodecane	27.55	57	3027	0.073	ng		74
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.07	55	3224	0.129	ng		96
99) tert-Butylbenzene	24.67	119	1183	N.D.			
100) n-Butylbenzene	25.67	91	2058	N.D.			

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-16** CAS Project ID: P0900513
Client Project ID: **Cooper Vision / 70665-014** CAS Sample ID: P0900513-010

Test Code: EPA TO-15 Date Collected: 2/10/09
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 2/12/09
Analyst: Wida Ang Date Analyzed: 2/13/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC00932

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.053	
75-00-3	Chloroethane	ND	0.68	ND	0.26	
75-35-4	1,1-Dichloroethene	ND	0.68	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.68	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.68	ND	0.12	

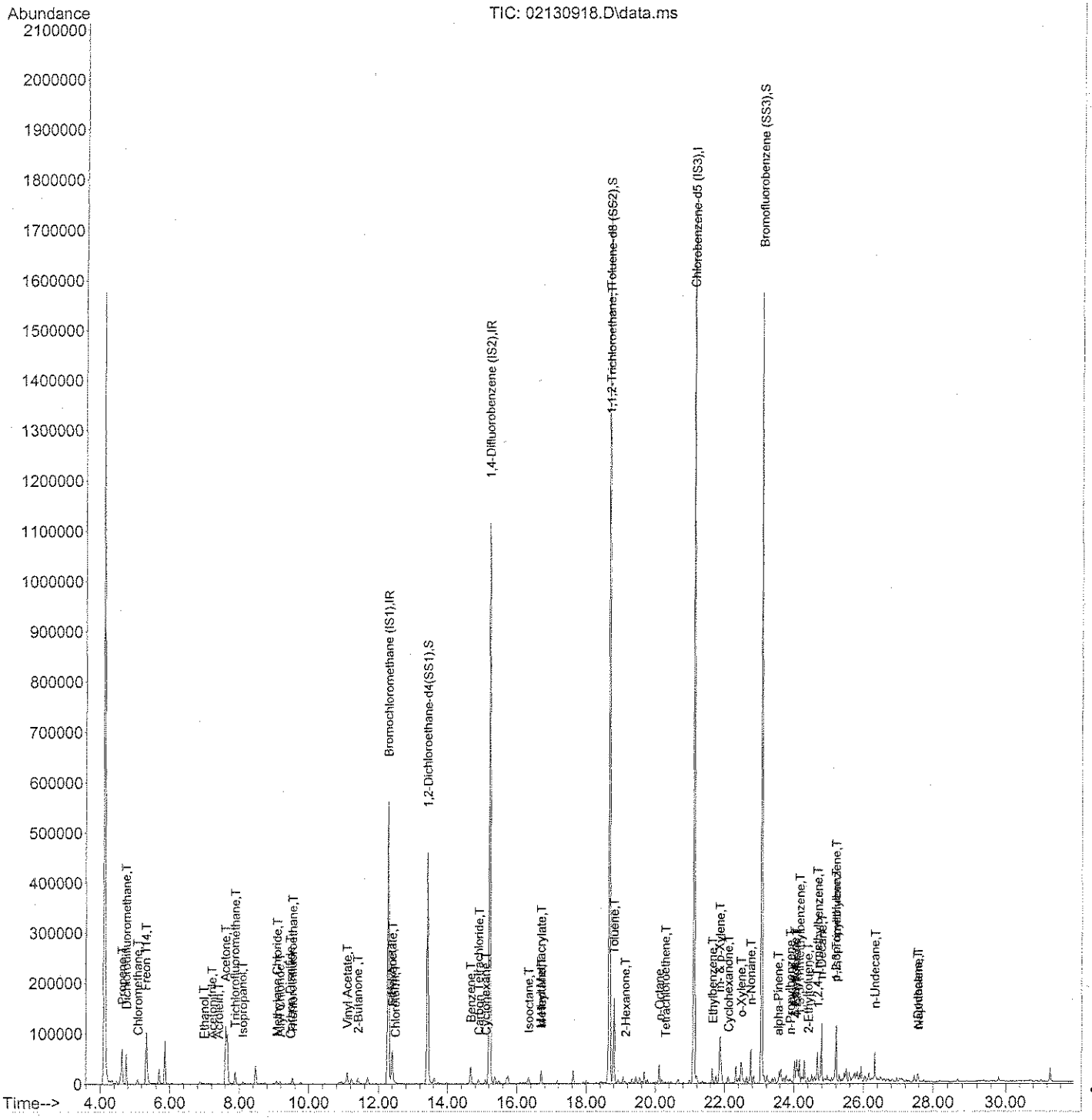
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130918.D
Acq On : 13 Feb 2009 21:52
Operator : WA/LH
Sample : P0900513-010 (1000mL)
Misc : Haley & Aldrich SV-SS-16 (-1.3, 3.5) ✓
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 09:10:26 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130918.D
Acq On : 13 Feb 2009 21:52
Operator : WA/LH
Sample : P0900513-010 (1000mL)
Misc : Haley & Aldrich SV-SS-16 (-1.3, 3.5) ✓
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 09:10:26 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	296454	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1340448	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	652867	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	464279	24.490	ng		-0.04
Spiked Amount 25.000			Recovery =	97.96%	✓		
57) Toluene-d8 (SS2)	18.67	98	1503562	24.462	ng		-0.01
Spiked Amount 25.000			Recovery =	97.84%	✓		
73) Bromofluorobenzene (SS3)	23.06	174	598431	25.920	ng		0.00
Spiked Amount 25.000			Recovery =	103.68%	✓		
Target Compounds							Qvalue
2) Propene	4.64	42	12241	0.738	ng	#	28
3) Dichlorodifluoromethane	4.76	85	60544	2.089	ng		100
4) Chloromethane	5.08	50	10878	0.459	ng		94
5) Freon 114	5.32	135	1004	0.073	ng		94
6) Vinyl Chloride	0.00	62	0	N.D.	✓		
7) 1,3-Butadiene	5.78	54	651	N.D.			
8) Bromomethane	6.25	94	178	N.D.			
9) Chloroethane	0.00	64	0	N.D.	✓		
10) Ethanol	6.98	45	2691	0.261	ng	#	54
11) Acetonitrile	7.21	41	2213	0.079	ng		91
12) Acrolein	7.41	56	2490	0.289	ng		80
13) Acetone	7.60	58	78027	6.649	ng		93
14) Trichlorofluoromethane	7.87	101	26700	1.060	ng		95
15) Isopropanol	8.09	45	2758	0.066	ng	#	47
16) Acrylonitrile	8.48	53	429	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.	✓		
18) tert-Butanol	9.07	59	244	N.D.			
19) Methylene Chloride	9.09	84	3602	0.242	ng	#	51
20) Allyl Chloride	9.18	41	1574	0.087	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	5852	0.518	ng		86
22) Carbon Disulfide	9.47	76	4330	0.083	ng		78
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.	✓		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.10	86	743	0.305	ng	#	1
27) 2-Butanone	11.41	72	5677	0.633	ng	#	52
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.40	61	9434	1.821	ng		88
31) n-Hexane	12.41	57	17035	0.696	ng		91

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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130918.D
Acq On : 13 Feb 2009 21:52
Operator : WA/LH
Sample : P0900513-010 (1000mL)
Misc : Haley & Aldrich SV-SS-16 (-1.3, 3.5)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 09:10:26 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.49	83	1504	0.067 ng		87
34) Tetrahydrofuran	13.09	72	62	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	885	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	849	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	0.00	56	0	N.D.		
41) Benzene	14.67	78	43706	0.760 ng		100
42) Carbon Tetrachloride	14.91	117	6704	0.359 ng		94
43) Cyclohexane	15.10	84	4430	0.232 ng	#	63
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.19	83	170	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	15821	0.243 ng		88
50) Methyl Methacrylate	16.70	100	2156	0.382 ng	#	1
51) n-Heptane	16.71	71	7433	0.523 ng	#	75
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	126913	9.424 ng	#	8
58) Toluene	18.80	91	139667	2.255 ng		98
59) 2-Hexanone	19.13	43	3508	0.093 ng	#	39
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	644	N.D.		
63) n-Octane	20.11	57	8139	0.572 ng	#	74
64) Tetrachloroethene	20.29	166	1290	0.075 ng		88
65) Chlorobenzene	21.16	112	174	N.D.		
66) Ethylbenzene	21.64	91	28590	0.414 ng		99
67) m- & p-Xylene	21.85	91	93121	1.720 ng		97
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	2232	N.D.		
70) o-Xylene	22.48	91	28968	0.523 ng		100
71) n-Nonane	22.75	43	32551	0.950 ng		94
72) 1,1,2,2-Tetrachloroethane	22.50	83	56	N.D.		
74) Cumene	23.24	105	3697	N.D.		
75) alpha-Pinene	23.54	93	2154	0.068 ng		77
76) n-Propylbenzene	23.88	91	7452	0.084 ng		96
77) 3-Ethyltoluene	24.01	105	19489	0.290 ng		93
78) 4-Ethyltoluene	24.06	105	9896	0.150 ng		98
79) 1,3,5-Trimethylbenzene	24.15	105	6774	0.119 ng		94

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Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130918.D
Acq On : 13 Feb 2009 21:52
Operator : WA/LH
Sample : P0900513-010 (1000mL)
Misc : Haley & Aldrich SV-SS-16 (-1.3, 3.5)
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 16 09:10:26 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.67	118	170	N.D.		
81) 2-Ethyltoluene	24.40	105	7321	0.106 ng		97
82) 1,2,4-Trimethylbenzene	24.67	105	21872	0.359 ng		97
83) n-Decane	24.79	57	42926	1.199 ng		77
84) Benzyl Chloride	24.96	91	633	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	335	N.D.		
86) 1,4-Dichlorobenzene	24.95	146	335	N.D.		
87) sec-Butylbenzene	25.01	105	998	N.D.		
88) p-Isopropyltoluene	25.20	119	54624	0.708 ng		89
89) 1,2,3-Trimethylbenzene	25.20	105	8120	0.133 ng	#	22
90) 1,2-Dichlorobenzene	24.95	146	335	N.D.		
91) d-Limonene	25.37	68	262	N.D.		
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	20144	0.521 ng		67
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.57	128	14230	0.162 ng		99
96) n-Dodecane	27.55	57	4398	0.101 ng	#	65
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.10	55	2689	0.103 ng	#	66
99) tert-Butylbenzene	24.67	119	2719	N.D.		
100) n-Butylbenzene	25.68	91	2968	N.D.		

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

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-16**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-011

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01351

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.7 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.17	ND	0.065	
75-00-3	Chloroethane	ND	0.83	ND	0.31	
75-35-4	1,1-Dichloroethene	ND	0.83	ND	0.21	
75-34-3	1,1-Dichloroethane	ND	0.83	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	0.83	ND	0.15	

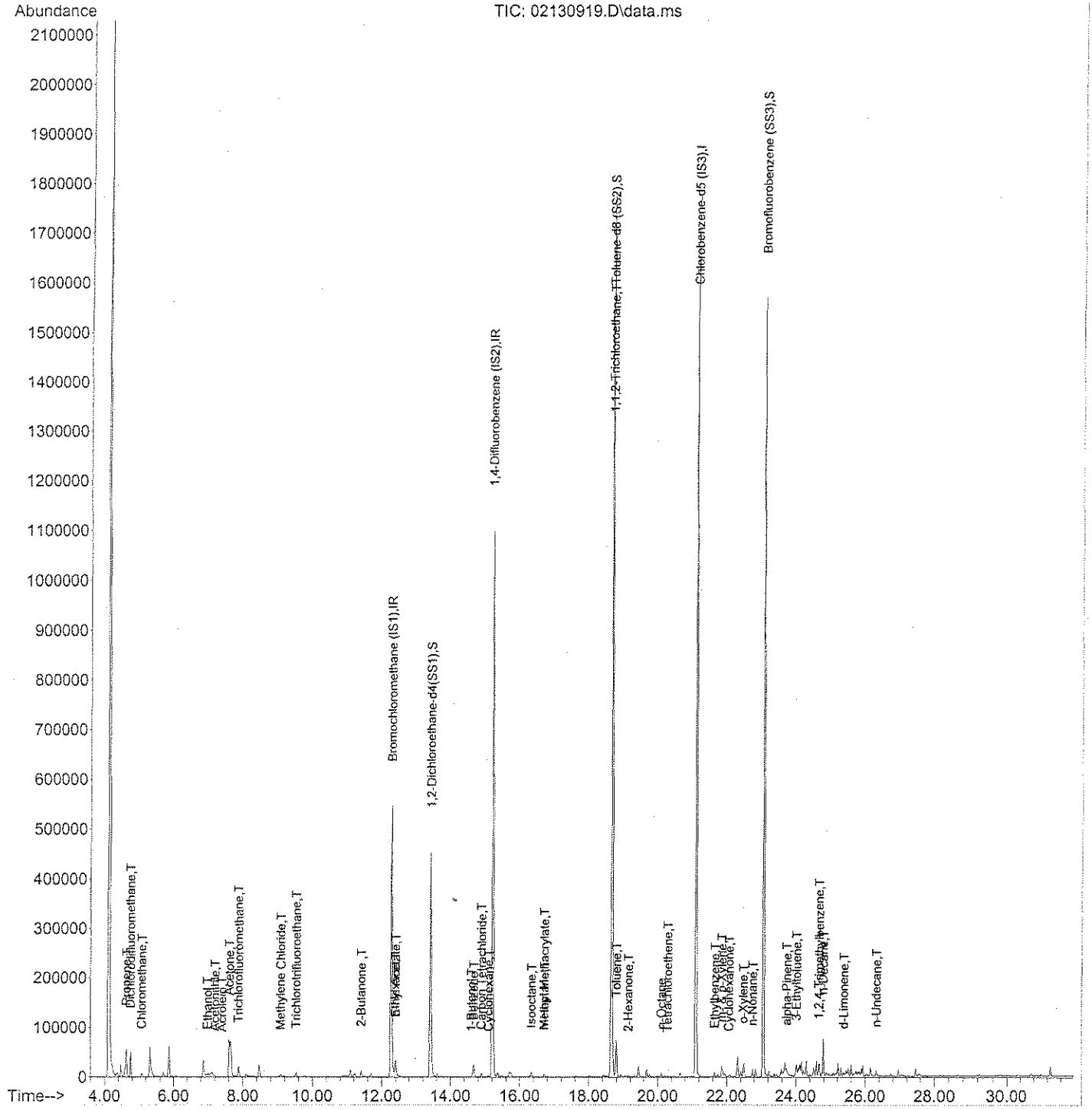
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130919.D
Acq On : 13 Feb 2009 22:35
Operator : WA/LH
Sample : P0900513-011 (1000mL)
Misc : Haley & Aldrich SV-InA-16 (-3.7, 3.5) ✓
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:10:33 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130919.D
Acq On : 13 Feb 2009 22:35
Operator : WA/LH
Sample : P0900513-011 (1000mL)
Misc : Haley & Aldrich SV-InA-16 (-3.7, 3.5) ✓
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:10:33 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	287537	25.000 ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1323889	25.000 ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	642037	25.000 ng		-0.01
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	13.42	65	455839	24.790 ng		-0.04
Spiked Amount 25.000			Recovery =	99.16% ✓		
57) Toluene-d8 (SS2)	18.67	98	1485167	24.570 ng		-0.01
Spiked Amount 25.000			Recovery =	98.28% ✓		
73) Bromofluorobenzene (SS3)	23.06	174	583162	25.685 ng		0.00
Spiked Amount 25.000			Recovery =	102.76% ✓		
Target Compounds						Qvalue
2) Propene	4.63	42	10566	0.656 ng	#	35
3) Dichlorodifluoromethane	4.76	85	50160	1.785 ng		100
4) Chloromethane	5.08	50	9308	0.405 ng		97
5) Freon 114	5.33	135	789	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D. ✓		
7) 1,3-Butadiene	5.79	54	317	N.D.		
8) Bromomethane	6.26	94	61	N.D.		
9) Chloroethane	0.00	64	0	N.D. ✓		
10) Ethanol	6.99	45	18150	1.818 ng		88
11) Acetonitrile	7.20	41	2102	0.078 ng		85
12) Acrolein	7.41	56	2261	0.270 ng		84
13) Acetone	7.62	58	49415	4.342 ng	#	79
14) Trichlorofluoromethane	7.88	101	22033	0.902 ng		93
15) Isopropanol	8.19	45	516	N.D.		
16) Acrylonitrile	8.48	53	169	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓		
18) tert-Butanol	9.05	59	63	N.D.		
19) Methylene Chloride	9.09	84	2811	0.195 ng	#	52
20) Allyl Chloride	9.19	41	713	N.D.		
21) Trichlorotrifluoroethane	9.53	151	4693	0.428 ng		94
22) Carbon Disulfide	9.48	76	2030	N.D.		
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	11.07	86	106	N.D.		
27) 2-Butanone	11.41	72	5617	0.646 ng	#	43
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	12.40	61	4245	0.845 ng		90
31) n-Hexane	12.41	57	7096	0.299 ng		97

2/17/09 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130919.D
Acq On : 13 Feb 2009 22:35
Operator : WA/LH
Sample : P0900513-011 (1000mL)
Misc : Haley & Aldrich SV-InA-16 (-3.7, 3.5)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:10:33 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.48	83	1300	N.D.		
34) Tetrahydrofuran	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	580	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	596	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.61	56	3117	0.214 ng		99
41) Benzene	14.67	78	31093	0.548 ng		98
42) Carbon Tetrachloride	14.89	117	5609	0.304 ng		97
43) Cyclohexane	15.10	84	1256	0.067 ng	#	64
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	12153	0.189 ng		90
50) Methyl Methacrylate	16.71	100	432	0.077 ng	#	1
51) n-Heptane	16.72	71	1652	0.118 ng	#	71
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.54	58	158	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	126445	9.507 ng	#	8
58) Toluene	18.80	91	56067	0.920 ng		99
59) 2-Hexanone	19.15	43	3074	0.083 ng		78
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	1735	N.D.		
63) n-Octane	20.11	57	1743	0.124 ng	#	83
64) Tetrachloroethene	20.28	166	1035	0.061 ng		80
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.65	91	9248	0.136 ng		100
67) m- & p-Xylene	21.86	91	22017	0.414 ng		96
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	1184	N.D.		
70) o-Xylene	22.48	91	8587	0.158 ng		97
71) n-Nonane	22.75	43	7775	0.231 ng		96
72) 1,1,2,2-Tetrachloroethane	22.49	83	65	N.D.		
74) Cumene	23.24	105	1270	N.D.		
75) alpha-Pinene	23.74	93	5574	0.179 ng	#	43
76) n-Propylbenzene	23.89	91	2868	N.D.		
77) 3-Ethyltoluene	24.01	105	6810	0.103 ng		88
78) 4-Ethyltoluene	24.07	105	3438	N.D.		
79) 1,3,5-Trimethylbenzene	24.16	105	3031	N.D.		

2/17/09 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130919.D
Acq On : 13 Feb 2009 22:35
Operator : WA/LH
Sample : P0900513-011 (1000mL)
Misc : Haley & Aldrich SV-InA-16 (-3.7, 3.5)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 16 09:10:33 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.59	118	291	N.D.		
81) 2-Ethyltoluene	24.40	105	2690	N.D.		
82) 1,2,4-Trimethylbenzene	24.67	105	8921	0.149 ng		91
83) n-Decane	24.79	57	30731	0.873 ng		79
84) Benzyl Chloride	24.95	91	61	N.D.		
85) 1,3-Dichlorobenzene	24.95	146	730	N.D.		
86) 1,4-Dichlorobenzene	24.95	146	730	N.D.		
87) sec-Butylbenzene	25.01	105	185	N.D.		
88) p-Isopropyltoluene	25.20	119	2228	N.D.		
89) 1,2,3-Trimethylbenzene	25.20	105	2523	N.D.		
90) 1,2-Dichlorobenzene	24.95	146	730	N.D.		
91) d-Limonene	25.38	68	1663	0.072 ng		96
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.32	57	4219	0.111 ng	#	33
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.58	128	5104	N.D.		
96) n-Dodecane	27.55	57	2030	N.D.		
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.07	55	2264	0.088 ng	#	79
99) tert-Butylbenzene	24.67	119	1379	N.D.		
100) n-Butylbenzene	25.68	91	1868	N.D.		

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

Standards Data

Method Path : J:\MS16\METHODS\
Method File : R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Jan 23 08:54:57 2009
Response Via : Initial Calibration

Calibration Files
0.1 =01220902.D 0.2 =01220903.D 0.5 =01220904.D 1.0 =01220905.D 5.0 =01220906.D 25 =01220907.D
50 =01220908.D 100 =01220909.D

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane...	----------	----------	----------	ISTD	----------	----------	----------	----------		
2)	T	Propene	1.700	1.387	1.397	1.269	1.364	1.229	1.384	1.466	1.400	10.18
3)	T	Dichlorodifluo...	3.208	2.462	2.805	2.546	2.287	2.072	2.067	2.103	2.444	16.56
4)	T	Chloromethane	2.608	2.158	2.306	2.077	1.660	1.851	1.624	1.691	1.997	17.65
5)	T	Freon 114	1.427	1.187	1.321	1.189	1.053	1.004	0.981	1.134	1.162	13.30
6)	T	Vinyl Chloride	2.285	1.723	2.050	1.764	1.598	1.574	1.544	1.773	1.789	14.35
7)	T	1,3-Butadiene	1.434	1.048	1.254	1.149	1.034	1.131	1.134	1.311	1.187	11.53
8)	T	Bromomethane	1.169	0.937	1.003	0.922	0.771	0.884	0.859	0.873	0.927	12.79
9)	T	Chloroethane	0.923	0.827	0.909	0.835	0.746	0.720	0.700	0.727	0.798	10.96
10)	T	Ethanol	0.869	0.653	1.014	0.905	0.824	0.900	0.884	0.894	0.868	11.74
11)	T	Acetonitrile	2.495	2.113	2.784	2.505	2.293	2.266	2.170	2.173	2.350	9.70
12)	T	Acrolein	1.032	0.705	0.723	0.651	0.622	0.698	0.693	0.700	0.728	17.46
13)	T	Acetone		1.340	1.019	0.910	0.868	0.925	0.923	0.943	0.990	16.26
14)	T	Trichlorofluor...	2.524	2.065	2.348	2.140	1.960	2.029	1.962	1.967	2.124	9.75
15)	T	Isopropanol	5.262	3.593	4.157	3.767	2.679	3.408	2.846	2.688	3.550	24.66
16)	T	Acrylonitrile	1.491	1.198	1.663	1.732	1.648	1.783	1.735	1.741	1.624	11.95
17)	T	1,1-Dichloroet...	1.138	1.003	1.136	1.040	0.962	1.038	1.017	1.035	1.046	5.89
18)	T	tert-Butanol	4.284	3.191	3.711	3.403	3.159	3.418	3.347	2.265	3.347	16.94
19)	T	Methylene Chlo...	1.861	1.301	1.324	1.182	1.064	1.116	1.092	1.103	1.256	20.97
20)	T	Allyl Chloride	1.563	1.210	1.444	1.401	1.462	1.691	1.673	1.707	1.519	11.35
21)	T	Trichlorotrifl...	1.073	0.902	1.023	0.931	0.865	0.897	0.942	0.986	0.952	7.37
22)	T	Carbon Disulfide	7.014	4.234	4.480	4.101	3.703	3.942	3.819	3.851	4.393	24.77
23)	T	trans-1,2-Dich...	1.915	1.527	1.790	1.725	1.669	1.725	1.684	1.680	1.714	6.46
24)	T	1,1-Dichloroet...	2.400	1.939	2.189	2.034	1.904	1.994	1.946	1.961	2.046	8.20
25)	T	Methyl tert-Bu...	3.826	2.980	3.264	2.914	2.734	2.901	2.941	3.080	3.080	10.97
26)	T	Vinyl Acetate	0.233	0.195	0.237	0.214	0.181	0.214	0.195	0.174	0.205	11.23
27)	T	2-Butanone	0.864	0.676	0.778	0.711	0.714	0.787	0.769	0.749	0.756	7.66
28)	T	cis-1,2-Dichlo...	1.924	1.487	1.803	1.712	1.579	1.651	1.599	1.614	1.671	8.29
29)	T	Diisopropyl Ether	1.033	0.821	0.974	0.899	0.830	0.886	0.908	0.962	0.914	7.94
30)	T	Ethyl Acetate	0.410	0.371	0.437	0.421	0.416	0.466	0.478	0.495	0.437	9.40
31)	T	n-Hexane	2.454	2.005	2.144	1.947	1.821	1.926	2.036	2.189	2.065	9.52

KM 1/24/09 MH 01/23/09

Method Path : J:\MS16\METHODS\
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Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

32)	T	Chloroform	2.190	1.780	2.076	1.924	1.750	1.870	1.798	1.793	1.898	8.35
33)	S	1,2-Dichloroet...	1.628	1.650	1.652	1.639	1.608	1.559	1.528	1.525	1.599	3.35
34)	T	Tetrahydrofuran	0.795	0.636	0.729	0.669	0.671	0.716	0.706	0.679	0.700	6.92
35)	T	Ethyl tert-But...	1.439	1.319	1.413	1.307	1.220	1.285	1.284	1.345	1.327	5.40
36)	T	1,2-Dichloroet...	1.733	1.545	1.805	1.664	1.536	1.567	1.485	1.459	1.599	7.65
37)	IR	1,4-Difluorobenzen...	----------	ISTD	----------							
38)	T	1,1,1-Trichlor...	0.476	0.384	0.418	0.378	0.356	0.375	0.372	0.374	0.392	9.74
39)	T	Isopropyl Acetate	0.196	0.150	0.180	0.168	0.163	0.186	0.186	0.192	0.178	8.84
40)	T	1-Butanol	0.235	0.170	0.291	0.282	0.283	0.314	0.313	0.308	0.275	17.95
41)	T	Benzene	1.398	1.012	1.117	1.025	0.951	1.016	1.016	1.041	1.072	13.01
42)	T	Carbon Tetrach...	0.404	0.304	0.354	0.331	0.320	0.354	0.354	0.362	0.348	8.73
43)	T	Cyclohexane	0.394	0.320	0.371	0.343	0.326	0.351	0.362	0.382	0.356	7.36
44)	T	tert-Amyl Meth...	0.846	0.687	0.785	0.702	0.663	0.717	0.712	0.731	0.730	8.02
45)	T	1,2-Dichloropr...	0.311	0.258	0.287	0.266	0.250	0.269	0.264	0.266	0.271	7.00
46)	T	Bromodichlorom...	0.362	0.292	0.354	0.335	0.317	0.342	0.333	0.332	0.333	6.54
47)	T	Trichloroethene	0.319	0.259	0.302	0.281	0.260	0.286	0.283	0.293	0.285	7.01
48)	T	1,4-Dioxane	0.222	0.172	0.221	0.210	0.194	0.212	0.209	0.213	0.207	7.92
49)	T	Isooctane	1.469	1.113	1.288	1.206	1.110	1.183	1.165	1.178	1.214	9.66
50)	T	Methyl Methacr...	0.103	0.085	0.107	0.104	0.099	0.114	0.112	0.116	0.105	9.44
51)	T	n-Heptane	0.278	0.241	0.283	0.267	0.247	0.268	0.265	0.273	0.265	5.48
52)	T	cis-1,3-Dichlo...	0.428	0.352	0.410	0.388	0.379	0.420	0.413	0.419	0.401	6.45
53)	T	4-Methyl-2-pen...	0.268	0.194	0.264	0.249	0.246	0.264	0.263	0.269	0.252	9.88
54)	T	trans-1,3-Dich...	0.384	0.297	0.379	0.364	0.361	0.396	0.391	0.395	0.371	8.86
55)	T	1,1,2-Trichlor...	0.300	0.222	0.270	0.244	0.232	0.249	0.244	0.249	0.251	9.60
56)	I	Chlorobenzene-d5 (...	----------	ISTD	----------							
57)	S	Toluene-d8 (SS2)	2.357	2.372	2.353	2.357	2.347	2.349	2.327	2.367	2.354	0.57
58)	T	Toluene	2.836	2.204	2.488	2.331	2.144	2.311	2.267	2.393	2.372	9.09
59)	T	2-Hexanone	1.607	1.225	1.489	1.423	1.370	1.477	1.442	1.489	1.440	7.67
60)	T	Dibromochlorom...	0.604	0.492	0.614	0.559	0.552	0.622	0.612	0.645	0.587	8.45
61)	T	1,2-Dibromoethane	0.632	0.520	0.633	0.597	0.567	0.627	0.614	0.640	0.604	6.87
62)	T	Butyl Acetate	1.710	1.336	1.689	1.622	1.560	1.715	1.706	1.874	1.652	9.44
63)		n-Octane	0.615	0.472	0.550	0.513	0.507	0.555	0.556	0.593	0.545	8.57
64)	T	Tetrachloroethene	0.743	0.590	0.686	0.631	0.593	0.670	0.666	0.711	0.661	8.19
65)	T	Chlorobenzene	1.794	1.418	1.677	1.551	1.436	1.547	1.528	1.609	1.570	7.88
66)	T	Ethylbenzene	2.933	2.321	2.678	2.564	2.451	2.711	2.665	2.826	2.644	7.44
67)	T	m- & p-Xylene	2.249	1.756	2.089	1.992	1.910	2.143	2.149	2.299	2.073	8.67
68)	T	Bromoform	0.521	0.391	0.537	0.513	0.533	0.604	0.600	0.637	0.542	14.03
69)	T	Styrene	1.609	1.292	1.575	1.496	1.526	1.720	1.709	1.817	1.593	10.21
70)	T	o-Xylene	2.329	1.804	2.148	2.018	1.988	2.198	2.172	2.321	2.122	8.38

1/24/09 01/23/09

Method Path : J:\MS16\METHODS\
Method File : R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

71)	T	n-Nonane	1.492	1.185	1.322	1.258	1.224	1.347	1.315	1.358	1.313	7.21
72)	T	1,1,2,2-Tetrac...	0.932	0.773	0.963	0.931	0.894	1.005	0.988	1.047	0.942	8.84
73)	S	Bromofluoroben...	0.855	0.865	0.862	0.866	0.881	0.902	0.917	0.925	0.884	3.07
74)	T	Cumene	3.028	2.443	2.868	2.746	2.598	2.870	2.851	3.058	2.808	7.39
75)	T	alpha-Pinene	1.281	1.006	1.213	1.153	1.121	1.272	1.269	1.362	1.210	9.29
76)	T	n-Propylbenzene	3.584	2.832	3.471	3.287	3.209	3.576	3.548	3.727	3.404	8.38
77)	T	3-Ethyltoluene	2.682	2.056	2.540	2.425	2.417	2.743	2.776	2.943	2.572	10.73
78)	T	4-Ethyltoluene	2.460	2.131	2.567	2.448	2.423	2.673	2.636	2.812	2.519	8.13
79)	T	1,3,5-Trimethy...	2.203	1.832	2.194	2.077	2.055	2.295	2.291	2.443	2.174	8.56
80)	T	alpha-Methylst...	1.154	0.962	1.202	1.164	1.197	1.378	1.382	1.476	1.239	13.23
81)	T	2-Ethyltoluene	2.679	2.137	2.655	2.566	2.513	2.815	2.797	2.947	2.639	9.35
82)	T	1,2,4-Trimethy...	2.362	1.881	2.261	2.172	2.183	2.538	2.602	2.659	2.332	11.23
83)	T	n-Decane	1.443	1.142	1.346	1.298	1.302	1.473	1.462	1.502	1.371	8.89
84)	T	Benzyl Chloride	1.711	1.366	1.792	1.781	1.857	2.193	2.177	2.296	1.897	16.30
85)	T	1,3-Dichlorobe...	1.327	1.100	1.361	1.305	1.308	1.464	1.458	1.570	1.362	10.33
86)	T	1,4-Dichlorobe...	1.434	1.120	1.395	1.326	1.329	1.489	1.478	1.588	1.395	10.11
87)	T	sec-Butylbenzene	3.047	2.466	3.036	2.934	2.906	3.288	3.263	3.407	3.043	9.65
88)	T	p-Isopropyltol...	2.847	2.322	2.877	2.804	2.816	3.306	3.366	3.294	2.954	11.92
89)	T	1,2,3-Trimethy...	2.256	1.869	2.290	2.214	2.211	2.578	2.621	2.632	2.334	11.27
90)	T	1,2-Dichlorobe...	1.219	1.009	1.274	1.213	1.249	1.414	1.428	1.509	1.289	12.24
91)	T	d-Limonene	0.826	0.694	0.889	0.862	0.884	1.028	1.035	1.024	0.905	13.16
92)	T	1,2-Dibromo-3-...	0.419	0.321	0.437	0.432	0.448	0.496	0.498	0.529	0.448	14.32
93)	T	n-Undecane	1.659	1.269	1.424	1.387	1.375	1.546	1.558	1.616	1.479	9.16
94)	T	1,2,4-Trichlor...	0.270	0.207	0.275	0.268	0.261	0.282	0.291	0.323	0.272	12.04
95)	T	Naphthalene	3.377	2.670	3.347	3.307	3.330	3.465	3.574	3.833	3.363	9.81
96)	T	n-Dodecane	1.836	1.378	1.561	1.567	1.578	1.746	1.815	1.866	1.668	10.35
97)	T	Hexachloro-1,3...	0.562	0.431	0.542	0.525	0.502	0.553	0.571	0.641	0.541	11.10
98)	T	Cyclohexanone	1.245	0.782	1.034	0.968	0.932	1.005	0.992	1.025	0.998	12.86
99)	T	tert-Butylbenzene	2.331	1.850	2.193	2.102	2.104	2.465	2.498	2.543	2.261	10.65
100)	T	n-Butylbenzene	2.453	1.912	2.385	2.343	2.341	2.588	2.578	2.671	2.409	9.77

(#) = Out of Range

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-01050915
20ng/L Std. ID: S20-01220904
200ng/L Std. ID: S20-01220901

Dilution Factors:		5	50	250
	Source Std.	Primary Working Standards		
Compounds	mg/m³	200ng/L	20ng/L	4ng/L
Propene	1.03	206	20.6	4.12
Dichlorodifluoromethane	1.05	210	21.0	4.20
Chloromethane	1.01	202	20.2	4.04
Freon-114	1.06	212	21.2	4.24
Vinyl Chloride	1.02	204	20.4	4.08
1,3-Butadiene	1.08	216	21.6	4.32
Bromomethane	1.03	206	20.6	4.12
Chloroethane	1.04	208	20.8	4.16
Ethanol	5.29	1058	106	21.2
Acetonitrile	1.05	210	21.0	4.20
Acrolein	1.08	216	21.6	4.32
Acetone	5.31	1062	106	21.2
Trichlorofluoromethane	1.05	210	21.0	4.20
Isopropanol	1.94	388	38.8	7.76
Acrylonitrile	1.03	206	20.6	4.12
1,1-Dichloroethene	1.10	220	22.0	4.40
tert-Butanol	2.00	400	40.0	8.00
Methylene Chloride	1.06	212	21.2	4.24
Allyl Chloride	1.08	216	21.6	4.32
Trichlorotrifluoroethane	1.10	220	22.0	4.40
Carbon Disulfide	1.04	208	20.8	4.16
trans-1,2-Dichloroethene	1.03	206	20.6	4.12
1,1-Dichloroethane	1.07	214	21.4	4.28
Methyl tert-Butyl Ether	1.06	212	21.2	4.24
Vinyl Acetate	5.05	1010	101	20.2
2-Butanone	1.08	216	21.6	4.32
cis-1,2-Dichloroethene	1.09	218	21.8	4.36
Diisopropyl Ether	1.06	212	21.2	4.24
Ethyl Acetate	2.08	416	41.6	8.32
n-Hexane	1.04	208	20.8	4.16
Chloroform	1.10	220	22.0	4.40
Tetrahydrofuran	1.07	214	21.4	4.28
Ethyl tert-Butyl Ether	1.03	206	20.6	4.12
1,2-Dichloroethane	1.06	212	21.2	4.24
1,1,1-Trichloroethane	1.05	210	21.0	4.20
Isopropyl Acetate	2.09	418	41.8	8.36
1-Butanol	2.16	432	43.2	8.64
Benzene	1.03	206	20.6	4.12
Carbon Tetrachloride	1.05	210	21.0	4.20
Cyclohexane	2.12	424	42.4	8.48
tert-Amyl Methyl Ether	1.03	206	20.6	4.12
1,2-Dichloropropane	1.05	210	21.0	4.20
Bromodichloromethane	1.05	210	21.0	4.20
Trichloroethene	1.03	206	20.6	4.12
1,4-Dioxane	1.04	208	20.8	4.16
Isooctane	1.04	208	20.8	4.16
Methyl Methacrylate	2.13	426	42.6	8.52
n-Heptane	1.04	208	20.8	4.16
cis-1,3-Dichloropropene	1.00	200	20.0	4.00
4-Methyl-2-pentanone	1.09	218	21.8	4.36
trans-1,3-Dichloropropene	1.10	220	22.0	4.40
1,1,2-Trichloroethane	1.04	208	20.8	4.16
Toluene	1.08	216	21.6	4.32
2-Hexanone	1.10	220	22.0	4.40
Dibromochloromethane	1.15	230	23.0	4.60
1,2-Dibromoethane	1.06	212	21.2	4.24
n-Butyl Acetate	1.10	220	22.0	4.40
n-Octane	1.05	210	21.0	4.20
Tetrachloroethene	1.03	206	20.6	4.12
Chlorobenzene	1.06	212	21.2	4.24
Ethylbenzene	1.05	210	21.0	4.20
m-&p-Xylene	2.08	416	41.6	8.32

Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source)							
	4	4	20	20	20	200	200	200
injection (L):	0.025	0.05	0.025	0.050	0.25	0.125	0.25	0.50
ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.529	1.058	2.65	5.29	26.5	132	265	529
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.531	1.062	2.66	5.31	26.6	133	266	531
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.194	0.388	0.970	1.94	9.70	48.5	97.0	194
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.200	0.400	1.00	2.00	10.0	50.0	100	200
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.505	1.010	2.53	5.05	25.3	126	253	505
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.208	0.416	1.04	2.08	10.4	52.0	104	208
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.209	0.418	1.05	2.09	10.5	52.3	105	209
	0.216	0.432	1.08	2.16	10.8	54.0	108	216
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.212	0.424	1.06	2.12	10.6	53.0	106	212
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.213	0.426	1.07	2.13	10.7	53.3	107	213
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.100	0.200	0.500	1.00	5.00	25.0	50.0	100
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.115	0.230	0.575	1.15	5.75	28.8	57.5	115
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.208	0.416	1.04	2.08	10.4	52.0	104	208

RA 11/24/09 LM 01/23/09

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-01050915
20ng/L Std. ID:
200ng/L Std. ID:
Dilution Factors: 5 50 250

Compounds	Source Std. mg/m³	Primary Working Standards 200ng/L	20ng/L	4ng/L	Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source) 4	4	20	20	20	200	200	200
					Injection (L):	0.025	0.050	0.025	0.05	0.25	0.125	0.25	0.50
					ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
Bromoform	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Styrene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
o-Xylene	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
n-Nonane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
1,1,2,2-Tetrachloroethane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Cumene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
alpha-Pinene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
n-Propylbenzene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
3-Ethyltoluene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
4-Ethyltoluene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,3,5-Trimethylbenzene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
alpha-Methylstyrene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
2-Ethyltoluene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
1,2,4-Trimethylbenzene	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
n-Decane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Benzyl Chloride	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,3-Dichlorobenzene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
1,4-Dichlorobenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
sec-Butylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
p-Isopropyltoluene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
1,2,3-Trimethylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,2-Dichlorobenzene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
d-Limonene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
chloropropane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
n-Undecane	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
1,2,4-Trichlorobenzene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Naphthalene	1.01	202	20.2	4.04		0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
n-Dodecane	0.94	188	18.8	3.76		0.094	0.188	0.470	0.940	4.70	23.5	47.0	94.0
Hexachloro-1,3-butadiene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Methacrylonitrile	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Cyclohexanone	0.99	198	19.8	3.96		0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0
tert-Butylbenzene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
n-Butylbenzene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109

*Enter information in the Solid Shaded Areas ONLY.

DA 1/24/09 VH 01/23/09

Calibration Status Report GCMS-16

Method Path : J:\MS16\METHODS\
Method File : R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Jan 23 09:05:22 2009
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.1	0	25	J:\MS16\DATA\2009_01\22\01220902.D
2	0.2	0	25	J:\MS16\DATA\2009_01\22\01220903.D
3	0.5	1	25	J:\MS16\DATA\2009_01\22\01220904.D
4	1.0	1	25	J:\MS16\DATA\2009_01\22\01220905.D
5	5.0	5	25	J:\MS16\DATA\2009_01\22\01220906.D
6	25	26	25	J:\MS16\DATA\2009_01\22\01220907.D
7	50	52	25	J:\MS16\DATA\2009_01\22\01220908.D
8	100	103	25	J:\MS16\DATA\2009_01\22\01220909.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Jan 23 08:53 2009	Jan 22 17:20 2009	22 Jan 2009 13:28
2	0.2	Jan 23 08:54 2009	Jan 22 17:21 2009	22 Jan 2009 14:09
3	0.5	Jan 23 08:54 2009	Jan 22 17:22 2009	22 Jan 2009 14:50
4	1.0	Jan 23 08:54 2009	Jan 22 17:29 2009	22 Jan 2009 15:31
5	5.0	Jan 23 08:54 2009	Jan 22 17:29 2009	22 Jan 2009 16:12
6	25	Jan 23 08:54 2009	Jan 22 17:31 2009	22 Jan 2009 16:53
7	50	Jan 23 08:54 2009	Jan 23 08:52 2009	22 Jan 2009 17:34
8	100	Jan 23 08:54 2009	Jan 23 08:53 2009	22 Jan 2009 18:14

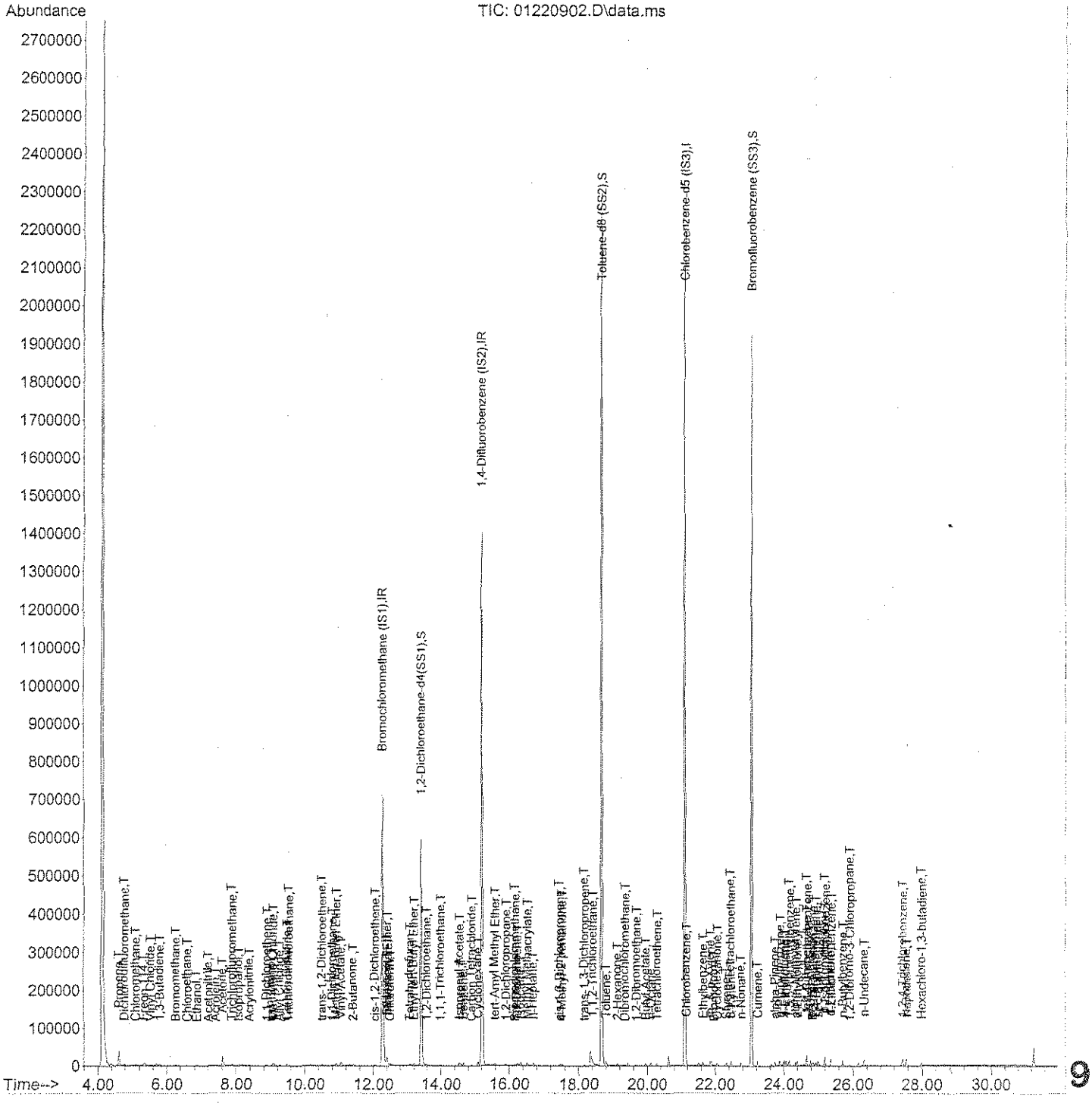
R16012209.M Fri Jan 23 09:08:31 2009

D 1/24/09 VM 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:20:03 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:20:03 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	377102	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1701454	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	833909	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	613791	21.756	ng		-0.04
Spiked Amount 25.000			Recovery = 87.04%				
57) Toluene-d8 (SS2)	18.66	98	1965506	25.266	ng		-0.02
Spiked Amount 25.000			Recovery = 101.08%				
73) Bromofluorobenzene (SS3)	23.06	174	712809	27.488	ng		0.00
Spiked Amount 25.000			Recovery = 109.96%				
Target Compounds							Qvalue
2) Propene	4.62	42	2641	0.122	ng		98
3) Dichlorodifluoromethane	4.78	85	5081	0.135	ng	#	95
4) Chloromethane	5.09	50	3973	0.119	ng		93
5) Freon 114	5.33	135	2282	0.130	ng		95
6) Vinyl Chloride	5.53	62	3515	0.123	ng		81
7) 1,3-Butadiene	5.80	54	2336	0.108	ng		98
8) Bromomethane	6.26	94	1817	0.125	ng		98
9) Chloroethane	6.59	64	1448	0.117	ng		79
10) Ethanol	6.86	45	6935m	0.411	ng		
11) Acetonitrile	7.20	41	3951	0.103	ng		71
12) Acrolein	7.41	56	1681	0.185	ng	#	76
13) Acetone	7.62	58	14995	0.958	ng		99
14) Trichlorofluoromethane	7.89	101	3997	0.122	ng		93
15) Isopropanol	8.08	45	15398m	0.299	ng		
16) Acrylonitrile	8.39	53	2317	0.092	ng		98
17) 1,1-Dichloroethene	8.89	96	1888	0.119	ng	#	71
18) tert-Butanol	9.03	59	12925	0.268	ng		71
19) Methylene Chloride	9.08	84	2976	0.162	ng	#	50
20) Allyl Chloride	9.27	41	2547	0.097	ng		87
21) Trichlorotrifluoroethane	9.54	151	1781	0.124	ng		95
22) Carbon Disulfide	9.48	76	11003	0.172	ng		95
23) trans-1,2-Dichloroethene	10.51	61	2976	0.113	ng		78
24) 1,1-Dichloroethane	10.81	63	3873	0.116	ng		98
25) Methyl tert-Butyl Ether	10.92	73	6118	0.125	ng		81
26) Vinyl Acetate	11.06	86	1777	0.563	ng	#	21
27) 2-Butanone	11.41	72	1407	0.146	ng	#	72
28) cis-1,2-Dichloroethene	12.05	61	3164	0.120	ng		80
29) Diisopropyl Ether	12.41	87	1652	0.117	ng	#	23
30) Ethyl Acetate	12.41	61	1287	0.169	ng		76
31) n-Hexane	12.41	57	3850	0.110	ng		98

1/24/09 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:20:03 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.49	83	3634	0.119	ng		97
34) Tetrahydrofuran	13.07	72	1283	0.126	ng	#	56
35) Ethyl tert-Butyl Ether	13.19	87	2236	0.109	ng	#	78
36) 1,2-Dichloroethane	13.58	62	2771	0.101	ng		97
38) 1,1,1-Trichloroethane	13.98	97	3400	0.123	ng		86
39) Isopropyl Acetate	14.54	61	2787	0.241	ng	#	86
40) 1-Butanol	14.60	56	3453	0.187	ng	#	68
41) Benzene	14.67	78	9800	0.134	ng		99
42) Carbon Tetrachloride	14.90	117	2888	0.115	ng		99
43) Cyclohexane	15.09	84	5689	0.225	ng	#	70
44) tert-Amyl Methyl Ether	15.59	73	5929	0.118	ng		85
45) 1,2-Dichloropropane	15.91	63	2219	0.117	ng		94
46) Bromodichloromethane	16.18	83	2587	0.107	ng		86
47) Trichloroethene	16.24	130	2235	0.115	ng		100
48) 1,4-Dioxane	16.23	88	1574	0.123	ng	#	68
49) Isooctane	16.35	57	10400	0.125	ng		99
50) Methyl Methacrylate	16.53	100	1500	0.233	ng	#	82
51) n-Heptane	16.70	71	1965	0.110	ng	#	77
52) cis-1,3-Dichloropropene	17.46	75	2911	0.106	ng		91
53) 4-Methyl-2-pentanone	17.51	58	1987	0.115	ng		95
54) trans-1,3-Dichloropropene	18.17	75	2877	0.114	ng		99
55) 1,1,2-Trichloroethane	18.41	97	2121	0.130	ng		96
58) Toluene	18.80	91	10215	0.132	ng		98
59) 2-Hexanone	19.13	43	5897	0.123	ng		98
60) Dibromochloromethane	19.35	129	2318	0.126	ng		98
61) 1,2-Dibromoethane	19.68	107	2236	0.117	ng		100
62) Butyl Acetate	19.95	43	6276	0.121	ng		92
63) n-Octane	20.11	57	2155	0.125	ng	#	78
64) Tetrachloroethene	20.29	166	2554	0.130	ng		94
65) Chlorobenzene	21.16	112	6344	0.129	ng		98
66) Ethylbenzene	21.64	91	10273	0.122	ng		99
67) m- & p-Xylene	21.86	91	15606	0.234	ng		99
68) Bromoform	21.97	173	1861	0.110	ng		94
69) Styrene	22.33	104	5742	0.121	ng		98
70) o-Xylene	22.48	91	8158	0.123	ng		99
71) n-Nonane	22.75	43	5226	0.134	ng		94
72) 1,1,2,2-Tetrachloroethane	22.45	83	3356	0.108	ng		98
74) Cumene	23.24	105	10303	0.118	ng		100
75) alpha-Pinene	23.73	93	4700	0.127	ng		92
76) n-Propylbenzene	23.88	91	12195	0.115	ng		93
77) 3-Ethyltoluene	24.01	105	9840	0.128	ng		96
78) 4-Ethyltoluene	24.06	105	9027	0.118	ng		90
79) 1,3,5-Trimethylbenzene	24.16	105	7938	0.122	ng		90

DI 1/24/09 WA 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:20:03 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	4081	0.116	ng		96
81) 2-Ethyltoluene	24.40	105	9651	0.122	ng		95
82) 1,2,4-Trimethylbenzene	24.67	105	8272	0.130	ng		91
83) n-Decane	24.79	57	5198	0.144	ng		82
84) Benzyl Chloride	24.83	91	6279	0.110	ng		96
85) 1,3-Dichlorobenzene	24.86	146	4738	0.121	ng		99
86) 1,4-Dichlorobenzene	24.95	146	5070	0.127	ng		97
87) sec-Butylbenzene	25.01	105	10773	0.119	ng		99
88) p-Isopropyltoluene	25.20	119	9686	0.122	ng		98
89) 1,2,3-Trimethylbenzene	25.20	105	7977	0.126	ng		87
90) 1,2-Dichlorobenzene	25.37	146	4351	0.109	ng		95
91) d-Limonene	25.38	68	2919	0.099	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	1509	0.118	ng		96
93) n-Undecane	26.32	57	5921	0.197	ng		83
94) 1,2,4-Trichlorobenzene	27.44	184	989	0.176	ng	#	89
95) Naphthalene	27.57	128	11377	0.186	ng		96
96) n-Dodecane	27.55	57	5756	0.243	ng		78
97) Hexachloro-1,3-butadiene	27.99	225	2062	0.151	ng		97
98) Cyclohexanone	22.07	55	4112	0.132	ng		95
99) tert-Butylbenzene	24.67	119	8398	0.132	ng		98
100) n-Butylbenzene	25.71	91	8917	0.135	ng		99

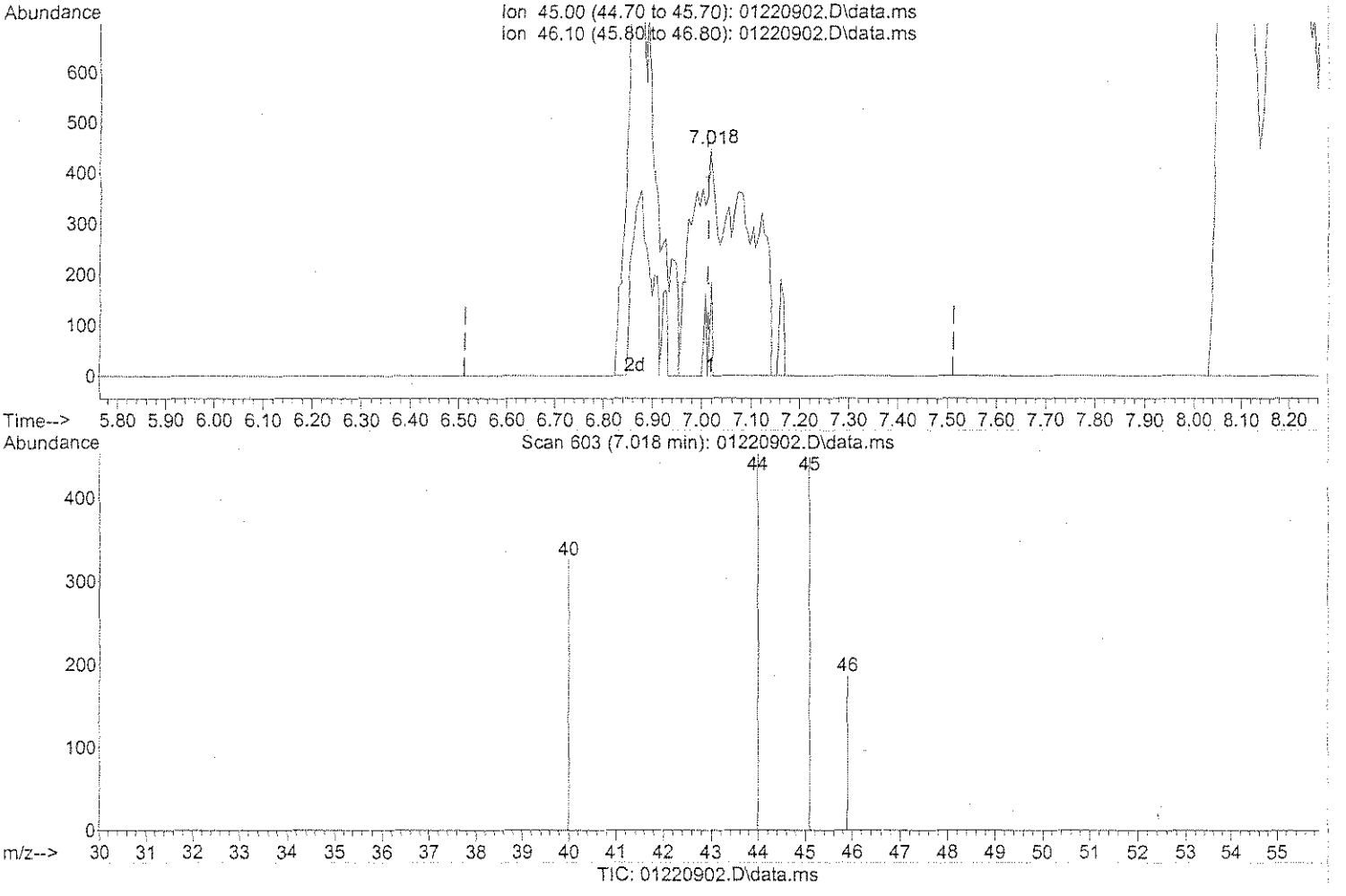
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1/24/09 01/23/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 14:02:21 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.018min (+0.005) 0.20ng

response 3344

SP

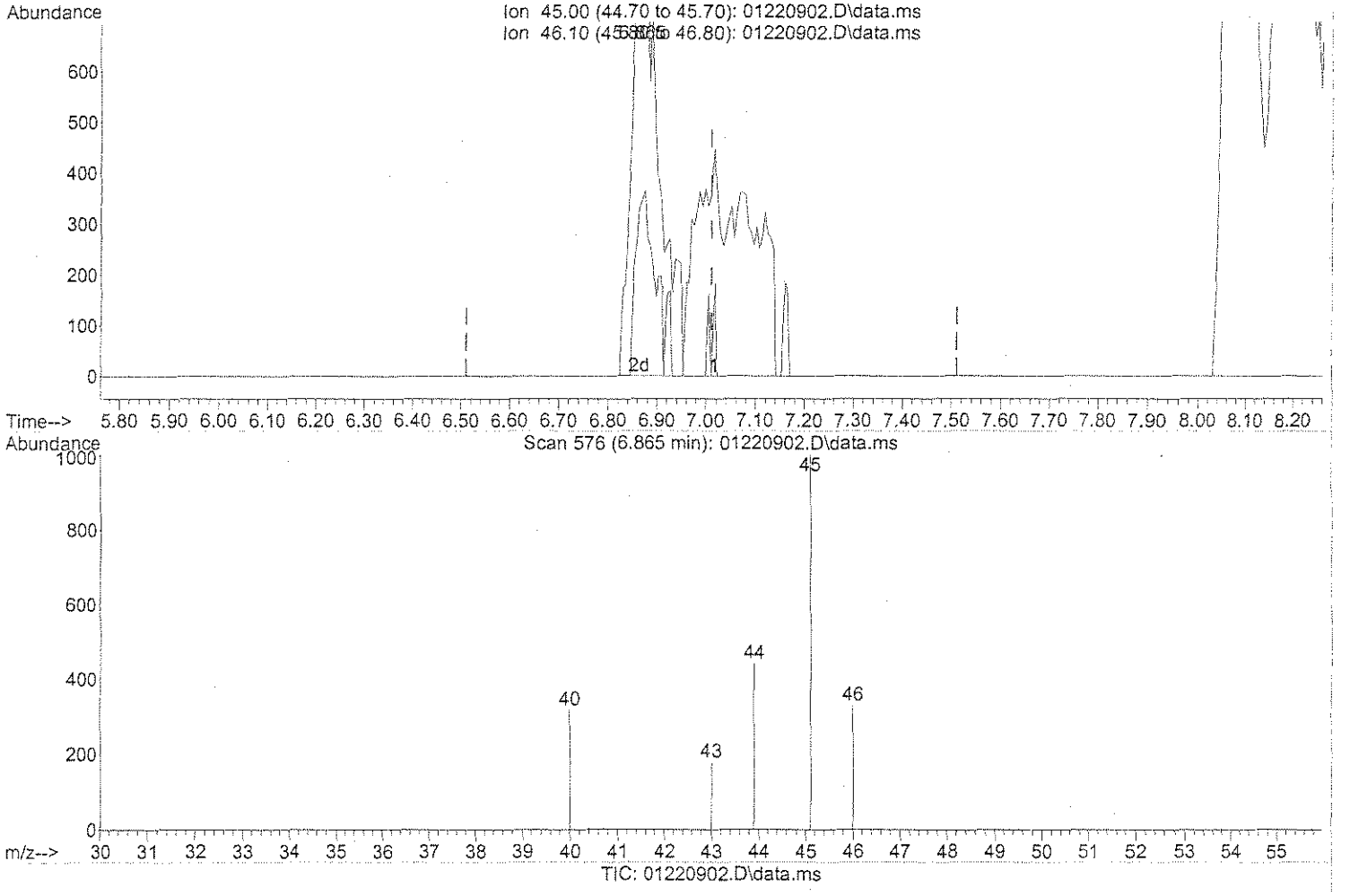
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	1.67#
0.00	0.00	0.00
0.00	0.00	0.00

95

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 14:02:21 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.865min (-0.148) 0.41ng m

response 6935

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	0.81#
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
LH 01/23/09

BM 1/23/09

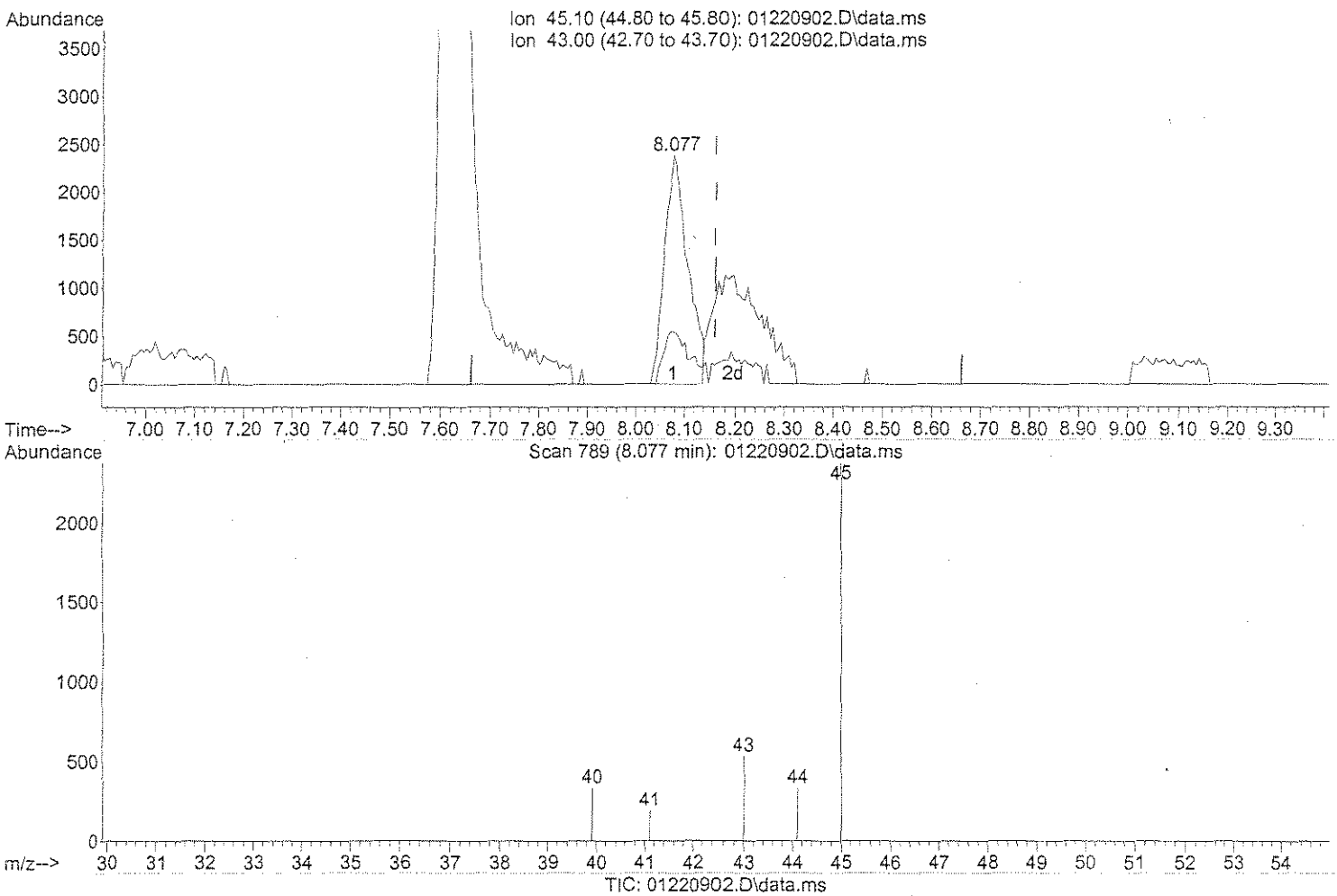
DH 1/24/09

96

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 14:02:21 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.077min (-0.086) 0.15ng

response 7853

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	26.07
0.00	0.00	0.00
0.00	0.00	0.00

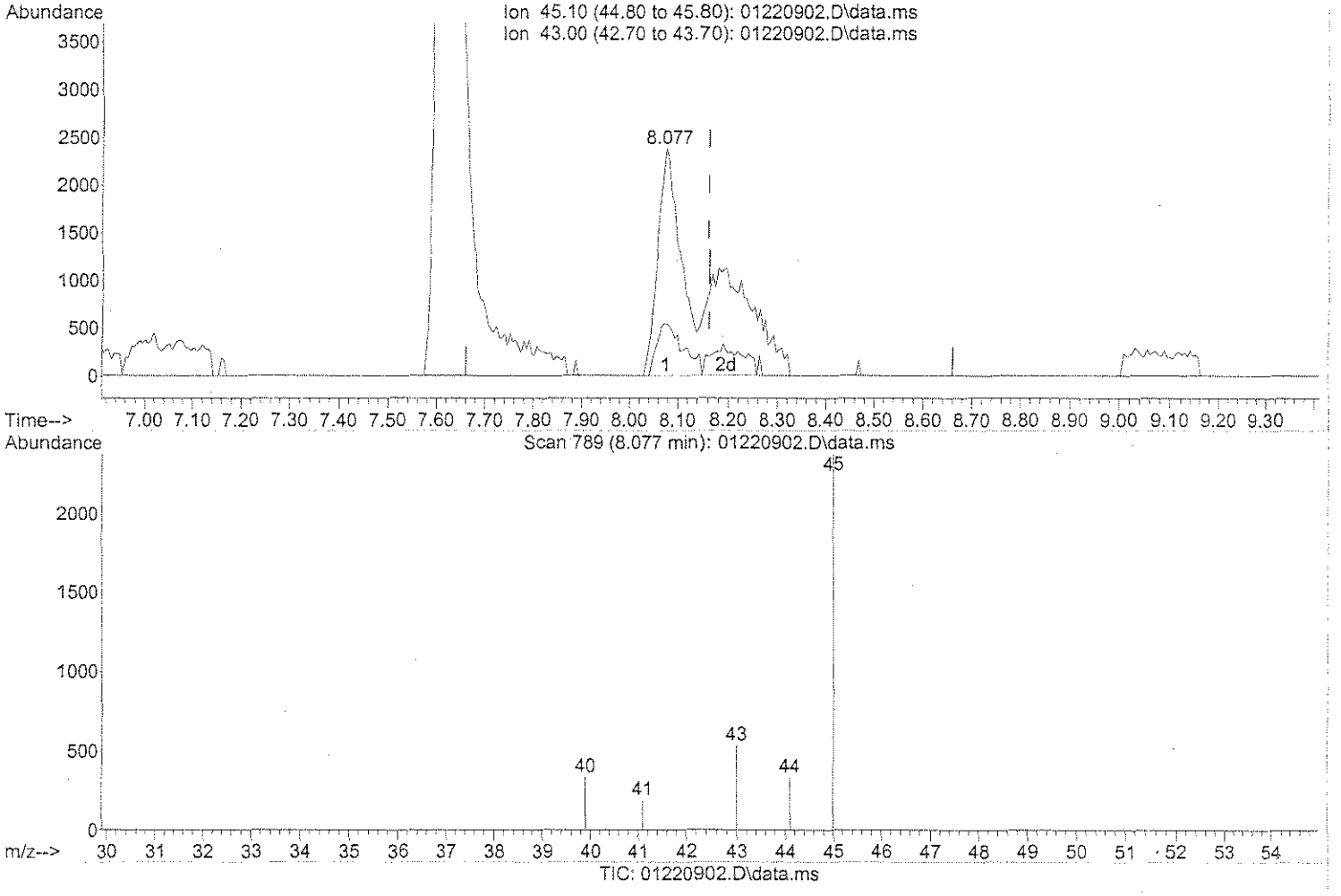
SP

97

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220902.D
Acq On : 22 Jan 2009 13:28
Operator : WA/LH
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 14:02:21 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.077min (-0.086) 0.30ng m

response 15398

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	13.29
0.00	0.00	0.00
0.00	0.00	0.00

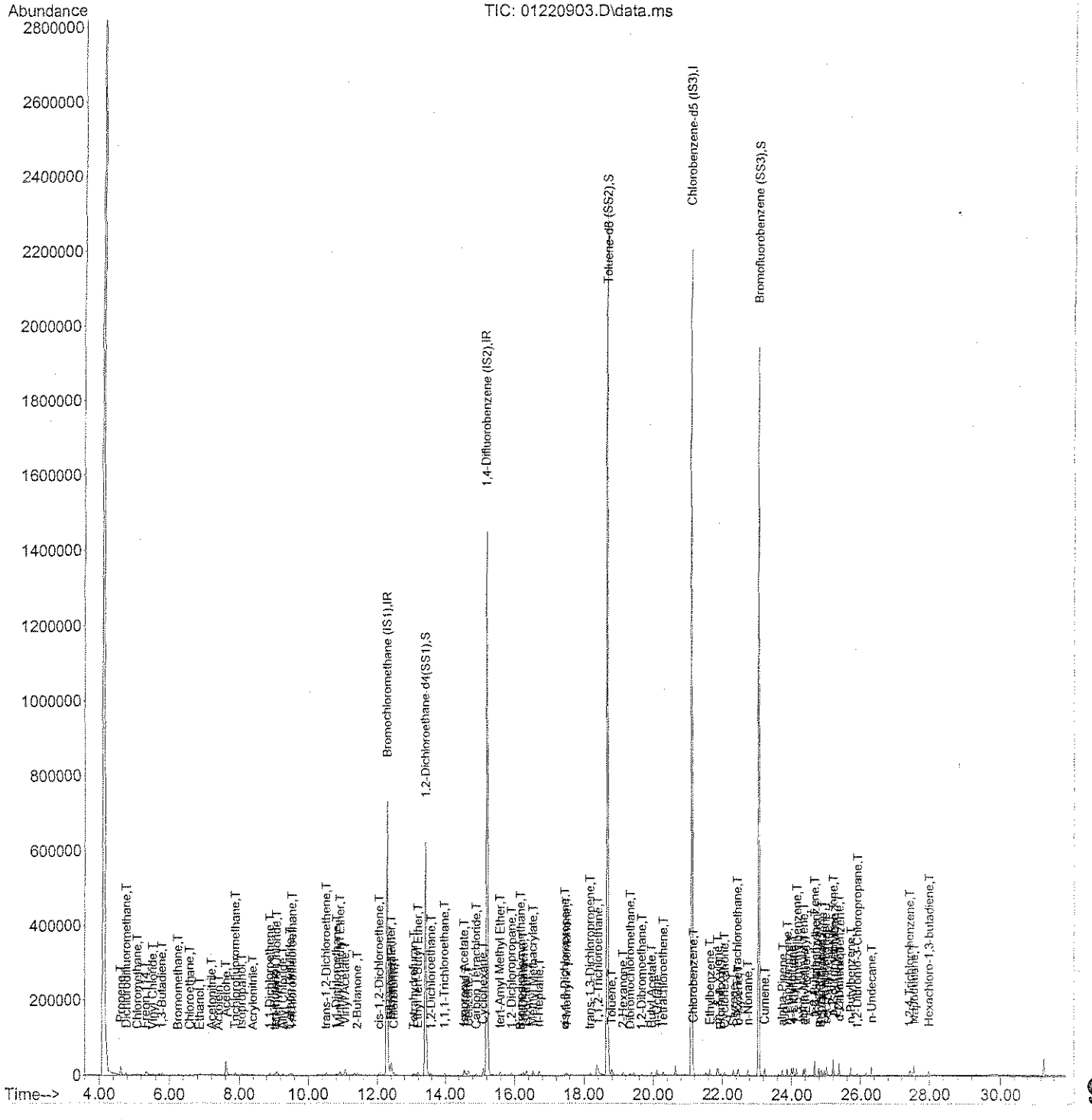
SP → IC
LH 01/23/09

Com 1/23/09

DJ 1/24/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:21:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:21:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	378650	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.21	114	1747588	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	834047	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	624915	22.060	ng		-0.03
Spiked Amount 25.000			Recovery =	88.24%			
57) Toluene-d8 (SS2)	18.67	98	1978033	25.423	ng		-0.01
Spiked Amount 25.000			Recovery =	101.68%			
73) Bromofluorobenzene (SS3)	23.06	174	721223	27.808	ng		0.00
Spiked Amount 25.000			Recovery =	111.24%			
Target Compounds							Qvalue
2) Propene	4.62	42	4328	0.199	ng		86
3) Dichlorodifluoromethane	4.78	85	7832	0.206	ng		96
4) Chloromethane	5.09	50	6601	0.196	ng		93
5) Freon 114	5.32	135	3810	0.215	ng		87
6) Vinyl Chloride	5.52	62	5324	0.185	ng		83
7) 1,3-Butadiene	5.78	54	3430	0.159	ng		91
8) Bromomethane	6.26	94	2922	0.200	ng		94
9) Chloroethane	6.59	64	2605	0.210	ng		100
10) Ethanol	6.86	45	10466m	0.618	ng		
11) Acetonitrile	7.21	41	6722	0.174	ng		77
12) Acrolein	7.41	56	2305	0.253	ng		86
13) Acetone	7.62	58	21549	1.371	ng		92
14) Trichlorofluoromethane	7.89	101	6568	0.200	ng		99
15) Isopropanol	8.07	45	21114m	0.408	ng		
16) Acrylonitrile	8.40	53	3739	0.148	ng		92
17) 1,1-Dichloroethene	8.89	96	3341	0.210	ng	#	60
18) tert-Butanol	9.03	59	19331	0.399	ng		78
19) Methylene Chloride	9.08	84	4179	0.226	ng	#	53
20) Allyl Chloride	9.28	41	3960	0.150	ng		85
21) Trichlorotrifluoroethane	9.53	151	3007	0.209	ng		84
22) Carbon Disulfide	9.48	76	13339	0.208	ng		95
23) trans-1,2-Dichloroethene	10.51	61	4763	0.180	ng		74
24) 1,1-Dichloroethane	10.81	63	6285	0.187	ng		96
25) Methyl tert-Butyl Ether	10.92	73	9570	0.194	ng		84
26) Vinyl Acetate	11.06	86	2977	0.940	ng	#	13
27) 2-Butanone	11.41	72	2212	0.228	ng	#	68
28) cis-1,2-Dichloroethene	12.05	61	4909	0.185	ng	#	70
29) Diisopropyl Ether	12.40	87	2637	0.186	ng	#	24
30) Ethyl Acetate	12.40	61	2335	0.306	ng		90
31) n-Hexane	12.40	57	6318	0.179	ng		85

100

1/24/09 1/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:21:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.49	83	5931	0.194	ng		100
34) Tetrahydrofuran	13.07	72	2063	0.202	ng	#	53
35) Ethyl tert-Butyl Ether	13.20	87	4116	0.199	ng	#	68
36) 1,2-Dichloroethane	13.59	62	4960	0.179	ng		98
38) 1,1,1-Trichloroethane	13.98	97	5632	0.198	ng		88
39) Isopropyl Acetate	14.54	61	4377	0.368	ng	#	86
40) 1-Butanol	14.59	56	5146	0.271	ng	#	47
41) Benzene	14.67	78	14577	0.193	ng		99
42) Carbon Tetrachloride	14.89	117	4467	0.174	ng		99
43) Cyclohexane	15.11	84	9475	0.365	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	9897	0.192	ng		85
45) 1,2-Dichloropropane	15.91	63	3789	0.194	ng		95
46) Bromodichloromethane	16.17	83	4282	0.173	ng		98
47) Trichloroethene	16.25	130	3733	0.187	ng		99
48) 1,4-Dioxane	16.23	88	2506	0.190	ng	#	60
49) Isooctane	16.33	57	16189	0.190	ng		99
50) Methyl Methacrylate	16.53	100	2545	0.384	ng	#	87
51) n-Heptane	16.70	71	3501	0.191	ng	#	67
52) cis-1,3-Dichloropropene	17.46	75	4922	0.175	ng		95
53) 4-Methyl-2-pentanone	17.51	58	2962	0.167	ng		82
54) trans-1,3-Dichloropropene	18.17	75	4560	0.177	ng		96
55) 1,1,2-Trichloroethane	18.41	97	3221	0.193	ng		96
58) Toluene	18.79	91	15884	0.205	ng		99
59) 2-Hexanone	19.13	43	8993	0.188	ng		93
60) Dibromochloromethane	19.34	129	3775	0.204	ng		99
61) 1,2-Dibromoethane	19.67	107	3677	0.192	ng		99
62) Butyl Acetate	19.95	43	9807	0.189	ng		95
63) n-Octane	20.11	57	3304	0.191	ng	#	69
64) Tetrachloroethene	20.29	166	4055	0.207	ng		100
65) Chlorobenzene	21.16	112	10029	0.204	ng		98
66) Ethylbenzene	21.64	91	16264	0.194	ng		98
67) m- & p-Xylene	21.87	91	24377	0.366	ng		98
68) Bromoform	21.96	173	2790	0.165	ng		97
69) Styrene	22.33	104	9221	0.195	ng		98
70) o-Xylene	22.48	91	12637	0.190	ng		98
71) n-Nonane	22.75	43	8301	0.214	ng		94
72) 1,1,2,2-Tetrachloroethane	22.44	83	5572	0.179	ng		99
74) Cumene	23.23	105	16630	0.191	ng		97
75) alpha-Pinene	23.74	93	7382	0.199	ng		81
76) n-Propylbenzene	23.88	91	19277	0.181	ng		98
77) 3-Ethyltoluene	24.01	105	15087	0.196	ng		94
78) 4-Ethyltoluene	24.06	105	15641	0.204	ng		94
79) 1,3,5-Trimethylbenzene	24.16	105	13199	0.203	ng		91

AD 1/24/09 41 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 17:21:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	6807	0.194	ng		95
81) 2-Ethyltoluene	24.40	105	15399	0.195	ng		96
82) 1,2,4-Trimethylbenzene	24.67	105	13176	0.208	ng		92
83) n-Decane	24.79	57	8233	0.228	ng		79
84) Benzyl Chloride	24.84	91	10023	0.175	ng		99
85) 1,3-Dichlorobenzene	24.86	146	7855	0.200	ng		98
86) 1,4-Dichlorobenzene	24.95	146	7923	0.198	ng		100
87) sec-Butylbenzene	25.01	105	17444	0.193	ng		99
88) p-Isopropyltoluene	25.20	119	15803	0.198	ng		97
89) 1,2,3-Trimethylbenzene	25.20	105	13220	0.209	ng		91
90) 1,2-Dichlorobenzene	25.37	146	7205	0.181	ng		100
91) d-Limonene	25.38	68	4911	0.166	ng		94
92) 1,2-Dibromo-3-Chloropr...	25.90	157	2311	0.181	ng		97
93) n-Undecane	26.32	57	9057	0.301	ng		80
94) 1,2,4-Trichlorobenzene	27.43	184	1516	0.270	ng	#	91
95) Naphthalene	27.57	128	17992	0.293	ng		96
96) n-Dodecane	27.55	57	8642	0.364	ng		80
97) Hexachloro-1,3-butadiene	27.99	225	3166	0.232	ng		99
98) Cyclohexanone	22.07	55	5164	0.166	ng		95
99) tert-Butylbenzene	24.67	119	13331	0.209	ng		95
100) n-Butylbenzene	25.71	91	13907	0.211	ng		96

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

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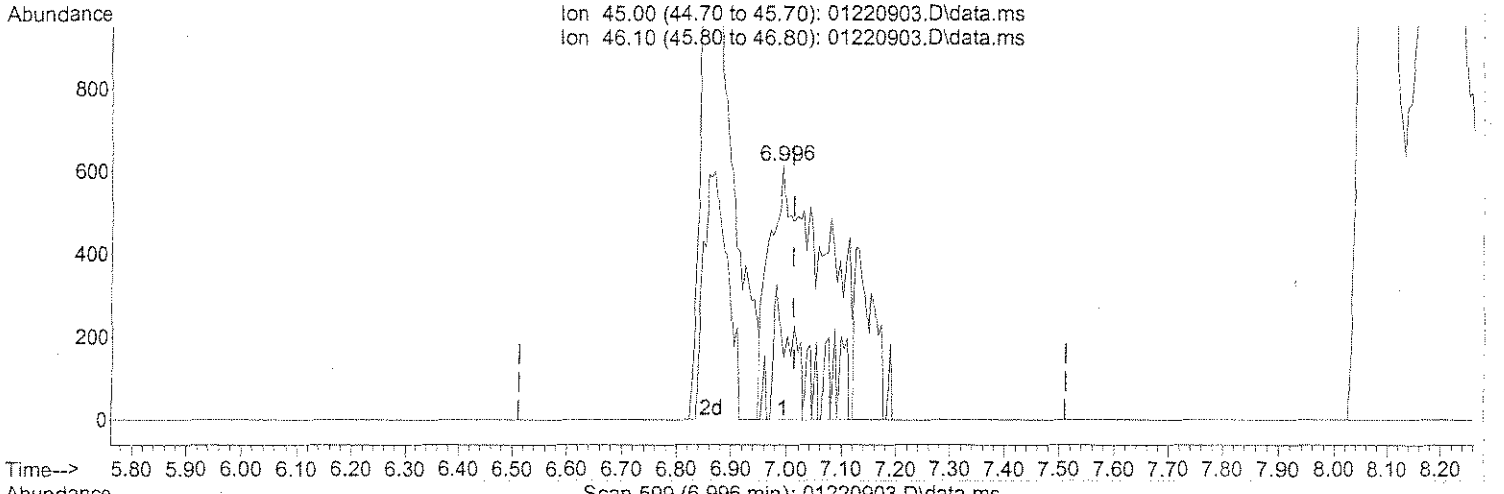
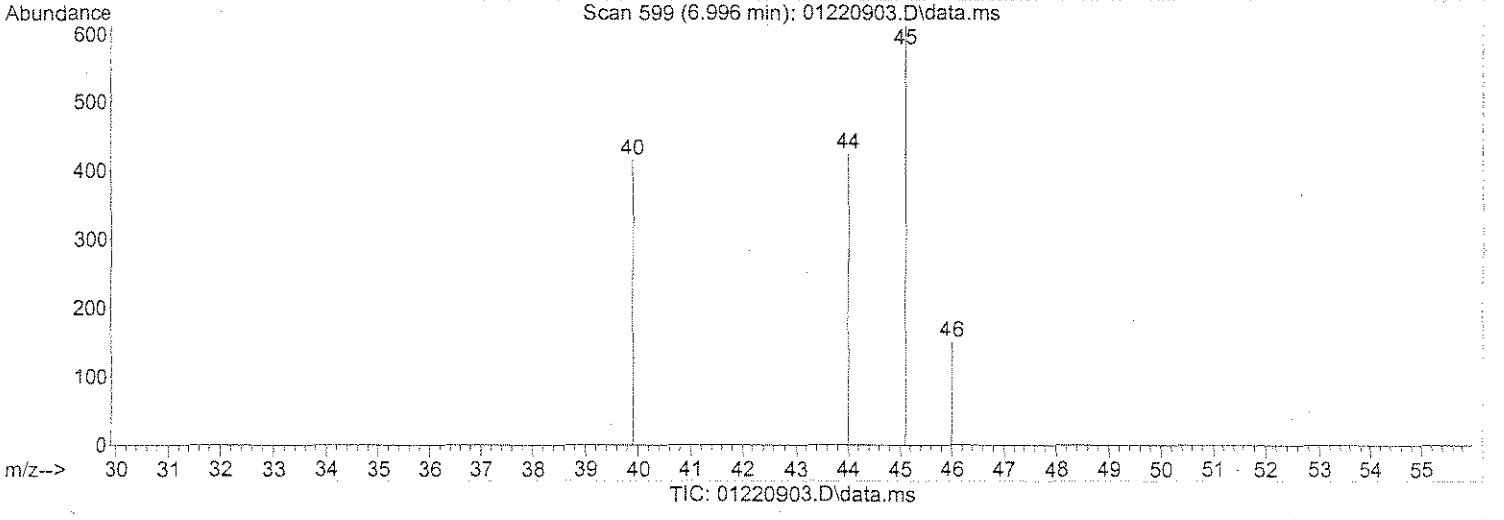
1/24/09 01/23/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 15:26:10 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration





TIC: 01220903.D\data.ms

(10) Ethanol (T)

6.996min (-0.017) 0.26ng

response 4358

SP

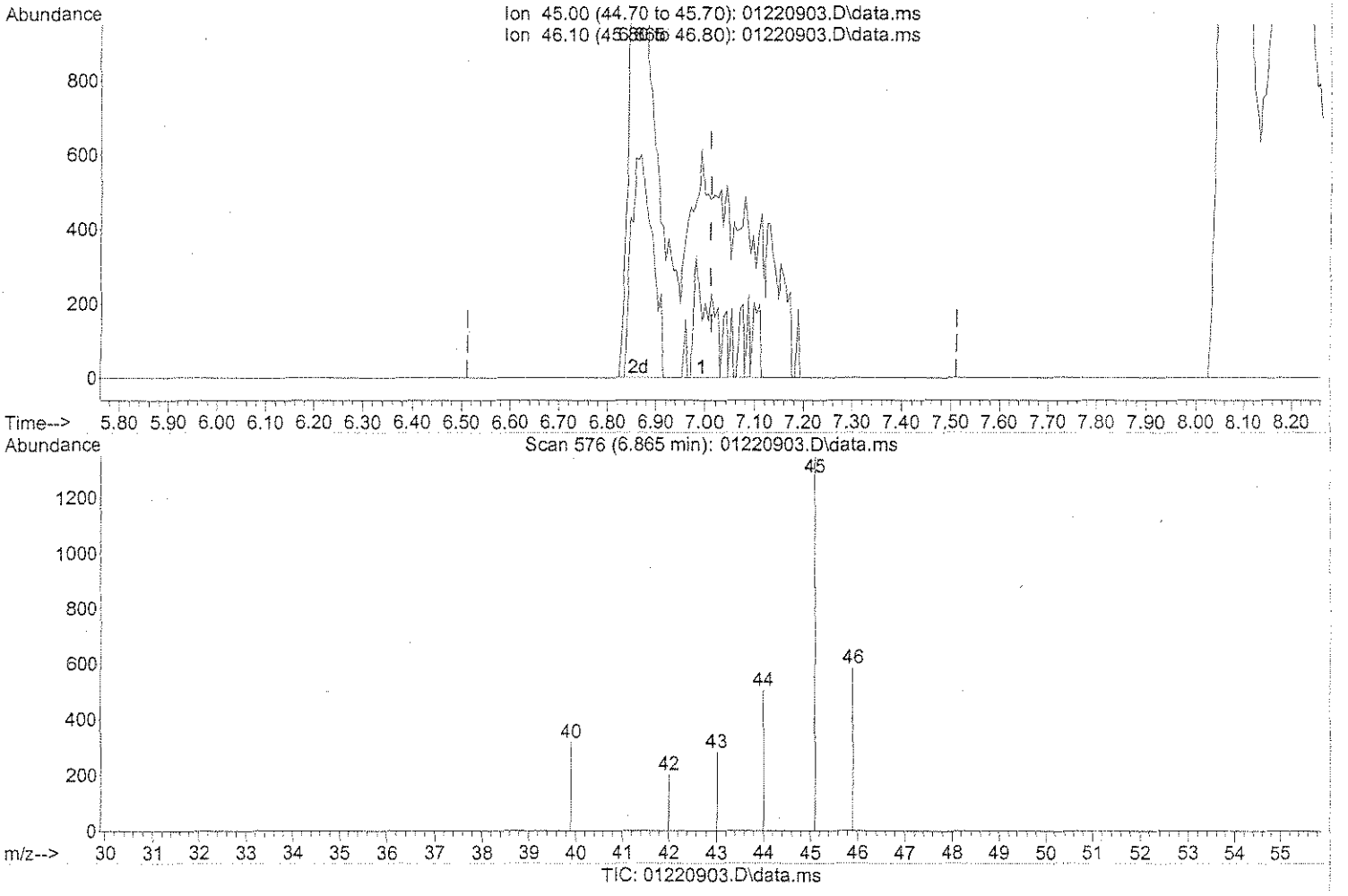
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	14.59#
0.00	0.00	0.00
0.00	0.00	0.00

103

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 15:26:10 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.865min (-0.148) 0.62ng m

response 10466

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	6.08#
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC in 01/23/09

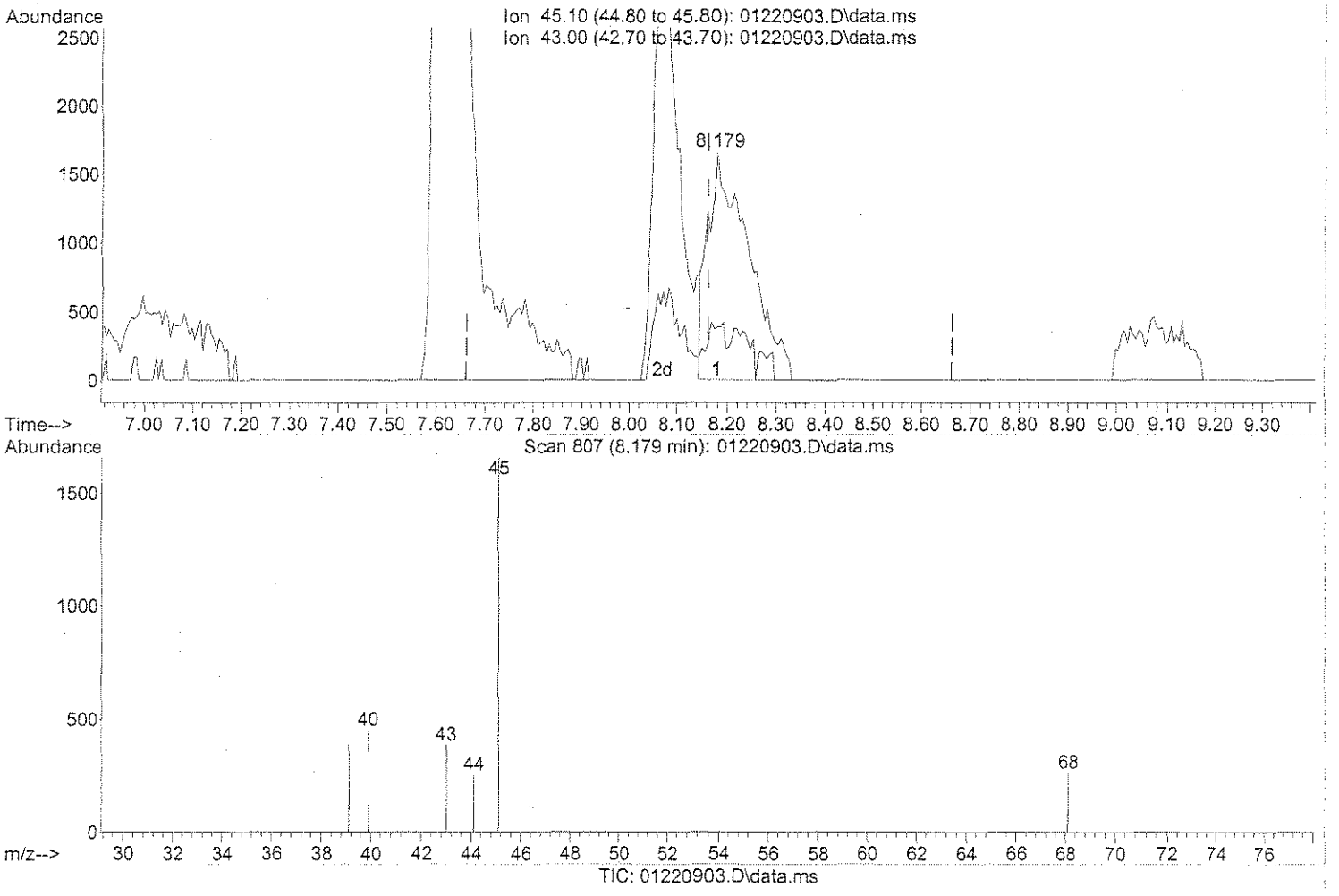
Em 1/23/09

1/24/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 15:26:10 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.179min (+0.017) 0.18ng

response 9375

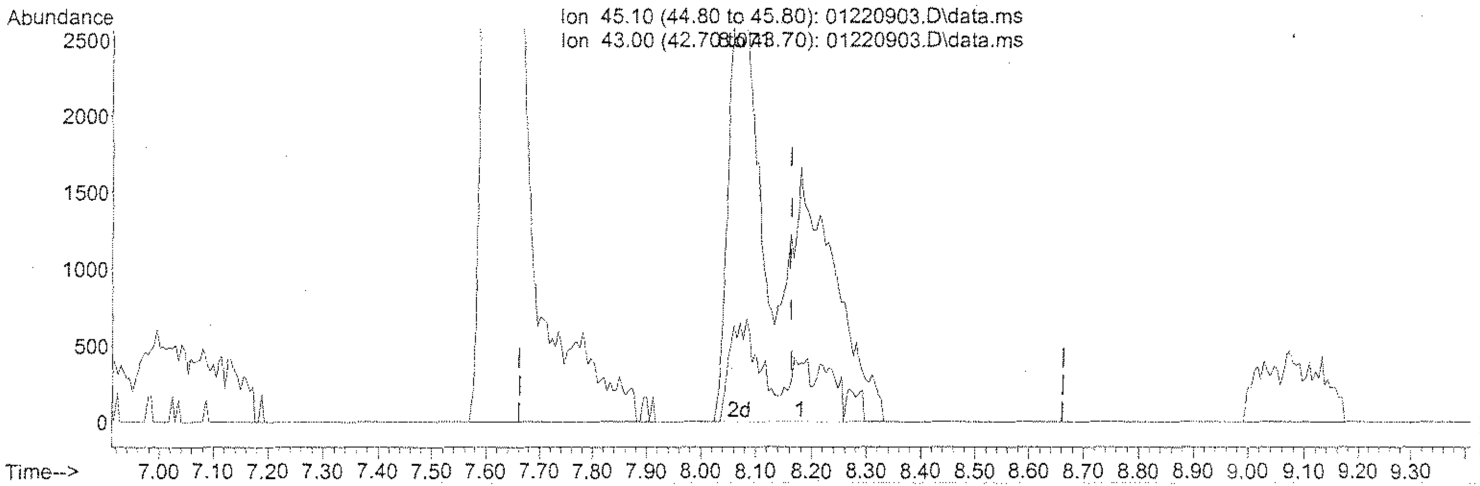
SP

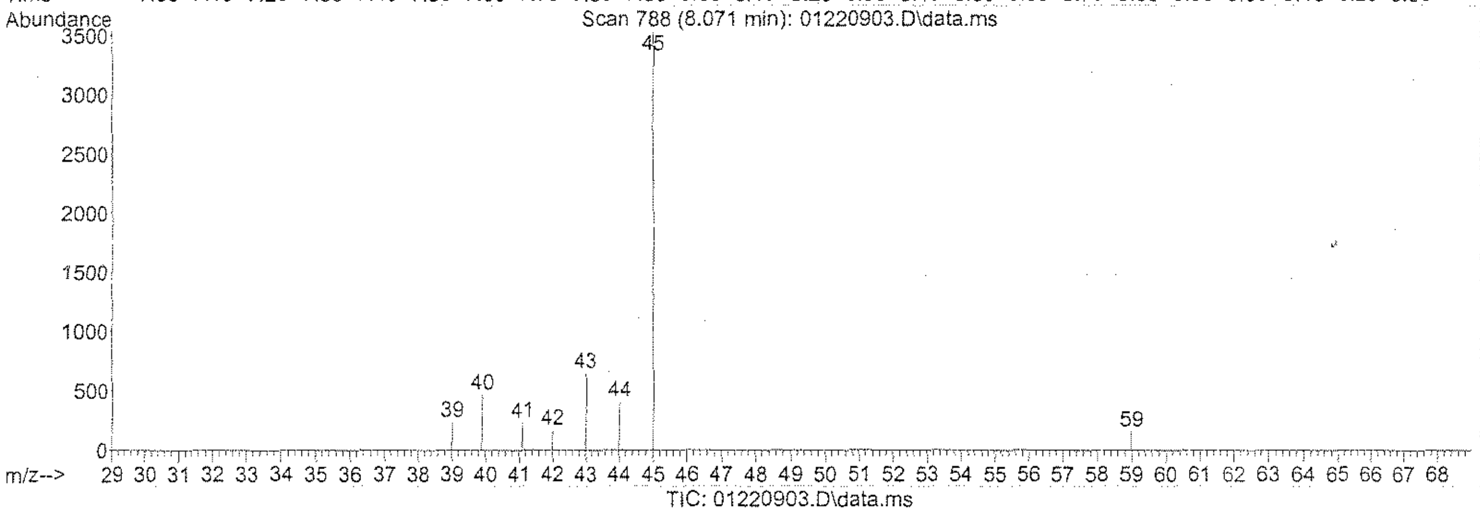
Ion	Exp%	Act%
45.10	100	100
43.00	17.10	11.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220903.D
Acq On : 22 Jan 2009 14:09
Operator : WA/LH
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-01050901/S20-01090915
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 22 15:26:10 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration





(15) Isopropanol (T)

8.071min (-0.091) 0.41ng m

response 21114

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	5.06
0.00	0.00	0.00
0.00	0.00	0.00

SP ⟶ IC
LH 01/23/09

Com 1/23/09

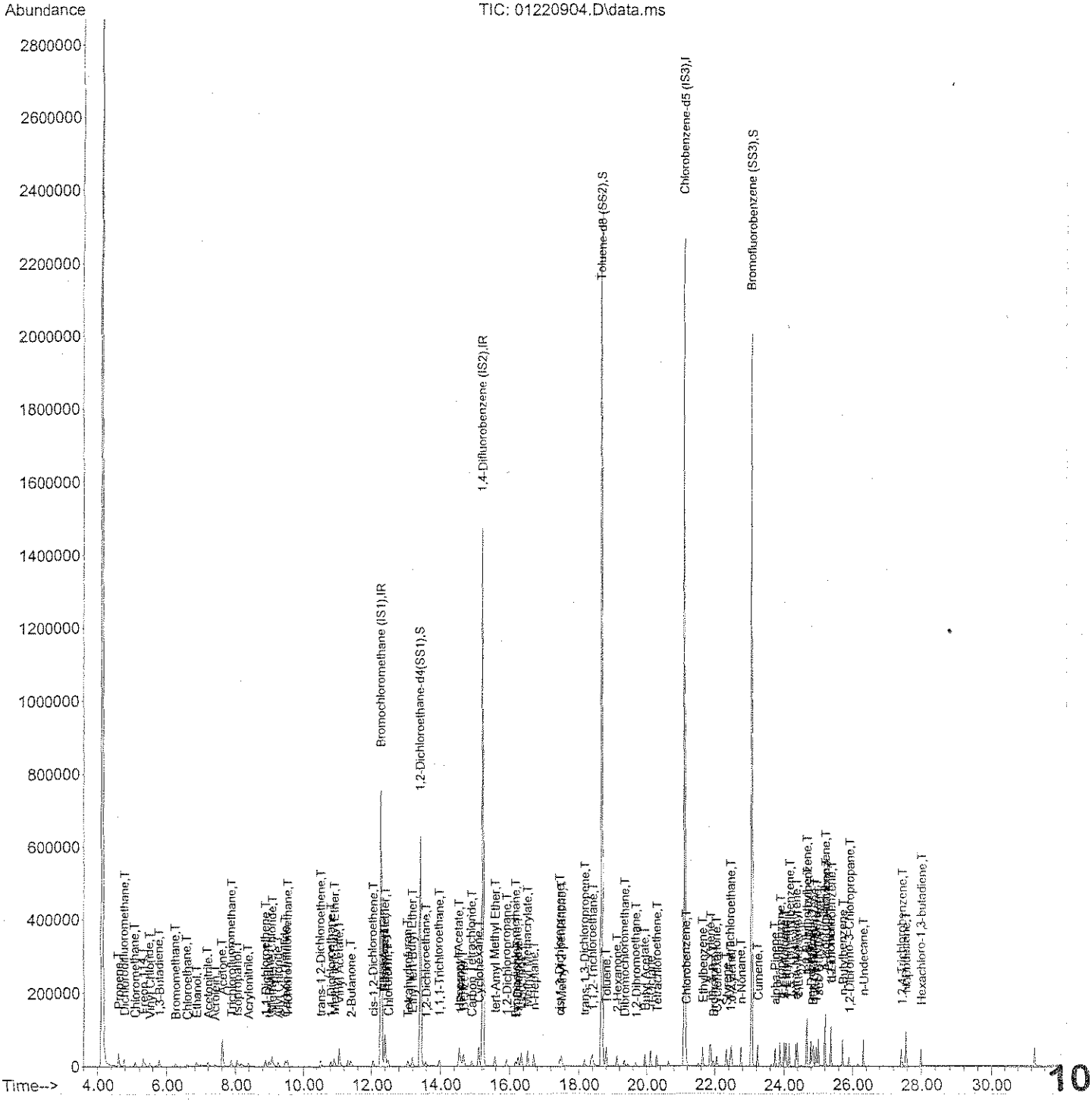
DH 1/24/09

106

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:22:46 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:22:46 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	386947	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.22	114	1770125	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.10	82	860455	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	639349	22.085	ng		-0.03
Spiked Amount 25.000			Recovery = 88.36%				
57) Toluene-d8 (SS2)	18.67	98	2024722	25.224	ng		-0.01
Spiked Amount 25.000			Recovery = 100.88%				
73) Bromofluorobenzene (SS3)	23.06	174	742061	27.734	ng		0.00
Spiked Amount 25.000			Recovery = 110.92%				
Target Compounds							Qvalue
2) Propene	4.61	42	11134	0.501	ng		92
3) Dichlorodifluoromethane	4.77	85	22790	0.588	ng		99
4) Chloromethane	5.08	50	18024	0.524	ng		99
5) Freon 114	5.32	135	10836	0.600	ng		88
6) Vinyl Chloride	5.51	62	16185	0.551	ng		84
7) 1,3-Butadiene	5.78	54	10484	0.474	ng		96
8) Bromomethane	6.25	94	7992	0.536	ng		95
9) Chloroethane	6.58	64	7316	0.577	ng		97
10) Ethanol	6.85	45	41573m	2.403	ng		
11) Acetonitrile	7.20	41	22624	0.573	ng		79
12) Acrolein	7.40	56	6042	0.648	ng		81
13) Acetone	7.61	58	41942	2.611	ng		93
14) Trichlorofluoromethane	7.88	101	19080	0.567	ng		96
15) Isopropanol	8.05	45	62404m	1.179	ng		
16) Acrylonitrile	8.38	53	13253	0.514	ng		96
17) 1,1-Dichloroethene	8.89	96	9673	0.596	ng	#	64
18) tert-Butanol	8.99	59	57434m	1.161	ng		
19) Methylene Chloride	9.08	84	10862	0.575	ng	#	55
20) Allyl Chloride	9.27	41	12072	0.447	ng		77
21) Trichlorotrifluoroethane	9.53	151	8709	0.592	ng		91
22) Carbon Disulfide	9.47	76	36061	0.550	ng		98
23) trans-1,2-Dichloroethene	10.51	61	14267	0.528	ng		73
24) 1,1-Dichloroethane	10.81	63	18126	0.528	ng		99
25) Methyl tert-Butyl Ether	10.92	73	26774	0.531	ng		84
26) Vinyl Acetate	11.06	86	9280	2.866	ng	#	10
27) 2-Butanone	11.41	72	6501	0.655	ng	#	52
28) cis-1,2-Dichloroethene	12.05	61	15207	0.561	ng		74
29) Diisopropyl Ether	12.40	87	7990	0.552	ng	#	20
30) Ethyl Acetate	12.40	61	7042	0.904	ng		79
31) n-Hexane	12.41	57	17257	0.480	ng		81

KH 1/24/09 LH 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:22:46 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.49	83	17676	0.565	ng		99
34) Tetrahydrofuran	13.06	72	6035	0.580	ng	#	51
35) Ethyl tert-Butyl Ether	13.19	87	11265	0.534	ng	#	72
36) 1,2-Dichloroethane	13.59	62	14804	0.524	ng		94
38) 1,1,1-Trichloroethane	13.97	97	15532	0.539	ng		93
39) Isopropyl Acetate	14.54	61	13409	1.113	ng	#	87
40) 1-Butanol	14.58	56	22226	1.157	ng	#	69
41) Benzene	14.67	78	40723	0.533	ng		100
42) Carbon Tetrachloride	14.90	117	13168	0.506	ng		99
43) Cyclohexane	15.10	84	27848	1.060	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	28617	0.547	ng		84
45) 1,2-Dichloropropane	15.91	63	10660	0.540	ng		98
46) Bromodichloromethane	16.17	83	13165	0.525	ng		98
47) Trichloroethene	16.24	130	11016	0.544	ng		96
48) 1,4-Dioxane	16.22	88	8145	0.610	ng	#	72
49) Isooctane	16.34	57	47408	0.550	ng		99
50) Methyl Methacrylate	16.52	100	8117	1.210	ng	#	88
51) n-Heptane	16.71	71	10438	0.562	ng	#	73
52) cis-1,3-Dichloropropene	17.46	75	14519	0.509	ng		97
53) 4-Methyl-2-pentanone	17.51	58	10186	0.566	ng		79
54) trans-1,3-Dichloropropene	18.17	75	14746	0.564	ng		97
55) 1,1,2-Trichloroethane	18.40	97	9946	0.588	ng		98
58) Toluene	18.80	91	46247	0.579	ng		99
59) 2-Hexanone	19.12	43	28186	0.570	ng		95
60) Dibromochloromethane	19.35	129	12161	0.638	ng		99
61) 1,2-Dibromoethane	19.68	107	11552	0.584	ng		98
62) Butyl Acetate	19.95	43	31970	0.596	ng		96
63) n-Octane	20.11	57	9945	0.559	ng	#	68
64) Tetrachloroethene	20.30	166	12158	0.600	ng		100
65) Chlorobenzene	21.16	112	30592	0.602	ng		98
66) Ethylbenzene	21.64	91	48392	0.558	ng		99
67) m- & p-Xylene	21.87	91	74767	1.087	ng		97
68) Bromoform	21.96	173	9897	0.569	ng		98
69) Styrene	22.33	104	28995	0.593	ng		95
70) o-Xylene	22.47	91	38812	0.565	ng		99
71) n-Nonane	22.75	43	23892	0.596	ng		89
72) 1,1,2,2-Tetrachloroethane	22.44	83	17902	0.558	ng		95
74) Cumene	23.24	105	50343	0.560	ng		98
75) alpha-Pinene	23.74	93	22971	0.602	ng		94
76) n-Propylbenzene	23.88	91	60926	0.555	ng		97
77) 3-Ethyltoluene	24.01	105	48076	0.606	ng		96
78) 4-Ethyltoluene	24.06	105	48601	0.614	ng		96
79) 1,3,5-Trimethylbenzene	24.15	105	40779	0.607	ng		95

1/24/09 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:22:46 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

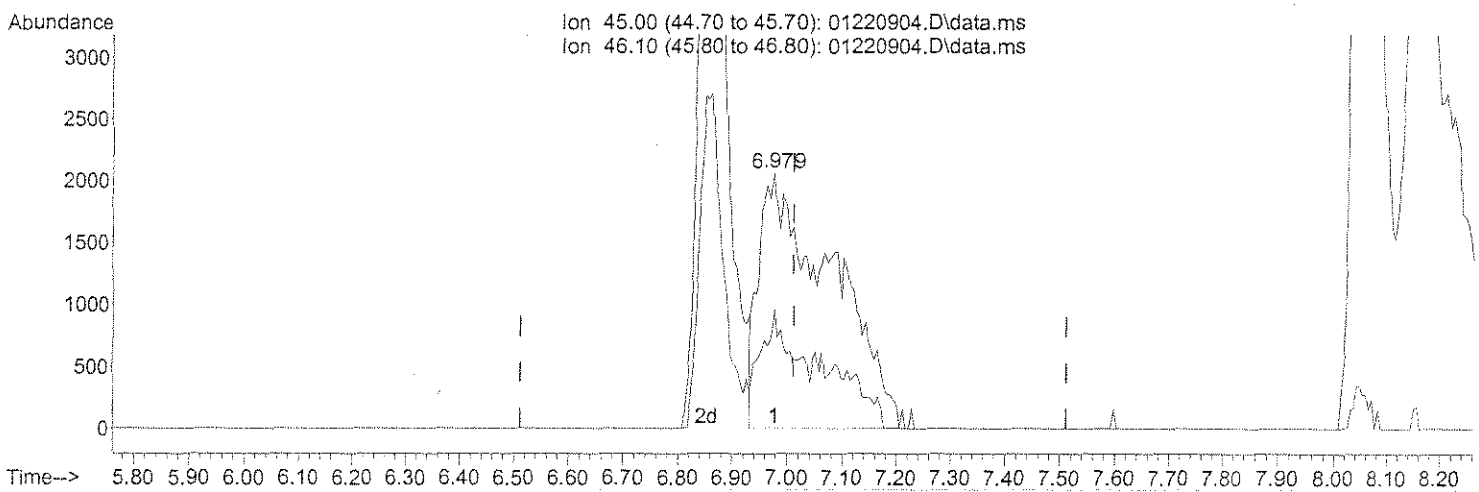
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	21923	0.605	ng		94
81) 2-Ethyltoluene	24.40	105	49352	0.606	ng		96
82) 1,2,4-Trimethylbenzene	24.67	105	40863	0.624	ng		90
83) n-Decane	24.79	57	25013	0.670	ng		79
84) Benzyl Chloride	24.84	91	33919	0.573	ng		96
85) 1,3-Dichlorobenzene	24.86	146	25055	0.618	ng		99
86) 1,4-Dichlorobenzene	24.95	146	25455	0.617	ng		100
87) sec-Butylbenzene	25.00	105	55389	0.595	ng		100
88) p-Isopropyltoluene	25.20	119	50500	0.614	ng		96
89) 1,2,3-Trimethylbenzene	25.20	105	41771	0.640	ng		88
90) 1,2-Dichlorobenzene	25.37	146	23462	0.571	ng		94
91) d-Limonene	25.37	68	16217	0.530	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	8131	0.619	ng		91
93) n-Undecane	26.32	57	26212	0.846	ng		81
94) 1,2,4-Trichlorobenzene	27.43	184	5211	0.900	ng	#	91
95) Naphthalene	27.57	128	58179	0.919	ng		99
96) n-Dodecane	27.55	57	25257	1.032	ng		77
97) Hexachloro-1,3-butadiene	27.99	225	10264	0.730	ng		99
98) Cyclohexanone	22.05	55	17622	0.548	ng		95
99) tert-Butylbenzene	24.67	119	40756	0.620	ng		99
100) n-Butylbenzene	25.71	91	44745	0.657	ng		97

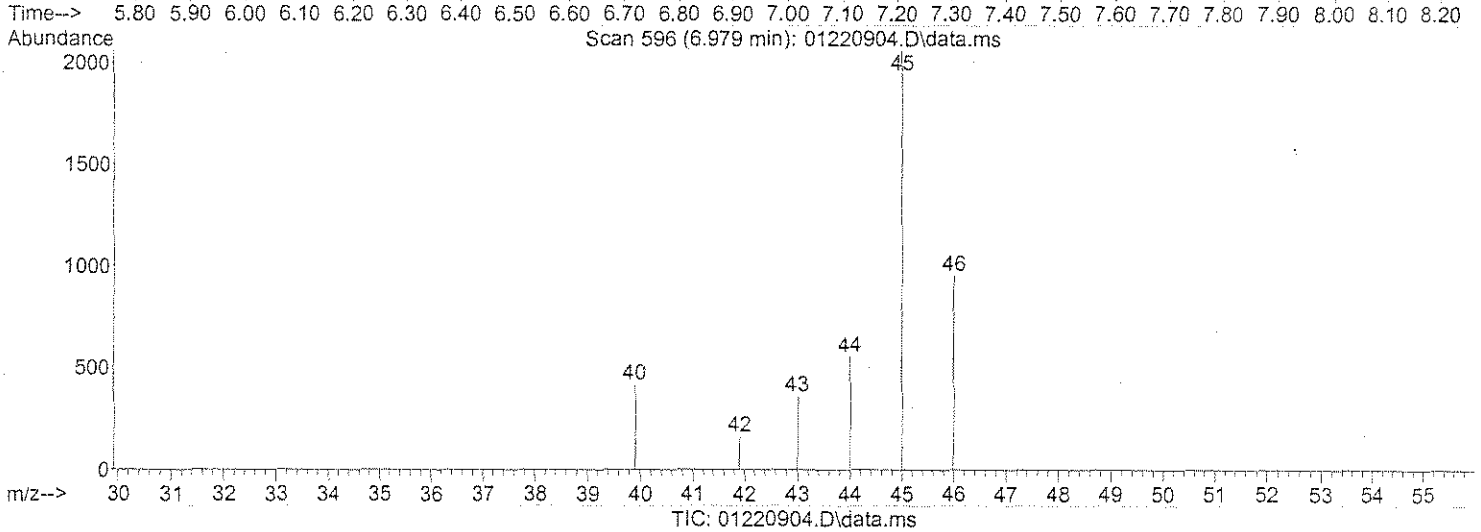
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 15:26:28 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration





TIC: 01220904.D\data.ms

(10) Ethanol (T)

6.979min (-0.034) 1.10ng

response 19003

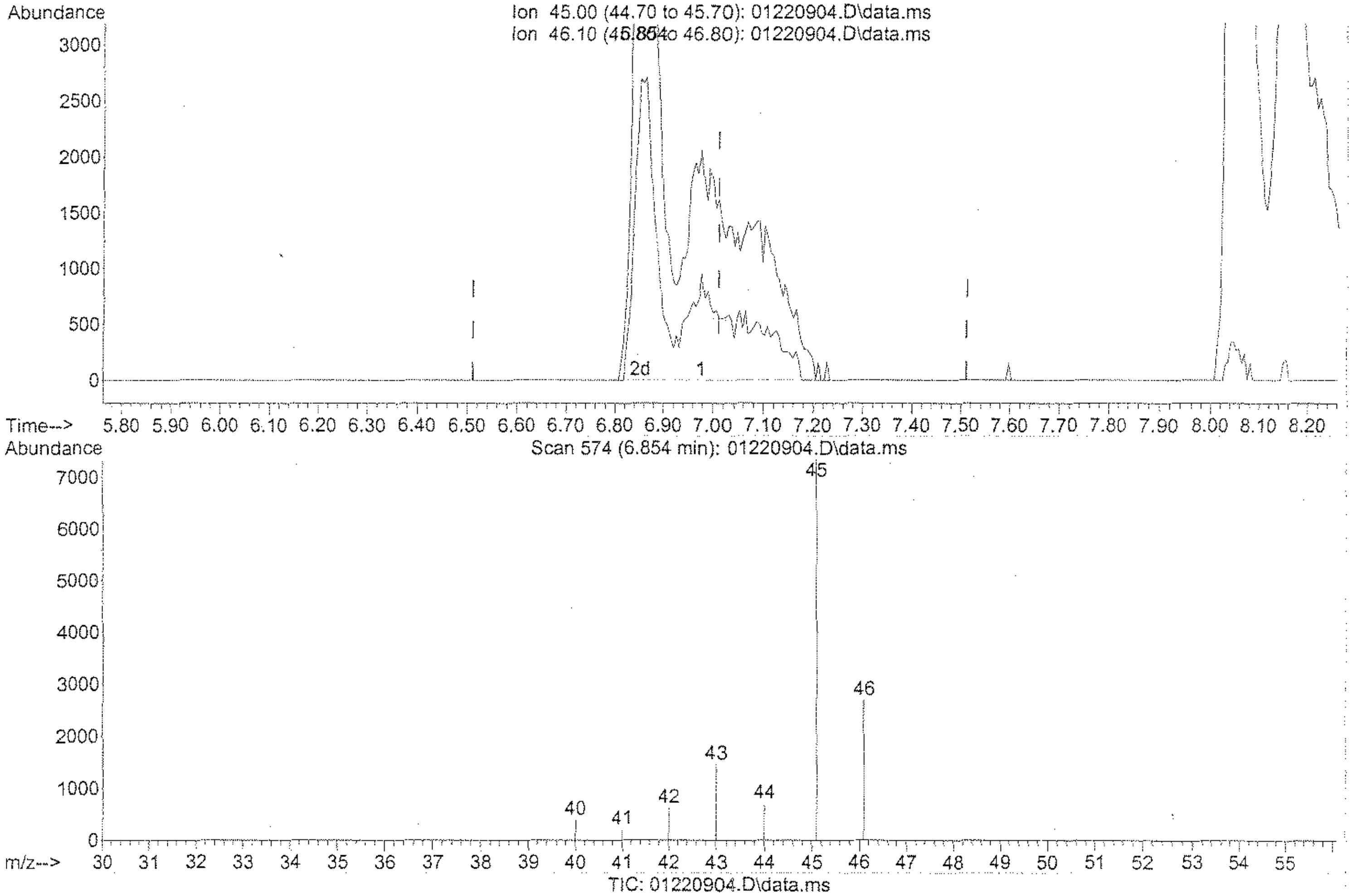
SP

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	21.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 15:26:28 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.854min (-0.159) 2.40ng m

response 41573

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	9.74#
0.00	0.00	0.00
0.00	0.00	0.00

SP ⟶ IC
LH 01/23/09

Em 1/23/09

AB 1/24/09

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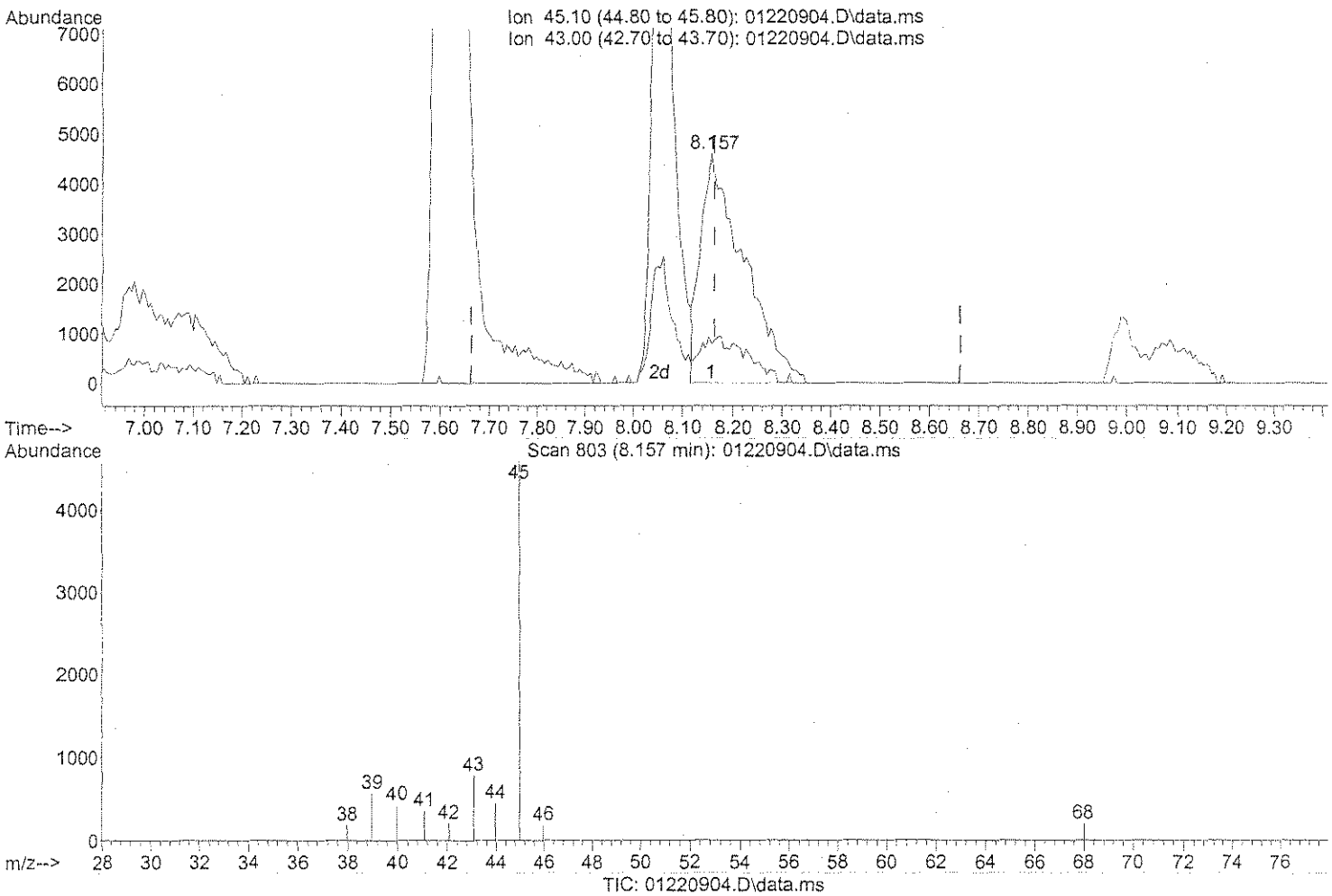
Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 15:26:28 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.157min (-0.006) 0.52ng

response 27460

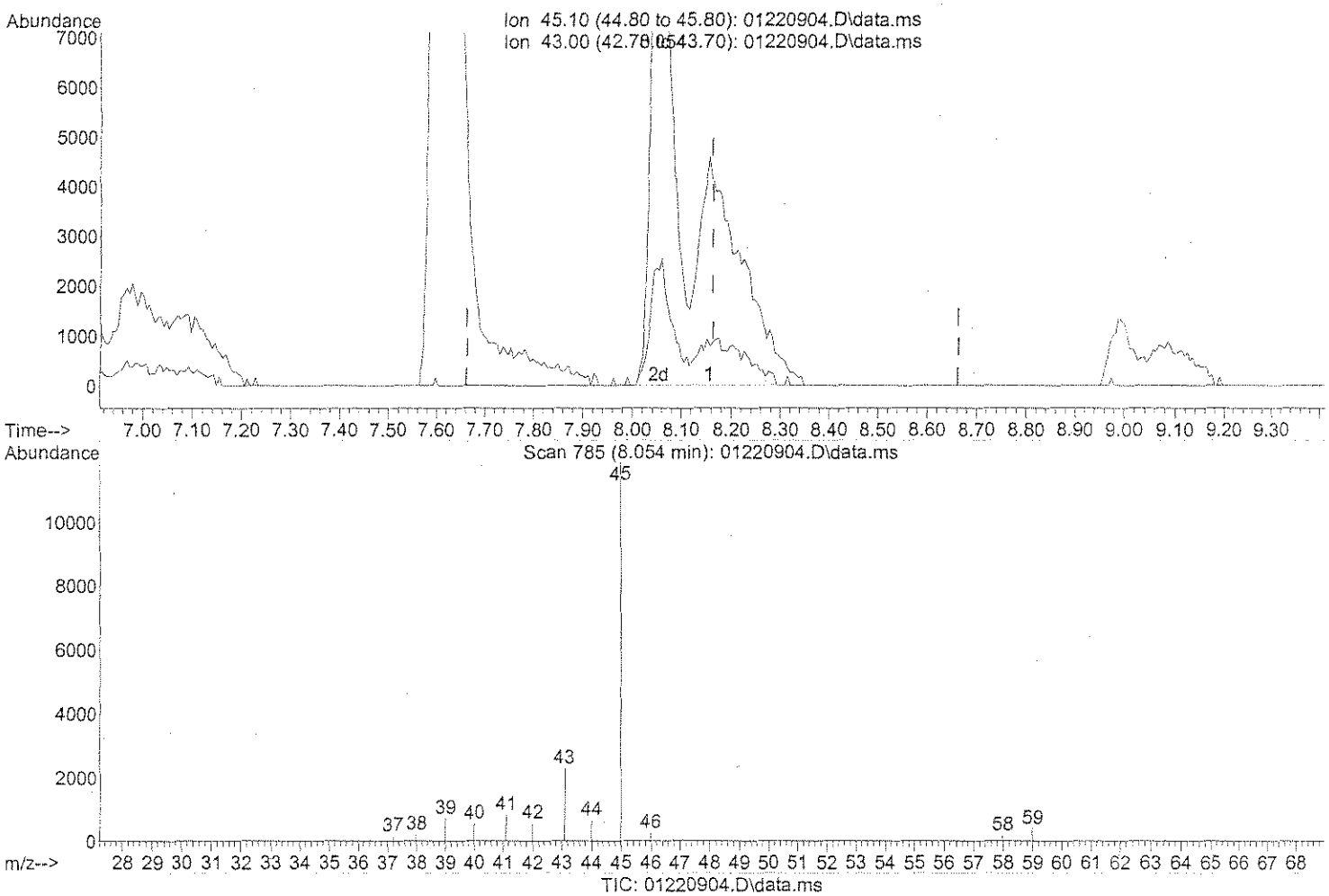
Ion	Exp%	Act%
45.10	100	100
43.00	17.10	21.40
0.00	0.00	0.00
0.00	0.00	0.00

SP

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 15:26:28 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.054min (-0.108) 1.18ng m

response 62404

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	9.42
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
LH 01/23/09
Em 1/23/09
1/24/09

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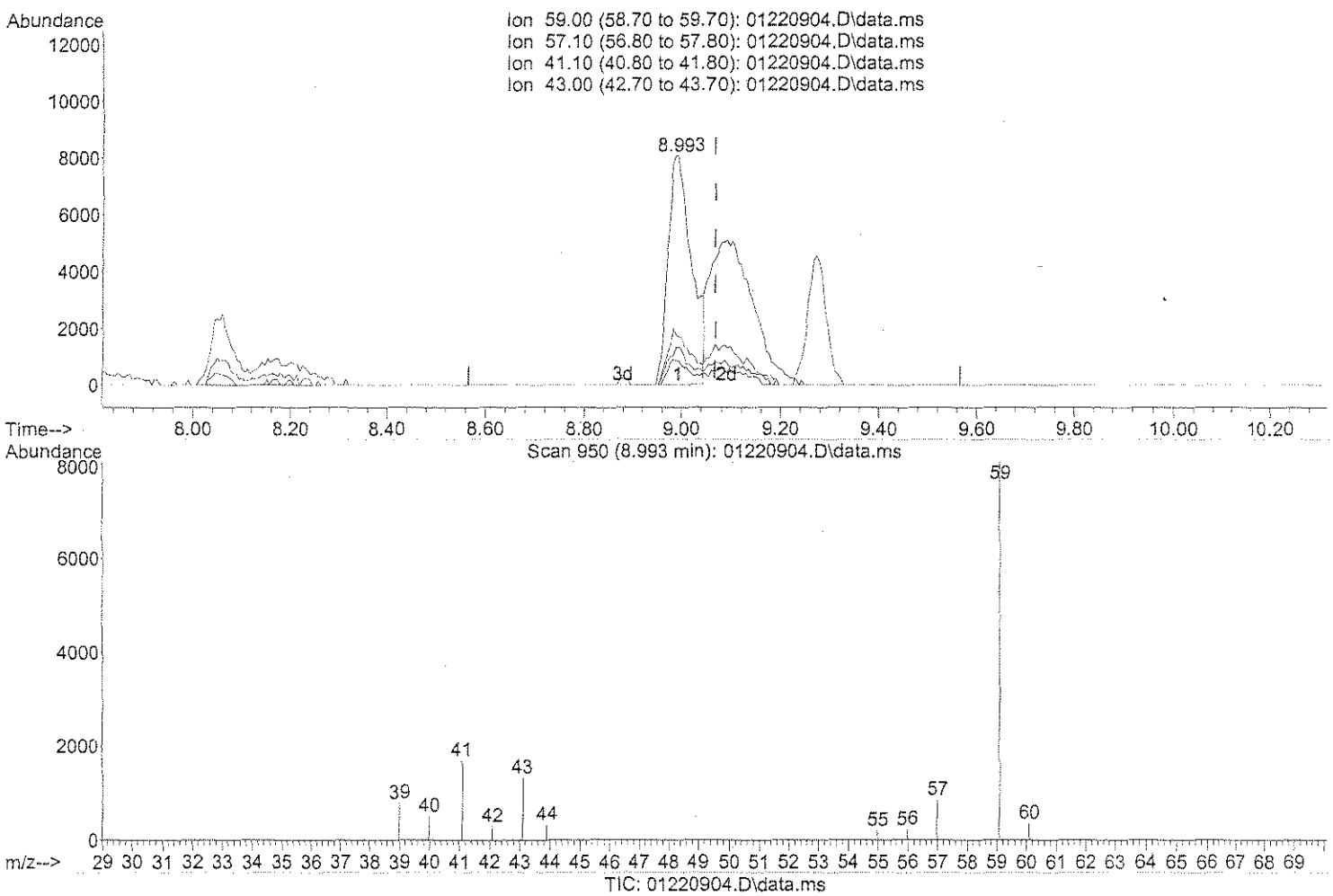
Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 15:26:28 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(18) tert-Butanol (T)

8.993min (-0.074) 0.55ng

response 27074

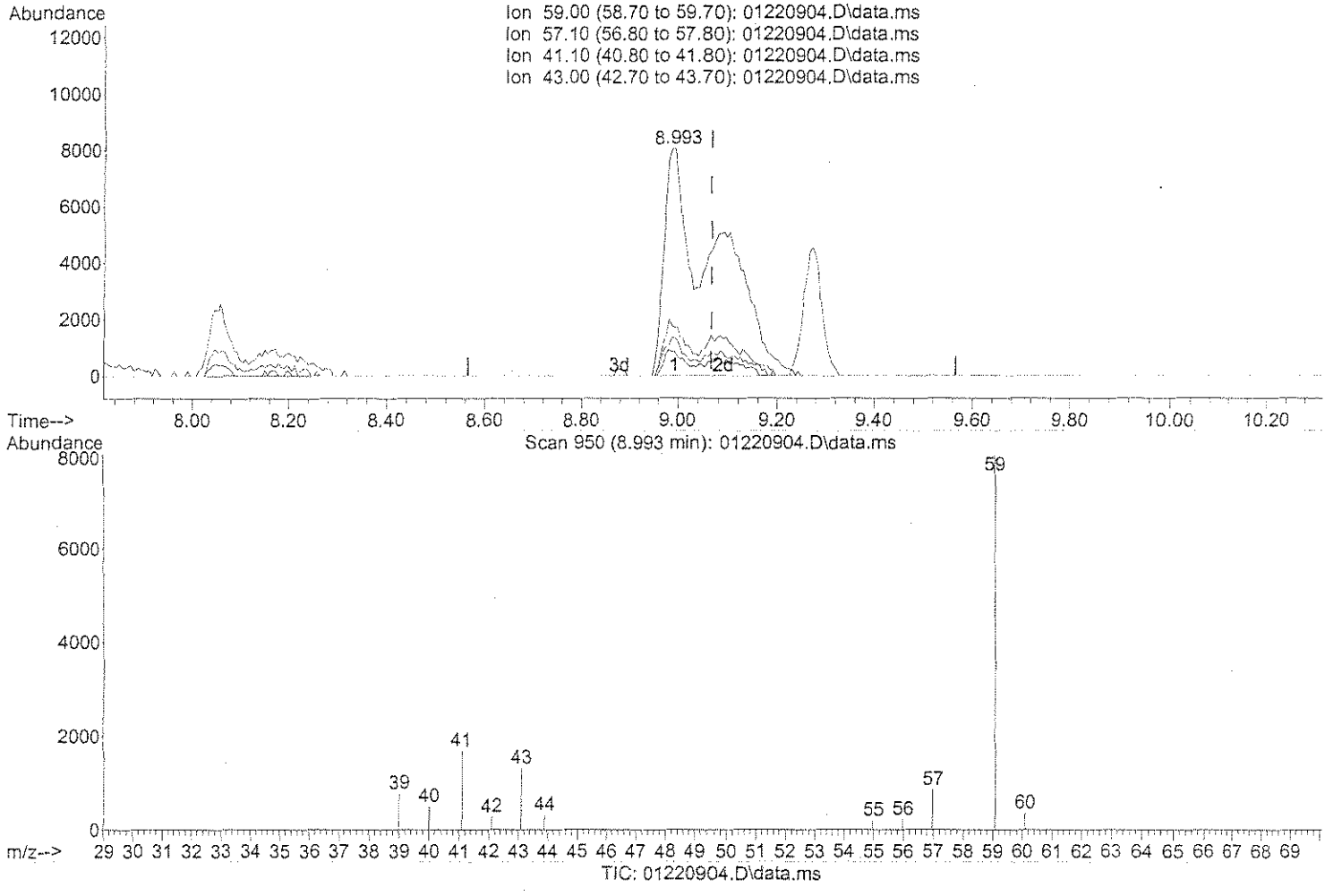
Ion	Exp%	Act%
59.00	100	100
57.10	10.50	11.02
41.10	23.00	23.55
43.00	14.50	15.97

SP

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220904.D
Acq On : 22 Jan 2009 14:50
Operator : WA/LH
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 15:26:28 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(18) tert-Butanol (T)

8.993min (-0.074) 1.16ng m

response 57434

Ion	Exp%	Act%
59.00	100	100
57.10	10.50	5.19
41.10	23.00	11.10
43.00	14.50	7.53

SP → IC
VM 01/23/09

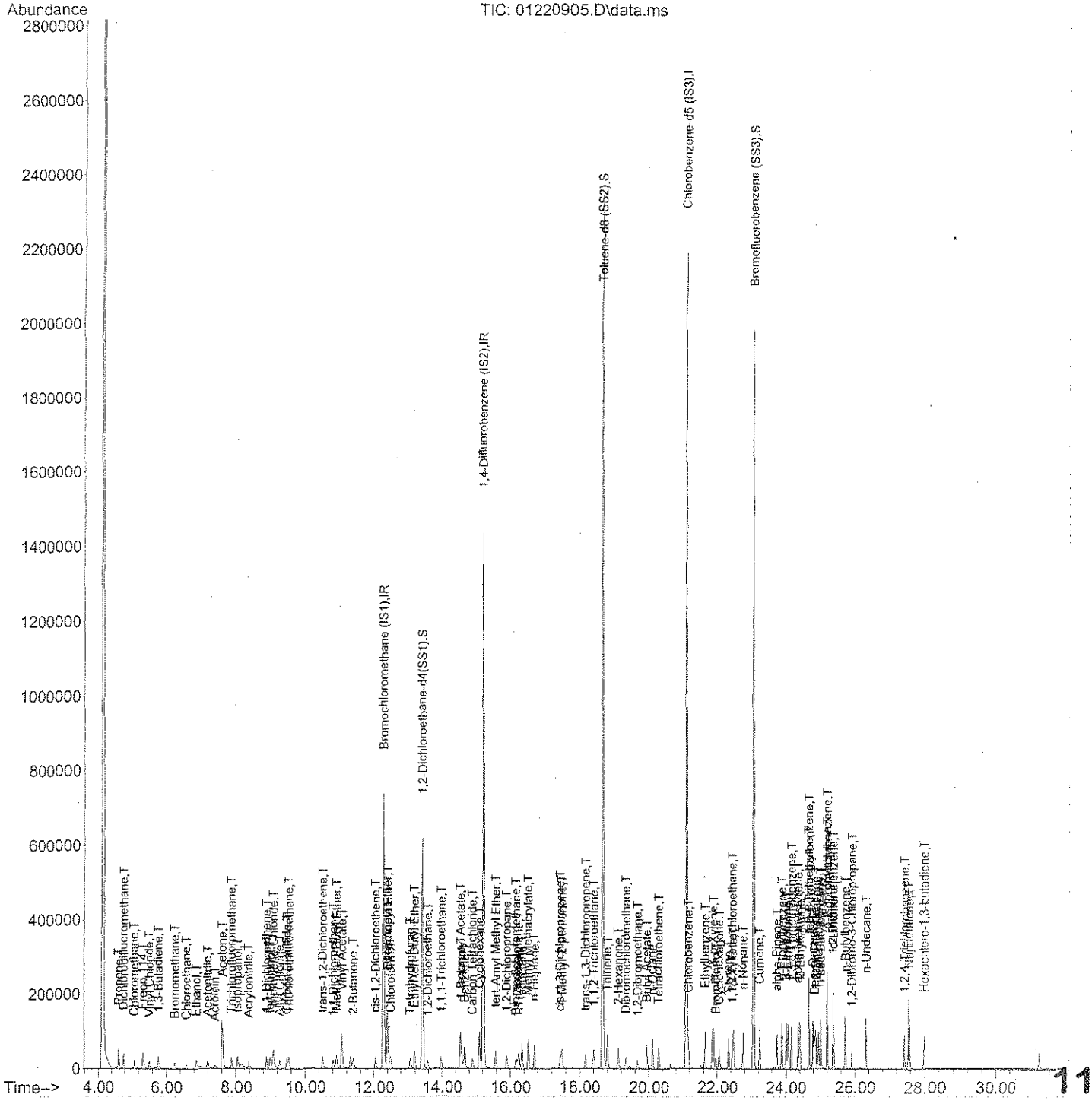
Com 1/22/09

ASH 1/24/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	381959	25.000 ng	-0.04
37) 1,4-Difluorobenzene (IS2)	15.22	114	1739837	25.000 ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.10	82	844687	25.000 ng	-0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4(...	13.42	65	626113	21.911 ng	-0.03
Spiked Amount 25.000				Recovery = 87.64%	
57) Toluene-d8 (SS2)	18.67	98	1990880	25.265 ng	-0.01
Spiked Amount 25.000				Recovery = 101.08%	
73) Bromofluorobenzene (SS3)	23.06	174	731192	27.838 ng	0.00
Spiked Amount 25.000				Recovery = 111.36%	

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
2) Propene	4.60	42	19974	0.911 ng		90
3) Dichlorodifluoromethane	4.76	85	40850	1.068 ng		99
4) Chloromethane	5.07	50	32057	0.945 ng		98
5) Freon 114	5.32	135	19254	1.079 ng		87
6) Vinyl Chloride	5.51	62	27487	0.948 ng		86
7) 1,3-Butadiene	5.78	54	18957	0.869 ng		96
8) Bromomethane	6.25	94	14511	0.985 ng		98
9) Chloroethane	6.57	64	13266	1.060 ng		97
10) Ethanol	6.86	45	73179m	4.285 ng		
11) Acetonitrile	7.19	41	40193	1.032 ng		98
12) Acrolein	7.40	56	10743	1.167 ng		81
13) Acetone	7.61	58	73830	4.656 ng		92
14) Trichlorofluoromethane	7.88	101	34331	1.034 ng		94
15) Isopropanol	8.05	45	111661m	2.138 ng		
16) Acrylonitrile	8.37	53	27258	1.071 ng		97
17) 1,1-Dichloroethene	8.88	96	17476	1.091 ng	#	66
18) tert-Butanol	8.99	59	103985m	2.129 ng		
19) Methylene Chloride	9.08	84	19140	1.027 ng	#	54
20) Allyl Chloride	9.27	41	23124	0.867 ng		77
21) Trichlorotrifluoroethane	9.53	151	15641	1.077 ng		89
22) Carbon Disulfide	9.47	76	65166	1.006 ng		100
23) trans-1,2-Dichloroethene	10.51	61	27139	1.018 ng		76
24) 1,1-Dichloroethane	10.81	63	33257	0.982 ng		96
25) Methyl tert-Butyl Ether	10.91	73	47197	0.949 ng		85
26) Vinyl Acetate	11.06	86	16473	5.154 ng	#	7
27) 2-Butanone	11.40	72	11726	1.197 ng	#	44
28) cis-1,2-Dichloroethene	12.05	61	28504	1.065 ng		77
29) Diisopropyl Ether	12.40	87	14552	1.018 ng	#	18
30) Ethyl Acetate	12.40	61	13391	1.741 ng		85
31) n-Hexane	12.41	57	30930	0.871 ng		8[illegible]

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Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.49	83	32329	1.048	ng		97
34) Tetrahydrofuran	13.07	72	10937	1.064	ng	#	52
35) Ethyl tert-Butyl Ether	13.19	87	20566	0.988	ng	#	70
36) 1,2-Dichloroethane	13.59	62	26942	0.966	ng		97
38) 1,1,1-Trichloroethane	13.98	97	27647	0.976	ng		95
39) Isopropyl Acetate	14.54	61	24491	2.069	ng	#	87
40) 1-Butanol	14.56	56	42440	2.247	ng	#	73
41) Benzene	14.67	78	73440	0.979	ng		99
42) Carbon Tetrachloride	14.90	117	24184	0.945	ng		98
43) Cyclohexane	15.10	84	50627	1.961	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	50328	0.979	ng		86
45) 1,2-Dichloropropane	15.90	63	19410	1.000	ng		100
46) Bromodichloromethane	16.17	83	24448	0.992	ng		99
47) Trichloroethene	16.25	130	20163	1.013	ng		96
48) 1,4-Dioxane	16.22	88	15184	1.158	ng	#	67
49) Isooctane	16.34	57	87266	1.029	ng		99
50) Methyl Methacrylate	16.52	100	15385	2.333	ng		91
51) n-Heptane	16.70	71	19300	1.057	ng	#	72
52) cis-1,3-Dichloropropene	17.46	75	27016	0.964	ng		99
53) 4-Methyl-2-pentanone	17.51	58	18897	1.069	ng		79
54) trans-1,3-Dichloropropene	18.17	75	27893	1.085	ng		98
55) 1,1,2-Trichloroethane	18.41	97	17658	1.061	ng		97
58) Toluene	18.80	91	85075	1.085	ng		98
59) 2-Hexanone	19.12	43	52878	1.090	ng		93
60) Dibromochloromethane	19.34	129	21721	1.161	ng		100
61) 1,2-Dibromoethane	19.68	107	21365	1.100	ng		100
62) Butyl Acetate	19.95	43	60295	1.145	ng		97
63) n-Octane	20.11	57	18216	1.042	ng	#	66
64) Tetrachloroethene	20.29	166	21948	1.104	ng		99
65) Chlorobenzene	21.16	112	55542	1.114	ng		100
66) Ethylbenzene	21.64	91	90951	1.068	ng		99
67) m- & p-Xylene	21.88	91	139979	2.074	ng		99
68) Bromoform	21.96	173	18564	1.086	ng		97
69) Styrene	22.33	104	54072	1.127	ng		96
70) o-Xylene	22.47	91	71597	1.062	ng		100
71) n-Nonane	22.75	43	44647	1.134	ng		90
72) 1,1,2,2-Tetrachloroethane	22.44	83	33990	1.079	ng		97
74) Cumene	23.23	105	94619	1.073	ng		97
75) alpha-Pinene	23.74	93	42870	1.144	ng		97
76) n-Propylbenzene	23.88	91	113276	1.050	ng		97
77) 3-Ethyltoluene	24.01	105	90110	1.158	ng		95
78) 4-Ethyltoluene	24.06	105	90973	1.171	ng		96
79) 1,3,5-Trimethylbenzene	24.15	105	75794	1.150	ng		95

DM 1/24/09 MM 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	41702	1.172	ng		94
81) 2-Ethyltoluene	24.40	105	93625	1.170	ng		96
82) 1,2,4-Trimethylbenzene	24.67	105	77039	1.198	ng		91
83) n-Decane	24.79	57	47359	1.293	ng		80
84) Benzyl Chloride	24.83	91	66188	1.140	ng		97
85) 1,3-Dichlorobenzene	24.87	146	47192	1.186	ng		98
86) 1,4-Dichlorobenzene	24.95	146	47489	1.173	ng		99
87) sec-Butylbenzene	25.00	105	105089	1.150	ng		99
88) p-Isopropyltoluene	25.20	119	96633	1.197	ng		96
89) 1,2,3-Trimethylbenzene	25.20	105	79277	1.237	ng		90
90) 1,2-Dichlorobenzene	25.37	146	43846	1.087	ng		97
91) d-Limonene	25.37	68	30881	1.029	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	15772	1.223	ng		87
93) n-Undecane	26.32	57	50158	1.648	ng		79
94) 1,2,4-Trichlorobenzene	27.43	184	9972	1.755	ng	#	90
95) Naphthalene	27.57	128	112840	1.816	ng		98
96) n-Dodecane	27.55	57	49759	2.070	ng		78
97) Hexachloro-1,3-butadiene	27.98	225	19528	1.414	ng		100
98) Cyclohexanone	22.06	55	32363	1.026	ng		95
99) tert-Butylbenzene	24.67	119	76685	1.189	ng		100
100) n-Butylbenzene	25.71	91	86271	1.290	ng		97

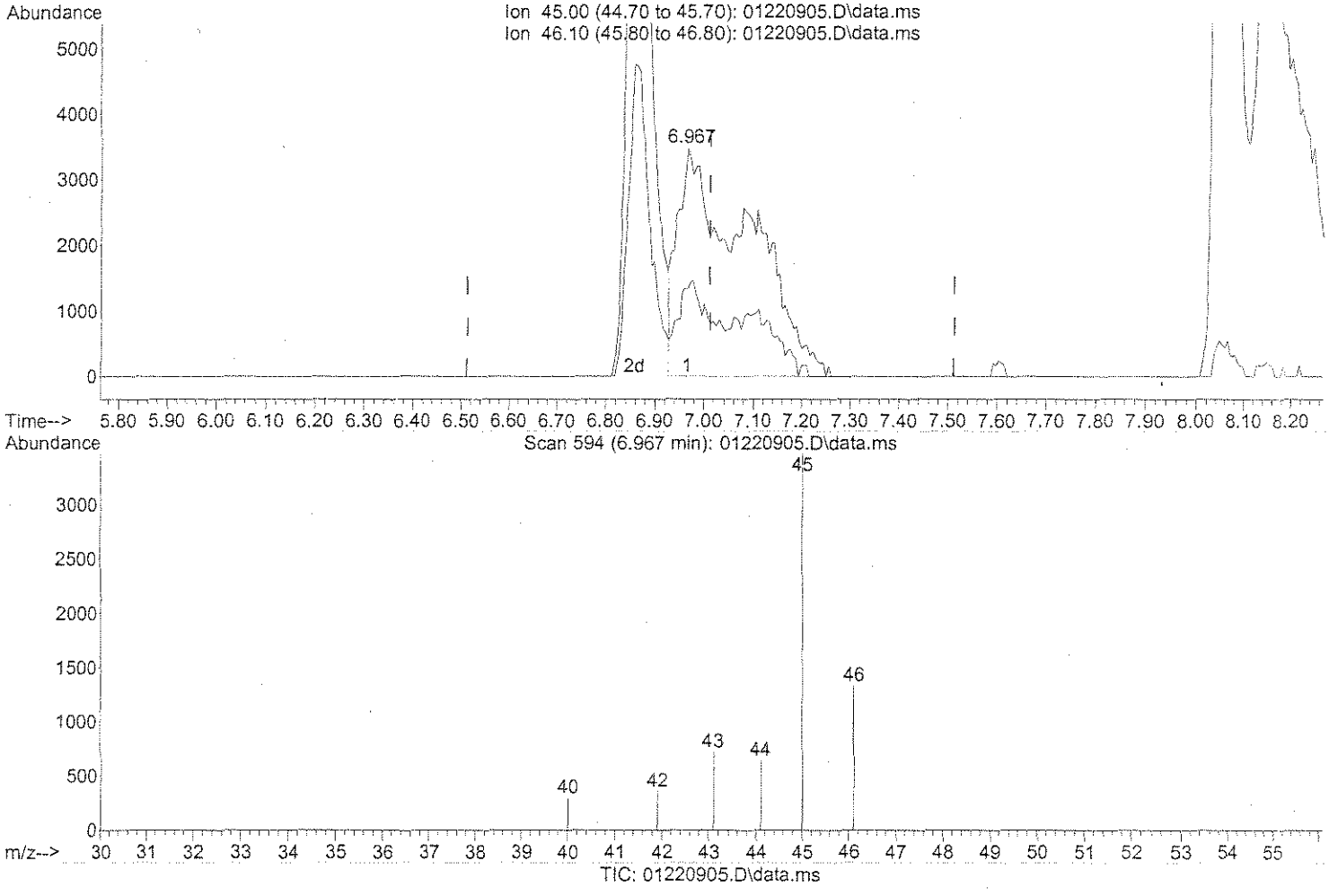
(#) = qualifier out of range (m) = manual integration (+) = signals summed

1/24/09 01/23/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:07:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.967min (-0.046) 2.05ng

response 35011

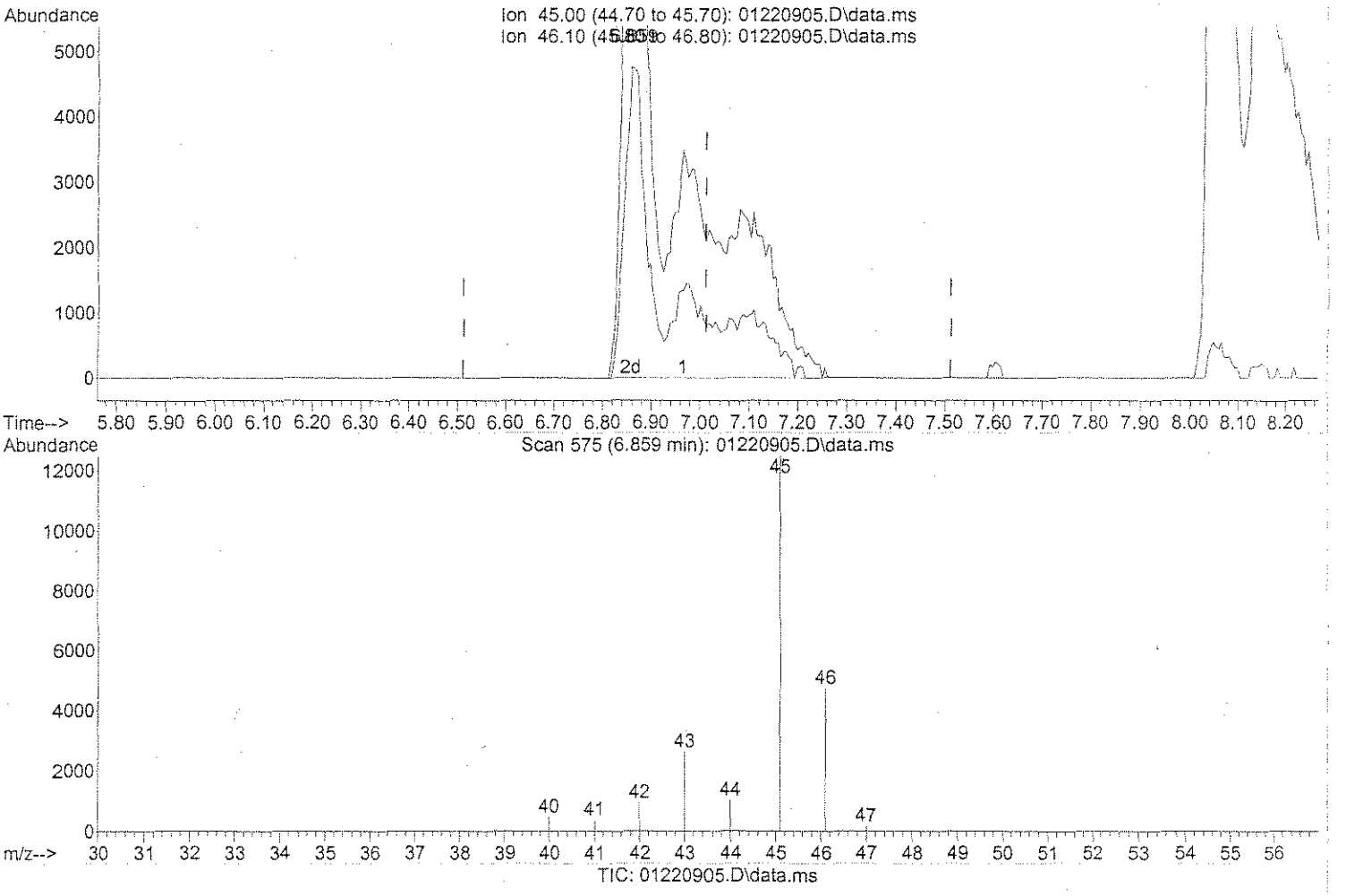
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	21.04
0.00	0.00	0.00
0.00	0.00	0.00

SP

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:07:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.859min (-0.154) 4.29ng m

response 73179

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	10.06#
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
in. 01/23/09

CM 1/23/09

DM 1/24/09

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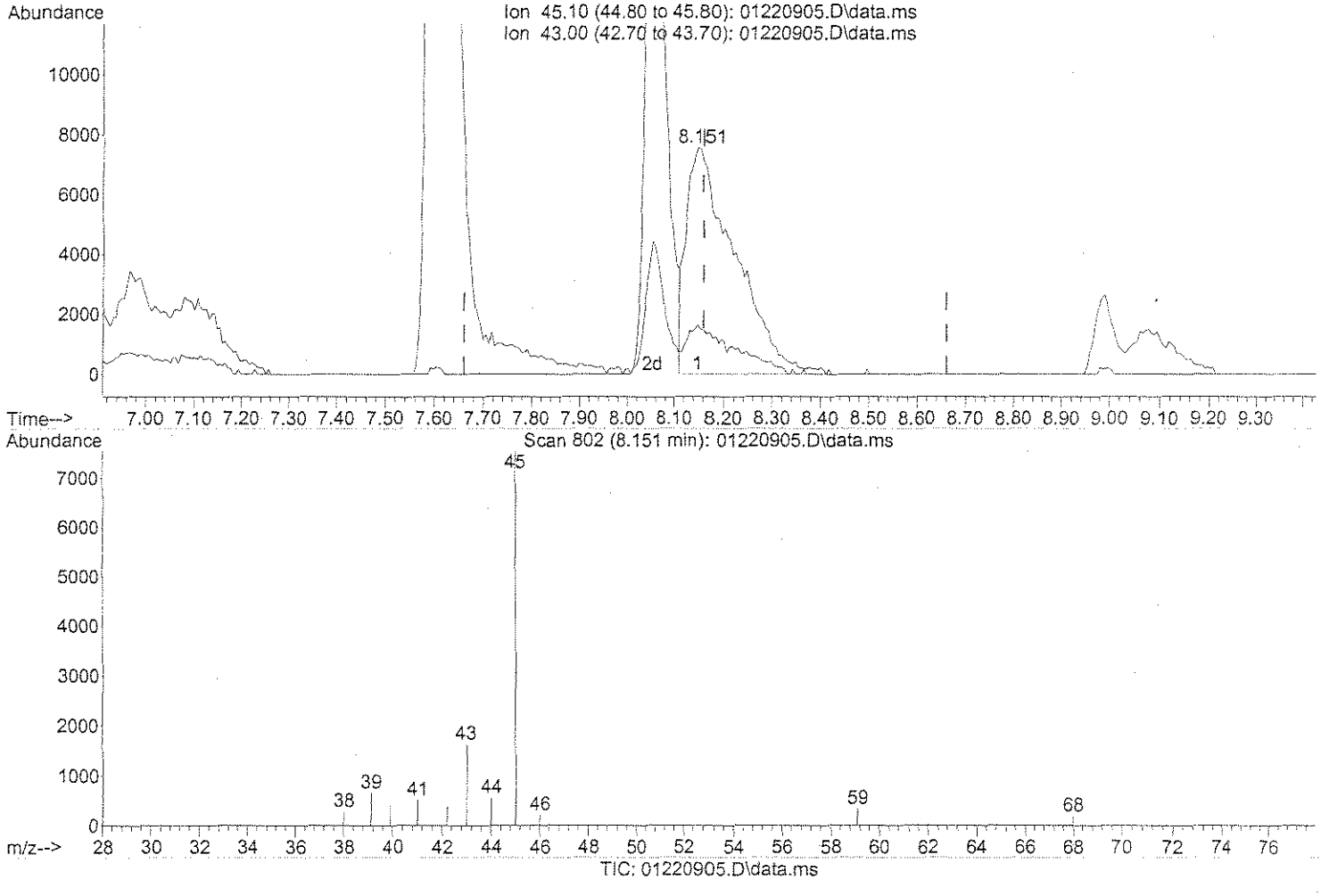
Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:07:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.151min (-0.011) 0.99ng

response 51652

SP

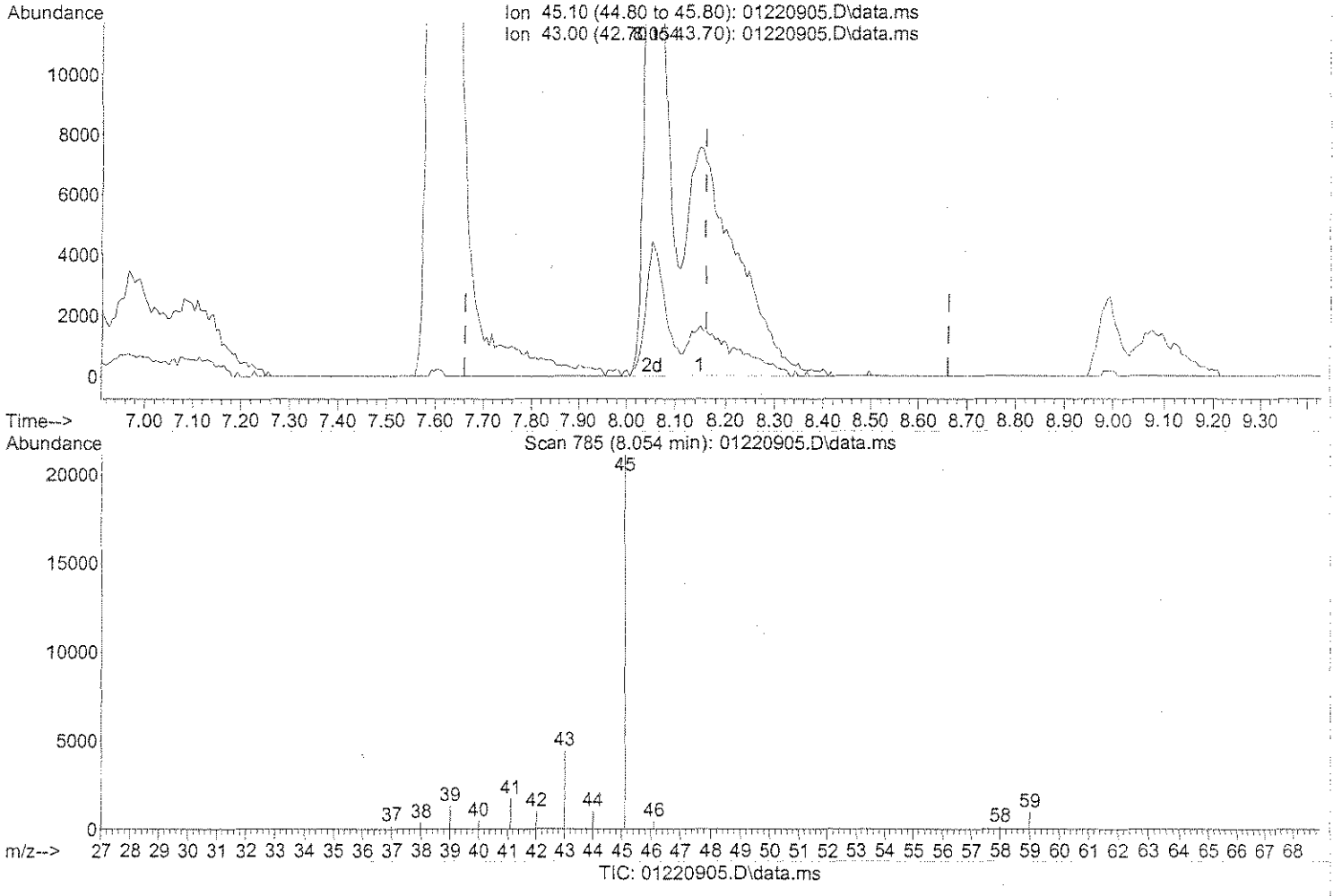
Ion	Exp%	Act%
45.10	100	100
43.00	17.10	20.78
0.00	0.00	0.00
0.00	0.00	0.00

123

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:07:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.054min (-0.108) 2.14ng m

response 111661

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	9.61
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC in 01/23/09

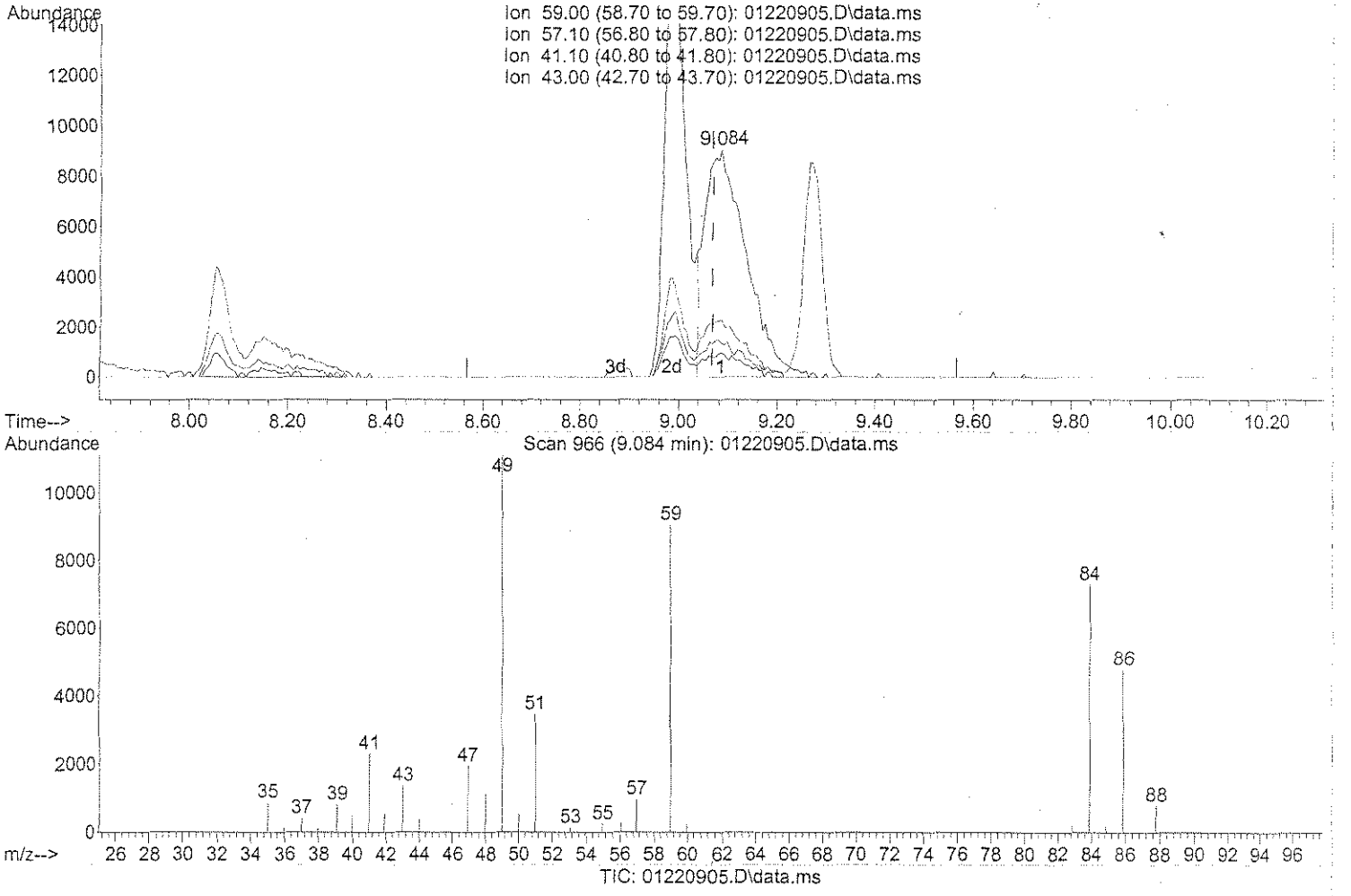
Em 1/23/09

AM 1/24/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:07:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(18) tert-Butanol (T)

9.084min (+0.017) 1.07ng

response 52068

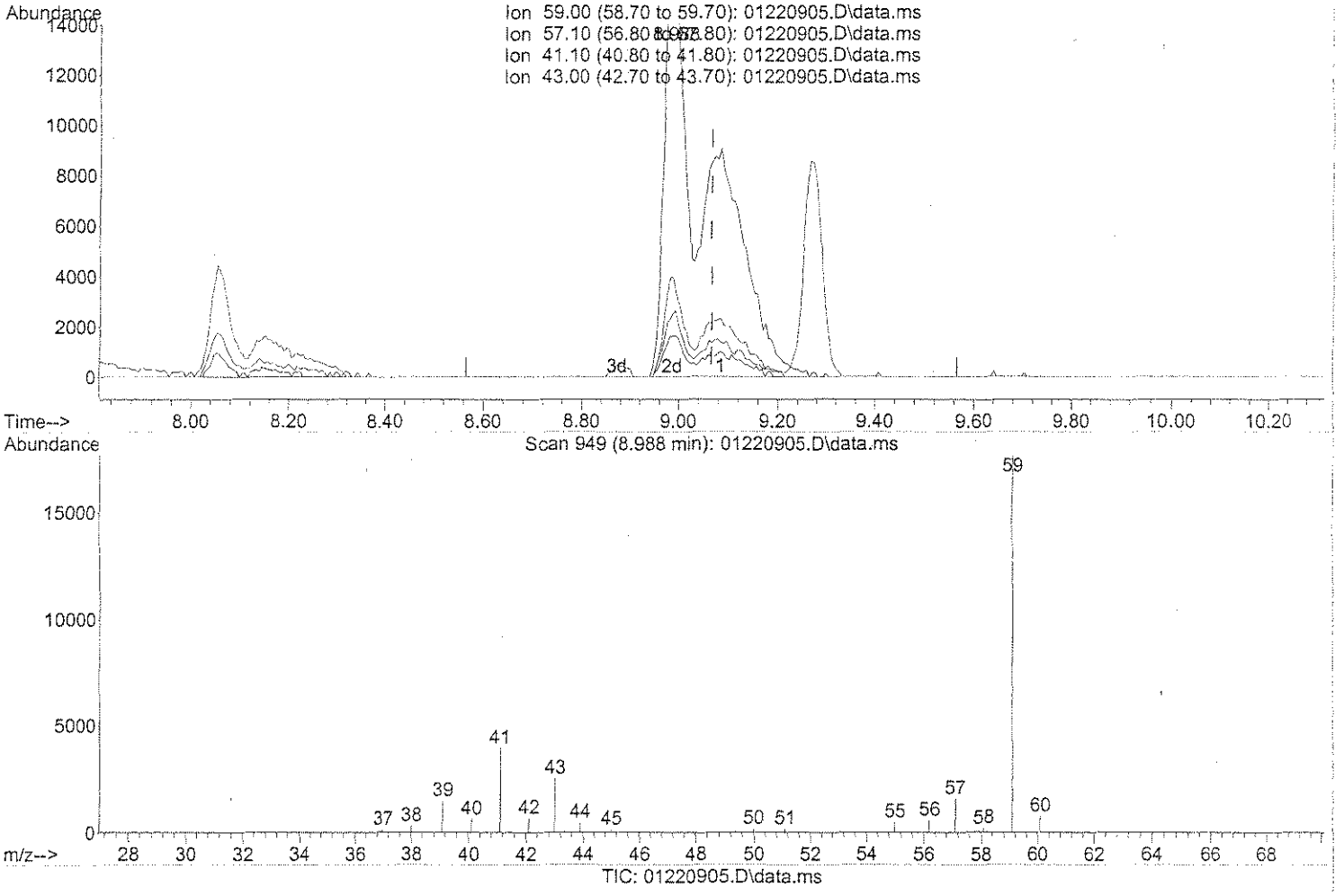
SP

Ion	Exp%	Act%
59.00	100	100
57.10	10.50	9.60
41.10	23.00	25.97
43.00	14.50	16.55

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220905.D
Acq On : 22 Jan 2009 15:31
Operator : WA/LH
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:07:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(18) tert-Butanol (T)

8.988min (-0.080) 2.13ng m

response 103985

Ion	Exp%	Act%
59.00	100	100
57.10	10.50	4.81
41.10	23.00	13.00
43.00	14.50	8.29

SP → IC
LH 01/23/09

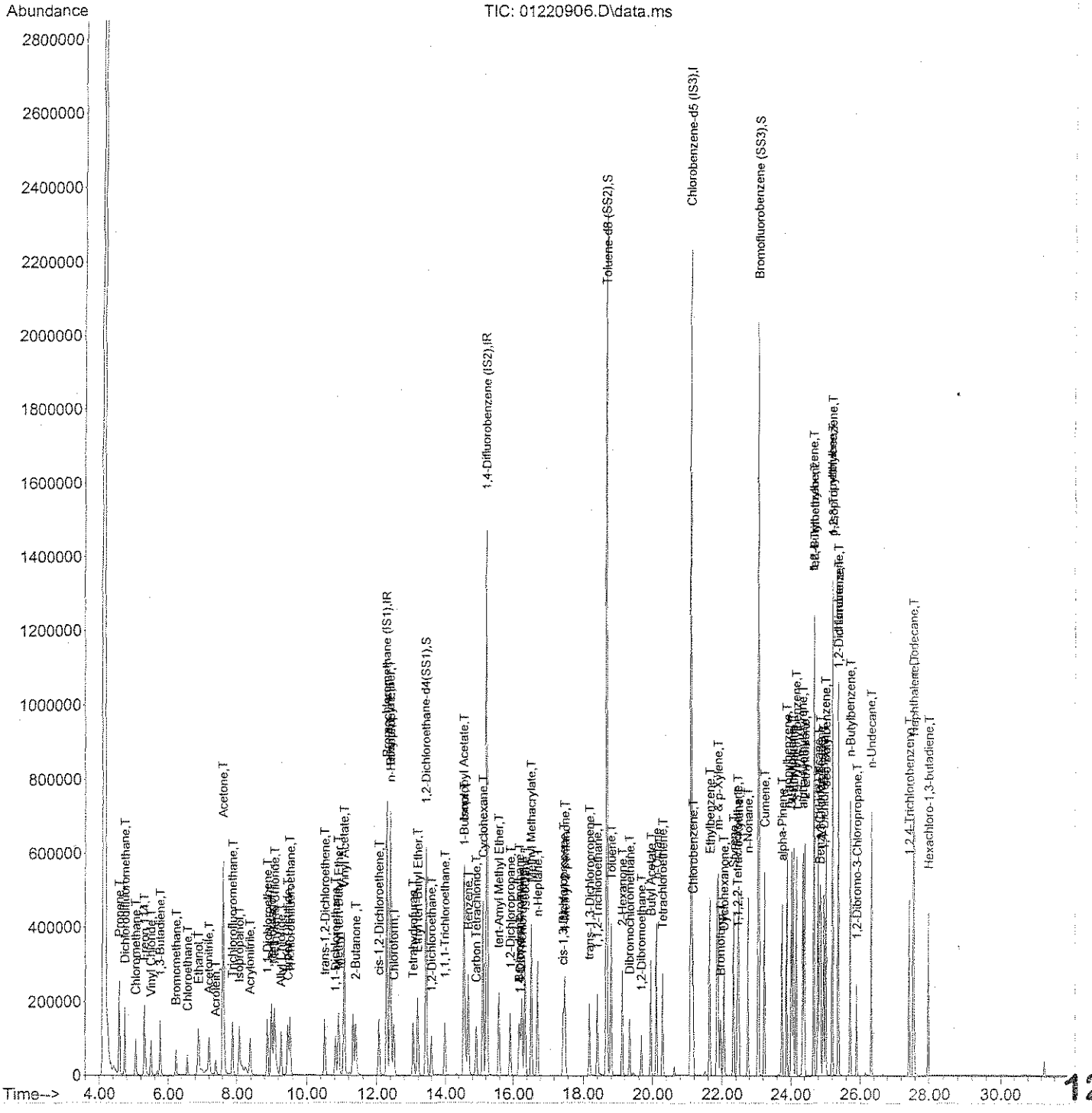
Em 1/23/09

01 1/24/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:56 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:56 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.29	130	389162	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.23	114	1797444	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.10	82	863137	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.43	65	625886	21.497	ng		-0.02
Spiked Amount 25.000			Recovery = 86.00%				
57) Toluene-d8 (SS2)	18.67	98	2025979	25.161	ng		-0.01
Spiked Amount 25.000			Recovery = 100.64%				
73) Bromofluorobenzene (SS3)	23.06	174	760427	28.332	ng		0.00
Spiked Amount 25.000			Recovery = 113.32%				
Target Compounds							Qvalue
2) Propene	4.58	42	109370	4.896	ng		89
3) Dichlorodifluoromethane	4.75	85	186877	4.794	ng		99
4) Chloromethane	5.06	50	130472	3.774	ng		100
5) Freon 114	5.31	135	86900	4.781	ng		87
6) Vinyl Chloride	5.49	62	126900	4.295	ng		86
7) 1,3-Butadiene	5.77	54	86911	3.909	ng		98
8) Bromomethane	6.24	94	61814	4.118	ng		97
9) Chloroethane	6.57	64	60357	4.732	ng		96
10) Ethanol	6.88	45	340071m	19.546	ng		
11) Acetonitrile	7.19	41	187386	4.720	ng		91
12) Acrolein	7.39	56	52266	5.572	ng		82
13) Acetone	7.60	58	359565	22.255	ng		95
14) Trichlorofluoromethane	7.87	101	160198	4.736	ng		96
15) Isopropanol	8.07	45	404443m	7.601	ng		
16) Acrylonitrile	8.38	53	132114	5.097	ng		99
17) 1,1-Dichloroethene	8.88	96	82357	5.045	ng	#	65
18) tert-Butanol	9.00	59	491745	9.882	ng		99
19) Methylene Chloride	9.08	84	87789	4.624	ng	#	54
20) Allyl Chloride	9.27	41	122923	4.523	ng		79
21) Trichlorotrifluoroethane	9.53	151	74082	5.007	ng		91
22) Carbon Disulfide	9.46	76	299704	4.541	ng		99
23) trans-1,2-Dichloroethene	10.51	61	133837	4.929	ng		74
24) 1,1-Dichloroethane	10.81	63	158582	4.594	ng		98
25) Methyl tert-Butyl Ether	10.91	73	225536	4.451	ng		85
26) Vinyl Acetate	11.06	86	71445	21.941	ng	#	1
27) 2-Butanone	11.39	72	59989	6.012	ng	#	34
28) cis-1,2-Dichloroethene	12.06	61	133971	4.914	ng		75
29) Diisopropyl Ether	12.40	87	68491	4.702	ng	#	22
30) Ethyl Acetate	12.40	61	67279	8.586	ng		84
31) n-Hexane	12.41	57	147395	4.073	ng		8

RSH 1/24/09 LH 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:56 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.50	83	149792	4.764	ng		98
34) Tetrahydrofuran	13.06	72	55860	5.335	ng	#	49
35) Ethyl tert-Butyl Ether	13.19	87	97789	4.609	ng	#	69
36) 1,2-Dichloroethane	13.59	62	126727	4.460	ng		97
38) 1,1,1-Trichloroethane	13.98	97	134556	4.600	ng		93
39) Isopropyl Acetate	14.54	61	123428	10.091	ng	#	83
40) 1-Butanol	14.55	56	219897	11.271	ng	#	76
41) Benzene	14.67	78	352097	4.543	ng		100
42) Carbon Tetrachloride	14.91	117	120654	4.562	ng		98
43) Cyclohexane	15.10	84	248514	9.317	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	245397	4.619	ng		84
45) 1,2-Dichloropropane	15.91	63	94516	4.715	ng		98
46) Bromodichloromethane	16.17	83	119692	4.703	ng		98
47) Trichloroethene	16.26	130	96337	4.683	ng		97
48) 1,4-Dioxane	16.20	88	72596	5.358	ng	#	69
49) Isooctane	16.34	57	415097	4.739	ng		98
50) Methyl Methacrylate	16.53	100	76372	11.209	ng	#	86
51) n-Heptane	16.71	71	92365	4.895	ng	#	73
52) cis-1,3-Dichloropropene	17.46	75	136245	4.705	ng		100
53) 4-Methyl-2-pentanone	17.50	58	96313	5.274	ng		77
54) trans-1,3-Dichloropropene	18.17	75	142627	5.368	ng		98
55) 1,1,2-Trichloroethane	18.41	97	86820	5.051	ng		99
58) Toluene	18.80	91	399746	4.988	ng		99
59) 2-Hexanone	19.12	43	260227	5.251	ng		93
60) Dibromochloromethane	19.34	129	109520	5.729	ng		99
61) 1,2-Dibromoethane	19.67	107	103798	5.228	ng		99
62) Butyl Acetate	19.95	43	296176	5.502	ng		97
63) n-Octane	20.11	57	91982	5.151	ng	#	68
64) Tetrachloroethene	20.29	166	105491	5.194	ng		98
65) Chlorobenzene	21.16	112	262768	5.156	ng		99
66) Ethylbenzene	21.64	91	444323	5.108	ng		99
67) m- & p-Xylene	21.88	91	685738	9.941	ng		97
68) Bromoform	21.96	173	98367	5.634	ng		99
69) Styrene	22.33	104	281883	5.748	ng		97
70) o-Xylene	22.48	91	360301	5.232	ng		99
71) n-Nonane	22.75	43	221797	5.513	ng		89
72) 1,1,2,2-Tetrachloroethane	22.44	83	166753	5.178	ng		96
74) Cumene	23.24	105	457520	5.076	ng		96
75) alpha-Pinene	23.74	93	212781	5.555	ng		99
76) n-Propylbenzene	23.88	91	565115	5.128	ng		97
77) 3-Ethyltoluene	24.01	105	458915	5.769	ng		96
78) 4-Ethyltoluene	24.06	105	460146	5.797	ng		95
79) 1,3,5-Trimethylbenzene	24.15	105	383184	5.687	ng		91

RM 1/24/09 LM 01/23/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:29:56 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	218975	6.021	ng		95
81) 2-Ethyltoluene	24.40	105	468559	5.731	ng		95
82) 1,2,4-Trimethylbenzene	24.67	105	395767	6.025	ng		92
83) n-Decane	24.79	57	242716	6.483	ng		80
84) Benzyl Chloride	24.83	91	352551	5.942	ng		96
85) 1,3-Dichlorobenzene	24.86	146	241583	5.944	ng		100
86) 1,4-Dichlorobenzene	24.95	146	243153	5.878	ng		99
87) sec-Butylbenzene	25.00	105	531677	5.696	ng		99
88) p-Isopropyltoluene	25.20	119	495785	6.012	ng		95
89) 1,2,3-Trimethylbenzene	25.20	105	404626	6.180	ng		89
90) 1,2-Dichlorobenzene	25.37	146	230616	5.596	ng		98
91) d-Limonene	25.37	68	161798	5.276	ng		100
92) 1,2-Dibromo-3-Chloropr...	25.90	157	83590	6.342	ng	#	80
93) n-Undecane	26.32	57	254060	8.170	ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	49542	8.532	ng	#	94
95) Naphthalene	27.57	128	580614	9.147	ng		100
96) n-Dodecane	27.55	57	256024	10.424	ng		78
97) Hexachloro-1,3-butadiene	27.99	225	95364	6.758	ng		99
98) Cyclohexanone	22.05	55	159341	4.942	ng		93
99) tert-Butylbenzene	24.67	119	392335	5.953	ng		100
100) n-Butylbenzene	25.71	91	440531	6.444	ng		95

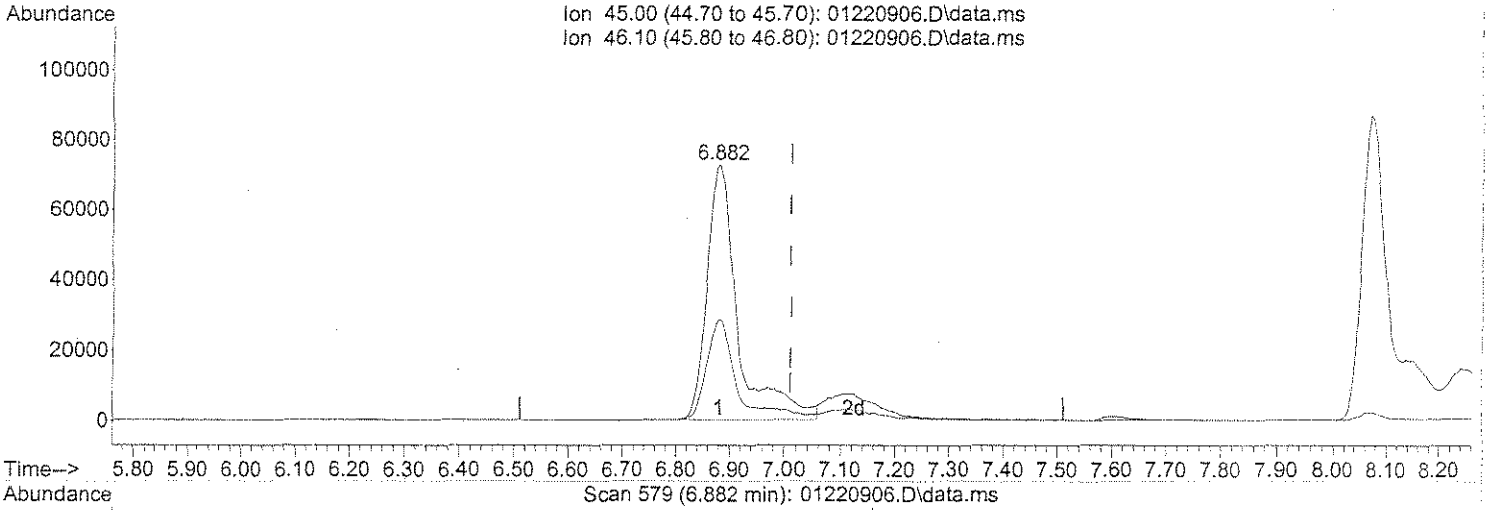
(#) = qualifier out of range (m) = manual integration (+) = signals summed

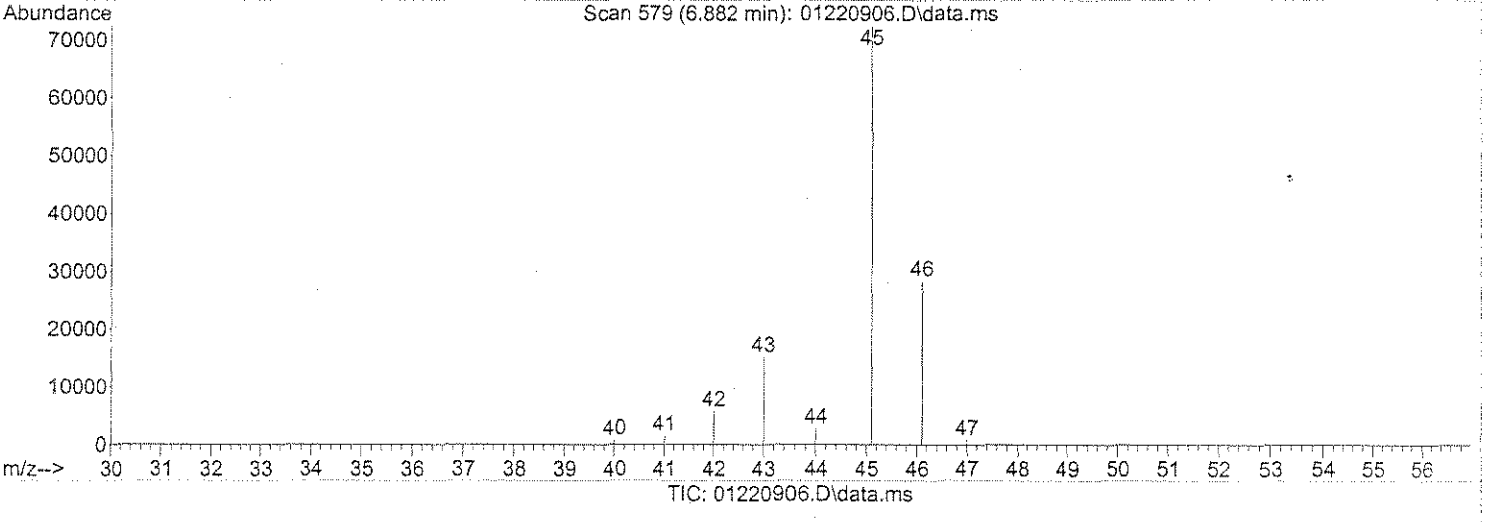
1/24/09 01/23/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:51:40 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration





TIC: 01220906.D\data.ms

(10) Ethanol (T)

6.882min (-0.131) 16.70ng

response 290577

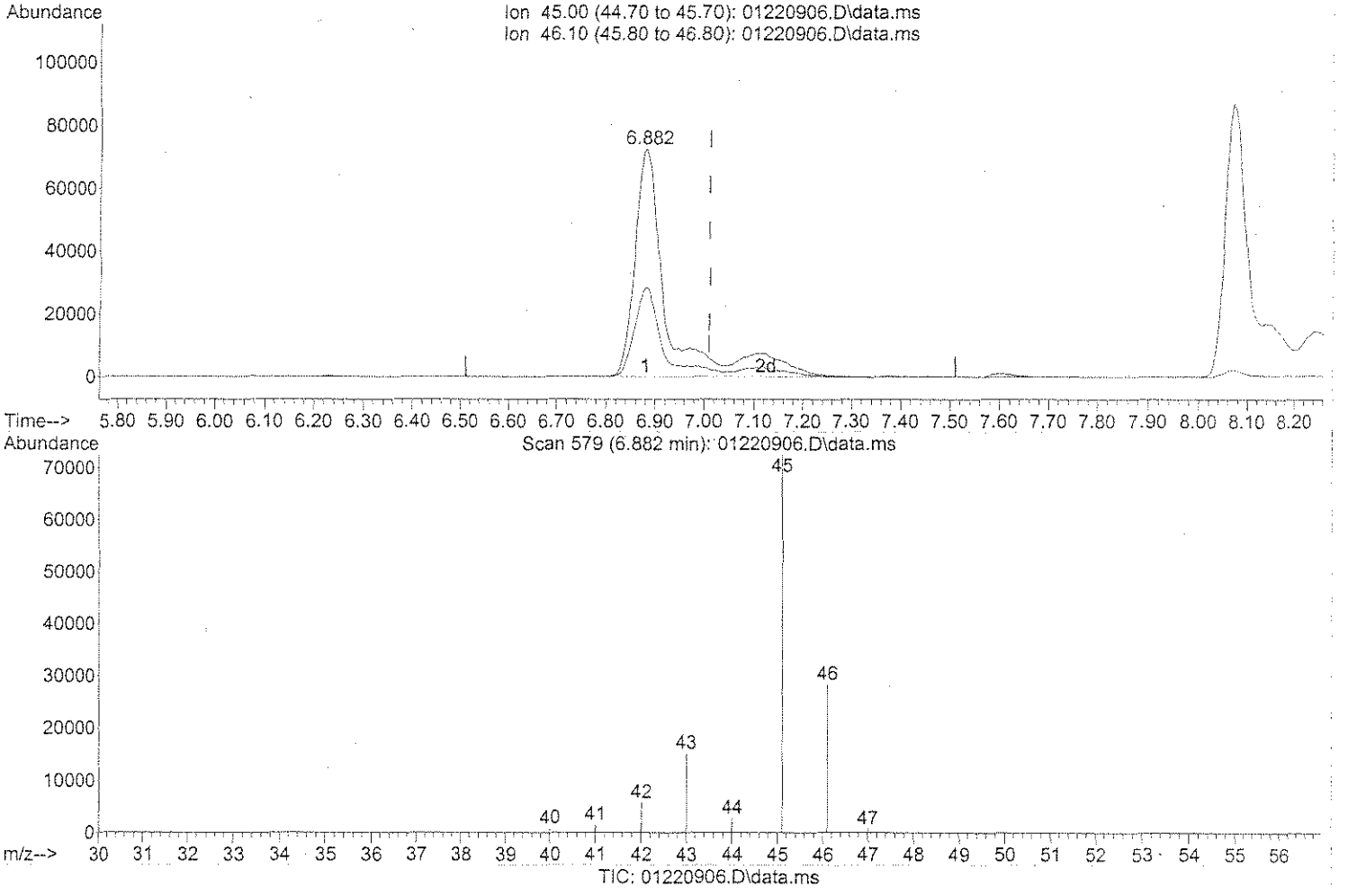
SP

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	38.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:51:40 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.882min (-0.131) 19.55ng m

response 340071

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	33.17
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
LH 01/23/09

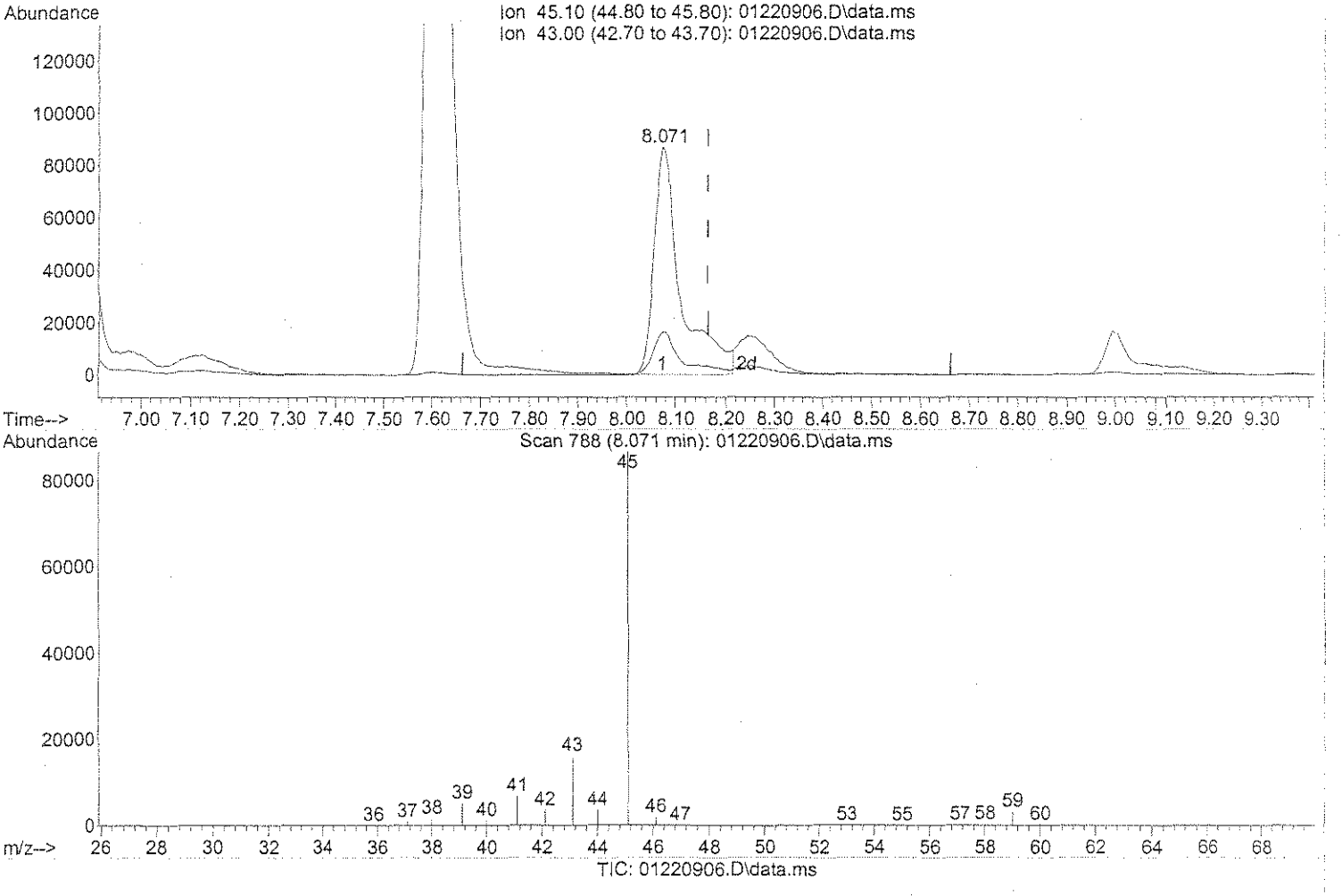
Eom 1/23/09

DH 1/24/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:51:40 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.071min (-0.091) 6.24ng

response 331977

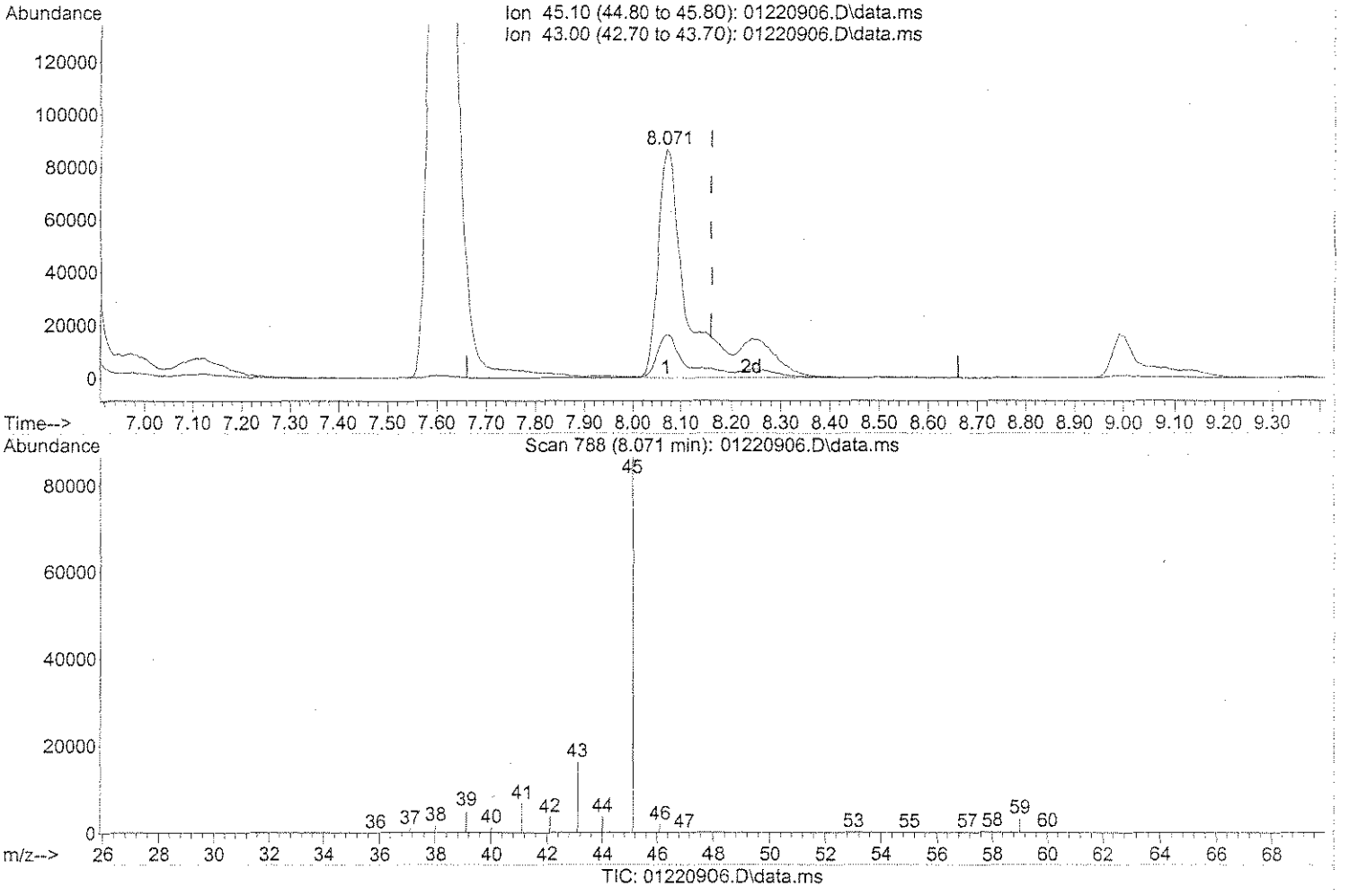
SP

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	19.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220906.D
Acq On : 22 Jan 2009 16:12
Operator : WA/LH
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220904
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 16:51:40 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.071min (-0.091) 7.60ng m

response 404443

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	15.61
0.00	0.00	0.00
0.00	0.00	0.00

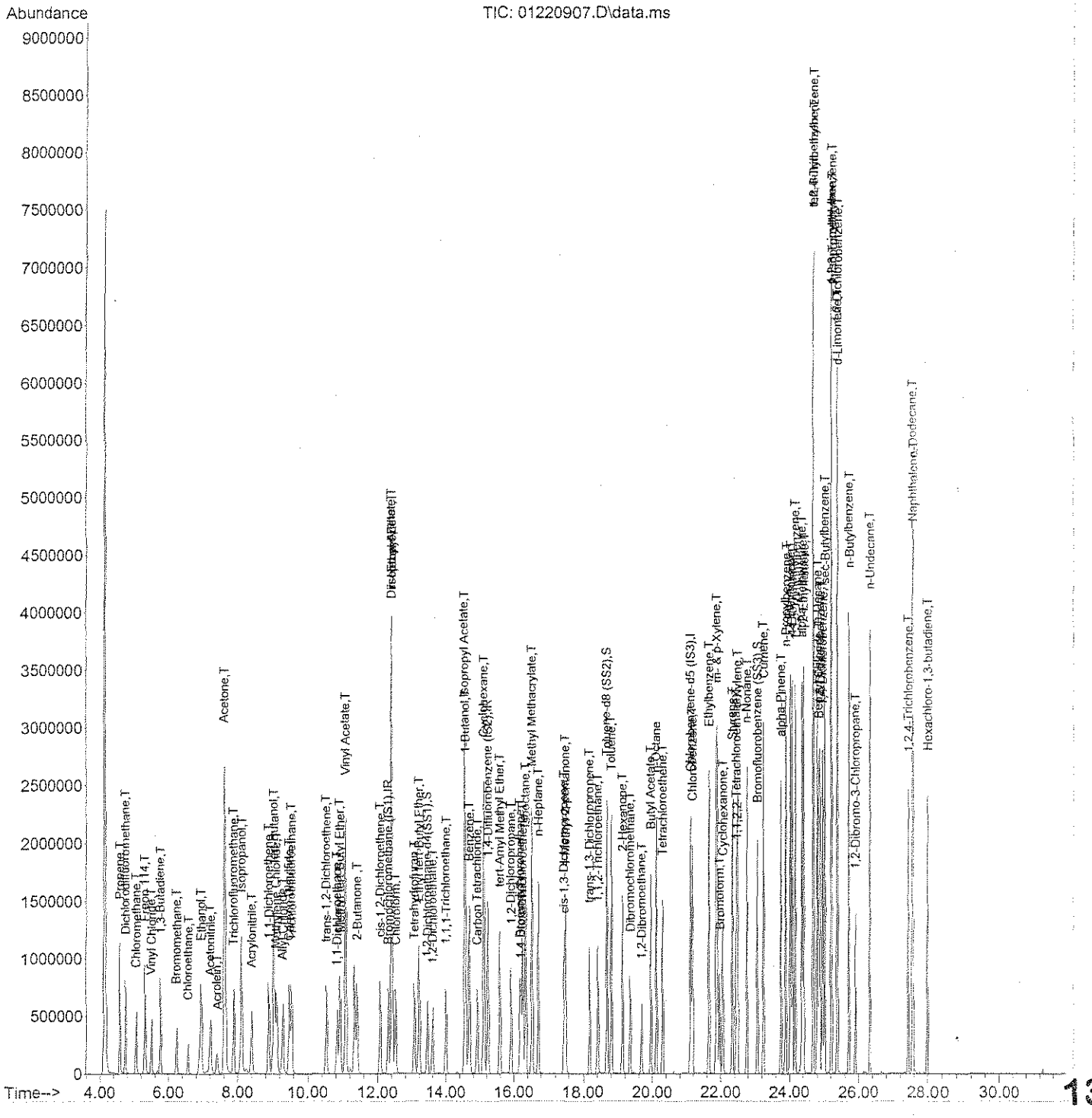
SP → IC
LH 01/23/09

CEM 1/23/09

AT 1/24/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:31:01 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:31:01 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.31	130	403989	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.23	114	1818049	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.11	82	856657	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.44	65	629869	20.840	ng		-0.02
Spiked Amount 25.000			Recovery = 83.36%				
57) Toluene-d8 (SS2)	18.67	98	2012401	25.182	ng		0.00
Spiked Amount 25.000			Recovery = 100.72%				
73) Bromofluorobenzene (SS3)	23.06	174	772363	28.994	ng		0.00
Spiked Amount 25.000			Recovery = 115.96%				
Target Compounds							Qvalue
2) Propene	4.58	42	512566	22.104	ng		88
3) Dichlorodifluoromethane	4.74	85	880717	21.762	ng		100
4) Chloromethane	5.06	50	756621	21.084	ng		99
5) Freon 114	5.30	135	429851	22.780	ng		87
6) Vinyl Chloride	5.49	62	648753	21.152	ng		86
7) 1,3-Butadiene	5.77	54	493377	21.376	ng		99
8) Bromomethane	6.24	94	368361	23.642	ng		98
9) Chloroethane	6.57	64	302369	22.836	ng		95
10) Ethanol	6.94	45	1920140m	106.313	ng		
11) Acetonitrile	7.21	41	963156	23.372	ng		91
12) Acrolein	7.41	56	304372	31.257	ng		83
13) Acetone	7.63	58	1987451	118.499	ng		99
14) Trichlorofluoromethane	7.88	101	862121	24.552	ng		95
15) Isopropanol	8.11	45	2671174m	48.356	ng		
16) Acrylonitrile	8.40	53	743283	27.621	ng		99
17) 1,1-Dichloroethene	8.89	96	461353	27.226	ng	#	62
18) tert-Butanol	9.03	59	2761784	53.464	ng		98
19) Methylene Chloride	9.10	84	478114	24.259	ng	#	52
20) Allyl Chloride	9.28	41	737745	26.150	ng		77
21) Trichlorotrifluoroethane	9.53	151	398618	25.950	ng		90
22) Carbon Disulfide	9.47	76	1656214	24.173	ng		99
23) trans-1,2-Dichloroethene	10.52	61	719038	25.508	ng		73
24) 1,1-Dichloroethane	10.83	63	863341	24.093	ng		97
25) Methyl tert-Butyl Ether	10.91	73	1242174	23.613	ng		85
26) Vinyl Acetate	11.08	86	435554	128.852	ng	#	1
27) 2-Butanone	11.41	72	343171	33.128	ng	#	32
28) cis-1,2-Dichloroethene	12.07	61	728270	25.732	ng		74
29) Diisopropyl Ether	12.40	87	379329	25.087	ng	#	23
30) Ethyl Acetate	12.41	61	391990	48.189	ng		83
31) n-Hexane	12.41	57	809021	21.537	ng		81

1/24/09 01/23/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:31:01 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.52	83	831131	25.461	ng		98
34) Tetrahydrofuran	13.06	72	309969	28.517	ng	#	49
35) Ethyl tert-Butyl Ether	13.20	87	535728	24.322	ng	#	68
36) 1,2-Dichloroethane	13.60	62	670876	22.745	ng		96
38) 1,1,1-Trichloroethane	13.99	97	717476	24.249	ng		93
39) Isopropyl Acetate	14.55	61	706528	57.108	ng	#	80
40) 1-Butanol	14.57	56	1233093	62.489	ng		81
41) Benzene	14.68	78	1905925	24.310	ng		100
42) Carbon Tetrachloride	14.91	117	677767	25.335	ng		99
43) Cyclohexane	15.11	84	1354459	50.203	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	1345778	25.046	ng		83
45) 1,2-Dichloropropane	15.91	63	513794	25.338	ng		98
46) Bromodichloromethane	16.18	83	653244	25.377	ng		99
47) Trichloroethene	16.26	130	537115	25.814	ng		97
48) 1,4-Dioxane	16.21	88	400365	29.213	ng	#	68
49) Isooctane	16.35	57	2236807	25.249	ng		97
50) Methyl Methacrylate	16.53	100	443319	64.330	ng		90
51) n-Heptane	16.72	71	506040	26.512	ng	#	73
52) cis-1,3-Dichloropropene	17.46	75	764467	26.102	ng		99
53) 4-Methyl-2-pentanone	17.51	58	524879	28.419	ng		77
54) trans-1,3-Dichloropropene	18.17	75	792198	29.476	ng		99
55) 1,1,2-Trichloroethane	18.41	97	470095	27.040	ng		100
58) Toluene	18.80	91	2138553	26.888	ng		99
59) 2-Hexanone	19.12	43	1392273	28.305	ng		91
60) Dibromochloromethane	19.35	129	613477	32.334	ng		100
61) 1,2-Dibromoethane	19.68	107	568922	28.872	ng		99
62) Butyl Acetate	19.95	43	1615778	30.243	ng		95
63) n-Octane	20.11	57	500539	28.240	ng	#	67
64) Tetrachloroethene	20.30	166	591975	29.367	ng		99
65) Chlorobenzene	21.17	112	1404364	27.765	ng		100
66) Ethylbenzene	21.65	91	2443512	28.305	ng		100
67) m- & p-Xylene	21.88	91	3817815	55.767	ng		97
68) Bromoform	21.96	173	554785	32.016	ng		100
69) Styrene	22.33	104	1579423	32.452	ng		97
70) o-Xylene	22.48	91	1980620	28.977	ng		99
71) n-Nonane	22.75	43	1213938	30.401	ng		88
72) 1,1,2,2-Tetrachloroethane	22.45	83	930165	29.103	ng		96
74) Cumene	23.24	105	2507441	28.031	ng		96
75) alpha-Pinene	23.74	93	1198608	31.528	ng		97
76) n-Propylbenzene	23.88	91	3124946	28.571	ng		96
77) 3-Ethyltoluene	24.01	105	2584402	32.735	ng		95
78) 4-Ethyltoluene	24.07	105	2518477	31.967	ng		94
79) 1,3,5-Trimethylbenzene	24.16	105	2123437	31.754	ng		94

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

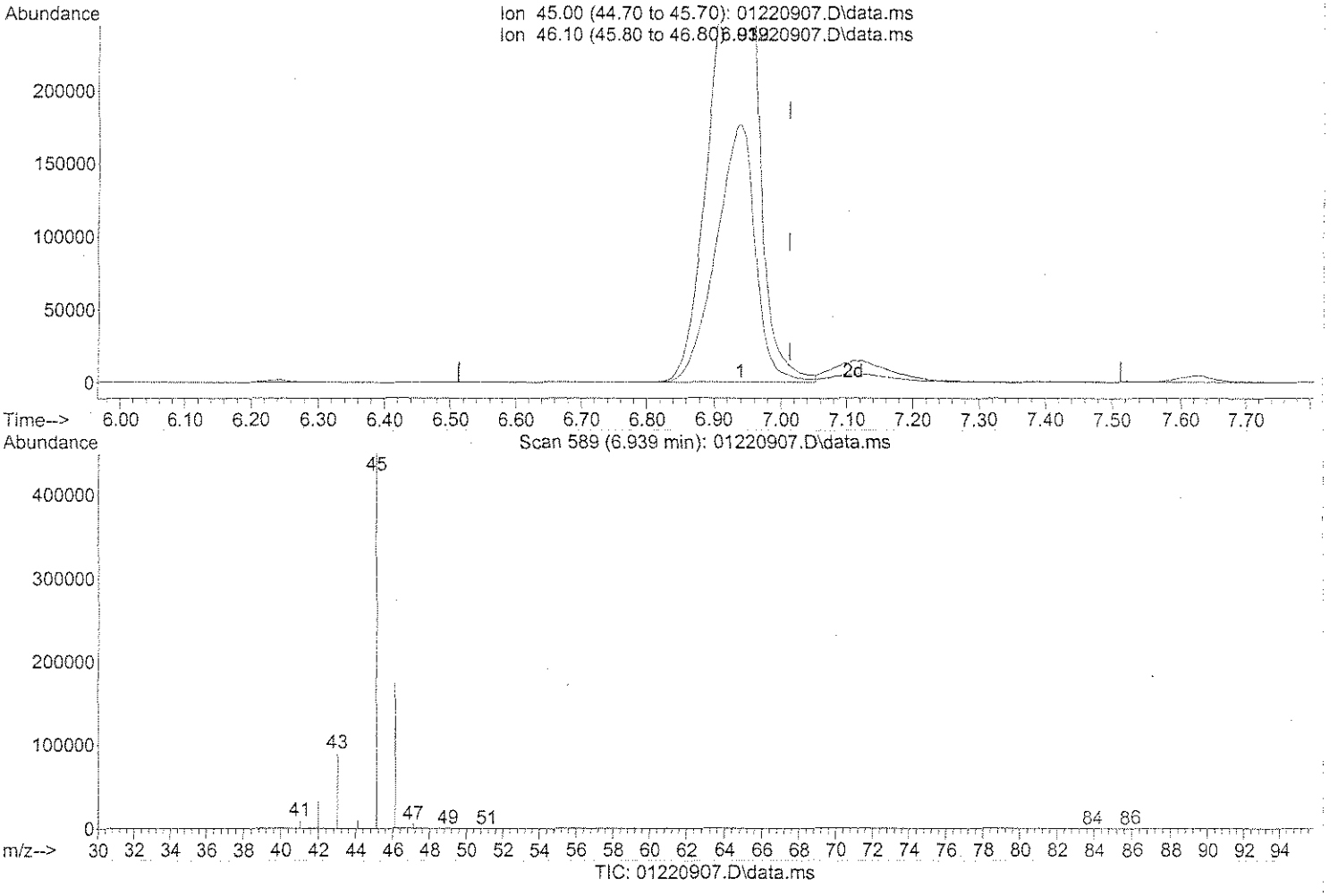
Quant Time: Jan 22 17:31:01 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1250854	34.655	ng		98
81) 2-Ethyltoluene	24.40	105	2604838	32.103	ng		94
82) 1,2,4-Trimethylbenzene	24.67	105	2287344	35.086	ng		90
83) n-Decane	24.79	57	1362915	36.680	ng		80
84) Benzyl Chloride	24.84	91	2066886	35.101	ng		95
85) 1,3-Dichlorobenzene	24.87	146	1344112	33.320	ng		99
86) 1,4-Dichlorobenzene	24.95	146	1352310	32.938	ng		99
87) sec-Butylbenzene	25.01	105	2985879	32.232	ng		98
88) p-Isopropyltoluene	25.20	119	2888998	35.296	ng		94
89) 1,2,3-Trimethylbenzene	25.20	105	2340811	36.022	ng		88
90) 1,2-Dichlorobenzene	25.37	146	1298969	31.761	ng		98
91) d-Limonene	25.38	68	933758	30.680	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	458831	35.073	ng	#	77
93) n-Undecane	26.32	57	1420055	46.012	ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	265504	46.072	ng	#	92
95) Naphthalene	27.57	128	3004092	47.683	ng		100
96) n-Dodecane	27.55	57	1405823	57.674	ng		76
97) Hexachloro-1,3-butadiene	27.99	225	521366	37.225	ng		99
98) Cyclohexanone	22.06	55	854350	26.698	ng		92
99) tert-Butylbenzene	24.67	119	2280972	34.869	ng		100
100) n-Butylbenzene	25.71	91	2421034	35.683	ng		94

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

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:30:19 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.939min (-0.074) 101.30ng

response 1829652

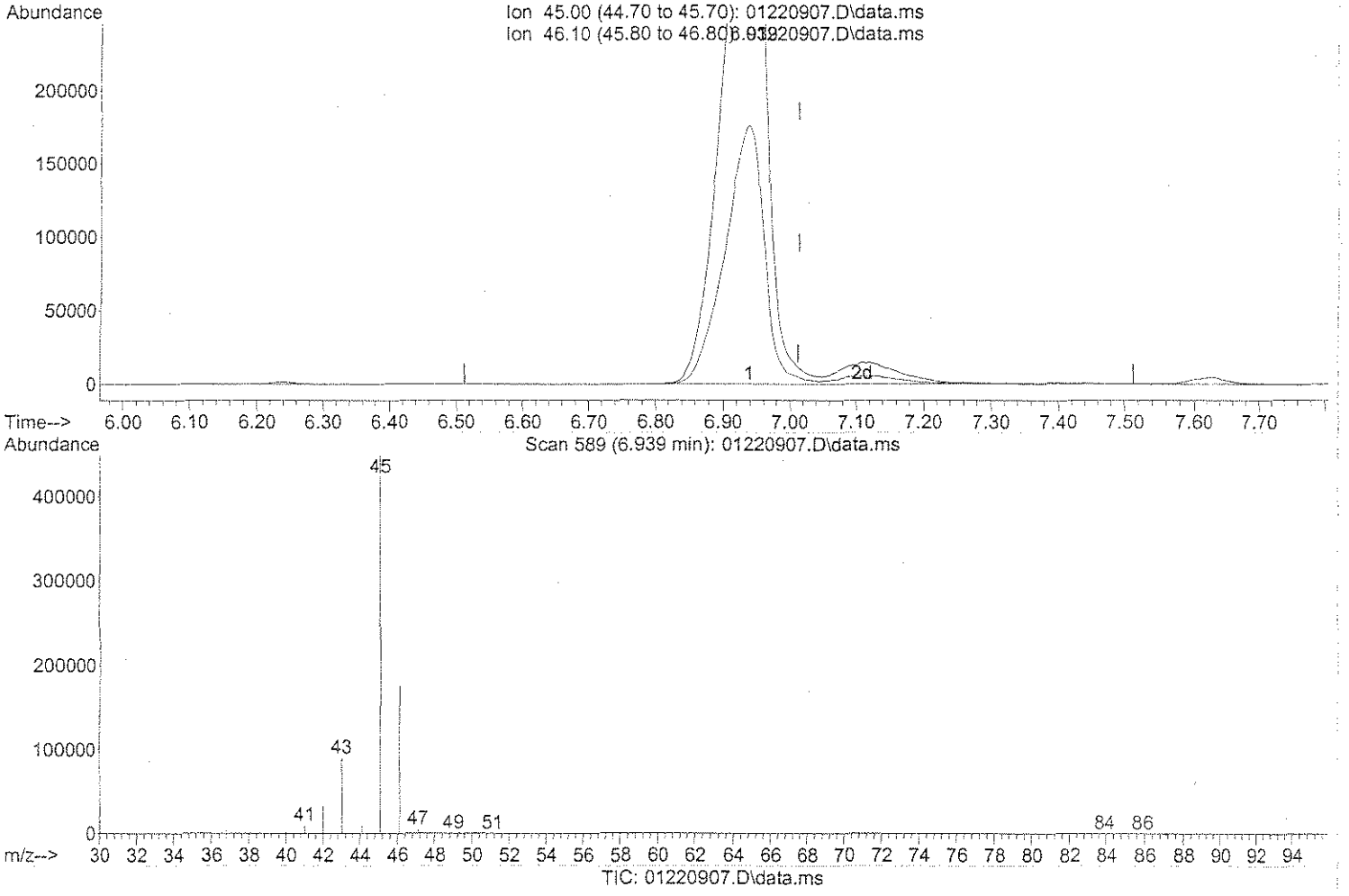
SP

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	39.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:30:19 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.939min (-0.074) 106.31ng m

response 1920140

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.16
0.00	0.00	0.00
0.00	0.00	0.00

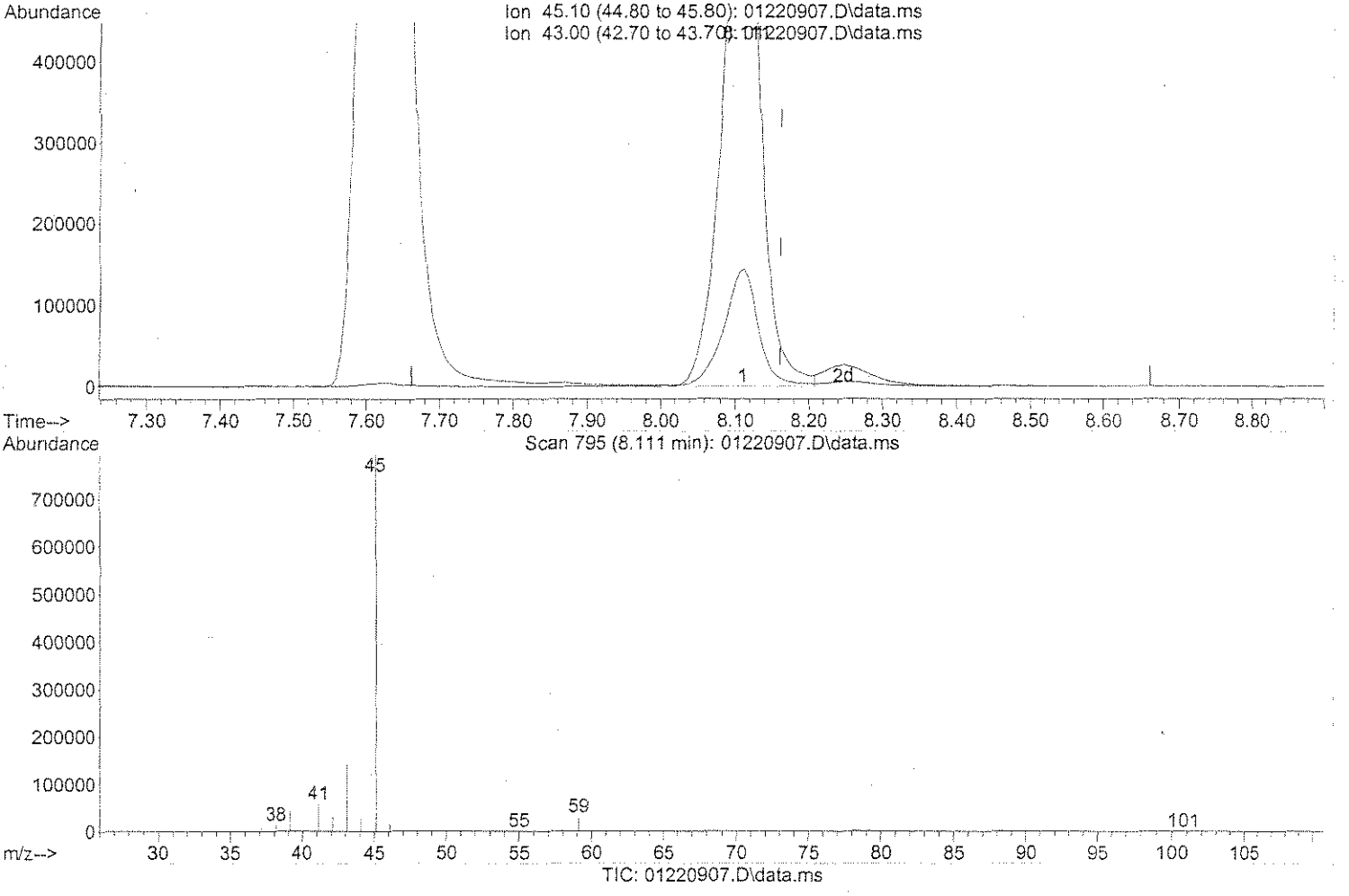
SP → IC
VH 01/23/09

Em 1/23/09

PM 1/24/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:30:19 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.111min (-0.051) 46.20ng

response 2551895

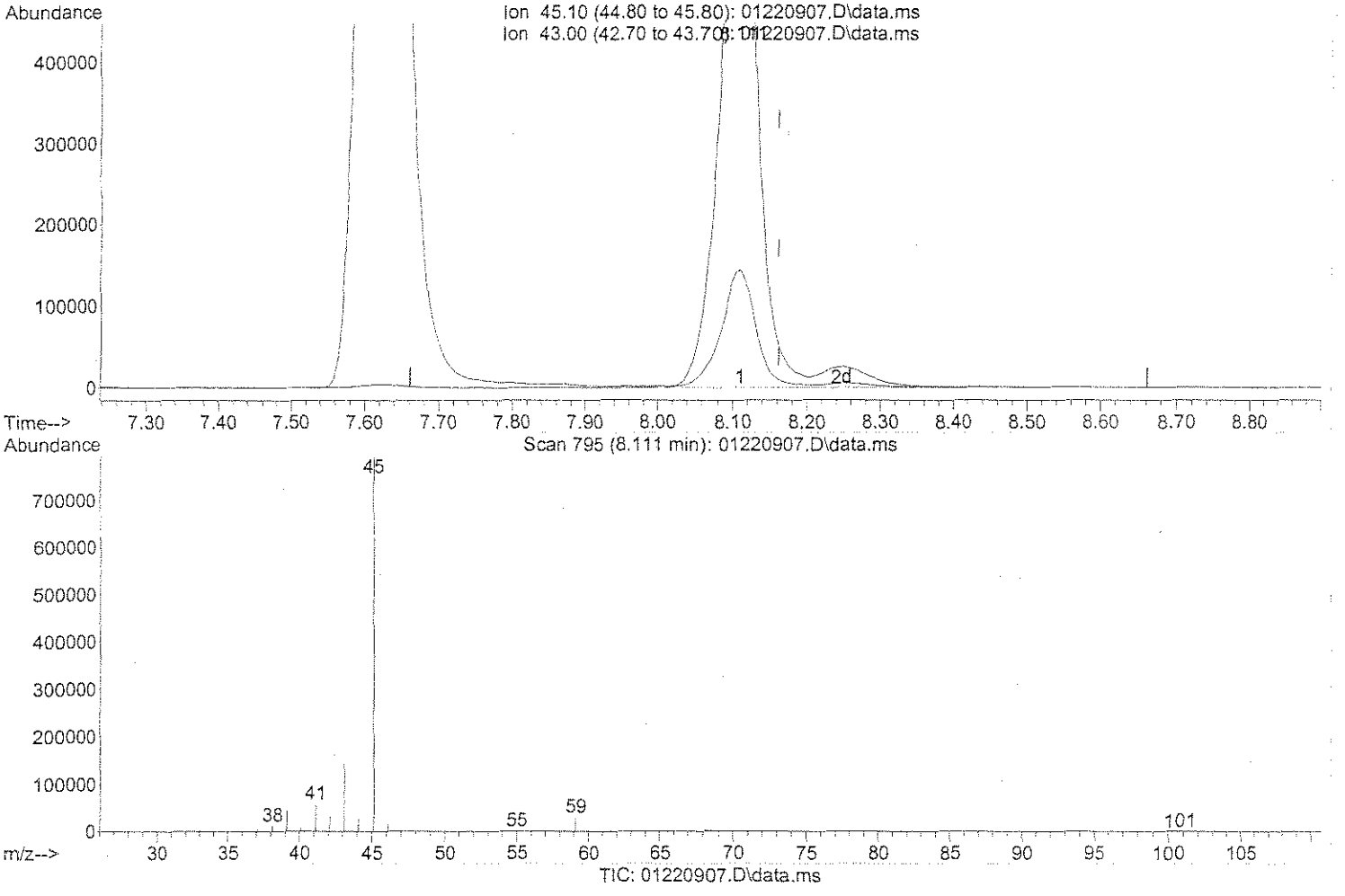
SP

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.89
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220907.D
Acq On : 22 Jan 2009 16:53
Operator : WA/LH
Sample : 25ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 22 17:30:19 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.111min (-0.051) 48.36ng m

response 2671174

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.09
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
JM 01/23/09

Tom 1/23/09

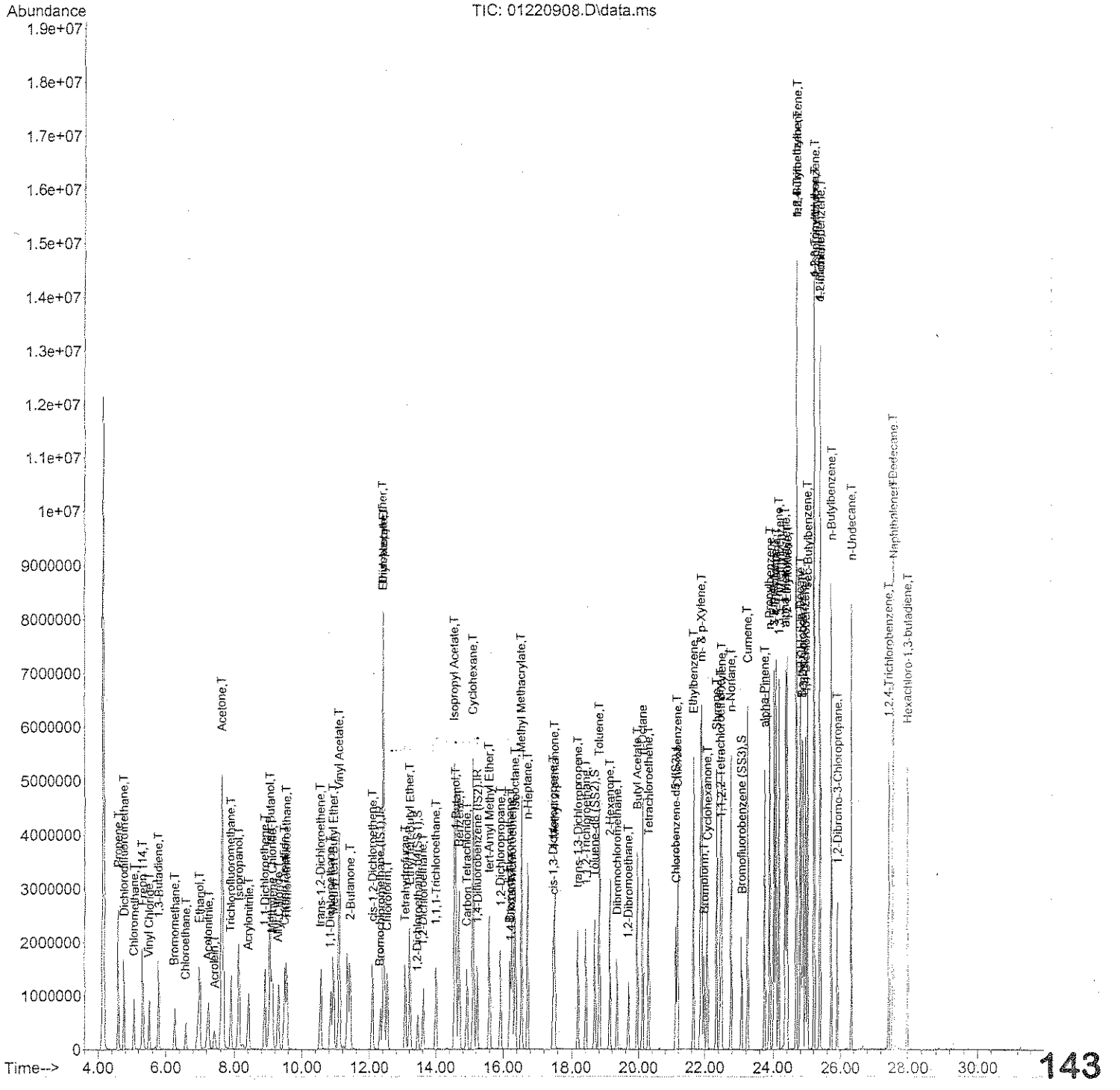
DH 1/24/09

142

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.32	130	425118	25.000	ng		0.00
37) 1,4-Difluorobenzene (IS2)	15.24	114	1906826	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.11	82	897441	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.45	65	649651	20.426	ng		0.00
Spiked Amount 25.000			Recovery =	81.72%			
57) Toluene-d8 (SS2)	18.67	98	2088767	24.949	ng		0.00
Spiked Amount 25.000			Recovery =	99.80%			
73) Bromofluorobenzene (SS3)	23.06	174	822929	29.488	ng		0.00
Spiked Amount 25.000			Recovery =	117.96%			
Target Compounds							Qvalue
2) Propene	4.58	42	1212020	49.669	ng		87
3) Dichlorodifluoromethane	4.75	85	1845340	43.332	ng		99
4) Chloromethane	5.07	50	1394221	36.920	ng		99
5) Freon 114	5.31	135	884506	44.545	ng		86
6) Vinyl Chloride	5.50	62	1339261	41.495	ng		86
7) 1,3-Butadiene	5.78	54	1041189	42.869	ng		99
8) Bromomethane	6.25	94	752452	45.892	ng		97
9) Chloroethane	6.58	64	619185	44.438	ng		94
10) Ethanol	6.97	45	3982602m	209.546	ng		
11) Acetonitrile	7.23	41	1937558	44.680	ng		90
12) Acrolein	7.42	56	636257	62.091	ng		82
13) Acetone	7.64	58	4173647	236.480	ng		96
14) Trichlorofluoromethane	7.89	101	1751316	47.396	ng		95
15) Isopropanol	8.14	45	4694788m	80.766	ng		
16) Acrylonitrile	8.42	53	1519401	53.656	ng		100
17) 1,1-Dichloroethene	8.89	96	951359	53.352	ng	#	61
18) tert-Butanol	9.06	59	5692129	104.715	ng		97
19) Methylene Chloride	9.12	84	984568	47.472	ng	#	51
20) Allyl Chloride	9.29	41	1535825	51.734	ng		76
21) Trichlorotrifluoroethane	9.54	151	881246	54.518	ng		89
22) Carbon Disulfide	9.47	76	3376495	46.832	ng		98
23) trans-1,2-Dichloroethene	10.54	61	1474807	49.719	ng		73
24) 1,1-Dichloroethane	10.84	63	1770623	46.957	ng		97
25) Methyl tert-Butyl Ether	10.92	73	2650205	47.874	ng		85
26) Vinyl Acetate	11.09	86	837615	235.479	ng	#	1
27) 2-Butanone	11.42	72	705867	64.754	ng	#	31
28) cis-1,2-Dichloroethene	12.08	61	1481887	49.757	ng		73
29) Diisopropyl Ether	12.41	87	818142	51.418	ng	#	19
30) Ethyl Acetate	12.42	61	845365	98.759	ng		82
31) n-Hexane	12.42	57	1800184	45.540	ng		8

11/24/09 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.53	83	1681134	48.941	ng		98
34) Tetrahydrofuran	13.06	72	642655	56.185	ng	#	48
35) Ethyl tert-Butyl Ether	13.20	87	1124253	48.504	ng	#	68
36) 1,2-Dichloroethane	13.61	62	1338601	43.128	ng		96
38) 1,1,1-Trichloroethane	14.00	97	1490009	48.015	ng		93
39) Isopropyl Acetate	14.56	61	1486463	114.556	ng	#	77
40) 1-Butanol	14.59	56	2582249	124.767	ng		83
41) Benzene	14.69	78	3989285	48.515	ng		100
42) Carbon Tetrachloride	14.92	117	1416184	50.473	ng		99
43) Cyclohexane	15.12	84	2930223	103.552	ng	#	64
44) tert-Amyl Methyl Ether	15.59	73	2798709	49.660	ng		82
45) 1,2-Dichloropropane	15.92	63	1055483	49.629	ng		98
46) Bromodichloromethane	16.19	83	1333384	49.386	ng		99
47) Trichloroethene	16.27	130	1110292	50.876	ng		97
48) 1,4-Dioxane	16.22	88	830221	57.758	ng	#	68
49) Isooctane	16.35	57	4618908	49.710	ng		96
50) Methyl Methacrylate	16.54	100	915746	126.697	ng		89
51) n-Heptane	16.72	71	1050375	52.469	ng	#	73
52) cis-1,3-Dichloropropene	17.47	75	1574113	51.245	ng		100
53) 4-Methyl-2-pentanone	17.51	58	1094891	56.521	ng		78
54) trans-1,3-Dichloropropene	18.18	75	1639269	58.154	ng		99
55) 1,1,2-Trichloroethane	18.42	97	966700	53.015	ng		100
58) Toluene	18.81	91	4394126	52.737	ng		100
59) 2-Hexanone	19.13	43	2847885	55.267	ng		90
60) Dibromochloromethane	19.35	129	1262299	63.506	ng		100
61) 1,2-Dibromoethane	19.68	107	1167679	56.564	ng		99
62) Butyl Acetate	19.95	43	3369109	60.195	ng		95
63) n-Octane	20.12	57	1047018	56.387	ng	#	67
64) Tetrachloroethene	20.30	166	1231518	58.318	ng		98
65) Chlorobenzene	21.17	112	2906652	54.854	ng		100
66) Ethylbenzene	21.65	91	5023154	55.542	ng		99
67) m- & p-Xylene	21.89	91	8021976	111.851	ng		96
68) Bromoform	21.97	173	1151987	63.458	ng		100
69) Styrene	22.34	104	3282282	64.375	ng		97
70) o-Xylene	22.48	91	4093586	57.168	ng		98
71) n-Nonane	22.76	43	2477484	59.224	ng		86
72) 1,1,2,2-Tetrachloroethane	22.45	83	1914512	57.180	ng		96
74) Cumene	23.24	105	5218838	55.690	ng		96
75) alpha-Pinene	23.74	93	2505843	62.918	ng		96
76) n-Propylbenzene	23.89	91	6494853	56.684	ng		96
77) 3-Ethyltoluene	24.02	105	5481043	66.270	ng		95
78) 4-Ethyltoluene	24.07	105	5205050	63.066	ng		94
79) 1,3,5-Trimethylbenzene	24.17	105	4441891	63.406	ng		91

1/24/09 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:41 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

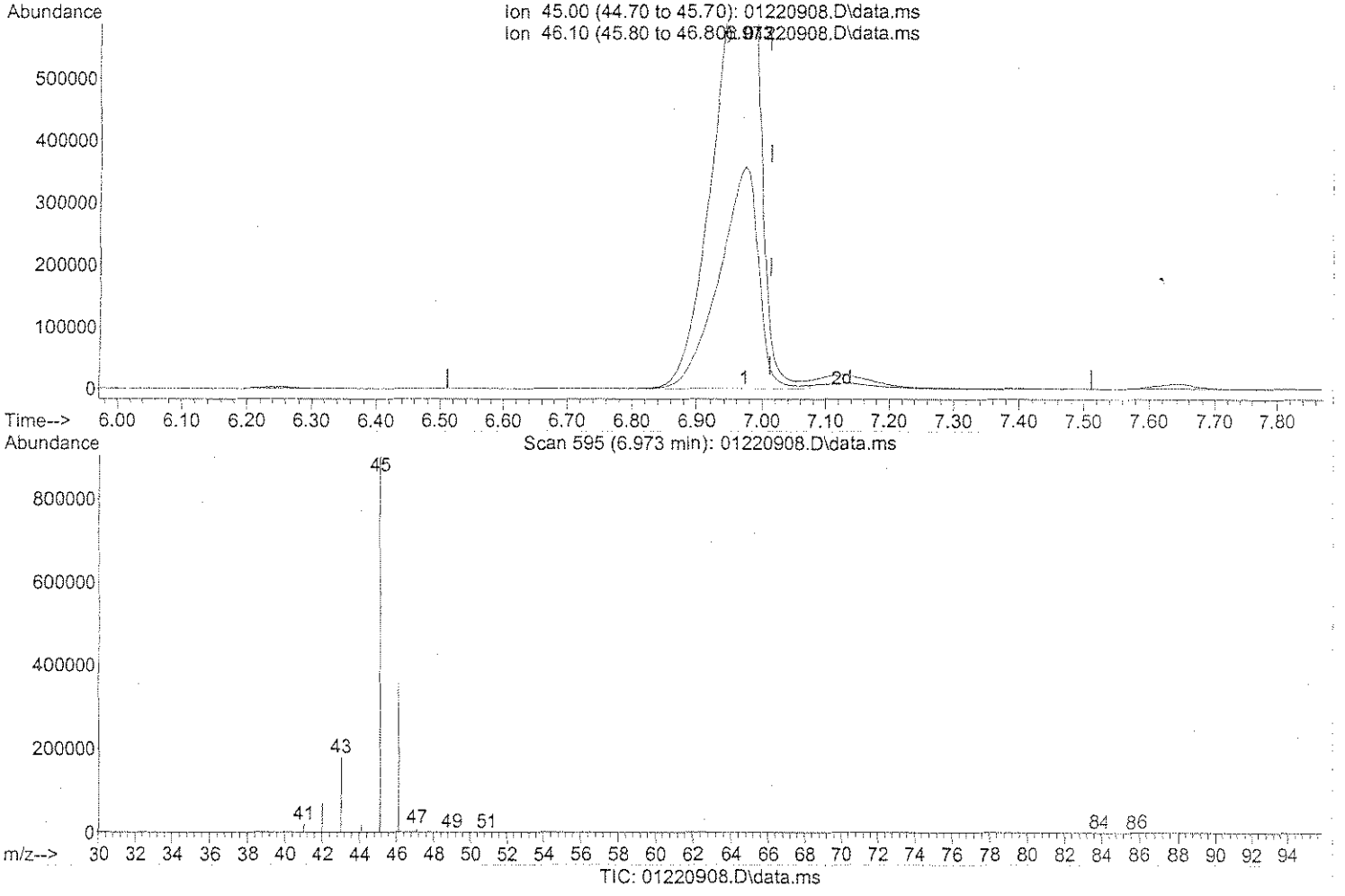
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	2629315	69.536	ng		98
81) 2-Ethyltoluene	24.40	105	5422276	63.789	ng		94
82) 1,2,4-Trimethylbenzene	24.68	105	4903717	71.801	ng		90
83) n-Decane	24.79	57	2834310	72.813	ng		80
84) Benzyl Chloride	24.84	91	4297382	69.664	ng		94
85) 1,3-Dichlorobenzene	24.87	146	2800431	66.267	ng		98
86) 1,4-Dichlorobenzene	24.95	146	2812888	65.399	ng		99
87) sec-Butylbenzene	25.01	105	6207321	63.962	ng		98
88) p-Isopropyltoluene	25.20	119	6162941	71.873	ng		94
89) 1,2,3-Trimethylbenzene	25.21	105	4986589	73.250	ng		87
90) 1,2-Dichlorobenzene	25.38	146	2742255	64.004	ng		98
91) d-Limonene	25.38	68	1968842	61.750	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.91	157	965320	70.437	ng	#	74
93) n-Undecane	26.32	57	2993050	92.572	ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	574249	95.119	ng	#	92
95) Naphthalene	27.57	128	6479843	98.178	ng		99
96) n-Dodecane	27.55	57	3061573	119.893	ng		75
97) Hexachloro-1,3-butadiene	27.99	225	1127285	76.830	ng		99
98) Cyclohexanone	22.07	55	1763017	52.590	ng		92
99) tert-Butylbenzene	24.68	119	4841916	70.654	ng		100
100) n-Butylbenzene	25.71	91	5043950	70.963	ng		94

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

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:11 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.973min (-0.040) 202.32ng

response 3845354

SP

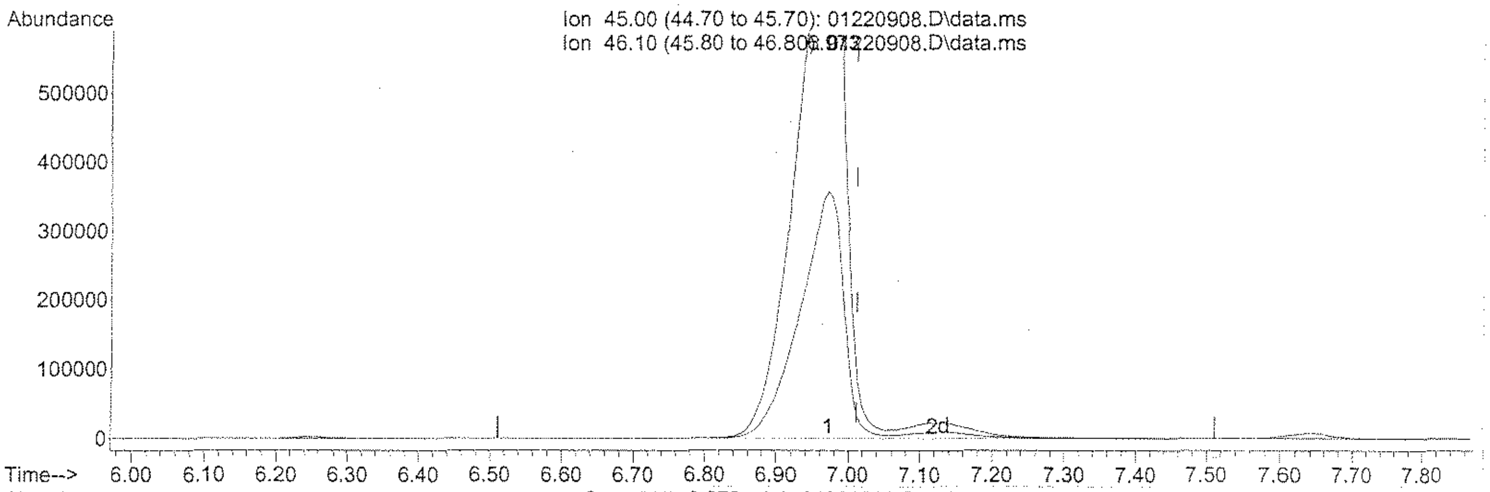
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	39.07
0.00	0.00	0.00
0.00	0.00	0.00

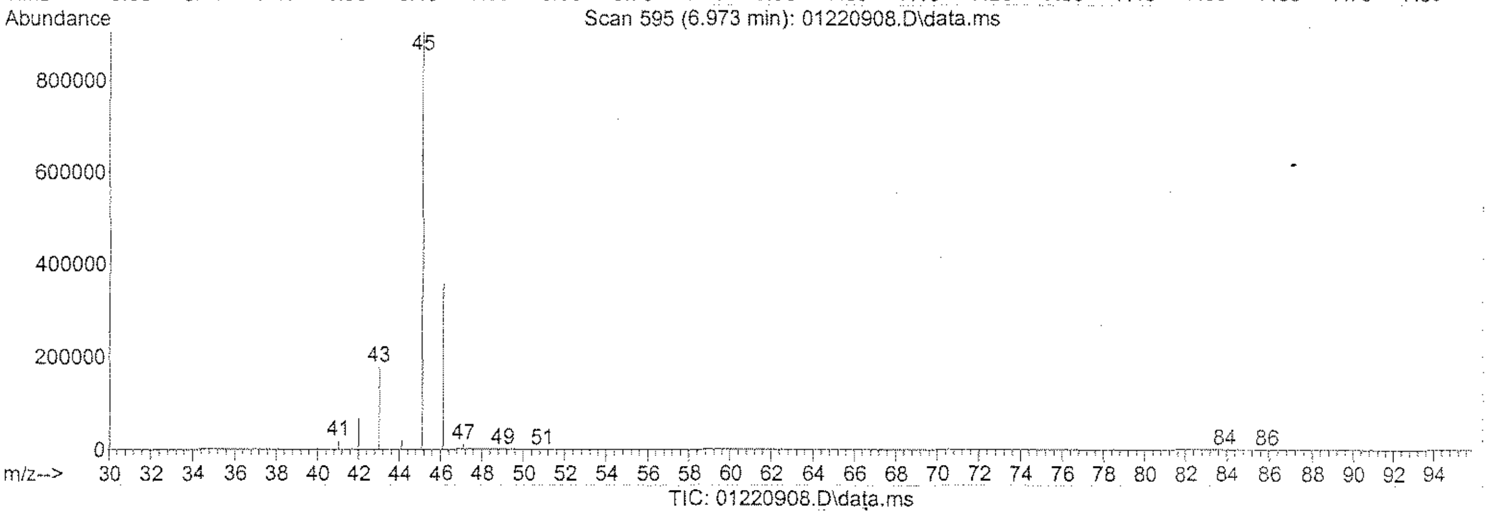
147

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:11 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration





(10) Ethanol (T)

6.973min (-0.040) 209.55ng m

response 3982602

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.72
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
LH 01/23/09

Em 1/23/09

1/24/09

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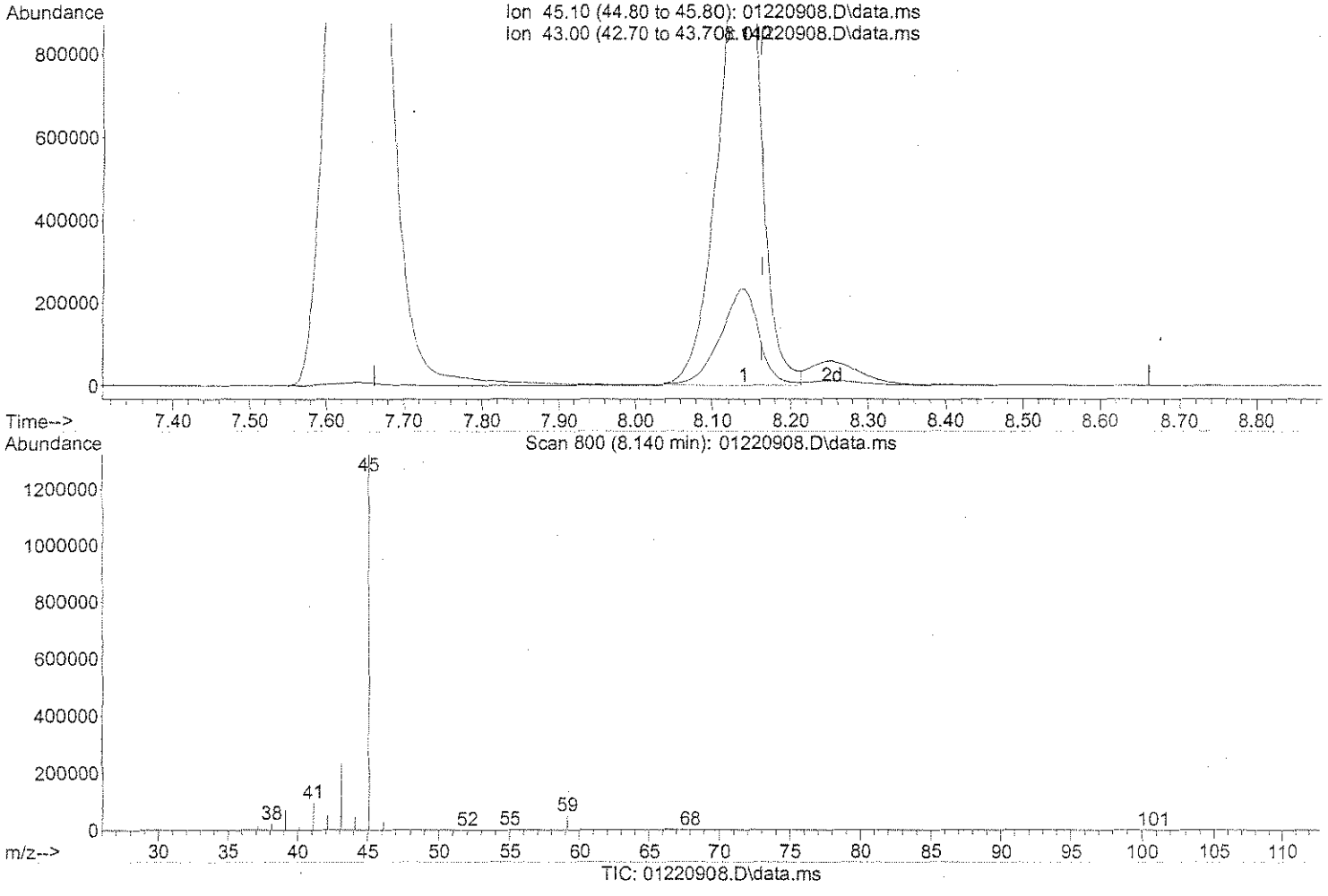
Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:11 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.140min (-0.023) 76.12ng

response 4424774

SP

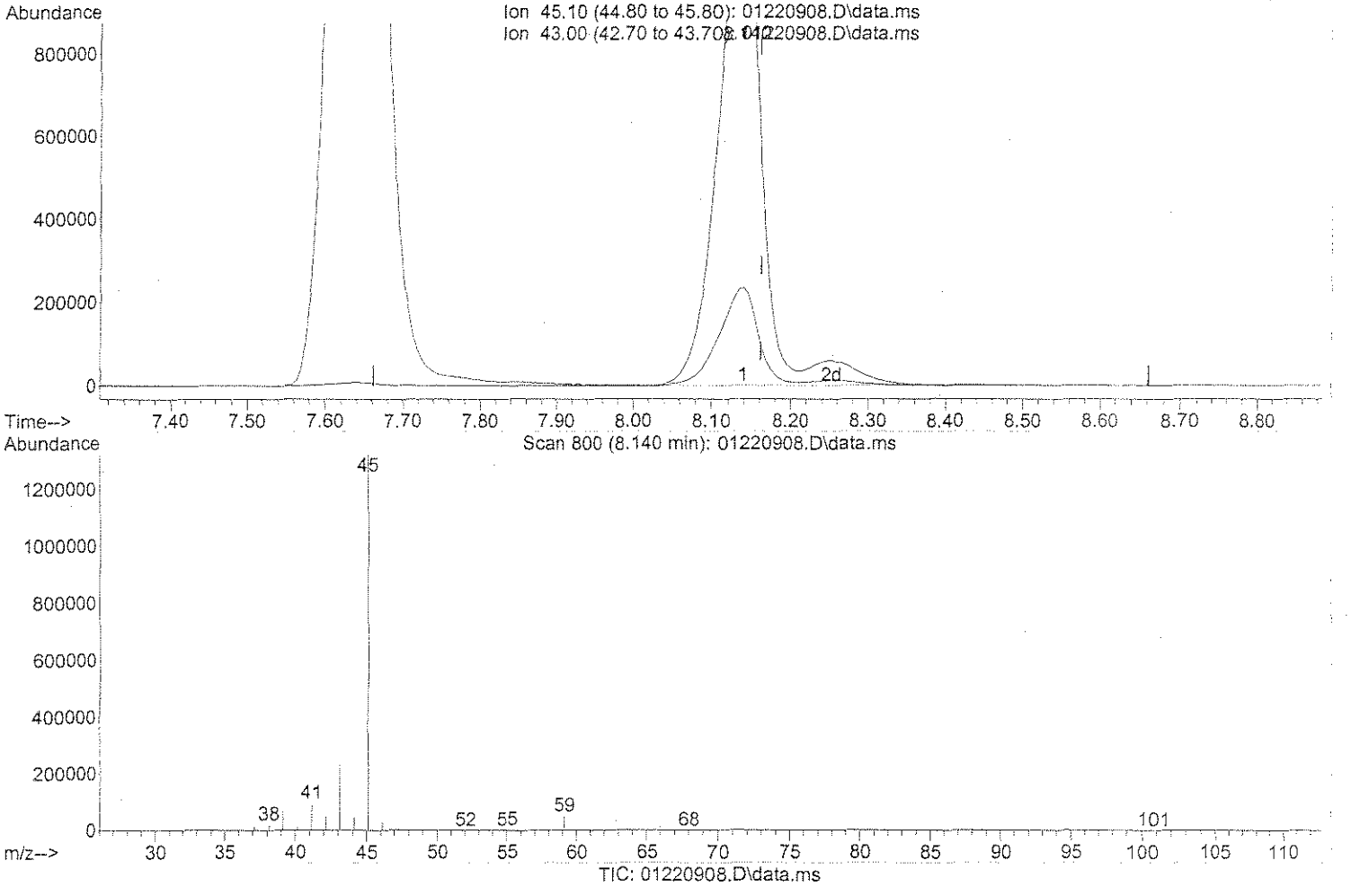
Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.72
0.00	0.00	0.00
0.00	0.00	0.00

149

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220908.D
Acq On : 22 Jan 2009 17:34
Operator : WA/LH
Sample : 50ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:52:11 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.140min (-0.023) 80.77ng m

response 4694788

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	16.70
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
LH 01/23/09
Em 1/23/09

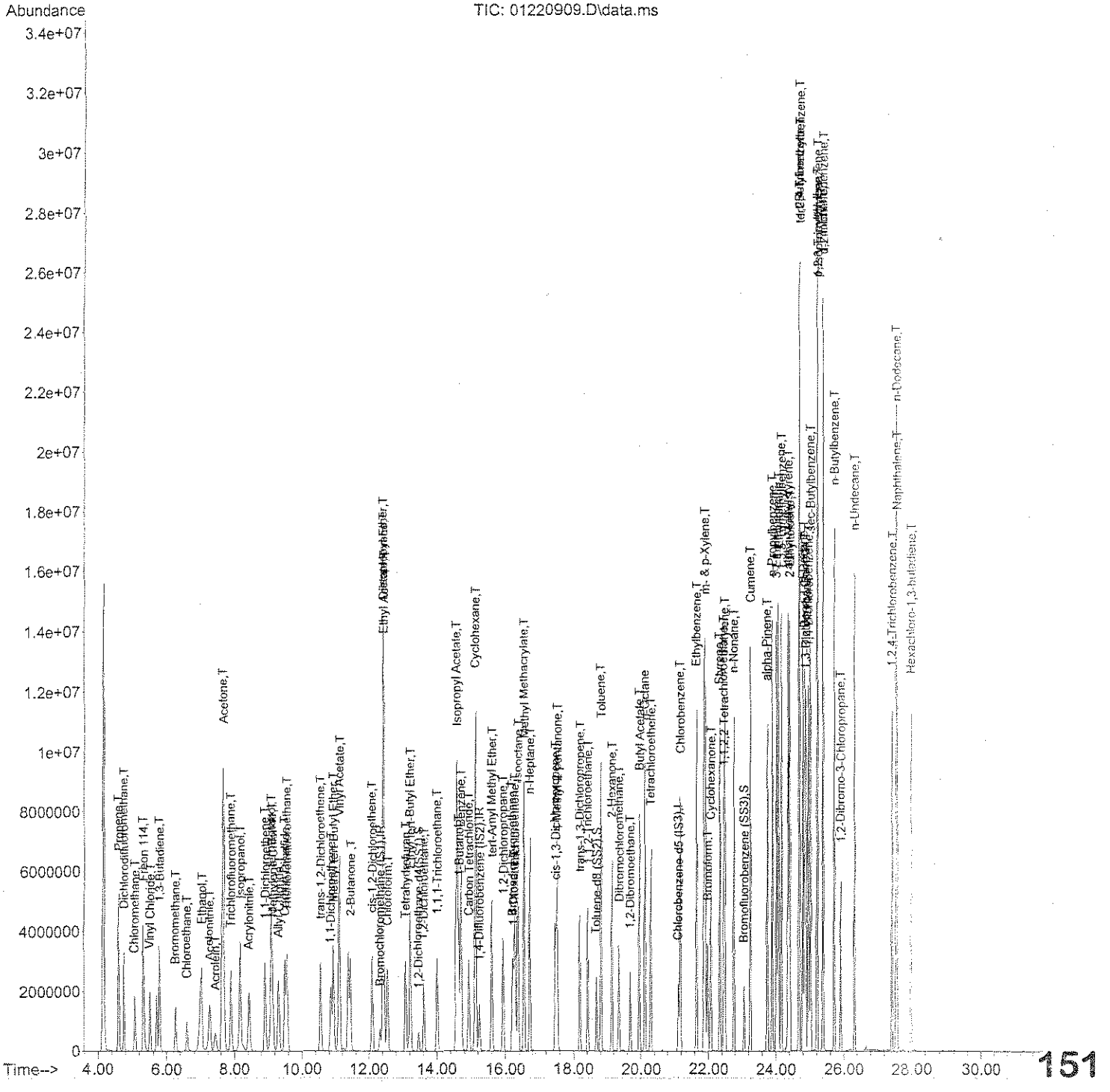
AM 1/24/09

150

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220909.D
Acq On : 22 Jan 2009 18:14
Operator : WA/LH
Sample : 100ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:53:15 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220909.D
Acq On : 22 Jan 2009 18:14
Operator : WA/LH
Sample : 100ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:53:15 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.33	130	436641	25.000	ng		0.00
37) 1,4-Difluorobenzene (IS2)	15.25	114	1974517	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.12	82	902617	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.46	65	665827	20.382	ng		0.00
Spiked Amount 25.000			Recovery =	81.52%			
57) Toluene-d8 (SS2)	18.68	98	2136477	25.373	ng		0.00
Spiked Amount 25.000			Recovery =	101.48%			
73) Bromofluorobenzene (SS3)	23.06	174	835343	29.762	ng		0.00
Spiked Amount 25.000			Recovery =	119.04%			
Target Compounds							Qvalue
2) Propene	4.59	42	2636549	105.195	ng		86
3) Dichlorodifluoromethane	4.75	85	3856585	88.169	ng		99
4) Chloromethane	5.07	50	2982994	76.907	ng		99
5) Freon 114	5.31	135	2100034	102.970	ng		86
6) Vinyl Chloride	5.51	62	3158744	95.287	ng		87
7) 1,3-Butadiene	5.78	54	2473175	99.140	ng		97
8) Bromomethane	6.26	94	1569976	93.227	ng		97
9) Chloroethane	6.59	64	1320603	92.277	ng		94
10) Ethanol	7.02	45	8258630	423.063	ng		93
11) Acetonitrile	7.26	41	3985068	89.471	ng		90
12) Acrolein	7.43	56	1319572	125.377	ng		81
13) Acetone	7.67	58	8743747	482.349	ng		90
14) Trichlorofluoromethane	7.89	101	3607517	95.054	ng		95
15) Isopropanol	8.17	45	9106545	152.528	ng		98
16) Acrylonitrile	8.44	53	3131702	107.675	ng		99
17) 1,1-Dichloroethene	8.90	96	1988660	108.580	ng	#	61
18) tert-Butanol	9.09	59	7911970	141.711	ng		97
19) Methylene Chloride	9.12	84	2041691	95.845	ng	#	49
20) Allyl Chloride	9.31	41	3219712	105.593	ng		75
21) Trichlorotrifluoroethane	9.55	151	1894203	114.092	ng		89
22) Carbon Disulfide	9.48	76	6995030	94.461	ng		98
23) trans-1,2-Dichloroethene	10.55	61	3022399	99.202	ng		72
24) 1,1-Dichloroethane	10.85	63	3665212	94.636	ng		97
25) Methyl tert-Butyl Ether	10.93	73	5701410	100.274	ng		85
26) Vinyl Acetate	11.11	86	1532829	419.553	ng	#	1
27) 2-Butanone	11.44	72	1411934	126.107	ng	#	29
28) cis-1,2-Dichloroethene	12.09	61	3073521	100.476	ng		72
29) Diisopropyl Ether	12.42	87	1781440	109.003	ng	#	11
30) Ethyl Acetate	12.44	61	1800021	204.736	ng		81
31) n-Hexane	12.42	57	3976995	97.954	ng		88

KM 1/24/09 MH 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220909.D
Acq On : 22 Jan 2009 18:14
Operator : WA/LH
Sample : 100ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:53:15 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.55	83	3444973	97.644	ng		98
34) Tetrahydrofuran	13.08	72	1268116	107.942	ng	#	48
35) Ethyl tert-Butyl Ether	13.21	87	2420207	101.660	ng	#	68
36) 1,2-Dichloroethane	13.62	62	2701643	84.745	ng		96
38) 1,1,1-Trichloroethane	14.01	97	3105454	96.641	ng		93
39) Isopropyl Acetate	14.57	61	3161510	235.293	ng	#	70
40) 1-Butanol	14.63	56	5254448	245.176	ng		85
41) Benzene	14.70	78	8468069	99.453	ng		100
42) Carbon Tetrachloride	14.93	117	2998272	103.196	ng		99
43) Cyclohexane	15.13	84	6396996	218.316	ng	#	64
44) tert-Amyl Methyl Ether	15.60	73	5943162	101.840	ng		82
45) 1,2-Dichloropropane	15.93	63	2203196	100.043	ng		98
46) Bromodichloromethane	16.20	83	2756072	98.581	ng		98
47) Trichloroethene	16.27	130	2385026	105.541	ng		97
48) 1,4-Dioxane	16.23	88	1753012	117.775	ng	#	68
49) Isooctane	16.36	57	9676702	100.574	ng		95
50) Methyl Methacrylate	16.56	100	1957964	261.605	ng		92
51) n-Heptane	16.73	71	2239909	108.053	ng	#	72
52) cis-1,3-Dichloropropene	17.47	75	3308785	104.025	ng		100
53) 4-Methyl-2-pentanone	17.52	58	2319556	115.636	ng		78
54) trans-1,3-Dichloropropene	18.18	75	3434769	117.674	ng		99
55) 1,1,2-Trichloroethane	18.42	97	2048306	108.481	ng		100
58) Toluene	18.82	91	9332416	111.362	ng		100
59) 2-Hexanone	19.14	43	5913714	114.105	ng		89
60) Dibromochloromethane	19.36	129	2676877	133.902	ng		99
61) 1,2-Dibromoethane	19.69	107	2449798	117.992	ng		99
62) Butyl Acetate	19.97	43	7443720	132.233	ng		93
63) n-Octane	20.12	57	2247786	120.361	ng	#	67
64) Tetrachloroethene	20.30	166	2644103	124.491	ng		99
65) Chlorobenzene	21.17	112	6157948	115.545	ng		99
66) Ethylbenzene	21.66	91	10714802	117.796	ng		98
67) m- & p-Xylene	21.90	91	17264543	239.341	ng		95
68) Bromoform	21.97	173	2461620	134.823	ng		100
69) Styrene	22.34	104	7017902	136.852	ng		96
70) o-Xylene	22.49	91	8798410	122.169	ng		97
71) n-Nonane	22.77	43	5148342	122.365	ng		83
72) 1,1,2,2-Tetrachloroethane	22.46	83	4081295	121.195	ng		96
74) Cumene	23.25	105	11262809	119.497	ng		95
75) alpha-Pinene	23.74	93	5408005	135.008	ng		95
76) n-Propylbenzene	23.89	91	13725291	119.101	ng		95
77) 3-Ethyltoluene	24.02	105	11686342	140.486	ng		94
78) 4-Ethyltoluene	24.08	105	11166338	134.518	ng		94
79) 1,3,5-Trimethylbenzene	24.17	105	9524858	135.184	ng		94

1/24/09 01/23/09

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220909.D
Acq On : 22 Jan 2009 18:14
Operator : WA/LH
Sample : 100ng TO-15 ICAL STD
Misc : S20-01050901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 23 08:53:15 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Jan 14 10:48:15 2009
Response via : Initial Calibration

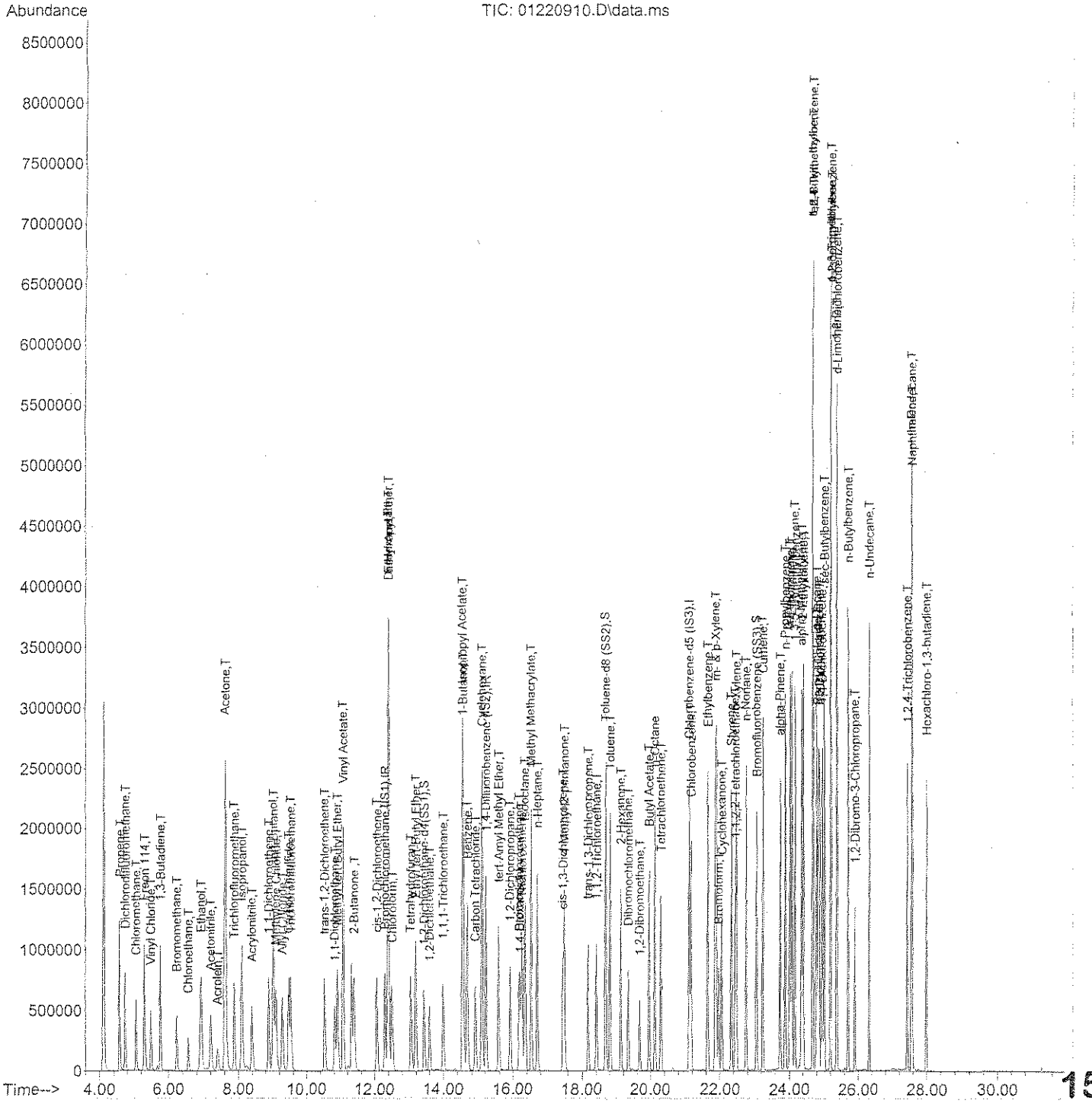
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.36	118	5648866	148.535	ng		96
81) 2-Ethyltoluene	24.42	105	11492918	134.431	ng		93
82) 1,2,4-Trimethylbenzene	24.69	105	10082002	146.775	ng		90
83) n-Decane	24.80	57	5856264	149.584	ng		79
84) Benzyl Chloride	24.85	91	9120268	146.999	ng		93
85) 1,3-Dichlorobenzene	24.88	146	6063302	142.654	ng		99
86) 1,4-Dichlorobenzene	24.96	146	6076015	140.455	ng		99
87) sec-Butylbenzene	25.02	105	13037480	133.571	ng		97
88) p-Isopropyltoluene	25.21	119	12131080	140.662	ng		94
89) 1,2,3-Trimethylbenzene	25.21	105	10073950	147.131	ng		89
90) 1,2-Dichlorobenzene	25.38	146	5829997	135.291	ng		98
91) d-Limonene	25.38	68	3918375	122.189	ng		96
92) 1,2-Dibromo-3-Chloropr...	25.91	157	2062515	149.633	ng	#	70
93) n-Undecane	26.32	57	6243269	191.990	ng		76
94) 1,2,4-Trichlorobenzene	27.44	184	1283481	211.379	ng	#	92
95) Naphthalene	27.58	128	13976472	210.547	ng		99
96) n-Dodecane	27.56	57	6332586	246.565	ng		72
97) Hexachloro-1,3-butadiene	28.00	225	2545463	172.490	ng		99
98) Cyclohexanone	22.08	55	3664664	108.689	ng		90
99) tert-Butylbenzene	24.68	119	9914688	143.848	ng		99
100) n-Butylbenzene	25.72	91	10511825	147.043	ng		92

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 09:00:34 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 09:00:34 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.31	130	444679	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.23	114	1984621	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.11	82	909679	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.44	65	668385	23.504	ng		-0.02
Spiked Amount 25.000			Recovery = 94.00%				
57) Toluene-d8 (SS2)	18.67	98	2155730	25.171	ng		0.00
Spiked Amount 25.000			Recovery = 100.68%				
73) Bromofluorobenzene (SS3)	23.06	174	827465	25.722	ng		0.00
Spiked Amount 25.000			Recovery = 102.88%				
Target Compounds							Qvalue
2) Propene	4.58	42	583213	23.428	ng		87
3) Dichlorodifluoromethane	4.74	85	874379	20.115	ng		99
4) Chloromethane	5.06	50	834991	23.510	ng		99
5) Freon 114	5.30	135	486109	23.518	ng		86
6) Vinyl Chloride	5.49	62	720472	22.641	ng		86
7) 1,3-Butadiene	5.76	54	636841	30.165	ng		98
8) Bromomethane	6.24	94	420931	25.524	ng		97
9) Chloroethane	6.57	64	321253	22.624	ng		95
10) Ethanol	6.93	45	1935855m	125.395	ng		
11) Acetonitrile	7.21	41	961963	23.013	ng		90
12) Acrolein	7.40	56	313323	24.204	ng		80
13) Acetone	7.62	58	2005535	113.939	ng		95
14) Trichlorofluoromethane	7.88	101	870777	23.046	ng		96
15) Isopropanol	8.10	45	2359475m	37.367	ng		
16) Acrylonitrile	8.39	53	740165	25.625	ng		99
17) 1,1-Dichloroethene	8.88	96	461047	24.777	ng	#	61
18) tert-Butanol	9.02	59	2651253	44.530	ng		97
19) Methylene Chloride	9.10	84	465317	20.835	ng	#	49
20) Allyl Chloride	9.28	41	739864	27.383	ng		76
21) Trichlorotrifluoroethane	9.53	151	407077	24.027	ng		88
22) Carbon Disulfide	9.47	76	1673774	21.421	ng		99
23) trans-1,2-Dichloroethene	10.52	61	727813	23.868	ng		72
24) 1,1-Dichloroethane	10.83	63	850972	23.384	ng		97
25) Methyl tert-Butyl Ether	10.91	73	1262553	23.046	ng		85
26) Vinyl Acetate	11.08	86	405282	110.999	ng	#	1
27) 2-Butanone	11.40	72	341839	25.431	ng	#	29
28) cis-1,2-Dichloroethene	12.07	61	707171	23.791	ng	#	72
29) Diisopropyl Ether	12.40	87	373475	22.969	ng	#	19
30) Ethyl Acetate	12.41	61	382627	49.236	ng		81
31) n-Hexane	12.41	57	792829	21.582	ng		8

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Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 09:00:34 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.52	83	800918	23.729	ng		98
34) Tetrahydrofuran	13.05	72	314794	25.280	ng	#	48
35) Ethyl tert-Butyl Ether	13.20	87	529711	22.450	ng	#	67
36) 1,2-Dichloroethane	13.60	62	637005	22.395	ng		96
38) 1,1,1-Trichloroethane	13.99	97	702036	22.576	ng		93
39) Isopropyl Acetate	14.55	61	674420	47.833	ng	#	78
40) 1-Butanol	14.56	56	1238253	56.799	ng		84
41) Benzene	14.68	78	1850868	21.752	ng		100
42) Carbon Tetrachloride	14.91	117	653863	23.678	ng		99
43) Cyclohexane	15.11	84	1362891	48.189	ng	#	63
44) tert-Amyl Methyl Ether	15.58	73	1327096	22.888	ng		82
45) 1,2-Dichloropropane	15.91	63	493554	22.928	ng		99
46) Bromodichloromethane	16.18	83	644243	24.349	ng		99
47) Trichloroethene	16.26	130	522343	23.049	ng		97
48) 1,4-Dioxane	16.21	88	403155	24.557	ng	#	68
49) Isooctane	16.35	57	2169636	22.513	ng		96
50) Methyl Methacrylate	16.53	100	423910	50.729	ng		91
51) n-Heptane	16.72	71	502176	23.862	ng	#	73
52) cis-1,3-Dichloropropene	17.46	75	737411	23.156	ng		99
53) 4-Methyl-2-pentanone	17.50	58	521826	26.055	ng		77
54) trans-1,3-Dichloropropene	18.17	75	767272	26.063	ng		99
55) 1,1,2-Trichloroethane	18.41	97	454094	22.775	ng		100
58) Toluene	18.80	91	2049378	23.745	ng		99
59) 2-Hexanone	19.12	43	1356382	25.879	ng		90
60) Dibromochloromethane	19.35	129	603878	28.252	ng		100
61) 1,2-Dibromoethane	19.68	107	548423	24.965	ng		99
62) Butyl Acetate	19.95	43	1528704	25.437	ng		95
63) n-Octane	20.11	57	480653	24.226	ng	#	66
64) Tetrachloroethene	20.30	166	573364	23.829	ng		99
65) Chlorobenzene	21.17	112	1350947	23.649	ng		100
66) Ethylbenzene	21.65	91	2318491	24.100	ng		99
67) m- & p-Xylene	21.88	91	3624725	48.047	ng		97
68) Bromoform	21.96	173	550527	27.909	ng		100
69) Styrene	22.33	104	1501516	25.907	ng		97
70) o-Xylene	22.48	91	1873099	24.256	ng		98
71) n-Nonane	22.75	43	1149566	24.068	ng		87
72) 1,1,2,2-Tetrachloroethane	22.45	83	878501	25.638	ng		96
74) Cumene	23.24	105	2416178	23.649	ng		96
75) alpha-Pinene	23.74	93	1150105	26.130	ng		97
76) n-Propylbenzene	23.88	91	2986935	24.113	ng		96
77) 3-Ethyltoluene	24.01	105	2477747	26.471	ng		95
78) 4-Ethyltoluene	24.07	105	2463481	26.879	ng		94
79) 1,3,5-Trimethylbenzene	24.16	105	2021059	25.551	ng		94

JB 1/24/09 LM 01/23/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 09:00:34 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

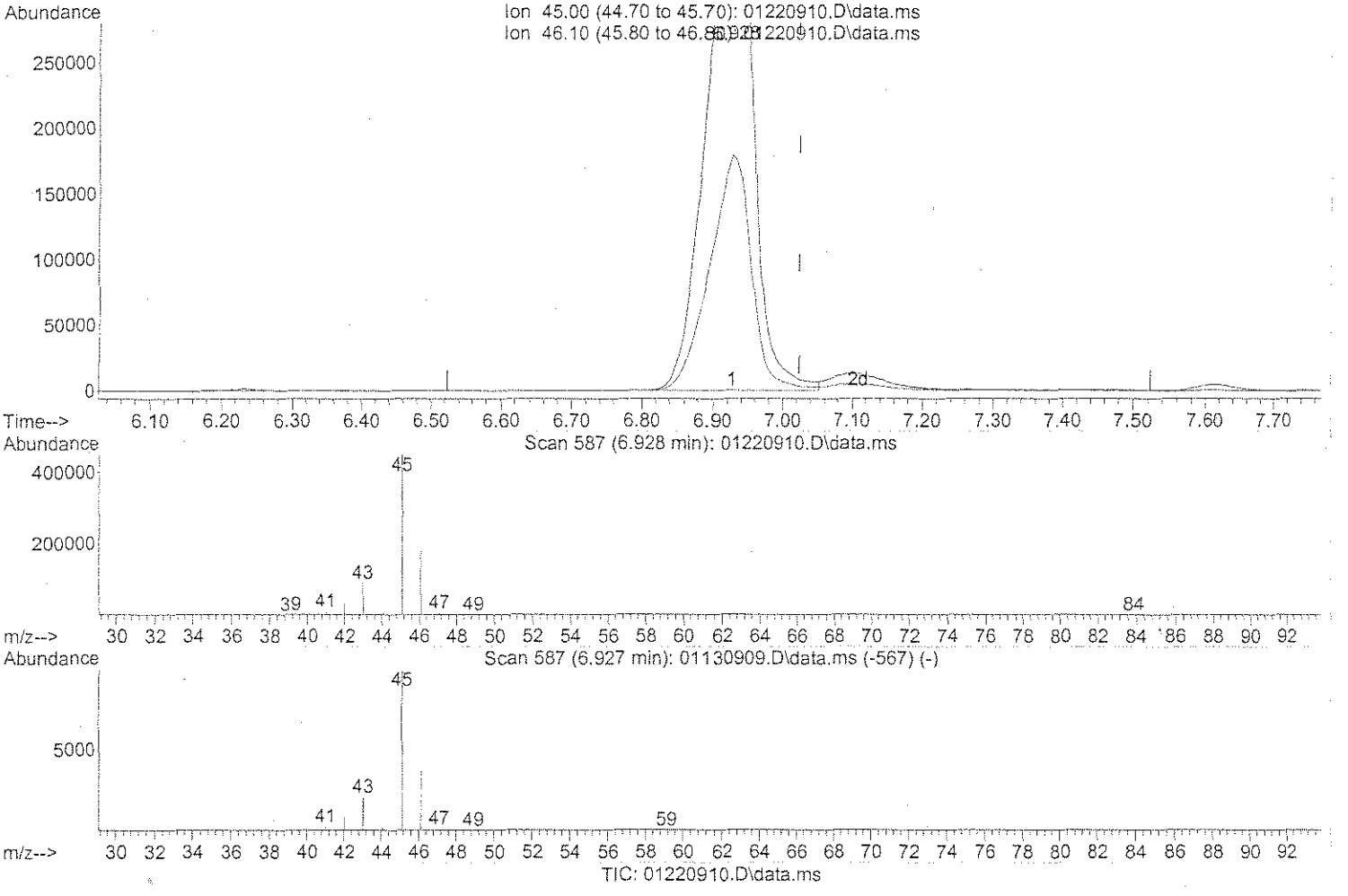
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1178247	26.127	ng		98
81) 2-Ethyltoluene	24.40	105	2493538	25.969	ng		94
82) 1,2,4-Trimethylbenzene	24.67	105	2158307	25.432	ng		90
83) n-Decane	24.79	57	1286405	25.786	ng		80
84) Benzyl Chloride	24.84	91	2060386	29.856	ng		95
85) 1,3-Dichlorobenzene	24.87	146	1279339	25.822	ng		99
86) 1,4-Dichlorobenzene	24.95	146	1294633	25.506	ng		99
87) sec-Butylbenzene	25.01	105	2851521	25.750	ng		98
88) p-Isopropyltoluene	25.20	119	2750234	25.586	ng		94
89) 1,2,3-Trimethylbenzene	25.20	105	2226987	26.224	ng		88
90) 1,2-Dichlorobenzene	25.37	146	1234367	26.309	ng		97
91) d-Limonene	25.38	68	869783	26.404	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	462071	28.373	ng	#	75
93) n-Undecane	26.32	57	1350551	25.090	ng		77
94) 1,2,4-Trichlorobenzene	27.43	184	274937	27.774	ng	#	94
95) Naphthalene	27.57	128	3196067	26.119	ng		100
96) n-Dodecane	27.55	57	1391794	22.928	ng		75
97) Hexachloro-1,3-butadiene	27.99	225	531935	27.020	ng		100
98) Cyclohexanone	22.06	55	812170	22.365	ng		92
99) tert-Butylbenzene	24.67	119	2166174	26.333	ng		100
100) n-Butylbenzene	25.71	91	2319025	26.457	ng		94

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

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 08:59:44 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.928min (-0.097) 120.63ng

response 1862354

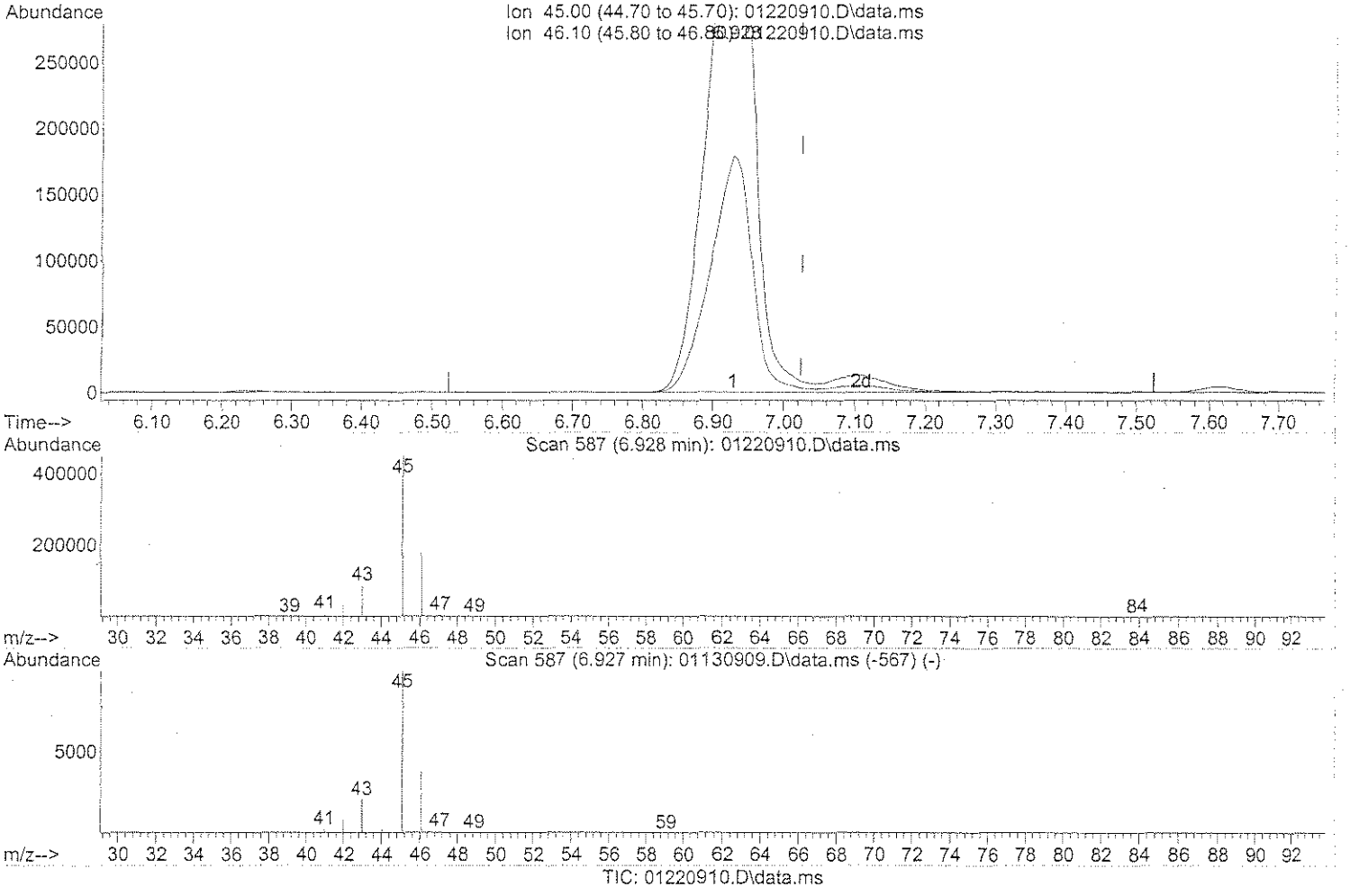
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	39.20
0.00	0.00	0.00
0.00	0.00	0.00

SP

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 08:59:44 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.928min (-0.097) 125.40ng m

response 1935855

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.71
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
IH 01/23/09

EM 1/23/09

PM 1/24/09

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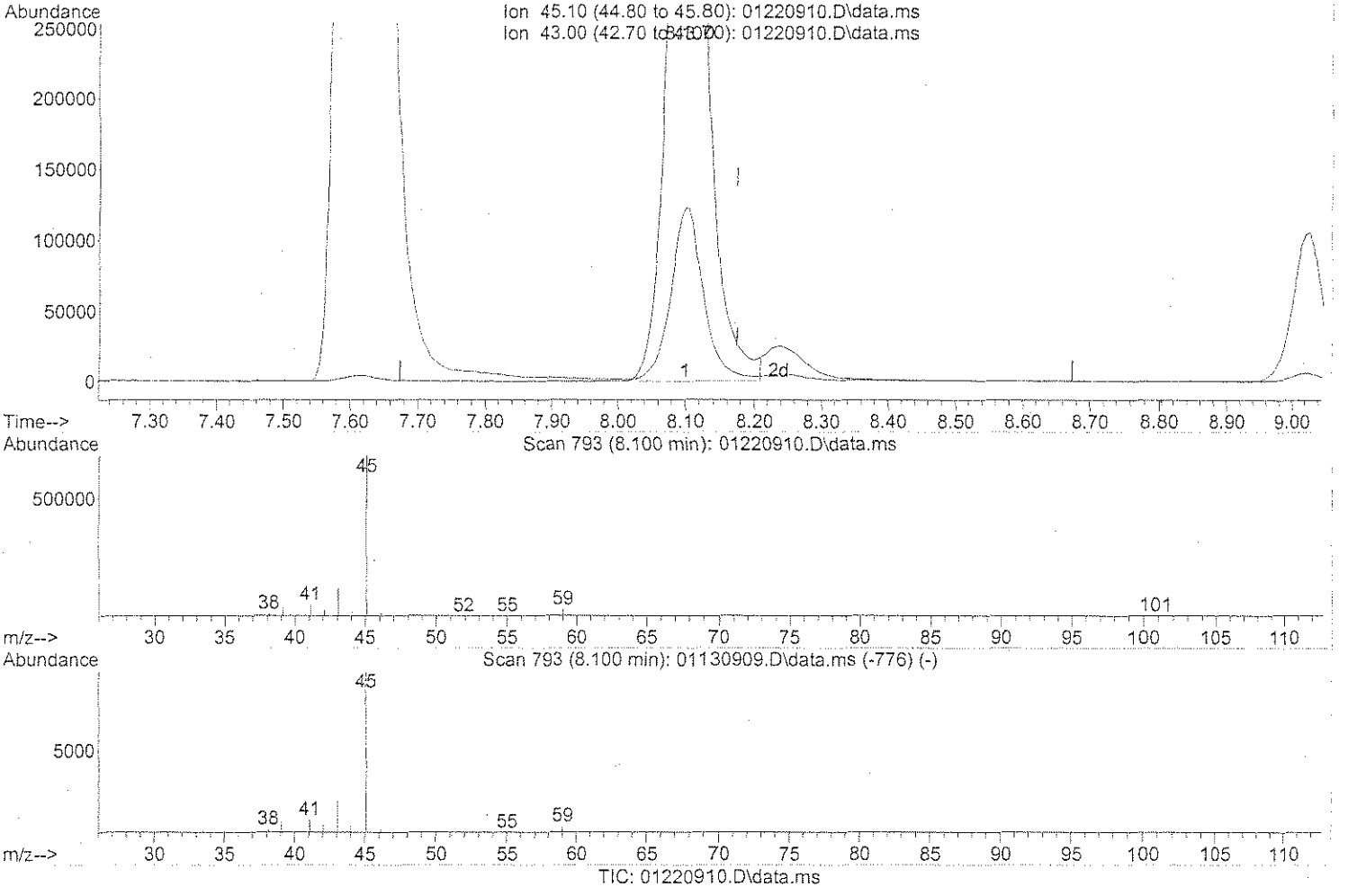
Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 08:59:44 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.100min (-0.074) 35.53ng

response 2243268

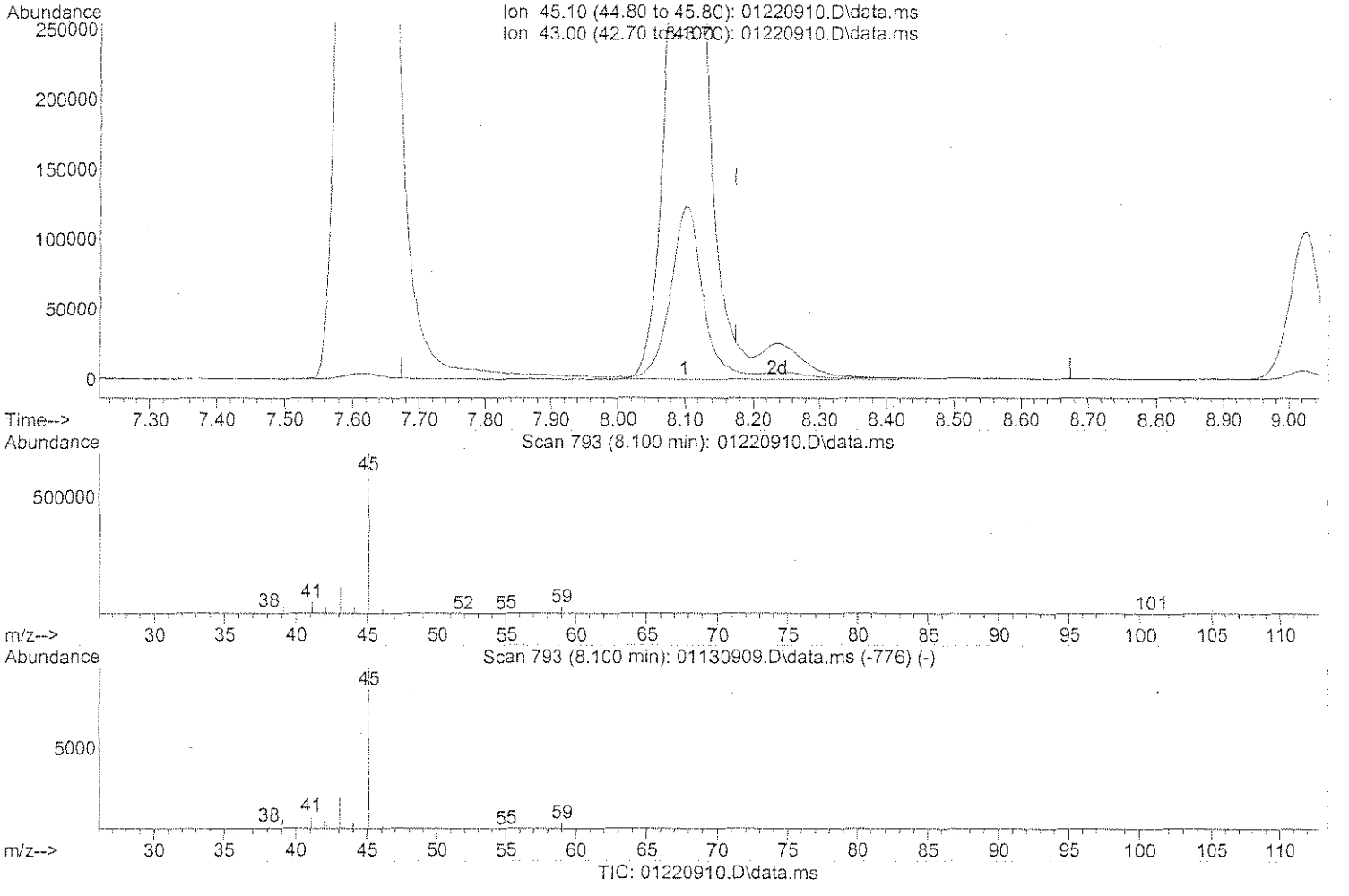
SP

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.84
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220910.D
Acq On : 22 Jan 2009 18:55
Operator : WA/LH
Sample : 25ng TO-15 ICV STD
Misc : S20-01050901/S20-01050904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 23 08:59:44 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.100min (-0.074) 37.37ng m

response 2359475

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	16.96
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
WA 01/23/09

EM 1/23/09

AH 1/24/09

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INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 01220910.D
Data File Path: J:\MS16\DATA\2009_01\22\
Operator: WA/LH
Date Acquired: 1/22/09 18:55
Acq. Method File: TO15LT.M
Name: 25ng TO-15 ICV STD
Misc Info: S20-01050901/S20-01050904
Instrument Name: GCMS-16

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
2)	Propene	4.58	23.4	26.3	89.0	70	130	*
3)	Dichlorodifluoromethane	4.74	20.1	26.3	76.4	70	130	*
4)	Chloromethane	5.06	23.5	25.3	92.9	70	130	*
5)	Freon 114	5.30	23.5	26.8	87.7	70	130	*
6)	Vinyl Chloride	5.49	22.6	25.5	88.6	70	130	*
7)	1,3-Butadiene	5.76	30.2	30.0	100.7	70	130	*
8)	Bromomethane	6.24	25.5	25.8	98.8	70	130	*
9)	Chloroethane	6.57	22.6	25.8	87.6	70	130	*
10)	Ethanol	6.93	125.4	133.0	94.3	70	130	*
11)	Acetonitrile	7.21	23.0	26.3	87.5	70	130	*
12)	Acrolein	7.40	24.2	27.3	88.6	70	130	*
13)	Acetone	7.62	113.9	137.0	83.1	70	130	*
14)	Trichlorofluoromethane	7.88	23.0	26.3	87.5	70	130	*
15)	Isopropanol	8.10	37.4	48.0	77.9	70	130	*
16)	Acrylonitrile	8.39	25.6	26.8	95.5	70	130	*
17)	1,1-Dichloroethene	8.88	24.8	27.5	90.2	70	130	*
18)	tert-Butanol	9.02	44.5	50.5	88.1	70	130	*
19)	Methylene Chloride	9.10	20.8	26.5	78.5	70	130	*
20)	Allyl Chloride	9.28	27.4	27.0	101.5	70	130	*
21)	Trichlorotrifluoroethane	9.53	24.0	27.5	87.3	70	130	*
22)	Carbon Disulfide	9.47	21.4	26.8	79.9	70	130	*
23)	trans-1,2-Dichloroethene	10.52	23.9	26.8	89.2	70	130	*
24)	1,1-Dichloroethane	10.83	23.4	26.8	87.3	70	130	*
25)	Methyl tert-Butyl Ether	10.91	23.0	27.5	83.6	70	130	*
26)	Vinyl Acetate	11.08	111.0	126.0	88.1	70	130	*
27)	2-Butanone	11.40	25.4	27.5	92.4	70	130	*
28)	cis-1,2-Dichloroethene	12.07	23.8	27.5	86.5	70	130	*
29)	Diisopropyl Ether	12.40	23.0	27.0	85.2	70	130	*
30)	Ethyl Acetate	12.41	49.2	53.5	92.0	70	130	*
31)	n-Hexane	12.41	21.6	27.3	79.1	70	130	*
32)	Chloroform	12.52	23.7	26.8	88.4	70	130	*
34)	Tetrahydrofuran	13.05	25.3	27.5	92.0	70	130	*
35)	Ethyl tert-Butyl Ether	13.20	22.4	26.0	86.2	70	130	*
36)	1,2-Dichloroethane	13.60	22.4	26.8	83.6	70	130	*
38)	1,1,1-Trichloroethane	13.99	22.6	26.5	85.3	70	130	*
39)	Isopropyl Acetate	14.55	47.8	52.8	90.5	70	130	*
40)	1-Butanol	14.56	56.8	54.8	103.6	70	130	*
41)	Benzene	14.68	21.8	26.8	81.3	70	130	*
42)	Carbon Tetrachloride	14.91	23.7	27.0	87.8	70	130	*
43)	Cyclohexane	15.11	48.2	54.5	88.4	70	130	*
44)	tert-Amyl Methyl Ether	15.58	22.9	26.3	87.1	70	130	*
45)	1,2-Dichloropropane	15.91	22.9	26.5	86.4	70	130	*
46)	Bromodichloromethane	16.18	24.3	27.3	89.0	70	130	*
47)	Trichloroethene	16.26	23.0	26.5	86.8	70	130	*
48)	1,4-Dioxane	16.21	24.6	27.0	91.1	70	130	*
49)	Isooctane	16.35	22.5	26.5	84.9	70	130	*
50)	Methyl Methacrylate	16.53	50.7	53.5	94.8	70	130	*

WA 01/23/09

LH 1/24/09

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 01220910.D
Data File Path: J:\MS16\DATA\2009_01\22\
Operator: WA/LH
Date Acquired: 1/22/09 18:55
Acq. Method File: TO15LT.M
Name: 25ng TO-15 ICV STD
Misc Info: S20-01050901/S20-01050904
Instrument Name: GCMS-16

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
51)	n-Heptane	16.72	23.9	27.0	88.5	70	130	*
52)	cis-1,3-Dichloropropene	17.46	23.2	25.0	92.8	70	130	*
53)	4-Methyl-2-pentanone	17.50	26.1	27.5	94.9	70	130	*
54)	trans-1,3-Dichloropropene	18.17	26.1	27.5	94.9	70	130	*
55)	1,1,2-Trichloroethane	18.41	22.8	26.3	86.7	70	130	*
58)	Toluene	18.80	23.7	27.0	87.8	70	130	*
59)	2-Hexanone	19.12	25.9	27.5	94.2	70	130	*
60)	Dibromochloromethane	19.35	28.3	28.8	98.3	70	130	*
61)	1,2-Dibromoethane	19.68	25.0	26.8	93.3	70	130	*
62)	Butyl Acetate	19.95	25.4	27.5	92.4	70	130	*
63)	n-Octane	20.11	24.2	26.8	90.3	70	130	*
64)	Tetrachloroethene	20.30	23.8	25.8	92.2	70	130	*
65)	Chlorobenzene	21.17	23.6	26.8	88.1	70	130	*
66)	Ethylbenzene	21.65	24.1	26.5	90.9	70	130	*
67)	m- & p-Xylene	21.88	48.0	52.5	91.4	70	130	*
68)	Bromoform	21.96	27.9	26.0	107.3	70	130	*
69)	Styrene	22.33	25.9	27.0	95.9	70	130	*
70)	o-Xylene	22.48	24.3	26.5	91.7	70	130	*
71)	n-Nonane	22.75	24.1	26.5	90.9	70	130	*
72)	1,1,2,2-Tetrachloroethane	22.45	25.6	27.0	94.8	70	130	*
74)	Cumene	23.24	23.6	25.8	91.5	70	130	*
75)	alpha-Pinene	23.74	26.1	27.5	94.9	70	130	*
76)	n-Propylbenzene	23.88	24.1	25.8	93.4	70	130	*
77)	3-Ethyltoluene	24.01	26.5	27.5	96.4	70	130	*
78)	4-Ethyltoluene	24.07	26.9	27.5	97.8	70	130	*
79)	1,3,5-Trimethylbenzene	24.16	25.6	27.3	93.8	70	130	*
80)	alpha-Methylstyrene	24.35	26.1	26.8	97.4	70	130	*
81)	2-Ethyltoluene	24.40	26.0	27.3	95.2	70	130	*
82)	1,2,4-Trimethylbenzene	24.67	25.4	26.8	94.8	70	130	*
83)	n-Decane	24.79	25.8	27.3	94.5	70	130	*
84)	Benzyl Chloride	24.84	29.9	28.8	103.8	70	130	*
85)	1,3-Dichlorobenzene	24.87	25.8	27.5	93.8	70	130	*
86)	1,4-Dichlorobenzene	24.95	25.5	27.3	93.4	70	130	*
87)	sec-Butylbenzene	25.01	25.7	26.8	95.9	70	130	*
88)	p-Isopropyltoluene	25.20	25.6	26.0	98.5	70	130	*
89)	1,2,3-Trimethylbenzene	25.20	26.2	26.8	97.8	70	130	*
90)	1,2-Dichlorobenzene	25.37	26.3	27.3	96.3	70	130	*
91)	d-Limonene	25.38	26.4	26.8	98.5	70	130	*
92)	1,2-Dibromo-3-Chloropropane	25.90	28.4	27.5	103.3	70	130	*
93)	n-Undecane	26.32	25.1	27.3	91.9	70	130	*
94)	1,2,4-Trichlorobenzene	27.43	27.8	28.8	96.5	70	130	*
95)	Naphthalene	27.57	26.1	25.8	101.2	70	130	*
96)	n-Dodecane	27.55	22.9	26.8	85.4	70	130	*
97)	Hexachloro-1,3-butadiene	27.99	27.0	28.8	93.8	70	130	*
98)	Cyclohexanone	22.06	22.4	25.3	88.5	70	130	*
99)	tert-Butylbenzene	24.67	26.3	27.0	97.4	70	130	*
100)	n-Butylbenzene	25.71	26.5	27.5	96.4	70	130	*

* Denotes Passing Criterion

VH 01/23/09 RH 1/24/09

Evaluate Continuing Calibration Report

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	72	-0.02
2	T	Propene	1.400	1.482	-5.9	87	0.00
3	T	Dichlorodifluoromethane	2.444	2.203	9.9	77	0.00
4	T	Chloromethane	1.997	1.995	0.1	78	-0.01
5	T	Freon 114	1.162	0.968	16.7	70	0.00
6	T	Vinyl Chloride	1.789	1.598	10.7	74	-0.02
7	T	1,3-Butadiene	1.187	1.226	-3.3	79	-0.02
8	T	Bromomethane	0.927	0.922	0.5	76	-0.02
9	T	Chloroethane	0.798	0.787	1.4	79	-0.01
10	T	Ethanol	0.868	1.000	-15.2	81	-0.09
11	T	Acetonitrile	2.350	2.442	-3.9	78	-0.05
12	T	Acrolein	0.728	0.750	-3.0	78	-0.03
13	T	Acetone	0.990	1.013	-2.3	79	-0.05
14	T	Trichlorofluoromethane	2.124	2.125	-0.0	76	-0.02
15	T	Isopropanol	3.550	3.533	0.5	75	-0.07
16	T	Acrylonitrile	1.624	1.929	-18.8	78	-0.04
17	T	1,1-Dichloroethene	1.046	1.106	-5.7	77	-0.02
18	T	tert-Butanol	3.347	3.547	-6.0	75	-0.06
19	T	Methylene Chloride	1.256	1.175	6.4	76	-0.02
20	T	Allyl Chloride	1.519	1.918	-26.3	82	-0.03
21	T	Trichlorotrifluoroethane	0.952	0.927	2.6	75	-0.02
22	T	Carbon Disulfide	4.393	4.183	4.8	77	-0.02
23	T	trans-1,2-Dichloroethene	1.714	1.831	-6.8	77	-0.02
24	T	1,1-Dichloroethane	2.046	2.178	-6.5	79	-0.02
25	T	Methyl tert-Butyl Ether	3.080	3.055	0.8	76	-0.02
26	T	Vinyl Acetate	0.205	0.242	-18.0	82	-0.03
27	T	2-Butanone	0.756	0.834	-10.3	77	-0.04
28	T	cis-1,2-Dichloroethene	1.671	1.755	-5.0	77	-0.02
29	T	Diisopropyl Ether	0.914	0.927	-1.4	76	-0.02
30	T	Ethyl Acetate	0.437	0.503	-15.1	78	-0.03
31	T	n-Hexane	2.065	2.016	2.4	76	-0.02
32	T	Chloroform	1.898	1.997	-5.2	77	-0.04
33	S	1,2-Dichloroethane-d4(SS1)	1.599	1.563	2.3	73	-0.02
34	T	Tetrahydrofuran	0.700	0.751	-7.3	76	-0.03
35	T	Ethyl tert-Butyl Ether	1.327	1.348	-1.6	76	-0.02
36	T	1,2-Dichloroethane	1.599	1.644	-2.8	76	-0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	72	-0.02
38	T	1,1,1-Trichloroethane	0.392	0.400	-2.0	76	-0.02

2/6/09 LH 02/13/09

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
39	T	Isopropyl Acetate	0.178	0.200	-12.4	77	-0.03
40	T	1-Butanol	0.275	0.333	-21.1	76	-0.07
41	T	Benzene	1.072	1.097	-2.3	77	-0.02
42	T	Carbon Tetrachloride	0.348	0.378	-8.6	76	-0.02
43	T	Cyclohexane	0.356	0.376	-5.6	77	-0.02
44	T	tert-Amyl Methyl Ether	0.730	0.751	-2.9	75	-0.02
45	T	1,2-Dichloropropane	0.271	0.287	-5.9	77	-0.02
46	T	Bromodichloromethane	0.333	0.364	-9.3	76	-0.02
47	T	Trichloroethene	0.285	0.307	-7.7	77	-0.02
48	T	1,4-Dioxane	0.207	0.228	-10.1	77	-0.02
49	T	Isooctane	1.214	1.232	-1.5	75	-0.02
50	T	Methyl Methacrylate	0.105	0.121	-15.2	76	-0.03
51	T	n-Heptane	0.265	0.281	-6.0	75	-0.02
52	T	cis-1,3-Dichloropropene	0.401	0.444	-10.7	76	-0.01
53	T	4-Methyl-2-pentanone	0.252	0.283	-12.3	77	-0.02
54	T	trans-1,3-Dichloropropene	0.371	0.419	-12.9	76	-0.02
55	T	1,1,2-Trichloroethane	0.251	0.266	-6.0	77	-0.02
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	76	-0.01
57	S	Toluene-d8 (SS2)	2.354	2.256	4.2	73	-0.01
58	T	Toluene	2.372	2.323	2.1	77	-0.01
59	T	2-Hexanone	1.440	1.511	-4.9	78	-0.02
60	T	Dibromochloromethane	0.587	0.627	-6.8	77	-0.01
61	T	1,2-Dibromoethane	0.604	0.630	-4.3	77	-0.01
62	T	Butyl Acetate	1.652	1.746	-5.7	78	-0.02
63		n-Octane	0.545	0.564	-3.5	77	-0.01
64	T	Tetrachloroethene	0.661	0.676	-2.3	77	0.00
65	T	Chlorobenzene	1.570	1.568	0.1	77	0.00
66	T	Ethylbenzene	2.644	2.737	-3.5	77	-0.01
67	T	m- & p-Xylene	2.073	2.184	-5.4	78	-0.02
68	T	Bromoform	0.542	0.615	-13.5	77	-0.01
69	T	Styrene	1.593	1.749	-9.8	77	-0.01
70	T	o-Xylene	2.122	2.230	-5.1	77	-0.02
71	T	n-Nonane	1.313	1.389	-5.8	79	-0.01
72	T	1,1,2,2-Tetrachloroethane	0.942	1.017	-8.0	77	-0.02
73	S	Bromofluorobenzene (SS3)	0.884	0.962	-8.8	81	0.00
74	T	Cumene	2.808	2.921	-4.0	78	-0.01
75	T	alpha-Pinene	1.210	1.276	-5.5	76	0.00
76	T	n-Propylbenzene	3.404	3.681	-8.1	78	-0.01

2/16/09 2/18/09

Evaluate Continuing Calibration Report

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	T	3-Ethyltoluene	2.572	2.831	-10.1	79	-0.01
78	T	4-Ethyltoluene	2.519	2.713	-7.7	77	-0.01
79	T	1,3,5-Trimethylbenzene	2.174	2.354	-8.3	78	-0.01
80	T	alpha-Methylstyrene	1.239	1.399	-12.9	77	-0.02
81	T	2-Ethyltoluene	2.639	2.908	-10.2	79	-0.02
82	T	1,2,4-Trimethylbenzene	2.332	2.615	-12.1	78	-0.02
83	T	n-Decane	1.371	1.522	-11.0	79	-0.02
84	T	Benzyl Chloride	1.897	2.216	-16.8	77	-0.02
85	T	1,3-Dichlorobenzene	1.362	1.524	-11.9	79	-0.02
86	T	1,4-Dichlorobenzene	1.395	1.567	-12.3	80	-0.02
87	T	sec-Butylbenzene	3.043	3.408	-12.0	79	-0.01
88	T	p-Isopropyltoluene	2.954	3.436	-16.3	79	-0.02
89	T	1,2,3-Trimethylbenzene	2.334	2.664	-14.1	79	-0.01
90	T	1,2-Dichlorobenzene	1.289	1.482	-15.0	80	-0.01
91	T	d-Limonene	0.905	1.045	-15.5	77	-0.01
92	T	1,2-Dibromo-3-Chloropropane	0.448	0.510	-13.8	78	-0.01
93	T	n-Undecane	1.479	1.601	-8.2	79	0.00
94	T	1,2,4-Trichlorobenzene	0.272	0.296	-8.8	80	0.00
95	T	Naphthalene	3.363	3.618	-7.6	80	-0.01
96	T	n-Dodecane	1.668	1.825	-9.4	80	0.00
97	T	Hexachloro-1,3-butadiene	0.541	0.577	-6.7	79	0.00
98	T	Cyclohexanone	0.998	1.014	-1.6	77	-0.02
99	T	tert-Butylbenzene	2.261	2.551	-12.8	79	-0.01
100	T	n-Butylbenzene	2.409	2.695	-11.9	79	-0.01

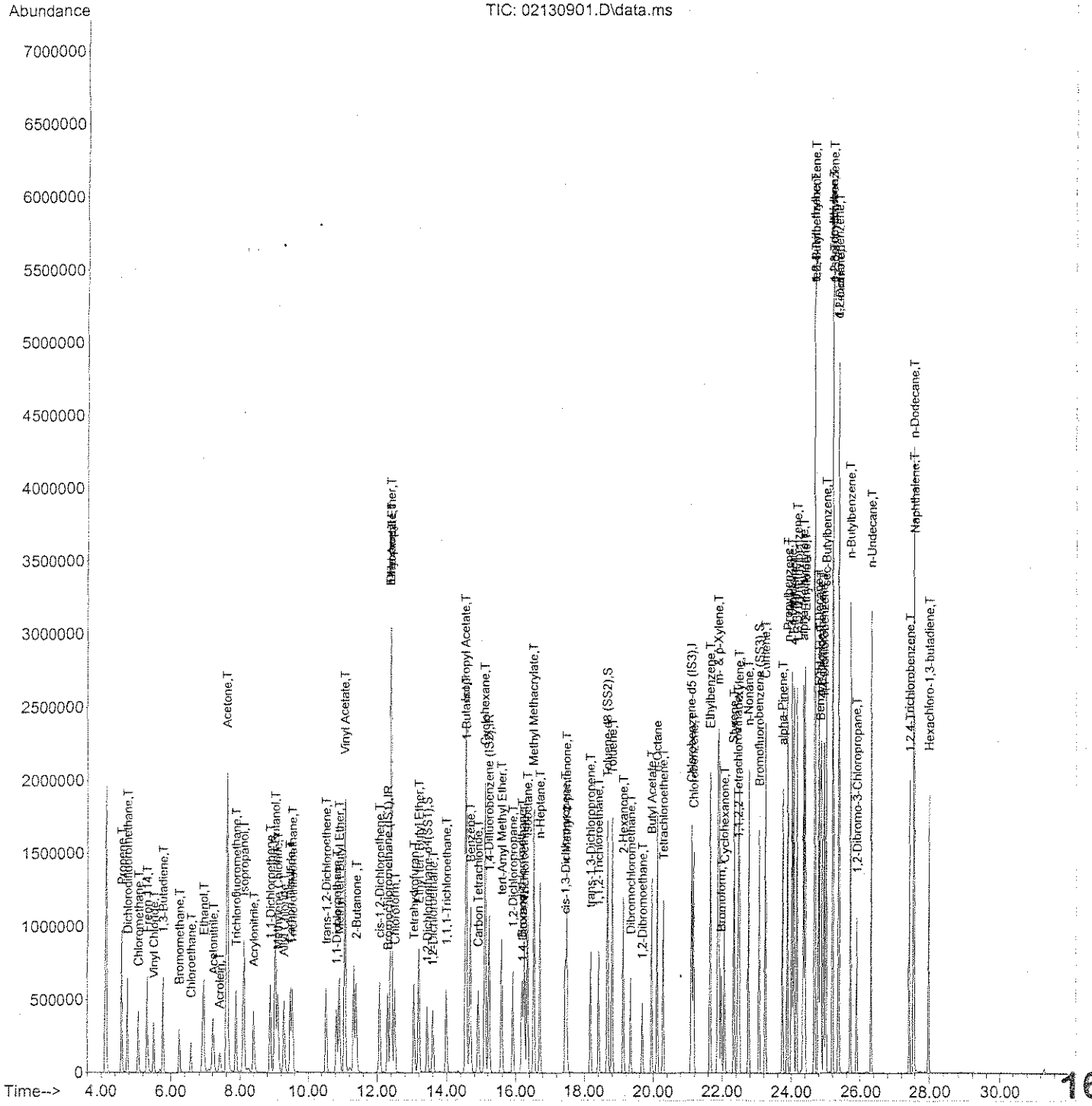
(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/6/09 WA 02/13/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.31	130	292784	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.22	114	1302929	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.10	82	652497	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.44	65	457613	24.441	ng		-0.02
Spiked Amount 25.000			Recovery = 97.76%				
57) Toluene-d8 (SS2)	18.67	98	1472180	23.965	ng		-0.01
Spiked Amount 25.000			Recovery = 95.84%				
73) Bromofluorobenzene (SS3)	23.06	174	627925	27.213	ng		0.00
Spiked Amount 25.000			Recovery = 108.84%				
Target Compounds							Qvalue
2) Propene	4.58	42	447867	27.325	ng		88
3) Dichlorodifluoromethane	4.75	85	678463	23.706	ng		99
4) Chloromethane	5.06	50	591226	25.283	ng		98
5) Freon 114	5.31	135	300316	22.067	ng		87
6) Vinyl Chloride	5.49	62	477277	22.780	ng		86
7) 1,3-Butadiene	5.77	54	387673	27.889	ng		98
8) Bromomethane	6.24	94	278479	25.647	ng		98
9) Chloroethane	6.57	64	239645	25.633	ng		94
10) Ethanol	6.93	45	1546467m	152.142	ng		
11) Acetonitrile	7.21	41	752242	27.332	ng		90
12) Acrolein	7.40	56	237005	27.807	ng		83
13) Acetone	7.62	58	1577578	136.123	ng		99
14) Trichlorofluoromethane	7.88	101	654456	26.306	ng		95
15) Isopropanol	8.11	45	2007000m	48.275	ng		
16) Acrylonitrile	8.40	53	582985	30.655	ng		100
17) 1,1-Dichloroethene	8.88	96	356062	29.062	ng	#	63
18) tert-Butanol	9.03	59	2076990	52.983	ng		99
19) Methylene Chloride	9.10	84	364808	24.809	ng	#	54
20) Allyl Chloride	9.28	41	606618	34.099	ng		79
21) Trichlorotrifluoroethane	9.53	151	298425	26.752	ng		90
22) Carbon Disulfide	9.46	76	1273727	24.758	ng		99
23) trans-1,2-Dichloroethene	10.52	61	553378	27.562	ng		74
24) 1,1-Dichloroethane	10.83	63	683500	28.526	ng		97
25) Methyl tert-Butyl Ether	10.91	73	948158	26.286	ng		86
26) Vinyl Acetate	11.08	86	357309	148.630	ng	#	4
27) 2-Butanone	11.40	72	263659	29.791	ng	#	37
28) cis-1,2-Dichloroethene	12.07	61	561130	28.671	ng		74
29) Diisopropyl Ether	12.40	87	287780	26.881	ng	#	28
30) Ethyl Acetate	12.41	61	306411	59.884	ng		85
31) n-Hexane	12.41	57	613769	25.376	ng		88

Erm 2/16/09 LM 02/13/09

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.51	83	643080	28.937	ng		98
34) Tetrahydrofuran	13.05	72	235832	28.764	ng	#	51
35) Ethyl tert-Butyl Ether	13.19	87	407345	26.220	ng	#	69
36) 1,2-Dichloroethane	13.60	62	510118	27.238	ng		96
38) 1,1,1-Trichloroethane	13.99	97	548587	26.871	ng		94
39) Isopropyl Acetate	14.54	61	546040	58.990	ng	#	82
40) 1-Butanol	14.56	56	937168	65.480	ng	#	78
41) Benzene	14.68	78	1475476	26.413	ng		99
42) Carbon Tetrachloride	14.91	117	517564	28.549	ng		100
43) Cyclohexane	15.11	84	1039020	55.959	ng	#	65
44) tert-Amyl Methyl Ether	15.58	73	1009276	26.514	ng		84
45) 1,2-Dichloropropane	15.91	63	393491	27.843	ng		99
46) Bromodichloromethane	16.18	83	498740	28.712	ng		99
47) Trichloroethene	16.25	130	412382	27.718	ng		97
48) 1,4-Dioxane	16.21	88	309230	28.691	ng	#	69
49) Isooctane	16.35	57	1669578	26.388	ng		98
50) Methyl Methacrylate	16.53	100	335949	61.237	ng	#	88
51) n-Heptane	16.71	71	380500	27.540	ng	#	74
52) cis-1,3-Dichloropropene	17.46	75	577901	27.641	ng		99
53) 4-Methyl-2-pentanone	17.50	58	402305	30.597	ng		79
54) trans-1,3-Dichloropropene	18.17	75	600281	31.059	ng		99
55) 1,1,2-Trichloroethane	18.41	97	360589	27.548	ng		100
58) Toluene	18.80	91	1637006	26.443	ng		99
59) 2-Hexanone	19.12	43	1084517	28.847	ng		92
60) Dibromochloromethane	19.35	129	471078	30.726	ng		100
61) 1,2-Dibromoethane	19.68	107	435424	27.634	ng		98
62) Butyl Acetate	19.95	43	1253069	29.069	ng		97
63) n-Octane	20.11	57	387233	27.210	ng	#	69
64) Tetrachloroethene	20.30	166	455014	26.364	ng		98
65) Chlorobenzene	21.17	112	1084447	26.466	ng		100
66) Ethylbenzene	21.64	91	1878766	27.227	ng		99
67) m- & p-Xylene	21.88	91	2964685	54.787	ng		97
68) Bromoform	21.96	173	429951	30.387	ng		100
69) Styrene	22.33	104	1223422	29.429	ng		97
70) o-Xylene	22.48	91	1530956	27.640	ng		98
71) n-Nonane	22.75	43	953548	27.833	ng		90
72) 1,1,2,2-Tetrachloroethane	22.45	83	716536	29.153	ng		96
74) Cumene	23.24	105	1943792	26.525	ng		96
75) alpha-Pinene	23.74	93	916082	29.016	ng		98
76) n-Propylbenzene	23.88	91	2450048	27.574	ng		97
77) 3-Ethyltoluene	24.01	105	2032272	30.269	ng		95
78) 4-Ethyltoluene	24.07	105	1946982	29.617	ng		94
79) 1,3,5-Trimethylbenzene	24.16	105	1658708	29.235	ng		94

2/16/09 02/13/09

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:36 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

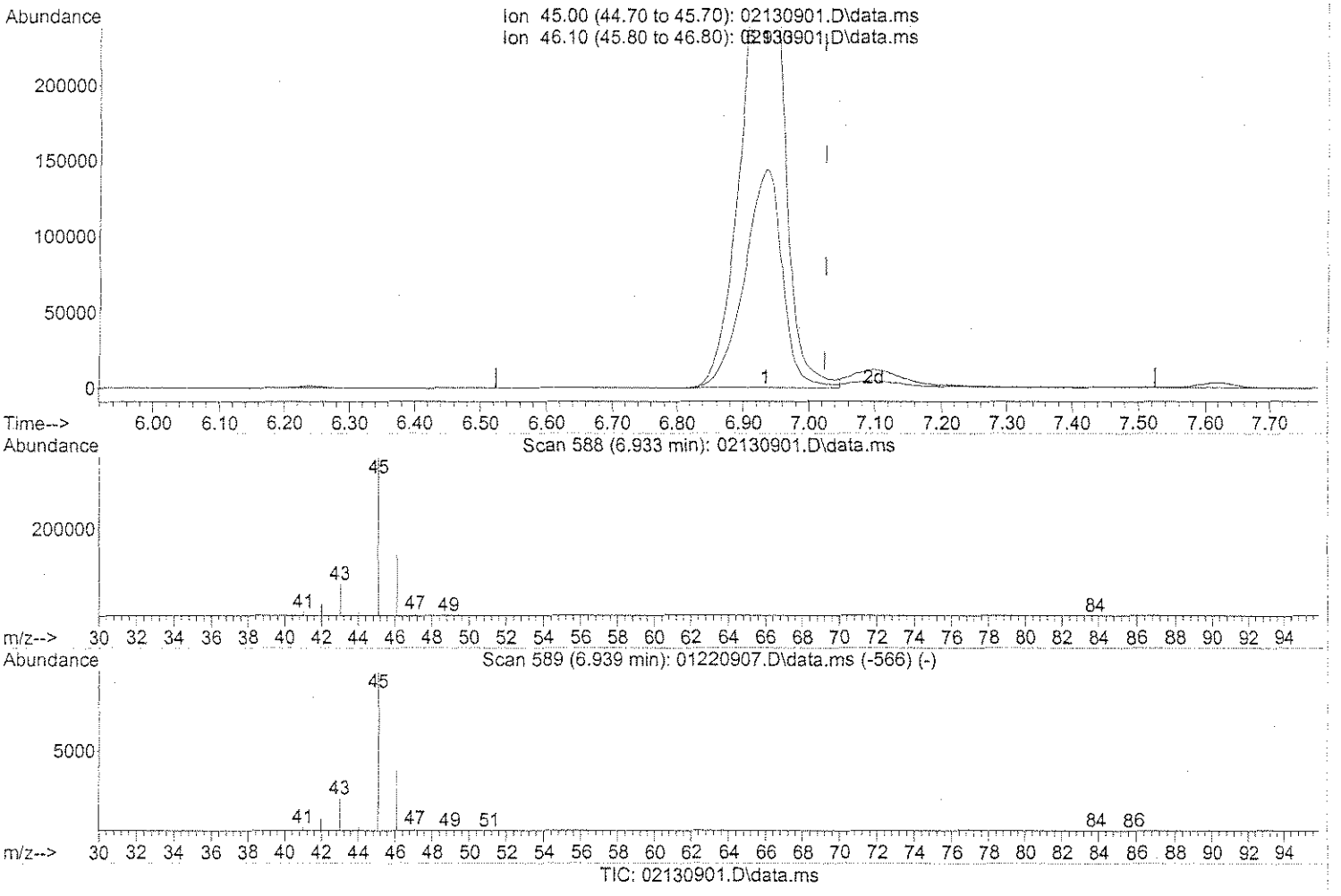
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	967491	29.909	ng		98
81) 2-Ethyltoluene	24.40	105	2049527	29.758	ng		94
82) 1,2,4-Trimethylbenzene	24.67	105	1795061	29.489	ng		90
83) n-Decane	24.79	57	1072752	29.979	ng		81
84) Benzyl Chloride	24.84	91	1590821	32.138	ng		95
85) 1,3-Dichlorobenzene	24.87	146	1066217	30.002	ng		98
86) 1,4-Dichlorobenzene	24.95	146	1083879	29.770	ng		99
87) sec-Butylbenzene	25.01	105	2357391	29.678	ng		98
88) p-Isopropyltoluene	25.20	119	2286704	29.659	ng		94
89) 1,2,3-Trimethylbenzene	25.20	105	1842327	30.245	ng		88
90) 1,2-Dichlorobenzene	25.37	146	1036857	30.810	ng		98
91) d-Limonene	25.37	68	722434	30.575	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	359216	30.751	ng	#	76
93) n-Undecane	26.32	57	1119930	29.006	ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	212719	29.959	ng	#	92
95) Naphthalene	27.57	128	2389155	27.220	ng		100
96) n-Dodecane	27.55	57	1119421	25.710	ng		77
97) Hexachloro-1,3-butadiene	27.99	225	414204	29.332	ng		99
98) Cyclohexanone	22.06	55	656285	25.196	ng		93
99) tert-Butylbenzene	24.67	119	1797718	30.467	ng		100
100) n-Butylbenzene	25.71	91	1920473	30.546	ng		95

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

2/6/09 02/13/09

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:00 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.933min (-0.091) 145.61ng

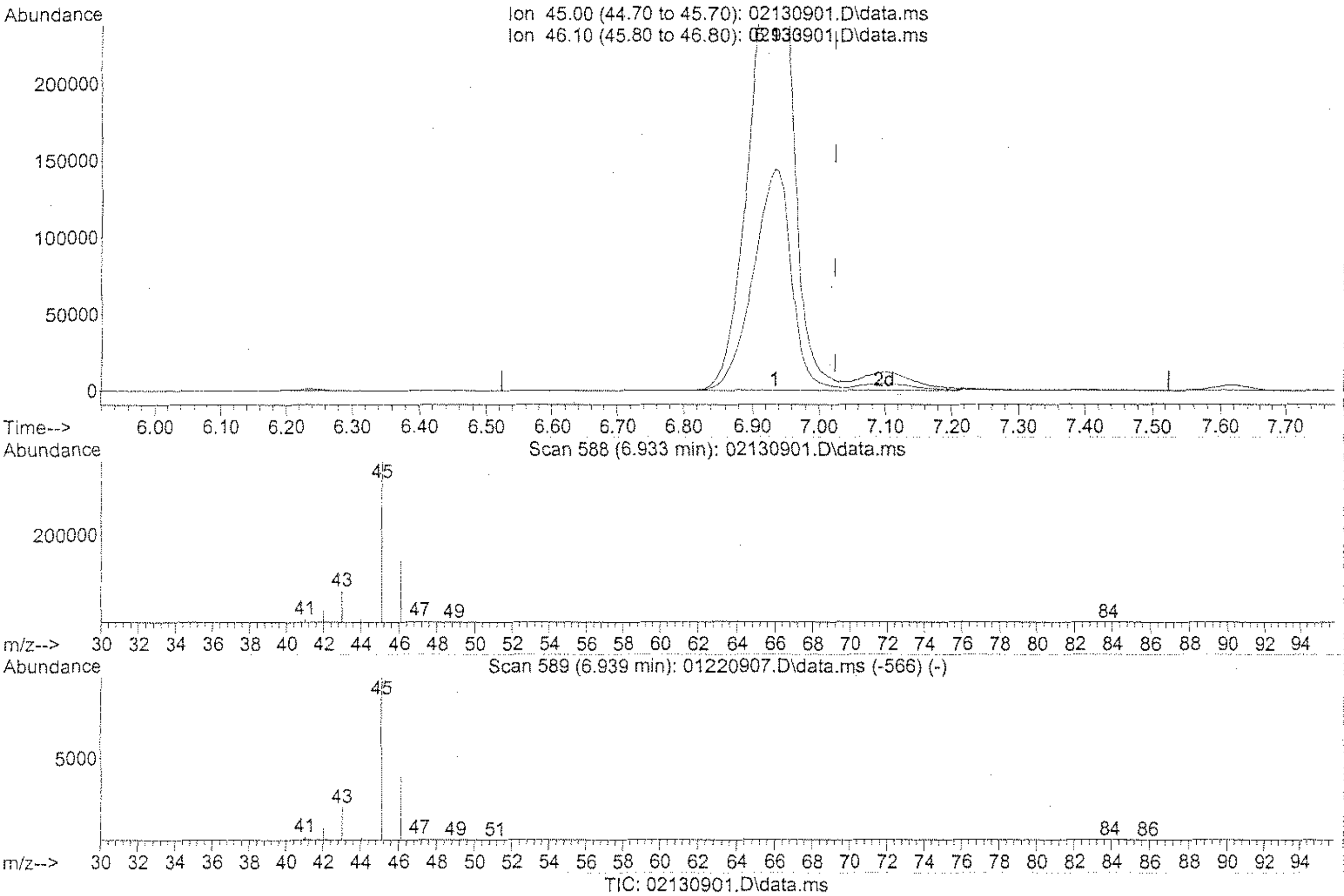
response 1480117

SP

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	38.95
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:00 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.933min (-0.091) 152.14ng m

response 1546467

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.28
0.00	0.00	0.00
0.00	0.00	0.00

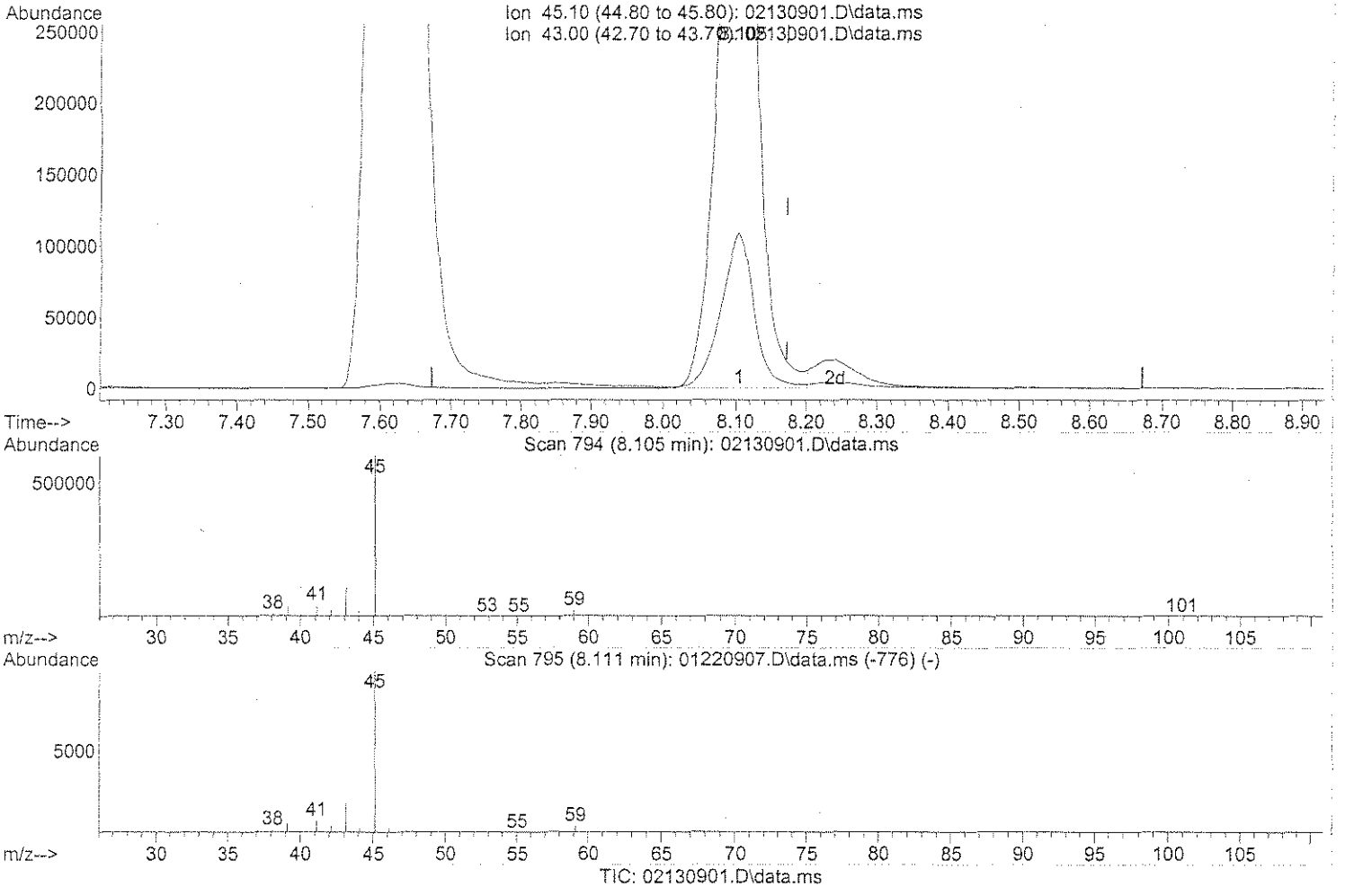
SP ——> IC
LH 02/13/09
LM 2/16/09

Em 2/16/09

173

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:00 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.105min (-0.068) 46.14ng

response 1918028

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.91
0.00	0.00	0.00
0.00	0.00	0.00

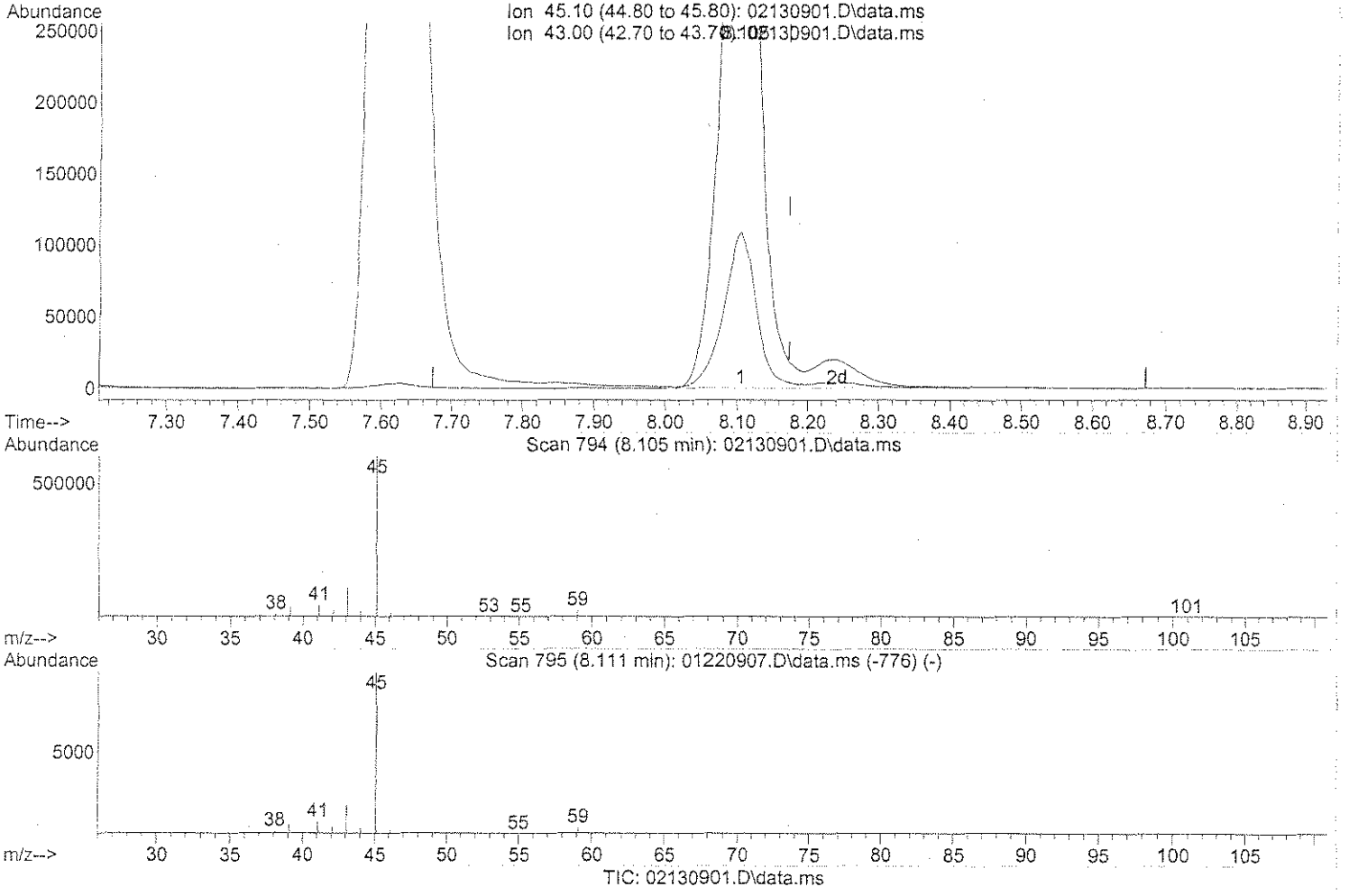
SP

174

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:09:00 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.105min (-0.068) 48.28ng m

response 2007000

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.11
0.00	0.00	0.00
0.00	0.00	0.00

SP → IC
WA 2/13/09

WA 2/16/09

Em 2/16/09

175

Evaluate Continuing Calibration Report

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	71	-0.02
2	T	Propene	1.400	1.376	1.7	79	0.00
3	T	Dichlorodifluoromethane	2.444	2.208	9.7	75	0.00
4	T	Chloromethane	1.997	1.911	4.3	73	-0.01
5	T	Freon 114	1.162	1.020	12.2	72	0.00
6	T	Vinyl Chloride	1.789	1.629	8.9	73	-0.02
7	T	1,3-Butadiene	1.187	1.267	-6.7	79	-0.02
8	T	Bromomethane	0.927	0.942	-1.6	75	-0.02
9	T	Chloroethane	0.798	0.783	1.9	77	-0.01
10	T	Ethanol	0.868	1.008	-16.1	79	-0.09
11	T	Acetonitrile	2.350	2.431	-3.4	76	-0.05
12	T	Acrolein	0.728	0.749	-2.9	76	-0.03
13	T	Acetone	0.990	1.029	-3.9	79	-0.04
14	T	Trichlorofluoromethane	2.124	2.203	-3.7	77	-0.02
15	T	Isopropanol	3.550	3.751	-5.7	78	-0.06
16	T	Acrylonitrile	1.624	1.944	-19.7	77	-0.04
17	T	1,1-Dichloroethene	1.046	1.126	-7.6	77	-0.02
18	T	tert-Butanol	3.347	3.700	-10.5	76	-0.06
19	T	Methylene Chloride	1.256	1.199	4.5	76	-0.02
20	T	Allyl Chloride	1.519	1.939	-27.6	81	-0.02
21	T	Trichlorotrifluoroethane	0.952	0.984	-3.4	77	-0.02
22	T	Carbon Disulfide	4.393	4.304	2.0	77	-0.02
23	T	trans-1,2-Dichloroethene	1.714	1.837	-7.2	75	-0.02
24	T	1,1-Dichloroethane	2.046	2.201	-7.6	78	-0.02
25	T	Methyl tert-Butyl Ether	3.080	3.190	-3.6	78	-0.02
26	T	Vinyl Acetate	0.205	0.260	-26.8	86	-0.03
27	T	2-Butanone	0.756	0.853	-12.8	77	-0.04
28	T	cis-1,2-Dichloroethene	1.671	1.781	-6.6	76	-0.02
29	T	Diisopropyl Ether	0.914	0.968	-5.9	77	-0.02
30	T	Ethyl Acetate	0.437	0.520	-19.0	79	-0.03
31	T	n-Hexane	2.065	2.123	-2.8	78	-0.02
32	T	Chloroform	1.898	2.029	-6.9	77	-0.04
33	S	1,2-Dichloroethane-d4(SS1)	1.599	1.573	1.6	71	-0.02
34	T	Tetrahydrofuran	0.700	0.778	-11.1	77	-0.03
35	T	Ethyl tert-Butyl Ether	1.327	1.395	-5.1	77	-0.02
36	T	1,2-Dichloroethane	1.599	1.692	-5.8	76	-0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	70	-0.02
38	T	1,1,1-Trichloroethane	0.392	0.413	-5.4	77	-0.02

KDA 2/17/09 LH 02/16/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
39	T	Isopropyl Acetate	0.178	0.204	-14.6	77	-0.02
40	T	1-Butanol	0.275	0.341	-24.0	76	-0.07
41	T	Benzene	1.072	1.121	-4.6	77	-0.02
42	T	Carbon Tetrachloride	0.348	0.393	-12.9	78	-0.02
43	T	Cyclohexane	0.356	0.388	-9.0	77	-0.02
44	T	tert-Amyl Methyl Ether	0.730	0.772	-5.8	75	-0.02
45	T	1,2-Dichloropropane	0.271	0.291	-7.4	76	-0.02
46	T	Bromodichloromethane	0.333	0.374	-12.3	77	-0.02
47	T	Trichloroethene	0.285	0.312	-9.5	76	-0.02
48	T	1,4-Dioxane	0.207	0.232	-12.1	77	-0.02
49	T	Isooctane	1.214	1.251	-3.0	74	-0.02
50	T	Methyl Methacrylate	0.105	0.125	-19.0	76	-0.03
51	T	n-Heptane	0.265	0.286	-7.9	75	-0.02
52	T	cis-1,3-Dichloropropene	0.401	0.453	-13.0	75	-0.01
53	T	4-Methyl-2-pentanone	0.252	0.288	-14.3	76	-0.02
54	T	trans-1,3-Dichloropropene	0.371	0.431	-16.2	76	-0.01
55	T	1,1,2-Trichloroethane	0.251	0.276	-10.0	78	-0.02
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	73	0.00
57	S	Toluene-d8 (SS2)	2.354	2.303	2.2	72	0.00
58	T	Toluene	2.372	2.423	-2.2	77	-0.01
59	T	2-Hexanone	1.440	1.566	-8.8	78	-0.02
60	T	Dibromochloromethane	0.587	0.659	-12.3	78	-0.01
61	T	1,2-Dibromoethane	0.604	0.657	-8.8	77	-0.01
62	T	Butyl Acetate	1.652	1.796	-8.7	77	-0.02
63		n-Octane	0.545	0.587	-7.7	77	-0.01
64	T	Tetrachloroethene	0.661	0.704	-6.5	77	0.00
65	T	Chlorobenzene	1.570	1.625	-3.5	77	0.00
66	T	Ethylbenzene	2.644	2.852	-7.9	77	0.00
67	T	m- & p-Xylene	2.073	2.277	-9.8	78	-0.01
68	T	Bromoform	0.542	0.647	-19.4	78	-0.01
69	T	Styrene	1.593	1.828	-14.8	78	-0.01
70	T	o-Xylene	2.122	2.329	-9.8	78	-0.02
71	T	n-Nonane	1.313	1.430	-8.9	78	-0.01
72	T	1,1,2,2-Tetrachloroethane	0.942	1.061	-12.6	77	-0.02
73	S	Bromofluorobenzene (SS3)	0.884	0.965	-9.2	78	0.00
74	T	Cumene	2.808	3.042	-8.3	78	-0.01
75	T	alpha-Pinene	1.210	1.335	-10.3	77	0.00
76	T	n-Propylbenzene	3.404	3.835	-12.7	79	0.00

AM 2/17/09 AH 02/16/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

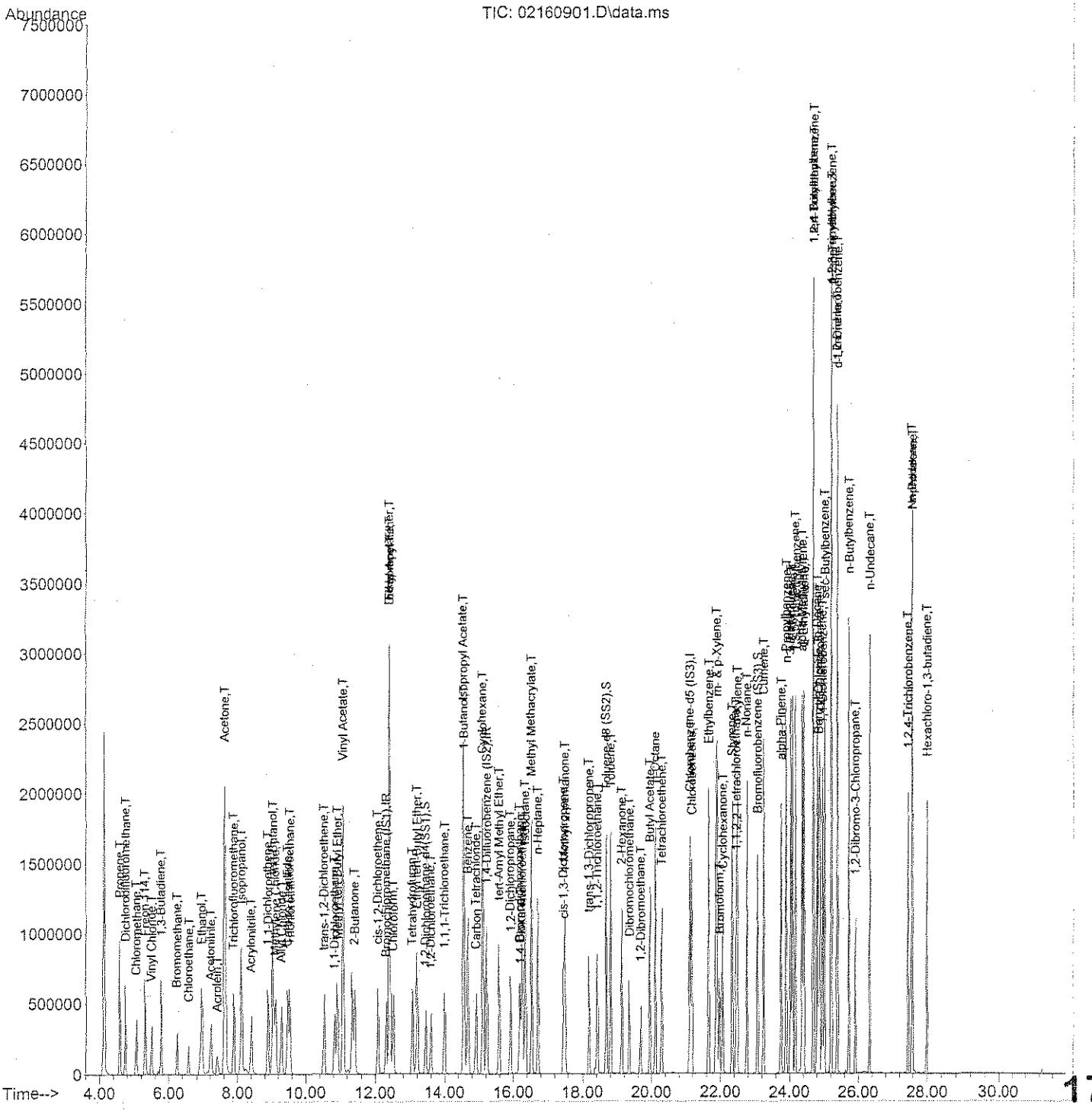
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	T	3-Ethyltoluene	2.572	2.910	-13.1	78	-0.01
78	T	4-Ethyltoluene	2.519	2.881	-14.4	79	-0.01
79	T	1,3,5-Trimethylbenzene	2.174	2.462	-13.2	79	-0.01
80	T	alpha-Methylstyrene	1.239	1.462	-18.0	78	-0.01
81	T	2-Ethyltoluene	2.639	3.034	-15.0	79	-0.02
82	T	1,2,4-Trimethylbenzene	2.332	2.749	-17.9	79	-0.01
83	T	n-Decane	1.371	1.571	-14.6	78	-0.01
84	T	Benzyl Chloride	1.897	2.346	-23.7	78	-0.02
85	T	1,3-Dichlorobenzene	1.362	1.603	-17.7	80	-0.02
86	T	1,4-Dichlorobenzene	1.395	1.633	-17.1	80	-0.01
87	T	sec-Butylbenzene	3.043	3.564	-17.1	79	-0.01
88	T	p-Isopropyltoluene	2.954	3.607	-22.1	80	-0.01
89	T	1,2,3-Trimethylbenzene	2.334	2.802	-20.1	80	-0.01
90	T	1,2-Dichlorobenzene	1.289	1.563	-21.3	81	-0.01
91	T	d-Limonene	0.905	1.086	-20.0	77	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.448	0.541	-20.8	80	-0.01
93	T	n-Undecane	1.479	1.653	-11.8	78	0.00
94	T	1,2,4-Trichlorobenzene	0.272	0.308	-13.2	80	0.00
95	T	Naphthalene	3.363	3.794	-12.8	80	-0.01
96	T	n-Dodecane	1.668	1.892	-13.4	79	0.00
97	T	Hexachloro-1,3-butadiene	0.541	0.602	-11.3	80	0.00
98	T	Cyclohexanone	0.998	1.043	-4.5	76	-0.02
99	T	tert-Butylbenzene	2.261	2.683	-18.7	80	-0.01
00	T	n-Butylbenzene	2.409	2.819	-17.0	80	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

2/17/09 02/16/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.31	130	285040	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.23	114	1272496	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.11	82	627427	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.44	65	448472	24.603	ng		-0.02
Spiked Amount 25.000			Recovery =	98.40%			
57) Toluene-d8 (SS2)	18.67	98	1444808	24.459	ng		0.00
Spiked Amount 25.000			Recovery =	97.84%			
73) Bromofluorobenzene (SS3)	23.06	174	605502	27.290	ng		0.00
Spiked Amount 25.000			Recovery =	109.16%			
Target Compounds							Qvalue
2) Propene	4.58	42	404664	25.360	ng		88
3) Dichlorodifluoromethane	4.75	85	662152	23.764	ng		99
4) Chloromethane	5.06	50	551302	24.216	ng		99
5) Freon 114	5.31	135	308189	23.261	ng		86
6) Vinyl Chloride	5.49	62	473610	23.219	ng		87
7) 1,3-Butadiene	5.77	54	389992	28.818	ng		97
8) Bromomethane	6.24	94	277100	26.213	ng		97
9) Chloroethane	6.57	64	232186	25.510	ng		94
10) Ethanol	6.94	45	1516909m	153.288	ng		
11) Acetonitrile	7.21	41	729110	27.212	ng		90
12) Acrolein	7.41	56	230662	27.798	ng		82
13) Acetone	7.63	58	1560456	138.304	ng		98
14) Trichlorofluoromethane	7.88	101	660498	27.270	ng		95
15) Isopropanol	8.11	45	2074449m	51.253	ng		
16) Acrylonitrile	8.40	53	571976	30.893	ng		99
17) 1,1-Dichloroethene	8.88	96	353191	29.611	ng	#	62
18) tert-Butanol	9.03	59	2109488	55.274	ng		99
19) Methylene Chloride	9.11	84	362199	25.301	ng	#	53
20) Allyl Chloride	9.28	41	596957	34.467	ng		78
21) Trichlorotrifluoroethane	9.53	151	308580	28.414	ng		90
22) Carbon Disulfide	9.47	76	1275937	25.475	ng		99
23) trans-1,2-Dichloroethene	10.52	61	540398	27.647	ng		73
24) 1,1-Dichloroethane	10.83	63	672546	28.832	ng		97
25) Methyl tert-Butyl Ether	10.91	73	963946	27.450	ng		86
26) Vinyl Acetate	11.08	86	373928	159.769	ng	#	1
27) 2-Butanone	11.40	72	262672	30.485	ng	#	36
28) cis-1,2-Dichloroethene	12.07	61	554350	29.095	ng		74
29) Diisopropyl Ether	12.40	87	292376	28.052	ng	#	26
30) Ethyl Acetate	12.41	61	308363	61.903	ng		85
31) n-Hexane	12.41	57	629305	26.725	ng		88

2/17/09 02/16/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.51	83	636158	29.404	ng		98
34) Tetrahydrofuran	13.05	72	237722	29.782	ng	#	50
35) Ethyl tert-Butyl Ether	13.19	87	410405	27.135	ng	#	69
36) 1,2-Dichloroethane	13.60	62	511241	28.039	ng		97
38) 1,1,1-Trichloroethane	13.99	97	553177	27.744	ng		93
39) Isopropyl Acetate	14.55	61	543459	60.116	ng	#	81
40) 1-Butanol	14.56	56	935932	66.957	ng		78
41) Benzene	14.68	78	1472489	26.990	ng		100
42) Carbon Tetrachloride	14.91	117	526071	29.712	ng		99
43) Cyclohexane	15.11	84	1045870	57.675	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	1013541	27.263	ng		84
45) 1,2-Dichloropropane	15.91	63	389363	28.210	ng		98
46) Bromodichloromethane	16.18	83	500796	29.519	ng		99
47) Trichloroethene	16.25	130	409135	28.157	ng		97
48) 1,4-Dioxane	16.21	88	306454	29.114	ng	#	68
49) Isooctane	16.35	57	1655519	26.792	ng		98
50) Methyl Methacrylate	16.53	100	338201	63.122	ng		89
51) n-Heptane	16.71	71	379006	28.088	ng	#	73
52) cis-1,3-Dichloropropene	17.46	75	575998	28.209	ng		100
53) 4-Methyl-2-pentanone	17.50	58	400785	31.210	ng		78
54) trans-1,3-Dichloropropene	18.17	75	602648	31.927	ng		99
55) 1,1,2-Trichloroethane	18.41	97	364692	28.528	ng		100
58) Toluene	18.80	91	1642209	27.587	ng		99
59) 2-Hexanone	19.12	43	1080586	29.891	ng		93
60) Dibromochloromethane	19.35	129	476505	32.322	ng		100
61) 1,2-Dibromoethane	19.68	107	437070	28.847	ng		99
62) Butyl Acetate	19.95	43	1239596	29.905	ng		96
63) n-Octane	20.11	57	387363	28.307	ng	#	69
64) Tetrachloroethene	20.30	166	456092	27.483	ng		99
65) Chlorobenzene	21.17	112	1080682	27.428	ng		100
66) Ethylbenzene	21.65	91	1882386	28.369	ng		99
67) m- & p-Xylene	21.89	91	2971475	57.107	ng		97
68) Bromoform	21.96	173	435299	31.995	ng		100
69) Styrene	22.33	104	1229797	30.765	ng		96
70) o-Xylene	22.48	91	1537314	28.864	ng		99
71) n-Nonane	22.75	43	944035	28.657	ng		89
72) 1,1,2,2-Tetrachloroethane	22.45	83	719244	30.433	ng		97
74) Cumene	23.24	105	1946760	27.627	ng		96
75) alpha-Pinene	23.74	93	921094	30.341	ng		98
76) n-Propylbenzene	23.89	91	2453999	28.722	ng		97
77) 3-Ethyltoluene	24.01	105	2008164	31.105	ng		95
78) 4-Ethyltoluene	24.07	105	1988224	31.452	ng		95
79) 1,3,5-Trimethylbenzene	24.16	105	1668226	30.577	ng		91

KSA 2/17/09 LH 02/16/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:51:55 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	972532	31.266	ng		95
81) 2-Ethyltoluene	24.40	105	2056022	31.046	ng		94
82) 1,2,4-Trimethylbenzene	24.68	105	1814157	30.993	ng		90
83) n-Decane	24.79	57	1064320	30.932	ng		80
84) Benzyl Chloride	24.84	91	1618911	34.012	ng		95
85) 1,3-Dichlorobenzene	24.87	146	1078240	31.553	ng		99
86) 1,4-Dichlorobenzene	24.95	146	1086192	31.026	ng		99
87) sec-Butylbenzene	25.01	105	2370219	31.032	ng		98
88) p-Isopropyltoluene	25.20	119	2308518	31.139	ng		94
89) 1,2,3-Trimethylbenzene	25.20	105	1863397	31.813	ng		87
90) 1,2-Dichlorobenzene	25.37	146	1051001	32.478	ng		98
91) d-Limonene	25.38	68	722108	31.783	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	366345	32.615	ng	#	76
93) n-Undecane	26.32	57	1111494	29.937	ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	212309	31.096	ng	#	92
95) Naphthalene	27.57	128	2409134	28.545	ng		100
96) n-Dodecane	27.55	57	1115639	26.647	ng		76
97) Hexachloro-1,3-butadiene	27.99	225	415615	30.608	ng		100
98) Cyclohexanone	22.06	55	649200	25.920	ng		93
99) tert-Butylbenzene	24.67	119	1818272	32.047	ng		100
100) n-Butylbenzene	25.71	91	1931651	31.951	ng		94

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

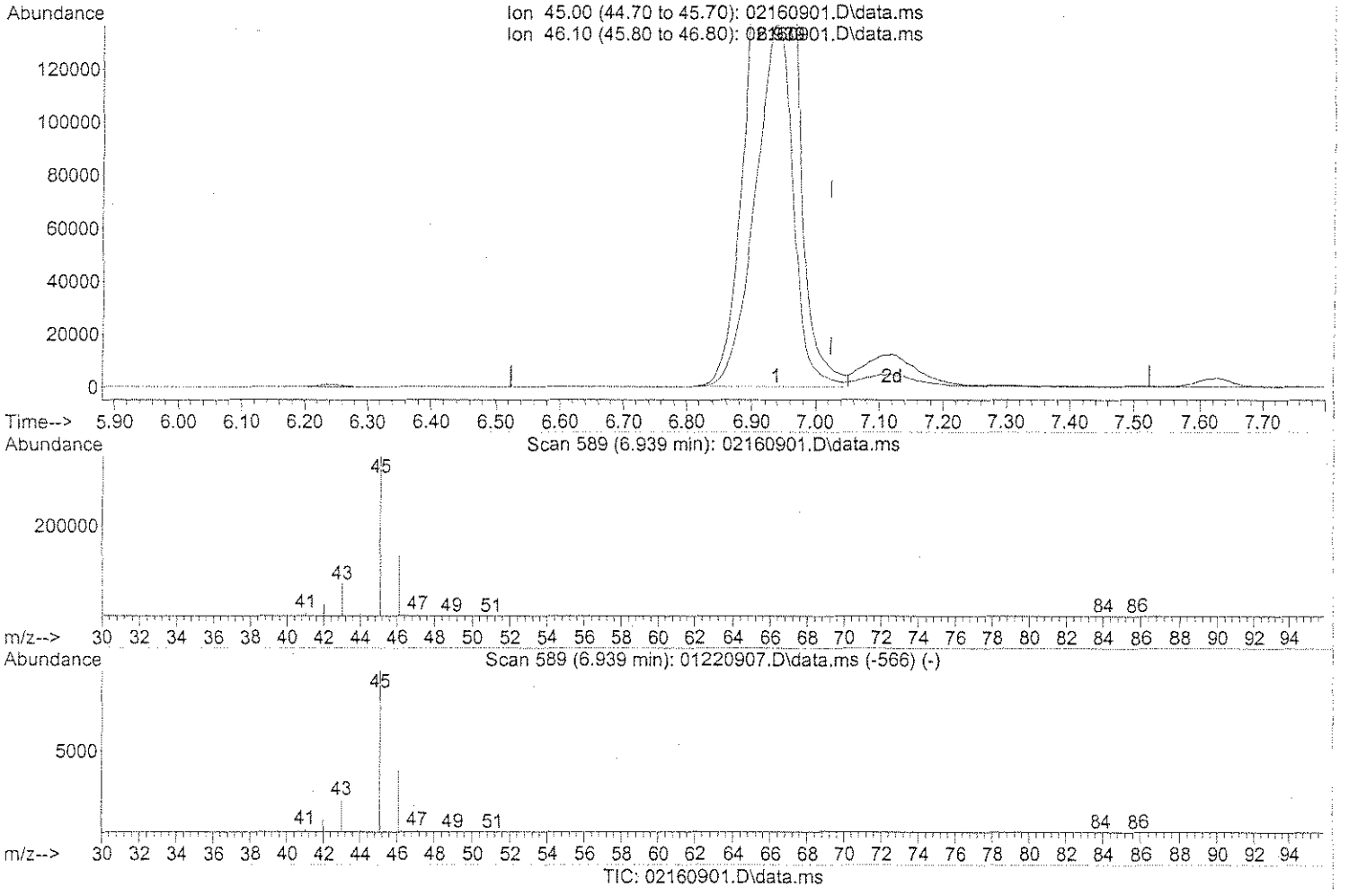
182

KBA 2/17/09 CH 02/16/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:18:57 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.939min (-0.085) 145.86ng

response 1443385

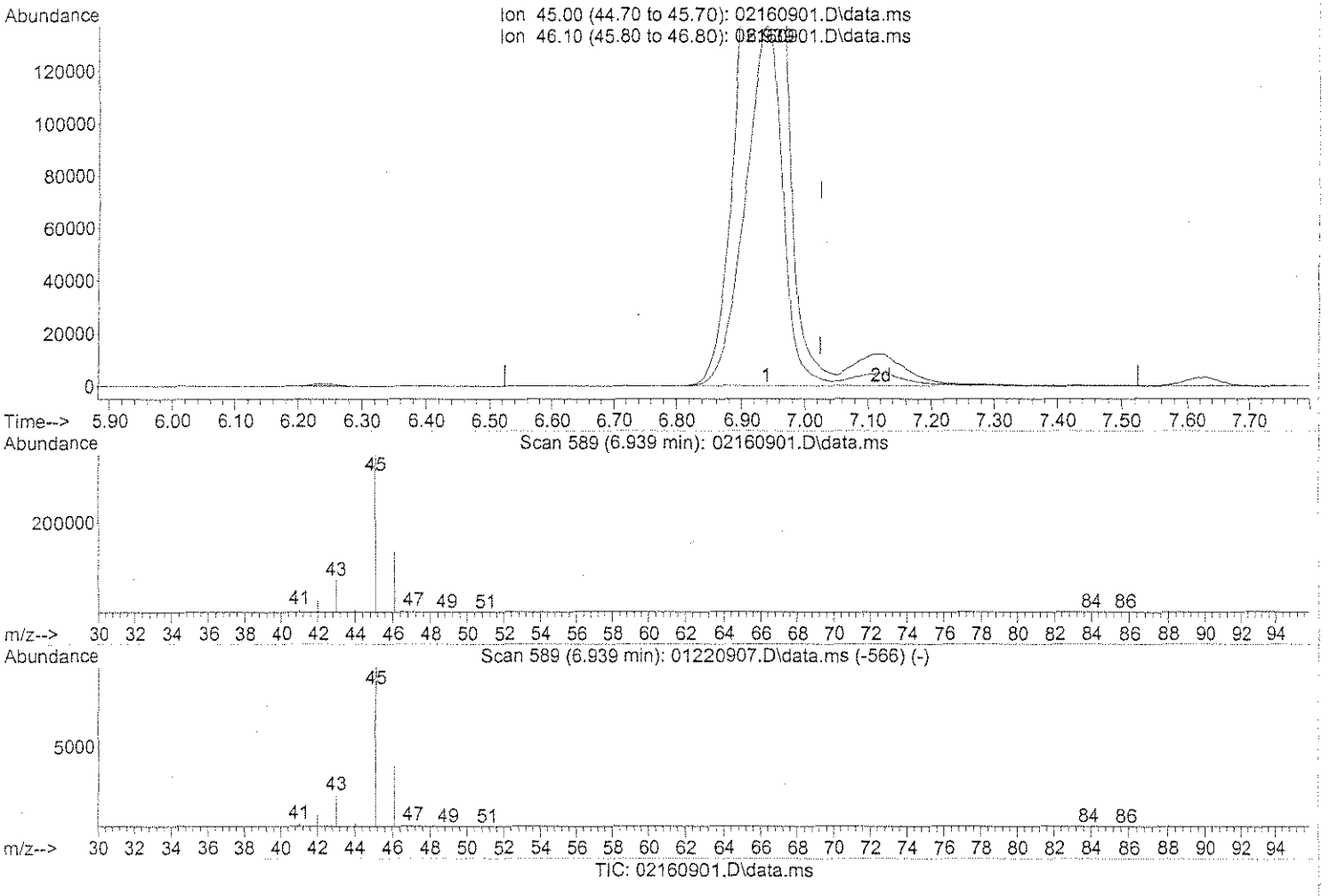
PT

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	39.12
0.00	0.00	0.00
0.00	0.00	0.00

183

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:18:57 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.939min (-0.085) 153.29ng m

response 1516909

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.23
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
VM 02/16/09

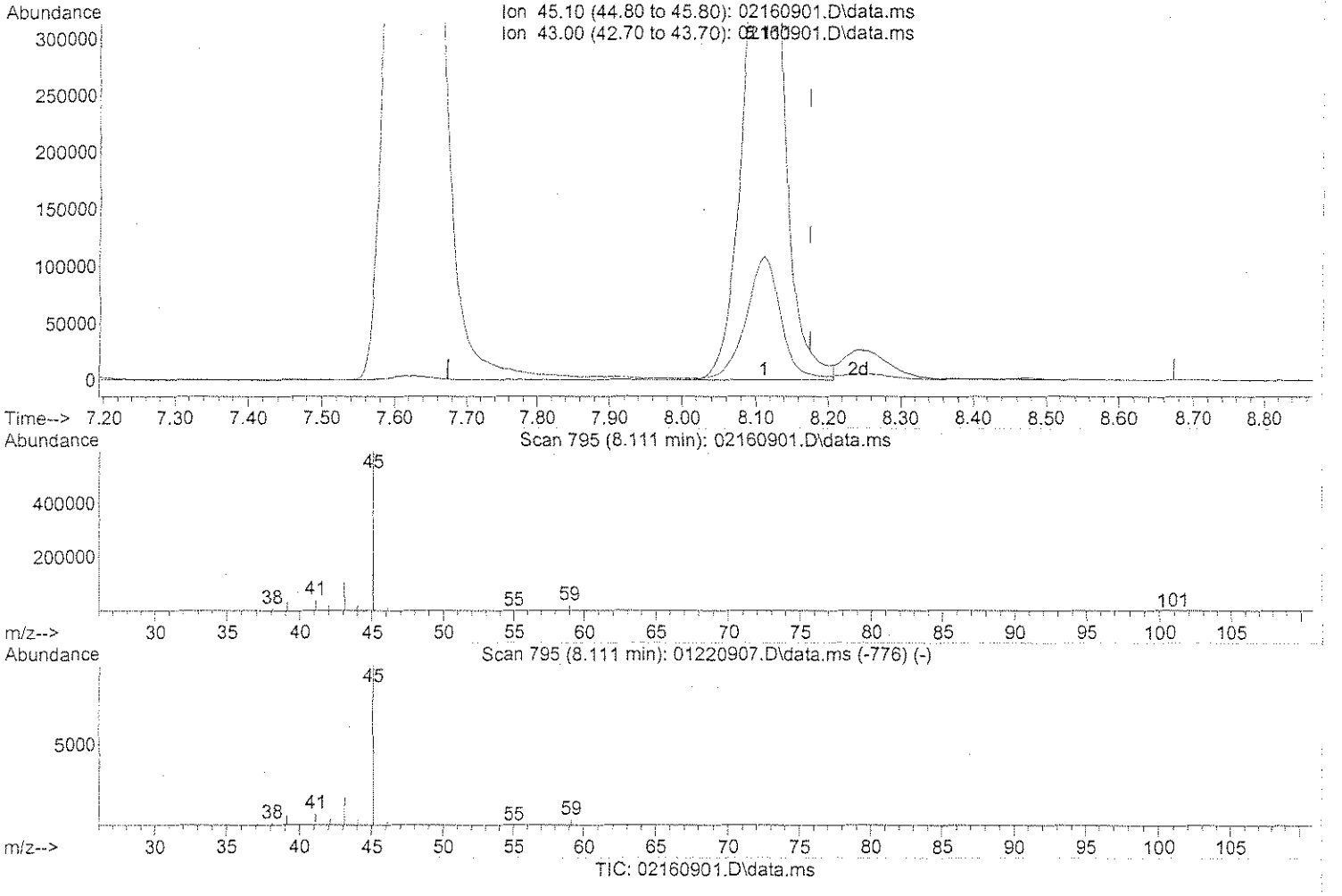
2/17/09

2/17/09

184

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:18:57 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



TIC: 02160901.D\data.ms

(15) Isopropanol (T)

8.111min (-0.063) 48.34ng

response 1956444

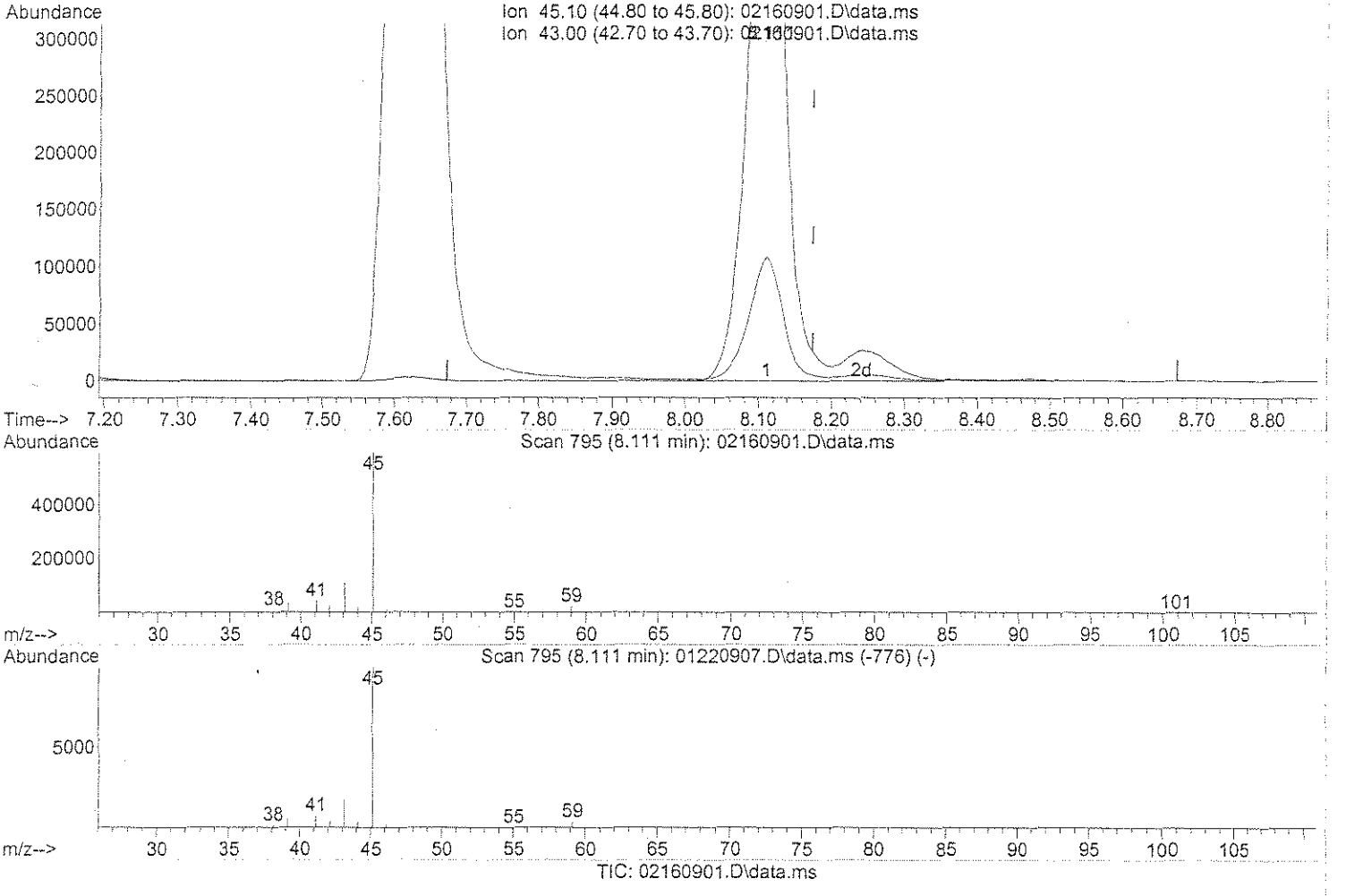
Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.92
0.00	0.00	0.00
0.00	0.00	0.00

PT

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:18:57 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



TIC: 02160901.D\data.ms

(15) Isopropanol (T)

8.111min (-0.063) 51.25ng m

response 2074449

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	16.90
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
LH 02/16/09

2/17/09

2/17/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900513
Client Project ID: Cooper Vision / 70665-014

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Lab File ID: 02130901.D
Analyst: Wida Ang Date Analyzed: 2/13/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 08:46
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	292784	12.31	1302929	15.22	652497	21.10
	Upper Limit	409898	12.64	1824101	15.55	913496	21.43
	Lower Limit	175670	11.98	781757	14.89	391498	20.77
	Client Sample ID						
01	Method Blank	284429	12.28	1305482	15.21	643376	21.10
02	Lab Control Sample	291926	12.31	1297420	15.23	649667	21.11
03	SV-SS-58	252921	12.29	1178644	15.22	658456	21.10
04	SV-InA-58	302189	12.28	1378004	15.22	691613	21.10
05	SV-InA-58 (Lab Duplicate)	306251	12.28	1398587	15.21	695931	21.10
06	SV-SS-64	307525	12.28	1399299	15.21	683757	21.10
07	SV-InA-64	295705	12.28	1353741	15.21	651687	21.10
08	SV-SS-8	293846	12.29	1333826	15.22	689543	21.10
09	SV-InA-8	299869	12.28	1350439	15.22	668943	21.10
10	SV-OutA-020909	298820	12.28	1377268	15.21	670624	21.10
11	SV-SS-2	290183	12.28	1338269	15.21	658768	21.10
12	SV-SS-16	296454	12.28	1340448	15.21	652867	21.10
13	SV-InA-16	287537	12.28	1323889	15.21	642037	21.10
14							
15							
16							
17							
18							
19							
20							

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

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

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

Verified By: _____ Date: 2/18/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900513
Client Project ID: Cooper Vision / 70665-014

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Lab File ID: 02160901.D
Analyst: Wida Ang Date Analyzed: 2/16/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 08:47
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	285040	12.31	1272496	15.23	627427	21.11
	Upper Limit	399056	12.64	1781494	15.56	878398	21.44
	Lower Limit	171024	11.98	763498	14.90	376456	20.78
	Client Sample ID						
01	Method Blank	276341	12.28	1277940	15.21	621270	21.10
02	Lab Control Sample	293871	12.31	1307508	15.23	644721	21.11
03	SV-InA-2	276686	12.28	1269109	15.21	624161	21.10
04	SV-InA-2 (Lab Duplicate)	267798	12.28	1235225	15.21	607502	21.10
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

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

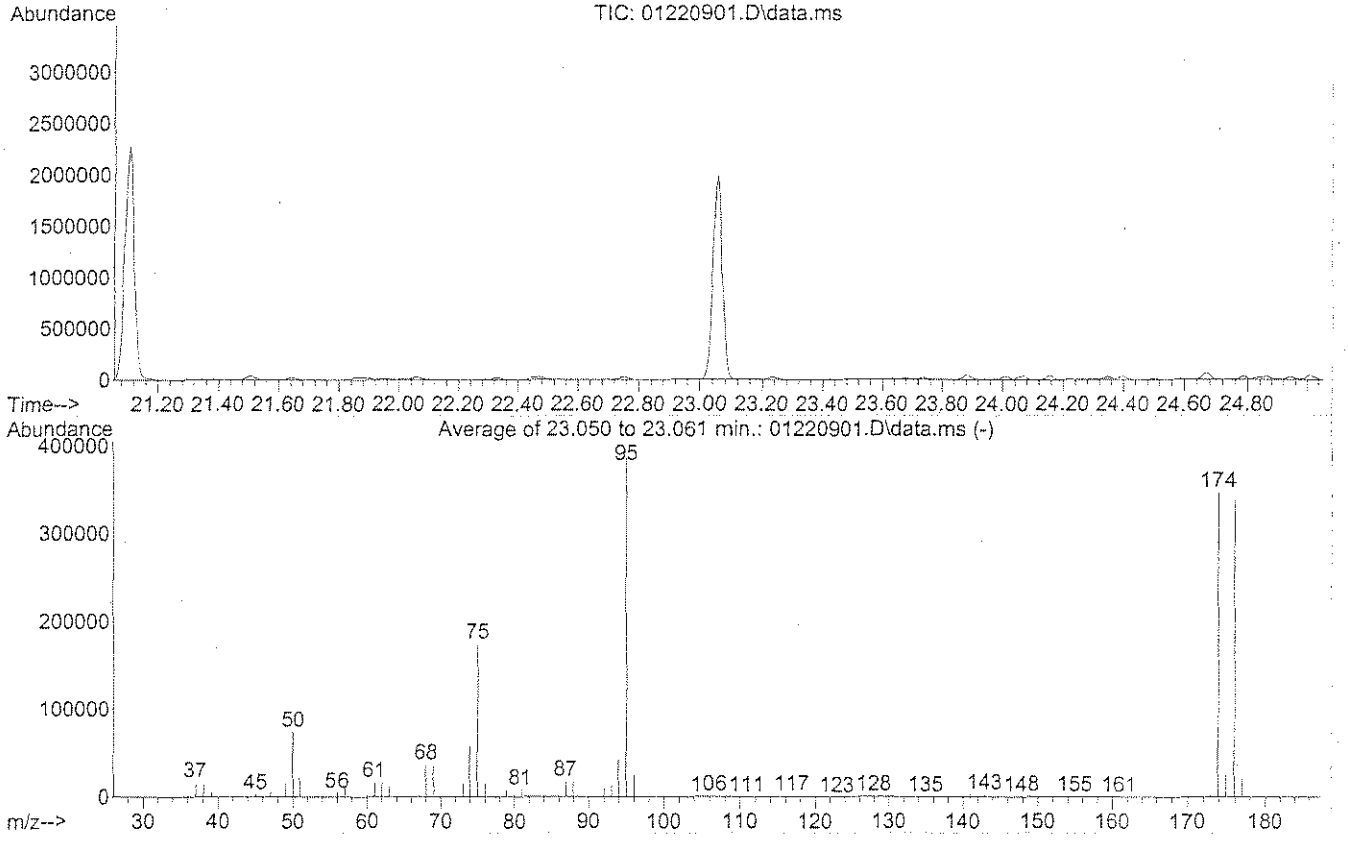
Verified By: _____ Date: 2/18/09

Raw QC Data

Data Path : J:\MS16\DATA\2009_01\22\
Data File : 01220901.D
Acq On : 22 Jan 2009 12:23
Operator : WA/LH
Sample : 25ng BFB STD
Misc : S20-01050901
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS16\METHODS\R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Jan 14 10:48:15 2009



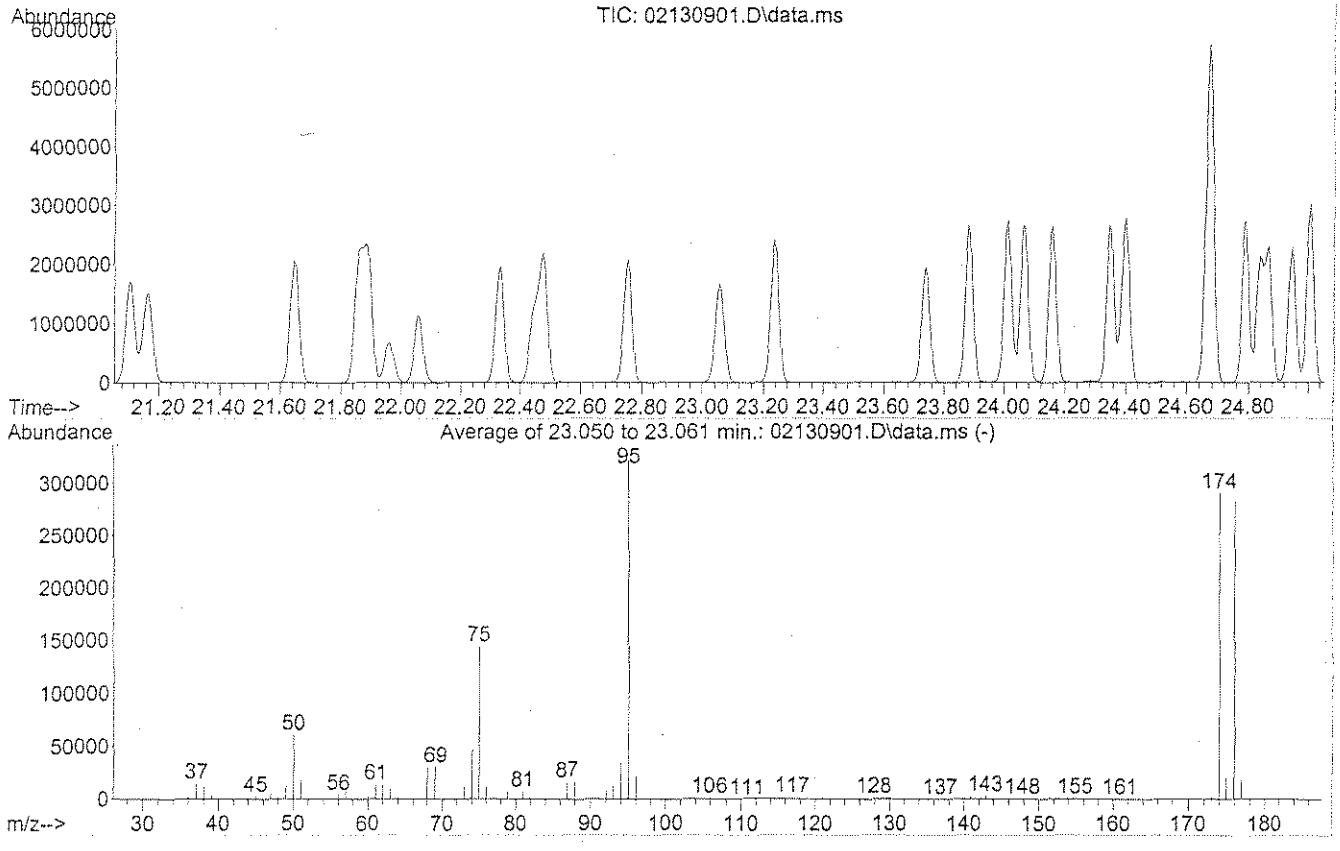
AutoFind: Scans 3420, 3421, 3422; Background Corrected with Scan 3409

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.3	74544	PASS
75	95	30	66	45.3	174848	PASS
95	95	100	100	100.0	385771	PASS
96	95	5	9	6.4	24733	PASS
173	174	0.00	2	0.8	2660	PASS
174	95	50	120	89.8	346496	PASS
175	174	4	9	7.4	25515	PASS
176	174	93	101	97.3	337152	PASS
177	176	5	9	6.5	22019	PASS

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130901.D
Acq On : 13 Feb 2009 8:46
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS16\METHODS\R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Jan 23 08:54:57 2009



AutoFind: Scans 3420, 3421, 3422; Background Corrected with Scan 3409

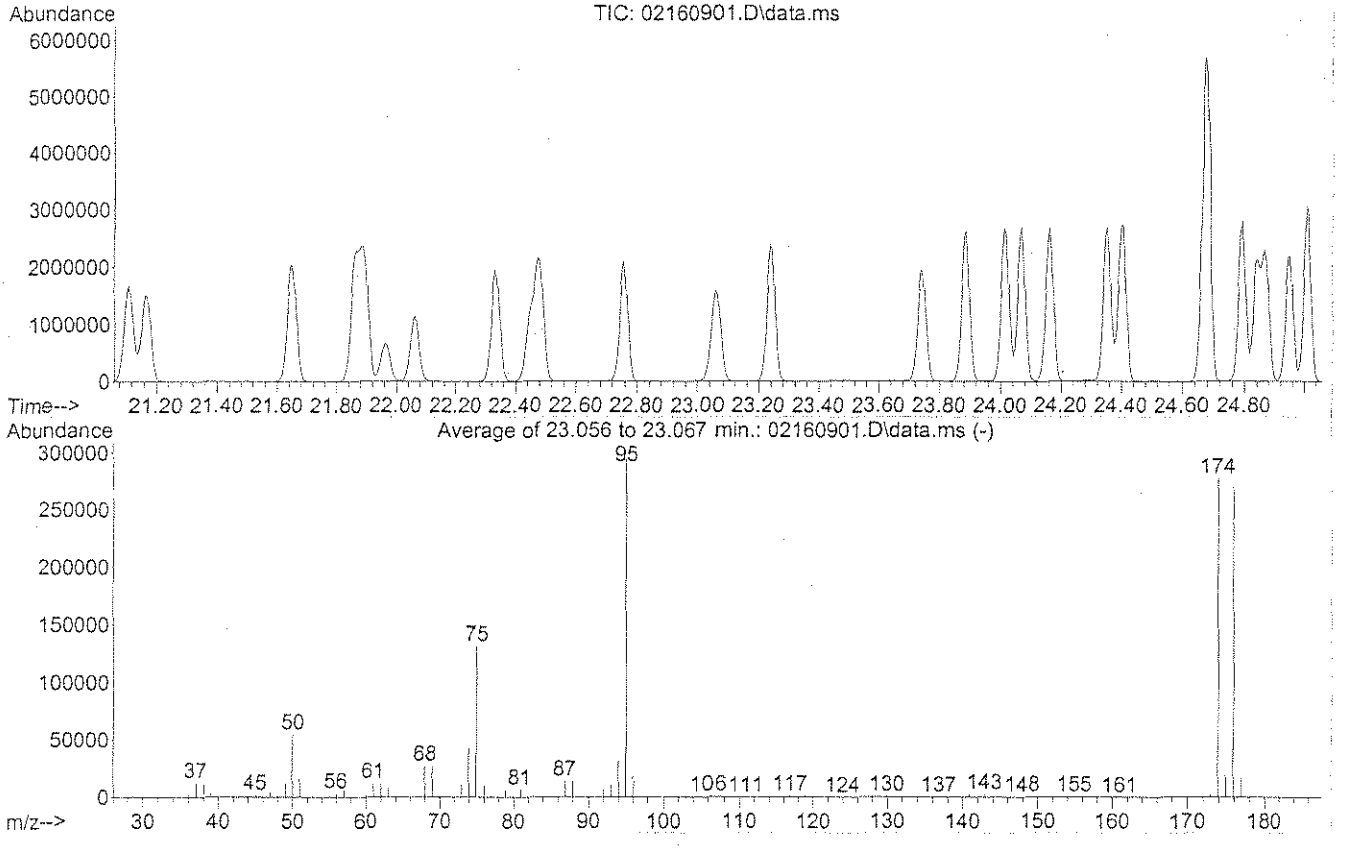
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.9	60608	PASS
75	95	30	66	44.9	144299	PASS
95	95	100	100	100.0	321301	PASS
96	95	5	9	6.6	21275	PASS
173	174	0.00	2	0.8	2264	PASS
174	95	50	120	90.4	290539	PASS
175	174	4	9	7.4	21421	PASS
176	174	93	101	97.2	282496	PASS
177	176	5	9	6.6	18635	PASS

2/16/09 02/13/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160901.D
Acq On : 16 Feb 2009 8:47
Operator : WA/LH
Sample : 25ng TO-15 CCV STD
Misc : S20-01290901/S20-01220901
ALS Vial : 2 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS16\METHODS\R16012209.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Jan 23 08:54:57 2009



AutoFind: Scans 3421, 3422, 3423; Background Corrected with Scan 3410

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.7	55179	PASS
75	95	30	66	44.8	131859	PASS
95	95	100	100	100.0	294421	PASS
96	95	5	9	6.5	19196	PASS
173	174	0.00	2	0.8	2115	PASS
174	95	50	120	94.2	277440	PASS
175	174	4	9	7.0	19352	PASS
176	174	93	101	97.4	270101	PASS
177	176	5	9	6.4	17252	PASS

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KM 2/17/09 MR 02/16/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P090213-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	

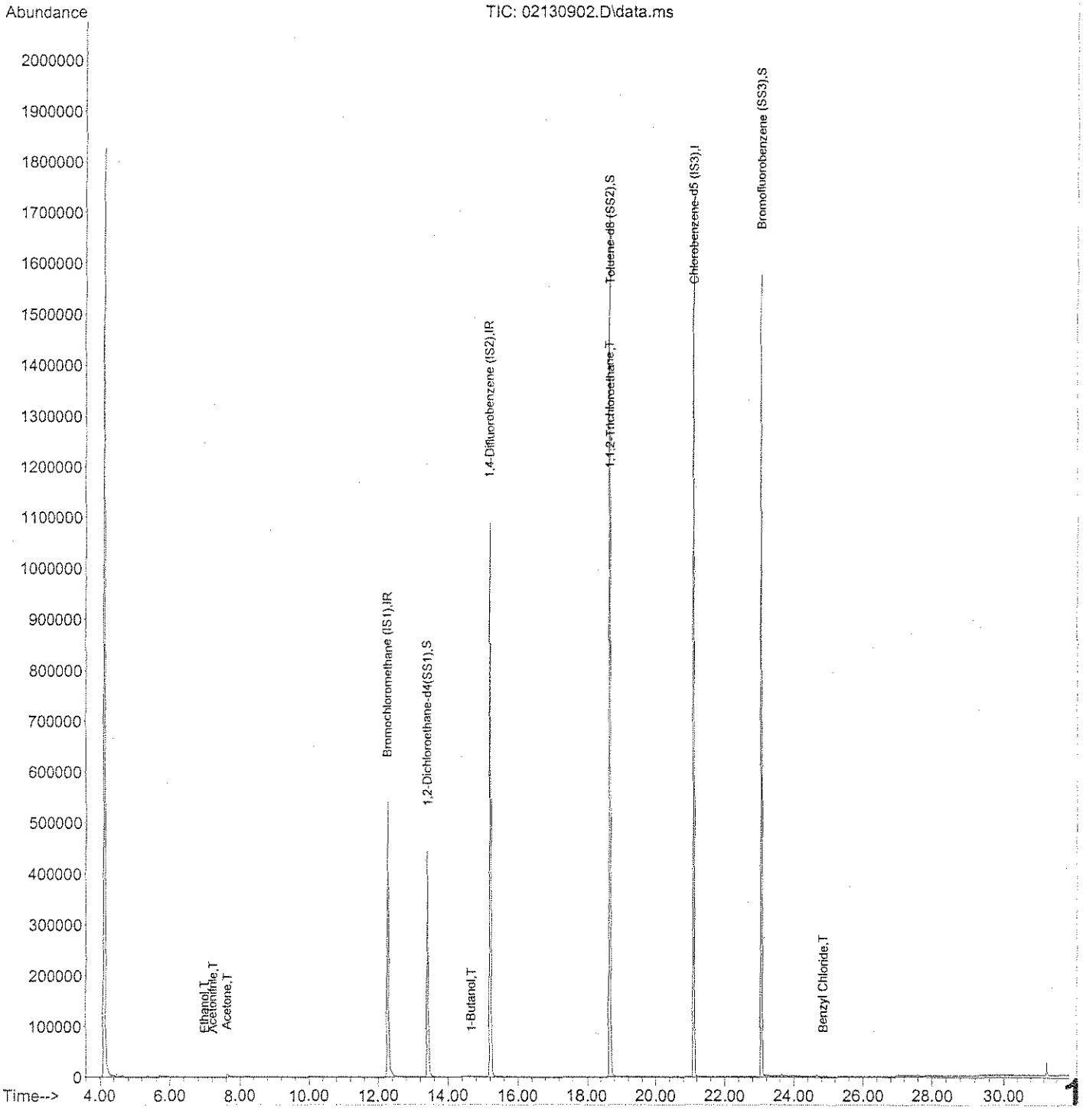
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130902.D
Acq On : 13 Feb 2009 9:34
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:10:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130902.D
Acq On : 13 Feb 2009 9:34
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:10:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	284429	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1305482	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	643376	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	449600	24.718	ng		-0.05
Spiked Amount 25.000			Recovery = 98.88%				
57) Toluene-d8 (SS2)	18.66	98	1469827	24.266	ng		-0.02
Spiked Amount 25.000			Recovery = 97.08%				
73) Bromofluorobenzene (SS3)	23.06	174	586589	25.782	ng		0.00
Spiked Amount 25.000			Recovery = 103.12%				
Target Compounds							Qvalue
2) Propene	4.63	42	785	N.D.			
3) Dichlorodifluoromethane	4.78	85	256	N.D.			
4) Chloromethane	5.09	50	112	N.D.			
5) Freon 114	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	6.98	45	686	0.~~069~~	ng	#	40
11) Acetonitrile	7.21	41	1870	~~0.070~~	ng		89
12) Acrolein	7.43	56	364	N.D.			
13) Acetone	7.63	58	5346	~~0.475~~	ng		96
14) Trichlorofluoromethane	7.90	101	53	N.D.			
15) Isopropanol	8.13	45	415	N.D.			
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	8.90	96	52	N.D.			
18) tert-Butanol	9.11	59	52	N.D.			
19) Methylene Chloride	9.08	84	777	N.D.			
20) Allyl Chloride	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	9.48	76	2238	N.D.			
23) trans-1,2-Dichloroethene	10.51	61	55	N.D.			
24) 1,1-Dichloroethane	10.80	63	52	N.D.			
25) Methyl tert-Butyl Ether	10.94	73	54	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone	11.45	72	56	N.D.			
28) cis-1,2-Dichloroethene	12.06	61	57	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	12.40	57	71	N.D.			

Eun 2/16/09 UK 02/13/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130902.D
Acq On : 13 Feb 2009 9:34
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:10:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
32) Chloroform	0.00	83	0	N.D.	
34) Tetrahydrofuran	0.00	72	0	N.D.	
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.	
36) 1,2-Dichloroethane	13.58	62	53	N.D.	
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.	
39) Isopropyl Acetate	0.00	61	0	N.D.	
40) 1-Butanol	14.67	56	1085	~~0.076 ng~~	98
41) Benzene	14.67	78	1168	N.D.	
42) Carbon Tetrachloride	0.00	117	0	N.D.	
43) Cyclohexane	15.10	84	326	N.D.	
44) tert-Amyl Methyl Ether	15.59	73	70	N.D.	
45) 1,2-Dichloropropane	0.00	63	0	N.D.	
46) Bromodichloromethane	0.00	83	0	N.D.	
47) Trichloroethene	0.00	130	0	N.D.	
48) 1,4-Dioxane	0.00	88	0	N.D.	
49) Isooctane	16.33	57	865	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	17.48	75	57	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	18.19	75	332	N.D.	
55) 1,1,2-Trichloroethane	18.68	97	125929	~~9.602 ng~~	# FP 8
58) Toluene	18.79	91	1472	N.D.	
59) 2-Hexanone	19.16	43	1396	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	19.68	107	233	N.D.	
62) Butyl Acetate	20.10	43	348	N.D.	
63) n-Octane	20.45	57	60	N.D.	
64) Tetrachloroethene	20.30	166	55	N.D.	
65) Chlorobenzene	21.15	112	725	N.D.	
66) Ethylbenzene	21.65	91	966	N.D.	
67) m- & p-Xylene	21.88	91	2023	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	22.35	104	681	N.D.	
70) o-Xylene	22.48	91	1172	N.D.	
71) n-Nonane	22.75	43	363	N.D.	
72) 1,1,2,2-Tetrachloroethane	22.45	83	53	N.D.	
74) Cumene	23.23	105	2114	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	23.89	91	1709	N.D.	
77) 3-Ethyltoluene	24.00	105	2229	N.D.	
78) 4-Ethyltoluene	24.07	105	1854	N.D.	
79) 1,3,5-Trimethylbenzene	24.16	105	1347	N.D.	

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Em 2/16/09 MH on 2/13/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130902.D
Acq On : 13 Feb 2009 9:34
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 13 10:10:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) alpha-Methylstyrene	24.36	118	369	N.D.	
81) 2-Ethyltoluene	24.39	105	1232	N.D.	
82) 1,2,4-Trimethylbenzene	24.67	105	2682	N.D.	
83) n-Decane	24.79	57	437	N.D.	
84) Benzyl Chloride	24.85	91	3412	~~0.070 ng~~	# 57
85) 1,3-Dichlorobenzene	24.87	146	907	N.D.	
86) 1,4-Dichlorobenzene	24.95	146	1274	N.D.	
87) sec-Butylbenzene	25.01	105	775	N.D.	
88) p-Isopropyltoluene	25.20	119	595	N.D.	
89) 1,2,3-Trimethylbenzene	25.20	105	874	N.D.	
90) 1,2-Dichlorobenzene	25.37	146	494	N.D.	
91) d-Limonene	0.00	68	0	N.D.	
92) 1,2-Dibromo-3-Chloropr...	25.91	157	53	N.D.	
93) n-Undecane	26.31	57	304	N.D.	
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.	
95) Naphthalene	27.59	128	4901	N.D.	
96) n-Dodecane	27.55	57	487	N.D.	
97) Hexachloro-1,3-butadiene	27.98	225	313	N.D.	
98) Cyclohexanone	22.08	55	845	N.D.	
99) tert-Butylbenzene	24.79	119	232	N.D.	
100) n-Butylbenzene	25.71	91	734	N.D.	

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P090216-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 2/16/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	

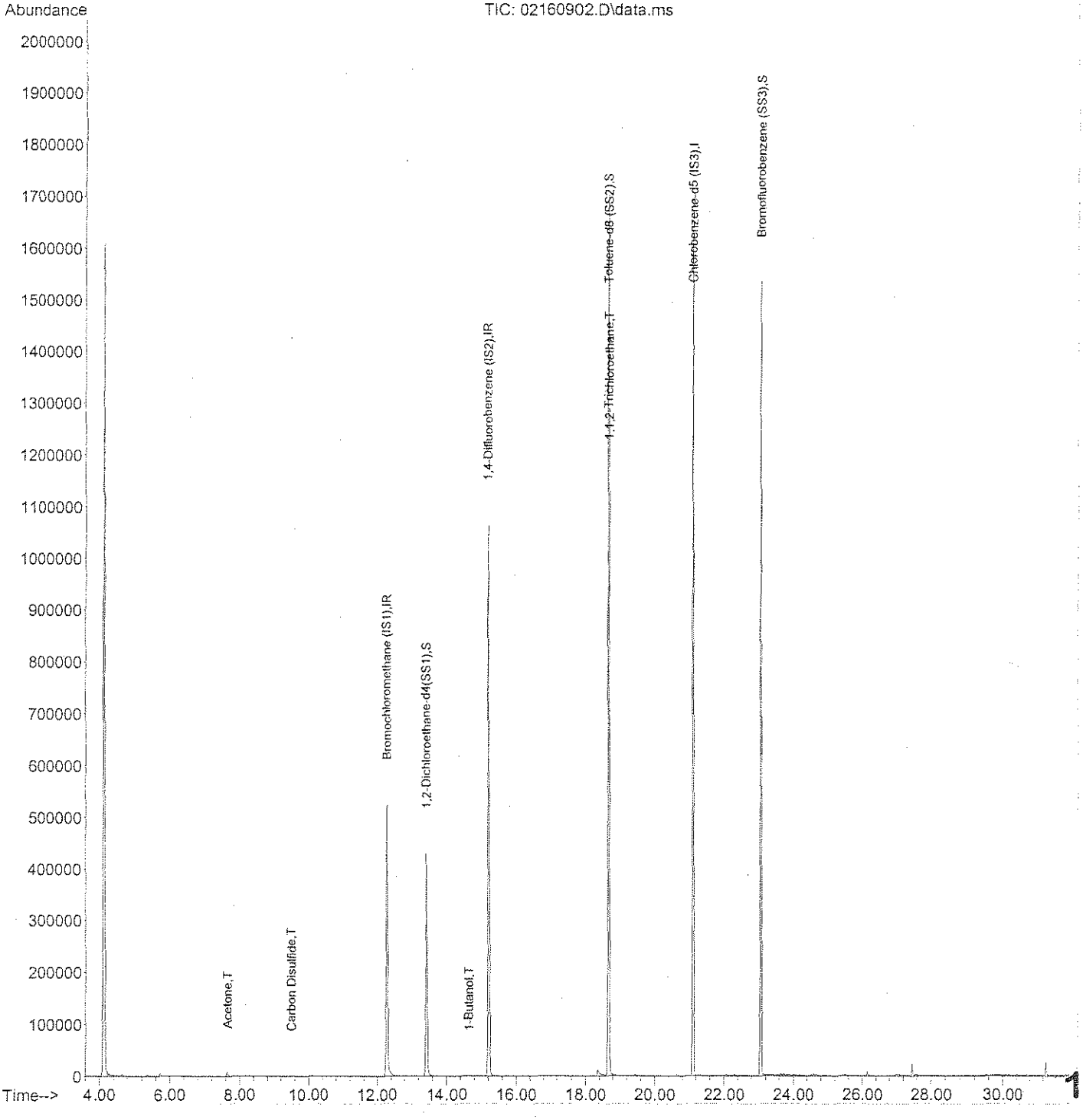
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160902.D
Acq On : 16 Feb 2009 9:56
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:52:53 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160902.D
Acq On : 16 Feb 2009 9:56
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:52:53 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	276341	25.000 ng	-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1277940	25.000 ng	-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	621270	25.000 ng	-0.01
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4(...	13.42	65	441228	24.968 ng	-0.05
Spiked Amount 25.000			Recovery =	99.88%	
57) Toluene-d8 (SS2)	18.66	98	1451372	24.814 ng	-0.02
Spiked Amount 25.000			Recovery =	99.24%	
73) Bromofluorobenzene (SS3)	23.06	174	564423	25.691 ng	0.00
Spiked Amount 25.000			Recovery =	102.76%	
Target Compounds					Qvalue
2) Propene	4.63	42	460	N.D.	
3) Dichlorodifluoromethane	4.78	85	201	N.D.	
4) Chloromethane	5.11	50	57	N.D.	
5) Freon 114	0.00	135	0	N.D.	
6) Vinyl Chloride	5.53	62	54	N.D.	
7) 1,3-Butadiene	0.00	54	0	N.D.	
8) Bromomethane	0.00	94	0	N.D.	
9) Chloroethane	0.00	64	0	N.D.	
10) Ethanol	7.00	45	382	N.D.	
11) Acetonitrile	7.22	41	834	N.D.	
12) Acrolein	7.41	56	277	N.D.	
13) Acetone	7.64	58	6188	~~0.566 ng~~ #	80
14) Trichlorofluoromethane	0.00	101	0	N.D.	
15) Isopropanol	8.15	45	64	N.D.	
16) Acrylonitrile	8.41	53	61	N.D.	
17) 1,1-Dichloroethene	0.00	96	0	N.D.	
18) tert-Butanol	9.16	59	66	N.D.	
19) Methylene Chloride	9.08	84	697	N.D.	
20) Allyl Chloride	9.27	41	54	N.D.	
21) Trichlorotrifluoroethane	0.00	151	0	N.D.	
22) Carbon Disulfide	9.48	76	4504	~~0.093 ng~~	86
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.	
24) 1,1-Dichloroethane	0.00	63	0	N.D.	
25) Methyl tert-Butyl Ether	10.96	73	54	N.D.	
26) Vinyl Acetate	0.00	86	0	N.D.	
27) 2-Butanone	11.43	72	118	N.D.	
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.	
29) Diisopropyl Ether	0.00	87	0	N.D.	
30) Ethyl Acetate	0.00	61	0	N.D.	
31) n-Hexane	12.40	57	110	N.D.	

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DA 2/17/09 VH 02/16/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160902.D
Acq On : 16 Feb 2009 9:56
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:52:53 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
32) Chloroform	0.00	83	0	N.D.	
34) Tetrahydrofuran	0.00	72	0	N.D.	
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.	
36) 1,2-Dichloroethane	0.00	62	0	N.D.	
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.	
39) Isopropyl Acetate	0.00	61	0	N.D.	
40) 1-Butanol	14.64	56	886	~~0.063 ng~~	99
41) Benzene	14.68	78	1103	N.D.	
42) Carbon Tetrachloride	0.00	117	0	N.D.	
43) Cyclohexane	15.09	84	112	N.D.	
44) tert-Amyl Methyl Ether	15.58	73	57	N.D.	
45) 1,2-Dichloropropane	0.00	63	0	N.D.	
46) Bromodichloromethane	0.00	83	0	N.D.	
47) Trichloroethene	0.00	130	0	N.D.	
48) 1,4-Dioxane	0.00	88	0	N.D.	
49) Isooctane	16.34	57	789	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	18.19	75	268	N.D.	
55) 1,1,2-Trichloroethane	18.68	97	123103	~~9.589 ng~~	# FP 8
58) Toluene	18.80	91	1760	N.D.	
59) 2-Hexanone	19.14	43	1294	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	19.68	107	203	N.D.	
62) Butyl Acetate	19.97	43	62	N.D.	
63) n-Octane	20.11	57	158	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	21.16	112	596	N.D.	
66) Ethylbenzene	21.64	91	707	N.D.	
67) m- & p-Xylene	21.86	91	575	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	22.34	104	557	N.D.	
70) o-Xylene	22.48	91	1651	N.D.	
71) n-Nonane	22.75	43	479	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	23.24	105	776	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	23.88	91	1781	N.D.	
77) 3-Ethyltoluene	24.01	105	1444	N.D.	
78) 4-Ethyltoluene	24.07	105	1428	N.D.	
79) 1,3,5-Trimethylbenzene	24.17	105	1695	N.D.	

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DA 2/17/09 LH 02/16/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160902.D
Acq On : 16 Feb 2009 9:56
Operator : WA/LH
Sample : TO-15 Method blank (1000mL)
Misc : S20-01290901
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 16 10:52:53 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) alpha-Methylstyrene	24.36	118	115	N.D.	
81) 2-Ethyltoluene	24.40	105	1076	N.D.	
82) 1,2,4-Trimethylbenzene	24.67	105	1767	N.D.	
83) n-Decane	24.79	57	412	N.D.	
84) Benzyl Chloride	24.84	91	1125	N.D.	
85) 1,3-Dichlorobenzene	24.87	146	699	N.D.	
86) 1,4-Dichlorobenzene	24.96	146	1006	N.D.	
87) sec-Butylbenzene	25.00	105	611	N.D.	
88) p-Isopropyltoluene	25.20	119	545	N.D.	
89) 1,2,3-Trimethylbenzene	25.20	105	631	N.D.	
90) 1,2-Dichlorobenzene	25.38	146	518	N.D.	
91) d-Limonene	0.00	68	0	N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	26.32	57	304	N.D.	
94) 1,2,4-Trichlorobenzene	27.44	184	54	N.D.	
95) Naphthalene	27.58	128	3860	N.D.	
96) n-Dodecane	27.55	57	677	N.D.	
97) Hexachloro-1,3-butadiene	27.99	225	313	N.D.	
98) Cyclohexanone	22.08	55	1387	N.D.	
99) tert-Butylbenzene	24.67	119	885	N.D.	
100) n-Butylbenzene	25.71	91	479	N.D.	

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

202

ASA 2/17/09 MH 02/16/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P0900513
Client Project ID: **Cooper Vision / 70665-014** CAS Sample ID: P090213-LCS

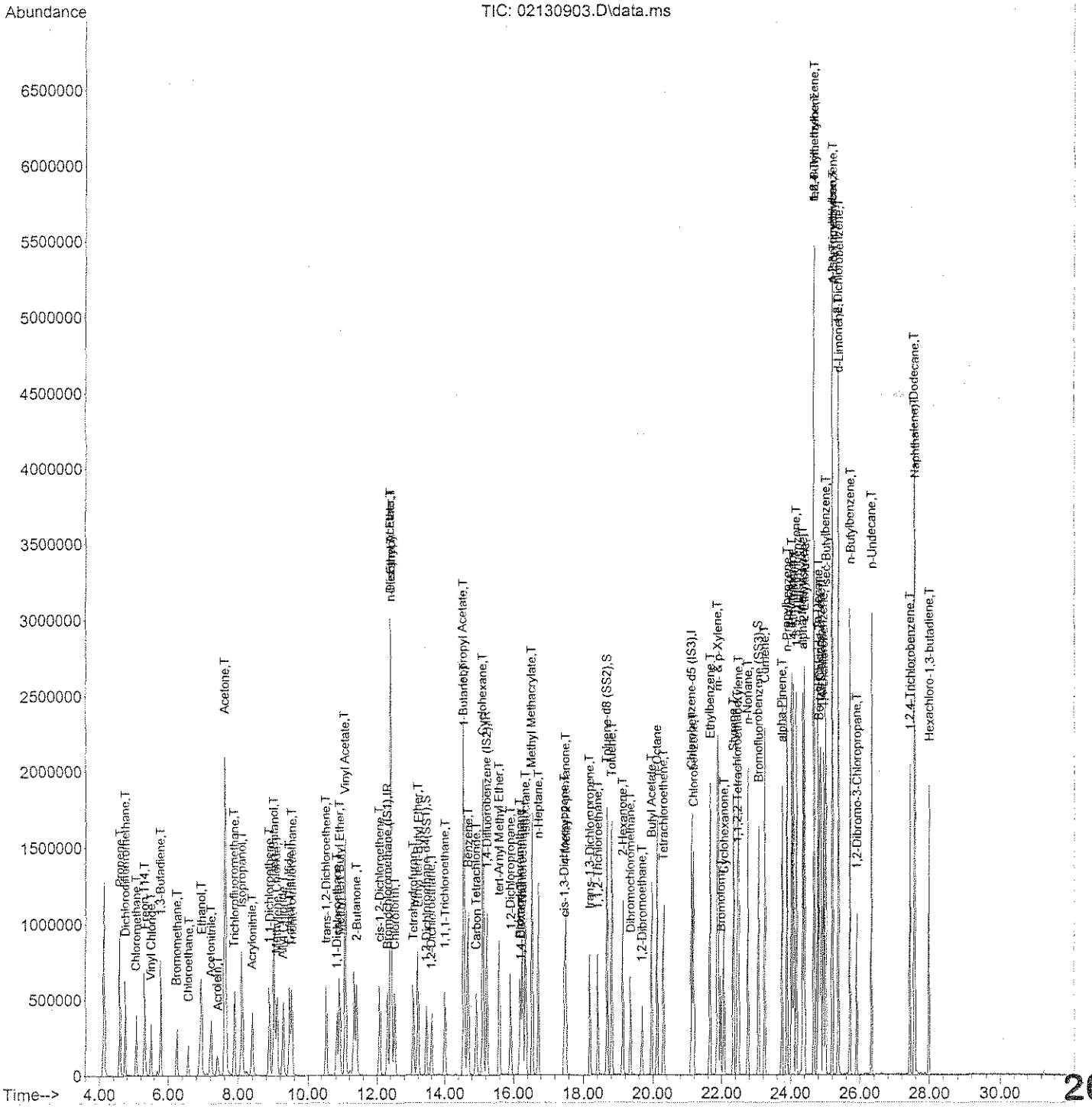
Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 2/13/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA Liter(s)
Test Notes:

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-01-4	Vinyl Chloride	25.5	**22.4**	**88**	57-132	
75-00-3	Chloroethane	25.8	**25.0**	**97**	68-123	
75-35-4	1,1-Dichloroethene	27.5	**27.7**	**101**	70-123	
75-34-3	1,1-Dichloroethane	26.8	**27.3**	**102**	72-130	
71-55-6	1,1,1-Trichloroethane	26.5	**25.9**	**98**	69-127	

Verified By: _____ Date: 2/18/09

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:43 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:43 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.31	130	291926	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.23	114	1297420	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.11	82	649667	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.44	65	455196	24.383	ng		-0.02
Spiked Amount 25.000			Recovery = 97.52%				
57) Toluene-d8 (SS2)	18.67	98	1466786	23.981	ng		0.00
Spiked Amount 25.000			Recovery = 95.92%				
73) Bromofluorobenzene (SS3)	23.06	174	626116	27.253	ng		0.00
Spiked Amount 25.000			Recovery = 109.00%				
Target Compounds							Qvalue
2) Propene	4.58	42	448275	27.430	ng		87
3) Dichlorodifluoromethane	4.74	85	668079	23.412	ng		100
4) Chloromethane	5.06	50	567374	24.334	ng		99
5) Freon 114	5.30	135	307592	22.668	ng		86
6) Vinyl Chloride	5.49	62	467734	22.390	ng		86
7) 1,3-Butadiene	5.77	54	451976	32.611	ng		97
8) Bromomethane	6.24	94	285953	26.412	ng		98
9) Chloroethane	6.57	64	232599	24.952	ng		95
10) Ethanol	6.93	45	1529546m	150.919	ng		
11) Acetonitrile	7.21	41	741868	27.035	ng		90
12) Acrolein	7.41	56	231516	27.243	ng		83
13) Acetone	7.62	58	1566922	135.601	ng		100
14) Trichlorofluoromethane	7.88	101	652990	26.324	ng		95
15) Isopropanol	8.10	45	1818382m	43.867	ng		
16) Acrylonitrile	8.40	53	565249	29.809	ng		100
17) 1,1-Dichloroethene	8.89	96	338762	27.731	ng	#	62
18) tert-Butanol	9.02	59	1945791	49.782	ng		99
19) Methylene Chloride	9.10	84	348281	23.755	ng	#	53
20) Allyl Chloride	9.28	41	584839	32.971	ng		78
21) Trichlorotrifluoroethane	9.53	151	291304	26.191	ng		90
22) Carbon Disulfide	9.47	76	1249192	24.352	ng		98
23) trans-1,2-Dichloroethene	10.52	61	546040	27.277	ng		73
24) 1,1-Dichloroethane	10.83	63	652861	27.328	ng		97
25) Methyl tert-Butyl Ether	10.91	73	945470	26.289	ng		86
26) Vinyl Acetate	11.08	86	294949	123.050	ng	#	3
27) 2-Butanone	11.40	72	258358	29.277	ng	#	37
28) cis-1,2-Dichloroethene	12.07	61	535201	27.427	ng		74
29) Diisopropyl Ether	12.40	87	277740	26.020	ng	#	31
30) Ethyl Acetate	12.41	61	298661	58.541	ng		85
31) n-Hexane	12.41	57	615519	25.523	ng		8

02/13/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:43 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.52	83	614063	27.713	ng		99
34) Tetrahydrofuran	13.06	72	235633	28.824	ng	#	51
35) Ethyl tert-Butyl Ether	13.20	87	391143	25.251	ng	#	69
36) 1,2-Dichloroethane	13.60	62	486242	26.039	ng		96
38) 1,1,1-Trichloroethane	13.99	97	526187	25.883	ng		93
39) Isopropyl Acetate	14.55	61	520741	56.496	ng	#	82
40) 1-Butanol	14.56	56	897917	63.004	ng	#	77
41) Benzene	14.68	78	1404676	25.252	ng		100
42) Carbon Tetrachloride	14.91	117	491091	27.203	ng		98
43) Cyclohexane	15.11	84	1031046	55.765	ng	#	65
44) tert-Amyl Methyl Ether	15.58	73	972444	25.655	ng		84
45) 1,2-Dichloropropane	15.91	63	375374	26.674	ng		99
46) Bromodichloromethane	16.18	83	491333	28.405	ng		99
47) Trichloroethene	16.26	130	390098	26.332	ng		97
48) 1,4-Dioxane	16.21	88	305210	28.438	ng	#	69
49) Isooctane	16.35	57	1619665	25.708	ng		97
50) Methyl Methacrylate	16.53	100	316901	58.010	ng	#	87
51) n-Heptane	16.72	71	375388	27.286	ng	#	74
52) cis-1,3-Dichloropropene	17.46	75	553732	26.598	ng		100
53) 4-Methyl-2-pentanone	17.50	58	392718	29.995	ng		79
54) trans-1,3-Dichloropropene	18.17	75	574823	29.868	ng		99
55) 1,1,2-Trichloroethane	18.41	97	342966	26.313	ng		100
58) Toluene	18.80	91	1571169	25.490	ng		99
59) 2-Hexanone	19.12	43	1059039	28.292	ng		93
60) Dibromochloromethane	19.35	129	461293	30.219	ng		100
61) 1,2-Dibromoethane	19.68	107	418504	26.676	ng		99
62) Butyl Acetate	19.95	43	1198034	27.913	ng		97
63) n-Octane	20.11	57	372507	26.289	ng	#	70
64) Tetrachloroethene	20.30	166	431849	25.131	ng		99
65) Chlorobenzene	21.17	112	1035614	25.384	ng		100
66) Ethylbenzene	21.65	91	1783893	25.965	ng		99
67) m- & p-Xylene	21.88	91	2803517	52.034	ng		97
68) Bromoform	21.96	173	419422	29.772	ng		100
69) Styrene	22.33	104	1165163	28.150	ng		97
70) o-Xylene	22.48	91	1460746	26.487	ng		98
71) n-Nonane	22.75	43	925080	27.120	ng		90
72) 1,1,2,2-Tetrachloroethane	22.45	83	689861	28.190	ng		96
74) Cumene	23.24	105	1868383	25.607	ng		96
75) alpha-Pinene	23.74	93	888357	28.261	ng		97
76) n-Propylbenzene	23.88	91	2357555	26.649	ng		97
77) 3-Ethyltoluene	24.01	105	1956484	29.267	ng		95
78) 4-Ethyltoluene	24.07	105	1936113	29.580	ng		94
79) 1,3,5-Trimethylbenzene	24.16	105	1587148	28.095	ng		9

EM 2/6/09 LM 02/13/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:43 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	934827	29.025 ng		98
81) 2-Ethyltoluene	24.40	105	1978673	28.855 ng		94
82) 1,2,4-Trimethylbenzene	24.67	105	1728430	28.518 ng		90
83) n-Decane	24.79	57	1037083	29.109 ng		81
84) Benzyl Chloride	24.84	91	1572576	31.907 ng		95
85) 1,3-Dichlorobenzene	24.87	146	1022283	28.891 ng		98
86) 1,4-Dichlorobenzene	24.95	146	1034313	28.532 ng		99
87) sec-Butylbenzene	25.01	105	2278631	28.812 ng		98
88) p-Isopropyltoluene	25.20	119	2203977	28.711 ng		94
89) 1,2,3-Trimethylbenzene	25.20	105	1781419	29.372 ng		87
90) 1,2-Dichlorobenzene	25.37	146	990093	29.549 ng		97
91) d-Limonene	25.38	68	698666	29.698 ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	359820	30.937 ng	#	76
93) n-Undecane	26.32	57	1087630	28.292 ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	217519	30.769 ng	#	93
95) Naphthalene	27.57	128	2526946	28.916 ng		100
96) n-Dodecane	27.55	57	1124103	25.930 ng		77
97) Hexachloro-1,3-butadiene	27.99	225	413738	29.427 ng		100
98) Cyclohexanone	22.06	55	596309	22.993 ng		93
99) tert-Butylbenzene	24.67	119	1728658	29.425 ng		100
100) n-Butylbenzene	25.71	91	1856239	29.653 ng		94

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

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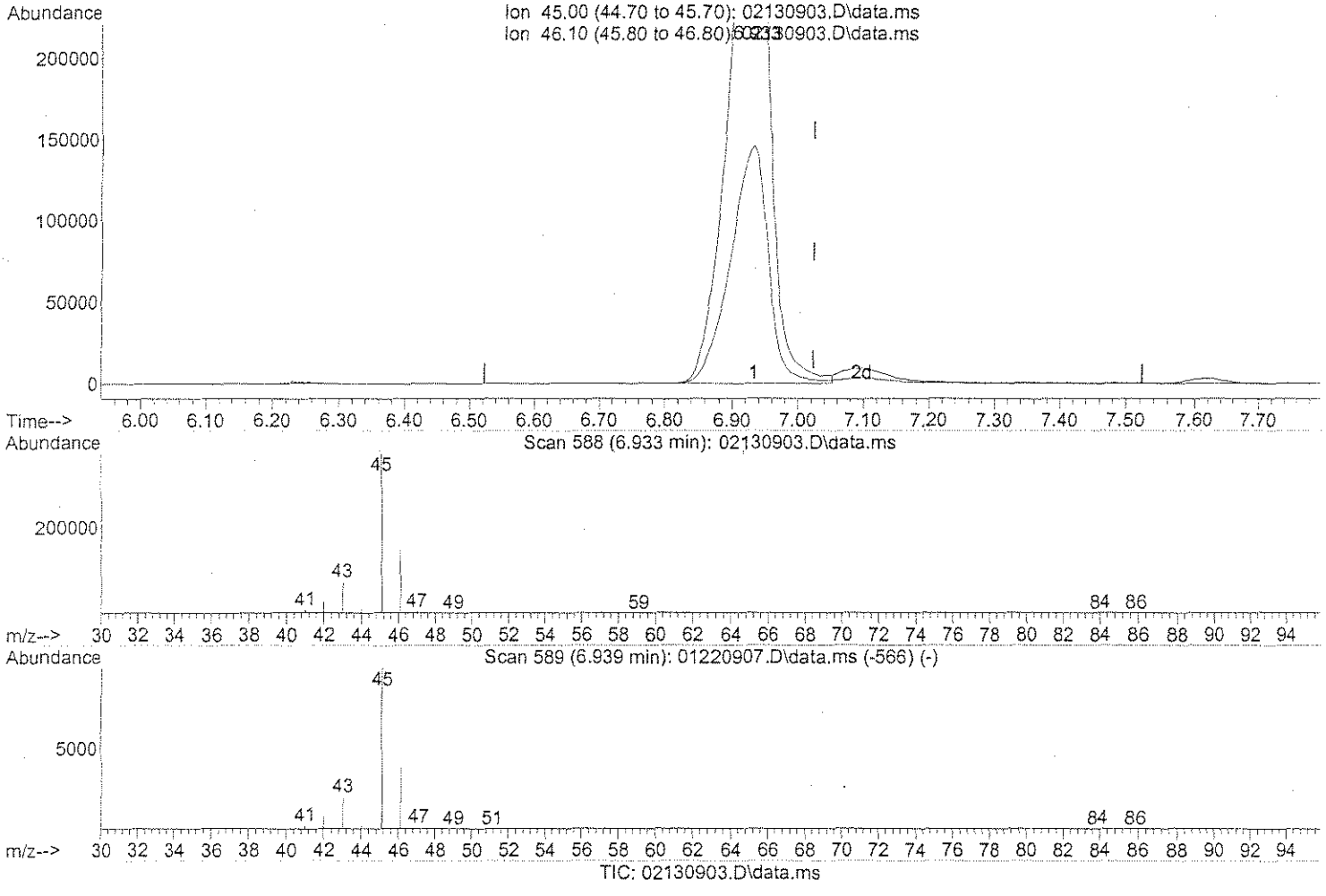
Em 2/16/09 LH 02/13/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.933min (-0.091) 146.02ng

response 1479884

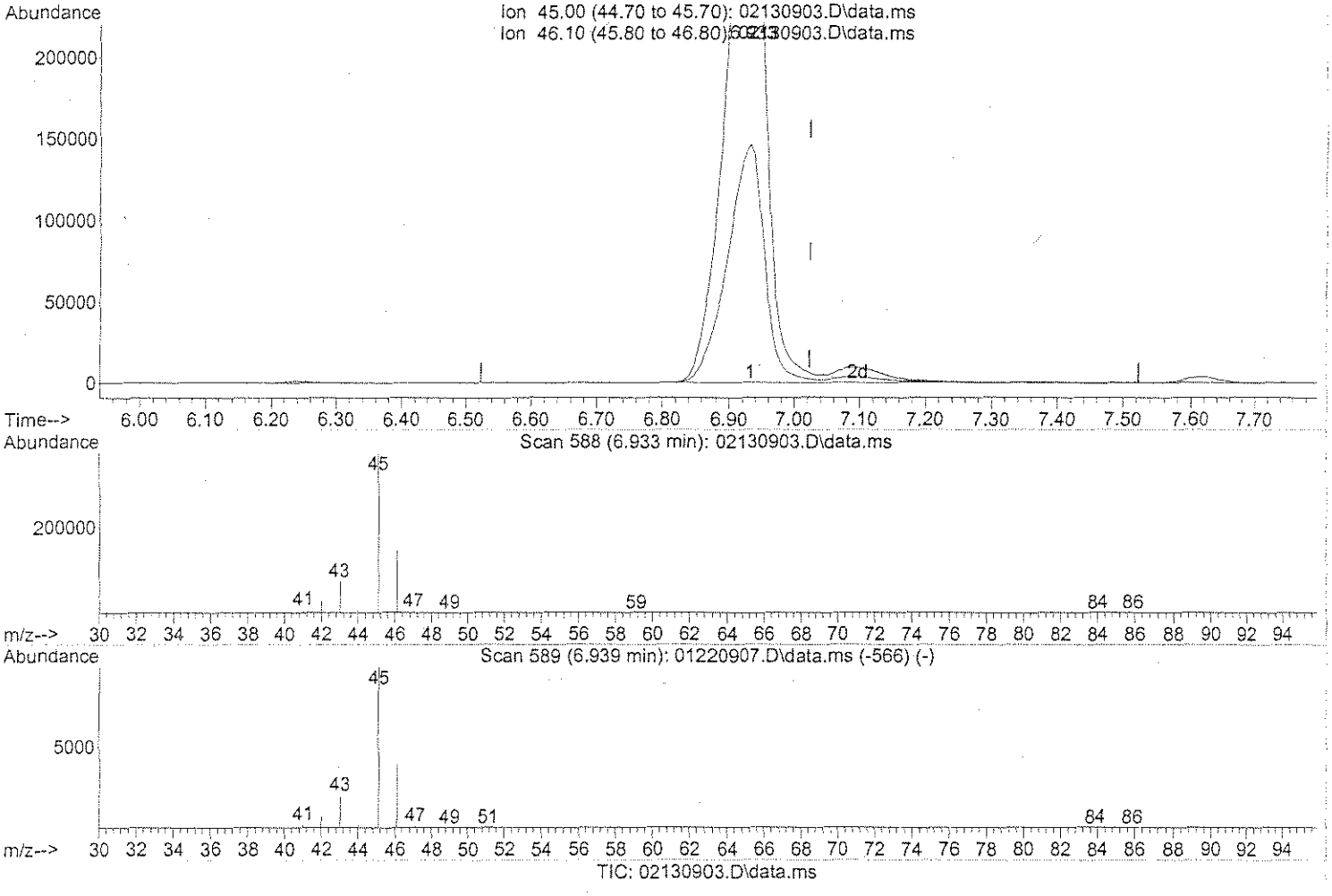
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	39.06
0.00	0.00	0.00
0.00	0.00	0.00

PT

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.933min (-0.091) 150.92ng m

response 1529546

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.80
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
VM 02/13/09
VM 2/16/09

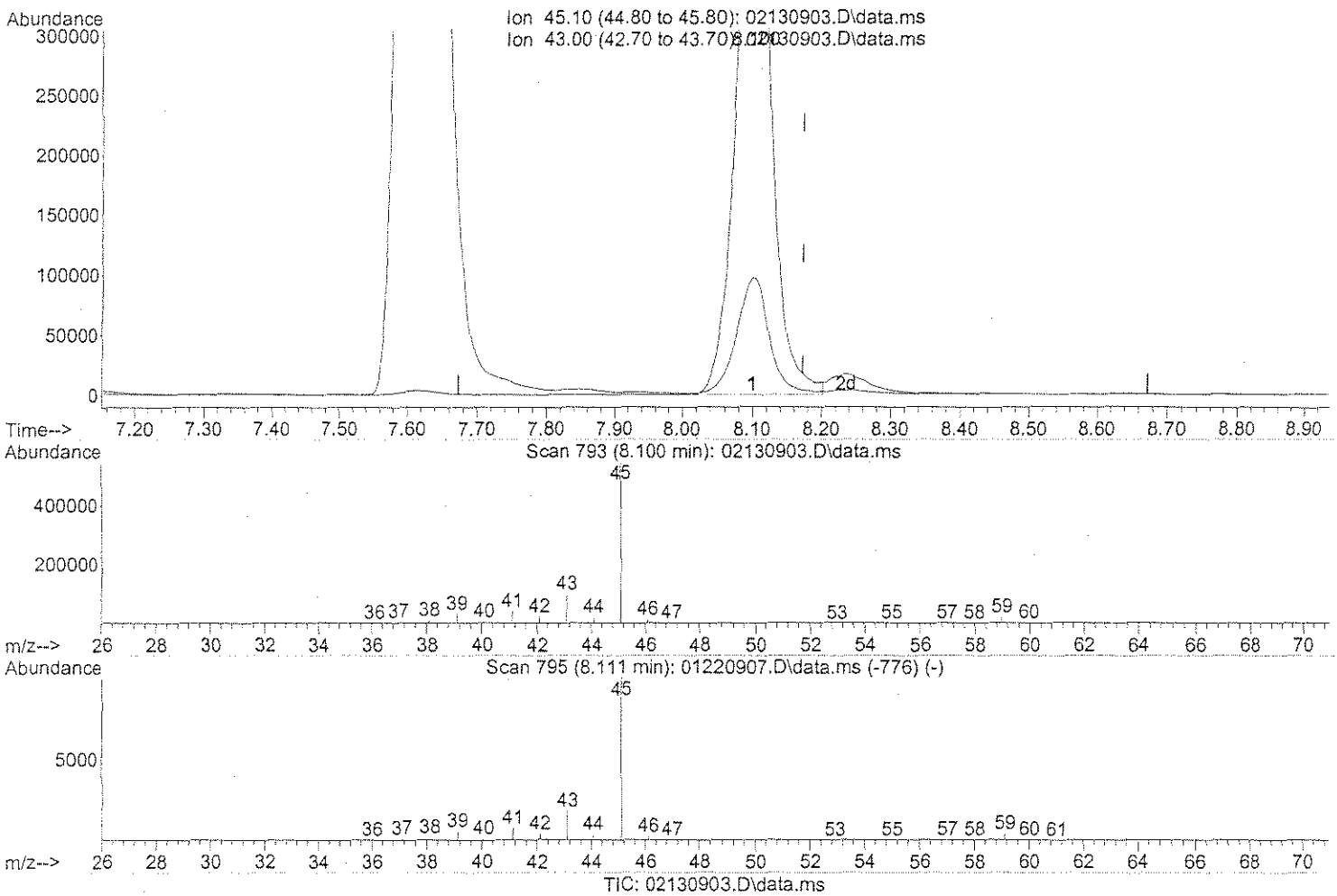
Em 2/16/09

209

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



TIC: 02130903.D\data.ms

(15) Isopropanol (T)

8.100min (-0.074) 42.17ng

response 1747939

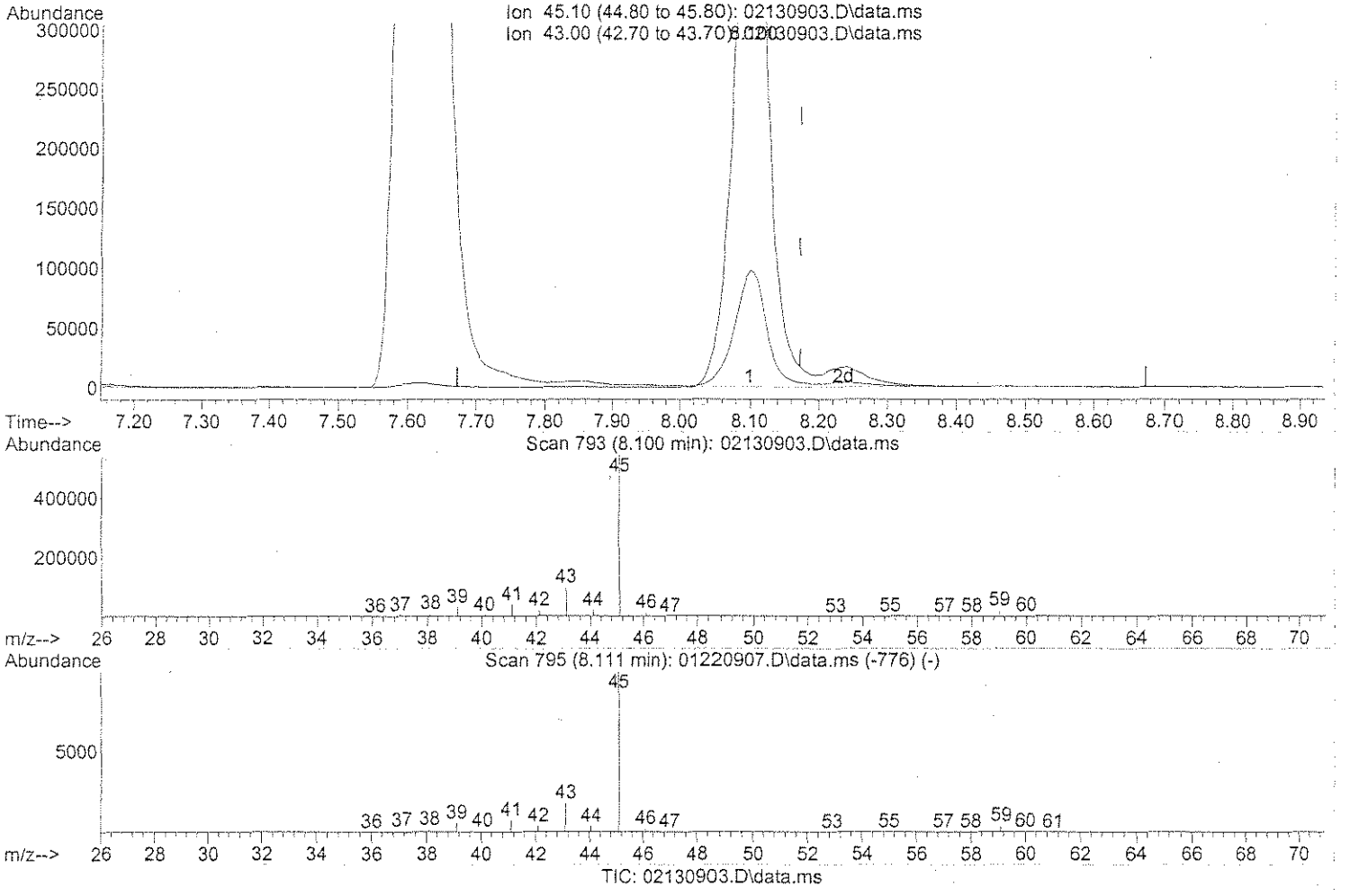
Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.95
0.00	0.00	0.00
0.00	0.00	0.00

PT

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130903.D
Acq On : 13 Feb 2009 10:15
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 13 11:04:14 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.100min (-0.074) 43.87ng m

response 1818382

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.26
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
WA 2/13/09

WA 2/16/09

EM 2/16/09

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COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P0900513
Client Project ID: **Cooper Vision / 70665-014** CAS Sample ID: P090216-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Wida Ang Date Analyzed: 2/16/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA Liter(s)
Test Notes:

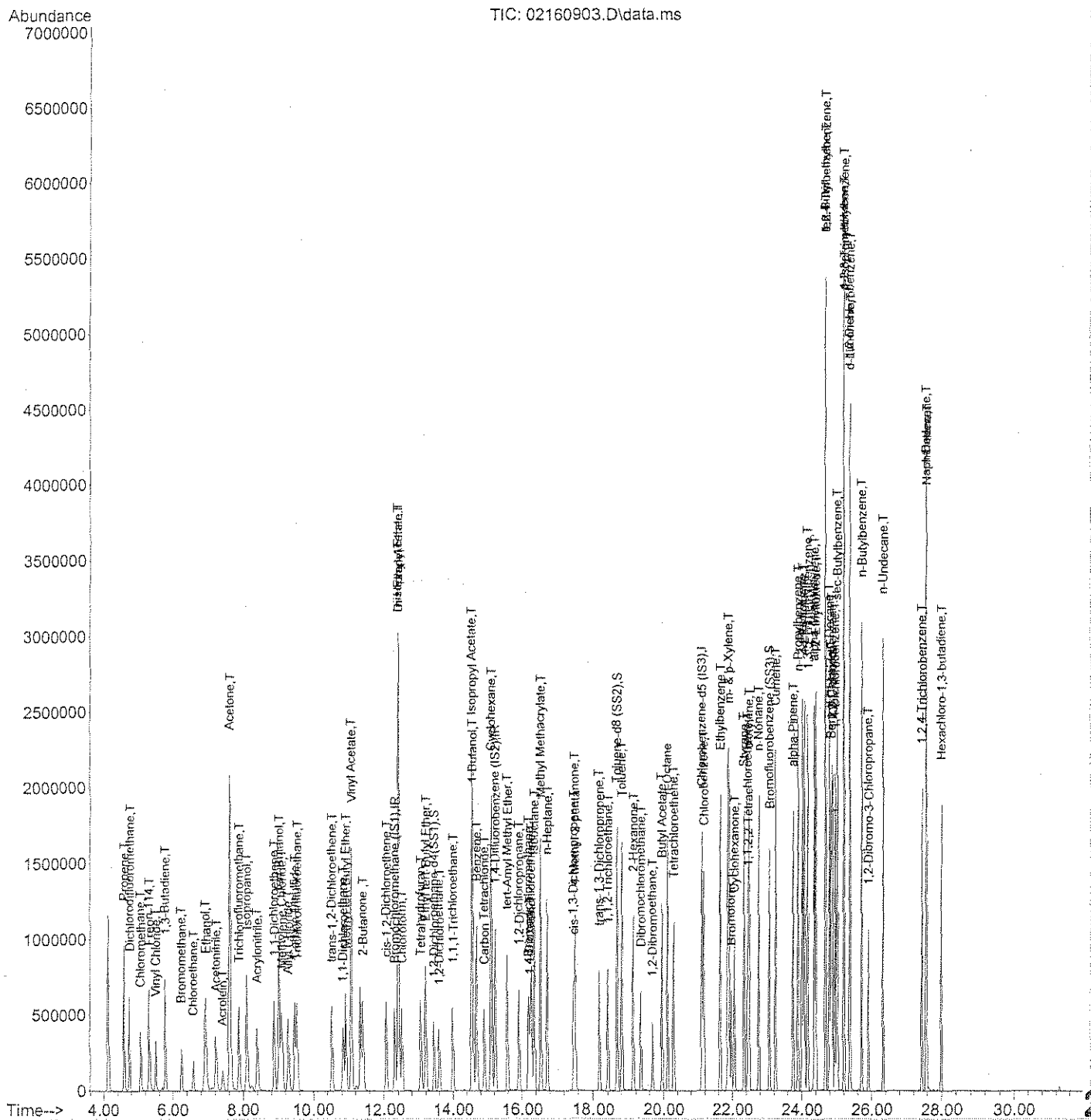
CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-01-4	Vinyl Chloride	25.5	**21.5**	**84**	57-132	
75-00-3	Chloroethane	25.8	**24.3**	**94**	68-123	
75-35-4	1,1-Dichloroethene	27.5	**27.7**	**101**	70-123	
75-34-3	1,1-Dichloroethane	26.8	**26.9**	**100**	72-130	
71-55-6	1,1,1-Trichloroethane	26.5	**25.7**	**97**	69-127	

Verified By: _____ Date: 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:47 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:47 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.31	130	293871	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.23	114	1307508	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.11	82	644721	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.44	65	458354	24.390	ng		-0.02
Spiked Amount 25.000			Recovery =	97.56%			
57) Toluene-d8 (SS2)	18.67	98	1470976	24.234	ng		0.00
Spiked Amount 25.000			Recovery =	96.92%			
73) Bromofluorobenzene (SS3)	23.06	174	616426	27.037	ng		0.00
Spiked Amount 25.000			Recovery =	108.16%			
Target Compounds							Qvalue
2) Propene	4.58	42	430729	26.182	ng		88
3) Dichlorodifluoromethane	4.75	85	659132	22.945	ng		99
4) Chloromethane	5.06	50	531285	22.636	ng		99
5) Freon 114	5.31	135	300124	21.971	ng		86
6) Vinyl Chloride	5.49	62	451613	21.475	ng		86
7) 1,3-Butadiene	5.77	54	431265	30.911	ng		98
8) Bromomethane	6.24	94	263387	24.167	ng		98
9) Chloroethane	6.57	64	228314	24.330	ng		94
10) Ethanol	6.93	45	1495507m	146.584	ng		
11) Acetonitrile	7.21	41	727250	26.327	ng		90
12) Acrolein	7.41	56	229313	26.805	ng		81
13) Acetone	7.62	58	1546605	132.957	ng		100
14) Trichlorofluoromethane	7.88	101	658972	26.390	ng		95
15) Isopropanol	8.11	45	1772570m	42.479	ng		
16) Acrylonitrile	8.40	53	558522	29.260	ng		100
17) 1,1-Dichloroethene	8.89	96	340857	27.718	ng	#	62
18) tert-Butanol	9.03	59	1940756	49.324	ng		99
19) Methylene Chloride	9.11	84	346081	23.449	ng	#	53
20) Allyl Chloride	9.28	41	577798	32.359	ng		78
21) Trichlorotrifluoroethane	9.53	151	296944	26.521	ng		90
22) Carbon Disulfide	9.47	76	1252001	24.245	ng		99
23) trans-1,2-Dichloroethene	10.52	61	534605	26.529	ng		73
24) 1,1-Dichloroethane	10.83	63	645789	26.853	ng		97
25) Methyl tert-Butyl Ether	10.91	73	949218	26.219	ng		86
26) Vinyl Acetate	11.08	86	303556	125.803	ng	#	2
27) 2-Butanone	11.40	72	259832	29.250	ng	#	35
28) cis-1,2-Dichloroethene	12.07	61	527915	26.875	ng		73
29) Diisopropyl Ether	12.40	87	280237	26.080	ng	#	28
30) Ethyl Acetate	12.41	61	301290	58.666	ng		84
31) n-Hexane	12.41	57	620422	25.556	ng		89

2/17/09 02/16/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:47 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.52	83	611060	27.395	ng		99
34) Tetrahydrofuran	13.06	72	234600	28.508	ng	#	50
35) Ethyl tert-Butyl Ether	13.20	87	395364	25.355	ng	#	69
36) 1,2-Dichloroethane	13.60	62	487099	25.913	ng		97
38) 1,1,1-Trichloroethane	14.00	97	527489	25.747	ng		94
39) Isopropyl Acetate	14.55	61	515665	55.514	ng	#	81
40) 1-Butanol	14.57	56	890881	62.028	ng		79
41) Benzene	14.68	78	1404796	25.059	ng		99
42) Carbon Tetrachloride	14.91	117	495936	27.260	ng		99
43) Cyclohexane	15.11	84	1030828	55.323	ng	#	64
44) tert-Amyl Methyl Ether	15.58	73	975472	25.536	ng		83
45) 1,2-Dichloropropane	15.91	63	370752	26.142	ng		98
46) Bromodichloromethane	16.18	83	488767	28.039	ng		99
47) Trichloroethene	16.26	130	390699	26.169	ng		97
48) 1,4-Dioxane	16.21	88	297960	27.549	ng	#	69
49) Isooctane	16.35	57	1598375	25.174	ng		98
50) Methyl Methacrylate	16.53	100	315327	57.277	ng	#	88
51) n-Heptane	16.72	71	371981	26.829	ng	#	74
52) cis-1,3-Dichloropropene	17.46	75	548357	26.136	ng		99
53) 4-Methyl-2-pentanone	17.51	58	388484	29.442	ng		79
54) trans-1,3-Dichloropropene	18.17	75	570157	29.397	ng		99
55) 1,1,2-Trichloroethane	18.41	97	341945	26.032	ng		100
58) Toluene	18.80	91	1556123	25.440	ng		99
59) 2-Hexanone	19.12	43	1048664	28.230	ng		92
60) Dibromochloromethane	19.35	129	462694	30.543	ng		100
61) 1,2-Dibromoethane	19.68	107	414295	26.610	ng		99
62) Butyl Acetate	19.95	43	1163485	27.316	ng		97
63) n-Octane	20.11	57	368456	26.203	ng	#	69
64) Tetrachloroethene	20.30	166	429680	25.197	ng		99
65) Chlorobenzene	21.17	112	1023408	25.278	ng		100
66) Ethylbenzene	21.65	91	1780631	26.116	ng		99
67) m- & p-Xylene	21.89	91	2806254	52.485	ng		97
68) Bromoform	21.96	173	421786	30.170	ng		100
69) Styrene	22.33	104	1153311	28.077	ng		96
70) o-Xylene	22.48	91	1450335	26.500	ng		98
71) n-Nonane	22.75	43	906207	26.771	ng		90
72) 1,1,2,2-Tetrachloroethane	22.45	83	678771	27.950	ng		96
74) Cumene	23.24	105	1851756	25.574	ng		96
75) alpha-Pinene	23.74	93	880670	28.231	ng		98
76) n-Propylbenzene	23.89	91	2338656	26.638	ng		97
77) 3-Ethyltoluene	24.01	105	1924686	29.012	ng		95
78) 4-Ethyltoluene	24.07	105	1925143	29.638	ng		95
79) 1,3,5-Trimethylbenzene	24.16	105	1568242	27.974	ng		92

SH 2/17/09 LH 02/16/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:47 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	921060	28.817	ng		97
81) 2-Ethyltoluene	24.40	105	1959010	28.787	ng		94
82) 1,2,4-Trimethylbenzene	24.67	105	1707192	28.384	ng		90
83) n-Decane	24.79	57	1021966	28.905	ng		81
84) Benzyl Chloride	24.84	91	1580751	32.319	ng		95
85) 1,3-Dichlorobenzene	24.87	146	1011132	28.795	ng		98
86) 1,4-Dichlorobenzene	24.95	146	1026955	28.547	ng		99
87) sec-Butylbenzene	25.01	105	2255176	28.734	ng		98
88) p-Isopropyltoluene	25.20	119	2189550	28.742	ng		94
89) 1,2,3-Trimethylbenzene	25.20	105	1768670	29.386	ng		88
90) 1,2-Dichlorobenzene	25.37	146	989131	29.746	ng		98
91) d-Limonene	25.38	68	688683	29.498	ng		99
92) 1,2-Dibromo-3-Chloropr...	25.90	157	358735	31.081	ng	#	76
93) n-Undecane	26.32	57	1063532	27.877	ng		78
94) 1,2,4-Trichlorobenzene	27.43	184	212624	30.307	ng	#	93
95) Naphthalene	27.57	128	2490959	28.722	ng		100
96) n-Dodecane	27.55	57	1098888	25.543	ng		76
97) Hexachloro-1,3-butadiene	27.99	225	407933	29.237	ng		100
98) Cyclohexanone	22.06	55	576271	22.391	ng		92
99) tert-Butylbenzene	24.67	119	1720031	29.502	ng		100
100) n-Butylbenzene	25.71	91	1843465	29.675	ng		94

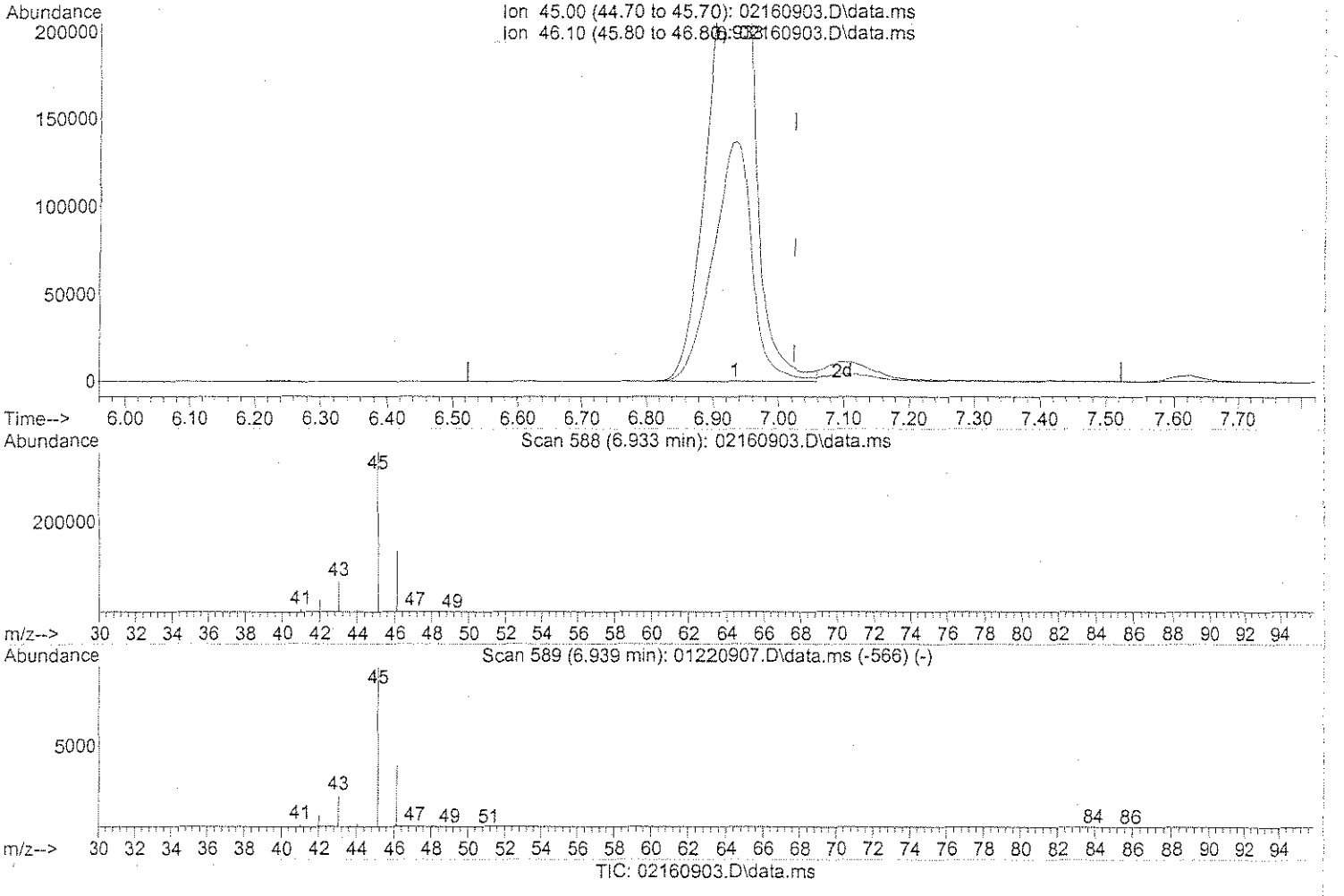
(#) = qualifier out of range (m) = manual integration (+) = signals summed

KM 2/17/09 LH 02/16/09

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:07 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.933min (-0.091) 140.48ng

response 1433241

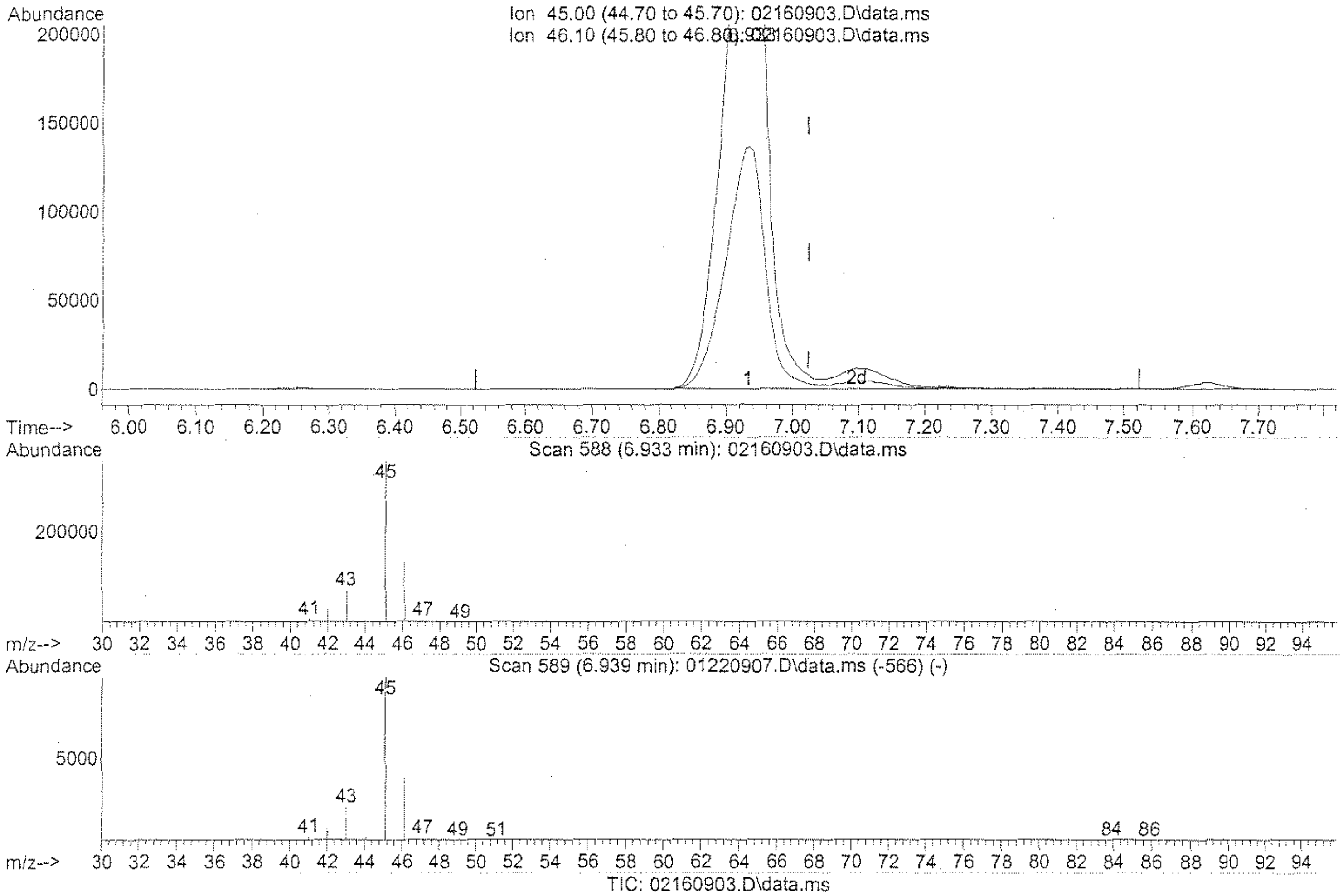
Ion	Exp%	Act%
45.00	100	100
46.10	35.10	39.06
0.00	0.00	0.00
0.00	0.00	0.00

PT

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:07 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(10) Ethanol (T)

6.933min (-0.091) 146.58ng m

response 1495507

Ion	Exp%	Act%
45.00	100	100
46.10	35.10	37.43
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
W 02/16/09

— L 2/17/09

KA 2/17/09

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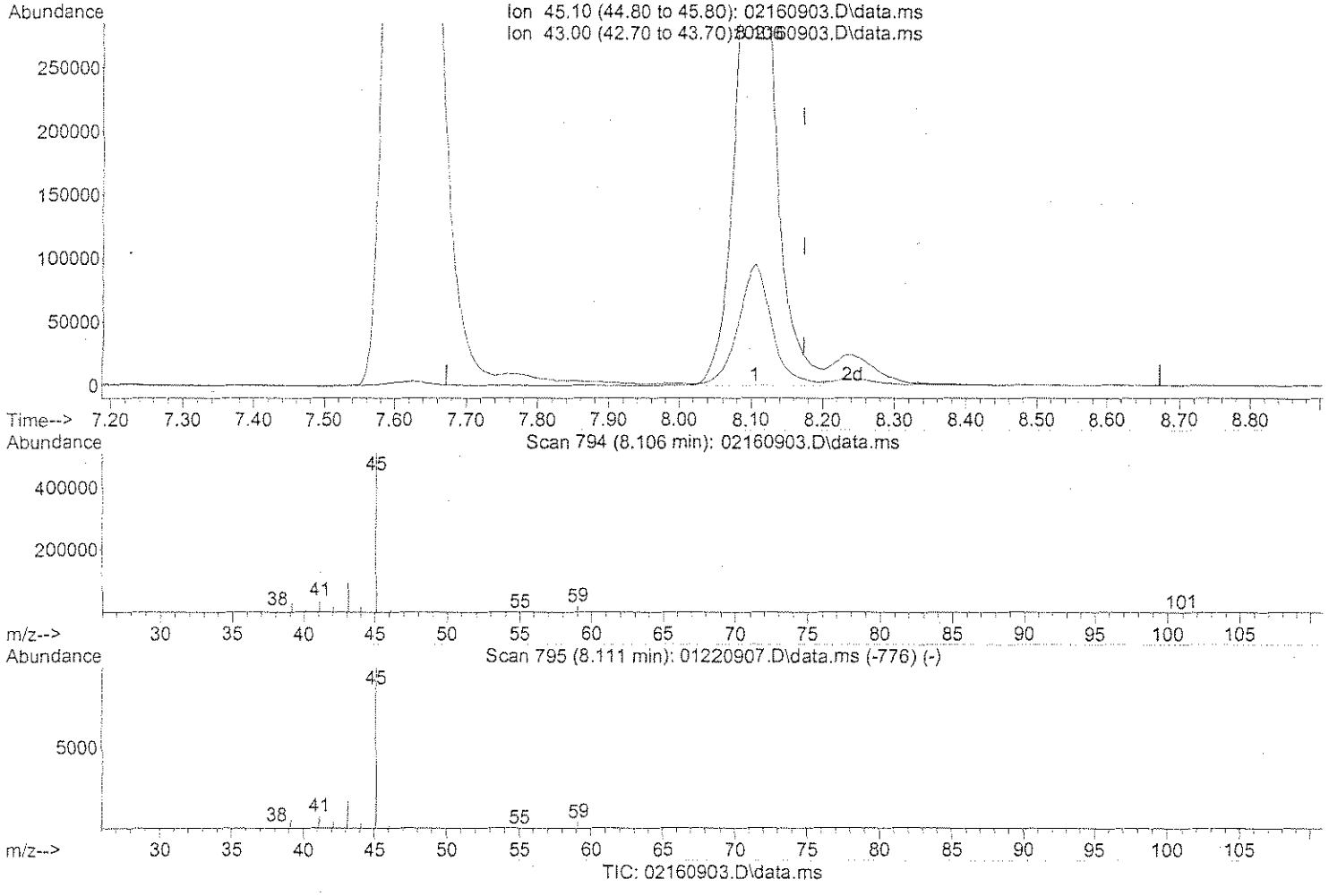
Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:07 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



TIC: 02160903.D\data.ms

(15) Isopropanol (T)

8.106min (-0.068) 40.02ng

response 1670028

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	18.13
0.00	0.00	0.00
0.00	0.00	0.00

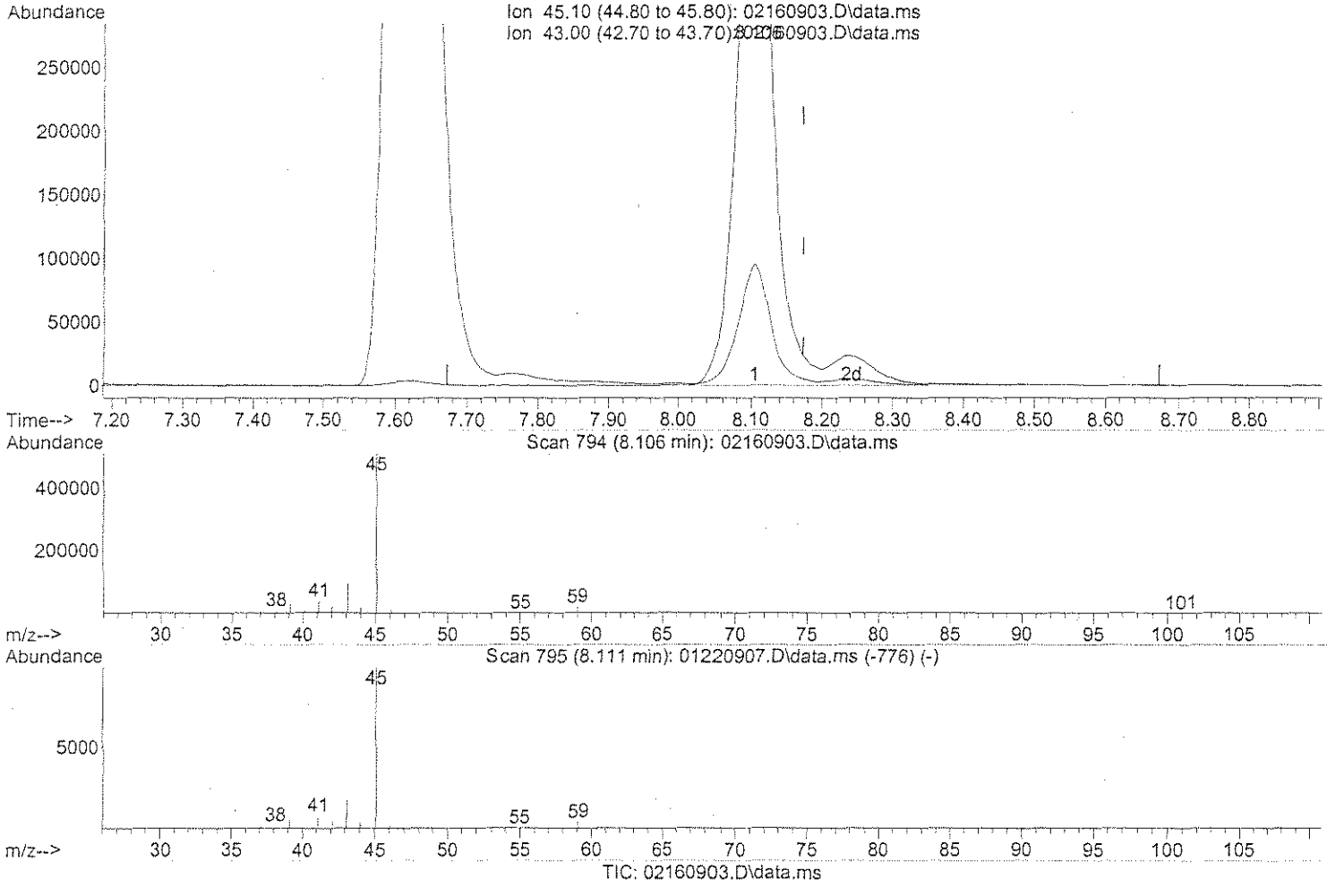
PT

219

Quantitation Report (Qedit)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160903.D
Acq On : 16 Feb 2009 10:36
Operator : WA/LH
Sample : 25ng TO-15 LCS STD
Misc : S20-01290901/S20-01210903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 16 11:13:07 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



(15) Isopropanol (T)

8.106min (-0.068) 42.48ng m

response 1772570

Ion	Exp%	Act%
45.10	100	100
43.00	17.10	17.08
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
LH 02/16/09

2/17/09

VOA 2/17/09

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COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-58**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-002DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00848

Date Collected: 2/10/09
Date Received: 2/12/09
Date Analyzed: 2/13/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -4.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.75

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average ppbV	% RPD	RPD Limit	Data Qualifier
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	

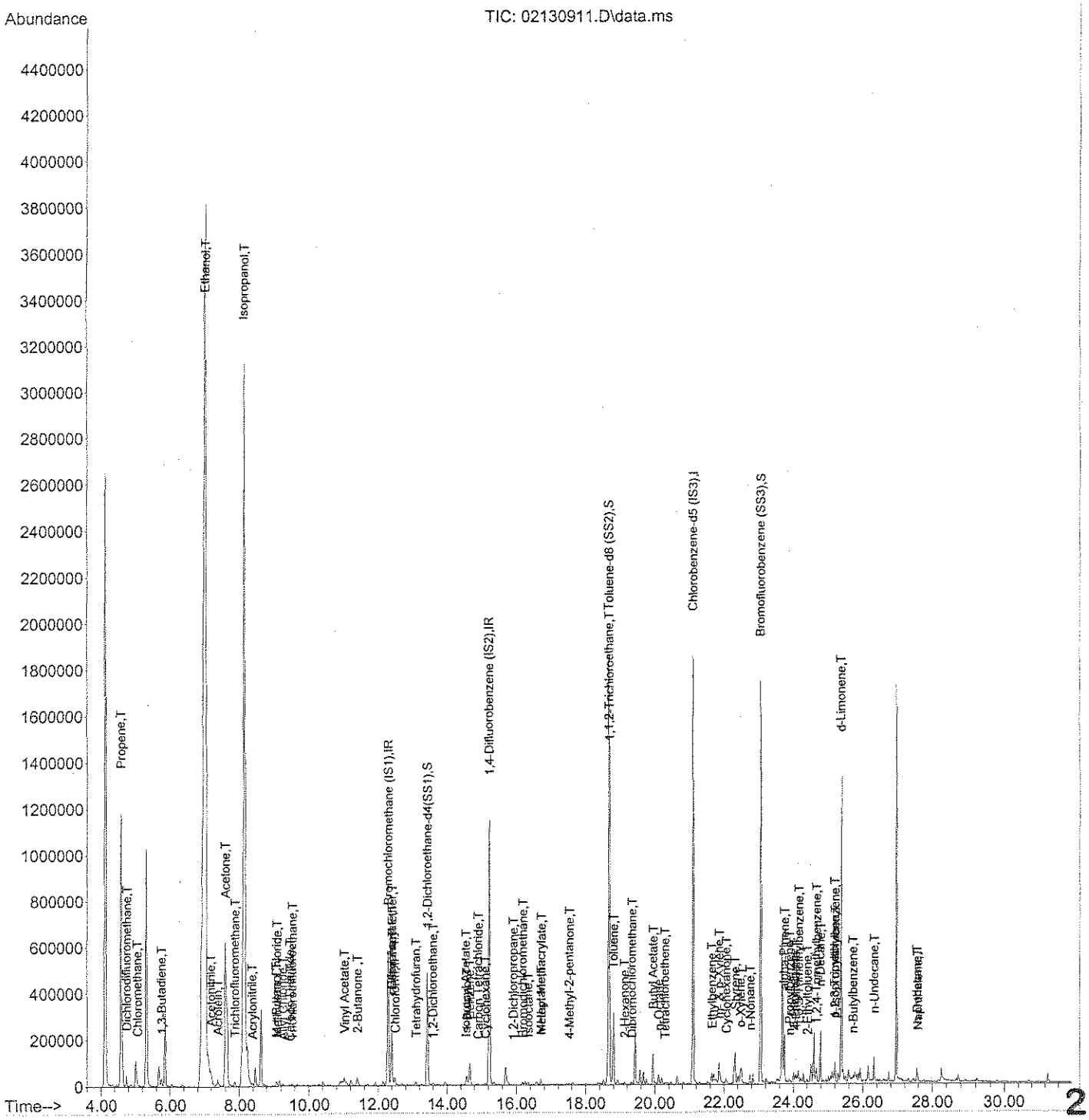
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

Verified By: _____ Date: 2/19/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130911.D
Acq On : 13 Feb 2009 16:33
Operator : WA/LH
Sample : P0900513-002Dup (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5) ✓
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 17:15:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



222

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130911.D
Acq On : 13 Feb 2009 16:33
Operator : WA/LH
Sample : P0900513-002Dup (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5) ✓
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 17:15:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	306251	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1398587	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	695931	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	479750	24.496	ng		-0.04
Spiked Amount 25.000			Recovery =	98.00% ✓			
57) Toluene-d8 (SS2)	18.67	98	1583839	24.173	ng		-0.01
Spiked Amount 25.000			Recovery =	96.68% ✓			
73) Bromofluorobenzene (SS3)	23.06	174	653389	26.550	ng		0.00
Spiked Amount 25.000			Recovery =	106.20% ✓			
Target Compounds							Qvalue
2) Propene	4.58	42	579027	33.773	ng		91
3) Dichlorodifluoromethane	4.75	85	48005	1.604	ng		100
4) Chloromethane	5.06	50	17591	0.719	ng		98
5) Freon 114	5.31	135	834	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.77	54	19130	1.316	ng		93
8) Bromomethane	6.24	94	262	N.D.			
9) Chloroethane	6.57	64	135	N.D. ✓			
10) Ethanol	7.02	45	13135748	1235.469	ng		93
11) Acetonitrile	7.19	41	103668	3.601	ng		97
12) Acrolein	7.39	56	34567	3.877	ng		84
13) Acetone	7.60	58	406622	33.543	ng		91
14) Trichlorofluoromethane	7.87	101	21358	0.821	ng		95
15) Isopropanol	8.15	45	7396652	170.091	ng		99
16) Acrylonitrile	8.38	53	9363	0.471	ng		96
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.07	59	17145	0.418	ng	#	16
19) Methylene Chloride	9.08	84	3934	0.256	ng	#	54
20) Allyl Chloride	9.26	41	2157	0.116	ng	#	55
21) Trichlorotrifluoroethane	9.52	151	4524	0.388	ng		83
22) Carbon Disulfide	9.46	76	7345	0.136	ng		91
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	10.92	73	356	N.D.			
26) Vinyl Acetate	11.03	86	11313	4.499	ng	#	1
27) 2-Butanone	11.40	72	15035	1.624	ng	#	40
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.40	87	1017	0.091	ng	#	1
30) Ethyl Acetate	12.39	61	49067	9.168	ng		82
31) n-Hexane	12.40	57	13388	0.529	ng		8

2/17/09 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130911.D
Acq On : 13 Feb 2009 16:33
Operator : WA/LH
Sample : P0900513-002Dup (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 17:15:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.49	83	33139	1.426	ng		100
34) Tetrahydrofuran	13.10	72	569	0.066	ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.59	62	6118	0.312	ng		99
38) 1,1,1-Trichloroethane	13.97	97	644	N.D.			
39) Isopropyl Acetate	14.55	61	1686	0.170	ng	#	1
40) 1-Butanol	14.57	56	36518	2.377	ng		92
41) Benzene	14.67	78	115716	1.930	ng		99
42) Carbon Tetrachloride	14.90	117	5583	0.287	ng		100
43) Cyclohexane	15.10	84	3971	0.199	ng	#	70
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	15.90	63	992	0.065	ng		88
46) Bromodichloromethane	16.18	83	10171	0.545	ng		99
47) Trichloroethene	16.25	130	433	N.D.			
48) 1,4-Dioxane	16.24	88	328	N.D.			
49) Isooctane	16.33	57	15150	0.223	ng		82
50) Methyl Methacrylate	16.71	100	2119	0.360	ng	#	1
51) n-Heptane	16.71	71	7047	0.475	ng	#	78
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.			
53) 4-Methyl-2-pentanone	17.52	58	1941	0.138	ng		76
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.			
55) 1,1,2-Trichloroethane	18.68	97	134476	9.571	ng	#	8
58) Toluene	18.80	91	249992	3.786	ng		98
59) 2-Hexanone	19.13	43	7749	0.193	ng		89
60) Dibromochloromethane	19.34	129	3880	0.237	ng		99
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) Butyl Acetate	19.95	43	124347	2.705	ng		94
63) n-Octane	20.11	57	8384	0.552	ng	#	75
64) Tetrachloroethene	20.29	166	1446	0.079	ng		91
65) Chlorobenzene	21.16	112	488	N.D.			
66) Ethylbenzene	21.64	91	39935	0.543	ng		100
67) m- & p-Xylene	21.86	91	78940	1.368	ng		98
68) Bromoform	21.95	173	344	N.D.			
69) Styrene	22.33	104	22797	0.514	ng		97
70) o-Xylene	22.48	91	23805	0.403	ng		99
71) n-Nonane	22.75	43	17524	0.480	ng		91
72) 1,1,2,2-Tetrachloroethane	22.49	83	872	N.D.			
74) Cumene	23.24	105	3762	N.D.			
75) alpha-Pinene	23.74	93	96169	2.856	ng		97
76) n-Propylbenzene	23.88	91	10502	0.111	ng		79
77) 3-Ethyltoluene	24.01	105	21227	0.296	ng		97
78) 4-Ethyltoluene	24.07	105	10569	0.151	ng		96
79) 1,3,5-Trimethylbenzene	24.15	105	7769	0.128	ng		100

2/17/09 LH 02/16/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS16\DATA\2009_02\13\
Data File : 02130911.D
Acq On : 13 Feb 2009 16:33
Operator : WA/LH
Sample : P0900513-002Dup (1000mL)
Misc : Haley & Aldrich SV-InA-58 (-4.3, 3.5)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 13 17:15:17 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	1685	N.D.			
81) 2-Ethyltoluene	24.40	105	8223	0.112	ng		100
82) 1,2,4-Trimethylbenzene	24.67	105	23686	0.365	ng		94
83) n-Decane	24.79	57	86736	2.273	ng		77
84) Benzyl Chloride	24.85	91	130	N.D.			
85) 1,3-Dichlorobenzene	24.95	146	2145	N.D.			
86) 1,4-Dichlorobenzene	24.95	146	2145	N.D.			
87) sec-Butylbenzene	25.01	105	1019	N.D.			
88) p-Isopropyltoluene	25.20	119	34364	0.418	ng		93
89) 1,2,3-Trimethylbenzene	25.20	105	9438	0.145	ng	#	66
90) 1,2-Dichlorobenzene	25.37	146	205	N.D.			
91) d-Limonene	25.37	68	346862	13.764	ng		99
92) 1,2-Dibromo-3-Chloropr...	26.32	157	59	N.D.			
93) n-Undecane	26.32	57	37651	0.914	ng		68
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.			
95) Naphthalene	27.57	128	22856	0.244	ng		100
96) n-Dodecane	27.55	57	17437	0.375	ng		74
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.06	55	14690	0.529	ng	#	93
99) tert-Butylbenzene	25.12	119	2439	N.D.			
100) n-Butylbenzene	25.71	91	4183	0.062	ng	#	30

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

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COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-2**
Client Project ID: **Cooper Vision / 70665-014**

CAS Project ID: P0900513
CAS Sample ID: P0900513-009DUP

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Wida Ang
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01423

Date Collected: 2/10/09
Date Received: 2/16/09
Date Analyzed: 2/16/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.39

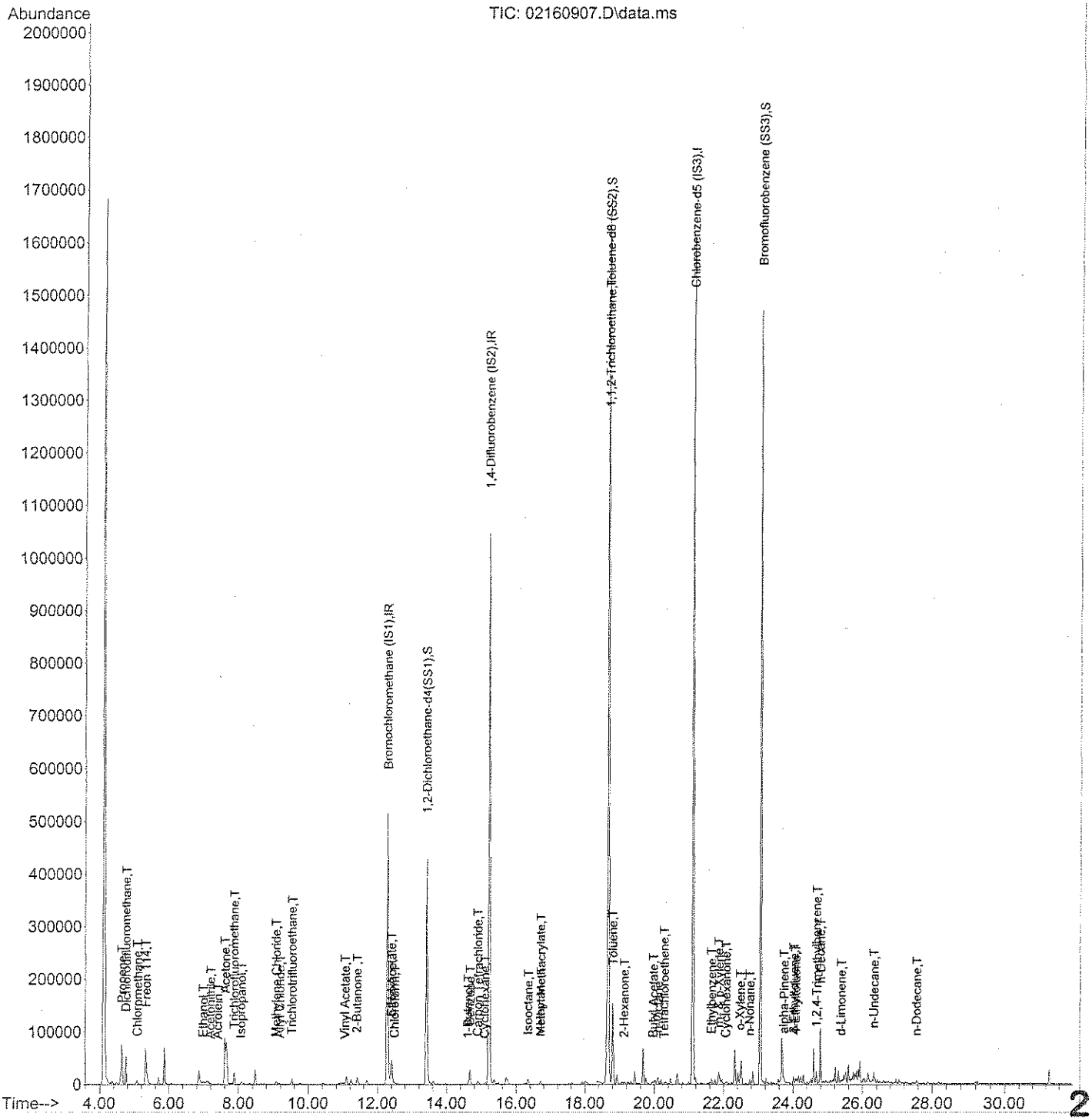
Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average ppbV	% RPD	RPD Limit	Data Qualifier
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
Chloroethane	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	

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

Verified By: _____ Date: 2/18/09

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160907.D
Acq On : 16 Feb 2009 13:37
Operator : WA/LH
Sample : P0900513-009Dup (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5) ✓
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 14:38:50 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160907.D
Acq On : 16 Feb 2009 13:37
Operator : WA/LH
Sample : P0900513-009Dup (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5) ✓
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 14:38:50 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.28	130	267798	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.21	114	1235225	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.10	82	607502	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.42	65	433669	25.323	ng		-0.04
Spiked Amount 25.000			Recovery = 101.28%				
57) Toluene-d8 (SS2)	18.67	98	1402601	24.523	ng		-0.01
Spiked Amount 25.000			Recovery = 98.08%				
73) Bromofluorobenzene (SS3)	23.06	174	544271	25.335	ng		0.00
Spiked Amount 25.000			Recovery = 101.32%				
Target Compounds							Qvalue
2) Propene	4.63	42	12505	0.834	ng	#	26
3) Dichlorodifluoromethane	4.76	85	54618	2.086	ng		99
4) Chloromethane	5.09	50	8576	0.401	ng		94
5) Freon 114	5.32	135	1012	0.081	ng		76
6) Vinyl Chloride	0.00	62	0	N.D. ✓			
7) 1,3-Butadiene	5.79	54	395	N.D.			
8) Bromomethane	6.26	94	54	N.D.			
9) Chloroethane	0.00	64	0	N.D. ✓			
10) Ethanol	6.98	45	13223	1.422	ng		75
11) Acetonitrile	7.19	41	2387	0.095	ng	#	42
12) Acrolein	7.41	56	3013	0.386	ng		79
13) Acetone	7.61	58	56880	5.366	ng	#	78
14) Trichlorofluoromethane	7.87	101	23974	1.054	ng		94
15) Isopropanol	8.08	45	5319	0.140	ng		62
16) Acrylonitrile	8.49	53	301	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D. ✓			
18) tert-Butanol	9.03	59	954	N.D.			
19) Methylene Chloride	9.08	84	2898	0.215	ng	#	57
20) Allyl Chloride	9.18	41	1158	0.071	ng	#	55
21) Trichlorotrifluoroethane	9.53	151	5050	0.495	ng		92
22) Carbon Disulfide	9.48	76	2532	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D. ✓			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.05	86	543	0.247	ng	#	1
27) 2-Butanone	11.40	72	6085	0.752	ng	#	58
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.40	61	7021	1.500	ng		94
31) n-Hexane	12.41	57	7549	0.341	ng		10

2/17/09 02/17/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160907.D
Acq On : 16 Feb 2009 13:37
Operator : WA/LH
Sample : P0900513-009Dup (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 14:38:50 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.49	83	1561	0.077 ng		93
34) Tetrahydrofuran	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.59	62	835	N.D.		
38) 1,1,1-Trichloroethane	13.98	97	829	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.62	56	3860	0.284 ng		90
41) Benzene	14.67	78	33275	0.628 ng		98
42) Carbon Tetrachloride	14.90	117	5872	0.342 ng		97
43) Cyclohexane	15.09	84	1276	0.072 ng	#	69
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	16.26	130	66	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.34	57	12665	0.211 ng		93
50) Methyl Methacrylate	16.71	100	356	0.068 ng	#	1
51) n-Heptane	16.70	71	1734	0.132 ng	#	73
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.54	58	464	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.68	97	119825	9.656 ng	#	8
58) Toluene	18.80	91	64022	1.111 ng		99
59) 2-Hexanone	19.13	43	4098	0.117 ng		84
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	19.97	43	2878	0.072 ng	#	56
63) n-Octane	20.11	57	2554	0.193 ng		85
64) Tetrachloroethene	20.29	166	1051	0.065 ng		90
65) Chlorobenzene	21.15	112	59	N.D.		
66) Ethylbenzene	21.64	91	10187	0.159 ng		97
67) m- & p-Xylene	21.86	91	23261	0.462 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.34	104	1501	N.D.		
70) o-Xylene	22.48	91	9260	0.180 ng		99
71) n-Nonane	22.75	43	3808	0.119 ng		96
72) 1,1,2,2-Tetrachloroethane	22.48	83	52	N.D.		
74) Cumene	23.24	105	1596	N.D.		
75) alpha-Pinene	23.74	93	3691	0.126 ng	#	43
76) n-Propylbenzene	23.89	91	3189	N.D.		
77) 3-Ethyltoluene	24.02	105	7591	0.121 ng		100
78) 4-Ethyltoluene	24.07	105	3899	0.064 ng		93
79) 1,3,5-Trimethylbenzene	24.16	105	3069	N.D.		

Quantitation Report (QT Reviewed)

Data Path : J:\MS16\DATA\2009_02\16\
Data File : 02160907.D
Acq On : 16 Feb 2009 13:37
Operator : WA/LH
Sample : P0900513-009Dup (1000mL)
Misc : Haley & Aldrich SV-InA-2 (-1.6, 3.5)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 16 14:38:50 2009
Quant Method : J:\MS16\METHODS\R16012209.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Jan 23 08:54:57 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.59	118	988	N.D.			
81) 2-Ethyltoluene	24.40	105	2936	N.D.			
82) 1,2,4-Trimethylbenzene	24.67	105	9369	0.165	ng		93
83) n-Decane	24.79	57	42072	1.263	ng		80
84) Benzyl Chloride	24.84	91	53	N.D.			
85) 1,3-Dichlorobenzene	24.95	146	1859	N.D.			
86) 1,4-Dichlorobenzene	24.95	146	1859	N.D.			
87) sec-Butylbenzene	25.01	105	458	N.D.			
88) p-Isopropyltoluene	25.20	119	1244	N.D.			
89) 1,2,3-Trimethylbenzene	25.20	105	2544	N.D.			
90) 1,2-Dichlorobenzene	24.95	146	1859	N.D.			
91) d-Limonene	25.38	68	1383	0.063	ng		93
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	26.32	57	9763	0.272	ng		68
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.			
95) Naphthalene	27.58	128	3242	N.D.			
96) n-Dodecane	27.55	57	3331	0.082	ng		92
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.07	55	2943	0.121	ng	#	75
99) tert-Butylbenzene	24.67	119	1160	N.D.			
100) n-Butylbenzene	25.67	91	1970	N.D.			

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

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Copy of Calculations

Instructions for Data Validation-Method TO-15(SCAN)

1. Determination of Pressure Dilution Factor

Upon receipt at the laboratory the pressure or vacuum of the sample canisters is measured using a digital pressure gauge. The canisters are then pressurized with humidified zero air to approximately +3.5 psig (pounds per square inch gauge).

Pressure Dilution factor is calculated as:

$$PDF = \frac{P_f + 14.7}{P_i + 14.7}$$

P_f final pressure in psig
P_i initial pressure in psig

2. Validating Initial and Continuing Calibration Results

GC/MS target compound analysis is performed using internal standard quantitation. Three internal standard compounds (Bromochloromethane, 1,4-Difluorobenzene and Chlorobenzene-d5) are added to each aliquot of sample, blank, standard and duplicate at an amount of 25 nanograms(ng). Internal standard responses are used to calculate RRFs (relative response factors) as follows:

$$RRF = \frac{A_x C_{is}}{A_{is} C_x}$$

A_x area response of the analyte quantitation ion
A_{is} area response of the corresponding internal standard quantitation ion
C_{is} internal standard concentration, ng
C_x analyte concentration, ng

The percent relative standard deviation (%RSD) for the five or six initial calibration points should be less than 30% (with a maximum of two analytes ≤40%) for the calibration to be considered valid and linear.

$$\%RSD = \frac{SD}{\overline{RRF}}(100)$$

SD standard deviation
$\overline{RRF}$ average or mean RRF (ICAL)

The initial calibration is verified once per twenty-four hour analytical sequence with the analysis of a continuing calibration standard at one of the initial calibration levels (actual analyte concentrations of the CCV are the same as the corresponding concentrations in the initial calibration). The relative response factor of each target analyte from the daily continuing calibration standard is compared to the average relative response factor from the initial multipoint calibration. The percent difference (%D) of the initial and continuing calibration relative response factors is calculated as follows:

$$\%D = \left(\frac{\overline{RRF} - RRF\ cont}{\overline{RRF}} \right)(100)$$

$\overline{RRF}$	average relative response factor from the initial calibration
$RRF\ cont$	relative response factor from the daily continuing calibration standard

Note: the percent difference (%D) should be less than 30% for an acceptable continuing calibration standard.

3. Validating GC/MS Target Analyte Quantitation Results

Target analytes are measured in nanograms using internal standard quantitation as follows:

$$ng_x = \frac{A_x ng_{is}}{A_{is}\overline{RRF}}$$

ng_x	nanogram concentration of analyte x
A_x	area response of the analyte's quantitation ion
A_{is}	area response of the corresponding internal standard's quantitation ion
ng_{is}	internal standard amount, in nanograms
$\overline{RRF}$	average or mean RRFs (ICAL)

4. Calculation of $\mu g/m^3$ (microgram per cubic meter) Results

Target compound results reported on the "Results of Analysis" form in units of $\mu g/m^3$ are calculated as follows:

$$\mu g/m^3 = \frac{(ng)(PDF)}{L}$$

ng	nanograms of analyte (measured on the GC/MS quantitation report)
PDF	pressure dilution factor (see equation 1)
L	sample aliquot in Liters

5. Conversion to ppb (parts per billion) Volume

$$C_{ppbv} = C_x\left(\frac{24.46}{FW}\right)$$

FW formula weight of the target analytes (i.e. formula weight of Dichloromethane is 84.94; 1,2-Dichloropropane is 113)

24.46 molar volume of ideal gas at 25°C and 1 atmosphere

C_x final analyte concentration calculated in equation 4 ($\mu g/m^3$)

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

LABORATORY REPORT

March 9, 2009

Susan Boyle
Haley & Aldrich, Inc.
200 Town Centre Drive Suite 2
Rochester, NY 14623-4264

RE: Cooper Vision SVI / 70665-014

Dear Susan:

Enclosed are the results of the samples submitted to our laboratory on March 2, 2009. For your reference, these analyses have been assigned our service request number P0900735.

All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 17 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

NARRATIVE

2655 Park Center Drive, Suite A Simi Valley, California 93065 (805) 526-7161 (805) 526-7270 fax

Columbia Analytical Services INC.
An Employee - Owned Company

Client:	Haley & Aldrich, Inc.	CAS Project No:	P0900735
Project:	Cooper Vision SVI / 70665-014	New York Lab ID:	11221

CASE NARRATIVE

The samples were received intact under chain of custody on March 2, 2009 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Haley & Aldrich, Incorporated

Project: Cooper Vision SVI 70665-014

Folder: P0900735

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
P0900735-001.01	SV-SS-705-1	6.0 L-Summa Canister Source	-1.7	-0.8	3.7				SC00615	12000	OA00857	12000
P0900735-002.01	SV-InA-705-1	6.0 L-Summa Canister Ambient		0.3	3.5				AC01365	12000	FC00695	12000
P0900735-003.01	SV-OutA-022609	6.0 L-Summa Canister Ambient	-4.2	-2.1	3.5				AC00977	12000	FC00266	12000
P0900735-004.01	SV-SS-709-2	6.0 L-Summa Canister Source	-2.3	-1.1	3.5				SC00196	12000	OA00846	12000
P0900735-005.01	SV-InA-709-2	6.0 L-Summa Canister Ambient	-1.6	-0.8	3.5				AC00989	12000	FC00384	12000
P0900735-006.01	AC00681	6.0 L-Summa Canister Ambient	-29.6	-14.5					AC00681	12000		
P0900735-007.01	AC01060	6.0 L-Summa Canister Ambient	-29.6	-14.5					AC01060	12000		
P0900735-008.01	AC01048	6.0 L-Summa Canister Ambient	-29.6	-14.5					AC01048	12000		
P0900735-009.01	SC00588	6.0 L-Summa Canister Source	-29.3	-14.4					SC00588	12000		

Miscellaneous Items - received

AVG00750
AVG00601
OA00539
AVG00976
AVG00916
AVG00062
AVG01003
FC00215
AVG00288
AVG00804
FC00559
FC00509
FC00660
AVG00632
AVG00958

Columbia Analytical Services, Inc.

Sample Acceptance Check Form

Client: Haley & Aldrich, Inc. Work order: P0900735

Project: Cooper Vision SVI / 70665-014

Sample(s) received on: 03/02/09 Date opened: 03/02/09 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Was a **chain-of-custody** provided?	☒	☐	☐
5	Was the **chain-of-custody** properly completed?	☒	☐	☐
6	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
7	Was **sample volume** received adequate for analysis?	☒	☐	☐
8	Are samples within specified holding times?	☒	☐	☐
9	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
10	Was a **trip blank** received?	☐	☒	☐
	Trip blank supplied by CAS: _____			
11	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
12	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
13	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
14	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0900735-001.01	6.0 L Source Can					
P0900735-002.01	6.0 L Ambient Can					
P0900735-003.01	6.0 L Ambient Can					
P0900735-004.01	6.0 L Source Can					
P0900735-005.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers): _____

Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

NYSDEC DATA PACKAGE SUMMARY FORMS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
SV-SS-705-1	P0900735-001	EPA TO-15					
SV-InA-705-1	P0900735-002	EPA TO-15					
SV-OutA-022609	P0900735-003	EPA TO-15					
SV-SS-709-2	P0900735-004	EPA TO-15					
SV-InA-709-2	P0900735-005	EPA TO-15					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
P0900735-001	Air	2/27/09	3/2/09	NA	3/4/09
P0900735-002	Air	2/27/09	3/2/09	NA	3/4/09
P0900735-003	Air	2/27/09	3/2/09	NA	3/4/09
P0900735-004	Air	2/27/09	3/2/09	NA	3/4/09
P0900735-005	Air	2/27/09	3/2/09	NA	3/4/09

CHAIN OF CUSTODY FORMS

Air - Chain of Custody Record & Analytical Service Request

Page _____ of _____

Columbia Analytical Services Inc.
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No. 90900 735

CAS Contact: K. Aguilera

Company Name & Address (Reporting Information): Haley & Aldrich

Project Name: CooperVision SVF

Project Number: 70065-014

Project Manager: S. Boyle

P.O. # / Billing Information

Phone: 321-4222

Fax:

Email Address for Result Reporting:

Sampler (Print & Sign): Christina Ondak

Analysis Method and/or Analytes

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Sample Type (Air/Tube/ Solid)	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller (Bar code - FC #)	Sample Volume	time start (2/26)	time stop (2/27)	Vacuum start	Vacuum stop	TO-15	Comments e.g. Actual Preservative or specific instructions
SV-SS-705-1	1 -1.7	02/26	24 hr	Air	0015	00857	6L	1307	1200	28	0	X	package
SV-InA-705-1	2 +0.3				00365	00695		1257	1200	30	0	X	
SV-OutA-082609	3 -4.2				00977	00266		1400	1140	30	06	X	vinyl chloride
SV-SS-709-2	4 -2.3				00196	00846		1410	1200	26	03	X	min reporting
SV-InA-709-2	5 -1.6				00989	00384		1413	1200	30	03	X	limit for
	-29.6												Sublab = 1 µg/m³
	-29.6												indoor = .25
	-29.6												outdoor = .25
	-29.3												
													all other
													compounds
													min reporting
													limit = 1 µg/m³

Report Tier Levels - please select

Tier I - (Results/Default if not specified) _____ Tier III (Data Validation Package) 10% Surcharge _____ EDD required Yes / No

Tier II (Results + QC) _____ Tier V (client specified) _____ Type: _____ EDD Units: _____

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Christa Ondak	02/27	1356	[signature]	3/2/09	0945
Reliquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Reliquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature _____ °C

GC/MS VOLATILES DATA

QC Summary

COLUMBIA ANALYTICAL SERVICES, INC.

SURROGATE SPIKE RECOVERY RESULTS

Client: **Haley & Aldrich, Inc.**
Client Project ID: **Cooper Vision SVI / 70665-014** CAS Project ID: P0900735

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date(s) Collected: 2/27/09
Analyst: Elsa Moctezuma Date(s) Received: 3/2/09
Sampling Media: 6.0 L Summa Canister(s) Date(s) Analyzed: 3/4/09
Test Notes:

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4 % Recovered	1,2-Dichloroethane-d4 Acceptance Limits	Toluene-d8 % Recovered	Toluene-d8 Acceptance Limits	Bromofluorobenzene % Recovered	Bromofluorobenzene Acceptance Limits	Data Qualifier
Method Blank	P090304-MB	**102**	70-130	**101**	70-130	**98**	70-130	
Lab Control Sample	P090304-LCS	**101**	70-130	**99**	70-130	**99**	70-130	
SV-SS-705-1	P0900735-001	**101**	70-130	**100**	70-130	**99**	70-130	
SV-InA-705-1	P0900735-002	**101**	70-130	**100**	70-130	**100**	70-130	
SV-OutA-022609	P0900735-003	**102**	70-130	**99**	70-130	**98**	70-130	
SV-SS-709-2	P0900735-004	**101**	70-130	**99**	70-130	**98**	70-130	
SV-InA-709-2	P0900735-005	**102**	70-130	**100**	70-130	**98**	70-130	

Verified By: R. Date: 3/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P0900735
Client Project ID: **Cooper Vision SVI / 70665-014** CAS Sample ID: P090304-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 3/04/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA Liter(s)
Test Notes:

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-01-4	Vinyl Chloride	25.5	**22.0**	**86**	57-132	
75-00-3	Chloroethane	25.8	**24.5**	**95**	68-123	
75-35-4	1,1-Dichloroethene	27.5	**22.7**	**83**	70-123	
75-34-3	1,1-Dichloroethane	26.8	**25.7**	**96**	72-130	
71-55-6	1,1,1-Trichloroethane	26.5	**25.3**	**95**	69-127	

Verified By: RC Date: 3/6/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900735
Client Project ID: Cooper Vision SVI / 70665-014

Method Blank Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Lab File ID: 03040902.D
Analyst: Elsa Moctezuma Date Analyzed: 3/04/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 09:05
Test Notes:

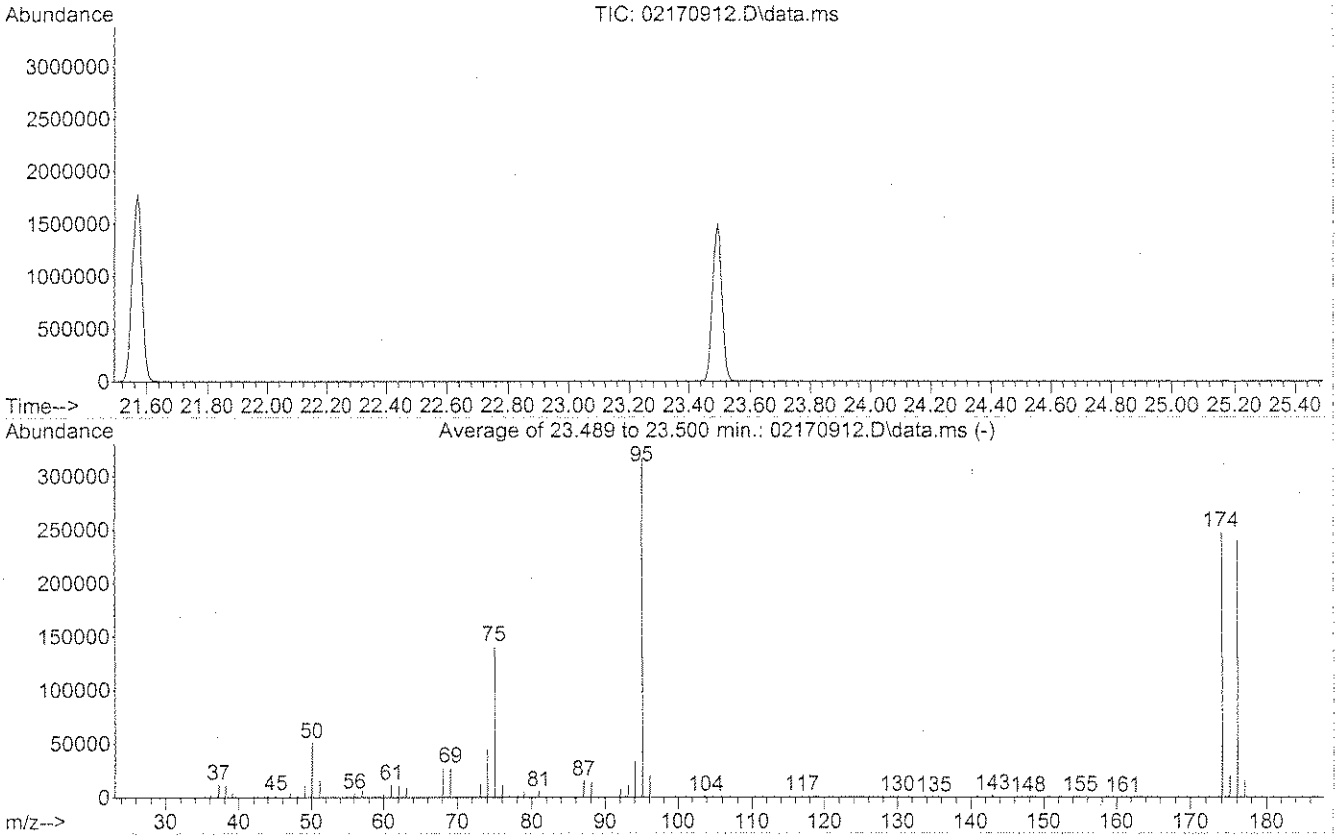
Client Sample ID	CAS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P090304-LCS	03040907.D	13:08
SV-InA-705-1	P0900735-002	03040909.D	14:35
SV-OutA-022609	P0900735-003	03040910.D	15:21
SV-SS-705-1	P0900735-001	03040912.D	17:11
SV-SS-709-2	P0900735-004	03040913.D	17:52
SV-InA-709-2	P0900735-005	03040914.D	18:34

Verified By: R. Date: 3/6/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170912.D
Acq On : 17 Feb 2009 16:49
Operator : EM
Sample : BFB Tune Standard (200ml)
Misc : S20-02030901
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS09\Methods\R9021709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Mon Feb 16 12:39:21 2009



AutoFind: Scans 3485, 3486, 3487; Background Corrected with Scan 3475

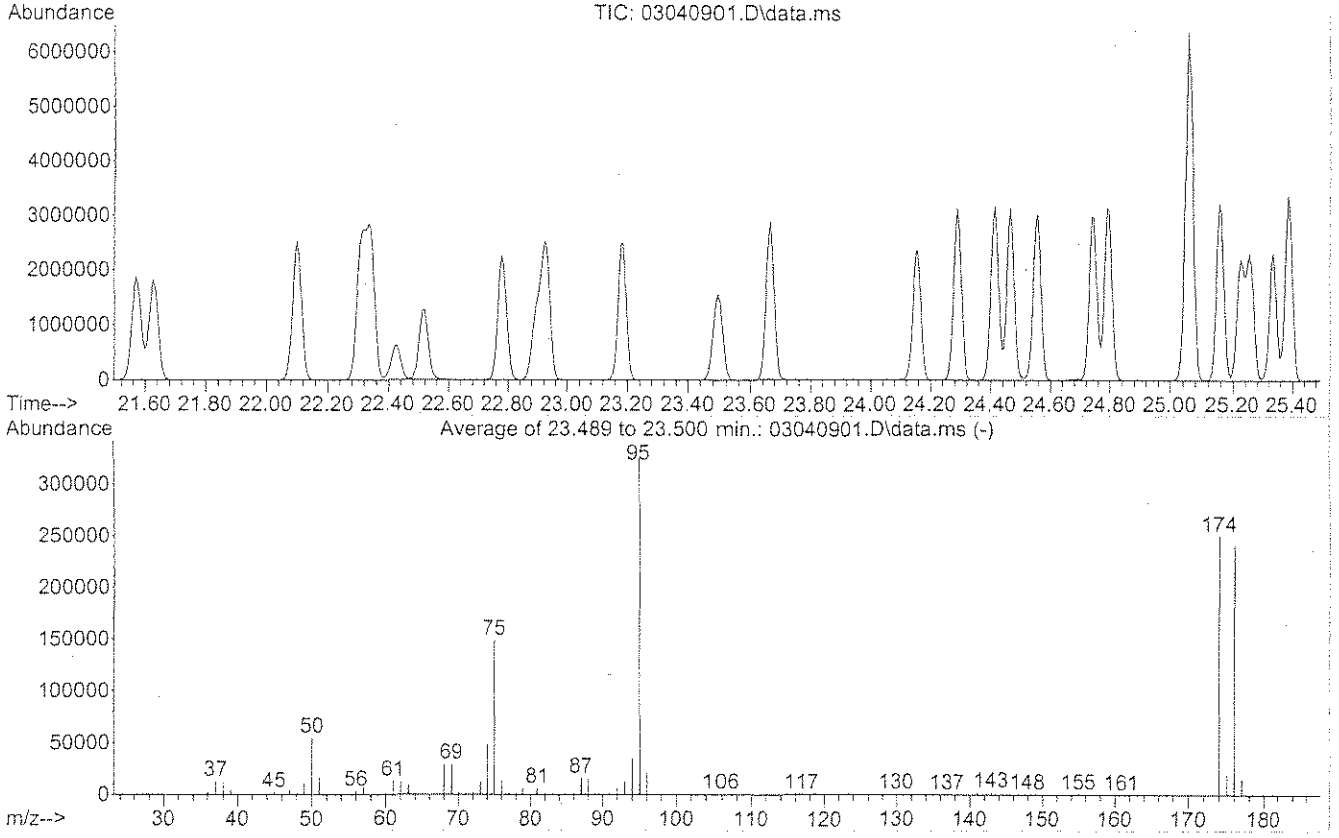
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.1	50781	PASS
75	95	30	66	44.7	140904	PASS
95	95	100	100	100.0	315477	PASS
96	95	5	9	6.4	20125	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	78.3	247104	PASS
175	174	4	9	8.0	19773	PASS
176	174	93	101	96.9	239509	PASS
177	176	5	9	6.3	15112	PASS

Ecm 2/18/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040901.D
Acq On : 4 Mar 2009 8:10
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS09\Methods\R9021709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009



AutoFind: Scans 3485, 3486, 3487; Background Corrected with Scan 3475

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.9	54877	PASS
75	95	30	66	45.7	148885	PASS
95	95	100	100	100.0	325611	PASS
96	95	5	9	6.5	21061	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	76.8	250176	PASS
175	174	4	9	7.9	19880	PASS
176	174	93	101	96.5	241323	PASS
177	176	5	9	6.4	15501	PASS

EM 3/4/09

17

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900735
Client Project ID: Cooper Vision SVI / 70665-014

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Lab File ID: 03040901.D
Analyst: Elsa Moctezuma Date Analyzed: 3/4/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 08:10
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	333021	12.82	1607634	15.77	798532	21.57
	Upper Limit	466229	13.15	2250688	16.10	1117945	21.90
	Lower Limit	199813	12.49	964580	15.44	479119	21.24
	Client Sample ID						
01	Method Blank	330101	12.80	1608551	15.75	791060	21.57
02	Lab Control Sample	322309	12.82	1549597	15.77	774690	21.57
03	SV-InA-705-1	338724	12.80	1633065	15.75	812724	21.57
04	SV-OutA-022609	338884	12.80	1640751	15.75	814845	21.57
05	SV-SS-705-1	313335	12.82	1507301	15.76	752075	21.57
06	SV-SS-709-2	324268	12.82	1568878	15.76	785278	21.57
07	SV-InA-709-2	313952	12.80	1523485	15.75	755013	21.57
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the specified liimits. See case narrative.

Verified By: RG Date: 3/6/09

COLUMBIA ANALYTICAL SERVICES

MDLs for TO-15 (LOW LEVEL - SCAN)

	?	10/02/08	10/03/08	10/03/08					FINAL	
	MS8	MS9	MS13	MS16	MAX				MDL_R	MDL_R
COMPOUND	MDL_R	MDL_R	MDL_R	MDL_R	MDL_R	µg/m³	ppbV	MW	µg/m³	ppbV
Propene		0.050	0.050	0.050	0.0500	0.050	0.02906	42.08	0.050	0.029
Dichlorodifluoromethane		0.050	0.050	0.050	0.0500	0.050	0.01012	120.90	0.050	0.010
Chloromethane		0.050	0.050	0.050	0.0500	0.050	0.02422	50.49	0.050	0.024
Freon 114		0.050	0.050	0.050	0.0500	0.050	0.00716	170.90	0.050	0.0072
Vinyl Chloride		0.050	0.050	0.050	0.0500	0.050	0.01957	62.50	0.050	0.020
1,3-Butadiene		0.050	0.050	0.050	0.0500	0.050	0.02261	54.09	0.050	0.023
Bromomethane		0.050	0.050	0.050	0.0500	0.050	0.01288	94.94	0.050	0.013
Chloroethane		0.050	0.072	0.050	0.0720	0.072	0.02730	64.52	0.072	0.027
Ethanol		0.140	0.133	0.133	0.1400	0.140	0.07433	46.07	0.14	0.074
Acetonitrile		0.050	0.050	0.050	0.0500	0.050	0.02979	41.05	0.050	0.030
Acrolein		0.056	0.110	0.050	0.1100	0.110	0.04800	56.06	0.11	0.048
Acetone		0.137	0.137	0.137	0.1370	0.140	0.05896	58.08	0.14	0.059
Trichlorofluoromethane		0.050	0.050	0.050	0.0500	0.050	0.00890	137.40	0.050	0.0089
Isopropanol		0.050	0.050	0.180	0.1800	0.180	0.07326	60.10	0.18	0.073
Acrylonitrile		0.050	0.050	0.050	0.0500	0.050	0.02305	53.06	0.050	0.023
1,1-Dichloroethene		0.050	0.056	0.050	0.0560	0.056	0.01413	96.94	0.056	0.014
tert-Butanol		0.051	0.051	0.051	0.0510	0.051	0.01683	74.12	0.051	0.017
Methylene Chloride		0.050	0.055	0.050	0.0550	0.055	0.01584	84.94	0.055	0.016
Allyl Chloride		0.050	0.050	0.050	0.0500	0.050	0.01598	76.53	0.050	0.016
Trichlorotrifluoroethane		0.050	0.058	0.050	0.0580	0.058	0.00757	187.38	0.058	0.0076
Carbon Disulfide		0.050	0.050	0.050	0.0500	0.050	0.01606	76.14	0.050	0.016
trans-1,2-Dichloroethene		0.050	0.050	0.050	0.0500	0.050	0.01262	96.94	0.050	0.013
1,1-Dichloroethane		0.050	0.050	0.050	0.0500	0.050	0.01236	98.96	0.050	0.012
Methyl tert-Butyl Ether		0.050	0.050	0.050	0.0500	0.050	0.01387	88.15	0.050	0.014
Vinyl Acetate		0.126	0.290	0.220	0.2900	0.290	0.08240	86.09	0.29	0.082
2-Butanone		0.050	0.096	0.057	0.0960	0.096	0.03256	72.11	0.096	0.033
cis-1,2-Dichloroethene		0.050	0.050	0.050	0.0500	0.050	0.01262	96.94	0.050	0.013
Diisopropyl Ether		0.050	0.050	0.052	0.0520	0.052	0.01245	102.18	0.052	0.012
Ethyl Acetate		0.076	0.120	0.054	0.1200	0.120	0.03331	88.11	0.12	0.033
n-Hexane		0.050	0.050	0.050	0.0500	0.050	0.01419	86.17	0.050	0.014
Chloroform		0.050	0.050	0.050	0.0500	0.050	0.01024	119.40	0.050	0.010
Tetrahydrofuran		0.050	0.085	0.064	0.0850	0.085	0.02883	72.11	0.085	0.029
Ethyl tert-Butyl Ether		0.050	0.050	0.050	0.0500	0.050	0.01197	102.18	0.050	0.012
1,2-Dichloroethane		0.050	0.050	0.050	0.0500	0.050	0.01236	98.96	0.050	0.012
1,1,1-Trichloroethane		0.050	0.050	0.050	0.0500	0.050	0.00917	133.40	0.050	0.0092
Isopropyl Acetate		0.053	0.053	0.053	0.0530	0.053	0.01269	102.13	0.053	0.013
1-Butanol		0.055	0.056	0.055	0.0560	0.056	0.01848	74.12	0.056	0.018
Benzene		0.050	0.050	0.050	0.0500	0.050	0.01566	78.11	0.050	0.016
Carbon Tetrachloride		0.050	0.050	0.050	0.0500	0.050	0.00795	153.80	0.050	0.0080
Cyclohexane		0.055	0.055	0.055	0.0550	0.055	0.01599	84.16	0.055	0.016
tert-Amyl Methyl Ether		0.050	0.050	0.050	0.0500	0.050	0.01197	102.18	0.050	0.012
1,2-Dichloropropane		0.050	0.050	0.050	0.0500	0.050	0.01082	113.00	0.050	0.011
Bromodichloromethane		0.050	0.050	0.050	0.0500	0.050	0.00747	163.80	0.050	0.0075
Trichloroethene		0.050	0.050	0.050	0.0500	0.050	0.00931	131.40	0.050	0.0093
1,4-Dioxane		0.050	0.060	0.050	0.0600	0.060	0.01666	88.11	0.060	0.017
Isooctane		0.050	0.050	0.050	0.0500	0.050	0.01071	114.23	0.050	0.011
Methyl Methacrylate		0.059	0.094	0.054	0.0940	0.094	0.02296	100.12	0.094	0.023
n-Heptane		0.050	0.050	0.050	0.0500	0.050	0.01221	100.20	0.050	0.012
cis-1,3-Dichloropropene		0.050	0.050	0.050	0.0500	0.050	0.01102	111.00	0.050	0.011
4-Methyl-2-pentanone		0.050	0.050	0.050	0.0500	0.050	0.01221	100.20	0.050	0.012
trans-1,3-Dichloropropene		0.050	0.050	0.050	0.0500	0.050	0.01102	111.00	0.050	0.011
1,1,2-Trichloroethane		0.050	0.050	0.050	0.0500	0.050	0.00917	133.40	0.050	0.0092
Toluene		0.050	0.050	0.050	0.0500	0.050	0.01327	92.14	0.050	0.013
2-Hexanone		0.050	0.050	0.050	0.0500	0.050	0.01221	100.16	0.050	0.012
Dibromochloromethane		0.050	0.050	0.050	0.0500	0.050	0.00587	208.30	0.050	0.0059
1,2-Dibromoethane		0.050	0.050	0.050	0.0500	0.050	0.00651	187.90	0.050	0.0065
Butyl Acetate		0.050	0.050	0.050	0.0500	0.050	0.01053	116.16	0.050	0.011

COLUMBIA ANALYTICAL SERVICES

MDLs for TO-15 (LOW LEVEL - SCAN)

	?	10/02/08	10/03/08	10/03/08					FINAL	
	MS8	MS9	MS13	MS16	MAX				MDL_R	MDL_R
COMPOUND	MDL_R	MDL_R	MDL_R	MDL_R	MDL_R	µg/m³	ppbV	MW	µg/m³	ppbV
n-Octane		0.050	0.050	0.050	0.0500	0.050	0.01071	114.23	0.050	0.011
Tetrachloroethene		0.050	0.050	0.050	0.0500	0.050	0.00738	165.80	0.050	0.0074
Chlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.01086	112.60	0.050	0.011
Ethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01152	106.20	0.050	0.012
m- & p-Xylene		0.053	0.053	0.053	0.0530	0.053	0.01221	106.20	0.053	0.012
Bromoform		0.050	0.050	0.053	0.0530	0.053	0.00513	252.80	0.053	0.0051
Styrene		0.050	0.050	0.050	0.0500	0.050	0.01175	104.10	0.050	0.012
o-Xylene		0.050	0.050	0.050	0.0500	0.050	0.01152	106.20	0.050	0.012
n-Nonane		0.050	0.050	0.050	0.0500	0.050	0.00954	128.26	0.050	0.0095
1,1,2,2-Tetrachloroethane		0.050	0.050	0.050	0.0500	0.050	0.00728	167.90	0.050	0.0073
Cumene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
alpha-Pinene		0.050	0.050	0.050	0.0500	0.050	0.00898	136.24	0.050	0.0090
n-Propylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01018	120.19	0.050	0.010
3-Ethyltoluene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
4-Ethyltoluene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
1,3,5-Trimethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
alpha-Methylstyrene		0.050	0.050	0.050	0.0500	0.050	0.01035	118.19	0.050	0.010
2-Ethyltoluene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
1,2,4-Trimethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01017	120.20	0.050	0.010
n-Decane		0.050	0.050	0.050	0.0500	0.050	0.00860	142.28	0.050	0.0086
Benzyl Chloride		0.050	0.050	0.050	0.0500	0.050	0.00966	126.59	0.050	0.0097
1,3-Dichlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.00832	147.00	0.050	0.0083
1,4-Dichlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.00832	147.00	0.050	0.0083
sec-Butylbenzene		0.050	0.050	0.050	0.0500	0.050	0.00911	134.22	0.050	0.0091
p-Isopropyltoluene		0.050	0.050	0.050	0.0500	0.050	0.00911	134.22	0.050	0.0091
1,2,3-Trimethylbenzene		0.050	0.050	0.050	0.0500	0.050	0.01018	120.19	0.050	0.010
1,2-Dichlorobenzene		0.050	0.050	0.050	0.0500	0.050	0.00832	147.00	0.050	0.0083
d-Limonene		0.050	0.029	0.050	0.0500	0.050	0.00898	136.24	0.050	0.0090
1,2-Dibromo-3-Chloropropane		0.050	0.043	0.050	0.0500	0.050	0.00517	236.33	0.050	0.0052
n-Undecane		0.050	0.050	0.050	0.0500	0.050	0.00782	156.31	0.050	0.0078
1,2,4-Trichlorobenzene		0.083	0.053	0.076	0.0830	0.083	0.01119	181.50	0.083	0.011
Naphthalene		0.050	0.050	0.050	0.0500	0.050	0.00954	128.17	0.050	0.0095
n-Dodecane		0.050	0.050	0.050	0.0500	0.050	0.00718	170.34	0.050	0.0072
Hexachloro-1,3-butadiene		0.050	0.050	0.050	0.0500	0.050	0.00469	260.80	0.050	0.0047

Sample Data

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-705-1**
Client Project ID: **Cooper Vision SVI / 70665-014**

CAS Project ID: P0900735
CAS Sample ID: P0900735-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00615

Date Collected: 2/27/09
Date Received: 3/2/09
Date Analyzed: 3/4/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.7

Canister Dilution Factor: 1.32

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
75-00-3	Chloroethane	ND	0.66	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.66	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.66	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.66	ND	0.12	

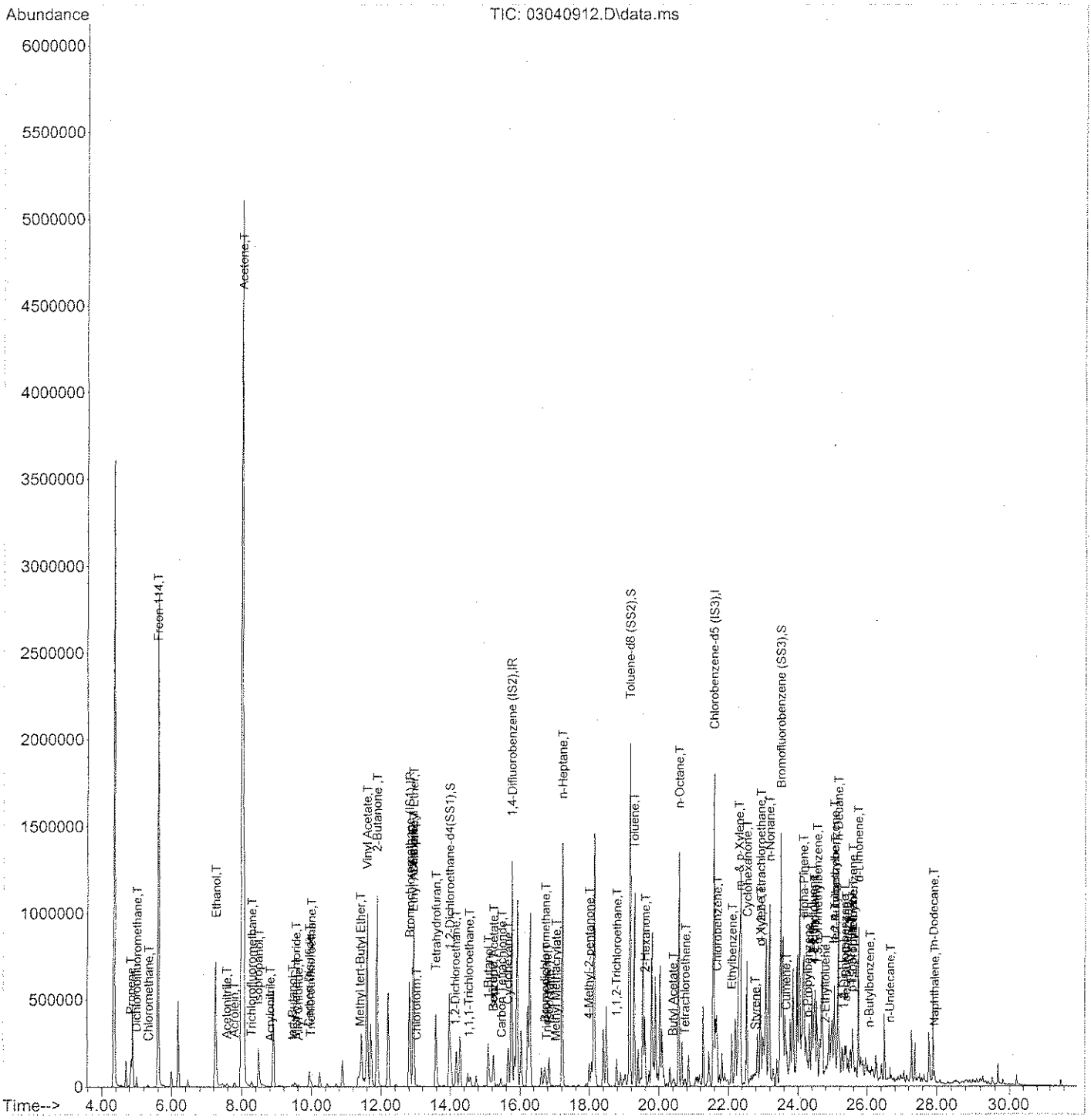
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 3/6/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040912.D
Acq On : 4 Mar 2009 17:11
Operator : EM
Sample : P0900735-001 (1000ml)
Misc : Haley SV-SS-705-1 (-0.8, 3.7)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 07:15:34 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040912.D
Acq On : 4 Mar 2009 17:11
Operator : EM
Sample : P0900735-001 (1000ml)
Misc : Haley SV-SS-705-1 (-0.8, 3.7)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 07:15:34 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	313335	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.76	114	1507301	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	752075	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	515850	25.369	ng		-0.03
Spiked Amount 25.000			Recovery =	101.48%			
57) Toluene-d8 (SS2)	19.15	98	1770677	24.902	ng		-0.01
Spiked Amount 25.000			Recovery =	99.60%			
73) Bromofluorobenzene (SS3)	23.49	174	500813	24.727	ng		0.00
Spiked Amount 25.000			Recovery =	98.92%			
Target Compounds							Qvalue
2) Propene	4.84	42	71666	2.552	ng		96
3) Dichlorodifluoromethane	5.01	85	66894	1.791	ng		98
4) Chloromethane	5.34	50	1983	0.060	ng	#	52
5) Freon 114	5.60	135	1723	0.088	ng	#	57
6) Vinyl Chloride	5.80	62	744	N.D.			
7) 1,3-Butadiene	6.09	54	636	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	6.93	64	109	N.D.			
10) Ethanol	7.25	45	1335326	85.613	ng		99
11) Acetonitrile	7.58	41	27761	0.722	ng		96
12) Acrolein	7.79	56	41124	3.833	ng		99
13) Acetone	8.01	58	3773258	207.027	ng	#	79
14) Trichlorofluoromethane	8.29	101	35572	1.156	ng		97
15) Isopropanol	8.48	45	447955	9.841	ng		97
16) Acrylonitrile	8.82	53	4131	0.166	ng		96
17) 1,1-Dichloroethene	9.34	96	115	N.D.			
18) tert-Butanol	9.45	59	24520	0.582	ng		89
19) Methylene Chloride	9.55	84	7170	0.343	ng	#	45
20) Allyl Chloride	9.62	41	3488	0.130	ng	#	53
21) Trichlorotrifluoroethane	9.99	151	14340	1.009	ng		94
22) Carbon Disulfide	9.94	76	206404	2.788	ng		99
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	11.40	73	59309	1.168	ng		89
26) Vinyl Acetate	11.60	86	31239	9.594	ng	#	1
27) 2-Butanone	11.89	72	496701	43.414	ng	#	26
28) cis-1,2-Dichloroethene	12.58	61	105	N.D.			
29) Diisopropyl Ether	12.93	87	6742	0.421	ng	#	1
30) Ethyl Acetate	12.92	61	12084	1.816	ng	#	14
31) n-Hexane	12.94	57	665053	17.516	ng		88

Sam 3/5/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040912.D
Acq On : 4 Mar 2009 17:11
Operator : EM
Sample : P0900735-001 (1000ml)
Misc : Haley SV-SS-705-1 (-0.8, 3.7)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 07:15:34 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	13.03	83	8562	0.285 ng		97
34) Tetrahydrofuran	13.58	72	167041	13.851 ng	#	53
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	14.15	62	1313	0.058 ng	#	44
38) 1,1,1-Trichloroethane	14.54	97	2948	0.114 ng	#	81
39) Isopropyl Acetate	15.24	61	1073	0.093 ng	#	1
40) 1-Butanol	15.09	56	248525	14.021 ng	#	55
41) Benzene	15.24	78	230426	2.564 ng		99
42) Carbon Tetrachloride	15.47	117	9230	0.414 ng		98
43) Cyclohexane	15.66	84	123762	3.864 ng	#	64
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	16.43	63	104	N.D.		
46) Bromodichloromethane	16.73	83	15609	0.665 ng	#	20
47) Trichloroethene	16.79	130	1176	0.052 ng		90
48) 1,4-Dioxane	16.75	88	528	N.D.		
49) Isooctane	16.86	57	52926	0.546 ng	#	1
50) Methyl Methacrylate	17.04	100	810	0.109 ng	#	1
51) n-Heptane	17.22	71	455332	20.032 ng	#	69
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.99	58	51120	3.118 ng		83
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.78	97	3848	0.221 ng		87
58) Toluene	19.28	91	1119547	12.699 ng		100
59) 2-Hexanone	19.60	43	240620	6.151 ng	#	39
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	20.40	43	12116	0.258 ng	#	45
63) n-Octane	20.57	57	303366	14.916 ng	#	65
64) Tetrachloroethene	20.76	166	12066	0.580 ng		96
65) Chlorobenzene	21.67	112	47040	0.854 ng	#	43
66) Ethylbenzene	22.10	91	273437	2.882 ng		97
67) m- & p-Xylene	22.31	91	844146	11.517 ng		100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.79	104	21251	0.389 ng		98
70) o-Xylene	22.92	91	226193	3.033 ng		99
71) n-Nonane	23.19	43	432446	9.190 ng		92
72) 1,1,2,2-Tetrachloroethane	22.93	83	7021	0.235 ng	#	54
74) Cumene	23.67	105	55075	0.581 ng		98
75) alpha-Pinene	24.16	93	247146	5.807 ng		96
76) n-Propylbenzene	24.29	91	51701	0.437 ng		93
77) 3-Ethyltoluene	24.41	105	106477	1.232 ng		100
78) 4-Ethyltoluene	24.47	105	46595	0.543 ng		97
79) 1,3,5-Trimethylbenzene	24.56	105	49972	0.683 ng		99

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040912.D
Acq On : 4 Mar 2009 17:11
Operator : EM
Sample : P0900735-001 (1000ml)
Misc : Haley SV-SS-705-1 (-0.8, 3.7)
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 05 07:15:34 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	1427	N.D.		
81) 2-Ethyltoluene	24.79	105	34578	0.392 ng		98
82) 1,2,4-Trimethylbenzene	25.05	105	98210	1.265 ng		92
83) n-Decane	25.16	57	389202	8.377 ng		77
84) Benzyl Chloride	25.27	91	1899	N.D.		
85) 1,3-Dichlorobenzene	25.25	146	114	N.D.		
86) 1,4-Dichlorobenzene	25.33	146	1761	0.042 ng		84
87) sec-Butylbenzene	25.39	105	7830	0.077 ng	#	80
88) p-Isopropyltoluene	25.57	119	25303	0.261 ng		94
89) 1,2,3-Trimethylbenzene	25.58	105	22561	0.291 ng		97
90) 1,2-Dichlorobenzene	25.33	146	1761	0.044 ng		85
91) d-Limonene	25.74	68	229149	7.150 ng		99
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.66	57	28836	0.610 ng	#	45
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.94	128	52286	0.549 ng		97
96) n-Dodecane	27.90	57	194034	3.874 ng		74
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.54	55	74757	2.692 ng	#	35
99) tert-Butylbenzene	25.06	119	12840	0.172 ng	#	56
100) n-Butylbenzene	26.07	91	12546	0.157 ng	#	65

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

EM 3/5/09

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client:	**Haley & Aldrich, Inc.**		
Client Sample ID:	**SV-InA-705-1**	CAS Project ID:	P0900735
Client Project ID:	**Cooper Vision SVI / 70665-014**	CAS Sample ID:	P0900735-002
Test Code:	EPA TO-15	Date Collected:	2/27/09
Instrument ID:	Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9	Date Received:	3/2/09
Analyst:	Elsa Moctezuma	Date Analyzed:	3/4/09
Sampling Media:	6.0 L Summa Canister	Volume(s) Analyzed:	1.00 Liter(s)
Test Notes:			
Container ID:	AC01365		

Initial Pressure (psig): 0.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.12	ND	0.047	
75-00-3	Chloroethane	ND	0.61	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.61	ND	0.15	
75-34-3	1,1-Dichloroethane	ND	0.61	ND	0.15	
71-55-6	1,1,1-Trichloroethane	ND	0.61	ND	0.11	

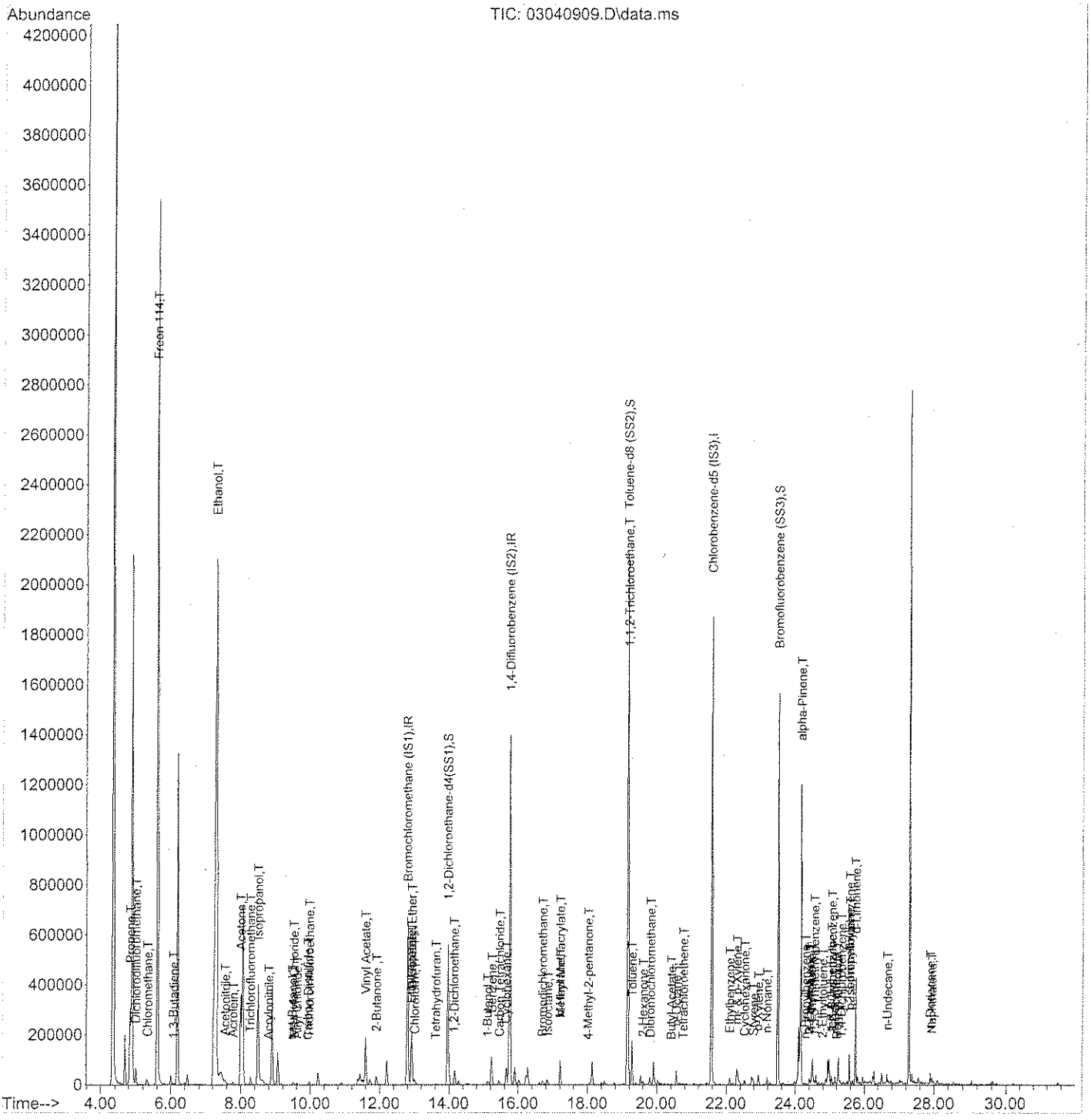
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: R.. Date: 3/6/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040909.D
Acq On : 4 Mar 2009 14:35
Operator : EM
Sample : P0900735-002 (1000ml)
Misc : Haley SV-InA-705-1 (0.3, 3.5)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 04 15:13:20 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040909.D
Acq On : 4 Mar 2009 14:35
Operator : EM
Sample : P0900735-002 (1000ml)
Misc : Haley SV-InA-705-1 (0.3, 3.5)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 04 15:13:20 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	338724	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.75	114	1633065	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	812724	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	554391	25.221	ng		-0.04
Spiked Amount 25.000			Recovery = 100.88%				
57) Toluene-d8 (SS2)	19.15	98	1919519	24.980	ng		-0.01
Spiked Amount 25.000			Recovery = 99.92%				
73) Bromofluorobenzene (SS3)	23.49	174	548550	25.062	ng		0.00
Spiked Amount 25.000			Recovery = 100.24%				
Target Compounds							Qvalue
2) Propene	4.84	42	144595	4.764	ng		96
3) Dichlorodifluoromethane	5.01	85	72239	1.790	ng		98
4) Chloromethane	5.34	50	17719	0.498	ng		95
5) Freon 114	5.60	135	1618	0.076	ng	#	44
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	6.09	54	2870	0.109	ng	#	82
8) Bromomethane	6.57	94	695	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.30	45	5408914	320.795	ng		100
11) Acetonitrile	7.56	41	20496	0.493	ng		99
12) Acrolein	7.79	56	15692	1.353	ng		96
13) Acetone	8.00	58	251199	12.749	ng	#	65
14) Trichlorofluoromethane	8.28	101	36946	1.110	ng		98
15) Isopropanol	8.50	45	843804	17.148	ng		100
16) Acrylonitrile	8.81	53	2028	0.075	ng		98
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) tert-Butanol	9.48	59	6832	0.150	ng	#	75
19) Methylene Chloride	9.53	84	4224	0.187	ng	#	49
20) Allyl Chloride	9.62	41	2346	0.081	ng	#	53
21) Trichlorotrifluoroethane	9.98	151	6604	0.430	ng		89
22) Carbon Disulfide	9.94	76	4716	0.059	ng	#	75
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.60	86	6291	1.787	ng	#	1
27) 2-Butanone	11.90	72	18438	1.491	ng	#	35
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.92	87	1003	0.058	ng	#	1
30) Ethyl Acetate	12.91	61	11770	1.637	ng	#	70
31) n-Hexane	12.93	57	121059	2.950	ng		89

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040909.D
Acq On : 4 Mar 2009 14:35
Operator : EM
Sample : P0900735-002 (1000ml)
Misc : Haley SV-InA-705-1 (0.3, 3.5)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 04 15:13:20 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	13.01	83	26320	0.811 ng		98
34) Tetrahydrofuran	13.62	72	721	0.055 ng	#	33
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	14.14	62	1443	0.059 ng	#	44
38) 1,1,1-Trichloroethane	14.54	97	845	N.D.		
39) Isopropyl Acetate	15.23	61	270	N.D.		
40) 1-Butanol	15.11	56	15628	0.814 ng	#	65
41) Benzene	15.23	78	145600	1.495 ng		98
42) Carbon Tetrachloride	15.46	117	9544	0.395 ng		97
43) Cyclohexane	15.66	84	37513	1.081 ng	#	65
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.70	83	9737	0.383 ng		93
47) Trichloroethene	16.77	130	602	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.86	57	17216	0.164 ng	#	56
50) Methyl Methacrylate	17.22	100	8341	1.038 ng	#	1
51) n-Heptane	17.21	71	31985	1.299 ng	#	67
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	18.02	58	825	0.046 ng	#	44
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	19.16	97	162296	8.600 ng	#	6
58) Toluene	19.28	91	168392	1.768 ng		99
59) 2-Hexanone	19.60	43	14019	0.332 ng	#	60
60) Dibromochloromethane	19.82	129	2353	0.128 ng		99
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	20.42	43	3029	0.060 ng	#	85
63) n-Octane	20.56	57	12936	0.589 ng	#	70
64) Tetrachloroethene	20.76	166	1909	0.085 ng		99
65) Chlorobenzene	21.63	112	857	N.D.		
66) Ethylbenzene	22.10	91	28171	0.275 ng		98
67) m- & p-Xylene	22.31	91	65312	0.825 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.79	104	9660	0.164 ng		98
70) o-Xylene	22.92	91	24586	0.305 ng		92
71) n-Nonane	23.18	43	14346	0.282 ng		93
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.67	105	4088	N.D.		
75) alpha-Pinene	24.15	93	584458	12.708 ng		98
76) n-Propylbenzene	24.29	91	8653	0.068 ng		92
77) 3-Ethyltoluene	24.41	105	15838	0.170 ng		94
78) 4-Ethyltoluene	24.47	105	12526	0.135 ng		92
79) 1,3,5-Trimethylbenzene	24.55	105	6960	0.088 ng		98

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040909.D
Acq On : 4 Mar 2009 14:35
Operator : EM
Sample : P0900735-002 (1000ml)
Misc : Haley SV-InA-705-1 (0.3, 3.5)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 04 15:13:20 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	761	N.D.		
81) 2-Ethyltoluene	24.79	105	6805	0.071 ng		92
82) 1,2,4-Trimethylbenzene	25.06	105	23070	0.275 ng		81
83) n-Decane	25.15	57	14365	0.286 ng		68
84) Benzyl Chloride	25.22	91	3421	0.059 ng	#	56
85) 1,3-Dichlorobenzene	25.25	146	1512	N.D.		
86) 1,4-Dichlorobenzene	25.33	146	2986	0.065 ng		96
87) sec-Butylbenzene	25.39	105	1537	N.D.		
88) p-Isopropyltoluene	25.57	119	67280	0.642 ng		95
89) 1,2,3-Trimethylbenzene	25.57	105	8092	0.097 ng	#	15
90) 1,2-Dichlorobenzene	25.75	146	1008	N.D.		
91) d-Limonene	25.75	68	118653	3.426 ng		99
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.66	57	16925	0.331 ng		75
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.94	128	19416	0.189 ng		97
96) n-Dodecane	27.89	57	15521	0.287 ng	#	63
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.53	55	4950	0.165 ng	#	74
99) tert-Butylbenzene	25.05	119	3332	0.041 ng	#	56
100) n-Butylbenzene	26.07	91	3255	N.D.		

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

EM 3/5/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-OutA-022609** CAS Project ID: P0900735
Client Project ID: **Cooper Vision SVI / 70665-014** CAS Sample ID: P0900735-003

Test Code: EPA TO-15 Date Collected: 2/27/09
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 3/2/09
Analyst: Elsa Moctezuma Date Analyzed: 3/4/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00977

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.14	ND	0.056	
75-00-3	Chloroethane	ND	0.72	ND	0.27	
75-35-4	1,1-Dichloroethene	ND	0.72	ND	0.18	
75-34-3	1,1-Dichloroethane	ND	0.72	ND	0.18	
71-55-6	1,1,1-Trichloroethane	ND	0.72	ND	0.13	

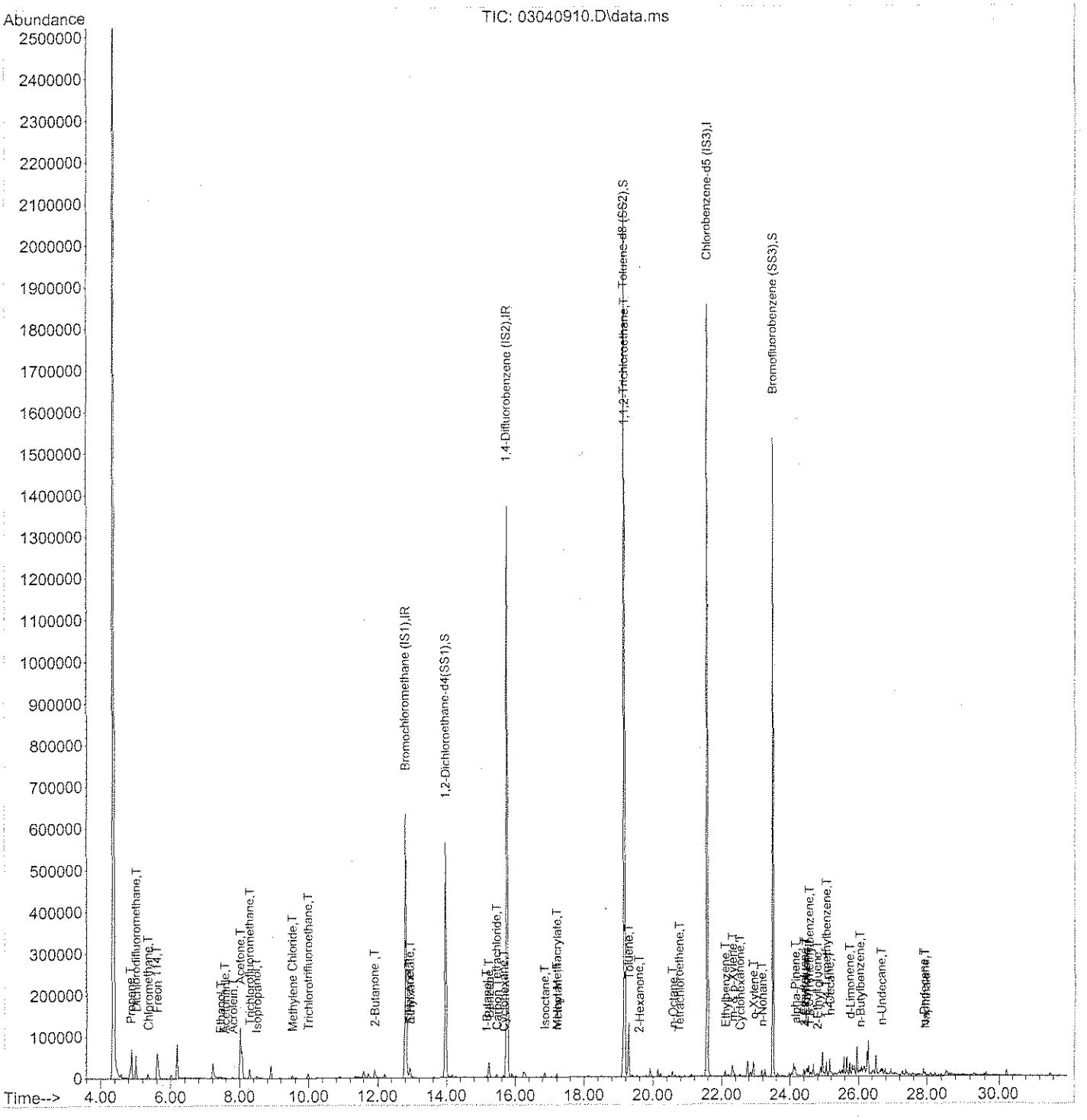
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: RC Date: 3/6/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040910.D
Acq On : 4 Mar 2009 15:21
Operator : EM
Sample : P0900735-003 (1000ml)
Misc : Haley SV-OutA-022609 (-2.1, 3.5) ✓
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 04 16:24:04 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040910.D
Acq On : 4 Mar 2009 15:21
Operator : EM
Sample : P0900735-003 (1000ml)
Misc : Haley SV-OutA-022609 (-2.1, 3.5)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 04 16:24:04 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	338884	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.75	114	1640751	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	814845	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	559606	25.446	ng		-0.04
Spiked Amount 25.000			Recovery = 101.80%				
57) Toluene-d8 (SS2)	19.15	98	1913789	24.841	ng		-0.02
Spiked Amount 25.000			Recovery = 99.36%				
73) Bromofluorobenzene (SS3)	23.49	174	540198	24.617	ng		0.00
Spiked Amount 25.000			Recovery = 98.48%				
Target Compounds							Qvalue
2) Propene	4.85	42	14571	0.480	ng	#	1
3) Dichlorodifluoromethane	5.01	85	61562	1.524	ng		97
4) Chloromethane	5.35	50	13335	0.375	ng		91
5) Freon 114	5.60	135	1325	0.062	ng	#	44
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	6.11	54	530	N.D.			
8) Bromomethane	6.60	94	119	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.43	45	13472	0.799	ng		96
11) Acetonitrile	7.57	41	4493	0.108	ng		96
12) Acrolein	7.79	56	3186	0.275	ng		100
13) Acetone	8.01	58	79036	4.010	ng		89
14) Trichlorofluoromethane	8.29	101	27210	0.817	ng		99
15) Isopropanol	8.49	45	12886	0.262	ng		94
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) tert-Butanol	0.00	59	0	N.D.			
19) Methylene Chloride	9.53	84	3757	0.166	ng	#	50
20) Allyl Chloride	9.62	41	514	N.D.			
21) Trichlorotrifluoroethane	9.99	151	5756	0.374	ng		99
22) Carbon Disulfide	9.95	76	1990	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone	11.91	72	9434	0.762	ng	#	38
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	12.93	61	1757	0.244	ng		98
31) n-Hexane	12.93	57	9856	0.240	ng		96

BM 3/5/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040910.D
Acq On : 4 Mar 2009 15:21
Operator : EM
Sample : P0900735-003 (1000ml)
Misc : Haley SV-OutA-022609 (-2.1, 3.5)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 04 16:24:04 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	13.01	83	1155	N.D.		
34) Tetrahydrofuran	13.62	72	104	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	14.14	62	472	N.D.		
38) 1,1,1-Trichloroethane	14.53	97	362	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	15.16	56	3774	0.196 ng	#	55
41) Benzene	15.23	78	49729	0.508 ng		98
42) Carbon Tetrachloride	15.46	117	7515	0.310 ng		99
43) Cyclohexane	15.66	84	1853	0.053 ng	#	68
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	16.78	130	105	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.86	57	13611	0.129 ng		98
50) Methyl Methacrylate	17.21	100	489	0.061 ng	#	1
51) n-Heptane	17.22	71	2890	0.117 ng	#	62
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	19.16	97	161351	8.509 ng	#	6
58) Toluene	19.28	91	112784	1.181 ng		98
59) 2-Hexanone	19.59	43	3854	0.091 ng	#	27
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	20.43	43	1970	N.D.		
63) n-Octane	20.56	57	2220	0.101 ng	#	71
64) Tetrachloroethene	20.75	166	1556	0.069 ng		89
65) Chlorobenzene	21.63	112	111	N.D.		
66) Ethylbenzene	22.10	91	13406	0.130 ng		99
67) m- & p-Xylene	22.31	91	30351	0.382 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.78	104	1873	N.D.		
70) o-Xylene	22.93	91	11798	0.146 ng		100
71) n-Nonane	23.18	43	7074	0.139 ng		92
72) 1,1,2,2-Tetrachloroethane	22.92	83	257	N.D.		
74) Cumene	23.67	105	2190	N.D.		
75) alpha-Pinene	24.15	93	7931	0.172 ng	#	43
76) n-Propylbenzene	24.29	91	4848	N.D.		
77) 3-Ethyltoluene	24.41	105	10259	0.110 ng		97
78) 4-Ethyltoluene	24.47	105	5944	0.064 ng		91
79) 1,3,5-Trimethylbenzene	24.56	105	3922	0.049 ng		83

BM 3/5/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040910.D
Acq On : 4 Mar 2009 15:21
Operator : EM
Sample : P0900735-003 (1000ml)
Misc : Haley SV-OutA-022609 (-2.1, 3.5)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 04 16:24:04 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.74	118	215	N.D.			
81) 2-Ethyltoluene	24.79	105	4215	0.044	ng		92
82) 1,2,4-Trimethylbenzene	25.05	105	11550	0.137	ng		89
83) n-Decane	25.16	57	17114	0.340	ng	#	66
84) Benzyl Chloride	25.25	91	123	N.D.			
85) 1,3-Dichlorobenzene	25.26	146	262	N.D.			
86) 1,4-Dichlorobenzene	25.33	146	1353	N.D.			
87) sec-Butylbenzene	25.38	105	490	N.D.			
88) p-Isopropyltoluene	25.57	119	2010	N.D.			
89) 1,2,3-Trimethylbenzene	25.57	105	3269	N.D.			
90) 1,2-Dichlorobenzene	25.33	146	1353	N.D.			
91) d-Limonene	25.75	68	7759	0.223	ng		97
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	26.66	57	3584	0.070	ng	#	43
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.			
95) Naphthalene	27.95	128	8107	0.079	ng		92
96) n-Dodecane	27.90	57	7584	0.140	ng		85
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.53	55	2049	0.068	ng	#	77
99) tert-Butylbenzene	24.95	119	1333	N.D.			
100) n-Butylbenzene	26.04	91	3827	0.044	ng	#	47

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

EM 3/5/09

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-SS-709-2**
Client Project ID: **Cooper Vision SVI / 70665-014**

CAS Project ID: P0900735
CAS Sample ID: P0900735-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: SC00196

Date Collected: 2/27/09
Date Received: 3/2/09
Date Analyzed: 3/4/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
75-00-3	Chloroethane	ND	0.67	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.67	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.67	ND	0.17	
71-55-6	1,1,1-Trichloroethane	ND	0.67	ND	0.12	

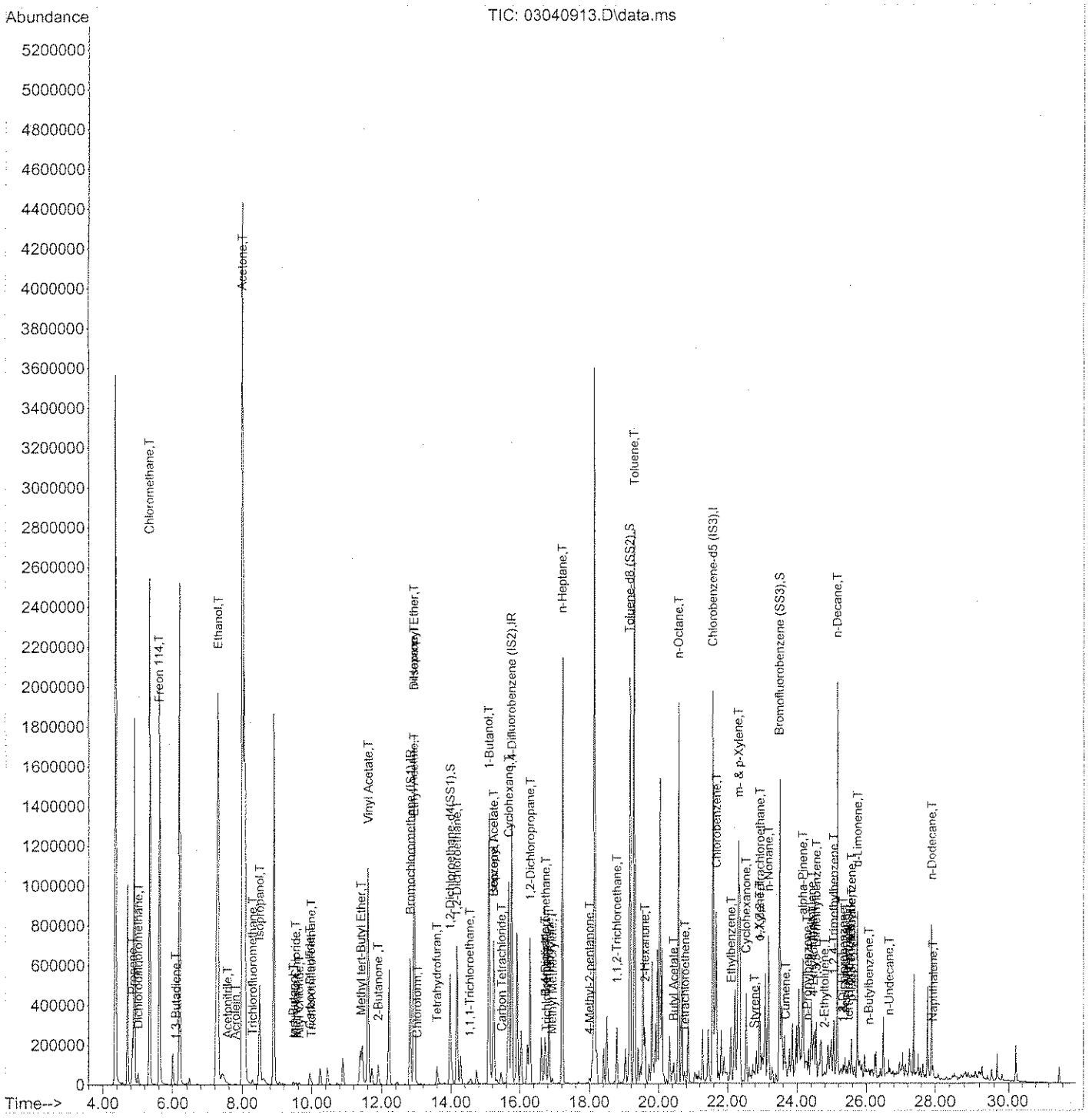
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 3/6/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040913.D
Acq On : 4 Mar 2009 17:52
Operator : EM
Sample : P0900735-004 (1000ml)
Misc : Haley SV-SS-709-2 (-1.1, 3.5)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 07:15:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040913.D
Acq On : 4 Mar 2009 17:52
Operator : EM
Sample : P0900735-004 (1000ml)
Misc : Haley SV-SS-709-2 (-1.1, 3.5)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 07:15:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	324268	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.76	114	1568878	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	785278	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	533331	25.344	ng		-0.03
Spiked Amount 25.000			Recovery = 101.36%				
57) Toluene-d8 (SS2)	19.15	98	1841517	24.803	ng		-0.01
Spiked Amount 25.000			Recovery = 99.20%				
73) Bromofluorobenzene (SS3)	23.49	174	515640	24.382	ng		0.00
Spiked Amount 25.000			Recovery = 97.52%				
Target Compounds							Qvalue
2) Propene	4.85	42	102889	3.541	ng		96
3) Dichlorodifluoromethane	5.01	85	65195	1.687	ng		99
4) Chloromethane	5.33	50	47251	1.388	ng	#	47
5) Freon 114	5.60	135	1499	0.074	ng		70
6) Vinyl Chloride	5.80	62	238	N.D.			
7) 1,3-Butadiene	6.09	54	2027	0.081	ng	#	73
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.30	45	4676848	289.743	ng		97
11) Acetonitrile	7.57	41	9427	0.237	ng		100
12) Acrolein	7.80	56	8728	0.786	ng		97
13) Acetone	8.01	58	3082133	163.406	ng		96
14) Trichlorofluoromethane	8.29	101	29401	0.923	ng		98
15) Isopropanol	8.50	45	977489	20.751	ng		98
16) Acrylonitrile	8.82	53	939	N.D.			
17) 1,1-Dichloroethene	9.34	96	117	N.D.			
18) tert-Butanol	9.47	59	24707	0.567	ng		88
19) Methylene Chloride	9.54	84	6445	0.298	ng	#	49
20) Allyl Chloride	9.64	41	4611	0.165	ng	#	53
21) Trichlorotrifluoroethane	9.99	151	7322	0.498	ng		98
22) Carbon Disulfide	9.94	76	142119	1.855	ng		99
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	11.39	63	607	N.D.			
25) Methyl tert-Butyl Ether	11.41	73	10042	0.191	ng		99
26) Vinyl Acetate	11.61	86	33864	10.050	ng	#	1
27) 2-Butanone	11.90	72	45686	3.859	ng	#	26
28) cis-1,2-Dichloroethene	12.58	61	328	N.D.			
29) Diisopropyl Ether	12.94	87	12215	0.737	ng	#	1
30) Ethyl Acetate	12.92	61	3945	0.573	ng	#	1
31) n-Hexane	12.94	57	1221000	31.075	ng		88

EM 3/5/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040913.D
Acq On : 4 Mar 2009 17:52
Operator : EM
Sample : P0900735-004 (1000ml)
Misc : Haley SV-SS-709-2 (-1.1, 3.5)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 07:15:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	13.03	83	5623	0.181 ng		97
34) Tetrahydrofuran	13.59	72	21133	1.693 ng	#	92
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	14.17	62	3271	0.141 ng	#	44
38) 1,1,1-Trichloroethane	14.54	97	6490	0.241 ng		90
39) Isopropyl Acetate	15.24	61	5448	0.453 ng	#	1
40) 1-Butanol	15.10	56	1265563	68.599 ng	#	54
41) Benzene	15.24	78	953842	10.196 ng		98
42) Carbon Tetrachloride	15.47	117	9129	0.393 ng		94
43) Cyclohexane	15.67	84	579633	17.386 ng	#	64
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	16.29	63	841	0.041 ng	#	12
46) Bromodichloromethane	16.74	83	32652	1.337 ng	#	20
47) Trichloroethene	16.78	130	1042	0.044 ng		93
48) 1,4-Dioxane	16.73	88	4527	0.298 ng		96
49) Isooctane	16.85	57	55193	0.547 ng	#	1
50) Methyl Methacrylate	16.94	100	5592	0.724 ng	#	1
51) n-Heptane	17.22	71	700424	29.605 ng	#	69
52) cis-1,3-Dichloropropene	18.15	75	490	N.D.		
53) 4-Methyl-2-pentanone	18.00	58	11074	0.649 ng		82
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.79	97	10536	0.581 ng	#	75
58) Toluene	19.29	91	2719024	29.537 ng		100
59) 2-Hexanone	19.60	43	164651	4.031 ng	#	36
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	20.43	43	11816	0.241 ng	#	1
63) n-Octane	20.57	57	420887	19.819 ng	#	65
64) Tetrachloroethene	20.76	166	5597	0.258 ng		94
65) Chlorobenzene	21.67	112	106668	1.856 ng	#	43
66) Ethylbenzene	22.10	91	240953	2.432 ng		98
67) m- & p-Xylene	22.31	91	1161583	15.178 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.78	104	18857	0.331 ng	#	79
70) o-Xylene	22.92	91	306508	3.936 ng		100
71) n-Nonane	23.18	43	311509	6.340 ng		93
72) 1,1,2,2-Tetrachloroethane	22.93	83	3020	0.097 ng	#	1
74) Cumene	23.67	105	27792	0.281 ng		98
75) alpha-Pinene	24.16	93	246455	5.546 ng		95
76) n-Propylbenzene	24.29	91	35790	0.290 ng	#	55
77) 3-Ethyltoluene	24.41	105	86531	0.959 ng		99
78) 4-Ethyltoluene	24.47	105	36420	0.406 ng		97
79) 1,3,5-Trimethylbenzene	24.55	105	56773	0.743 ng		97

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Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040913.D
Acq On : 4 Mar 2009 17:52
Operator : EM
Sample : P0900735-004 (1000ml)
Misc : Haley SV-SS-709-2 (-1.1, 3.5)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 05 07:15:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.74	118	1462	N.D.		
81) 2-Ethyltoluene	24.79	105	25967	0.282 ng		96
82) 1,2,4-Trimethylbenzene	25.05	105	95722	1.181 ng		91
83) n-Decane	25.16	57	730870	15.066 ng		76
84) Benzyl Chloride	25.24	91	118	N.D.		
85) 1,3-Dichlorobenzene	25.33	146	1773	0.041 ng		87
86) 1,4-Dichlorobenzene	25.33	146	1773	0.040 ng		88
87) sec-Butylbenzene	25.39	105	6060	0.057 ng		89
88) p-Isopropyltoluene	25.57	119	17609	0.174 ng		87
89) 1,2,3-Trimethylbenzene	25.57	105	21626	0.267 ng		95
90) 1,2-Dichlorobenzene	25.33	146	1773	0.043 ng		88
91) d-Limonene	25.74	68	230608	6.892 ng		99
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.66	57	30934	0.627 ng		80
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.94	128	43889	0.441 ng		97
96) n-Dodecane	27.89	57	280239	5.359 ng		74
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.53	55	47470	1.637 ng	#	33
99) tert-Butylbenzene	25.49	119	5563	0.072 ng		96
100) n-Butylbenzene	26.08	91	13909	0.166 ng	#	47

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

EAM 3/5/09

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **SV-InA-709-2**
Client Project ID: **Cooper Vision SVI / 70665-014**

CAS Project ID: P0900735
CAS Sample ID: P0900735-005

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00989

Date Collected: 2/27/09
Date Received: 3/2/09
Date Analyzed: 3/4/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -0.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.31

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.13	ND	0.051	
75-00-3	Chloroethane	ND	0.66	ND	0.25	
75-35-4	1,1-Dichloroethene	ND	0.66	ND	0.17	
75-34-3	1,1-Dichloroethane	ND	0.66	ND	0.16	
71-55-6	1,1,1-Trichloroethane	ND	0.66	ND	0.12	

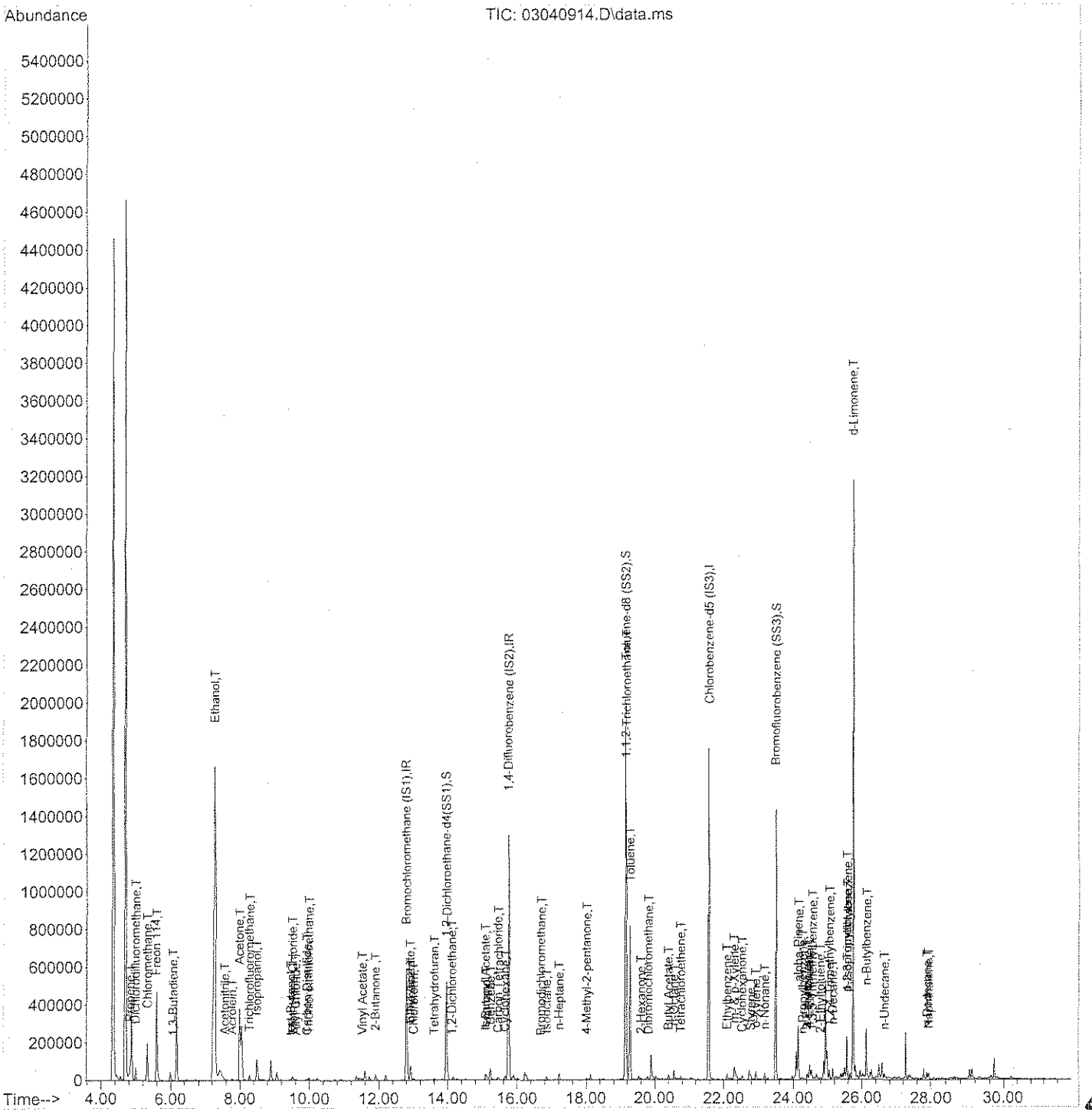
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 3/6/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040914.D
Acq On : 4 Mar 2009 18:34
Operator : EM
Sample : P0900735-005 (1000ml)
Misc : Haley SV-InA-709-2 (-0.8, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 07:15:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040914.D
Acq On : 4 Mar 2009 18:34
Operator : EM
Sample : P0900735-005 (1000ml)
Misc : Haley SV-InA-709-2 (-0.8, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 07:15:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	313952	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.75	114	1523485	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	755013	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	517025	25.377	ng		-0.04
Spiked Amount 25.000			Recovery = 101.52%				
57) Toluene-d8 (SS2)	19.15	98	1785907	25.018	ng		-0.01
Spiked Amount 25.000			Recovery = 100.08%				
73) Bromofluorobenzene (SS3)	23.49	174	499363	24.559	ng		0.00
Spiked Amount 25.000			Recovery = 98.24%				
Target Compounds							Qvalue
2) Propene	4.84	42	29899	1.063	ng		95
3) Dichlorodifluoromethane	5.00	85	71437	1.909	ng		98
4) Chloromethane	5.33	50	18841	0.572	ng		88
5) Freon 114	5.59	135	1619	0.082	ng	#	56
6) Vinyl Chloride	5.79	62	132	N.D.			
7) 1,3-Butadiene	6.08	54	1072	0.044	ng	#	60
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	6.93	64	107	N.D.			
10) Ethanol	7.28	45	3662979	234.388	ng		100
11) Acetonitrile	7.56	41	6563	0.170	ng		97
12) Acrolein	7.78	56	13897	1.293	ng		99
13) Acetone	7.99	58	253527	13.883	ng		96
14) Trichlorofluoromethane	8.28	101	30977	1.004	ng		98
15) Isopropanol	8.49	45	191078	4.190	ng		99
16) Acrylonitrile	8.82	53	333	N.D.			
17) 1,1-Dichloroethene	9.32	96	341	N.D.			
18) tert-Butanol	9.47	59	8301	0.197	ng	#	81
19) Methylene Chloride	9.53	84	4794	0.229	ng	#	51
20) Allyl Chloride	9.61	41	1537	0.057	ng	#	53
21) Trichlorotrifluoroethane	9.98	151	6151	0.432	ng		93
22) Carbon Disulfide	9.94	76	7597	0.102	ng		84
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.52	86	2903	0.890	ng	#	1
27) 2-Butanone	11.90	72	15208	1.327	ng	#	35
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	13.01	87	395	N.D.			
30) Ethyl Acetate	12.92	61	7031	1.055	ng		75
31) n-Hexane	12.93	57	33162	0.872	ng		90

CM 3/5/09

Quantitation Report (Not Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040914.D
Acq On : 4 Mar 2009 18:34
Operator : EM
Sample : P0900735-005 (1000ml)
Misc : Haley SV-InA-709-2 (-0.8, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 07:15:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	13.01	83	9398	0.313 ng		97
34) Tetrahydrofuran	13.62	72	754	0.062 ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	14.13	62	2382	0.106 ng	#	52
38) 1,1,1-Trichloroethane	14.54	97	823	N.D.		
39) Isopropyl Acetate	15.09	61	1129	0.097 ng	#	1
40) 1-Butanol	15.10	56	34342	1.917 ng	#	62
41) Benzene	15.23	78	73856	0.813 ng		97
42) Carbon Tetrachloride	15.46	117	11884	0.527 ng		97
43) Cyclohexane	15.66	84	11264	0.348 ng	#	66
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.70	83	2840	0.120 ng		89
47) Trichloroethene	16.77	130	521	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) Isooctane	16.86	57	19888	0.203 ng		86
50) Methyl Methacrylate	17.03	100	235	N.D.		
51) n-Heptane	17.22	71	10818	0.471 ng	#	67
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	18.01	58	3337	0.201 ng		96
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	19.16	97	149872	8.512 ng	#	6
58) Toluene	19.28	91	805191	9.098 ng		99
59) 2-Hexanone	19.60	43	8162	0.208 ng	#	68
60) Dibromochloromethane	19.82	129	771	0.045 ng		86
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) Butyl Acetate	20.40	43	28936	0.615 ng		93
63) n-Octane	20.56	57	11422	0.559 ng	#	66
64) Tetrachloroethene	20.76	166	5532	0.265 ng		99
65) Chlorobenzene	21.63	112	1864	N.D.		
66) Ethylbenzene	22.10	91	34555	0.363 ng		97
67) m- & p-Xylene	22.31	91	68084	0.925 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.78	104	13961	0.255 ng		99
70) o-Xylene	22.92	91	25107	0.335 ng		98
71) n-Nonane	23.18	43	16975	0.359 ng		96
72) 1,1,2,2-Tetrachloroethane	22.92	83	110	N.D.		
74) Cumene	23.67	105	3556	N.D.		
75) alpha-Pinene	24.15	93	136812	3.202 ng		98
76) n-Propylbenzene	24.28	91	9956	0.084 ng		85
77) 3-Ethyltoluene	24.41	105	15636	0.180 ng		100
78) 4-Ethyltoluene	24.47	105	8682	0.101 ng		91
79) 1,3,5-Trimethylbenzene	24.56	105	6100	0.083 ng		93

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040914.D
Acq On : 4 Mar 2009 18:34
Operator : EM
Sample : P0900735-005 (1000ml)
Misc : Haley SV-InA-709-2 (-0.8, 3.5)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 05 07:15:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	518	N.D.		
81) 2-Ethyltoluene	24.79	105	6078	0.069 ng		98
82) 1,2,4-Trimethylbenzene	25.05	105	19660	0.252 ng		90
83) n-Decane	25.16	57	24550	0.526 ng		78
84) Benzyl Chloride	25.35	91	1603	N.D.		
85) 1,3-Dichlorobenzene	25.33	146	1580	N.D.		
86) 1,4-Dichlorobenzene	25.33	146	1580	N.D.		
87) sec-Butylbenzene	25.39	105	546	N.D.		
88) p-Isopropyltoluene	25.57	119	126624	1.301 ng		93
89) 1,2,3-Trimethylbenzene	25.57	105	9562	0.123 ng	#	1
90) 1,2-Dichlorobenzene	25.33	146	1580	N.D.		
91) d-Limonene	25.75	68	878278	27.299 ng		99
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.66	57	11083	0.234 ng	#	72
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.		
95) Naphthalene	27.94	128	29926	0.313 ng		99
96) n-Dodecane	27.90	57	12840	0.255 ng	#	56
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.52	55	9080	0.326 ng	#	79
99) tert-Butylbenzene	25.05	119	2652	N.D.		
100) n-Butylbenzene	26.13	91	49050	0.610 ng	#	51

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

Sam 3/5/09

Standards Data

Response Factor Report MS09

Method : J:\MS09\Methods\R9021709.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Calibration Files
0.1 =02170913.D 0.2 =02170914.D 0.5 =02170915.D 1.0 =02170916.D 5.0 =02170917.D
25 =02170918.D 50 =02170919.D 100 =02170920.D = =

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethan	ISTD									
2)	T	Propene	3.226	2.336	2.246	1.853	2.056	2.000	2.128	2.076	2.240	18.95
3)	T	Dichlorodifluorom	3.766	3.103	3.574	3.023	2.587	2.694	2.583	2.503	2.979	16.09
4)	T	Chloromethane	3.153	2.723	3.146	2.789	2.349	2.573	2.282	1.985	2.625	15.73
5)	T	Freon 114	1.921	1.639	1.869	1.631	1.348	1.454	1.369	1.335	1.571	14.83
6)	T	Vinyl Chloride	3.617	2.891	3.211	2.778	2.378	2.547	2.371	2.260	2.757	17.06
7)	T	1,3-Butadiene	2.271	1.805	2.231	1.996	1.738	1.921	1.800	1.756	1.940	10.85
8)	T	Bromomethane	1.348	1.281	1.578	1.410	1.268	1.392	1.320	1.252	1.356	7.83
9)	T	Chloroethane	1.128	1.268	1.494	1.350	1.172	1.262	1.222	1.147	1.255	9.62
10)	T	Ethanol	1.149	1.297	1.472	1.293	1.174	1.226	1.214	1.131	1.244	8.87
11)	T	Acetonitrile	2.889	3.029	3.721	3.268	2.858	3.050	2.915	2.796	3.066	9.88
12)	T	Acrolein	0.762	0.815	0.960	0.878	0.827	0.898	0.864	0.844	0.856	6.90
13)	T	Acetone	1.777	1.467	1.903	1.625	1.421	1.185	1.139	1.116	1.454	20.50
14)	T	Trichlorofluorome	3.005	2.528	2.917	2.508	2.115	2.268	2.178	2.127	2.456	14.26
15)	T	Isopropanol	3.960	3.803	4.823	4.356	2.843	3.644	2.910	2.714	3.632	20.99
16)	T	Acrylonitrile	1.424	1.697	2.307	2.092	1.985	2.197	2.108	2.050	1.983	14.48
17)	T	1,1-Dichloroethen	2.055	1.722	1.841	1.524	1.283	1.392	1.337	1.322	1.559	18.19
18)	T	tert-Butanol	3.045	2.943	3.814	3.454	3.291	3.664	3.308		3.360	9.32
19)	T	Methylene Chlorid	2.267	1.852	1.876	1.612	1.391	1.497	1.438	1.401	1.667	18.56
20)	T	Allyl Chloride	1.834	1.808	2.427	2.216	2.079	2.352	2.260	2.216	2.149	10.56
21)	T	Trichlorotrifluor	1.199	1.137	1.402	1.144	1.006	1.098	1.062	1.025	1.134	11.09
22)	T	Carbon Disulfide	7.433	6.038	6.746	5.824	5.094	5.545	5.333	5.235	5.906	13.77
23)	T	trans-1,2-Dichlor	2.725	2.193	2.601	2.302	2.041	2.249	2.156	2.090	2.295	10.62
24)	T	1,1-Dichloroethan	2.488	2.477	3.039	2.719	2.466	2.672	2.565	2.490	2.614	7.50
25)	T	Methyl tert-Butyl	3.848	3.791	4.555	4.099	3.781	4.203	4.152	3.982	4.051	6.43
26)	T	Vinyl Acetate			0.194	0.207	0.237	0.323	0.313	0.285	0.260	21.12
27)	T	2-Butanone		0.527	1.004	0.975	0.953	1.064	1.026	0.841	0.913	20.17
28)	T	cis-1,2-Dichloroe	2.635	2.252	2.628	2.208	1.932	2.084	2.001	1.944	2.210	12.85
29)	T	Diisopropyl Ether	1.146	1.180	1.428	1.339	1.177	1.318	1.308	1.327	1.278	7.72

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

2/18/09

Method : J:\MS09\Methods\R9021709.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Calibration Files
0.1 =02170913.D 0.2 =02170914.D 0.5 =02170915.D 1.0 =02170916.D 5.0 =02170917.D
25 =02170918.D 50 =02170919.D 100 =02170920.D = =

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
30)	T	Ethyl Acetate		0.294	0.530	0.521	0.530	0.619	0.611	0.609	0.531	21.27
31)	T	n-Hexane	3.680	3.024	3.498	2.966	2.576	2.855	2.825	2.811	3.029	12.30
32)	T	Chloroform	2.737	2.391	2.840	2.444	2.100	2.283	2.199	2.157	2.394	11.30
33)	S	1,2-Dichloroethan	1.613	1.618	1.643	1.622	1.629	1.625	1.620	1.609	1.622	0.65
34)	T	Tetrahydrofuran	0.847	0.863	1.111	1.016	0.947	1.024	0.958	0.931	0.962	9.07
35)	T	Ethyl tert-Butyl	1.452	1.502	1.872	1.696	1.533	1.700	1.687	1.709	1.644	8.40
36)	T	1,2-Dichloroethan	1.750	1.659	2.095	1.893	1.687	1.838	1.748	1.685	1.794	8.10
37)	IR	1,4-Difluorobenze	----------	----------	----------	ISTD	----------	----------	----------	----------		
38)	T	1,1,1-Trichloroet	0.432	0.384	0.505	0.443	0.398	0.437	0.421	0.407	0.428	8.63
39)	T	Isopropyl Acetate	0.104	0.157	0.213	0.209	0.195	0.224	0.217	0.215	0.192	21.39
40)	T	1-Butanol		0.167	0.274	0.265	0.279	0.372	0.360	0.342	0.294	24.18
41)	T	Benzene	2.049	1.633	1.744	1.444	1.227	1.317	1.269	1.243	1.491	19.77
42)	T	Carbon Tetrachlor	0.379	0.344	0.418	0.382	0.338	0.374	0.365	0.359	0.370	6.77
43)	T	Cyclohexane	0.662	0.539	0.597	0.522	0.456	0.498	0.487	0.488	0.531	12.77
44)	T	tert-Amyl Methyl	0.831	0.809	0.984	0.881	0.790	0.872	0.836	0.835	0.855	7.03
45)	T	1,2-Dichloropropa	0.321	0.304	0.381	0.339	0.305	0.334	0.321	0.313	0.327	7.59
46)	T	Bromodichlorometh	0.401	0.360	0.444	0.400	0.357	0.396	0.383	0.371	0.389	7.26
47)	T	Trichloroethene	0.489	0.417	0.444	0.380	0.303	0.328	0.317	0.314	0.374	18.63
48)	T	1,4-Dioxane		0.165	0.257	0.252	0.234	0.270	0.261	0.255	0.242	14.73
49)	T	Isooctane	2.086	1.647	1.849	1.601	1.375	1.490	1.422	1.382	1.606	15.64
50)	T	Methyl Methacryla		0.082	0.124	0.124	0.119	0.139	0.136	0.137	0.123	16.03
51)	T	n-Heptane	0.452	0.385	0.434	0.378	0.327	0.357	0.344	0.340	0.377	11.95
52)	T	cis-1,3-Dichlorop	0.432	0.423	0.552	0.512	0.477	0.536	0.516	0.506	0.494	9.43
53)	T	4-Methyl-2-pentan		0.163	0.265	0.275	0.274	0.316	0.308	0.302	0.272	19.00
54)	T	trans-1,3-Dichlor	0.356	0.352	0.471	0.439	0.429	0.490	0.476	0.466	0.435	12.35
55)	T	1,1,2-Trichloroet	0.253	0.255	0.339	0.305	0.273	0.304	0.293	0.288	0.289	9.91
56)	I	Chlorobenzene-d5	----------	----------	----------	ISTD	----------	----------	----------	----------		
57)	S	Toluene-d8 (SS2)	2.373	2.378	2.382	2.368	2.354	2.346	2.351	2.358	2.364	0.56

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

69

Ewn 2/18/09

Method : J:\MS09\Methods\R9021709.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

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25 =02170918.D 50 =02170919.D 100 =02170920.D = =

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
58)	T	Toluene	3.538	3.056	3.409	2.947	2.510	2.752	2.636	2.597	2.931	13.03
59)	T	2-Hexanone		0.680	1.313	1.334	1.308	1.543	1.485	1.437	1.300	22.15
60)	T	Dibromochlorometh	0.524	0.462	0.652	0.592	0.529	0.601	0.586	0.583	0.566	10.32
61)	T	1,2-Dibromoethane	0.528	0.573	0.744	0.678	0.598	0.675	0.654	0.645	0.637	10.70
62)	T	Butyl Acetate		0.907	1.480	1.473	1.535	1.826	1.814	1.873	1.558	21.50
63)	T	n-Octane	0.794	0.681	0.789	0.684	0.585	0.640	0.621	0.615	0.676	11.62
64)	T	Tetrachloroethene	0.819	0.682	0.827	0.701	0.590	0.645	0.632	0.636	0.691	12.71
65)	T	Chlorobenzene	2.228	1.877	2.110	1.822	1.574	1.729	1.661	1.640	1.830	12.72
66)	T	Ethylbenzene	3.406	3.080	3.622	3.204	2.815	3.113	3.022	2.969	3.154	8.11
67)	T	m- & p-Xylene	2.534	2.358	2.768	2.468	2.169	2.431	2.381	2.384	2.436	7.00
68)	T	Bromoform	0.341	0.366	0.510	0.467	0.428	0.505	0.500	0.504	0.453	14.88
69)	T	Styrene	1.746	1.638	2.037	1.822	1.674	1.891	1.851	1.856	1.814	7.04
70)	T	o-Xylene	2.589	2.389	2.800	2.527	2.212	2.467	2.422	2.426	2.479	6.87
71)	T	n-Nonane	1.816	1.606	1.821	1.569	1.370	1.502	1.442	1.387	1.564	11.30
72)	T	1,1,2,2-Tetrachlo	0.848	0.830	1.085	0.995	0.956	1.080	1.069	1.080	0.993	10.63
73)	S	Bromofluorobenzen	0.674	0.671	0.674	0.668	0.674	0.670	0.679	0.676	0.673	0.54
74)	T	Cumene	3.292	2.958	3.562	3.213	2.857	3.171	3.096	3.069	3.152	6.85
75)	T	alpha-Pinene	1.423	1.310	1.543	1.401	1.298	1.464	1.435	1.443	1.415	5.66
76)	T	n-Propylbenzene	4.088	3.660	4.459	4.021	3.583	3.979	3.866	3.775	3.929	7.05
77)	T	3-Ethyltoluene	2.995	2.505	3.169	2.904	2.621	2.978	2.870	2.949	2.874	7.43
78)	T	4-Ethyltoluene	2.899	2.669	3.241	2.878	2.603	2.868	2.871	2.791	2.852	6.68
79)	T	1,3,5-Trimethylbe	2.453	2.215	2.742	2.451	2.210	2.476	2.444	2.462	2.432	6.89
80)	T	alpha-Methylstyre	1.177	1.177	1.366	1.258	1.183	1.408	1.400	1.436	1.301	8.73
81)	T	2-Ethyltoluene	3.007	2.734	3.277	2.995	2.661	2.964	2.924	2.919	2.935	6.35
82)	T	1,2,4-Trimethylbe	2.444	2.320	2.791	2.514	2.308	2.679	2.748	2.844	2.581	8.24
83)	T	n-Decane	1.545	1.477	1.767	1.565	1.411	1.564	1.528	1.499	1.544	6.69
84)	T	Benzyl Chloride	1.170	1.185	1.694	1.688	1.827	2.239	2.272	2.307	1.798	25.52
85)	T	1,3-Dichlorobenze	1.454	1.324	1.558	1.363	1.214	1.348	1.345	1.384	1.374	7.28
86)	T	1,4-Dichlorobenze	1.473	1.351	1.615	1.426	1.250	1.387	1.381	1.399	1.410	7.43
87)	T	sec-Butylbenzene	3.444	3.170	3.729	3.434	3.079	3.445	3.379	3.333	3.377	5.82

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

2/18/09

Method : J:\MS09\Methods\R9021709.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009
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25 =02170918.D 50 =02170919.D 100 =02170920.D = =

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
88)	T	p-Isopropyltoluen	3.030	2.884	3.516	3.176	2.897	3.347	3.418	3.507	3.222	8.13
89)	T	1,2,3-Trimethylbe	2.497	2.275	2.799	2.527	2.298	2.669	2.730	2.833	2.579	8.35
90)	T	1,2-Dichlorobenze	1.362	1.203	1.466	1.280	1.148	1.302	1.341	1.435	1.317	8.21
91)	T	d-Limonene	0.982	0.956	1.097	1.019	0.946	1.176	1.180	1.166	1.065	9.50
92)	T	1,2-Dibromo-3-Chl	0.266	0.293	0.387	0.392	0.377	0.430	0.437	0.447	0.379	17.55
93)	T	n-Undecane	1.507	1.420	1.751	1.588	1.482	1.629	1.612	1.580	1.571	6.48
94)	T	1,2,4-Trichlorobe	0.111	0.202	0.264	0.244	0.237	0.257	0.271	0.289	0.234	24.03
95)	T	Naphthalene		2.720	3.099	3.027	2.958	3.288	3.485	3.597	3.168	9.72
96)	T	n-Dodecane	1.590	1.451	1.664	1.668	1.614	1.744	1.796	1.793	1.665	6.96
97)	T	Hexachloro-1,3-bu	0.450	0.439	0.530	0.479	0.437	0.468	0.488	0.521	0.476	7.40
98)	T	Cyclohexanone			0.846	0.867	0.811	1.026	1.003	0.985	0.923	9.99
99)	T	tert-Butylbenzene	2.425	2.210	2.734	2.435	2.197	2.536	2.581	2.696	2.477	8.11
100)	T	n-Butylbenzene	2.581	2.316	2.941	2.72	2.477	2.783	2.754	2.727	2.662	7.37

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

2/18/09

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-02090906
20ng/L Std. ID: S20-02090905
200ng/L Std. ID: S20-02090903

Dilution Factors:		5	50	250
	Source Std.	Primary Working Standards		
Compounds	mg/m³	200ng/L	20ng/L	4ng/L
Propene	1.03	206	20.6	4.12
Dichlorodifluoromethane	1.05	210	21.0	4.20
Chloromethane	1.01	202	20.2	4.04
Freon-114	1.06	212	21.2	4.24
Vinyl Chloride	1.02	204	20.4	4.08
1,3-Butadiene	1.08	216	21.6	4.32
Bromomethane	1.03	206	20.6	4.12
Chloroethane	1.04	208	20.8	4.16
Ethanol	5.29	1058	106	21.2
Acetonitrile	1.05	210	21.0	4.20
Acrolein	1.08	216	21.6	4.32
Acetone	5.31	1062	106	21.2
Trichlorofluoromethane	1.05	210	21.0	4.20
Isopropanol	1.94	388	38.8	7.76
Acrylonitrile	1.03	206	20.6	4.12
1,1-Dichloroethene	1.10	220	22.0	4.40
tert-Butanol	2.00	400	40.0	8.00
Methylene Chloride	1.06	212	21.2	4.24
Allyl Chloride	1.08	216	21.6	4.32
Trichlorotrifluoroethane	1.10	220	22.0	4.40
Carbon Disulfide	1.04	208	20.8	4.16
trans-1,2-Dichloroethene	1.03	206	20.6	4.12
1,1-Dichloroethane	1.07	214	21.4	4.28
Methyl tert-Butyl Ether	1.06	212	21.2	4.24
Vinyl Acetate	5.05	1010	101	20.2
2-Butanone	1.08	216	21.6	4.32
cis-1,2-Dichloroethene	1.09	218	21.8	4.36
Diisopropyl Ether	1.06	212	21.2	4.24
Ethyl Acetate	2.08	416	41.6	8.32
n-Hexane	1.04	208	20.8	4.16
Chloroform	1.10	220	22.0	4.40
Tetrahydrofuran	1.07	214	21.4	4.28
Ethyl tert-Butyl Ether	1.03	206	20.6	4.12
1,2-Dichloroethane	1.06	212	21.2	4.24
1,1,1-Trichloroethane	1.05	210	21.0	4.20
Isopropyl Acetate	2.09	418	41.8	8.36
1-Butanol	2.16	432	43.2	8.64
Benzene	1.03	206	20.6	4.12
Carbon Tetrachloride	1.05	210	21.0	4.20
Cyclohexane	2.12	424	42.4	8.48
tert-Amyl Methyl Ether	1.03	206	20.6	4.12
1,2-Dichloropropane	1.05	210	21.0	4.20
Bromodichloromethane	1.05	210	21.0	4.20
Trichloroethene	1.03	206	20.6	4.12
1,4-Dioxane	1.04	208	20.8	4.16
Isooctane	1.04	208	20.8	4.16
Methyl Methacrylate	2.13	426	42.6	8.52
n-Heptane	1.04	208	20.8	4.16
cis-1,3-Dichloropropene	1.00	200	20.0	4.00
4-Methyl-2-pentanone	1.09	218	21.8	4.36
trans-1,3-Dichloropropene	1.10	220	22.0	4.40
1,1,2-Trichloroethane	1.04	208	20.8	4.16
Toluene	1.08	216	21.6	4.32
2-Hexanone	1.10	220	22.0	4.40
Dibromochloromethane	1.15	230	23.0	4.60
1,2-Dibromoethane	1.06	212	21.2	4.24
n-Butyl Acetate	1.10	220	22.0	4.40
n-Octane	1.05	210	21.0	4.20
Tetrachloroethene	1.03	206	20.6	4.12
Chlorobenzene	1.06	212	21.2	4.24
Ethylbenzene	1.05	210	21.0	4.20
m-&p-Xylene	2.08	416	41.6	8.32

Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source)							
	4	4	20	20	20	200	200	200
Injection (L):	0.025	0.05	0.025	0.050	0.25	0.125	0.25	0.50
ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
Propene	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
Dichlorodifluoromethane	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Chloromethane	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
Freon-114	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Vinyl Chloride	0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
1,3-Butadiene	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Bromomethane	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
Chloroethane	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
Ethanol	0.529	1.058	2.65	5.29	26.5	132	265	529
Acetonitrile	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Acrolein	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Acetone	0.531	1.062	2.66	5.31	26.6	133	266	531
Trichlorofluoromethane	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Isopropanol	0.194	0.388	0.970	1.94	9.70	48.5	97.0	194
Acrylonitrile	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,1-Dichloroethene	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
tert-Butanol	0.200	0.400	1.00	2.00	10.0	50.0	100	200
Methylene Chloride	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Allyl Chloride	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Trichlorotrifluoroethane	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Carbon Disulfide	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
trans-1,2-Dichloroethene	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,1-Dichloroethane	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Methyl tert-Butyl Ether	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Vinyl Acetate	0.505	1.010	2.53	5.05	25.3	126	253	505
2-Butanone	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
cis-1,2-Dichloroethene	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
Diisopropyl Ether	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Ethyl Acetate	0.208	0.416	1.04	2.08	10.4	52.0	104	208
n-Hexane	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
Chloroform	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Tetrahydrofuran	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Ethyl tert-Butyl Ether	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,2-Dichloroethane	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,1,1-Trichloroethane	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Isopropyl Acetate	0.209	0.418	1.05	2.09	10.5	52.3	105	209
1-Butanol	0.216	0.432	1.08	2.16	10.8	54.0	108	216
Benzene	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
Carbon Tetrachloride	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Cyclohexane	0.212	0.424	1.06	2.12	10.6	53.0	106	212
tert-Amyl Methyl Ether	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,2-Dichloropropane	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Bromodichloromethane	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Trichloroethene	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,4-Dioxane	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
Isooctane	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
Methyl Methacrylate	0.213	0.426	1.07	2.13	10.7	53.3	107	213
n-Heptane	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
cis-1,3-Dichloropropene	0.100	0.200	0.500	1.00	5.00	25.0	50.0	100
4-Methyl-2-pentanone	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
trans-1,3-Dichloropropene	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,1,2-Trichloroethane	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
Toluene	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
2-Hexanone	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Dibromochloromethane	0.115	0.230	0.575	1.15	5.75	28.8	57.5	115
1,2-Dibromoethane	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
n-Butyl Acetate	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
n-Octane	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Tetrachloroethene	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
Chlorobenzene	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Ethylbenzene	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
m-&p-Xylene	0.208	0.416	1.04	2.08	10.4	52.0	104	208

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-02090906
20ng/L Std. ID:
200ng/L Std. ID:
Dilution Factors: 5 50 250

Compounds	Source Std. mg/m³	Primary Working Standards 200ng/L	20ng/L	4ng/L	Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source) 4	4	20	20	20	200	200	200
					Injection (L):	0.025	0.050	0.025	0.05	0.25	0.125	0.25	0.50
					ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
Bromoform	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Styrene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
o-Xylene	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
n-Nonane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
1,1,2,2-Tetrachloroethane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Cumene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
alpha-Pinene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
n-Propylbenzene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
3-Ethyltoluene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
4-Ethyltoluene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,3,5-Trimethylbenzene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
alpha-Methylstyrene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
2-Ethyltoluene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
1,2,4-Trimethylbenzene	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
n-Decane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Benzyl Chloride	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,3-Dichlorobenzene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
1,4-Dichlorobenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
sec-Butylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
p-Isopropyltoluene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
1,2,3-Trimethylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,2-Dichlorobenzene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
d-Limonene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
chloropropane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
n-Undecane	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
1,2,4-Trichlorobenzene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Naphthalene	1.01	202	20.2	4.04		0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
n-Dodecane	0.94	188	18.8	3.76		0.094	0.188	0.470	0.940	4.70	23.5	47.0	94.0
Hexachloro-1,3-butadiene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Methacrylonitrile	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Cyclohexanone	0.99	198	19.8	3.96		0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0
tert-Butylbenzene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
n-Butylbenzene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109

*Enter Information in the Solid Shaded Areas ONLY.

-1/18/09

Calibration Status Report MS09

Method Path : J:\MS09\Methods\
Method File : R9021709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.1	0	25	J:\MS09\Data\2009_02\17\02170913.D
2	0.2	0	25	J:\MS09\Data\2009_02\17\02170914.D
3	0.5	1	25	J:\MS09\Data\2009_02\17\02170915.D
4	1.0	1	25	J:\MS09\Data\2009_02\17\02170916.D
5	5.0	5	25	J:\MS09\Data\2009_02\17\02170917.D
6	25	26	25	J:\MS09\Data\2009_02\17\02170918.D
7	50	52	25	J:\MS09\Data\2009_02\17\02170919.D
8	100	103	25	J:\MS09\Data\2009_02\17\02170920.D

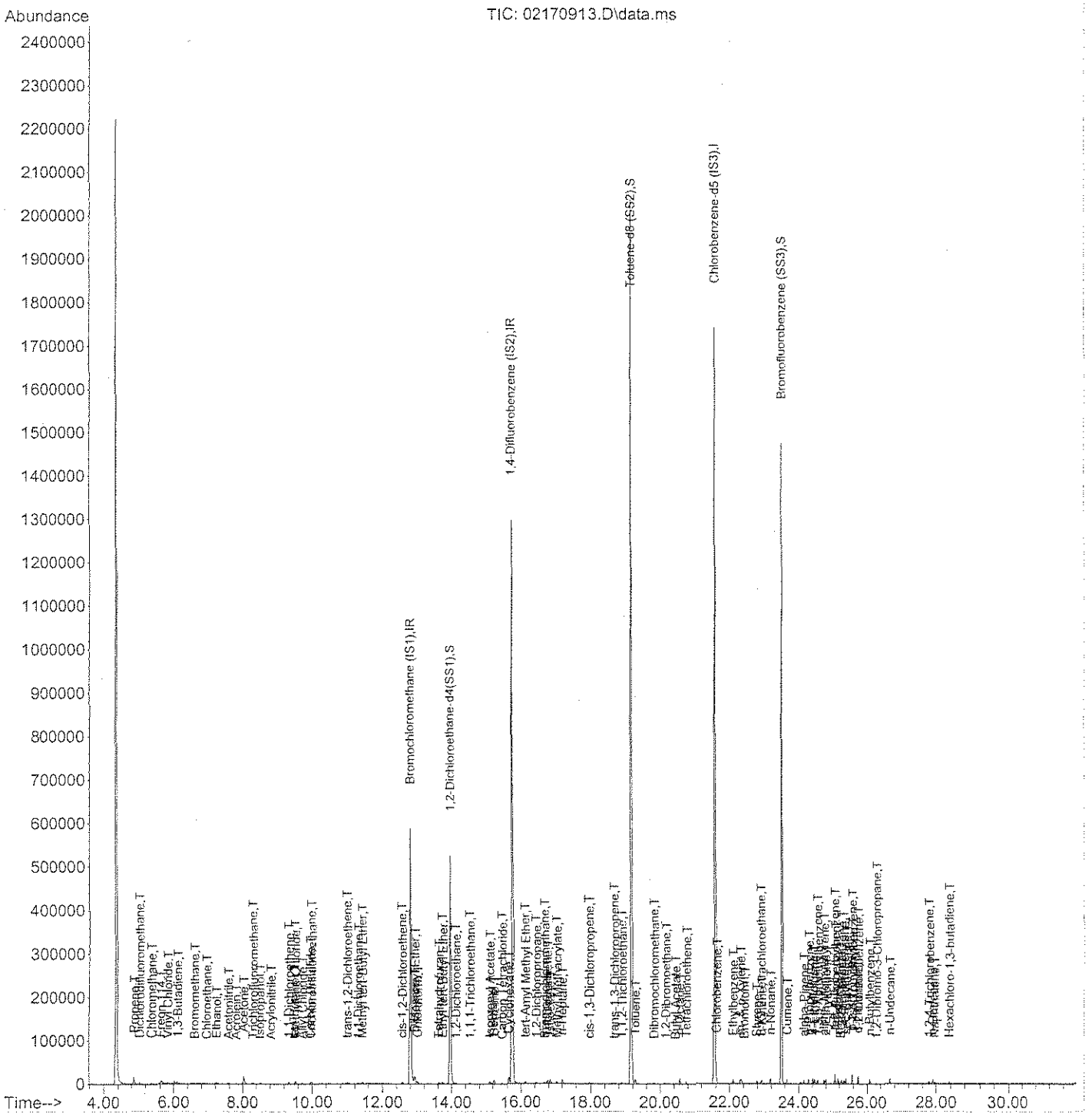
#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Feb 18 07:29 2009	Feb 18 07:14 2009	17 Feb 2009 17:30
2	0.2	Feb 18 07:29 2009	Feb 18 07:18 2009	17 Feb 2009 18:11
3	0.5	Feb 18 07:30 2009	Feb 18 07:20 2009	17 Feb 2009 18:53
4	1.0	Feb 18 07:30 2009	Feb 18 07:21 2009	17 Feb 2009 19:34
5	5.0	Feb 18 07:30 2009	Feb 18 07:23 2009	17 Feb 2009 20:16
6	25	Feb 18 07:30 2009	Feb 18 07:24 2009	17 Feb 2009 20:57
7	50	Feb 18 07:30 2009	Feb 18 07:28 2009	17 Feb 2009 21:38
8	100	Feb 18 07:31 2009	Feb 18 07:29 2009	17 Feb 2009 22:20

\9021709.M Wed Feb 18 08:04:48 2009

Em 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170913.D
Acq On : 17 Feb 2009 17:30
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:14:58 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170913.D
Acq On : 17 Feb 2009 17:30
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:14:58 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	324892	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.75	114	1571162	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.57	82	767994	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	524003	25.287	ng		-0.03
Spiked Amount 25.000			Recovery =	101.16%			
57) Toluene-d8 (SS2)	19.15	98	1822803	24.672	ng		-0.01
Spiked Amount 25.000			Recovery =	98.68%			
73) Bromofluorobenzene (SS3)	23.49	174	517779	24.590	ng		0.00
Spiked Amount 25.000			Recovery =	98.36%			
Target Compounds							Qvalue
2) Propene	4.88	42	4318	0.188	ng		98
3) Dichlorodifluoromethane	5.04	85	5139	0.153	ng	#	87
4) Chloromethane	5.37	50	4138	0.139	ng		95
5) Freon 114	5.62	135	2646	0.140	ng		90
6) Vinyl Chloride	5.83	62	4795	0.154	ng		90
7) 1,3-Butadiene	6.12	54	3187	0.150	ng		93
8) Bromomethane	6.60	94	1804	0.111	ng		99
9) Chloroethane	6.95	64	1524	0.103	ng	#	46
10) Ethanol	7.24	45	7898	0.543	ng		80
11) Acetonitrile	7.59	41	3942	0.109	ng		86
12) Acrolein	7.81	56	1070	0.106	ng	#	67
13) Acetone	8.03	58	12262	0.837	ng	#	81
14) Trichlorofluoromethane	8.31	101	4100	0.140	ng		98
15) Isopropanol	8.51	45	9984	0.214	ng		78
16) Acrylonitrile	8.83	53	1906	0.083	ng		97
17) 1,1-Dichloroethene	9.34	96	2938	0.166	ng	#	62
18) tert-Butanol	9.49	59	7915	0.182	ng	#	75
19) Methylene Chloride	9.53	84	3123	0.168	ng	#	49
20) Allyl Chloride	9.73	41	2574	0.103	ng		98
21) Trichlorotrifluoroethane	10.00	151	1714	0.125	ng	#	78
22) Carbon Disulfide	9.95	76	10046	0.152	ng		79
23) trans-1,2-Dichloroethene	11.00	61	3647	0.138	ng		85
24) 1,1-Dichloroethane	11.30	63	3460	0.112	ng		87
25) Methyl tert-Butyl Ether	11.44	73	5301	0.107	ng		80
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone	11.97	72	217	N.D.			
28) cis-1,2-Dichloroethene	12.57	61	3733	0.148	ng		78
29) Diisopropyl Ether	12.93	87	1579	0.104	ng	#	45
30) Ethyl Acetate	12.96	61	105	N.D.			
31) n-Hexane	12.93	57	4974	0.141	ng		84

Tom 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170913.D
Acq On : 17 Feb 2009 17:30
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:14:58 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	3913	0.138	ng		91
34) Tetrahydrofuran	13.63	72	1178	0.101	ng	#	66
35) Ethyl tert-Butyl Ether	13.74	87	1943	0.096	ng	#	74
36) 1,2-Dichloroethane	14.13	62	2411	0.112	ng	#	53
38) 1,1,1-Trichloroethane	14.54	97	2848	0.115	ng	#	74
39) Isopropyl Acetate	15.11	61	1371	0.123	ng	#	18
40) 1-Butanol	15.19	56	1344	0.075	ng	#	58
41) Benzene	15.23	78	13261	0.155	ng		98
42) Carbon Tetrachloride	15.46	117	2502	0.116	ng		100
43) Cyclohexane	15.66	84	8819	0.293	ng	#	66
44) tert-Amyl Methyl Ether	16.13	73	5381	0.106	ng	#	1
45) 1,2-Dichloropropane	16.45	63	2121	0.118	ng		82
46) Bromodichloromethane	16.70	83	2643	0.119	ng		95
47) Trichloroethene	16.78	130	3167	0.152	ng		93
48) 1,4-Dioxane	16.77	88	946	0.071	ng	#	1
49) Isooctane	16.86	57	13634	0.155	ng		94
50) Methyl Methacrylate	17.06	100	726	0.106	ng	#	5
51) n-Heptane	17.22	71	2952	0.142	ng	#	66
52) cis-1,3-Dichloropropene	17.96	75	2713	0.096	ng		76
53) 4-Methyl-2-pentanone	18.04	58	251	N.D.			
54) trans-1,3-Dichloropropene	18.67	75	2460	0.098	ng		63
55) 1,1,2-Trichloroethane	18.90	97	1655	0.098	ng		96
58) Toluene	19.29	91	11738	0.145	ng		99
59) 2-Hexanone	19.66	43	126	N.D.			
60) Dibromochloromethane	19.83	129	1850	0.110	ng		96
61) 1,2-Dibromoethane	20.16	107	1719	0.092	ng		95
62) Butyl Acetate	20.44	43	2175	0.052	ng	#	42
63) n-Octane	20.56	57	2562	0.135	ng	#	70
64) Tetrachloroethene	20.76	166	2593	0.130	ng		95
65) Chlorobenzene	21.63	112	7255	0.136	ng		94
66) Ethylbenzene	22.10	91	10985	0.117	ng		94
67) m- & p-Xylene	22.31	91	16190	0.224	ng	#	28
68) Bromoform	22.43	173	1120	0.082	ng	#	27
69) Styrene	22.78	104	5740	0.105	ng		93
70) o-Xylene	22.93	91	8350	0.113	ng		99
71) n-Nonane	23.19	43	5857	0.135	ng		94
72) 1,1,2,2-Tetrachloroethane	22.90	83	2815	0.097	ng		94
74) Cumene	23.67	105	10315	0.113	ng		96
75) alpha-Pinene	24.16	93	4807	0.115	ng		88
76) n-Propylbenzene	24.29	91	12808	0.110	ng		94
77) 3-Ethyltoluene	24.41	105	10120	0.116	ng		99
78) 4-Ethyltoluene	24.47	105	9796	0.114	ng		98
79) 1,3,5-Trimethylbenzene	24.56	105	8139	0.109	ng		96

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170913.D
Acq On : 17 Feb 2009 17:30
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:14:58 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

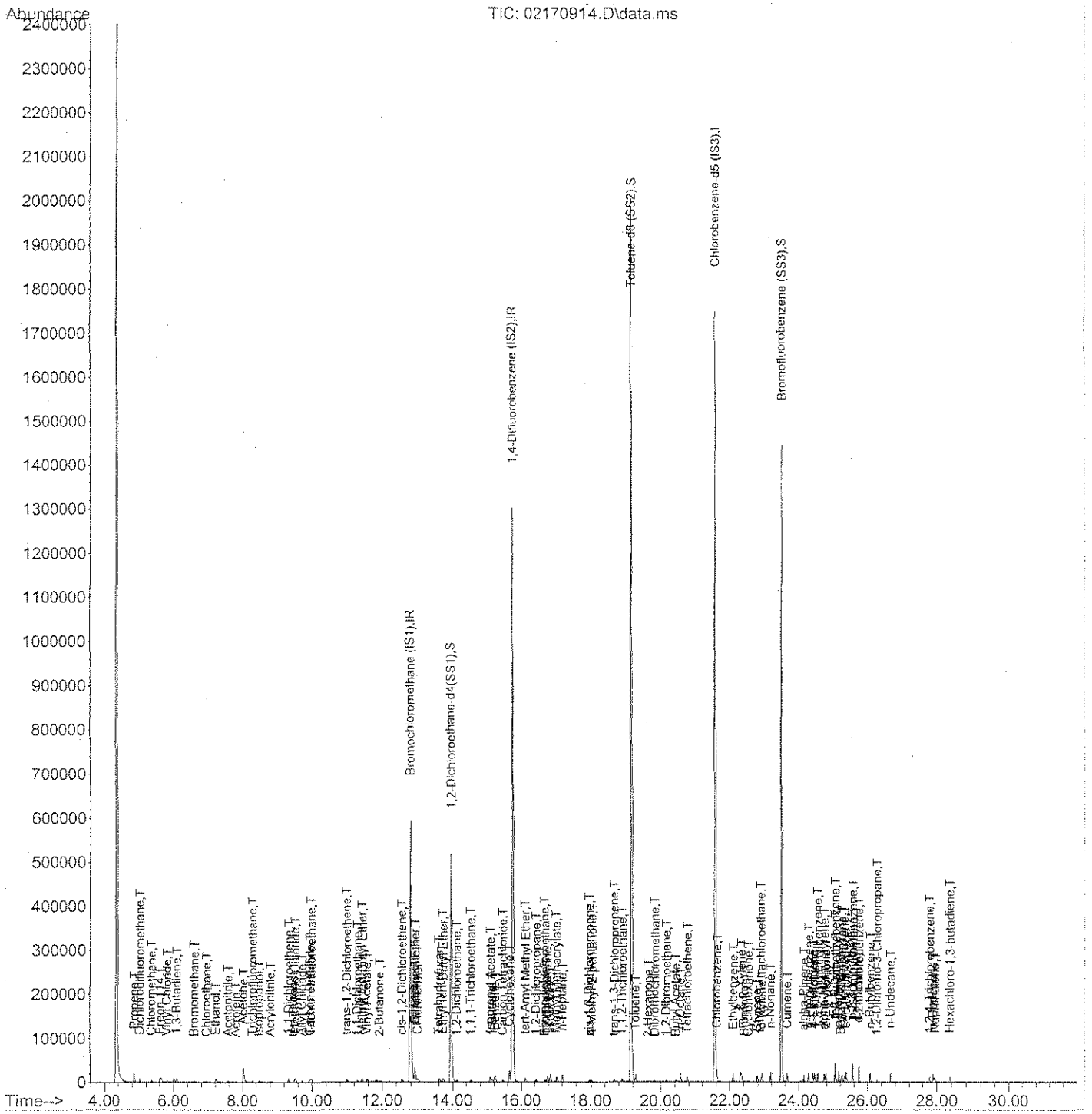
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	3833	0.096	ng		92
81) 2-Ethyltoluene	24.80	105	9978	0.113	ng		98
82) 1,2,4-Trimethylbenzene	25.06	105	7882	0.103	ng		97
83) n-Decane	25.16	57	5126	0.116	ng		81
84) Benzyl Chloride	25.23	91	3952	0.069	ng		71
85) 1,3-Dichlorobenzene	25.26	146	4778	0.117	ng		98
86) 1,4-Dichlorobenzene	25.33	146	4796	0.113	ng		100
87) sec-Butylbenzene	25.39	105	11214	0.112	ng		96
88) p-Isopropyltoluene	25.57	119	9495	0.099	ng		98
89) 1,2,3-Trimethylbenzene	25.58	105	8132	0.107	ng		100
90) 1,2-Dichlorobenzene	25.75	146	4476	0.115	ng		92
91) d-Limonene	25.75	68	3197	0.101	ng		89
92) 1,2-Dibromo-3-Chloropr...	26.28	157	883	0.077	ng	#	82
93) n-Undecane	26.66	57	4952	0.107	ng		82
94) 1,2,4-Trichlorobenzene	27.80	184	374	0.051	ng	#	1
95) Naphthalene	27.96	128	8285	0.084	ng	#	71
96) n-Dodecane	27.91	57	4590	0.088	ng		86
97) Hexachloro-1,3-butadiene	28.37	225	1521	0.104	ng		85
98) Cyclohexanone	22.55	55	1030	N.D.			
99) tert-Butylbenzene	25.06	119	8047	0.109	ng		99
100) n-Butylbenzene	26.08	91	8641	0.110	ng	#	87

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

Cem 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170914.D
Acq On : 17 Feb 2009 18:11
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:18:29 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170914.D
Acq On : 17 Feb 2009 18:11
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:18:29 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	323936	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.75	114	1562761	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.57	82	766032	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	523979	25.360	ng		-0.03
Spiked Amount 25.000			Recovery =	101.44%			
57) Toluene-d8 (SS2)	19.15	98	1821287	24.714	ng		-0.01
Spiked Amount 25.000			Recovery =	98.84%			
73) Bromofluorobenzene (SS3)	23.49	174	513642	24.456	ng		0.00
Spiked Amount 25.000			Recovery =	97.84%			
Target Compounds							Qvalue
2) Propene	4.87	42	6235	0.272	ng		97
3) Dichlorodifluoromethane	5.03	85	8444	0.252	ng		92
4) Chloromethane	5.36	50	7127	0.241	ng		95
5) Freon 114	5.61	135	4503	0.240	ng		92
6) Vinyl Chloride	5.81	62	7642	0.245	ng		98
7) 1,3-Butadiene	6.10	54	5052	0.238	ng		95
8) Bromomethane	6.59	94	3419	0.212	ng		100
9) Chloroethane	6.95	64	3417	0.231	ng		87
10) Ethanol	7.23	45	17782	1.227	ng		83
11) Acetonitrile	7.58	41	8243	0.229	ng		89
12) Acrolein	7.81	56	2282	0.227	ng		95
13) Acetone	8.02	58	20183	1.382	ng	#	82
14) Trichlorofluoromethane	8.29	101	6880	0.236	ng		97
15) Isopropanol	8.49	45	19119	0.411	ng		86
16) Acrylonitrile	8.81	53	4531	0.197	ng		93
17) 1,1-Dichloroethene	9.33	96	4910	0.278	ng	#	56
18) tert-Butanol	9.48	59	15255	0.352	ng	#	82
19) Methylene Chloride	9.53	84	5088	0.275	ng	#	48
20) Allyl Chloride	9.73	41	5059	0.202	ng		84
21) Trichlorotrifluoroethane	9.99	151	3242	0.237	ng		92
22) Carbon Disulfide	9.95	76	16273	0.247	ng		95
23) trans-1,2-Dichloroethene	11.00	61	5854	0.222	ng		75
24) 1,1-Dichloroethane	11.30	63	6869	0.222	ng		94
25) Methyl tert-Butyl Ether	11.43	73	10415	0.211	ng		74
26) Vinyl Acetate	11.56	86	853	0.292	ng	#	47
27) 2-Butanone	11.93	72	1475	0.141	ng	#	91
28) cis-1,2-Dichloroethene	12.57	61	6362	0.253	ng		78
29) Diisopropyl Ether	12.93	87	3242	0.213	ng	#	43
30) Ethyl Acetate	12.93	61	1586	0.261	ng		77
31) n-Hexane	12.93	57	8151	0.232	ng		98

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170914.D
Acq On : 17 Feb 2009 18:11
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:18:29 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	13.01	83	6816	0.241 ng		98
34) Tetrahydrofuran	13.62	72	2392	0.206 ng	#	68
35) Ethyl tert-Butyl Ether	13.73	87	4009	0.199 ng	#	65
36) 1,2-Dichloroethane	14.13	62	4558	0.213 ng		93
38) 1,1,1-Trichloroethane	14.53	97	5039	0.204 ng		89
39) Isopropyl Acetate	15.10	61	4109	0.370 ng	#	92
40) 1-Butanol	15.16	56	4504	0.253 ng	#	59
41) Benzene	15.23	78	21032	0.247 ng		99
42) Carbon Tetrachloride	15.46	117	4522	0.210 ng		100
43) Cyclohexane	15.65	84	14292	0.477 ng	#	67
44) tert-Amyl Methyl Ether	16.13	73	10421	0.207 ng	#	1
45) 1,2-Dichloropropane	16.44	63	3997	0.223 ng		88
46) Bromodichloromethane	16.70	83	4725	0.215 ng		99
47) Trichloroethene	16.78	130	5373	0.259 ng		96
48) 1,4-Dioxane	16.75	88	2145	0.162 ng	#	57
49) Isooctane	16.86	57	21421	0.244 ng		98
50) Methyl Methacrylate	17.04	100	2185	0.321 ng	#	66
51) n-Heptane	17.21	71	5007	0.242 ng	#	65
52) cis-1,3-Dichloropropene	17.96	75	5290	0.188 ng		94
53) 4-Methyl-2-pentanone	18.03	58	2227	0.146 ng	#	63
54) trans-1,3-Dichloropropene	18.67	75	4841	0.193 ng		100
55) 1,1,2-Trichloroethane	18.90	97	3315	0.198 ng		94
58) Toluene	19.28	91	20225	0.250 ng		99
59) 2-Hexanone	19.63	43	4587	0.127 ng		82
60) Dibromochloromethane	19.83	129	3255	0.194 ng		91
61) 1,2-Dibromoethane	20.16	107	3722	0.200 ng		98
62) Butyl Acetate	20.43	43	6115	0.148 ng		87
63) n-Octane	20.56	57	4383	0.232 ng	#	70
64) Tetrachloroethene	20.76	166	4304	0.216 ng		100
65) Chlorobenzene	21.63	112	12190	0.229 ng		99
66) Ethylbenzene	22.11	91	19818	0.212 ng		97
67) m- & p-Xylene	22.33	91	30052	0.417 ng		98
68) Bromoform	22.43	173	2399	0.177 ng		94
69) Styrene	22.79	104	10738	0.196 ng		97
70) o-Xylene	22.92	91	15370	0.208 ng		99
71) n-Nonane	23.18	43	10331	0.238 ng		94
72) 1,1,2,2-Tetrachloroethane	22.89	83	5495	0.190 ng		95
74) Cumene	23.67	105	18490	0.203 ng		100
75) alpha-Pinene	24.16	93	8832	0.212 ng		93
76) n-Propylbenzene	24.29	91	22876	0.197 ng		96
77) 3-Ethyltoluene	24.41	105	16886	0.194 ng		95
78) 4-Ethyltoluene	24.47	105	17993	0.210 ng		98
79) 1,3,5-Trimethylbenzene	24.56	105	14658	0.197 ng		99

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170914.D
Acq On : 17 Feb 2009 18:11
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090906
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 18 07:18:29 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

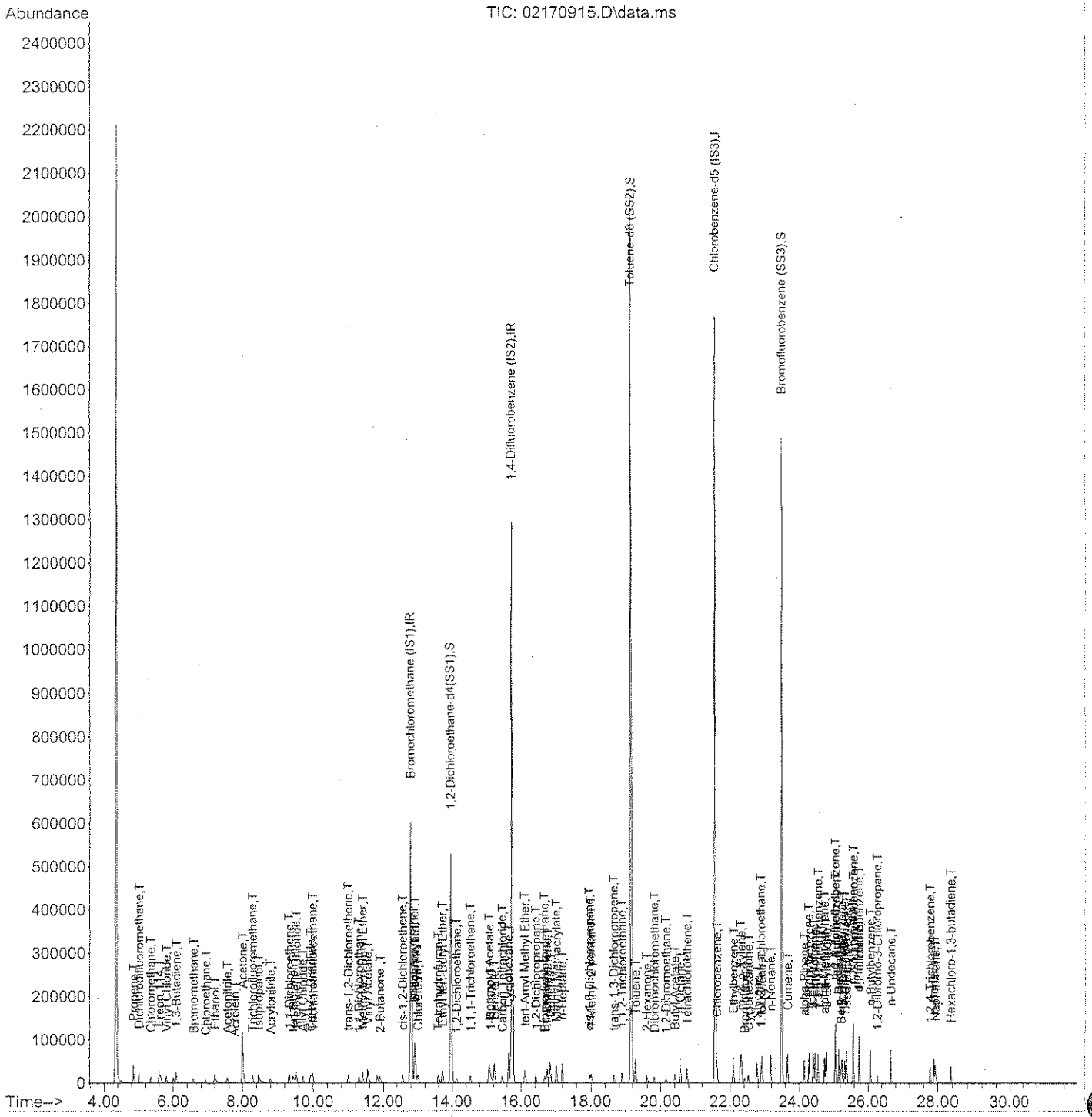
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.74	118	7644	0.192	ng		95
81) 2-Ethyltoluene	24.80	105	18092	0.205	ng		99
82) 1,2,4-Trimethylbenzene	25.06	105	14928	0.195	ng		100
83) n-Decane	25.16	57	9776	0.221	ng		82
84) Benzyl Chloride	25.23	91	7986	0.140	ng		92
85) 1,3-Dichlorobenzene	25.25	146	8682	0.213	ng		99
86) 1,4-Dichlorobenzene	25.33	146	8776	0.208	ng		98
87) sec-Butylbenzene	25.39	105	20591	0.206	ng		98
88) p-Isopropyltoluene	25.57	119	18026	0.189	ng		95
89) 1,2,3-Trimethylbenzene	25.58	105	14780	0.195	ng		96
90) 1,2-Dichlorobenzene	25.75	146	7887	0.203	ng		99
91) d-Limonene	25.75	68	6211	0.198	ng		97
92) 1,2-Dibromo-3-Chloropr...	26.28	157	1940	0.170	ng		89
93) n-Undecane	26.66	57	9313	0.201	ng		79
94) 1,2,4-Trichlorobenzene	27.80	184	1359	0.185	ng	#	85
95) Naphthalene	27.96	128	16835	0.170	ng		91
96) n-Dodecane	27.90	57	8356	0.160	ng		76
97) Hexachloro-1,3-butadiene	28.36	225	2957	0.202	ng		90
98) Cyclohexanone	22.54	55	2599	0.096	ng	#	79
99) tert-Butylbenzene	25.06	119	14627	0.199	ng		96
100) n-Butylbenzene	26.08	91	15470	0.198	ng		93

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

Em 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170915.D
Acq On : 17 Feb 2009 18:53
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:20:17 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170915.D
Acq On : 17 Feb 2009 18:53
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:20:17 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	324440	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.75	114	1570822	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	769662	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	533077	25.761	ng		-0.04
Spiked Amount 25.000			Recovery =	103.04%			
57) Toluene-d8 (SS2)	19.15	98	1833074	24.757	ng		-0.01
Spiked Amount 25.000			Recovery =	99.04%			
73) Bromofluorobenzene (SS3)	23.49	174	518682	24.580	ng		0.00
Spiked Amount 25.000			Recovery =	98.32%			
Target Compounds							Qvalue
2) Propene	4.86	42	15010	0.653	ng		98
3) Dichlorodifluoromethane	5.02	85	24352	0.726	ng		98
4) Chloromethane	5.35	50	20620	0.696	ng		99
5) Freon 114	5.60	135	12855	0.683	ng		98
6) Vinyl Chloride	5.81	62	21252	0.682	ng		94
7) 1,3-Butadiene	6.09	54	15635	0.736	ng		95
8) Bromomethane	6.59	94	10544	0.651	ng		96
9) Chloroethane	6.94	64	10080	0.681	ng		97
10) Ethanol	7.21	45	50633	3.487	ng		93
11) Acetonitrile	7.56	41	25354	0.702	ng		96
12) Acrolein	7.79	56	6726	0.669	ng		96
13) Acetone	8.00	58	65691	4.492	ng		88
14) Trichlorofluoromethane	8.29	101	19871	0.679	ng		97
15) Isopropanol	8.46	45	60718	1.303	ng		92
16) Acrylonitrile	8.80	53	15418	0.671	ng		99
17) 1,1-Dichloroethene	9.33	96	13139	0.743	ng	#	58
18) tert-Butanol	9.44	59	49502	1.141	ng		87
19) Methylene Chloride	9.53	84	12905	0.696	ng	#	51
20) Allyl Chloride	9.72	41	17006	0.679	ng		79
21) Trichlorotrifluoroethane	10.00	151	10007	0.730	ng		98
22) Carbon Disulfide	9.94	76	45527	0.690	ng		98
23) trans-1,2-Dichloroethene	11.00	61	17382	0.659	ng		78
24) 1,1-Dichloroethane	11.30	63	21099	0.682	ng		96
25) Methyl tert-Butyl Ether	11.41	73	31331	0.634	ng		85
26) Vinyl Acetate	11.55	86	6377	2.180	ng	#	25
27) 2-Butanone	11.91	72	7034	0.670	ng	#	54
28) cis-1,2-Dichloroethene	12.57	61	18585	0.739	ng		74
29) Diisopropyl Ether	12.91	87	9822	0.645	ng	#	50
30) Ethyl Acetate	12.92	61	7157	1.177	ng		74
31) n-Hexane	12.93	57	23603	0.672	ng		91

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170915.D
Acq On : 17 Feb 2009 18:53
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:20:17 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	20270	0.715	ng		96
34) Tetrahydrofuran	13.60	72	7714	0.662	ng	#	58
35) Ethyl tert-Butyl Ether	13.72	87	12510	0.621	ng	#	66
36) 1,2-Dichloroethane	14.13	62	14410	0.673	ng		99
38) 1,1,1-Trichloroethane	14.54	97	16658	0.671	ng		92
39) Isopropyl Acetate	15.09	61	14038	1.256	ng	#	85
40) 1-Butanol	15.13	56	18610	1.042	ng		98
41) Benzene	15.23	78	56428	0.658	ng		98
42) Carbon Tetrachloride	15.46	117	13784	0.637	ng		95
43) Cyclohexane	15.66	84	39790	1.320	ng	#	67
44) tert-Amyl Methyl Ether	16.11	73	31834	0.630	ng	#	1
45) 1,2-Dichloropropane	16.44	63	12555	0.697	ng		94
46) Bromodichloromethane	16.70	83	14654	0.662	ng		95
47) Trichloroethene	16.77	130	14352	0.688	ng		93
48) 1,4-Dioxane	16.74	88	8410	0.633	ng	#	72
49) Isooctane	16.86	57	60402	0.685	ng		97
50) Methyl Methacrylate	17.03	100	8351	1.222	ng	#	73
51) n-Heptane	17.21	71	14165	0.681	ng	#	71
52) cis-1,3-Dichloropropene	17.96	75	17329	0.614	ng		99
53) 4-Methyl-2-pentanone	18.00	58	9069	0.593	ng		88
54) trans-1,3-Dichloropropene	18.66	75	16294	0.647	ng		99
55) 1,1,2-Trichloroethane	18.90	97	11089	0.660	ng		99
58) Toluene	19.28	91	56672	0.697	ng		99
59) 2-Hexanone	19.60	43	22236	0.613	ng		99
60) Dibromochloromethane	19.83	129	11538	0.685	ng		100
61) 1,2-Dibromoethane	20.15	107	12136	0.649	ng		99
62) Butyl Acetate	20.41	43	25067	0.603	ng		97
63) n-Octane	20.56	57	12750	0.672	ng	#	64
64) Tetrachloroethene	20.76	166	13108	0.656	ng		99
65) Chlorobenzene	21.63	112	34429	0.644	ng		99
66) Ethylbenzene	22.10	91	58538	0.623	ng		97
67) m- & p-Xylene	22.32	91	88612	1.224	ng		100
68) Bromoform	22.43	173	8393	0.615	ng		94
69) Styrene	22.79	104	33547	0.610	ng		97
70) o-Xylene	22.92	91	45256	0.609	ng		100
71) n-Nonane	23.18	43	29432	0.675	ng		93
72) 1,1,2,2-Tetrachloroethane	22.89	83	18045	0.623	ng		97
74) Cumene	23.67	105	55931	0.610	ng		98
75) alpha-Pinene	24.16	93	26124	0.624	ng		94
76) n-Propylbenzene	24.29	91	70012	0.601	ng		97
77) 3-Ethyltoluene	24.41	105	53659	0.614	ng		94
78) 4-Ethyltoluene	24.47	105	54878	0.637	ng		99
79) 1,3,5-Trimethylbenzene	24.56	105	45577	0.611	ng		98

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170915.D
Acq On : 17 Feb 2009 18:53
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:20:17 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

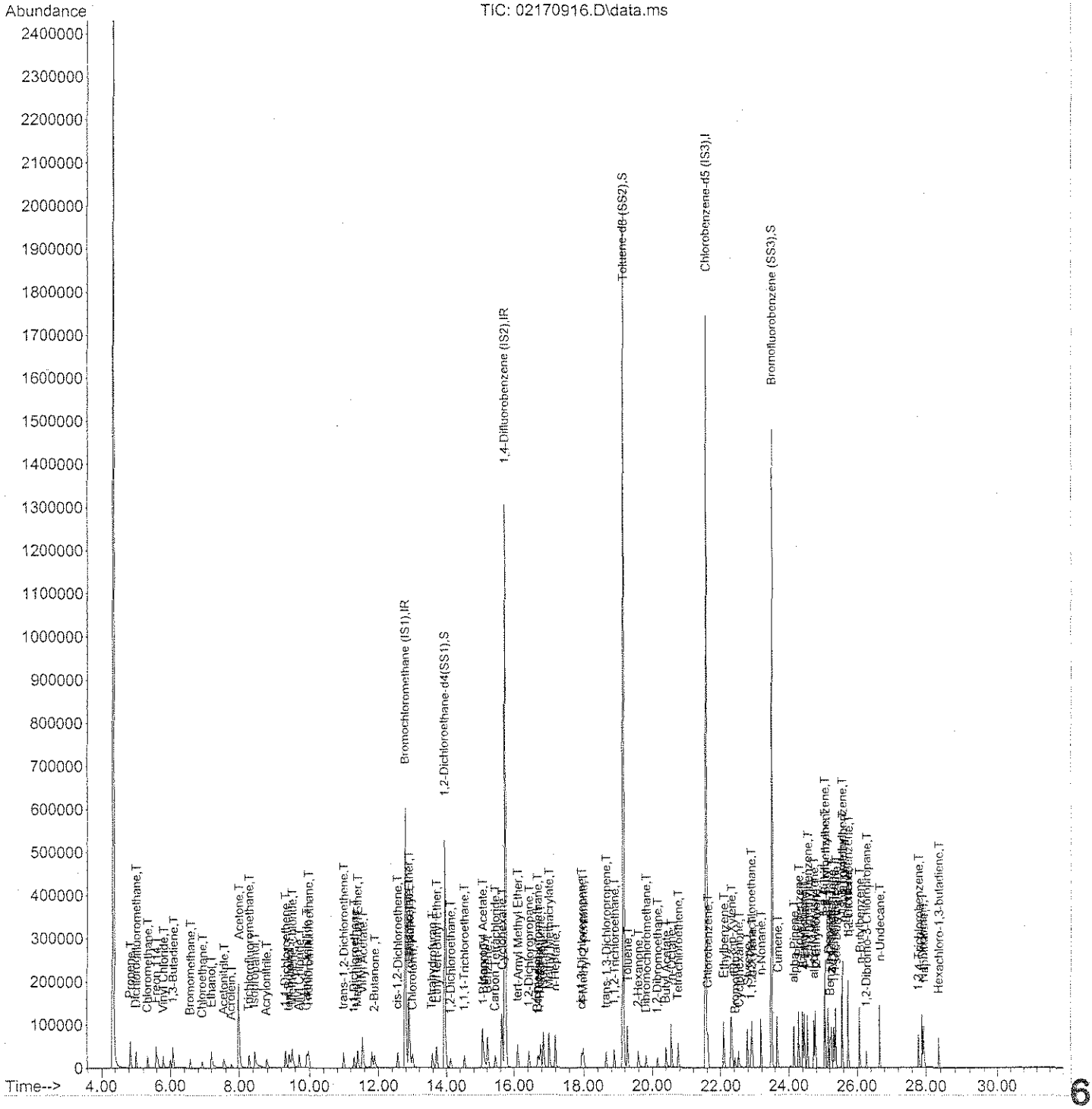
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.74	118	22293	0.558	ng		93
81) 2-Ethyltoluene	24.79	105	54487	0.614	ng		97
82) 1,2,4-Trimethylbenzene	25.05	105	45111	0.586	ng		96
83) n-Decane	25.16	57	29370	0.661	ng		80
84) Benzyl Chloride	25.23	91	28677	0.500	ng		97
85) 1,3-Dichlorobenzene	25.25	146	25658	0.626	ng		100
86) 1,4-Dichlorobenzene	25.33	146	26350	0.620	ng		98
87) sec-Butylbenzene	25.39	105	60847	0.607	ng		99
88) p-Isopropyltoluene	25.57	119	55208	0.576	ng		98
89) 1,2,3-Trimethylbenzene	25.58	105	45674	0.601	ng		96
90) 1,2-Dichlorobenzene	25.75	146	24138	0.619	ng		99
91) d-Limonene	25.75	68	17906	0.567	ng		97
92) 1,2-Dibromo-3-Chloropr...	26.28	157	6434	0.562	ng		91
93) n-Undecane	26.66	57	28838	0.620	ng		76
94) 1,2,4-Trichlorobenzene	27.80	184	4467	0.606	ng	#	89
95) Naphthalene	27.94	128	48185	0.485	ng		94
96) n-Dodecane	27.90	57	24072	0.459	ng		75
97) Hexachloro-1,3-butadiene	28.36	225	8967	0.610	ng		94
98) Cyclohexanone	22.53	55	12892	0.474	ng	#	90
99) tert-Butylbenzene	25.06	119	45453	0.614	ng		97
100) n-Butylbenzene	26.08	91	49346	0.628	ng		93

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

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170916.D
Acq On : 17 Feb 2009 19:34
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:21:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170916.D
Acq On : 17 Feb 2009 19:34
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:21:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	323771	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.75	114	1555819	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	767932	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	525261	25.435	ng		-0.03
Spiked Amount 25.000			Recovery = 101.76%				
57) Toluene-d8 (SS2)	19.15	98	1818735	24.618	ng		-0.01
Spiked Amount 25.000			Recovery = 98.48%				
73) Bromofluorobenzene (SS3)	23.49	174	512810	24.356	ng		0.00
Spiked Amount 25.000			Recovery = 97.44%				
Target Compounds							Qvalue
2) Propene	4.85	42	24722	1.077	ng		97
3) Dichlorodifluoromethane	5.01	85	41109	1.229	ng		98
4) Chloromethane	5.34	50	36483	1.234	ng		98
5) Freon 114	5.60	135	22394	1.193	ng		100
6) Vinyl Chloride	5.80	62	36699	1.180	ng		95
7) 1,3-Butadiene	6.09	54	27918	1.316	ng		96
8) Bromomethane	6.58	94	18814	1.165	ng		94
9) Chloroethane	6.93	64	18188	1.231	ng		94
10) Ethanol	7.20	45	88569	6.112	ng		98
11) Acetonitrile	7.56	41	44440	1.233	ng		95
12) Acrolein	7.78	56	12280	1.224	ng		97
13) Acetone	8.00	58	111761	7.658	ng		87
14) Trichlorofluoromethane	8.29	101	34101	1.168	ng		98
15) Isopropanol	8.45	45	109455	2.353	ng		93
16) Acrylonitrile	8.79	53	27901	1.216	ng		99
17) 1,1-Dichloroethene	9.33	96	21708	1.230	ng	#	60
18) tert-Butanol	9.42	59	89462	2.066	ng		93
19) Methylene Chloride	9.52	84	22128	1.196	ng	#	49
20) Allyl Chloride	9.72	41	30993	1.239	ng		78
21) Trichlorotrifluoroethane	9.98	151	16300	1.191	ng		92
22) Carbon Disulfide	9.93	76	78440	1.191	ng		100
23) trans-1,2-Dichloroethene	10.99	61	30712	1.167	ng		78
24) 1,1-Dichloroethane	11.30	63	37672	1.221	ng		98
25) Methyl tert-Butyl Ether	11.40	73	56275	1.140	ng		85
26) Vinyl Acetate	11.55	86	13526	4.634	ng	#	19
27) 2-Butanone	11.90	72	13637	1.301	ng	#	43
28) cis-1,2-Dichloroethene	12.57	61	31162	1.241	ng		73
29) Diisopropyl Ether	12.91	87	18382	1.210	ng	#	46
30) Ethyl Acetate	12.90	61	14039	2.313	ng	#	69
31) n-Hexane	12.93	57	39942	1.139	ng		88

BM 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170916.D
Acq On : 17 Feb 2009 19:34
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:21:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	34821	1.231	ng		98
34) Tetrahydrofuran	13.59	72	14078	1.211	ng	#	53
35) Ethyl tert-Butyl Ether	13.72	87	22627	1.125	ng	#	64
36) 1,2-Dichloroethane	14.13	62	25983	1.217	ng		98
38) 1,1,1-Trichloroethane	14.53	97	28966	1.178	ng		94
39) Isopropyl Acetate	15.08	61	27146	2.452	ng	#	81
40) 1-Butanol	15.11	56	35610	2.013	ng	#	1
41) Benzene	15.23	78	92562	1.090	ng		98
42) Carbon Tetrachloride	15.46	117	24978	1.165	ng		100
43) Cyclohexane	15.66	84	68935	2.310	ng	#	66
44) tert-Amyl Methyl Ether	16.11	73	56476	1.128	ng	#	1
45) 1,2-Dichloropropane	16.44	63	22173	1.244	ng		96
46) Bromodichloromethane	16.70	83	26155	1.193	ng		97
47) Trichloroethene	16.77	130	24363	1.179	ng		94
48) 1,4-Dioxane	16.73	88	16284	1.238	ng	#	70
49) Isooctane	16.86	57	103596	1.187	ng		98
50) Methyl Methacrylate	17.03	100	16442	2.428	ng	#	80
51) n-Heptane	17.21	71	24480	1.189	ng	#	70
52) cis-1,3-Dichloropropene	17.95	75	31839	1.139	ng		100
53) 4-Methyl-2-pentanone	18.00	58	18677	1.232	ng		83
54) trans-1,3-Dichloropropene	18.66	75	30085	1.206	ng		97
55) 1,1,2-Trichloroethane	18.90	97	19743	1.186	ng		97
58) Toluene	19.28	91	97778	1.206	ng		99
59) 2-Hexanone	19.59	43	45090	1.246	ng		99
60) Dibromochloromethane	19.83	129	20896	1.243	ng		99
61) 1,2-Dibromoethane	20.15	107	22090	1.183	ng		98
62) Butyl Acetate	20.40	43	49770	1.201	ng		96
63) n-Octane	20.56	57	22049	1.164	ng	#	66
64) Tetrachloroethene	20.76	166	22167	1.112	ng		96
65) Chlorobenzene	21.63	112	59338	1.113	ng		99
66) Ethylbenzene	22.10	91	103341	1.102	ng		97
67) m- & p-Xylene	22.32	91	157673	2.183	ng		100
68) Bromoform	22.42	173	15361	1.128	ng		96
69) Styrene	22.78	104	59872	1.091	ng		99
70) o-Xylene	22.92	91	81508	1.099	ng		98
71) n-Nonane	23.18	43	50619	1.163	ng		91
72) 1,1,2,2-Tetrachloroethane	22.89	83	33011	1.141	ng		99
74) Cumene	23.67	105	100654	1.101	ng		99
75) alpha-Pinene	24.16	93	47352	1.133	ng		95
76) n-Propylbenzene	24.29	91	125987	1.083	ng		98
77) 3-Ethyltoluene	24.41	105	98125	1.126	ng		100
78) 4-Ethyltoluene	24.47	105	97228	1.131	ng		98
79) 1,3,5-Trimethylbenzene	24.55	105	81323	1.092	ng		98

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170916.D
Acq On : 17 Feb 2009 19:34
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:21:46 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

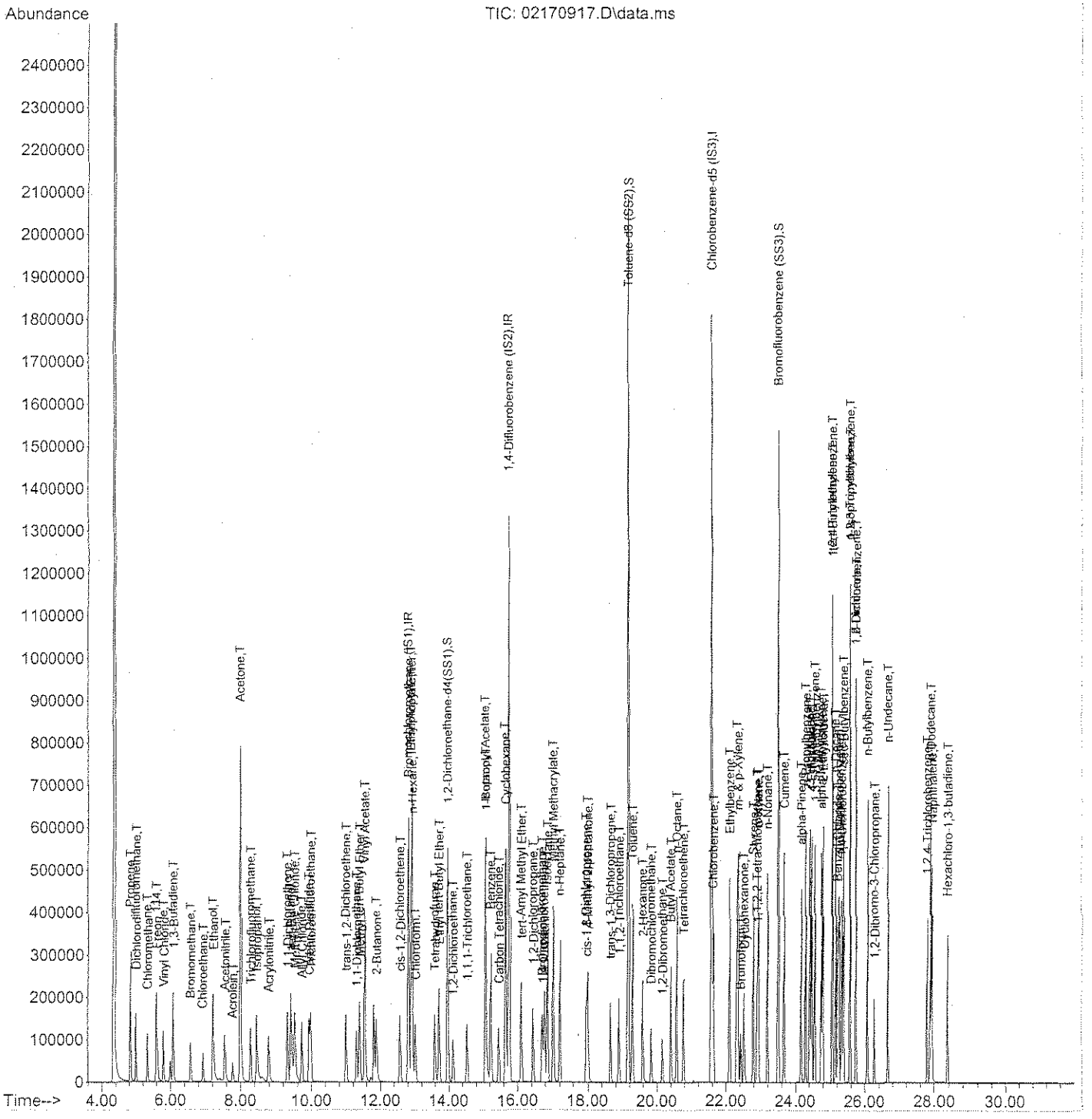
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	40973	1.028	ng		93
81) 2-Ethyltoluene	24.79	105	99361	1.121	ng		98
82) 1,2,4-Trimethylbenzene	25.05	105	81077	1.055	ng		95
83) n-Decane	25.16	57	51906	1.170	ng		77
84) Benzyl Chloride	25.22	91	57051	0.997	ng		100
85) 1,3-Dichlorobenzene	25.25	146	44787	1.095	ng		100
86) 1,4-Dichlorobenzene	25.33	146	46443	1.096	ng		99
87) sec-Butylbenzene	25.39	105	111818	1.117	ng		98
88) p-Isopropyltoluene	25.57	119	99522	1.041	ng		98
89) 1,2,3-Trimethylbenzene	25.57	105	82287	1.085	ng		96
90) 1,2-Dichlorobenzene	25.75	146	42059	1.081	ng		98
91) d-Limonene	25.75	68	33177	1.053	ng		98
92) 1,2-Dibromo-3-Chloropr...	26.28	157	13018	1.141	ng		86
93) n-Undecane	26.66	57	52201	1.124	ng		76
94) 1,2,4-Trichlorobenzene	27.80	184	8256	1.122	ng	#	92
95) Naphthalene	27.94	128	93919	0.947	ng		98
96) n-Dodecane	27.90	57	48161	0.921	ng		76
97) Hexachloro-1,3-butadiene	28.36	225	16174	1.103	ng		97
98) Cyclohexanone	22.52	55	26368	0.971	ng		89
99) tert-Butylbenzene	25.05	119	80781	1.094	ng		99
100) n-Butylbenzene	26.08	91	91148	1.162	ng		92

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

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170917.D
Acq On : 17 Feb 2009 20:16
Operator : EM
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:23:26 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170917.D
Acq On : 17 Feb 2009 20:16
Operator : EM
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:23:26 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.81	130	329926	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.75	114	1586573	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.57	82	785194	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	537457	25.540	ng		-0.03
Spiked Amount 25.000			Recovery =	102.16%			
57) Toluene-d8 (SS2)	19.15	98	1848060	24.465	ng		-0.01
Spiked Amount 25.000			Recovery =	97.88%			
73) Bromofluorobenzene (SS3)	23.49	174	529420	24.593	ng		0.00
Spiked Amount 25.000			Recovery =	98.36%			
Target Compounds							Qvalue
2) Propene	4.84	42	139766	5.977	ng		98
3) Dichlorodifluoromethane	5.01	85	179243	5.258	ng		98
4) Chloromethane	5.33	50	156540	5.197	ng		97
5) Freon 114	5.60	135	94256	4.927	ng		99
6) Vinyl Chloride	5.80	62	160059	5.049	ng		94
7) 1,3-Butadiene	6.08	54	123882	5.732	ng		96
8) Bromomethane	6.58	94	86176	5.236	ng		97
9) Chloroethane	6.92	64	80430	5.344	ng		95
10) Ethanol	7.22	45	410678	27.814	ng		99
11) Acetonitrile	7.56	41	198001	5.392	ng		97
12) Acrolein	7.77	56	58962	5.768	ng		100
13) Acetone	7.99	58	498890	33.548	ng	#	85
14) Trichlorofluoromethane	8.29	101	146567	4.929	ng		97
15) Isopropanol	8.46	45	363899	7.678	ng		94
16) Acrylonitrile	8.79	53	134916	5.771	ng		100
17) 1,1-Dichloroethene	9.32	96	93114	5.179	ng	#	61
18) tert-Butanol	9.42	59	434296	9.843	ng		95
19) Methylene Chloride	9.53	84	97284	5.158	ng	#	48
20) Allyl Chloride	9.72	41	148148	5.814	ng		75
21) Trichlorotrifluoroethane	9.98	151	73042	5.237	ng		96
22) Carbon Disulfide	9.93	76	349581	5.208	ng		99
23) trans-1,2-Dichloroethene	11.00	61	138748	5.176	ng		76
24) 1,1-Dichloroethane	11.30	63	174140	5.537	ng		97
25) Methyl tert-Butyl Ether	11.40	73	264494	5.259	ng		84
26) Vinyl Acetate	11.54	86	79129	26.602	ng	#	9
27) 2-Butanone	11.89	72	67884	6.357	ng	#	32
28) cis-1,2-Dichloroethene	12.57	61	138953	5.432	ng		74
29) Diisopropyl Ether	12.90	87	82357	5.319	ng	#	52
30) Ethyl Acetate	12.90	61	72805	11.772	ng	#	71
31) n-Hexane	12.93	57	176787	4.949	ng		88

Em 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170917.D
Acq On : 17 Feb 2009 20:16
Operator : EM
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:23:26 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.02	83	152411	5.289	ng		98
34) Tetrahydrofuran	13.58	72	66880	5.646	ng	#	50
35) Ethyl tert-Butyl Ether	13.71	87	104189	5.085	ng	#	63
36) 1,2-Dichloroethane	14.13	62	117981	5.421	ng		98
38) 1,1,1-Trichloroethane	14.54	97	132747	5.295	ng		93
39) Isopropyl Acetate	15.07	61	130075	11.523	ng	#	82
40) 1-Butanol	15.08	56	190986	10.588	ng		92
41) Benzene	15.23	78	400939	4.631	ng		99
42) Carbon Tetrachloride	15.46	117	112495	5.145	ng		98
43) Cyclohexane	15.66	84	306793	10.080	ng	#	65
44) tert-Amyl Methyl Ether	16.11	73	258046	5.056	ng	#	1
45) 1,2-Dichloropropane	16.44	63	101567	5.586	ng		93
46) Bromodichloromethane	16.70	83	118878	5.316	ng		96
47) Trichloroethene	16.78	130	99104	4.705	ng		96
48) 1,4-Dioxane	16.72	88	77267	5.761	ng	#	70
49) Isooctane	16.86	57	453629	5.097	ng		97
50) Methyl Methacrylate	17.02	100	80541	11.664	ng	#	78
51) n-Heptane	17.21	71	107905	5.138	ng	#	68
52) cis-1,3-Dichloropropene	17.96	75	151450	5.314	ng		99
53) 4-Methyl-2-pentanone	17.99	58	94689	6.127	ng		79
54) trans-1,3-Dichloropropene	18.65	75	149858	5.893	ng		97
55) 1,1,2-Trichloroethane	18.90	97	90197	5.315	ng		99
58) Toluene	19.28	91	425688	5.133	ng		100
59) 2-Hexanone	19.58	43	226019	6.107	ng		92
60) Dibromochloromethane	19.82	129	95611	5.561	ng		98
61) 1,2-Dibromoethane	20.15	107	99504	5.214	ng		98
62) Butyl Acetate	20.39	43	265218	6.257	ng		96
63) n-Octane	20.56	57	96396	4.977	ng	#	65
64) Tetrachloroethene	20.76	166	95382	4.678	ng		97
65) Chlorobenzene	21.63	112	262042	4.806	ng		100
66) Ethylbenzene	22.10	91	464179	4.842	ng		98
67) m- & p-Xylene	22.33	91	708530	9.595	ng		99
68) Bromoform	22.42	173	71984	5.170	ng		96
69) Styrene	22.78	104	281262	5.015	ng		99
70) o-Xylene	22.92	91	364798	4.812	ng		100
71) n-Nonane	23.18	43	225981	5.077	ng		91
72) 1,1,2,2-Tetrachloroethane	22.89	83	162097	5.482	ng		97
74) Cumene	23.67	105	457607	4.895	ng		98
75) alpha-Pinene	24.16	93	224235	5.246	ng		95
76) n-Propylbenzene	24.29	91	573972	4.827	ng		97
77) 3-Ethyltoluene	24.41	105	452705	5.082	ng		100
78) 4-Ethyltoluene	24.47	105	449584	5.113	ng		97
79) 1,3,5-Trimethylbenzene	24.56	105	374759	4.924	ng		97

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170917.D
Acq On : 17 Feb 2009 20:16
Operator : EM
Sample : 5.0ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090905
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:23:26 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

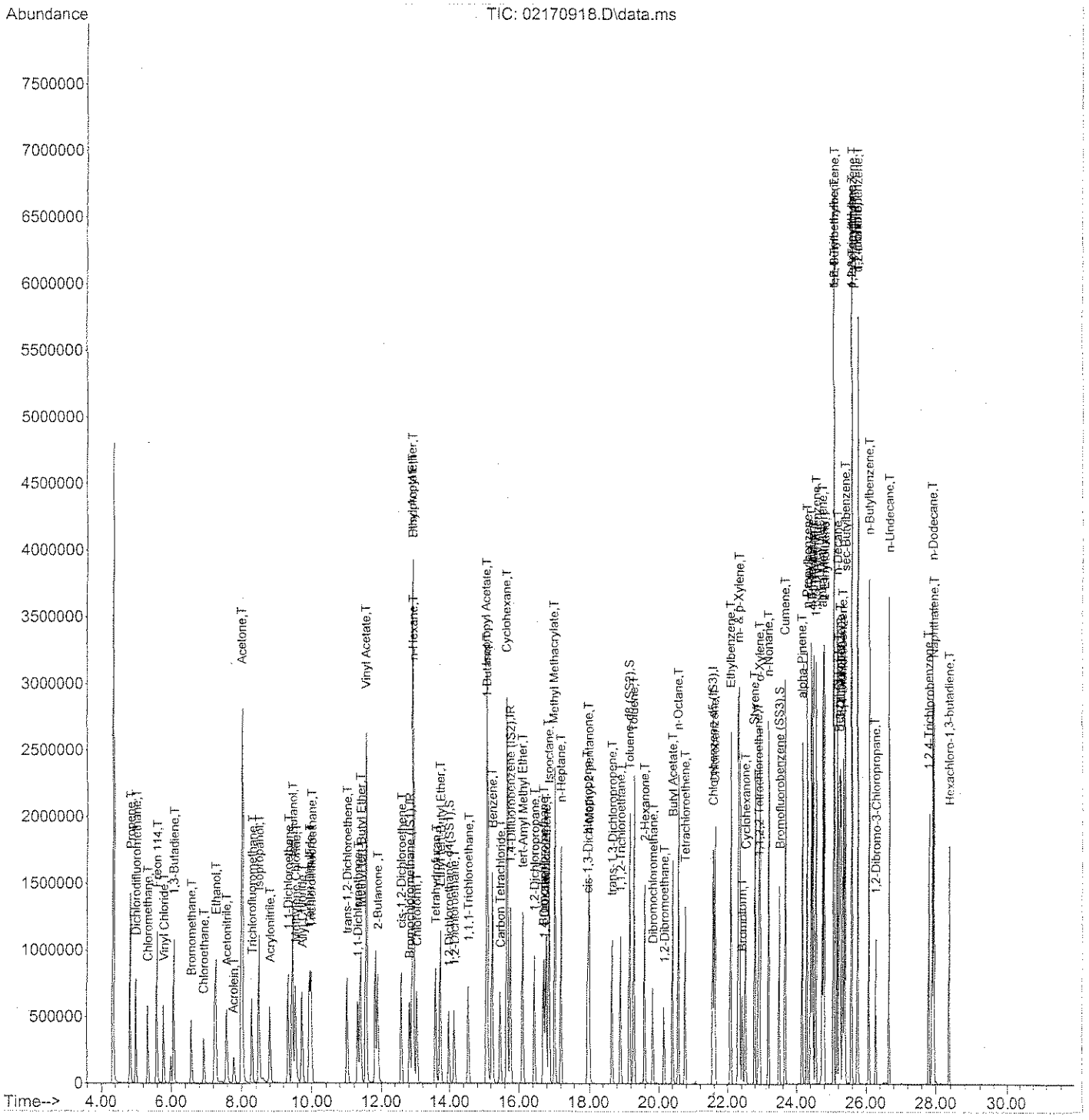
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.74	118	196944	4.831	ng		97
81) 2-Ethyltoluene	24.79	105	451377	4.982	ng		97
82) 1,2,4-Trimethylbenzene	25.05	105	380518	4.844	ng		95
83) n-Decane	25.16	57	239323	5.277	ng		79
84) Benzyl Chloride	25.22	91	315631	5.394	ng		99
85) 1,3-Dichlorobenzene	25.25	146	204001	4.876	ng		100
86) 1,4-Dichlorobenzene	25.33	146	208046	4.801	ng		99
87) sec-Butylbenzene	25.39	105	512551	5.009	ng		99
88) p-Isopropyltoluene	25.57	119	464075	4.747	ng		98
89) 1,2,3-Trimethylbenzene	25.57	105	382499	4.933	ng		96
90) 1,2-Dichlorobenzene	25.75	146	192830	4.849	ng		99
91) d-Limonene	25.75	68	157519	4.890	ng		98
92) 1,2-Dibromo-3-Chloropr...	26.28	157	63992	5.483	ng		88
93) n-Undecane	26.66	57	248977	5.243	ng		76
94) 1,2,4-Trichlorobenzene	27.80	184	40940	5.442	ng	#	91
95) Naphthalene	27.94	128	469167	4.628	ng		99
96) n-Dodecane	27.90	57	238295	4.456	ng		74
97) Hexachloro-1,3-butadiene	28.37	225	75512	5.034	ng		97
98) Cyclohexanone	22.52	55	126043	4.539	ng	#	89
99) tert-Butylbenzene	25.06	119	372667	4.937	ng		98
100) n-Butylbenzene	26.08	91	423938	5.287	ng		94

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

Eam 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170918.D
Acq On : 17 Feb 2009 20:57
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:24:49 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170918.D
Acq On : 17 Feb 2009 20:57
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:24:49 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	322237	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.77	114	1549940	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.57	82	767143	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.98	65	523733	25.482	ng		-0.02
Spiked Amount 25.000			Recovery = 101.92%				
57) Toluene-d8 (SS2)	19.16	98	1799947	24.389	ng		0.00
Spiked Amount 25.000			Recovery = 97.56%				
73) Bromofluorobenzene (SS3)	23.50	174	514104	24.443	ng		0.00
Spiked Amount 25.000			Recovery = 97.76%				
Target Compounds							Qvalue
2) Propene	4.83	42	665112	29.123	ng		98
3) Dichlorodifluoromethane	5.00	85	913164	27.426	ng		99
4) Chloromethane	5.33	50	838916	28.514	ng		99
5) Freon 114	5.59	135	496652	26.581	ng		98
6) Vinyl Chloride	5.79	62	837076	27.033	ng		94
7) 1,3-Butadiene	6.08	54	668625	31.674	ng		97
8) Bromomethane	6.57	94	462826	28.790	ng		96
9) Chloroethane	6.92	64	423028	28.778	ng		95
10) Ethanol	7.27	45	2085348	144.603	ng		100
11) Acetonitrile	7.57	41	1033778	28.824	ng		98
12) Acrolein	7.78	56	312470	31.299	ng		100
13) Acetone	8.00	58	2031281	139.855	ng	#	83
14) Trichlorofluoromethane	8.29	101	768954	26.474	ng		97
15) Isopropanol	8.49	45	2277833	49.204	ng		97
16) Acrylonitrile	8.81	53	730753	32.006	ng		99
17) 1,1-Dichloroethene	9.32	96	493575	28.109	ng	#	59
18) tert-Butanol	9.45	59	2361481	54.796	ng		96
19) Methylene Chloride	9.54	84	511347	27.758	ng	#	48
20) Allyl Chloride	9.73	41	818421	32.883	ng		75
21) Trichlorotrifluoroethane	9.98	151	389157	28.566	ng		96
22) Carbon Disulfide	9.93	76	1858220	28.346	ng		99
23) trans-1,2-Dichloroethene	11.00	61	747760	28.560	ng		77
24) 1,1-Dichloroethane	11.32	63	922907	30.048	ng		97
25) Methyl tert-Butyl Ether	11.40	73	1435591	29.226	ng		85
26) Vinyl Acetate	11.56	86	524643	180.584	ng	#	6
27) 2-Butanone	11.89	72	370452	35.521	ng	#	29
28) cis-1,2-Dichloroethene	12.58	61	733259	29.350	ng		72
29) Diisopropyl Ether	12.91	87	450087	29.762	ng	#	50
30) Ethyl Acetate	12.91	61	414949	68.693	ng	#	72
31) n-Hexane	12.93	57	956894	27.425	ng		88

EM 2/18/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170918.D
Acq On : 17 Feb 2009 20:57
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:24:49 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.03	83	809239	28.752	ng		98
34) Tetrahydrofuran	13.58	72	353881	30.587	ng	#	52
35) Ethyl tert-Butyl Ether	13.72	87	565442	28.254	ng	#	62
36) 1,2-Dichloroethane	14.14	62	627757	29.533	ng		97
38) 1,1,1-Trichloroethane	14.54	97	713209	29.121	ng		93
39) Isopropyl Acetate	15.07	61	725626	65.801	ng	#	82
40) 1-Butanol	15.10	56	1244696	70.635	ng		84
41) Benzene	15.24	78	2107365	24.918	ng		97
42) Carbon Tetrachloride	15.47	117	610290	28.572	ng		98
43) Cyclohexane	15.66	84	1636904	55.054	ng	#	65
44) tert-Amyl Methyl Ether	16.11	73	1395427	27.986	ng	#	1
45) 1,2-Dichloropropane	16.45	63	544240	30.642	ng		96
46) Bromodichloromethane	16.70	83	645553	29.552	ng		96
47) Trichloroethene	16.78	130	524686	25.497	ng		96
48) 1,4-Dioxane	16.73	88	435145	33.212	ng	#	70
49) Isooctane	16.87	57	2401455	27.618	ng		97
50) Methyl Methacrylate	17.03	100	459794	68.162	ng	#	81
51) n-Heptane	17.22	71	574850	28.018	ng	#	70
52) cis-1,3-Dichloropropene	17.96	75	830360	29.826	ng		98
53) 4-Methyl-2-pentanone	17.99	58	535530	35.473	ng		77
54) trans-1,3-Dichloropropene	18.66	75	836086	33.656	ng		96
55) 1,1,2-Trichloroethane	18.90	97	490471	29.585	ng		99
58) Toluene	19.29	91	2279816	28.139	ng		100
59) 2-Hexanone	19.59	43	1302408	36.019	ng		91
60) Dibromochloromethane	19.83	129	531295	31.630	ng		96
61) 1,2-Dibromoethane	20.16	107	549142	29.450	ng		98
62) Butyl Acetate	20.40	43	1540756	37.204	ng		96
63) n-Octane	20.57	57	516410	27.292	ng	#	65
64) Tetrachloroethene	20.76	166	510414	25.620	ng		95
65) Chlorobenzene	21.63	112	1406123	26.397	ng		100
66) Ethylbenzene	22.10	91	2512492	26.825	ng		98
67) m- & p-Xylene	22.33	91	3878840	53.766	ng		99
68) Bromoform	22.43	173	415399	30.539	ng		97
69) Styrene	22.78	104	1555030	28.376	ng		99
70) o-Xylene	22.93	91	1990988	26.878	ng		100
71) n-Nonane	23.19	43	1212518	27.883	ng		90
72) 1,1,2,2-Tetrachloroethane	22.89	83	894435	30.960	ng		98
74) Cumene	23.67	105	2481020	27.163	ng		98
75) alpha-Pinene	24.16	93	1235572	29.588	ng		95
76) n-Propylbenzene	24.29	91	3113587	26.804	ng		98
77) 3-Ethyltoluene	24.41	105	2512668	28.868	ng		99
78) 4-Ethyltoluene	24.47	105	2419877	28.168	ng		97
79) 1,3,5-Trimethylbenzene	24.56	105	2051460	27.587	ng		97

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170918.D
Acq On : 17 Feb 2009 20:57
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

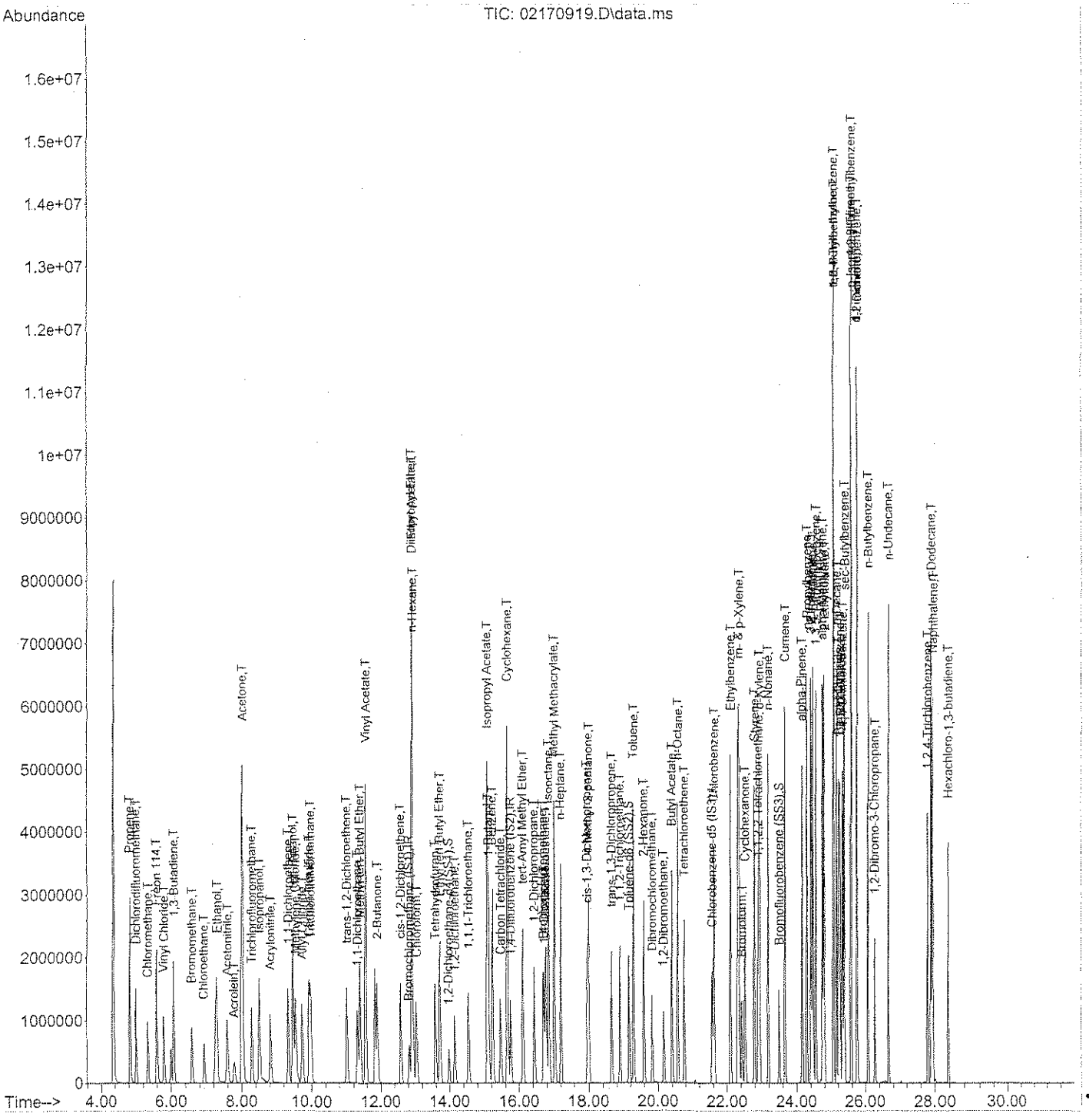
Quant Time: Feb 18 07:24:49 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	1144722	28.740	ng		98
81) 2-Ethyltoluene	24.80	105	2455902	27.745	ng		97
82) 1,2,4-Trimethylbenzene	25.06	105	2161951	28.168	ng		95
83) n-Decane	25.16	57	1295569	29.238	ng		78
84) Benzyl Chloride	25.23	91	1889408	33.049	ng		99
85) 1,3-Dichlorobenzene	25.26	146	1108204	27.114	ng		99
86) 1,4-Dichlorobenzene	25.33	146	1127572	26.633	ng		98
87) sec-Butylbenzene	25.39	105	2801677	28.025	ng		99
88) p-Isopropyltoluene	25.57	119	2618882	27.419	ng		98
89) 1,2,3-Trimethylbenzene	25.58	105	2170222	28.647	ng		95
90) 1,2-Dichlorobenzene	25.75	146	1070805	27.560	ng		98
91) d-Limonene	25.75	68	956342	30.390	ng		98
92) 1,2-Dibromo-3-Chloropr...	26.28	157	356035	31.225	ng	#	85
93) n-Undecane	26.66	57	1339743	28.875	ng		75
94) 1,2,4-Trichlorobenzene	27.80	184	216883	29.507	ng		89
95) Naphthalene	27.94	128	2552932	25.776	ng		100
96) n-Dodecane	27.90	57	1257425	24.066	ng		73
97) Hexachloro-1,3-butadiene	28.37	225	395197	26.967	ng		97
98) Cyclohexanone	22.52	55	780845	28.779	ng	#	89
99) tert-Butylbenzene	25.07	119	2100700	28.483	ng		97
100) n-Butylbenzene	26.08	91	2331621	29.760	ng		95

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

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170919.D
Acq On : 17 Feb 2009 21:38
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:28:24 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170919.D
Acq On : 17 Feb 2009 21:38
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:28:24 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.83	130	325939	25.000	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	15.77	114	1570223	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.58	82	775515	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.98	65	528025	25.399	ng		-0.01
Spiked Amount 25.000			Recovery =	101.60%			
57) Toluene-d8 (SS2)	19.16	98	1823114	24.436	ng		0.00
Spiked Amount 25.000			Recovery =	97.76%			
73) Bromofluorobenzene (SS3)	23.50	174	526664	24.770	ng		0.00
Spiked Amount 25.000			Recovery =	99.08%			
Target Compounds							Qvalue
2) Propene	4.84	42	1428986	61.859	ng		98
3) Dichlorodifluoromethane	5.01	85	1768037	52.498	ng		99
4) Chloromethane	5.34	50	1502178	50.478	ng		99
5) Freon 114	5.59	135	945624	50.036	ng		98
6) Vinyl Chloride	5.80	62	1576657	50.339	ng		94
7) 1,3-Butadiene	6.09	54	1267303	59.353	ng		98
8) Bromomethane	6.59	94	886492	54.517	ng		96
9) Chloroethane	6.93	64	828155	55.698	ng		94
10) Ethanol	7.30	45	4193464	287.482	ng		99
11) Acetonitrile	7.60	41	1995080	54.995	ng		99
12) Acrolein	7.79	56	608282	60.238	ng		99
13) Acetone	8.03	58	3951720	268.988	ng	#	80
14) Trichlorofluoromethane	8.29	101	1490871	50.746	ng		97
15) Isopropanol	8.52	45	3680635	78.604	ng		98
16) Acrylonitrile	8.83	53	1415580	61.296	ng		99
17) 1,1-Dichloroethene	9.33	96	958370	53.959	ng	#	59
18) tert-Butanol	9.48	59	4313280	98.949	ng		97
19) Methylene Chloride	9.55	84	993341	53.310	ng	#	48
20) Allyl Chloride	9.74	41	1590985	63.197	ng		74
21) Trichlorotrifluoroethane	9.99	151	761654	55.274	ng		96
22) Carbon Disulfide	9.94	76	3615618	54.528	ng		98
23) trans-1,2-Dichloroethene	11.01	61	1447795	54.668	ng		76
24) 1,1-Dichloroethane	11.33	63	1788926	57.581	ng		96
25) Methyl tert-Butyl Ether	11.40	73	2868689	57.738	ng		85
26) Vinyl Acetate	11.58	86	1031036	350.855	ng	#	1
27) 2-Butanone	11.91	72	722202	68.462	ng	#	27
28) cis-1,2-Dichloroethene	12.59	61	1421459	56.250	ng	#	72
29) Diisopropyl Ether	12.92	87	903608	59.073	ng	#	44
30) Ethyl Acetate	12.93	61	828325	135.568	ng	#	72
31) n-Hexane	12.94	57	1914895	54.259	ng		87

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Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170919.D
Acq On : 17 Feb 2009 21:38
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:28:24 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.05	83	1576845	55.389	ng		98
34) Tetrahydrofuran	13.59	72	668560	57.129	ng	#	51
35) Ethyl tert-Butyl Ether	13.73	87	1132633	55.954	ng	#	62
36) 1,2-Dichloroethane	14.15	62	1207722	56.172	ng		97
38) 1,1,1-Trichloroethane	14.55	97	1387337	55.914	ng		93
39) Isopropyl Acetate	15.09	61	1429702	127.974	ng	#	79
40) 1-Butanol	15.13	56	2440076	136.682	ng		82
41) Benzene	15.25	78	4103504	47.894	ng		97
42) Carbon Tetrachloride	15.47	117	1203146	55.600	ng		98
43) Cyclohexane	15.67	84	3243106	107.667	ng	#	64
44) tert-Amyl Methyl Ether	16.11	73	2704440	53.538	ng	#	1
45) 1,2-Dichloropropane	16.45	63	1059667	58.891	ng		95
46) Bromodichloromethane	16.71	83	1263572	57.096	ng		96
47) Trichloroethene	16.79	130	1025565	49.194	ng		95
48) 1,4-Dioxane	16.73	88	852096	64.195	ng	#	71
49) Isooctane	16.87	57	4644444	52.725	ng		97
50) Methyl Methacrylate	17.04	100	914667	133.844	ng	#	82
51) n-Heptane	17.22	71	1123115	54.033	ng	#	69
52) cis-1,3-Dichloropropene	17.96	75	1621994	57.508	ng		98
53) 4-Methyl-2-pentanone	18.00	58	1054103	68.920	ng		77
54) trans-1,3-Dichloropropene	18.66	75	1643288	65.295	ng		96
55) 1,1,2-Trichloroethane	18.90	97	958181	57.051	ng		99
58) Toluene	19.30	91	4415873	53.915	ng		99
59) 2-Hexanone	19.59	43	2534245	69.330	ng		90
60) Dibromochloromethane	19.83	129	1044818	61.530	ng		96
61) 1,2-Dibromoethane	20.16	107	1075876	57.075	ng		98
62) Butyl Acetate	20.40	43	3095213	73.932	ng		95
63) n-Octane	20.58	57	1011425	52.876	ng	#	65
64) Tetrachloroethene	20.77	166	1009710	50.135	ng		96
65) Chlorobenzene	21.63	112	2730101	50.699	ng		99
66) Ethylbenzene	22.11	91	4921525	51.977	ng		99
67) m- & p-Xylene	22.34	91	7680147	105.309	ng		98
68) Bromoform	22.43	173	830336	60.385	ng		97
69) Styrene	22.79	104	3072087	55.455	ng		99
70) o-Xylene	22.93	91	3944199	52.672	ng		100
71) n-Nonane	23.19	43	2348806	53.430	ng		89
72) 1,1,2,2-Tetrachloroethane	22.90	83	1789944	61.289	ng		98
74) Cumene	23.67	105	4898146	53.047	ng		97
75) alpha-Pinene	24.16	93	2448457	58.000	ng		95
76) n-Propylbenzene	24.29	91	6116147	52.083	ng		98
77) 3-Ethyltoluene	24.42	105	4897062	55.655	ng		97
78) 4-Ethyltoluene	24.47	105	4897481	56.392	ng		98
79) 1,3,5-Trimethylbenzene	24.56	105	4093249	54.449	ng		97

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170919.D
Acq On : 17 Feb 2009 21:38
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:28:24 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

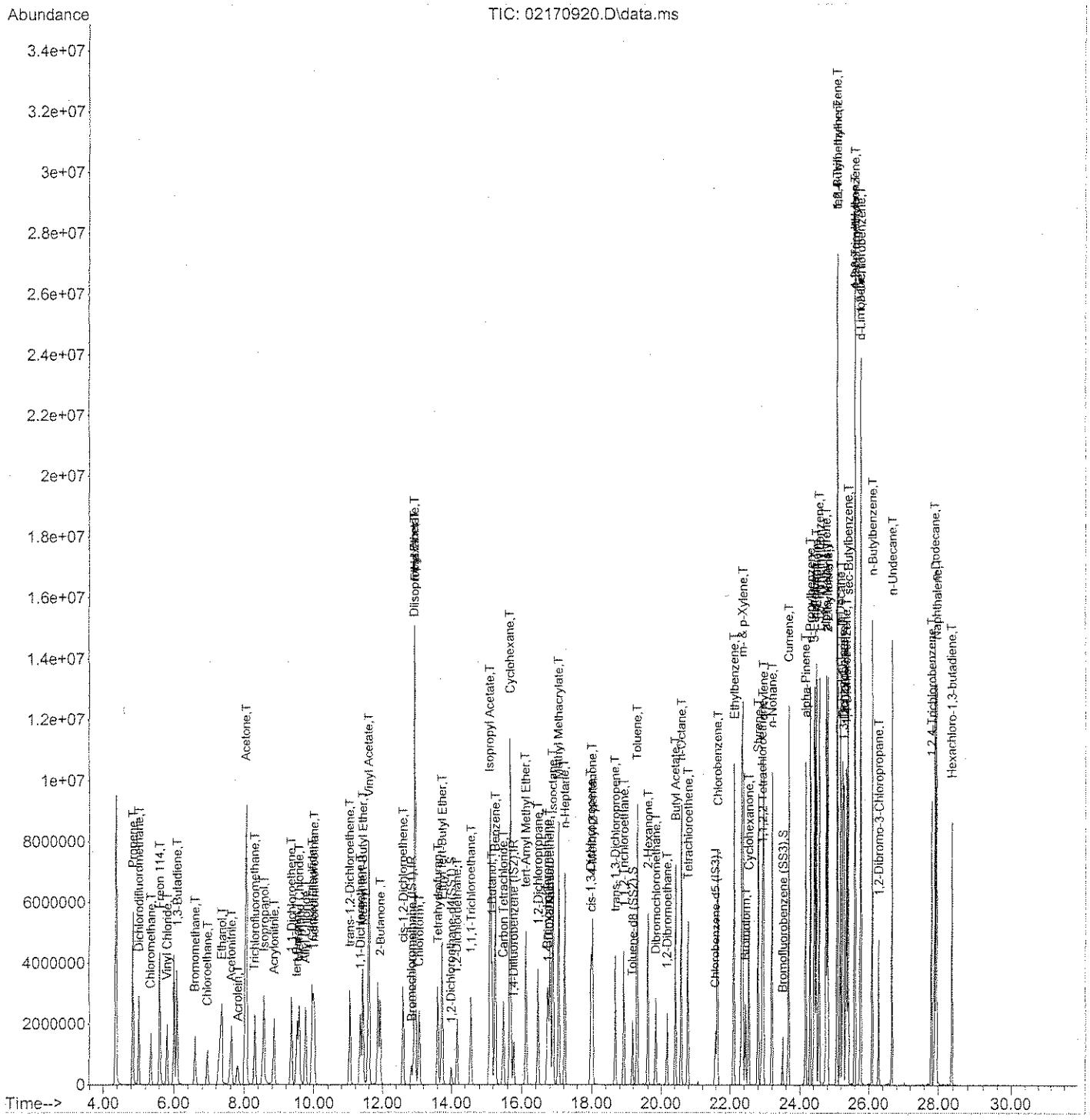
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	2302499	57.184	ng		97
81) 2-Ethyltoluene	24.80	105	4897288	54.728	ng		97
82) 1,2,4-Trimethylbenzene	25.07	105	4474879	57.673	ng		95
83) n-Decane	25.16	57	2560251	57.156	ng		77
84) Benzyl Chloride	25.23	91	3877119	67.085	ng		99
85) 1,3-Dichlorobenzene	25.26	146	2232417	54.030	ng		99
86) 1,4-Dichlorobenzene	25.34	146	2270313	53.045	ng		98
87) sec-Butylbenzene	25.39	105	5554907	54.966	ng		99
88) p-Isopropyltoluene	25.58	119	5407603	56.005	ng		98
89) 1,2,3-Trimethylbenzene	25.59	105	4488477	58.609	ng		95
90) 1,2-Dichlorobenzene	25.76	146	2226330	56.681	ng		98
91) d-Limonene	25.75	68	1939720	60.973	ng		99
92) 1,2-Dibromo-3-Chloropr...	26.28	157	732444	63.543	ng	#	85
93) n-Undecane	26.66	57	2674544	57.021	ng		74
94) 1,2,4-Trichlorobenzene	27.80	184	462562	62.252	ng	#	89
95) Naphthalene	27.95	128	5459185	54.524	ng		100
96) n-Dodecane	27.90	57	2618828	49.581	ng		72
97) Hexachloro-1,3-butadiene	28.37	225	832307	56.182	ng		97
98) Cyclohexanone	22.52	55	1540608	56.168	ng	#	88
99) tert-Butylbenzene	25.07	119	4324288	57.999	ng		97
100) n-Butylbenzene	26.08	91	4655248	58.776	ng		95

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

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170920.D
Acq On : 17 Feb 2009 22:20
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:29:08 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170920.D
Acq On : 17 Feb 2009 22:20
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:29:08 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.85	130	339694	25.000	ng		0.00
37) 1,4-Difluorobenzene (IS2)	15.78	114	1633143	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.57	82	803598	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	14.00	65	546520	25.224	ng		0.00
Spiked Amount 25.000			Recovery = 100.88%				
57) Toluene-d8 (SS2)	19.16	98	1894644	24.508	ng		0.00
Spiked Amount 25.000			Recovery = 98.04%				
73) Bromofluorobenzene (SS3)	23.50	174	543428	24.665	ng		0.00
Spiked Amount 25.000			Recovery = 98.68%				
Target Compounds							Qvalue
2) Propene	4.84	42	2905484	120.682	ng		98
3) Dichlorodifluoromethane	5.01	85	3571506	101.755	ng		99
4) Chloromethane	5.35	50	2724653	87.849	ng		100
5) Freon 114	5.60	135	1922197	97.590	ng		98
6) Vinyl Chloride	5.81	62	3132712	95.970	ng		93
7) 1,3-Butadiene	6.09	54	2577041	115.805	ng		98
8) Bromomethane	6.60	94	1752708	103.422	ng		96
9) Chloroethane	6.94	64	1621335	104.629	ng		94
10) Ethanol	7.35	45	8128313	534.671	ng		100
11) Acetonitrile	7.63	41	3989079	105.508	ng		98
12) Acrolein	7.81	56	1238215	117.655	ng		99
13) Acetone	8.05	58	8053361	525.984	ng	#	74
14) Trichlorofluoromethane	8.30	101	3034171	99.094	ng		97
15) Isopropanol	8.56	45	7155072	146.617	ng		98
16) Acrylonitrile	8.85	53	2868436	119.178	ng		99
17) 1,1-Dichloroethene	9.34	96	1975485	106.723	ng	#	58
18) tert-Butanol	9.50	59	3582301	78.852	ng		95
19) Methylene Chloride	9.57	84	2017852	103.908	ng	#	47
20) Allyl Chloride	9.75	41	3252415	123.961	ng		73
21) Trichlorotrifluoroethane	10.00	151	1531901	106.669	ng		96
22) Carbon Disulfide	9.95	76	7398269	107.057	ng		98
23) trans-1,2-Dichloroethene	11.02	61	2925575	105.996	ng		75
24) 1,1-Dichloroethane	11.34	63	3620138	111.805	ng		96
25) Methyl tert-Butyl Ether	11.41	73	5734789	110.749	ng		85
26) Vinyl Acetate	11.60	86	1955945	638.645	ng	#	1
27) 2-Butanone	11.93	72	1234629	112.298	ng	#	26
28) cis-1,2-Dichloroethene	12.60	61	2879065	109.317	ng	#	72
29) Diisopropyl Ether	12.93	87	1910793	119.859	ng	#	33
30) Ethyl Acetate	12.94	61	1722579	270.510	ng	#	70
31) n-Hexane	12.94	57	3971806	107.984	ng		86

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170920.D
Acq On : 17 Feb 2009 22:20
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 18 07:29:08 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.07	83	3223406	108.641	ng		98
34) Tetrahydrofuran	13.61	72	1353266	110.955	ng	#	51
35) Ethyl tert-Butyl Ether	13.74	87	2392115	113.388	ng	#	60
36) 1,2-Dichloroethane	14.16	62	2426600	108.293	ng		97
38) 1,1,1-Trichloroethane	14.56	97	2792534	108.212	ng		93
39) Isopropyl Acetate	15.10	61	2939771	253.004	ng	#	73
40) 1-Butanol	15.16	56	4822335	259.718	ng		82
41) Benzene	15.26	78	8366925	93.892	ng		97
42) Carbon Tetrachloride	15.49	117	2460358	109.319	ng		99
43) Cyclohexane	15.69	84	6752129	215.526	ng	#	63
44) tert-Amyl Methyl Ether	16.13	73	5619641	106.962	ng	#	1
45) 1,2-Dichloropropane	16.46	63	2148780	114.817	ng		95
46) Bromodichloromethane	16.72	83	2547673	110.684	ng		96
47) Trichloroethene	16.79	130	2112887	97.445	ng		96
48) 1,4-Dioxane	16.75	88	1731130	125.396	ng	#	70
49) Isooctane	16.88	57	9391596	102.507	ng		96
50) Methyl Methacrylate	17.06	100	1911019	268.867	ng	#	85
51) n-Heptane	17.23	71	2310305	106.866	ng	#	69
52) cis-1,3-Dichloropropene	17.97	75	3307418	112.746	ng		98
53) 4-Methyl-2-pentanone	18.02	58	2150959	135.217	ng		76
54) trans-1,3-Dichloropropene	18.67	75	3347137	127.873	ng		95
55) 1,1,2-Trichloroethane	18.91	97	1954828	111.908	ng		99
58) Toluene	19.30	91	9015484	106.227	ng		99
59) 2-Hexanone	19.60	43	5081842	134.166	ng		89
60) Dibromochloromethane	19.84	129	2154107	122.425	ng		96
61) 1,2-Dibromoethane	20.17	107	2196178	112.435	ng		99
62) Butyl Acetate	20.41	43	6621845	152.641	ng		93
63) n-Octane	20.58	57	2076490	104.763	ng	#	63
64) Tetrachloroethene	20.78	166	2104464	100.841	ng		96
65) Chlorobenzene	21.64	112	5587961	100.144	ng		99
66) Ethylbenzene	22.11	91	10021891	102.144	ng		100
67) m- & p-Xylene	22.35	91	15939240	210.918	ng		97
68) Bromoform	22.44	173	1733477	121.658	ng		97
69) Styrene	22.80	104	6383016	111.194	ng		99
70) o-Xylene	22.95	91	8188886	105.535	ng		99
71) n-Nonane	23.19	43	4680402	102.747	ng		87
72) 1,1,2,2-Tetrachloroethane	22.91	83	3747833	123.844	ng		98
74) Cumene	23.68	105	10062966	105.173	ng		96
75) alpha-Pinene	24.16	93	5102600	116.649	ng		95
76) n-Propylbenzene	24.30	91	12376403	101.710	ng		97
77) 3-Ethyltoluene	24.43	105	10428285	114.376	ng		97
78) 4-Ethyltoluene	24.48	105	9870024	109.676	ng		95
79) 1,3,5-Trimethylbenzene	24.57	105	8547489	109.727	ng		95

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170920.D
Acq On : 17 Feb 2009 22:20
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-02030901/S20-02090903
ALS Vial : 4 Sample Multiplier: 1

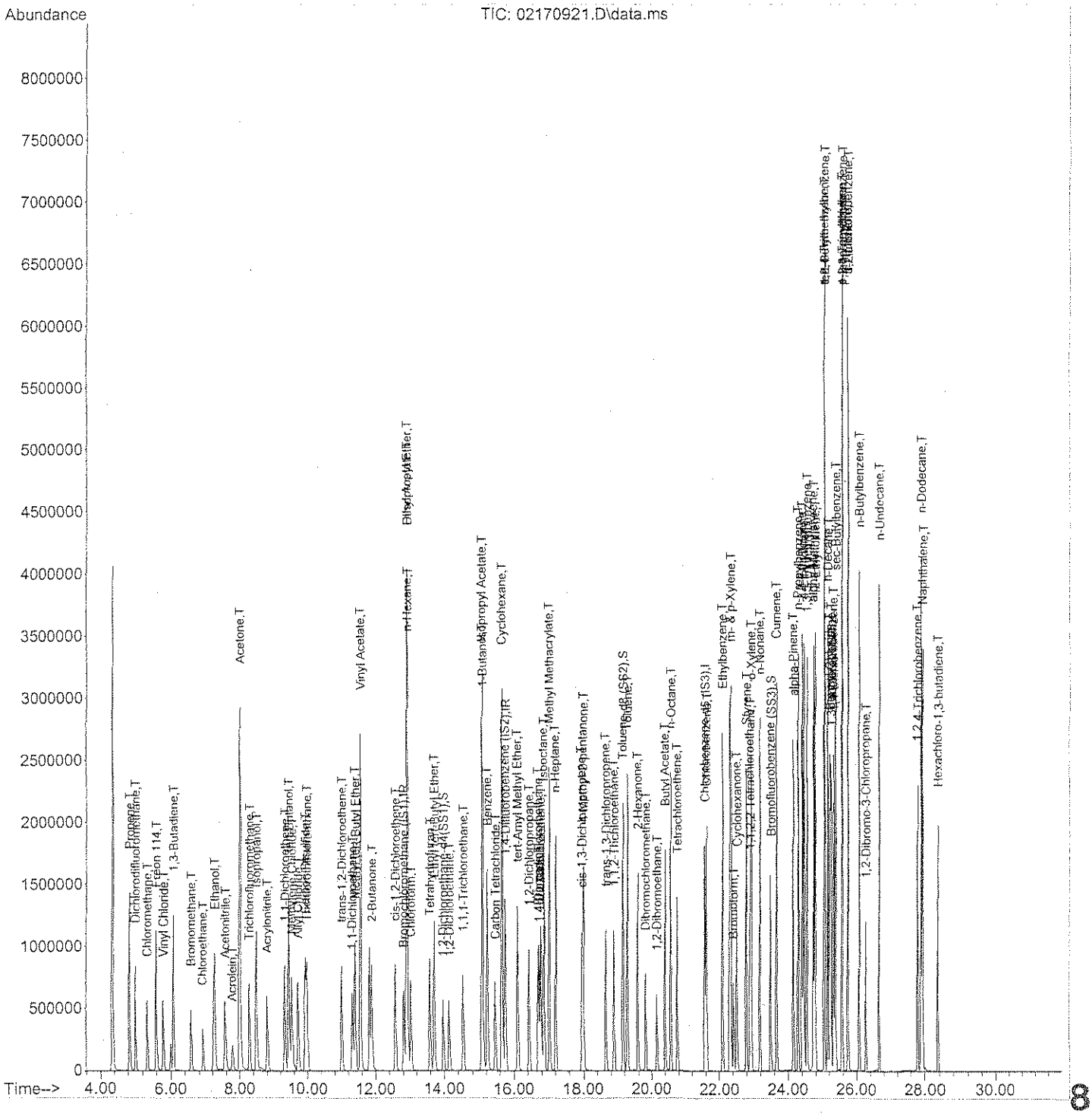
Quant Time: Feb 18 07:29:08 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Feb 16 12:39:21 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.76	118	4891450	117.238	ng		97
81) 2-Ethyltoluene	24.81	105	10133371	109.285	ng		95
82) 1,2,4-Trimethylbenzene	25.08	105	9599097	119.392	ng		92
83) n-Decane	25.17	57	5203341	112.101	ng		75
84) Benzyl Chloride	25.24	91	8157706	136.218	ng		98
85) 1,3-Dichlorobenzene	25.27	146	4761175	111.206	ng		99
86) 1,4-Dichlorobenzene	25.35	146	4765648	107.456	ng		98
87) sec-Butylbenzene	25.40	105	11355894	108.440	ng		98
88) p-Isopropyltoluene	25.58	119	11498713	114.928	ng		97
89) 1,2,3-Trimethylbenzene	25.59	105	9653853	121.652	ng		92
90) 1,2-Dichlorobenzene	25.76	146	4935058	121.253	ng		98
91) d-Limonene	25.76	68	3972406	120.504	ng		96
92) 1,2-Dibromo-3-Chloropr...	26.28	157	1551365	129.885	ng	#	83
93) n-Undecane	26.67	57	5435172	111.828	ng		72
94) 1,2,4-Trichlorobenzene	27.81	184	1021579	132.681	ng	#	88
95) Naphthalene	27.96	128	11678926	112.568	ng		98
96) n-Dodecane	27.90	57	5416300	98.961	ng		70
97) Hexachloro-1,3-butadiene	28.37	225	1843176	120.069	ng		97
98) Cyclohexanone	22.53	55	3133156	110.238	ng	#	88
99) tert-Butylbenzene	25.08	119	9360462	121.159	ng		95
100) n-Butylbenzene	26.09	91	9552875	116.397	ng		97

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

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170921.D
Acq On : 17 Feb 2009 23:01
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-02030901/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 18 07:45:06 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170921.D
Acq On : 17 Feb 2009 23:01
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-02030901/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 18 07:45:06 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	342809	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.77	114	1647148	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.58	82	812391	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.98	65	549852	24.716	ng		-0.02
Spiked Amount 25.000			Recovery =	98.88%			
57) Toluene-d8 (SS2)	19.16	98	1907296	24.831	ng		0.00
Spiked Amount 25.000			Recovery =	99.32%			
73) Bromofluorobenzene (SS3)	23.50	174	549928	25.136	ng		0.00
Spiked Amount 25.000			Recovery =	100.56%			
Target Compounds							Qvalue
2) Propene	4.84	42	681272	22.178	ng		98
3) Dichlorodifluoromethane	5.00	85	941519	23.047	ng		99
4) Chloromethane	5.33	50	825179	22.926	ng		99
5) Freon 114	5.59	135	502923	23.352	ng		98
6) Vinyl Chloride	5.80	62	822151	21.749	ng		94
7) 1,3-Butadiene	6.08	54	776861	29.206	ng		98
8) Bromomethane	6.58	94	467022	25.115	ng		95
9) Chloroethane	6.92	64	417271	24.241	ng		94
10) Ethanol	7.27	45	2058527	120.634	ng		100
11) Acetonitrile	7.58	41	1055635	25.111	ng		98
12) Acrolein	7.79	56	332562	28.331	ng		98
13) Acetone	8.01	58	2143430	107.492	ng	#	82
14) Trichlorofluoromethane	8.29	101	832893	24.734	ng		97
15) Isopropanol	8.49	45	2316374	46.514	ng		98
16) Acrylonitrile	8.81	53	757752	27.874	ng		100
17) 1,1-Dichloroethene	9.33	96	512105	23.948	ng	#	58
18) tert-Butanol	9.45	59	2462934	53.456	ng		99
19) Methylene Chloride	9.54	84	528863	23.140	ng	#	46
20) Allyl Chloride	9.73	41	854498	29.000	ng		74
21) Trichlorotrifluoroethane	9.99	151	407956	26.230	ng		97
22) Carbon Disulfide	9.94	76	1973759	24.372	ng		98
23) trans-1,2-Dichloroethene	11.01	61	790254	25.115	ng		76
24) 1,1-Dichloroethane	11.32	63	949484	26.485	ng		96
25) Methyl tert-Butyl Ether	11.40	73	1544993	27.810	ng		84
26) Vinyl Acetate	11.56	86	555014	155.805	ng	#	3
27) 2-Butanone	11.90	72	396075	31.642	ng	#	28
28) cis-1,2-Dichloroethene	12.58	61	757681	24.998	ng	#	72
29) Diisopropyl Ether	12.92	87	473764	27.037	ng	#	49
30) Ethyl Acetate	12.92	61	443826	60.977	ng	#	73
31) n-Hexane	12.93	57	1009701	24.308	ng		87

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170921.D
Acq On : 17 Feb 2009 23:01
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-02030901/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 18 07:45:06 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.04	83	843454	25.695	ng		98
34) Tetrahydrofuran	13.58	72	377102	28.581	ng	#	50
35) Ethyl tert-Butyl Ether	13.72	87	595982	26.440	ng	#	61
36) 1,2-Dichloroethane	14.14	62	644017	26.175	ng		97
38) 1,1,1-Trichloroethane	14.54	97	745418	26.408	ng		93
39) Isopropyl Acetate	15.08	61	752957	59.591	ng	#	80
40) 1-Butanol	15.10	56	1279280	66.048	ng		83
41) Benzene	15.24	78	2186097	22.257	ng		97
42) Carbon Tetrachloride	15.47	117	644072	26.427	ng		99
43) Cyclohexane	15.67	84	1753766	50.105	ng	#	64
44) tert-Amyl Methyl Ether	16.11	73	1474200	26.175	ng	#	1
45) 1,2-Dichloropropane	16.45	63	560496	25.985	ng		95
46) Bromodichloromethane	16.71	83	695330	27.127	ng		96
47) Trichloroethene	16.78	130	547522	22.217	ng		96
48) 1,4-Dioxane	16.73	88	465481	29.198	ng	#	70
49) Isooctane	16.87	57	2483107	23.460	ng		97
50) Methyl Methacrylate	17.03	100	484495	59.751	ng	#	83
51) n-Heptane	17.22	71	613100	24.683	ng	#	69
52) cis-1,3-Dichloropropene	17.96	75	863608	26.521	ng		98
53) 4-Methyl-2-pentanone	17.99	58	576257	32.159	ng		77
54) trans-1,3-Dichloropropene	18.66	75	872941	30.458	ng		96
55) 1,1,2-Trichloroethane	18.90	97	506367	26.601	ng		99
58) Toluene	19.29	91	2363543	24.819	ng		100
59) 2-Hexanone	19.59	43	1380690	32.674	ng		90
60) Dibromochloromethane	19.83	129	573165	31.163	ng		96
61) 1,2-Dibromoethane	20.16	107	573024	27.688	ng		98
62) Butyl Acetate	20.40	43	1620386	31.998	ng		95
63) n-Octane	20.57	57	536144	24.404	ng	#	64
64) Tetrachloroethene	20.76	166	534754	23.803	ng		96
65) Chlorobenzene	21.63	112	1453050	24.433	ng		100
66) Ethylbenzene	22.10	91	2593267	25.303	ng		99
67) m- & p-Xylene	22.34	91	4015713	50.721	ng		99
68) Bromoform	22.43	173	448112	30.463	ng		97
69) Styrene	22.79	104	1622431	27.520	ng		99
70) o-Xylene	22.93	91	2063837	25.620	ng		100
71) n-Nonane	23.19	43	1244560	24.485	ng		89
72) 1,1,2,2-Tetrachloroethane	22.89	83	931332	28.867	ng		98
74) Cumene	23.67	105	2617749	25.556	ng		97
75) alpha-Pinene	24.16	93	1302952	28.343	ng		95
76) n-Propylbenzene	24.29	91	3264988	25.574	ng		98
77) 3-Ethyltoluene	24.41	105	2646274	28.337	ng		99
78) 4-Ethyltoluene	24.47	105	2599576	28.046	ng		97
79) 1,3,5-Trimethylbenzene	24.56	105	2144343	27.139	ng		97

EM 2/18/09

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170921.D
Acq On : 17 Feb 2009 23:01
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-02030901/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 18 07:45:06 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	1222237	28.918	ng		97
81) 2-Ethyltoluene	24.80	105	2604302	27.304	ng		97
82) 1,2,4-Trimethylbenzene	25.06	105	2271732	27.088	ng		95
83) n-Decane	25.16	57	1356496	27.029	ng		77
84) Benzyl Chloride	25.23	91	2100541	35.956	ng		99
85) 1,3-Dichlorobenzene	25.26	146	1166759	26.139	ng		99
86) 1,4-Dichlorobenzene	25.33	146	1183918	25.837	ng		99
87) sec-Butylbenzene	25.39	105	2961387	26.989	ng		99
88) p-Isopropyltoluene	25.57	119	2784692	26.597	ng		98
89) 1,2,3-Trimethylbenzene	25.58	105	2309387	27.560	ng		95
90) 1,2-Dichlorobenzene	25.75	146	1125923	26.309	ng		98
91) d-Limonene	25.75	68	1008751	29.140	ng		99
92) 1,2-Dibromo-3-Chloropr...	26.28	157	392087	31.859	ng	#	85
93) n-Undecane	26.66	57	1432023	28.050	ng		74
94) 1,2,4-Trichlorobenzene	27.80	184	245767	32.278	ng		89
95) Naphthalene	27.94	128	2999961	29.142	ng		100
96) n-Dodecane	27.90	57	1459101	26.971	ng		72
97) Hexachloro-1,3-butadiene	28.37	225	437021	28.227	ng		97
98) Cyclohexanone	22.52	55	813309	27.117	ng	#	88
99) tert-Butylbenzene	25.06	119	2215162	27.522	ng		97
100) n-Butylbenzene	26.08	91	2477461	28.635	ng		95

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

EM 2/18/09

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 02170921.D
Data File Path: J:\MS09\Data\2009_02\17\
Operator: EM
Date Acquired: 2/17/09 23:01
Acq. Method File: TO15LOW.M
Name: 25ng TO-15 ICV STD
Misc Info: S20-02030901/S20-02090907
Instrument Name: MS09

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
2)	Propene	4.84	22.2	26.3	84.4	70	130	*
3)	Dichlorodifluoromethane	5.00	23.0	26.3	87.5	70	130	*
4)	Chloromethane	5.33	22.9	25.3	90.5	70	130	*
5)	Freon 114	5.59	23.4	26.8	87.3	70	130	*
6)	Vinyl Chloride	5.80	21.7	25.5	85.1	70	130	*
7)	1,3-Butadiene	6.08	29.2	30.0	97.3	70	130	*
8)	Bromomethane	6.58	25.1	25.8	97.3	70	130	*
9)	Chloroethane	6.92	24.2	25.8	93.8	70	130	*
10)	Ethanol	7.27	120.6	133.0	90.7	70	130	*
11)	Acetonitrile	7.58	25.1	26.3	95.4	70	130	*
12)	Acrolein	7.79	28.3	27.3	103.7	70	130	*
13)	Acetone	8.01	107.5	137.0	78.5	70	130	*
14)	Trichlorofluoromethane	8.29	24.7	26.3	93.9	70	130	*
15)	Isopropanol	8.49	46.5	48.0	96.9	70	130	*
16)	Acrylonitrile	8.81	27.9	26.8	104.1	70	130	*
17)	1,1-Dichloroethene	9.33	23.9	27.5	86.9	70	130	*
18)	tert-Butanol	9.45	53.5	50.5	105.9	70	130	*
19)	Methylene Chloride	9.54	23.1	26.5	87.2	70	130	*
20)	Allyl Chloride	9.73	29.0	27.0	107.4	70	130	*
21)	Trichlorotrifluoroethane	9.99	26.2	27.5	95.3	70	130	*
22)	Carbon Disulfide	9.94	24.4	26.8	91.0	70	130	*
23)	trans-1,2-Dichloroethene	11.01	25.1	26.8	93.7	70	130	*
24)	1,1-Dichloroethane	11.32	26.5	26.8	98.9	70	130	*
25)	Methyl tert-Butyl Ether	11.40	27.8	27.5	101.1	70	130	*
26)	Vinyl Acetate	11.56	155.8	126.0	123.7	70	130	*
27)	2-Butanone	11.90	31.6	27.5	114.9	70	130	*
28)	cis-1,2-Dichloroethene	12.58	25.0	27.5	90.9	70	130	*
29)	Diisopropyl Ether	12.92	27.0	27.0	100.0	70	130	*
30)	Ethyl Acetate	12.92	61.0	53.5	114.0	70	130	*
31)	n-Hexane	12.93	24.3	27.3	89.0	70	130	*
32)	Chloroform	13.04	25.7	26.8	95.9	70	130	*
34)	Tetrahydrofuran	13.58	28.6	27.5	104.0	70	130	*
35)	Ethyl tert-Butyl Ether	13.72	26.4	26.0	101.5	70	130	*
36)	1,2-Dichloroethane	14.14	26.2	26.8	97.8	70	130	*
38)	1,1,1-Trichloroethane	14.54	26.4	26.5	99.6	70	130	*
39)	Isopropyl Acetate	15.08	59.6	52.8	112.9	70	130	*
40)	1-Butanol	15.10	66.0	54.8	120.4	70	130	*
41)	Benzene	15.24	22.3	26.8	83.2	70	130	*
42)	Carbon Tetrachloride	15.47	26.4	27.0	97.8	70	130	*
43)	Cyclohexane	15.67	50.1	54.5	91.9	70	130	*
44)	tert-Amyl Methyl Ether	16.11	26.2	26.3	99.6	70	130	*
45)	1,2-Dichloropropane	16.45	26.0	26.5	98.1	70	130	*
46)	Bromodichloromethane	16.71	27.1	27.3	99.3	70	130	*
47)	Trichloroethene	16.78	22.2	26.5	83.8	70	130	*
48)	1,4-Dioxane	16.73	29.2	27.0	108.1	70	130	*
49)	Isooctane	16.87	23.5	26.5	88.7	70	130	*
50)	Methyl Methacrylate	17.03	59.8	53.5	111.8	70	130	*

J:\MS09\ICV_121608A.CRT

EM 2/18/09

2/18/09 7:48 AM

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 02170921.D
Data File Path: J:\MS09\Data\2009_02\17\
Operator: EM
Date Acquired: 2/17/09 23:01
Acq. Method File: TO15LOW.M
Name: 25ng TO-15 ICV STD
Misc Info: S20-02030901/S20-02090907
Instrument Name: MS09

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
51)	n-Heptane	17.22	24.7	27.0	91.5	70	130	*
52)	cis-1,3-Dichloropropene	17.96	26.5	25.0	106.0	70	130	*
53)	4-Methyl-2-pentanone	17.99	32.2	27.5	117.1	70	130	*
54)	trans-1,3-Dichloropropene	18.66	30.5	27.5	110.9	70	130	*
55)	1,1,2-Trichloroethane	18.90	26.6	26.3	101.1	70	130	*
58)	Toluene	19.29	24.8	27.0	91.9	70	130	*
59)	2-Hexanone	19.59	32.7	27.5	118.9	70	130	*
60)	Dibromochloromethane	19.83	31.2	28.8	108.3	70	130	*
61)	1,2-Dibromoethane	20.16	27.7	26.8	103.4	70	130	*
62)	Butyl Acetate	20.40	32.0	27.5	116.4	70	130	*
63)	n-Octane	20.57	24.4	26.8	91.0	70	130	*
64)	Tetrachloroethene	20.76	23.8	25.8	92.2	70	130	*
65)	Chlorobenzene	21.63	24.4	26.8	91.0	70	130	*
66)	Ethylbenzene	22.10	25.3	26.5	95.5	70	130	*
67)	m- & p-Xylene	22.34	50.7	52.5	96.6	70	130	*
68)	Bromoform	22.43	30.5	26.0	117.3	70	130	*
69)	Styrene	22.79	27.5	27.0	101.9	70	130	*
70)	o-Xylene	22.93	25.6	26.5	96.6	70	130	*
71)	n-Nonane	23.19	24.5	26.5	92.5	70	130	*
72)	1,1,2,2-Tetrachloroethane	22.89	28.9	27.0	107.0	70	130	*
74)	Cumene	23.67	25.6	25.8	99.2	70	130	*
75)	alpha-Pinene	24.16	28.3	27.5	102.9	70	130	*
76)	n-Propylbenzene	24.29	25.6	25.8	99.2	70	130	*
77)	3-Ethyltoluene	24.41	28.3	27.5	102.9	70	130	*
78)	4-Ethyltoluene	24.47	28.0	27.5	101.8	70	130	*
79)	1,3,5-Trimethylbenzene	24.56	27.1	27.3	99.3	70	130	*
80)	alpha-Methylstyrene	24.75	28.9	26.8	107.8	70	130	*
81)	2-Ethyltoluene	24.80	27.3	27.3	100.0	70	130	*
82)	1,2,4-Trimethylbenzene	25.06	27.1	26.8	101.1	70	130	*
83)	n-Decane	25.16	27.0	27.3	98.9	70	130	*
84)	Benzyl Chloride	25.23	36.0	28.8	125.0	70	130	*
85)	1,3-Dichlorobenzene	25.26	26.1	27.5	94.9	70	130	*
86)	1,4-Dichlorobenzene	25.33	25.8	27.3	94.5	70	130	*
87)	sec-Butylbenzene	25.39	27.0	26.8	100.7	70	130	*
88)	p-Isopropyltoluene	25.57	26.6	26.0	102.3	70	130	*
89)	1,2,3-Trimethylbenzene	25.58	27.6	26.8	103.0	70	130	*
90)	1,2-Dichlorobenzene	25.75	26.3	27.3	96.3	70	130	*
91)	d-Limonene	25.75	29.1	26.8	108.6	70	130	*
92)	1,2-Dibromo-3-Chloropropane	26.28	31.9	27.5	116.0	70	130	*
93)	n-Undecane	26.66	28.0	27.3	102.6	70	130	*
94)	1,2,4-Trichlorobenzene	27.80	32.3	28.8	112.2	70	130	*
95)	Naphthalene	27.94	29.1	25.8	112.8	70	130	*
96)	n-Dodecane	27.90	27.0	26.8	100.7	70	130	*
97)	Hexachloro-1,3-butadiene	28.37	28.2	28.8	97.9	70	130	*
98)	Cyclohexanone	22.52	27.1	25.3	107.1	70	130	*
99)	tert-Butylbenzene	25.06	27.5	27.0	101.9	70	130	*
100)	n-Butylbenzene	26.08	28.6	27.5	104.0	70	130	*

* Denotes Passing Criterion

EM 2/18/09

Evaluate Continuing Calibration Report

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040901.D
Acq On : 4 Mar 2009 8:10
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:11:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	103	-0.02
2	T	Propene	2.240	1.792	20.0	93	0.00
3	T	Dichlorodifluoromethane	2.979	2.482	16.7	95	-0.01
4	T	Chloromethane	2.625	2.285	13.0	92	-0.01
5	T	Freon 114	1.571	1.268	19.3	90	-0.01
6	T	Vinyl Chloride	2.757	2.266	17.8	92	-0.01
7	T	1,3-Butadiene	1.940	1.725	11.1	93	-0.01
8	T	Bromomethane	1.356	1.271	6.3	94	-0.02
9	T	Chloroethane	1.255	1.174	6.5	96	-0.01
10	T	Ethanol	1.244	1.173	5.7	99	-0.07
11	T	Acetonitrile	3.066	2.783	9.2	94	-0.05
12	T	Acrolein	0.856	0.822	4.0	95	-0.03
13	T	Acetone	1.454	1.103	24.1	96	-0.05
14	T	Trichlorofluoromethane	2.456	2.137	13.0	97	-0.01
15	T	Isopropanol	3.632	3.323	8.5	94	-0.06
16	T	Acrylonitrile	1.983	2.022	-2.0	95	-0.03
17	T	1,1-Dichloroethene	1.559	1.279	18.0	95	-0.02
18	T	tert-Butanol	3.360	3.219	4.2	91	-0.05
19	T	Methylene Chloride	1.667	1.380	17.2	95	-0.02
20	T	Allyl Chloride	2.149	2.147	0.1	94	-0.02
21	T	Trichlorotrifluoroethane	1.134	1.018	10.2	96	-0.02
22	T	Carbon Disulfide	5.906	5.094	13.7	95	-0.01
23	T	trans-1,2-Dichloroethene	2.295	2.059	10.3	95	-0.02
24	T	1,1-Dichloroethane	2.614	2.464	5.7	95	-0.02
25	T	Methyl tert-Butyl Ether	4.051	3.842	5.2	94	-0.01
26	T	Vinyl Acetate	0.260	0.312	-20.0	100	-0.03
27	T	2-Butanone	0.913	0.979	-7.2	95	-0.03
28	T	cis-1,2-Dichloroethene	2.210	1.924	12.9	95	-0.02
29	T	Diisopropyl Ether	1.278	1.208	5.5	95	-0.02
30	T	Ethyl Acetate	0.531	0.576	-8.5	96	-0.03
31	T	n-Hexane	3.029	2.644	12.7	96	-0.01
32	T	Chloroform	2.394	2.116	11.6	96	-0.03
33	S	1,2-Dichloroethane-d4(SS1)	1.622	1.654	-2.0	105	-0.02
34	T	Tetrahydrofuran	0.962	0.966	-0.4	97	-0.02
35	T	Ethyl tert-Butyl Ether	1.644	1.577	4.1	96	-0.02
36	T	1,2-Dichloroethane	1.794	1.708	4.8	96	-0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	104	-0.01
38	T	1,1,1-Trichloroethane	0.428	0.402	6.1	95	-0.02

EM 3/4/09

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Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:11:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
39	T	Isopropyl Acetate	0.192	0.205	-6.8	95	-0.02
40	T	1-Butanol	0.294	0.334	-13.6	93	-0.06
41	T	Benzene	1.491	1.212	18.7	95	-0.02
42	T	Carbon Tetrachloride	0.370	0.347	6.2	96	-0.02
43	T	Cyclohexane	0.531	0.459	13.6	96	-0.02
44	T	tert-Amyl Methyl Ether	0.855	0.821	4.0	98	-0.02
45	T	1,2-Dichloropropane	0.327	0.307	6.1	95	-0.02
46	T	Bromodichloromethane	0.389	0.364	6.4	95	-0.02
47	T	Trichloroethene	0.374	0.301	19.5	95	-0.01
48	T	1,4-Dioxane	0.242	0.244	-0.8	94	-0.02
49	T	Isooctane	1.606	1.354	15.7	94	-0.01
50	T	Methyl Methacrylate	0.123	0.124	-0.8	93	-0.03
51	T	n-Heptane	0.377	0.326	13.5	95	-0.02
52	T	cis-1,3-Dichloropropene	0.494	0.488	1.2	95	-0.01
53	T	4-Methyl-2-pentanone	0.272	0.288	-5.9	94	-0.02
54	T	trans-1,3-Dichloropropene	0.435	0.446	-2.5	94	-0.01
55	T	1,1,2-Trichloroethane	0.289	0.275	4.8	94	-0.02
56	I	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	104	0.00
57	S	Toluene-d8 (SS2)	2.364	2.361	0.1	105	-0.01
58	T	Toluene	2.931	2.500	14.7	95	-0.01
59	T	2-Hexanone	1.300	1.383	-6.4	93	-0.02
60	T	Dibromochloromethane	0.566	0.546	3.5	94	-0.01
61	T	1,2-Dibromoethane	0.637	0.611	4.1	94	-0.02
62	T	Butyl Acetate	1.558	1.577	-1.2	90	-0.02
63	T	n-Octane	0.676	0.582	13.9	95	-0.02
64	T	Tetrachloroethene	0.691	0.581	15.9	94	-0.01
65	T	Chlorobenzene	1.830	1.563	14.6	94	-0.01
66	T	Ethylbenzene	3.154	2.823	10.5	94	-0.01
67	T	m- & p-Xylene	2.436	2.207	9.4	94	-0.02
68	T	Bromoform	0.453	0.455	-0.4	94	-0.01
69	T	Styrene	1.814	1.695	6.6	93	-0.02
70	T	o-Xylene	2.479	2.236	9.8	94	-0.02
71	T	n-Nonane	1.564	1.352	13.6	94	-0.01
72	T	1,1,2,2-Tetrachloroethane	0.993	0.990	0.3	96	-0.02
73	S	Bromofluorobenzene (SS3)	0.673	0.663	1.5	103	0.00
74	T	Cumene	3.152	2.866	9.1	94	-0.01
75	T	alpha-Pinene	1.415	1.309	7.5	93	0.00
76	T	n-Propylbenzene	3.929	3.607	8.2	94	-0.01

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EM 3/4/09

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Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

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QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

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Max. RRF Dev : 30% Max. Rel. Area : 200%

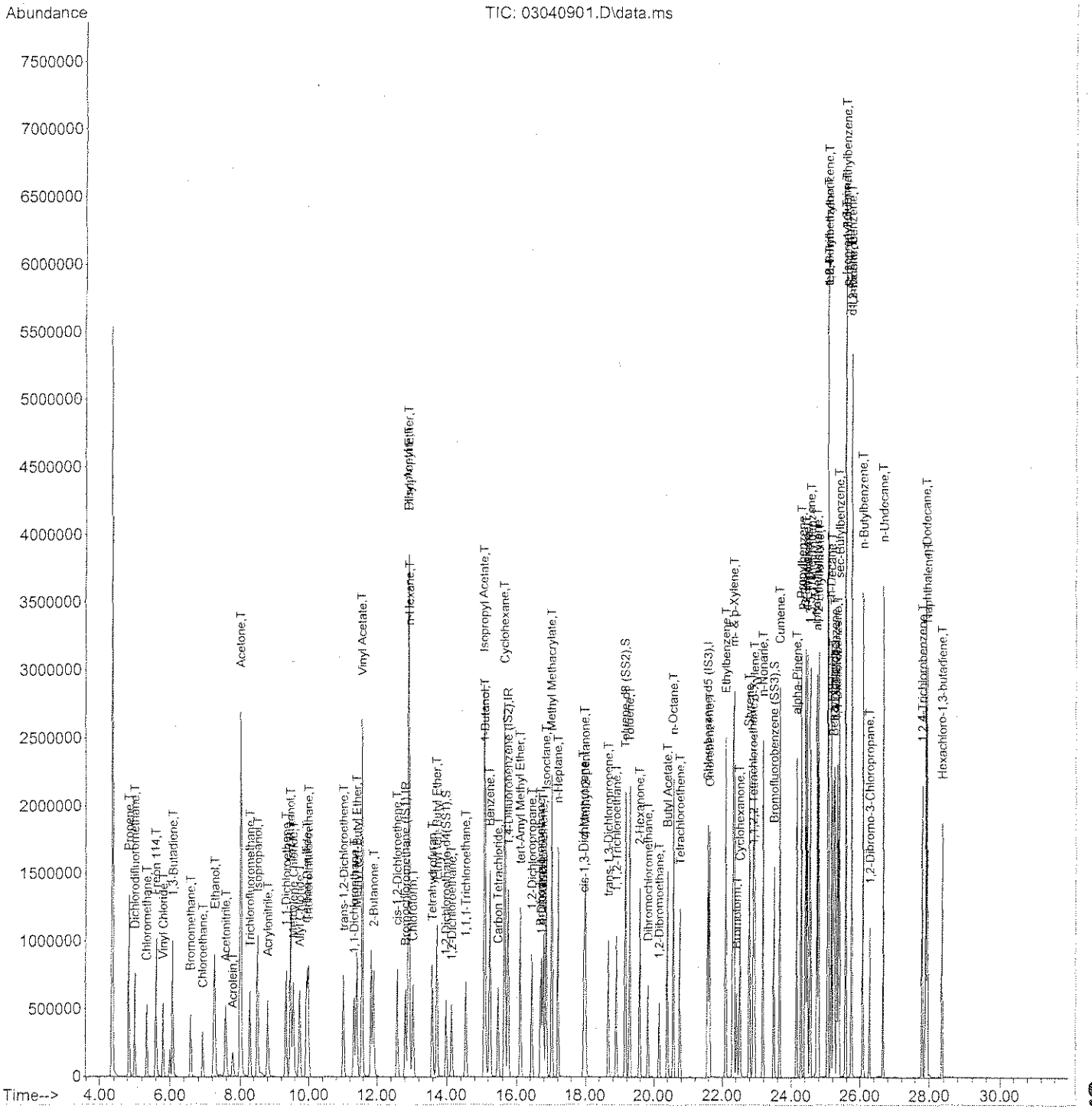
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	T	3-Ethyltoluene	2.874	2.623	8.7	92	-0.01
78	T	4-Ethyltoluene	2.852	2.638	7.5	96	-0.01
79	T	1,3,5-Trimethylbenzene	2.432	2.242	7.8	94	-0.01
80	T	alpha-Methylstyrene	1.301	1.262	3.0	93	-0.01
81	T	2-Ethyltoluene	2.935	2.688	8.4	94	-0.01
82	T	1,2,4-Trimethylbenzene	2.581	2.427	6.0	94	-0.02
83	T	n-Decane	1.544	1.408	8.8	94	-0.02
84	T	Benzyl Chloride	1.798	2.030	-12.9	94	-0.02
85	T	1,3-Dichlorobenzene	1.374	1.223	11.0	94	-0.02
86	T	1,4-Dichlorobenzene	1.410	1.255	11.0	94	-0.01
87	T	sec-Butylbenzene	3.377	3.114	7.8	94	-0.01
88	T	p-Isopropyltoluene	3.222	3.027	6.1	94	-0.01
89	T	1,2,3-Trimethylbenzene	2.579	2.437	5.5	95	-0.01
90	T	1,2-Dichlorobenzene	1.317	1.193	9.4	95	-0.01
91	T	d-Limonene	1.065	1.066	-0.1	94	-0.01
92	T	1,2-Dibromo-3-Chloropropane	0.379	0.406	-7.1	98	-0.01
93	T	n-Undecane	1.571	1.486	5.4	95	-0.01
94	T	1,2,4-Trichlorobenzene	0.234	0.255	-9.0	103	-0.01
95	T	Naphthalene	3.168	3.320	-4.8	105	-0.01
96	T	n-Dodecane	1.665	1.667	-0.1	99	0.00
97	T	Hexachloro-1,3-butadiene	0.476	0.448	5.9	100	0.00
98	T	Cyclohexanone	0.923	0.919	0.4	93	-0.02
99	T	tert-Butylbenzene	2.477	2.292	7.5	94	-0.02
00	T	n-Butylbenzene	2.662	2.539	4.6	95	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

3/4/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040901.D
Acq On : 4 Mar 2009 8:10
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:11:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	333021	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.77	114	1607634	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.57	82	798532	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.98	65	550743	25.484	ng		-0.02
Spiked Amount 25.000			Recovery =	101.92%			
57) Toluene-d8 (SS2)	19.15	98	1885359	24.972	ng		-0.01
Spiked Amount 25.000			Recovery =	99.88%			
73) Bromofluorobenzene (SS3)	23.49	174	529077	24.602	ng		0.00
Spiked Amount 25.000			Recovery =	98.40%			
Target Compounds							Qvalue
2) Propene	4.84	42	615952	20.641	ng		98
3) Dichlorodifluoromethane	5.00	85	869536	21.911	ng		99
4) Chloromethane	5.33	50	770098	22.024	ng		99
5) Freon 114	5.59	135	447675	21.397	ng		99
6) Vinyl Chloride	5.80	62	769623	20.958	ng		94
7) 1,3-Butadiene	6.08	54	620270	24.004	ng		97
8) Bromomethane	6.58	94	436885	24.184	ng		95
9) Chloroethane	6.93	64	406558	24.313	ng		94
10) Ethanol	7.28	45	2062552	124.422	ng		100
11) Acetonitrile	7.59	41	974959	23.874	ng		98
12) Acrolein	7.79	56	295617	25.924	ng		100
13) Acetone	8.01	58	1954361	100.891	ng	#	83
14) Trichlorofluoromethane	8.29	101	748723	22.888	ng		97
15) Isopropanol	8.51	45	2146963	44.379	ng		96
16) Acrylonitrile	8.81	53	694763	26.308	ng		99
17) 1,1-Dichloroethene	9.33	96	468710	22.563	ng	#	60
18) tert-Butanol	9.46	59	2143948	47.900	ng		96
19) Methylene Chloride	9.54	84	487008	21.935	ng	#	49
20) Allyl Chloride	9.73	41	772078	26.973	ng		74
21) Trichlorotrifluoroethane	9.98	151	373009	24.688	ng		95
22) Carbon Disulfide	9.94	76	1764179	22.424	ng		99
23) trans-1,2-Dichloroethene	11.01	61	707692	23.152	ng		77
24) 1,1-Dichloroethane	11.32	63	879706	25.259	ng		97
25) Methyl tert-Butyl Ether	11.40	73	1356175	25.129	ng		84
26) Vinyl Acetate	11.57	86	522858	151.092	ng	#	4
27) 2-Butanone	11.90	72	352005	28.948	ng	#	29
28) cis-1,2-Dichloroethene	12.58	61	699557	23.759	ng		73
29) Diisopropyl Ether	12.92	87	426383	25.048	ng	#	52
30) Ethyl Acetate	12.92	61	398953	56.423	ng		74
31) n-Hexane	12.93	57	915888	22.697	ng		88

EM 3/4/09

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Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:11:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.04	83	775213	24.310	ng		98
34) Tetrahydrofuran	13.59	72	344792	26.900	ng	#	49
35) Ethyl tert-Butyl Ether	13.72	87	541916	24.748	ng	#	62
36) 1,2-Dichloroethane	14.14	62	602974	25.227	ng		96
38) 1,1,1-Trichloroethane	14.54	97	680136	24.687	ng		93
39) Isopropyl Acetate	15.08	61	689642	55.922	ng	#	82
40) 1-Butanol	15.10	56	1159255	61.322	ng		85
41) Benzene	15.24	78	2010853	20.976	ng		98
42) Carbon Tetrachloride	15.47	117	586054	24.638	ng		99
43) Cyclohexane	15.67	84	1563266	45.761	ng	#	65
44) tert-Amyl Methyl Ether	16.11	73	1362667	24.789	ng	#	1
45) 1,2-Dichloropropane	16.45	63	518805	24.643	ng		95
46) Bromodichloromethane	16.70	83	616248	24.633	ng		96
47) Trichloroethene	16.78	130	499488	20.766	ng		95
48) 1,4-Dioxane	16.73	88	408232	26.237	ng	#	70
49) Isooctane	16.87	57	2264612	21.922	ng		97
50) Methyl Methacrylate	17.03	100	426312	53.867	ng	#	77
51) n-Heptane	17.22	71	544603	22.464	ng	#	70
52) cis-1,3-Dichloropropene	17.96	75	785072	24.702	ng		98
53) 4-Methyl-2-pentanone	17.99	58	506052	28.935	ng		78
54) trans-1,3-Dichloropropene	18.66	75	788158	28.175	ng		96
55) 1,1,2-Trichloroethane	18.90	97	460181	24.769	ng		99
58) Toluene	19.29	91	2155686	23.029	ng		100
59) 2-Hexanone	19.58	43	1215092	29.254	ng		91
60) Dibromochloromethane	19.83	129	501945	27.765	ng		96
61) 1,2-Dibromoethane	20.15	107	516915	25.410	ng		98
62) Butyl Acetate	20.39	43	1385608	27.837	ng		95
63) n-Octane	20.56	57	488775	22.634	ng	#	66
64) Tetrachloroethene	20.76	166	478931	21.688	ng		97
65) Chlorobenzene	21.63	112	1323394	22.639	ng		100
66) Ethylbenzene	22.10	91	2371682	23.543	ng		98
67) m- & p-Xylene	22.33	91	3665425	47.100	ng		99
68) Bromoform	22.43	173	389519	26.940	ng		97
69) Styrene	22.78	104	1450992	25.039	ng		99
70) o-Xylene	22.93	91	1878727	23.727	ng		100
71) n-Nonane	23.18	43	1135626	22.730	ng		90
72) 1,1,2,2-Tetrachloroethane	22.89	83	854196	26.936	ng		98
74) Cumene	23.67	105	2334658	23.188	ng		98
75) alpha-Pinene	24.16	93	1150129	25.453	ng		96
76) n-Propylbenzene	24.29	91	2937545	23.408	ng		98
77) 3-Ethyltoluene	24.41	105	2303910	25.099	ng		97
78) 4-Ethyltoluene	24.47	105	2316862	25.430	ng		98
79) 1,3,5-Trimethylbenzene	24.56	105	1933911	24.900	ng		98

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Em 3/4/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040901.D
Acq On : 4 Mar 2009 8:10
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:11:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	1068016	25.707	ng		98
81) 2-Ethyltoluene	24.80	105	2318163	24.726	ng		97
82) 1,2,4-Trimethylbenzene	25.06	105	2039135	24.736	ng		96
83) n-Decane	25.16	57	1214100	24.611	ng		77
84) Benzyl Chloride	25.23	91	1782834	31.048	ng		99
85) 1,3-Dichlorobenzene	25.25	146	1046776	23.858	ng		99
86) 1,4-Dichlorobenzene	25.33	146	1062129	23.581	ng		98
87) sec-Butylbenzene	25.39	105	2635817	24.439	ng		99
88) p-Isopropyltoluene	25.57	119	2465890	23.961	ng		98
89) 1,2,3-Trimethylbenzene	25.58	105	2062499	25.041	ng		96
90) 1,2-Dichlorobenzene	25.75	146	1020903	24.269	ng		98
91) d-Limonene	25.75	68	902050	26.510	ng		98
92) 1,2-Dibromo-3-Chloropr...	26.27	157	349893	28.924	ng	#	86
93) n-Undecane	26.66	57	1272055	25.349	ng		75
94) 1,2,4-Trichlorobenzene	27.80	184	224085	29.941	ng		90
95) Naphthalene	27.94	128	2683161	26.517	ng		100
96) n-Dodecane	27.90	57	1251028	23.526	ng		73
97) Hexachloro-1,3-butadiene	28.36	225	393675	25.868	ng		98
98) Cyclohexanone	22.51	55	728322	24.705	ng	#	88
99) tert-Butylbenzene	25.06	119	1976478	24.982	ng		98
100) n-Butylbenzene	26.08	91	2214151	26.036	ng		94

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

EM 3/4/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: Haley & Aldrich, Inc. CAS Project ID: P0900735
Client Project ID: Cooper Vision SVI / 70665-014

Internal Standard Area and RT Summary

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Lab File ID: 03040901.D
Analyst: Elsa Moctezuma Date Analyzed: 3/4/09
Sampling Media: 6.0 L Summa Canister(s) Time Analyzed: 08:10
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	333021	12.82	1607634	15.77	798532	21.57
	Upper Limit	466229	13.15	2250688	16.10	1117945	21.90
	Lower Limit	199813	12.49	964580	15.44	479119	21.24
	Client Sample ID						
01	Method Blank	330101	12.80	1608551	15.75	791060	21.57
02	Lab Control Sample	322309	12.82	1549597	15.77	774690	21.57
03	SV-InA-705-1	338724	12.80	1633065	15.75	812724	21.57
04	SV-OutA-022609	338884	12.80	1640751	15.75	814845	21.57
05	SV-SS-705-1	313335	12.82	1507301	15.76	752075	21.57
06	SV-SS-709-2	324268	12.82	1568878	15.76	785278	21.57
07	SV-InA-709-2	313952	12.80	1523485	15.75	755013	21.57
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the specified liimits. See case narrative.

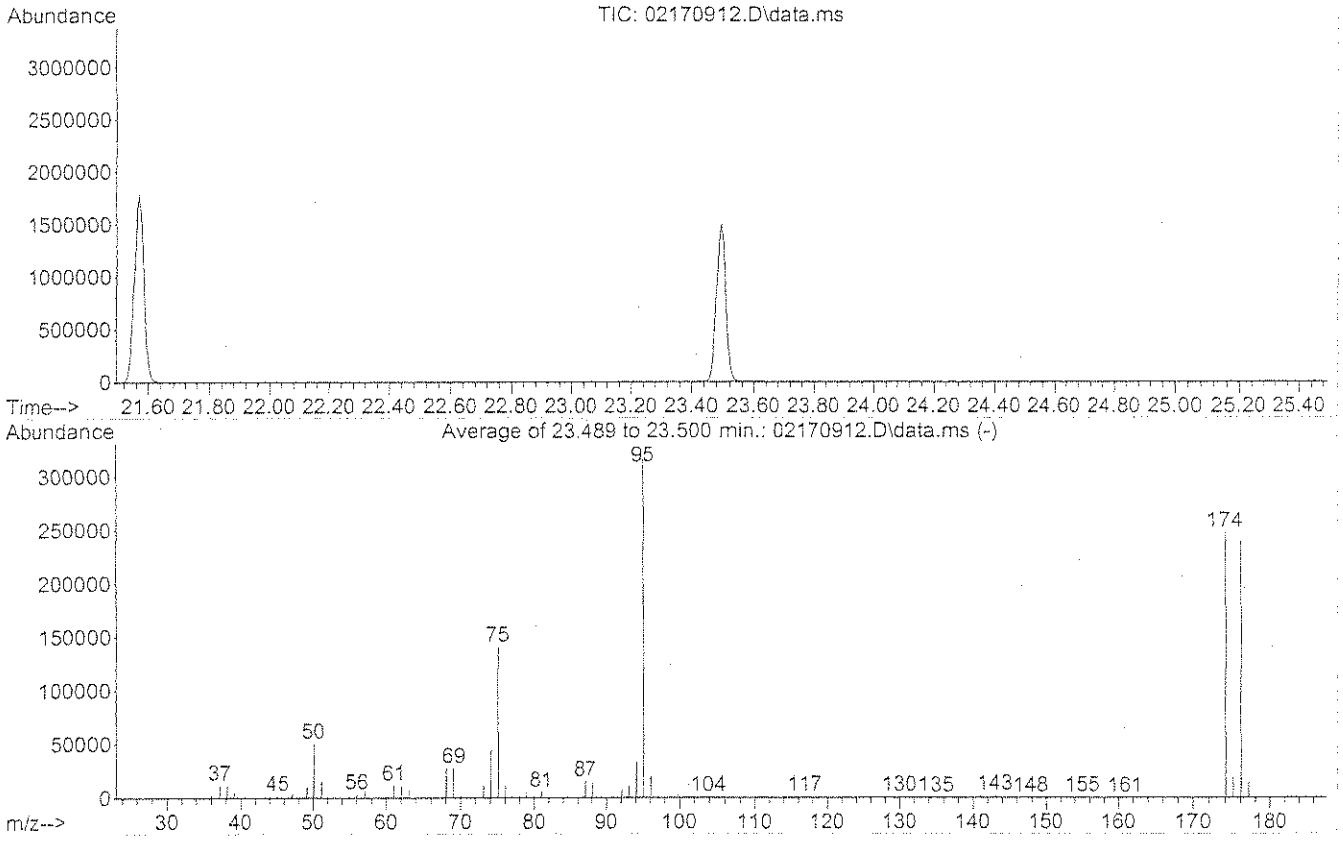
Verified By: _____ Date: 3/6/09

Raw QC Data

Data Path : J:\MS09\Data\2009_02\17\
Data File : 02170912.D
Acq On : 17 Feb 2009 16:49
Operator : EM
Sample : BFB Tune Standard (200ml)
Misc : S20-02030901
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS09\Methods\R9021709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Mon Feb 16 12:39:21 2009



AutoFind: Scans 3485, 3486, 3487; Background Corrected with Scan 3475

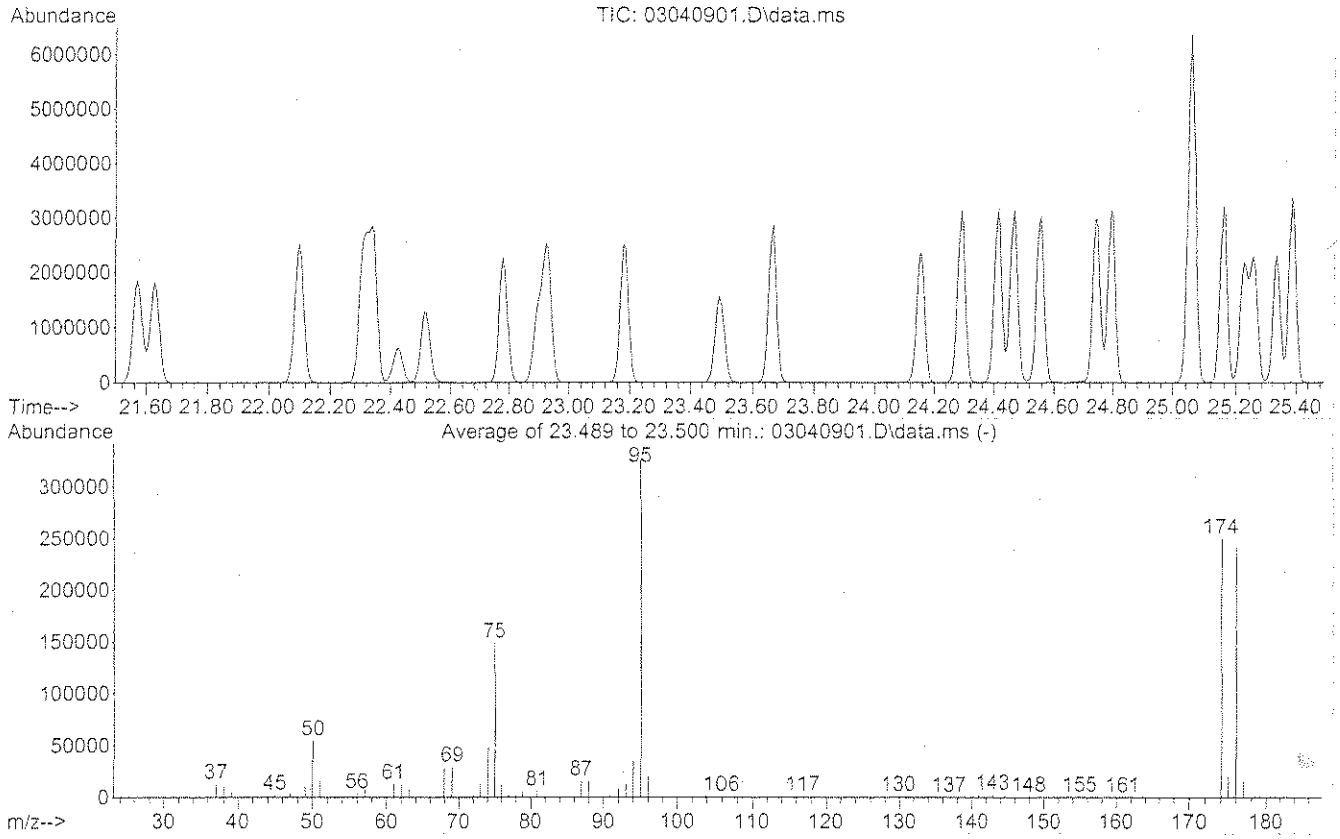
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.1	50781	PASS
75	95	30	66	44.7	140904	PASS
95	95	100	100	100.0	315477	PASS
96	95	5	9	6.4	20125	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	78.3	247104	PASS
175	174	4	9	8.0	19773	PASS
176	174	93	101	96.9	239509	PASS
177	176	5	9	6.3	15112	PASS

Ecn 2/18/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040901.D
Acq On : 4 Mar 2009 8:10
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-03030904/S20-02090903
ALS Vial : 3 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS09\Methods\R9021709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Wed Feb 18 07:31:09 2009



AutoFind: Scans 3485, 3486, 3487; Background Corrected with Scan 3475

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.9	54877	PASS
75	95	30	66	45.7	148885	PASS
95	95	100	100	100.0	325611	PASS
96	95	5	9	6.5	21061	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	76.8	250176	PASS
175	174	4	9	7.9	19880	PASS
176	174	93	101	96.5	241323	PASS
177	176	5	9	6.4	15501	PASS

EM 3/4/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Haley & Aldrich, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P0900735
Client Project ID: **Cooper Vision SVI / 70665-014** CAS Sample ID: P090304-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 3/4/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

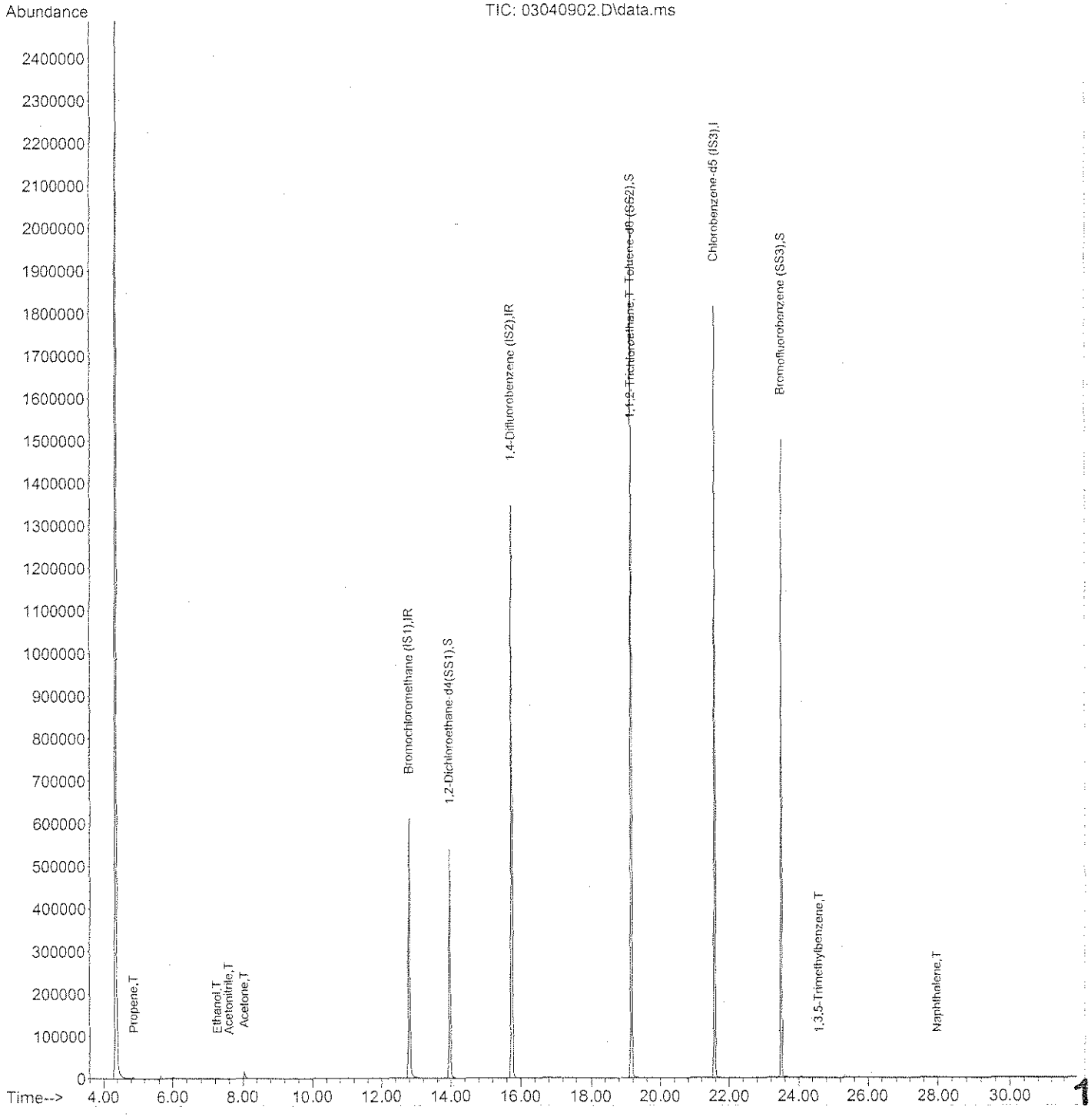
CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	

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

Verified By: R. Date: 3/6/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040902.D
Acq On : 4 Mar 2009 9:05
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-03030904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:12:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040902.D
Acq On : 4 Mar 2009 9:05
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-03030904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:12:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	330101	25.000	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	15.75	114	1608551	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.57	82	791060	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	547364	25.552	ng		-0.05
Spiked Amount 25.000			Recovery = 102.20%				
57) Toluene-d8 (SS2)	19.15	98	1879390	25.128	ng		-0.01
Spiked Amount 25.000			Recovery = 100.52%				
73) Bromofluorobenzene (SS3)	23.49	174	521466	24.477	ng		0.00
Spiked Amount 25.000			Recovery = 97.92%				
Target Compounds							Qvalue
2) Propene	4.87	42	1378	0.047	ng	#	90
3) Dichlorodifluoromethane	0.00	85	0	N.D.			
4) Chloromethane	0.00	50	0	N.D.			
5) Freon 114	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.25	45	5369	0.327	ng		80
11) Acetonitrile	7.59	41	3408	0.084	ng		92
12) Acrolein	7.82	56	320	N.D.			
13) Acetone	8.04	58	11566	0.602	ng	#	70
14) Trichlorofluoromethane	0.00	101	0	N.D.			
15) Isopropanol	0.00	45	0	N.D.			
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) tert-Butanol	0.00	59	0	N.D.			
19) Methylene Chloride	9.53	84	471	N.D.			
20) Allyl Chloride	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	9.96	76	1904	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone	11.74	72	126	N.D.			
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	0.00	57	0	N.D.			

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3/4/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040902.D
Acq On : 4 Mar 2009 9:05
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-03030904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:12:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
32) Chloroform	0.00	83	0	N.D.	
34) Tetrahydrofuran	0.00	72	0	N.D.	
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.	
36) 1,2-Dichloroethane	0.00	62	0	N.D.	
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.	
39) Isopropyl Acetate	0.00	61	0	N.D.	
40) 1-Butanol	15.19	56	130	N.D.	
41) Benzene	15.23	78	1064	N.D.	
42) Carbon Tetrachloride	0.00	117	0	N.D.	
43) Cyclohexane	15.75	84	481	N.D.	
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.	
45) 1,2-Dichloropropane	0.00	63	0	N.D.	
46) Bromodichloromethane	0.00	83	0	N.D.	
47) Trichloroethene	16.78	130	351	N.D.	
48) 1,4-Dioxane	0.00	88	0	N.D.	
49) Isooctane	0.00	57	0	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	19.16	97	158143	~~8.507~~ ng FP	# 5
58) Toluene	19.29	91	1722	N.D.	
59) 2-Hexanone	0.00	43	0	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) Butyl Acetate	0.00	43	0	N.D.	
63) n-Octane	0.00	57	0	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	22.10	91	250	N.D.	
67) m- & p-Xylene	22.34	91	215	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	22.80	104	117	N.D.	
70) o-Xylene	22.94	91	1011	N.D.	
71) n-Nonane	0.00	43	0	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	23.65	105	1632	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	24.31	91	789	N.D.	
77) 3-Ethyltoluene	24.41	105	1374	N.D.	
78) 4-Ethyltoluene	24.49	105	2272	N.D.	
79) 1,3,5-Trimethylbenzene	24.57	105	3608	0.~~047~~ ng	# 29

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EM 3/4/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040902.D
Acq On : 4 Mar 2009 9:05
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-03030904
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 04 10:12:39 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	0.00	118	0	N.D.			
81) 2-Ethyltoluene	24.79	105	1932	N.D.			
82) 1,2,4-Trimethylbenzene	25.07	105	1297	N.D.			
83) n-Decane	25.49	57	951	N.D.			
84) Benzyl Chloride	25.24	91	1173	N.D.			
85) 1,3-Dichlorobenzene	25.27	146	333	N.D.			
86) 1,4-Dichlorobenzene	25.34	146	506	N.D.			
87) sec-Butylbenzene	25.59	105	104	N.D.			
88) p-Isopropyltoluene	0.00	119	0	N.D.			
89) 1,2,3-Trimethylbenzene	25.59	105	104	N.D.			
90) 1,2-Dichlorobenzene	25.34	146	506	N.D.			
91) d-Limonene	0.00	68	0	N.D.			
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	26.58	57	114	N.D.			
94) 1,2,4-Trichlorobenzene	0.00	184	0	N.D.			
95) Naphthalene	27.97	128	4536	0.~~045~~	ng	#	71
96) n-Dodecane	27.90	57	519	N.D.			
97) Hexachloro-1,3-butadiene	0.00	225	0	N.D.			
98) Cyclohexanone	0.00	55	0	N.D.			
99) tert-Butylbenzene	25.08	119	437	N.D.			
100) n-Butylbenzene	0.00	91	0	N.D.			

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

EM 3/4/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

lient: Haley & Aldrich, Inc.
lient Sample ID: Lab Control Sample
lient Project ID: Cooper Vision SVI / 70665-014

CAS Project ID: P0900735
CAS Sample ID: P090304-LCS

est Code: EPA TO-15
strument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
nalyst: Elsa Moctezuma
mpling Media: 6.0 L Summa Canister
est Notes:

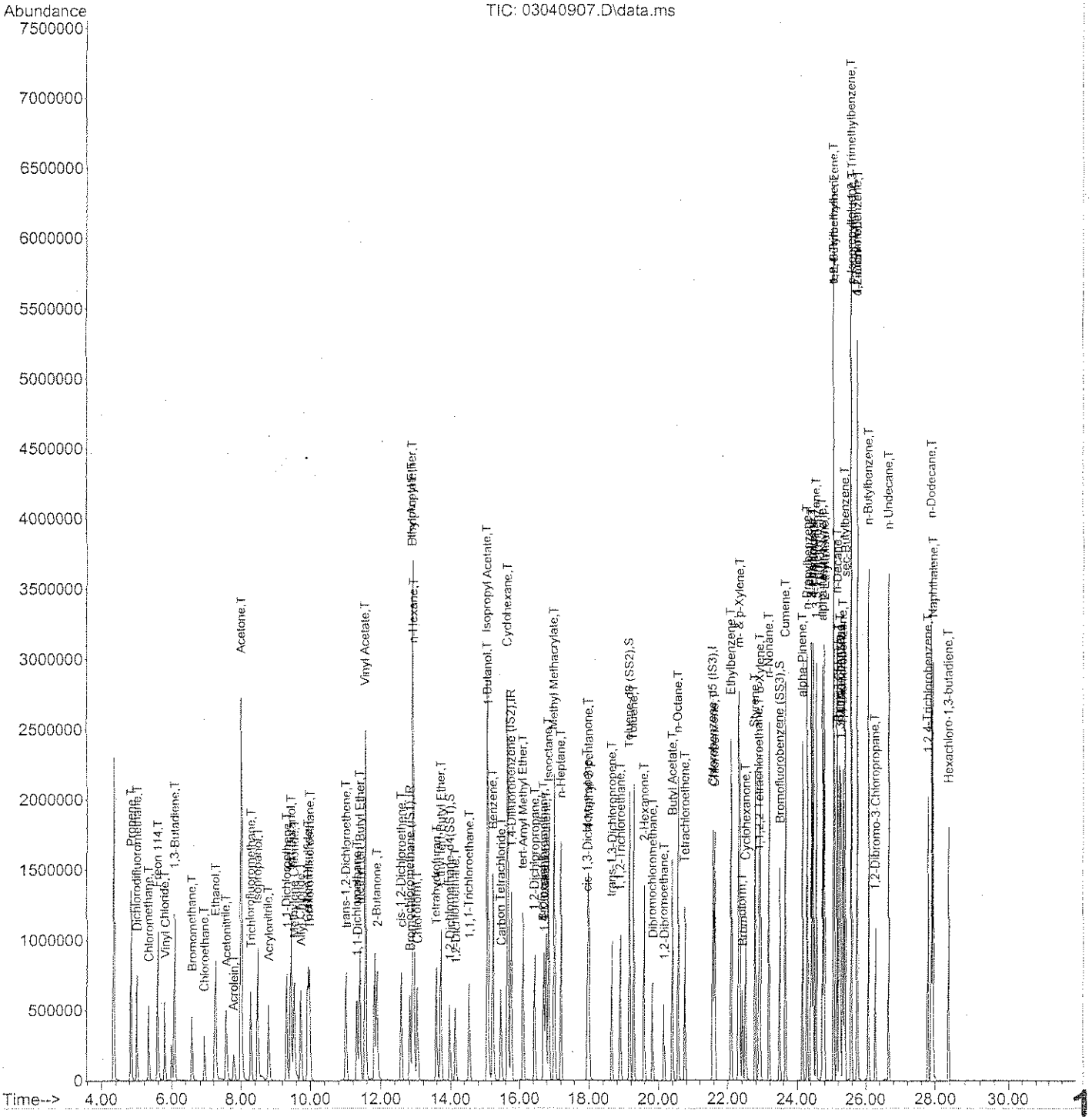
Date Collected: NA
Date Received: NA
Date Analyzed: 3/04/09
Volume(s) Analyzed: NA Liter(s)

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
5-01-4	Vinyl Chloride	25.5	22.0	86	57-132	
5-00-3	Chloroethane	25.8	24.5	95	68-123	
5-35-4	1,1-Dichloroethene	27.5	22.7	83	70-123	
5-34-3	1,1-Dichloroethane	26.8	25.7	96	72-130	
1-55-6	1,1,1-Trichloroethane	26.5	25.3	95	69-127	

Verified By: RC Date: 3/6/09

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040907.D
Acq On : 4 Mar 2009 13:08
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-03030904/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 14:43:45 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040907.D
Acq On : 4 Mar 2009 13:08
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-03030904/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 14:43:45 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	322309	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.77	114	1549597	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.57	82	774690	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.98	65	526276	25.161	ng		-0.02
Spiked Amount 25.000			Recovery =	100.64%			
57) Toluene-d8 (SS2)	19.16	98	1813278	24.756	ng		0.00
Spiked Amount 25.000			Recovery =	99.04%			
73) Bromofluorobenzene (SS3)	23.49	174	514041	24.639	ng		0.00
Spiked Amount 25.000			Recovery =	98.56%			
Target Compounds							Qvalue
2) Propene	4.84	42	634407	21.966	ng		98
3) Dichlorodifluoromethane	5.00	85	850520	22.144	ng		99
4) Chloromethane	5.33	50	763378	22.558	ng		99
5) Freon 114	5.59	135	462724	22.852	ng		98
6) Vinyl Chloride	5.80	62	781506	21.989	ng		94
7) 1,3-Butadiene	6.08	54	725915	29.026	ng		98
8) Bromomethane	6.58	94	443260	25.353	ng		96
9) Chloroethane	6.93	64	395915	24.463	ng		95
10) Ethanol	7.27	45	1822782	113.612	ng		99
11) Acetonitrile	7.57	41	936105	23.684	ng		99
12) Acrolein	7.79	56	292556	26.508	ng		99
13) Acetone	8.01	58	1962544	104.681	ng	#	82
14) Trichlorofluoromethane	8.29	101	758246	23.949	ng		97
15) Isopropanol	8.49	45	1924606	41.105	ng		96
16) Acrylonitrile	8.81	53	678418	26.543	ng		99
17) 1,1-Dichloroethene	9.33	96	457168	22.739	ng	#	60
18) tert-Butanol	9.45	59	2053892	47.413	ng		98
19) Methylene Chloride	9.54	84	477440	22.219	ng	#	47
20) Allyl Chloride	9.73	41	765571	27.634	ng		73
21) Trichlorotrifluoroethane	9.99	151	363936	24.888	ng		95
22) Carbon Disulfide	9.94	76	1773818	23.296	ng		99
23) trans-1,2-Dichloroethene	11.01	61	714346	24.146	ng		77
24) 1,1-Dichloroethane	11.32	63	865309	25.672	ng		97
25) Methyl tert-Butyl Ether	11.40	73	1376547	26.354	ng		84
26) Vinyl Acetate	11.56	86	498100	148.721	ng	#	3
27) 2-Butanone	11.89	72	354841	30.151	ng	#	28
28) cis-1,2-Dichloroethene	12.58	61	683113	23.972	ng		73
29) Diisopropyl Ether	12.91	87	423522	25.707	ng	#	52
30) Ethyl Acetate	12.91	61	400938	58.588	ng		74
31) n-Hexane	12.93	57	914101	23.406	ng		8

EM 3/4/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040907.D
Acq On : 4 Mar 2009 13:08
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-03030904/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 14:43:45 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.03	83	761758	24.682	ng		98
34) Tetrahydrofuran	13.59	72	334644	26.976	ng	#	51
35) Ethyl tert-Butyl Ether	13.72	87	533362	25.166	ng	#	62
36) 1,2-Dichloroethane	14.14	62	590644	25.533	ng		97
38) 1,1,1-Trichloroethane	14.54	97	671686	25.294	ng		93
39) Isopropyl Acetate	15.08	61	677881	57.027	ng	#	80
40) 1-Butanol	15.10	56	1108194	60.816	ng		85
41) Benzene	15.24	78	1965390	21.270	ng		97
42) Carbon Tetrachloride	15.47	117	579413	25.271	ng		98
43) Cyclohexane	15.67	84	1590463	48.300	ng	#	64
44) tert-Amyl Methyl Ether	16.11	73	1304878	24.627	ng	#	1
45) 1,2-Dichloropropane	16.45	63	508218	25.045	ng		95
46) Bromodichloromethane	16.70	83	622493	25.815	ng		96
47) Trichloroethene	16.78	130	486608	20.988	ng		96
48) 1,4-Dioxane	16.73	88	411145	27.413	ng	#	70
49) Isooctane	16.87	57	2245260	22.549	ng		97
50) Methyl Methacrylate	17.03	100	419036	54.931	ng	#	78
51) n-Heptane	17.22	71	549268	23.505	ng	#	70
52) cis-1,3-Dichloropropene	17.96	75	769693	25.125	ng		98
53) 4-Methyl-2-pentanone	17.99	58	511168	30.322	ng		77
54) trans-1,3-Dichloropropene	18.66	75	778421	28.870	ng		96
55) 1,1,2-Trichloroethane	18.90	97	455476	25.434	ng		98
58) Toluene	19.29	91	2101017	23.136	ng		99
59) 2-Hexanone	19.59	43	1231992	30.574	ng		91
60) Dibromochloromethane	19.83	129	513028	29.251	ng		96
61) 1,2-Dibromoethane	20.16	107	509579	25.820	ng		98
62) Butyl Acetate	20.40	43	1434553	29.707	ng		95
63) n-Octane	20.57	57	479879	22.906	ng	#	65
64) Tetrachloroethene	20.76	166	470482	21.961	ng		96
65) Chlorobenzene	21.63	112	1293089	22.801	ng		100
66) Ethylbenzene	22.10	91	2315057	23.688	ng		98
67) m- & p-Xylene	22.34	91	3587528	47.518	ng		99
68) Bromoform	22.43	173	395324	28.183	ng		97
69) Styrene	22.78	104	1424275	25.334	ng		99
70) o-Xylene	22.93	91	1840488	23.959	ng		100
71) n-Nonane	23.19	43	1120233	23.111	ng		90
72) 1,1,2,2-Tetrachloroethane	22.89	83	833802	27.102	ng		99
74) Cumene	23.67	105	2314842	23.698	ng		98
75) alpha-Pinene	24.16	93	1152211	26.284	ng		95
76) n-Propylbenzene	24.29	91	2909839	23.901	ng		98
77) 3-Ethyltoluene	24.41	105	2347412	26.360	ng		99
78) 4-Ethyltoluene	24.47	105	2279933	25.795	ng		96
79) 1,3,5-Trimethylbenzene	24.56	105	1896044	25.164	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_03\04\
Data File : 03040907.D
Acq On : 4 Mar 2009 13:08
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-03030904/S20-02090907
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 14:43:45 2009
Quant Method : J:\MS09\Methods\R9021709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Feb 18 07:31:09 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.75	118	1053431	26.137	ng		97
81) 2-Ethyltoluene	24.80	105	2289120	25.168	ng		96
82) 1,2,4-Trimethylbenzene	25.06	105	2007566	25.103	ng		96
83) n-Decane	25.16	57	1205323	25.185	ng		77
84) Benzyl Chloride	25.23	91	1811803	32.523	ng		99
85) 1,3-Dichlorobenzene	25.26	146	1009850	23.724	ng		99
86) 1,4-Dichlorobenzene	25.33	146	1029006	23.549	ng		98
87) sec-Butylbenzene	25.39	105	2614334	24.986	ng		99
88) p-Isopropyltoluene	25.57	119	2446006	24.499	ng		98
89) 1,2,3-Trimethylbenzene	25.58	105	2035868	25.478	ng		96
90) 1,2-Dichlorobenzene	25.75	146	984001	24.112	ng		98
91) d-Limonene	25.75	68	879138	26.632	ng		98
92) 1,2-Dibromo-3-Chloropr...	26.28	157	346831	29.553	ng	#	86
93) n-Undecane	26.66	57	1266419	26.013	ng		75
94) 1,2,4-Trichlorobenzene	27.80	184	215402	29.667	ng	#	89
95) Naphthalene	27.94	128	2603333	26.520	ng		100
96) n-Dodecane	27.90	57	1285251	24.914	ng		73
97) Hexachloro-1,3-butadiene	28.36	225	379479	25.703	ng		98
98) Cyclohexanone	22.52	55	704714	24.640	ng	#	88
99) tert-Butylbenzene	25.06	119	1955897	25.483	ng		97
100) n-Butylbenzene	26.08	91	2198608	26.648	ng		94

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

Copy of Calculations

Instructions for Data Validation-Method TO-15(SCAN)

1. Determination of Pressure Dilution Factor

Upon receipt at the laboratory the pressure or vacuum of the sample canisters is measured using a digital pressure gauge. The canisters are then pressurized with humidified zero air to approximately +3.5 psig (pounds per square inch gauge).

Pressure Dilution factor is calculated as:

$$PDF = \frac{P_f + 14.7}{P_i + 14.7}$$

P_f final pressure in psig
P_i initial pressure in psig

2. Validating Initial and Continuing Calibration Results

GC/MS target compound analysis is performed using internal standard quantitation. Three internal standard compounds (Bromochloromethane, 1,4-Difluorobenzene and Chlorobenzene-d5) are added to each aliquot of sample, blank, standard and duplicate at an amount of 25 nanograms(ng). Internal standard responses are used to calculate RRFs (relative response factors) as follows:

$$RRF = \frac{A_x C_{is}}{A_{is} C_x}$$

A_x area response of the analyte quantitation ion
A_{is} area response of the corresponding internal standard quantitation ion
C_{is} internal standard concentration, ng
C_x analyte concentration, ng

The percent relative standard deviation (%RSD) for the five or six initial calibration points should be less than 30% (with a maximum of two analytes $\leq$40%) for the calibration to be considered valid and linear.

$$\%RSD = \frac{SD}{\overline{RRF}}(100)$$

SD standard deviation
$\overline{RRF}$ average or mean RRF (ICAL)

The initial calibration is verified once per twenty-four hour analytical sequence with the analysis of a continuing calibration standard at one of the initial calibration levels (actual analyte concentrations of the CCV are the same as the corresponding concentrations in the initial calibration). The relative response factor of each target analyte from the daily continuing calibration standard is compared to the average relative response factor from the initial multipoint calibration. The percent difference (%D) of the initial and continuing calibration relative response factors is calculated as follows:

$$\%D = \left(\frac{\overline{RRF} - RRF\ cont}{\overline{RRF}} \right)(100)$$

$\overline{RRF}$	average relative response factor from the initial calibration
$RRF\ cont$	relative response factor from the daily continuing calibration standard

Note: the percent difference (%D) should be less than 30% for an acceptable continuing calibration standard.

3. Validating GC/MS Target Analyte Quantitation Results

Target analytes are measured in nanograms using internal standard quantitation as follows:

$$ng_x = \frac{A_x ng_{is}}{A_{is}\overline{RRF}}$$

ng_x	nanogram concentration of analyte x
A_x	area response of the analyte's quantitation ion
A_{is}	area response of the corresponding internal standard's quantitation ion
ng_{is}	internal standard amount, in nanograms
$\overline{RRF}$	average or mean RRFs (ICAL)

4. Calculation of µg/m^3 (microgram per cubic meter) Results

Target compound results reported on the "Results of Analysis" form in units of µg/m^3 are calculated as follows:

$$\mu g/m^3 = \frac{(ng)(PDF)}{L}$$

ng	nanograms of analyte (measured on the GC/MS quantitation report)
PDF	pressure dilution factor (see equation 1)
L	sample aliquot in Liters

5. Conversion to ppb (parts per billion) Volume

$$C_{ppbv} = C_x\left(\frac{24.46}{FW}\right)$$

FW formula weight of the target analytes (i.e. formula weight of Dichloromethane is 84.94; 1,2-Dichloropropane is 113)

24.46 molar volume of ideal gas at 25°C and 1 atmosphere

C_x final analyte concentration calculated in equation 4 ($\mu g/m^3$)

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

Haley & Aldrich of NY

For Lab Project # 09-1231
Issued April 14, 2009
This report contains a total of 13 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.
"E" = Result has been estimated, calibration limit exceeded.
"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: Haley & Aldrich of NY
Client Job Site: Coopervision
Client Job No.: N/A
Field Location: Drum Comp
Field ID No.: N/A

Lab Project No.: 09-1231
Lab Sample No.: 4352
Sample Type: Soil
Date Sampled: 04/06/2009
Date Received: 04/07/2009

Laboratory Report for RCRA Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	04/09/2009	EPA 6010	5.39
Barium	04/09/2009	EPA 6010	62.8
Cadmium	04/09/2009	EPA 6010	<0.399
Chromium	04/09/2009	EPA 6010	14.5
Lead	04/09/2009	EPA 6010	18.4
Mercury	04/14/2009	EPA 7471	0.0225
Selenium	04/09/2009	EPA 6010	<0.399
Silver	04/09/2009	EPA 6010	<0.796

ELAP ID No.:10958

Comments:

Approved By: Valm Miller for:
Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.

File ID:091231.XLS

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site:	Coopervision	**Lab Project Number:**	09-1231
		Lab Sample Number:	4352
Client Job Number:	N/A		
Field Location:	Drum Comp	**Date Sampled:**	04/06/2009
Field ID Number:	N/A	**Date Received:**	04/07/2009
Sample Type:	Soil	**Date Analyzed:**	04/09/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 352	Dibenz (a,h) anthracene	ND< 352
Anthracene	ND< 352	Fluoranthene	ND< 352
Benzo (a) anthracene	ND< 352	Fluorene	ND< 352
Benzo (a) pyrene	ND< 352	Indeno (1,2,3-cd) pyrene	ND< 352
Benzo (b) fluoranthene	ND< 352	Naphthalene	ND< 352
Benzo (g,h,i) perylene	ND< 352	Phenanthrene	ND< 352
Benzo (k) fluoranthene	ND< 352	Pyrene	ND< 352
Chrysene	ND< 352	Acenaphthylene	ND< 352
Diethyl phthalate	ND< 352	1,2-Dichlorobenzene	ND< 352
Dimethyl phthalate	ND< 879	1,3-Dichlorobenzene	ND< 352
Butylbenzylphthalate	ND< 352	1,4-Dichlorobenzene	ND< 352
Di-n-butyl phthalate	ND< 352	1,2,4-Trichlorobenzene	ND< 352
Di-n-octylphthalate	ND< 352	Nitrobenzene	ND< 352
Bis (2-ethylhexyl) phthalate	ND< 352	2,4-Dinitrotoluene	ND< 352
2-Chloronaphthalene	ND< 352	2,6-Dinitrotoluene	ND< 352
Hexachlorobenzene	ND< 352	Bis (2-chloroethyl) ether	ND< 352
Hexachloroethane	ND< 352	Bis (2-chloroisopropyl) ether	ND< 352
Hexachlorocyclopentadiene	ND< 352	Bis (2-chloroethoxy) methan	ND< 352
Hexachlorobutadiene	ND< 352	4-Bromophenyl phenyl ether	ND< 352
N-Nitroso-di-n-propylamine	ND< 352	4-Chlorophenyl phenyl ether	ND< 352
N-Nitrosodiphenylamine	ND< 352	Benzidine	ND< 879
N-Nitrosodimethylamine	ND< 352	3,3'-Dichlorobenzidine	ND< 352
Isophorone	ND< 352	4-Chloroaniline	ND< 352
Benzyl alcohol	ND< 879	2-Nitroaniline	ND< 879
Dibenzofuran	ND< 352	3-Nitroaniline	ND< 879
2-Methylnapthalene	ND< 352	4-Nitroaniline	ND< 879

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 352	2-Methylphenol	ND< 352
2-Chlorophenol	ND< 352	3&4-Methylphenol	ND< 352
2,4-Dichlorophenol	ND< 352	2,4-Dimethylphenol	ND< 352
2,6-Dichlorophenol	ND< 352	2-Nitrophenol	ND< 352
2,4,5-Trichlorophenol	ND< 879	4-Nitrophenol	ND< 879
2,4,6-Trichlorophenol	ND< 352	2,4-Dinitrophenol	M ND< 352
Pentachlorophenol	ND< 879	4,6-Dinitro-2-methylphenol	M ND< 879
4-Chloro-3-methylphenol	ND< 352	Benzoic acid	ND< 879

ELAP Number 10958 Method: EPA 8270C Data File: S44908.D

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram

Signature: Val McMiller for
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site: Coopervision
Client Job Number: N/A
Field Location: N/A
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1231
Lab Sample Number: Method Blank
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 04/09/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 286	Dibenz (a,h) anthracene	ND< 286
Anthracene	ND< 286	Fluoranthene	ND< 286
Benzo (a) anthracene	ND< 286	Fluorene	ND< 286
Benzo (a) pyrene	ND< 286	Indeno (1,2,3-cd) pyrene	ND< 286
Benzo (b) fluoranthene	ND< 286	Naphthalene	ND< 286
Benzo (g,h,i) perylene	ND< 286	Phenanthrene	ND< 286
Benzo (k) fluoranthene	ND< 286	Pyrene	ND< 286
Chrysene	ND< 286	Acenaphthylene	ND< 286
Diethyl phthalate	ND< 286	1,2-Dichlorobenzene	ND< 286
Dimethyl phthalate	ND< 714	1,3-Dichlorobenzene	ND< 286
Butylbenzylphthalate	ND< 286	1,4-Dichlorobenzene	ND< 286
Di-n-butyl phthalate	ND< 286	1,2,4-Trichlorobenzene	ND< 286
Di-n-octylphthalate	ND< 286	Nitrobenzene	ND< 286
Bis (2-ethylhexyl) phthalate	ND< 286	2,4-Dinitrotoluene	ND< 286
2-Chloronaphthalene	ND< 286	2,6-Dinitrotoluene	ND< 286
Hexachlorobenzene	ND< 286	Bis (2-chloroethyl) ether	ND< 286
Hexachloroethane	ND< 286	Bis (2-chloroisopropyl) ether	ND< 286
Hexachlorocyclopentadiene	ND< 286	Bis (2-chloroethoxy) methan	ND< 286
Hexachlorobutadiene	ND< 286	4-Bromophenyl phenyl ether	ND< 286
N-Nitroso-di-n-propylamine	ND< 286	4-Chlorophenyl phenyl ether	ND< 286
N-Nitrosodiphenylamine	ND< 286	Benzidine	ND< 714
N-Nitrosodimethylamine	ND< 286	3,3'-Dichlorobenzidine	ND< 286
Isophorone	ND< 286	4-Chloroaniline	ND< 286
Benzyl alcohol	ND< 714	2-Nitroaniline	ND< 714
Dibenzofuran	ND< 286	3-Nitroaniline	ND< 714
2-Methylnapthalene	ND< 286	4-Nitroaniline	ND< 714

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 286	2-Methylphenol	ND< 286
2-Chlorophenol	ND< 286	3&4-Methylphenol	ND< 286
2,4-Dichlorophenol	ND< 286	2,4-Dimethylphenol	ND< 286
2,6-Dichlorophenol	ND< 286	2-Nitrophenol	ND< 286
2,4,5-Trichlorophenol	ND< 714	4-Nitrophenol	ND< 714
2,4,6-Trichlorophenol	ND< 286	2,4-Dinitrophenol	ND< 286
Pentachlorophenol	ND< 714	4,6-Dinitro-2-methylphenol	ND< 714
4-Chloro-3-methylphenol	ND< 286	Benzoic acid	ND< 714

ELAP Number 10958 Method: EPA 8270C Data File: S44905.D

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram

Signature: Val Muller for

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site: Coopervision
Client Job Number: N/A
Field Location: Drum Comp
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1231
Lab Sample Number: 4352

Date Sampled: 04/06/2009
Date Received: 04/07/2009
Date Analyzed: 04/10/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.35
Bromomethane	ND< 7.35
Bromoform	ND< 18.4
Carbon Tetrachloride	ND< 18.4
Chloroethane	ND< 7.35
Chloromethane	ND< 7.35
2-Chloroethyl vinyl Ether	ND< 36.7
Chloroform	ND< 7.35
Dibromochloromethane	ND< 7.35
1,1-Dichloroethane	ND< 7.35
1,2-Dichloroethane	ND< 7.35
1,1-Dichloroethene	ND< 7.35
cis-1,2-Dichloroethene	ND< 7.35
trans-1,2-Dichloroethene	ND< 7.35
1,2-Dichloropropane	ND< 7.35
cis-1,3-Dichloropropene	ND< 7.35
trans-1,3-Dichloropropene	ND< 7.35
Methylene chloride	ND< 18.4
1,1,2,2-Tetrachloroethane	ND< 7.35
Tetrachloroethene	ND< 7.35
1,1,1-Trichloroethane	ND< 7.35
1,1,2-Trichloroethane	ND< 7.35
Trichloroethene	ND< 7.35
Trichlorofluoromethane	ND< 7.35
Vinyl chloride	ND< 7.35

Aromatics	Results in ug / Kg
Benzene	ND< 7.35
Chlorobenzene	ND< 7.35
Ethylbenzene	ND< 7.35
Toluene	ND< 7.35
m,p-Xylene	ND< 7.35
o-Xylene	ND< 7.35
Styrene	ND< 18.4
1,2-Dichlorobenzene	ND< 18.4
1,3-Dichlorobenzene	ND< 18.4
1,4-Dichlorobenzene	ND< 7.35

Ketones	Results in ug / Kg
Acetone	267
2-Butanone	ND< 36.7
2-Hexanone	ND< 18.4
4-Methyl-2-pentanone	ND< 18.4

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.35
Vinyl acetate	ND< 18.4

ELAP Number 10958 Method: EPA 8260B Data File: V64978.D

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram
Surrogate outliers indicate probable matrix interference

Signature: 
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site: Coopervision
Client Job Number: N/A
Field Location: N/A
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1231
Lab Sample Number: Method Blank
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 04/10/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 5.00
Bromomethane	ND< 5.00
Bromoform	ND< 12.5
Carbon Tetrachloride	ND< 12.5
Chloroethane	ND< 5.00
Chloromethane	ND< 5.00
2-Chloroethyl vinyl Ether	ND< 25.0
Chloroform	ND< 5.00
Dibromochloromethane	ND< 5.00
1,1-Dichloroethane	ND< 5.00
1,2-Dichloroethane	ND< 5.00
1,1-Dichloroethene	ND< 5.00
cis-1,2-Dichloroethene	ND< 5.00
trans-1,2-Dichloroethene	ND< 5.00
1,2-Dichloropropane	ND< 5.00
cis-1,3-Dichloropropene	ND< 5.00
trans-1,3-Dichloropropene	ND< 5.00
Methylene chloride	ND< 12.5
1,1,2,2-Tetrachloroethane	ND< 5.00
Tetrachloroethene	ND< 5.00
1,1,1-Trichloroethane	ND< 5.00
1,1,2-Trichloroethane	ND< 5.00
Trichloroethene	ND< 5.00
Trichlorofluoromethane	ND< 5.00
Vinyl chloride	ND< 5.00

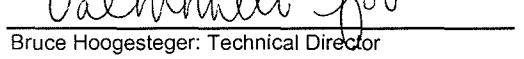
Aromatics	Results in ug / Kg
Benzene	ND< 5.00
Chlorobenzene	ND< 5.00
Ethylbenzene	ND< 5.00
Toluene	ND< 5.00
m,p-Xylene	ND< 5.00
o-Xylene	ND< 5.00
Styrene	ND< 12.5
1,2-Dichlorobenzene	ND< 12.5
1,3-Dichlorobenzene	ND< 12.5
1,4-Dichlorobenzene	ND< 5.00

Ketones	Results in ug / Kg
Acetone	ND< 25.0
2-Butanone	ND< 25.0
2-Hexanone	ND< 12.5
4-Methyl-2-pentanone	ND< 12.5

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 5.00
Vinyl acetate	ND< 12.5

ELAP Number 10958 Method: EPA 8260B Data File: V64975.D

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram

Signature: 
Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: Haley & Aldrich of NY

Client Job Site: Coopervision

Client Job No.: N/A

Field Location: N/A
Field ID No.: N/A

Lab Project No.: 09-1231
Lab Sample No.: LCS 4/8 s

Sample Type: Soil

Date Sampled: N/A
Date Received: N/A

Laboratory Report for Metals Analysis in Solid

Analyte	Date Analyzed	Method Blank mg/kg	LCS Added mg/kg	LCS Recovered mg/kg	LCS Recovery %	LCS Dup Added mg/kg	LCS Dup Recovered mg/kg	LCS Dup Recovery %	LCS Dup Percent Difference %	Percent Difference Limits %	% Recovery Limits
Arsenic	04/09/2009	<0.48	213	203	95.2	212	208	98.4	3.31	5.87	88.1 - 109
Barium	04/09/2009	<1.96	213	210	98.8	212	212	100	1.21	5.06	92.3 - 111
Cadmium	04/09/2009	<0.489	85.2	83.0	97.5	84.6	83.2	98.4	0.919	4.95	92.0 - 110
Chromium	04/09/2009	<0.978	213	204	95.6	212	205	96.8	1.25	11.9	87.8 - 111
Lead	04/09/2009	<0.489	213	209	98.0	212	214	101	3.21	5.98	90.5 - 112
Mercury	04/14/2009	<0.0062	0.0741	0.0756	102	0.0668	0.067	101	1.58	2.37	87.0 - 109
Selenium	04/09/2009	<0.489	213	200	94.0	212	202	95.6	1.69	6.22	84.0 - 109
Silver	04/09/2009	<0.978	21.3	20.7	97.2	21.2	20.7	98.0	0.820	5.15	91.4 - 110

ELAP ID No.:10958

Comments:

Approved By: Val M Miller for
Bruce Hoogesteger, Technical Director

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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site: Coopervision
Client Job Number: N.A
Field Location: Drum Comp
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1231
Lab Sample Number: 4352
Date Sampled: 04/06/2009
Date Received: 04/07/2009
Date Analyzed: 04/09/2009

SDG Group: N/A

Spiked Compound	Sample Results in ug / Kg	MS Spiked in ug / Kg	MS Results in ug / Kg	MS Percent Recovery	MSD Spiked in ug / Kg	MSD Results in ug / Kg	MSD Percent Recovery	MS / MSD % RPD
2-Chlorophenol	ND< 352	2,630	2,210	84.0	2,610	2,160	82.8	1.44
1,4-Dichlorobenzene	ND< 352	1,750	1,530	87.4	1,740	1,360	78.2	11.11
N-Nitroso-di-n-propylamine	ND< 352	1,750	1,530	87.4	1,740	1,400	80.5	8.22
Phenol	ND< 352	2,630	2,510	95.4	2,610	2,390	91.6	4.06
4-Chloro-3-methylphenol	ND< 352	2,630	2,430	92.4	2,610	2,430	93.1	0.75
2,4-Dichlorophenol	ND< 352	2,630	2,320	88.2	2,610	2,380	91.2	3.34
2,6-Dichlorophenol	ND< 352	2,630	1,940	73.8	2,610	2,080	79.7	7.69
2,4-Dimethylphenol	ND< 352	2,630	2,380	90.5	2,610	2,450	93.9	3.69
2-Nitrophenol	ND< 352	2,630	2,230	84.8	2,610	2,350	90.0	5.95
1,2,4-Trichlorobenzene	ND< 352	1,750	1,620	92.6	1,740	1,500	86.2	7.16
Acenaphthene	ND< 352	1,750	1,610	92.0	1,740	1,550	89.1	3.20
2,4-Dinitrophenol	ND< 352	2,630	351	13.3	2,610	349	13.4	0.75
2,4-Dinitrotoluene	ND< 352	1,750	1,580	90.3	1,740	1,580	90.8	0.55
4-Nitrophenol	ND< 879	2,630	876	33.3	2,610	937	35.9	7.51
2,4,6-Trichlorophenol	ND< 352	2,630	1,700	64.6	2,610	1,940	74.3	13.97
4,6-Dinitro-2-methylphenol	ND< 879	2,630	876	33.3	2,610	871	33.4	0.30
Pentachlorophenol	ND< 879	2,630	876	33.3	2,610	951	36.4	8.90
Pyrene	ND< 352	1,750	1,680	96.0	1,740	1,640	94.3	1.79

ELAP Number 10958 Data File: S44908.D Data File: S44909.D Data File: S44910.D Method: EPA 8270C

PARADIGM
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179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site: Coopervision
Client Job Number: N/A
Field Location: Drum Comp
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1231
Lab Sample Number: 4352
Date Sampled: 04/06/2009
Date Received: 04/07/2009
Date Analyzed: 04/09/2009

SDG Group: N/A

Spiked Compound	Sample Results in ug / Kg	LCS Spiked in ug / Kg	LCS Results in ug / Kg	LCS Percent Recovery	MSD Spiked in ug / Kg	MSD Results in ug / Kg	MSD Percent Recovery	MS / MSD % RPD
2-Chlorophenol	ND< 286	2,170	2,060	94.9	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene	ND< 286	1,450	1,250	86.2	N/A	N/A	N/A	N/A
N-Nitroso-di-n-propylamine	ND< 286	1,450	1,340	92.4	N/A	N/A	N/A	N/A
Phenol	ND< 286	2,170	2,100	96.8	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol	ND< 286	2,170	2,250	104	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	ND< 286	2,170	2,190	101	N/A	N/A	N/A	N/A
2,6-Dichlorophenol	ND< 286	2,170	2,220	102	N/A	N/A	N/A	N/A
2,4-Dimethylphenol	ND< 286	2,170	2,220	102	N/A	N/A	N/A	N/A
2-Nitrophenol	ND< 286	2,170	2,220	102	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	ND< 286	1,450	1,370	94.5	N/A	N/A	N/A	N/A
Acenaphthene	ND< 286	1,450	1,360	93.8	N/A	N/A	N/A	N/A
2,4-Dinitrophenol	ND< 286	2,170	1,530	70.5	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	ND< 286	1,450	1,480	102	N/A	N/A	N/A	N/A
4-Nitrophenol	ND< 714	2,170	2,170	100	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	ND< 286	2,170	2,370	109	N/A	N/A	N/A	N/A
4,6-Dinitro-2-methylphenol	ND< 714	2,170	1,990	91.7	N/A	N/A	N/A	N/A
Pentachlorophenol	ND< 714	2,170	2,470	114	N/A	N/A	N/A	N/A
Pyrene	ND< 286	1,450	1,410	97.2	N/A	N/A	N/A	N/A

ELAP Number 10958 Data File: S44905.D Data File: S44906.D Data File: S44906.D Method: EPA 8270C

PARADIGM
ENVIRONMENTAL SERVICES, INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Surrogate Report

Client: Haley & Aldirch of NY

Client Job Site: Coopervision

Lab Project Numb 09-1231

Client Job Number N/A

Date Received: 4/7/2009

Sample Type: Soil

Lab Sample Numbe	Field Number	Field Location	2-FP	P-d5	NB-d5	2-FBF	2,4,6-TBP	TP-d14
Blank	N/A	N/A	70	73.5	77.8	82.5	84.7	80.6
LCS	N/A	N/A	86.5	91.6	94.7	98.6	101	101
4352	N/A	Drum Comp	75.8	80.7	85.5	85.5	80.9	80.0
4352 MS	N/a	Drum Comp	72.7	84.4	88.4	92.4	69.4	86.9
4352 MSD	N/A	Drum Comp	66.5	75.2	87.6	90.4	73.1	85.4

ELAP Number 10958

	Soil
Surrogate	Advisory QC Surrogate Limits
2-Fluorophenol	44.3% - 85.6%
Phenol-d5	49.9% - 91.3%
Nitrobenzene-d5	46.5% - 102%
2-Fluorobiphenyl	15.0% - 109%
2,4,6-Tribromophenol	34.4% - 110%
Terphenyl-d14	45.4% - 130%

Comments:

Signature: Valerie Hulin for

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for Soils/Solids/Sludges

Client: Haley & Aldrich of NY

Client Job Site: Coopervision
Client Job Number: N/A
Field Location: LCS
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1231
Lab Sample Number: 4352
Date Sampled: 04/06/2009
Date Received: 04/07/2009
Date Analyzed: 04/10/2009

SDG Group: N/A

Spiked Compound	Blank Results in ug / Kg	LCS Spiked in ug / Kg	LCS Results in ug / Kg	LCS Percent Recovery	MSD Spiked in ug / Kg	MSD Results in ug / Kg	MSD Percent Recovery	MS / MSD % RPD
1,1-Dichloroethene	ND< 5.00	125	112	89.6	N/A	N/A	N/A	N/A
Benzene	ND< 5.00	125	112	89.6	N/A	N/A	N/A	N/A
Trichloroethene	ND< 5.00	125	121	96.8	N/A	N/A	N/A	N/A
Toluene	ND< 5.00	125	121	96.8	N/A	N/A	N/A	N/A
Chlorobenzene	ND< 5.00	125	122	97.6	N/A	N/A	N/A	N/A

ELAP Number 10958 | Data File: V64975.D | Data File: V64974.D | Data File: V64974.D | Method: EPA 8260D

PARADIGM
ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Surrogate Report

Client: Haley & Aldrich of NY

Client Job Site: Coopervision

Lab Project Numb 09-1231

Client Job Number N/A

Date Received: 4/7/2009

Sample Type: Soil

Lab Sample Number	Field Number	Field Location	1,2-DCE	Tol	4-BFB
LRB	N/A	N/A	104	101	86.6
4352	N/A	Drum Comp	82.5	81.7	58.0

ELAP Number 10958

Surrogate	Advisory QC Surrogate Limits
1,2-Dichloroethane-d4	72.8% - 128%
Toluene-d8	74.2% - 117%
4-Bromofluorobenzene	70.8% - 107%

Comments:

Signature:

Bruce Hoogesteger: Technical Director

PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(716) 647-2530 * (800) 724-1997
FAX: (716) 647-3311

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
COMPANY: Harry J Aldrich of NY	COMPANY: Same	LAB PROJECT #: 09-1231 / CLIENT PROJECT #:
ADDRESS: 200 Town Centre Dr	ADDRESS:	
CITY: Rochester STATE: NY ZIP: 14623	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)
PHONE: 359-9000 FAX:	PHONE: FAX:	STD / OTHER
PROJECT NAME/SITE NAME: CooperVision	ATTN: C. DeBergalis	ATTN: ☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐
	COMMENTS:	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	TCL VOC's	TCL SVOC's	RCRA 8 Metals								REMARKS	PARADIGM LAB SAMPLE NUMBER
1	4/6/09	1600	X		Drum Comp	Soil	3	X	X	X									4352
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

****LAB USE ONLY****

SAMPLE CONDITION: Check box if acceptable or note deviation:	CONTAINER TYPE: X	PRESERVATIONS: ☐ N/A	HOLDING TIME: X	TEMPERATURE: X 5°C iced

Sampled By:	Date/Time:	Relinquished By:	Date/Time:	Total Cost:
	4/6/09 1600			
Relinquished By:	**Date/Time:**	**Received By:**	**Date/Time:**	
	4/7/09 0850			
Received By:	**Date/Time:**	**Received @ Lab By:**	**Date/Time:**	**P.I.F.**
	4/7/09 8:50	Elizabeth A. Honch	4/7/09 1010	

APPENDIX E

Data Usability Summary Reports

Data Usability Summary Report (DUSR)
CooperVision - Residential Sub-Slab/Indoor Air
Analytical Laboratory: Columbia Analytical Services, Inc. - Rochester, NY
Sample Delivery Group # R0900538, P0900513, P0900735

Analytical results for the project samples were reviewed to evaluate the data usability. Data was assessed in accordance with guidance from the following Federal and/or State guidance documents:

- USEPA National Functional Guidelines for Inorganic Data Review (EPA 540-R-04-004)
- USEPA National Functional Guidelines for Organic Data Review (EPA 540/R-99/008) and/or
  USEPA National Functional Guidelines for Low Concentration Organic Data Review (EPA 540-R-04-004)
- NYSDEC "Guidance for the Development of Quality Assurance Plans and
  Data Usability Summary Reports (DUSR)", September 1997

and method protocol criteria where applicable.

This DUSR pertains to the following samples:

Sample ID	Sample ID
SV-InA-10	SV-InA-16
SV-OutA-10	SV-SS-705-1
SV-SS-10	SV-InA-705-1
SV-SS-58	SV-OutA-022609
SV-InA-58	SV-SS-709-2
SV-SS-64	SV-InA-709-2
SV-InA-64	
SV-SS-8	
SV-InA-8	
SV-OutA-020909	
SV-SS-2	
SV-InA-2	
SV-SS-16	

Project Samples were analyzed according to the following analytical methods:

	Parameter	Analytical Method	Holding Time Criteria
1.	VOCs	EPA TO-15	30 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Duplicate Sample Analysis
- Target Compound Identification
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Preservation and Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without

exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No qualification of the data is recommended.

Continuing Calibration Procedures

Continuing calibration verification (CCV) procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No Qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for common organic laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane), or 5 times (5X) the amount for other target compounds. Target analytes were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples. No qualification of the data is recommended.

System Monitoring Compound Recoveries

System monitoring/surrogate compounds are added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. No qualification of the data is recommended.

Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters to quantify the amount of the targe compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard. No qualification of the data is recommended.

Duplicate Sample Analysis

The replicate percent difference (RPD) was evaluated for each duplicate sample pair to monitor the reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 25% for those target analytes with sample concentrations >5X the MDL. No qualification of the data is recommended.

Target Compound Identification

GC/MS qualitative analysis for organic parameters was performed to remove mis-identifications of the target compounds. The relative retention times (RRT) of all reported target compounds were within +/- 0.06 RRT units of the associated calibration standard RRT, and all ions present in the reference standard spectrum at a relative intensity greater than 10 percent were also present in the sample spectrum. No qualification of the data is recommended.

Sample Data Reporting Format

The sample data are presented using NYSDEC ASP Category B format or equivalent. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No qualification of the data is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target analytes detected below the reporting limit but above the method detection limit, and/or when target analytes were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of the data is 100%, with the few exceptions noted above.

APPENDIX F

Waste Disposal Documentation

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N Y D 0 7 3 6 6 8 2 7 9	1	585-985-6811	0 4 2 3 2 0 0 9

5. Generator's Name and Mailing Address

Cooper Vision
711 North Road
Scottsville NY 14546
Generator's Phone: **585 985-6811**

Att: Tarun Patel

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: **Clean Harbors Environmental Services, Inc.** — U.S. EPA ID Number: M A D 0 3 9 3 2 2 2 5 0

7. Transporter 2 Company Name: Franks Vacuum Truck Service Inc — U.S. EPA ID Number: NJD982792814

8. Designated Facility Name and Site Address

Clean Harbors Chattanooga, LLC
3300 Cummings Road
Chattanooga TN 37419
Facility's Phone: **423 821-6926**

U.S. EPA ID Number: T N D 9 8 2 1 4 1 3 9 2

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	**USDOT Non-Regulated, Non-Hazardous Drill Cuttings/Soil Borings**	001	DM	600	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

1. CH363499, 55Gal. Plate# PC404484

Sales Order# 722289698

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: John Hogan — Signature: John Hogan — Month 4 Day 23 Year 09

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kelly Horton — Signature: — Month 4 Day 23 Year 09

Transporter 2 Printed/Typed Name: DAVID DOMENECH — Signature: David Domenech — Month 5 Day 1 Year 09

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: DOUG Kelly — Signature: — Month 5 Day 13 Year 09